

# FCC SAR Test Report

**Report No.** : SA190326C26  
**Applicant** : HP Inc.  
**Address** : 3390 East Harmony Road, Fort Collins Colorado, 80528 United States  
**Product** : Tablet  
**FCC ID** : B94HNC04PK  
**Brand** : HP  
**Model No.** : HSN-C04C  
**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** : Mar. 26, 2019  
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**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.

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## Release Control Record

Report No.	Reason for Change	Date Issued
SA190326C26	Initial release	May 09, 2019

**1. Summary of Maximum SAR Value**

Equipment Class	Mode	Highest SAR-1g Body (W/kg)	
		Tablet Mode	Laptop Mode
PCB	WCDMA II	1.30	0.38
	WCDMA IV	1.19	0.33
	WCDMA V	1.28	0.12
	LTE 2	1.25	0.35
	LTE 4	1.26	0.26
	LTE 5	1.23	0.10
	LTE 7	1.29	0.34
	LTE 12	1.29	0.05
	LTE 13	1.22	0.08
	LTE 14	1.29	0.08
	LTE 17	1.24	0.05
	LTE 25	1.18	0.34
	LTE 26	1.28	0.11
	LTE 30	1.37	0.22
	LTE 38	1.33	0.26
LTE 41	1.27	0.24	
LTE 66	1.30	0.32	
DTS	2.4G WLAN	1.36	0.07
NII	5.3G WLAN	1.15	0.07
	5.6G WLAN	1.17	0.03
	5.8G WLAN	0.52	0.04
DSS	Bluetooth	0.21	0.00

Highest Simultaneous Transmission SAR	Highest SAR-1g Body (W/kg)	
	Tablet Mode	Laptop Mode
	1.59	0.87

**Note:**

- 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.

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## 2. Description of Equipment Under Test

<b>EUT Type</b>	Tablet
<b>FCC ID</b>	B94HNC04PK
<b>Brand Name</b>	HP
<b>Model Name</b>	HSN-C04C
<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 ~ 2472, 5180 ~ 5250, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480
<b>Uplink Modulations</b>	WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac/ax : OFDM Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK
<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 WLAN module (Brand: Intel® Wi-Fi 6 AX200, Model: AX200D2WL) was installed in EUT.
2. The WWAN module (Brand: Fibocom, Model: L860-GL) was installed in EUT.
3. The antenna information is listed as below.

Ant. Type	PIFA													
Manufacturer	INPAQ													
Parts Number	WWAN Antenna Gain (dBi)													
	WCDMA II / LTE 2	WCDMA IV / LTE 4	WCDMA V / LTE 5	LTE 7	LTE 12	LTE 13	LTE 14	LTE 17	LTE 25	LTE 26	LTE 30	LTE 38	LTE 41	LTE 66
Main Antenna: WA-P-LTE15-02-001 (DC330029D20) Aux. Antenna: WA-P-LTE15-02-002 (DC330029D30) WA-P-LTE11-02-003 (DC330029D40) WA-P-LTE11-02-004 (DC330029D50)	-0.73	0.55	-1.58	0.50	-2.06	-0.67	-0.92	-2.06	-0.73	-1.58	0.73	-0.05	1.63	0.55

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Antenna Type	Manufacturer	Parts Number	WLAN Antenna Gain			
			WLAN 2.4 GHz	WLAN 5.15~5.35 GHz	WLAN 5.47~5.725 GHz	WLAN 5.725~5.85 GHz
PIFA	INPAQ	Main Ant.:	Main: -0.95 Aux.: -0.91	Main: 0.34 Aux.: -0.39	Main: -1.36 Aux.: 0.61	Main: -1.79 Aux.: 0.58
		WA-P-LB-02-610 (DC330029D00) Aux Ant.: WA-P-LB-02-611 (DC330029D10)				

4. 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.

### List of Accessory:

Battery	Brand Name	Dynapack
	Model Name	HSTNN-DB9E
	Rating	7.7 Vdc, 5950 mAh
Keyboard 1	Brand Name	Primax
	Model Name	HSN-P01K
Keyboard 2	Brand Name	Cosmo
	Model Name	HSN-C01K

### **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)

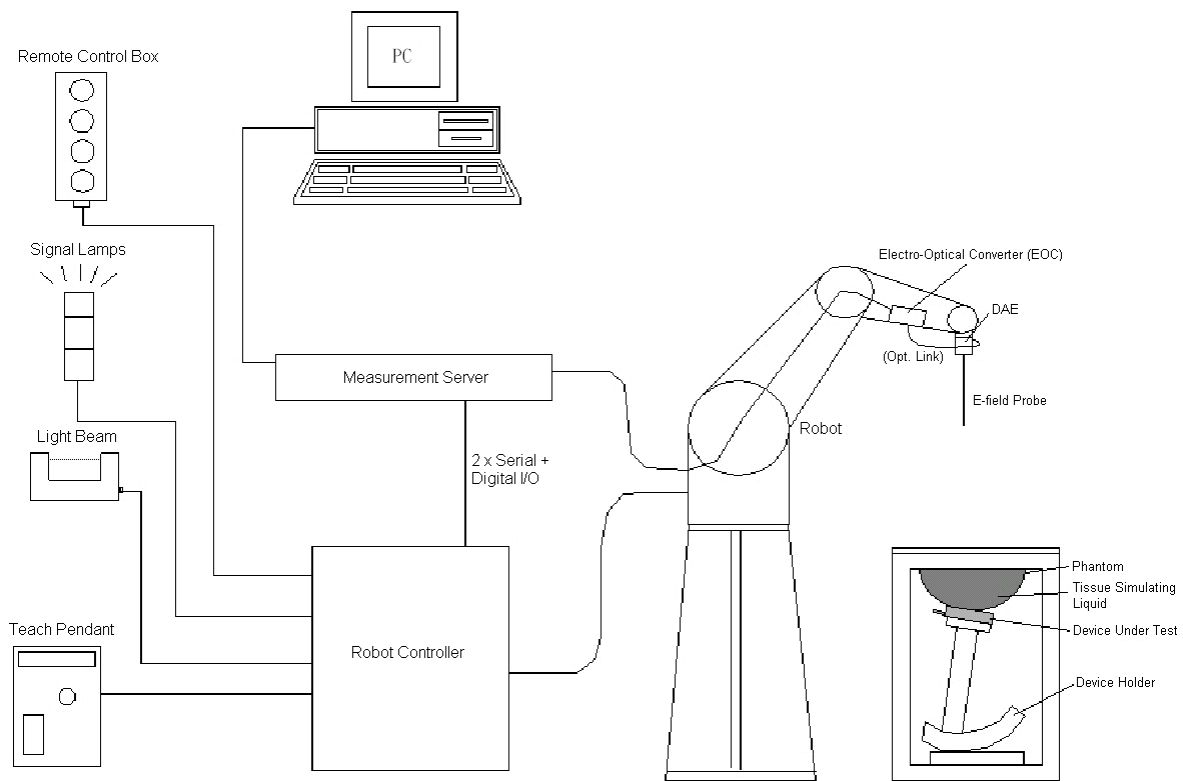
SAR measurement can be related to the electrical field in the tissue by

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

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 DASY52 System**

DASY52 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 DASY52 software defined. The DASY52 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 DASY52 System Setup**

### 3.2.1 Robot

The DASY52 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 DASY52 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>	10 MHz to 6 GHz Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (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	

<b>Model</b>	ES3DV3	
<b>Construction</b>	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
<b>Frequency</b>	10 MHz to 4 GHz Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.2$ dB in HSL (rotation around probe axis) $\pm 0.3$ dB in tissue material (rotation normal to probe axis)	
<b>Dynamic Range</b>	5 $\mu$ W/g to 100 mW/g Linearity: $\pm 0.2$ dB	
<b>Dimensions</b>	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	


<b>Model</b>	ET3DV6	
<b>Construction</b>	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
<b>Frequency</b>	10 MHz to 2.3 GHz; Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.2$ dB in TSL (rotation around probe axis) $\pm 0.4$ dB in TSL (rotation normal to probe axis)	
<b>Dynamic Range</b>	5 $\mu$ W/g to 100 mW/g; Linearity: $\pm 0.2$ dB	
<b>Dimensions</b>	Overall length: 337 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 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	

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## 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 ± 0.2 mm (6 ± 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	

<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	


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## 3.2.5 Device Holder

<b>Model</b>	Mounting Device	
<b>Construction</b>	In combination with the Twin SAM Phantom or EL4, 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	

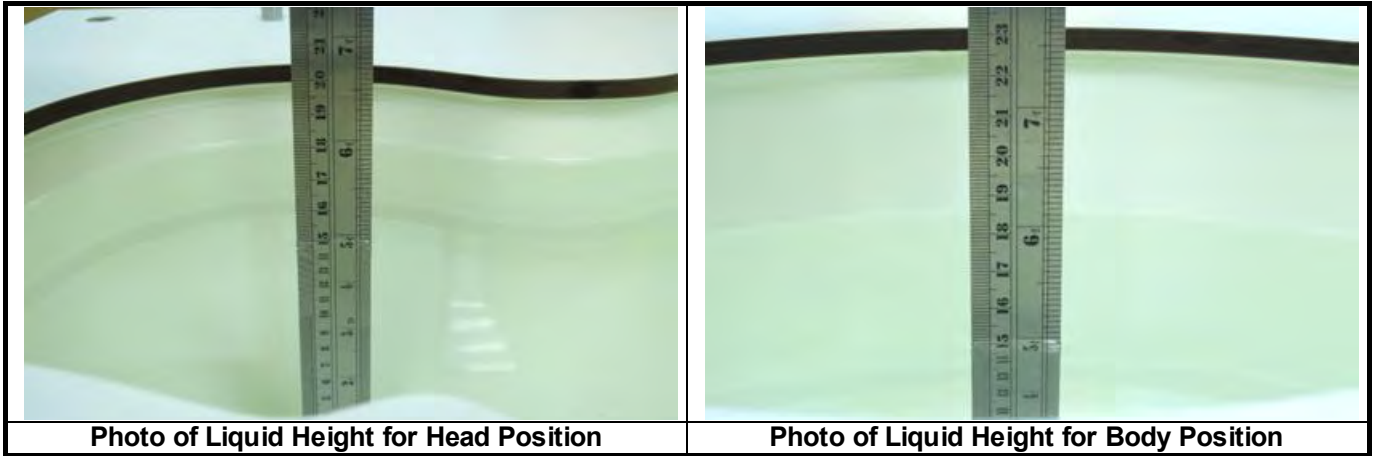
<b>Model</b>	Laptop Extensions Kit	
<b>Construction</b>	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device 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 feed point 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 5% are listed in Table-3.1.



The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

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

Frequency (MHz)	Target Permittivity	Range of $\pm 5\%$	Target Conductivity	Range of $\pm 5\%$
<b>For Head</b>				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53

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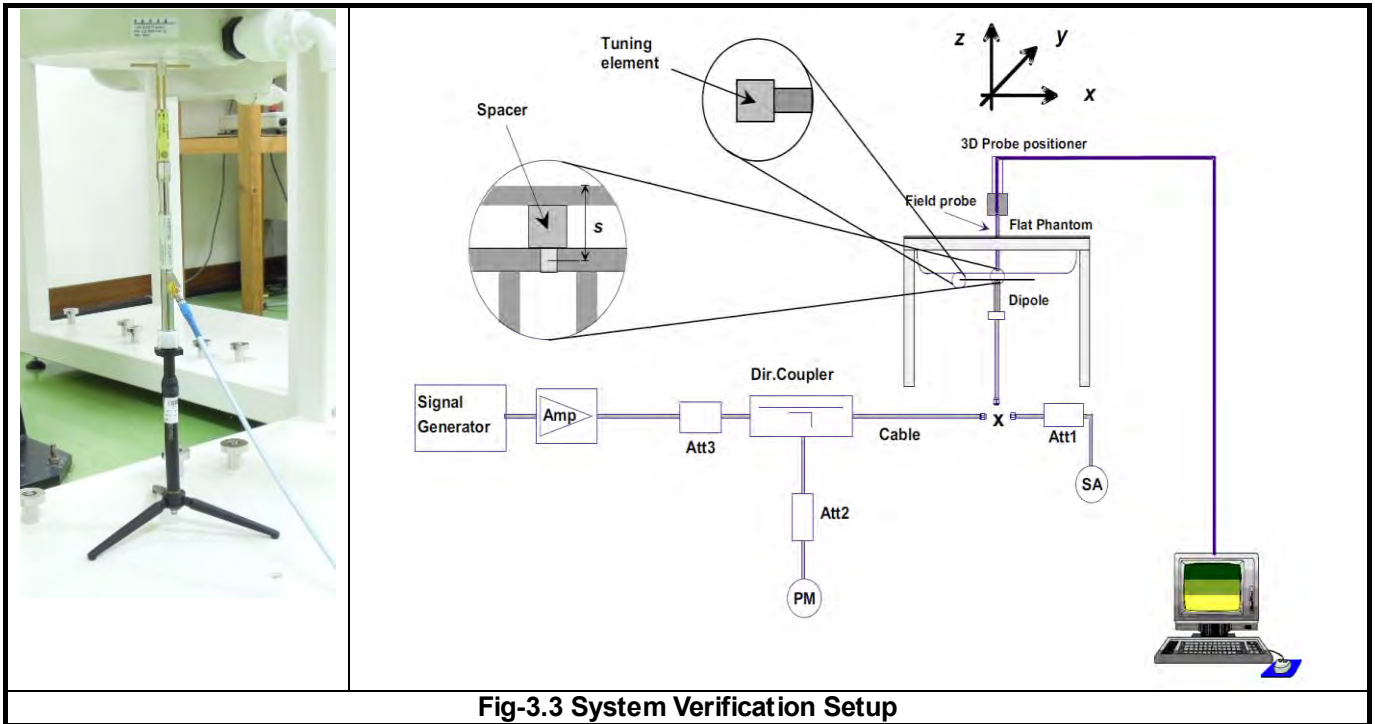
The following table gives the recipes for tissue simulating liquids.

**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
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

### 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 865664 D01, 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

#### <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)	$\beta_c/\beta_d$	$\beta_{HS}^{(1)/(2)}$	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  $\beta_c/\beta_d$  = 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  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c$  = 11/15 and  $\beta_d$  = 15/15.

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## 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)	$\beta_c / \beta_d$	$\beta_{HS}^{(1)}$	$\beta_{ec}$	$\beta_{ed}^{(4)(5)}$	$\beta_{ed}$ (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  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{HS} = 5/15 * \beta_c$ .  
 Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCCH, 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 results in slightly smaller MPR values.

## HSPA+ SAR Guidance

The 3G SAR test reduction procedure is applied to HSPA+ (uplink) with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 6 HSPA, SAR is required for Rel. 7 HSPA+. Power is measured for HSPA+ that supports uplink 16QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

Sub-test	$\beta_c$ <sup>(3)</sup>	$\beta_d$	$\beta_{HS}^{(1)}$	$\beta_{ec}$	$\beta_{ed}^{(4)}$ (2xSF2)	$\beta_{ed}^{(4)}$ (2xSF4)	CM <sup>(2)</sup> (dB)	MPR <sup>(2)</sup> (dB)	AG <sup>(4)</sup> Index	E-TFCI <sup>(5)</sup>	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed1}$ : 30/15 $\beta_{ed2}$ : 30/15	$\beta_{ed3}$ : 24/15 $\beta_{ed4}$ : 24/15	3.5	2.5	14	105	105

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .  
 Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).  
 Note 3: DPDCH is not configured, therefore the  $\beta_c$  is set to 1 and  $\beta_d = 0$  by default.  
 Note 4:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.  
 Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

**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.

**<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).

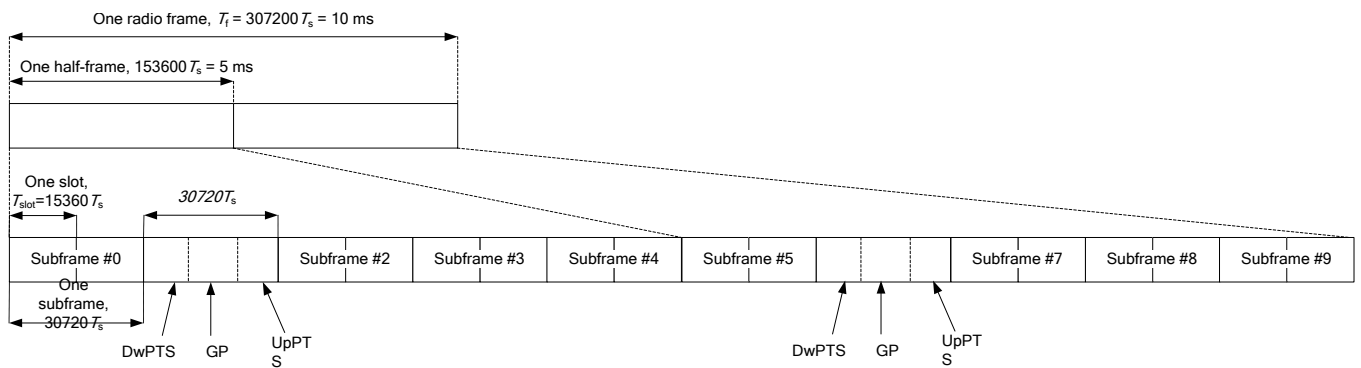
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In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

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.

## 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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$	-	-	-	-	-
9	$13168 \cdot T_s$	-	-	-	-	-

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**

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%

Considering the highest transmission duty cycle, TDD-LTE was tested using Uplink-Downlink Configuration 0 with 6 uplink subframe and 2 special subframe. The special subframe was set to special subframe configuration 7 using extended cyclic prefix uplink. Therefore, SAR testing for TDD-LTE was performed at the maximum output power with highest transmission duty cycle of 63.33%.

**<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.

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## <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.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (5.473 - 2.613) / (6.357 - 2.613) = 76.4 \%$$

## 4.2 EUT Testing Position

### 4.2.1 Body Exposure Conditions

For laptop PC with antennas built-in on display screen, according to RSS-102 Supplementary procedures (SPR-001), IC requires SAR measurements to be performed with the side/edge of the display screen containing the built-in antenna pointing towards the flat phantom, unless the side/edge of the laptop computer containing the built-in antenna was already tested against the flat phantom to account for the user requirements (e.g. antenna in the laptop base). The separation distance shall not exceed 25 mm between the device and the flat phantom to show compliance for bystanders. Additional configurations regarding SAR testing for laptop computer are not required if the separation distance of 25 mm for bystanders represents the worst-case configuration.

The bystander SAR measurement procedure is as following.

1. If the integrated antenna is located in the back side of the display screen, the back side shall be facing towards the flat phantom at a distance not exceeding 25 mm.
2. If the integrated antenna is installed along the edge of the display screen, the edge shall be facing towards the flat phantom at a distance not exceeding 25 mm.
3. If the integrated antenna is installed at the corner of the display, both edges, as well as back side shall be tested to ensure that the worst-case configuration is captured.

For laptop PC, according to KDB 616217 D04, SAR evaluation is required for the bottom surface of the keyboard. This EUT was tested in the base of EUT directly against the flat phantom. The required minimum test separation distance for incorporating transmitters and antennas into laptop computer display is determined with the display screen opened at an angle of 90° to the keyboard compartment.

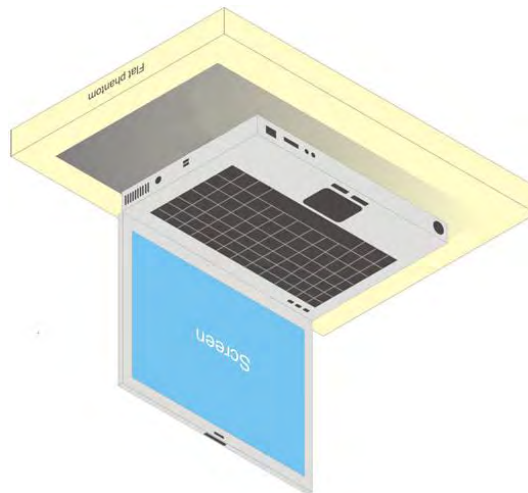
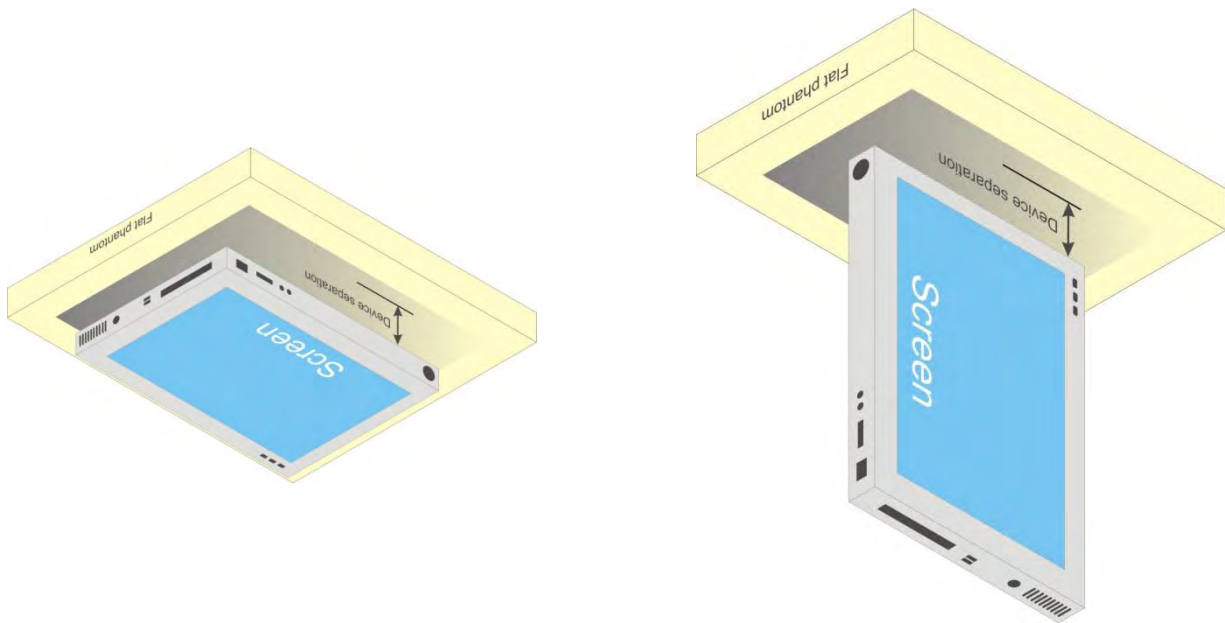


Fig-4.1 Illustration for Laptop Setup



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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.

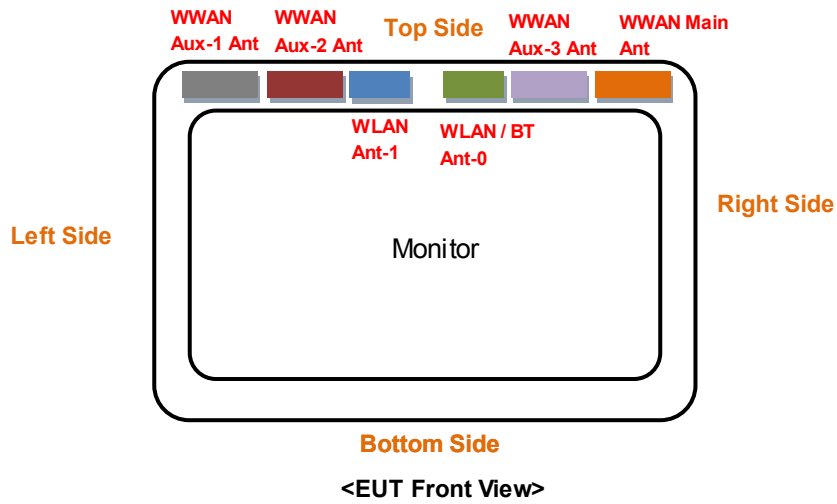


**Fig-4.2 Illustration for Tablet Setup**

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## <Antenna Location>

### Tablet Mode

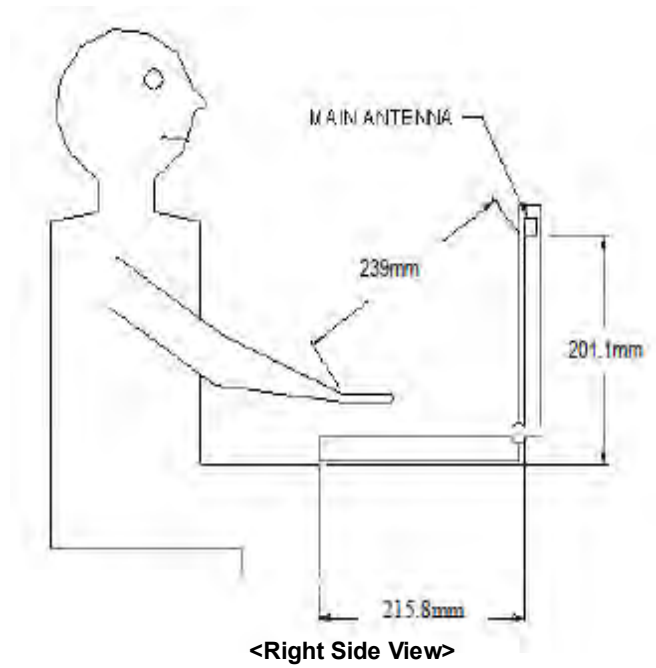
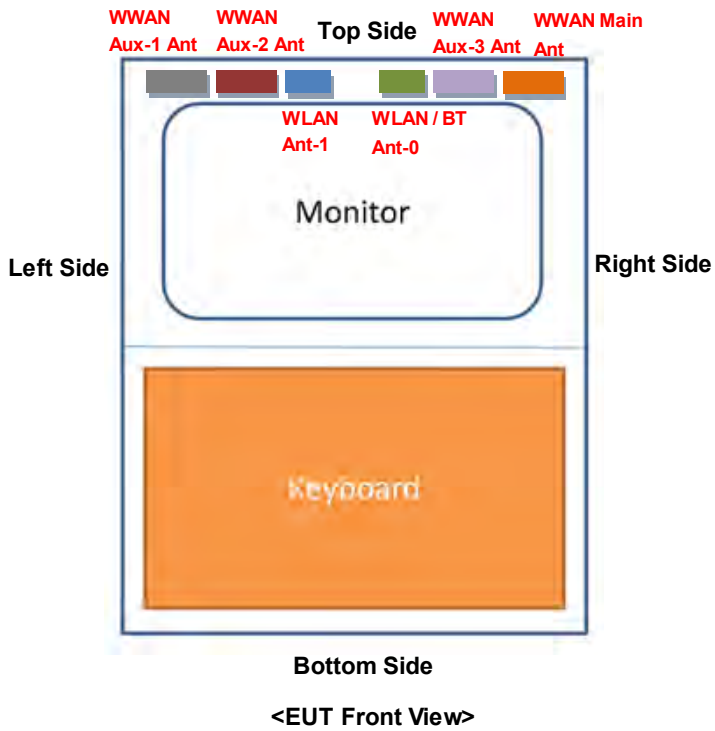


The separation distance for antenna to edge:

Antenna	To Top Side (mm)	To Bottom Side (mm)	To Left Side (mm)	To Right Side (mm)
WLAN / BT Ant-0	6.54	201.1	171.2	86
WLAN Ant-1	6.34	201.1	90	166.5
WWAN Main Tx Ant	3.5	201.1	239	6.5
WWAN Aux.-1 Rx Ant	3.5	201.1	21.4	233.8
WWAN Aux.-2 Rx Ant	3.2	201.1	60.8	203.2
WWAN Aux.-3 Rx Ant	3.8	201.1	211	55

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## Laptop Mode



The separation distance for antenna to edge:

Antenna	To Top Side (mm)	To Bottom Side (mm)	To Left Side (mm)	To Right Side (mm)
WLAN / BT Ant-0	6.54	201.1	171.2	86
WLAN Ant-1	6.34	201.1	90	166.5
WWAN Main Tx Ant	3.5	201.1	239	6.5
WWAN Aux.-1 Rx Ant	3.5	201.1	21.4	233.8
WWAN Aux.-2 Rx Ant	3.2	201.1	60.8	203.2
WWAN Aux.-3 Rx Ant	3.8	201.1	211	55

# FCC SAR Test Report

## 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.

- For the test separation distance  $\leq 50$  mm

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

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

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

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

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

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

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	15.0	32	5	8.84	Yes	239	1999 mW	No	6.5	6.8	Yes	3.5	8.84	Yes	201.1	1620 mW	No
WCDMA IV	15.0	32	5	8.47	Yes	239	2003 mW	No	6.5	6.52	Yes	3.5	8.47	Yes	201.1	1624 mW	No
WCDMA V	17.0	50	5	9.2	Yes	239	1230 mW	No	6.5	7.08	Yes	3.5	9.2	Yes	201.1	1016 mW	No
LTE 2	15.5	35	5	9.67	Yes	239	1999 mW	No	6.5	7.44	Yes	3.5	9.67	Yes	201.1	1620 mW	No
LTE 4	15.0	32	5	8.48	Yes	239	2003 mW	No	6.5	6.52	Yes	3.5	8.48	Yes	201.1	1624 mW	No
LTE 5	18.5	71	5	13.08	Yes	239	1233 mW	No	6.5	10.06	Yes	3.5	13.08	Yes	201.1	1018 mW	No
LTE 7	13.0	20	5	6.41	Yes	239	1984 mW	No	6.5	4.93	Yes	3.5	6.41	Yes	201.1	1605 mW	No
LTE 12	18.0	63	5	10.66	Yes	239	1079 mW	No	6.5	8.2	Yes	3.5	10.66	Yes	201.1	899 mW	No
LTE 13	18.5	71	5	12.6	Yes	239	1161 mW	No	6.5	9.69	Yes	3.5	12.6	Yes	201.1	962 mW	No
LTE 14	20.5	112	5	20.01	Yes	239	1173 mW	No	6.5	15.39	Yes	3.5	20.01	Yes	201.1	972 mW	No
LTE 17	18.0	63	5	10.66	Yes	239	1079 mW	No	6.5	8.2	Yes	3.5	10.66	Yes	201.1	899 mW	No
LTE 25	15.0	32	5	8.86	Yes	239	1998 mW	No	6.5	6.81	Yes	3.5	8.86	Yes	201.1	1619 mW	No
LTE 26	19.5	89	5	16.4	Yes	239	1233 mW	No	6.5	12.62	Yes	3.5	16.4	Yes	201.1	1018 mW	No
LTE 30	12.5	18	5	5.48	Yes	239	1989 mW	No	6.5	4.21	Yes	3.5	5.48	Yes	201.1	1610 mW	No
LTE 38	16.5	45	5	14.57	Yes	239	1983 mW	No	6.5	11.21	Yes	3.5	14.57	Yes	201.1	1604 mW	No
LTE 41	14.5	28	5	9.18	Yes	239	1981 mW	No	6.5	7.07	Yes	3.5	9.18	Yes	201.1	1602 mW	No
LTE 66	14.0	25	5	6.67	Yes	239	2002 mW	No	6.5	5.13	Yes	3.5	6.67	Yes	201.1	1623 mW	No

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## <For BT/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	16	40	5	12.55	Yes	171.2	1308 mW	No	86	456 mW	No	6.54	9.6	Yes	201.1	1607 mW	No
WLAN 5.2G	15	32	5	14.65	Yes	171.2	1278 mW	No	86	426 mW	No	6.54	11.2	Yes	201.1	1577 mW	No
WLAN 5.3G	15	32	5	14.76	Yes	171.2	1277 mW	No	86	425 mW	No	6.54	11.29	Yes	201.1	1576 mW	No
WLAN 5.6G	15	32	5	15.31	Yes	171.2	1275 mW	No	86	423 mW	No	6.54	11.7	Yes	201.1	1574 mW	No
WLAN 5.8G	15	32	5	15.45	Yes	171.2	1274 mW	No	86	422 mW	No	6.54	11.81	Yes	201.1	1573 mW	No
BT	10.5	11	5	3.46	Yes	171.2	1307 mW	No	86	455 mW	No	6.54	2.65	No	201.1	1606 mW	No

## <For 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	17	50	5	15.69	Yes	90	496 mW	No	166.5	1261 mW	No	6.34	12.37	Yes	201.1	1607 mW	No
WLAN 5.2G	17	50	5	22.89	Yes	90	466 mW	No	166.5	1231 mW	No	6.34	18.05	Yes	201.1	1577 mW	No
WLAN 5.3G	17	50	5	23.07	Yes	90	465 mW	No	166.5	1230 mW	No	6.34	18.19	Yes	201.1	1576 mW	No
WLAN 5.6G	17	50	5	23.92	Yes	90	463 mW	No	166.5	1228 mW	No	6.34	18.86	Yes	201.1	1574 mW	No
WLAN 5.8G	17	50	5	24.14	Yes	90	462 mW	No	166.5	1227 mW	No	6.34	19.03	Yes	201.1	1573 mW	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	16	40	5	12.55	Yes	90	496 mW	No	86	456 mW	No	6.34	9.9	Yes	201.1	1607 mW	No
WLAN 5.2G	15	32	5	14.65	Yes	90	466 mW	No	86	426 mW	No	6.34	11.55	Yes	201.1	1577 mW	No
WLAN 5.3G	15	32	5	14.76	Yes	90	465 mW	No	86	425 mW	No	6.34	11.64	Yes	201.1	1576 mW	No
WLAN 5.6G	15	32	5	15.31	Yes	90	463 mW	No	86	423 mW	No	6.34	12.07	Yes	201.1	1574 mW	No
WLAN 5.8G	15	32	5	15.45	Yes	90	462 mW	No	86	422 mW	No	6.34	12.18	Yes	201.1	1573 mW	No

### Note:

1. When separation distance  $\leq 50$  mm and the calculated result shown in above table is  $\leq 3.0$  for SAR-1g exposure condition, or  $\leq 7.5$  for SAR-10g exposure condition, the SAR testing exclusion is applied.
2. When separation distance  $> 50$  mm and the device output power is less than the calculated result (power threshold, mW) shown in above table, the SAR testing exclusion is applied.

**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 (%)
Apr. 10, 2019	750	23.2	0.884	42.847	0.89	41.9	-0.67	2.26
Apr. 20, 2019	750	23.6	0.893	43.414	0.89	41.9	0.34	3.61
Apr. 24, 2019	750	23.3	0.89	42.416	0.89	41.9	0.00	1.23
Apr. 10, 2019	835	23.2	0.925	42.403	0.9	41.5	2.78	2.18
Apr. 11, 2019	835	23.2	0.908	42.279	0.9	41.5	0.89	1.88
Apr. 19, 2019	835	23.4	0.92	41.866	0.9	41.5	2.22	0.88
Apr. 24, 2019	835	23.3	0.904	41.218	0.9	41.5	0.44	-0.68
Apr. 09, 2019	1750	23.4	1.328	40.136	1.37	40.1	-3.07	0.09
Apr. 12, 2019	1750	23.1	1.325	39.349	1.37	40.1	-3.28	-1.87
Apr. 19, 2019	1750	23.4	1.322	40.988	1.37	40.1	-3.50	2.21
Apr. 23, 2019	1750	23.4	1.326	40.134	1.37	40.1	-3.21	0.08
Apr. 09, 2019	1900	23.4	1.458	39.592	1.4	40	4.14	-1.02
Apr. 11, 2019	1900	23.2	1.446	38.887	1.4	40	3.29	-2.78
Apr. 19, 2019	1900	23.4	1.454	40.442	1.4	40	3.86	1.11
Apr. 23, 2019	1900	23.4	1.456	39.59	1.4	40	4.00	-1.02
Apr. 09, 2019	2300	23.4	1.708	38.899	1.67	39.5	2.28	-1.52
Apr. 20, 2019	2300	23.6	1.73	39.008	1.67	39.5	3.59	-1.25
Apr. 23, 2019	2300	23.2	1.719	38.828	1.67	39.5	2.93	-1.70
May. 01, 2019	2450	23.3	1.864	38.07	1.8	39.2	3.56	-2.88
May. 03, 2019	2450	23.3	1.87	39.027	1.8	39.2	3.89	-0.44
Apr. 09, 2019	2600	23.4	2.02	37.839	1.96	39	3.06	-2.98
Apr. 19, 2019	2600	23.4	2.049	37.692	1.96	39	4.54	-3.35
Apr. 23, 2019	2600	23.2	2.05	37.808	1.96	39	4.59	-3.06
May. 02, 2019	5250	23.2	4.714	36.093	4.71	35.9	0.08	0.54
May. 02, 2019	5600	23.2	5.056	35.61	5.07	35.5	-0.28	0.31
May. 03, 2019	5750	23.3	5.313	34.366	5.22	35.4	1.78	-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  $\pm 2^\circ\text{C}$ .

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## 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
Apr. 10, 2019	3820	750	0.884	42.847	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 20, 2019	3971	750	0.893	43.414	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 24, 2019	3971	750	0.89	42.416	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 10, 2019	3820	835	0.925	42.403	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 11, 2019	3971	835	0.908	42.279	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 19, 2019	3971	835	0.92	41.866	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 24, 2019	3971	835	0.904	41.218	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 09, 2019	3820	1750	1.328	40.136	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 12, 2019	3898	1750	1.325	39.349	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 19, 2019	3971	1750	1.322	40.988	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 23, 2019	3971	1750	1.326	40.134	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 09, 2019	3820	1900	1.458	39.592	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 11, 2019	3971	1900	1.446	38.887	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 19, 2019	3971	1900	1.454	40.442	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 23, 2019	3971	1900	1.456	39.59	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 09, 2019	3898	2300	1.708	38.899	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 20, 2019	3971	2300	1.73	39.008	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 23, 2019	3971	2300	1.719	38.828	Pass	Pass	Pass	N/A	N/A	N/A
May. 01, 2019	7472	2450	1.864	38.07	Pass	Pass	Pass	OFDM	N/A	Pass
May. 03, 2019	7375	2450	1.87	39.027	Pass	Pass	Pass	OFDM	N/A	Pass
Apr. 09, 2019	3820	2600	2.02	37.839	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 19, 2019	3971	2600	2.049	37.692	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 23, 2019	3971	2600	2.05	37.808	Pass	Pass	Pass	N/A	N/A	N/A
May. 02, 2019	7375	5250	4.714	36.093	Pass	Pass	Pass	OFDM	N/A	Pass
May. 02, 2019	7375	5600	5.056	35.61	Pass	Pass	Pass	OFDM	N/A	Pass
May. 03, 2019	7375	5750	5.313	34.366	Pass	Pass	Pass	OFDM	N/A	Pass

**4.5 System Verification**

The measuring result for system verification is tabulated as below.

Test Date	Mode	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
Apr. 10, 2019	Body	750	8.15	2.02	8.08	-0.86	1013	3820	910
Apr. 20, 2019	Body	750	8.15	1.96	7.84	-3.80	1013	3971	1431
Apr. 24, 2019	Body	750	8.15	1.96	7.84	-3.80	1013	3971	1431
Apr. 10, 2019	Body	835	9.44	2.51	10.04	6.36	4d121	3820	910
Apr. 11, 2019	Body	835	9.44	2.33	9.32	-1.27	4d121	3971	1431
Apr. 19, 2019	Body	835	9.44	2.36	9.44	0.00	4d121	3971	1431
Apr. 24, 2019	Body	835	9.44	2.29	9.16	-2.97	4d121	3971	1431
Apr. 09, 2019	Body	1750	36.90	9.27	37.08	0.49	1055	3820	910
Apr. 12, 2019	Body	1750	36.90	9.19	36.76	-0.38	1055	3898	861
Apr. 19, 2019	Body	1750	36.90	9.10	36.40	-1.36	1055	3971	1431
Apr. 23, 2019	Body	1750	36.90	9.05	36.20	-1.90	1055	3971	1431
Apr. 09, 2019	Body	1900	40.20	10.5	42.00	4.48	5d036	3820	910
Apr. 11, 2019	Body	1900	40.20	9.93	39.72	-1.19	5d036	3971	1431
Apr. 19, 2019	Body	1900	40.20	10	40.00	-0.50	5d036	3971	1431
Apr. 23, 2019	Body	1900	40.20	10	40.00	-0.50	5d036	3971	1431
Apr. 09, 2019	Body	2300	49.10	12.5	50.00	1.83	1004	3898	910
Apr. 20, 2019	Body	2300	49.10	12.8	51.20	4.28	1004	3971	1431
Apr. 23, 2019	Body	2300	49.10	12	48.00	-2.24	1004	3971	1431
May. 01, 2019	Body	2450	51.50	13.1	52.40	1.75	737	7472	1277
May. 03, 2019	Body	2450	51.50	12.8	51.20	-0.58	737	7375	915
Apr. 09, 2019	Body	2600	55.70	14.2	56.80	1.97	1020	3820	910
Apr. 19, 2019	Body	2600	55.70	14.1	56.40	1.26	1020	3971	1431
Apr. 23, 2019	Body	2600	55.70	15	60.00	7.72	1020	3971	1431
May. 02, 2019	Body	5250	80.70	8	80.00	-0.87	1019	7375	915
May. 02, 2019	Body	5600	85.80	8.78	87.80	2.33	1019	7375	915
May. 03, 2019	Body	5750	81.50	8.01	80.10	-1.72	1019	7375	915

**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.

##### Tablet Mode

Mode	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC 12.2K	15.0	15.0	17.0
HSDPA/ HSUPA/ DC-HSDPA	15.0	15.0	17.0

Mode	LTE 2	LTE 4	LTE 5	LTE 7
Maximum Target Power	15.5	15.0	18.5	13.0

Mode	LTE 12	LTE 13	LTE 14	LTE 17
Maximum Target Power	18.0	18.5	20.5	18.0

Mode	LTE 25	LTE 26	LTE 30	LTE 38
Maximum Target Power	15.0	19.5	12.5	16.5

Mode	LTE 41	LTE 66
Maximum Target Power	14.5	14.0

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## <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	16.0	17.0	-
	6	2437	16.0	17.0	-
	11	2462	16.0	17.0	-
	12	2467	16.0	17.0	-
	13	2472	15.25	15.25	-
802.11g	1	2412	16.0	17.0	-
	6	2437	16.0	17.0	-
	11	2462	15.5	15.5	-
	12	2467	13.5	13.5	-
	13	2472	10.75	10.75	-
802.11n (HT20)	1	2412	16.0	17.0	16.0
	6	2437	16.0	17.0	16.0
	11	2462	15.5	15.5	14.5
	12	2467	13.5	13.5	13.0
	13	2472	10.75	10.75	7.75
802.11n (HT40)	3	2422	16.0	17.0	16.0
	6	2437	16.0	17.0	16.0
	9	2452	13.75	14.0	13.25
	10	2457	11.5	11.5	10.5
	11	2462	11.5	11.5	8.5
802.11ax (HE20)	1	2412	16.0	17.0	16.0
	6	2437	16.0	17.0	16.0
	11	2462	15.5	15.5	15.5
	12	2467	13.5	13.5	13.5
	13	2472	10.75	10.75	7.75
802.11ax (HE40)	3	2422	16.0	17.0	16.0
	6	2437	16.0	17.0	16.0
	9	2452	13.75	14.0	13.25
	10	2457	11.5	11.5	10.5
	11	2462	11.5	11.5	8.5

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## <WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	36	5180	15.0	17.0	-
	40	5200	15.0	17.0	-
	44	5220	15.0	17.0	-
	48	5240	15.0	17.0	-
802.11n (HT20)	36	5180	15.0	17.0	15.0
	40	5200	15.0	17.0	15.0
	44	5220	15.0	17.0	15.0
	48	5240	15.0	17.0	15.0
802.11n (HT40)	38	5190	15.0	17.0	15.0
	46	5230	15.0	17.0	15.0
802.11ac (VHT20)	36	5180	15.0	17.0	15.0
	40	5200	15.0	17.0	15.0
	44	5220	15.0	17.0	15.0
	48	5240	15.0	17.0	15.0
802.11ac (VHT40)	38	5190	15.0	17.0	15.0
	46	5230	15.0	17.0	15.0
802.11ac (VHT80)	42	5210	15.0	17.0	15.0
802.11ax (HE20)	36	5180	15.0	17.0	15.0
	40	5200	15.0	17.0	15.0
	44	5220	15.0	17.0	15.0
	48	5240	15.0	17.0	15.0
802.11ax (HE40)	38	5190	15.0	17.0	15.0
	46	5230	15.0	17.0	15.0
802.11ax (HE80)	42	5210	15.0	17.0	15.0

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## <WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	52	5260	15.0	17.0	-
	56	5280	15.0	17.0	-
	60	5300	15.0	17.0	-
	64	5320	15.0	17.0	-
802.11n (HT20)	52	5260	15.0	17.0	15.0
	56	5280	15.0	17.0	15.0
	60	5300	15.0	17.0	15.0
	64	5320	15.0	17.0	15.0
802.11n (HT40)	54	5270	15.0	17.0	15.0
	62	5310	15.0	17.0	15.0
802.11ac (VHT20)	52	5260	15.0	17.0	15.0
	56	5280	15.0	17.0	15.0
	60	5300	15.0	17.0	15.0
	64	5320	15.0	17.0	15.0
802.11ac (VHT40)	54	5270	15.0	17.0	15.0
	62	5310	15.0	17.0	15.0
802.11ac (VHT80)	58	5290	15.0	17.0	15.0
802.11ac (VHT160)	50	5250	14.5	14.5	13.0
802.11ax (HE20)	52	5260	15.0	17.0	15.0
	56	5280	15.0	17.0	15.0
	60	5300	15.0	17.0	15.0
	64	5320	15.0	17.0	15.0
802.11ax (HE40)	54	5270	15.0	17.0	15.0
	62	5310	15.0	17.0	15.0
802.11ax (HE80)	58	5290	15.0	17.0	15.0
802.11ax (HE160)	50	5250	14.5	14.5	13.0

# FCC SAR Test Report

## <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	100	5500	15.0	17.0	-
	116	5580	15.0	17.0	-
	120	5600	15.0	17.0	-
	124	5620	15.0	17.0	-
	132	5660	15.0	17.0	-
	140	5700	15.0	17.0	-
	144	5720	15.0	17.0	-
802.11n (HT20)	100	5500	15.0	17.0	15.0
	116	5580	15.0	17.0	15.0
	120	5600	15.0	17.0	15.0
	124	5620	15.0	17.0	15.0
	132	5660	15.0	17.0	15.0
	140	5700	15.0	17.0	15.0
	144	5720	15.0	17.0	15.0
802.11n (HT40)	102	5510	15.0	17.0	15.0
	110	5550	15.0	17.0	15.0
	118	5590	15.0	17.0	15.0
	126	5630	15.0	17.0	15.0
	134	5670	15.0	17.0	15.0
	142	5710	15.0	17.0	15.0
802.11ac (VHT20)	100	5500	15.0	17.0	15.0
	116	5580	15.0	17.0	15.0
	120	5600	15.0	17.0	15.0
	124	5620	15.0	17.0	15.0
	132	5660	15.0	17.0	15.0
	140	5700	15.0	17.0	15.0
	144	5720	15.0	17.0	15.0
802.11ac (VHT40)	102	5510	15.0	17.0	15.0
	110	5550	15.0	17.0	15.0
	118	5590	15.0	17.0	15.0
	126	5630	15.0	17.0	15.0
	134	5670	15.0	17.0	15.0
	142	5710	15.0	17.0	15.0
802.11ac (VHT80)	106	5530	15.0	17.0	15.0
	122	5610	15.0	17.0	15.0
	138	5690	15.0	17.0	15.0
802.11ac (VHT160)	114	5570	15.0	15.5	13.5
802.11ax (HE20)	100	5500	15.0	17.0	15.0
	116	5580	15.0	17.0	15.0
	120	5600	15.0	17.0	15.0
	124	5620	15.0	17.0	15.0
	132	5660	15.0	17.0	15.0
	140	5700	15.0	17.0	15.0
	144	5720	15.0	17.0	15.0
802.11ax (HE40)	102	5510	15.0	17.0	15.0
	110	5550	15.0	17.0	15.0
	118	5590	15.0	17.0	15.0
	126	5630	15.0	17.0	15.0
	134	5670	15.0	17.0	15.0
	142	5710	15.0	17.0	15.0
802.11ax (HE80)	106	5530	15.0	17.0	15.0
	122	5610	15.0	17.0	15.0
	138	5690	15.0	17.0	15.0
802.11ax (HE160)	114	5570	15.0	15.5	13.5

# FCC SAR Test Report

## <WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	149	5745	15.0	17.0	-
	153	5765	15.0	17.0	-
	157	5785	15.0	17.0	-
	161	5805	15.0	17.0	-
	165	5825	15.0	17.0	-
802.11n (HT20)	149	5745	15.0	17.0	15.0
	153	5765	15.0	17.0	15.0
	157	5785	15.0	17.0	15.0
	161	5805	15.0	17.0	15.0
	165	5825	15.0	17.0	15.0
802.11n (HT40)	151	5755	15.0	17.0	15.0
	159	5795	15.0	17.0	15.0
802.11ac (VHT20)	149	5745	15.0	17.0	15.0
	153	5765	15.0	17.0	15.0
	157	5785	15.0	17.0	15.0
	161	5805	15.0	17.0	15.0
	165	5825	15.0	17.0	15.0
802.11ac (VHT40)	151	5755	15.0	17.0	15.0
	159	5795	15.0	17.0	15.0
802.11ac (VHT80)	155	5775	15.0	17.0	15.0
802.11ax (HE20)	149	5745	15.0	17.0	15.0
	153	5765	15.0	17.0	15.0
	157	5785	15.0	17.0	15.0
	161	5805	15.0	17.0	15.0
	165	5825	15.0	17.0	15.0
802.11ax (HE40)	151	5755	15.0	17.0	15.0
	159	5795	15.0	17.0	15.0
802.11ax (HE80)	155	5775	15.0	17.0	15.0

## <Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	10.5
	39	2441	10.5
	78	2480	10.5
Bluetooth LE	0	2402	5.5
	19	2440	5.5
	39	2480	5.5

# FCC SAR Test Report

## Laptop Mode

Mode	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC 12.2K	23.5	24.0	23.5
HSDPA/ HSUPA/ DC-HSDPA	23.0	23.0	23.0

Mode	LTE 2	LTE 4	LTE 5	LTE 7
Maximum Target Power	23.0	23.5	23.0	23.5

Mode	LTE 12	LTE 13	LTE 14	LTE 17
Maximum Target Power	23.0	23.0	23.0	23.0

Mode	LTE 25	LTE 26	LTE 30	LTE 38
Maximum Target Power	23.0	23.0	22.0	23.0

Mode	LTE 41	LTE 66
Maximum Target Power	23.0	23.5

## <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	19.5	19.5	-
	6	2437	20.5	20.5	-
	11	2462	18.25	18.25	-
	12	2467	16.5	17.5	-
	13	2472	15.25	15.25	-
802.11g	1	2412	17.0	18.0	-
	6	2437	20.0	20.0	-
	11	2462	15.5	15.5	-
	12	2467	13.5	13.5	-
	13	2472	10.75	10.75	-
802.11n (HT20)	1	2412	17.0	18.0	16.25
	6	2437	20.0	20.0	17.5
	11	2462	15.5	15.5	14.5
	12	2467	13.5	13.5	13.0
	13	2472	10.75	10.75	7.75
802.11n (HT40)	3	2422	17.0	17.0	16.25
	6	2437	17.5	17.5	16.5
	9	2452	13.75	14.0	13.25
	10	2457	11.5	11.5	10.5
	11	2462	11.5	11.5	8.5
802.11ax (HE20)	1	2412	17.0	18.0	16.25
	6	2437	20.0	20.0	17.5
	11	2462	15.5	15.5	14.5
	12	2467	13.5	13.5	13.0
	13	2472	10.75	10.75	7.75
802.11ax (HE40)	3	2422	17.0	17.0	16.25
	6	2437	17.5	17.5	16.5
	9	2452	13.75	14.0	13.25
	10	2457	11.5	11.5	10.5
	11	2462	11.5	11.5	8.5

# FCC SAR Test Report

## <WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	36	5180	19.0	19.0	-
	40	5200	20.5	20.5	-
	44	5220	20.5	20.5	-
	48	5240	20.5	20.5	-
802.11n (HT20)	36	5180	19.0	19.0	18.0
	40	5200	20.5	20.5	19.5
	44	5220	20.5	20.5	19.5
	48	5240	20.5	20.5	19.5
802.11n (HT40)	38	5190	18.5	18.5	16.5
	46	5230	20.5	20.5	19.25
802.11ac (VHT20)	36	5180	19.0	19.0	18.0
	40	5200	20.5	20.5	19.5
	44	5220	20.5	20.5	19.5
	48	5240	20.5	20.5	19.5
802.11ac (VHT40)	38	5190	18.5	18.5	16.5
	46	5230	20.5	20.5	19.25
802.11ac (VHT80)	42	5210	18.5	18.5	16.5
802.11ax (HE20)	36	5180	19.0	19.0	18.0
	40	5200	20.5	20.5	19.5
	44	5220	20.5	20.5	19.5
	48	5240	20.5	20.5	19.5
802.11ax (HE40)	38	5190	18.5	18.5	16.5
	46	5230	20.5	20.5	19.25
802.11ax (HE80)	42	5210	18.5	18.5	16.5



# FCC SAR Test Report

## <WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	52	5260	20.5	20.5	-
	56	5280	20.5	20.5	-
	60	5300	20.5	20.5	-
	64	5320	18.75	18.75	-
802.11n (HT20)	52	5260	20.5	20.5	19.5
	56	5280	20.5	20.5	19.5
	60	5300	20.5	20.5	19.5
	64	5320	18.75	18.75	17.5
802.11n (HT40)	54	5270	20.5	20.5	19.25
	62	5310	17.5	17.5	16.0
802.11ac (VHT20)	52	5260	20.5	20.5	19.5
	56	5280	20.5	20.5	19.5
	60	5300	20.5	20.5	19.5
	64	5320	18.75	18.75	17.5
802.11ac (VHT40)	54	5270	20.5	20.5	19.25
	62	5310	17.5	17.5	16.0
802.11ac (VHT80)	58	5290	17.5	17.5	15.75
802.11ac (VHT160)	50	5250	14.75	14.5	14.5
802.11ax (HE20)	52	5260	20.5	20.5	19.5
	56	5280	20.5	20.5	19.5
	60	5300	20.5	20.5	19.5
	64	5320	18.75	18.75	17.5
802.11ax (HE40)	54	5270	20.5	20.5	19.25
	62	5310	17.5	17.5	16.0
802.11ax (HE80)	58	5290	17.5	17.5	15.75
802.11ax (HE160)	50	5250	14.75	14.5	14.5

# FCC SAR Test Report

## <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	100	5500	19.5	19.5	-
	116	5580	20.5	20.5	-
	120	5600	20.5	20.5	-
	124	5620	20.5	20.5	-
	132	5660	20.5	20.5	-
	140	5700	19.0	19.25	-
	144	5720	20.5	20.5	-
802.11n (HT20)	100	5500	19.5	19.5	18.5
	116	5580	20.5	20.5	19.5
	120	5600	20.5	20.5	19.5
	124	5620	20.5	20.5	19.5
	132	5660	20.5	20.5	19.5
	140	5700	19.0	19.25	17.25
	144	5720	20.5	20.5	19.5
802.11n (HT40)	102	5510	19.0	19.0	18.0
	110	5550	20.5	20.5	19.5
	118	5590	20.5	20.5	19.5
	126	5630	20.5	20.5	19.5
	134	5670	19.5	18.5	18.5
	142	5710	20.5	20.5	19.5
802.11ac (VHT20)	100	5500	19.5	19.5	18.5
	116	5580	20.5	20.5	19.5
	120	5600	20.5	20.5	19.5
	124	5620	20.5	20.5	19.5
	132	5660	20.5	20.5	19.5
	140	5700	19.0	19.25	17.25
	144	5720	20.5	20.5	19.5
802.11ac (VHT40)	102	5510	19.0	19.0	18.0
	110	5550	20.5	20.5	19.5
	118	5590	20.5	20.5	19.5
	126	5630	20.5	20.5	19.5
	134	5670	19.5	18.5	18.5
	142	5710	20.5	20.5	19.5
802.11ac (VHT80)	106	5530	18.5	18.5	17.5
	122	5610	19.5	19.5	18.5
	138	5690	20.5	20.5	19.5
802.11ac (VHT160)	114	5570	15.5	14.5	14.5
802.11ax (HE20)	100	5500	19.5	19.5	18.5
	116	5580	20.5	20.5	19.5
	120	5600	20.5	20.5	19.5
	124	5620	20.5	20.5	19.5
	132	5660	20.5	20.5	19.5
	140	5700	19.0	19.25	17.25
	144	5720	20.5	20.5	19.5
802.11ax (HE40)	102	5510	19.0	19.0	18.0
	110	5550	20.5	20.5	19.5
	118	5590	20.5	20.5	19.5
	126	5630	20.5	20.5	19.5
	134	5670	19.5	18.5	18.5
	142	5710	20.5	20.5	19.5
802.11ax (HE80)	106	5530	18.5	18.5	17.5
	122	5610	19.5	19.5	18.5
	138	5690	20.5	20.5	19.5
802.11ax (HE160)	114	5570	15.5	14.5	14.5

# FCC SAR Test Report

## <WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11a	149	5745	20.5	20.5	-
	153	5765	20.5	20.5	-
	157	5785	20.5	20.5	-
	161	5805	20.5	20.5	-
	165	5825	20.5	20.5	-
802.11n (HT20)	149	5745	20.5	20.5	19.5
	153	5765	20.5	20.5	19.5
	157	5785	20.5	20.5	19.5
	161	5805	20.5	20.5	19.5
	165	5825	20.5	20.5	19.5
802.11n (HT40)	151	5755	20.5	20.5	19.5
	159	5795	20.5	20.5	19.5
802.11ac (VHT20)	149	5745	20.5	20.5	19.5
	153	5765	20.5	20.5	19.5
	157	5785	20.5	20.5	19.5
	161	5805	20.5	20.5	19.5
	165	5825	20.5	20.5	19.5
802.11ac (VHT40)	151	5755	20.5	20.5	19.5
	159	5795	20.5	20.5	19.5
802.11ac (VHT80)	155	5775	19.25	19.0	18.25
802.11ax (HE20)	149	5745	20.5	20.5	19.5
	153	5765	20.5	20.5	19.5
	157	5785	20.5	20.5	19.5
	161	5805	20.5	20.5	19.5
	165	5825	20.5	20.5	19.5
802.11ax (HE40)	151	5755	20.5	20.5	19.5
	159	5795	20.5	20.5	19.5
802.11ax (HE80)	155	5775	19.25	19.0	18.25

## <Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	10.5
	39	2441	10.5
	78	2480	10.5
Bluetooth LE	0	2402	5.5
	19	2440	5.5
	39	2480	5.5

# FCC SAR Test Report

## 4.6.2 Measured Conducted Power Result

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

### Tablet Mode

Band Channel Frequency (MHz)	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
	9262 1852.4	9400 1880.0	9538 1907.6	1312 1712.4	1413 1732.6	1513 1752.6	4132 826.4	4182 836.4	4233 846.6	
RMC 12.2K	14.53	14.61	<b>14.71</b>	14.64	<b>14.78</b>	14.69	16.69	16.62	<b>16.74</b>	-
HSDPA Subtest-1	14.58	14.66	14.65	14.58	14.72	14.63	16.67	16.62	16.72	0
HSDPA Subtest-2	14.24	14.32	14.37	14.28	14.42	14.33	16.43	16.38	16.48	0
HSDPA Subtest-3	13.99	14.07	14.12	14.01	14.15	14.06	16.24	16.19	16.29	0.5
HSDPA Subtest-4	13.93	14.01	14.06	13.88	14.02	13.93	15.94	15.89	15.99	0.5
DC-HSDPA Subtest-1	14.56	14.64	14.69	14.62	14.76	14.67	16.66	16.61	16.71	0
DC-HSDPA Subtest-2	14.22	14.30	14.35	14.56	14.70	14.61	16.64	16.59	16.69	0
DC-HSDPA Subtest-3	13.97	14.05	14.10	14.26	14.40	14.31	16.40	16.35	16.45	0.5
DC-HSDPA Subtest-4	13.91	13.99	14.04	13.99	14.13	14.04	16.21	16.16	16.26	0.5
HSUPA Subtest-1	13.84	13.98	13.89	13.86	14.00	13.91	15.91	15.86	15.96	0
HSUPA Subtest-2	12.69	12.83	12.74	12.71	12.85	12.76	14.41	14.36	14.40	2
HSUPA Subtest-3	13.41	13.55	13.46	13.43	13.57	13.48	15.36	15.31	15.22	1
HSUPA Subtest-4	12.58	12.72	12.63	12.60	12.74	12.65	14.72	14.67	14.73	2
HSUPA Subtest-5	13.69	13.83	13.74	13.71	13.85	13.76	16.50	16.45	16.66	0

# 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	15.41	15.49	15.43	0	15M	QPSK	1	0	15.39	15.46	15.41	0		
		1	50	15.30	15.38	15.32	0			1	37	15.20	15.37	15.31	0		
		1	99	15.28	15.36	15.30	0			1	74	15.27	15.32	15.23	0		
		50	0	14.31	14.39	14.33	1			36	0	14.23	14.39	14.28	1		
		50	25	14.27	14.35	14.29	1			36	19	14.27	14.35	14.29	1		
		50	50	14.24	14.32	14.26	1			36	39	14.15	14.26	14.20	1		
		100	0	14.25	14.33	14.27	1			75	0	14.24	14.30	14.22	1		
	16QAM	1	0	14.40	14.48	14.42	1		16QAM	1	0	14.33	14.47	14.32	1		
		1	50	14.29	14.37	14.31	1			1	37	14.25	14.36	14.31	1		
		1	99	14.27	14.35	14.29	1			1	74	14.27	14.32	14.24	1		
		50	0	13.30	13.38	13.32	2			36	0	13.23	13.36	13.29	2		
		50	25	13.26	13.34	13.28	2			36	19	13.16	13.29	13.23	2		
		50	50	13.23	13.31	13.25	2			36	39	13.14	13.30	13.18	2		
		100	0	13.24	13.32	13.26	2			75	0	13.16	13.23	13.25	2		
	64QAM	1	0	13.42	13.50	13.44	2		64QAM	1	0	13.42	13.44	13.41	2		
		1	50	13.31	13.39	13.33	2			1	37	13.24	13.29	13.23	2		
		1	99	13.29	13.37	13.31	2			1	74	13.20	13.35	13.22	2		
		50	0	12.32	12.40	12.34	3			36	0	12.23	12.37	12.34	3		
		50	25	12.28	12.36	12.30	3			36	19	12.26	12.34	12.28	3		
		50	50	12.25	12.33	12.27	3			36	39	12.15	12.28	12.23	3		
		100	0	12.26	12.34	12.28	3			75	0	12.23	12.26	12.18	3		
	10M	QPSK	1	0	15.32	15.32	15.26		0	5M	QPSK	1	0	15.20	15.42	15.15	0
			1	24	15.14	15.28	15.12		0			1	12	15.29	15.36	14.99	0
			1	49	15.17	15.15	15.17		0			1	24	15.22	15.17	15.18	0
25			0	14.21	14.33	14.19	1	12	0			14.22	14.28	14.12	1		
25			12	14.22	14.27	14.20	1	12	6			14.11	14.25	14.16	1		
25			25	14.03	14.22	14.09	1	12	13			14.12	14.17	14.04	1		
50			0	14.08	14.14	14.11	1	25	0			14.20	14.11	13.94	1		
16QAM		1	0	14.39	14.43	14.39	1	16QAM	1		0	14.28	14.32	14.23	1		
		1	24	14.20	14.18	14.15	1		1		12	14.23	14.21	14.19	1		
		1	49	14.20	14.14	14.10	1		1		24	14.07	14.15	14.12	1		
		25	0	13.19	13.22	13.19	2		12		0	13.08	13.26	13.12	2		
		25	12	13.13	13.12	13.16	2		12		6	13.11	13.21	13.10	2		
		25	25	13.14	13.13	13.21	2		12		13	13.11	13.24	13.14	2		
		50	0	13.15	13.17	13.12	2		25		0	13.14	13.13	13.15	2		
64QAM		1	0	13.26	13.46	13.34	2	64QAM	1		0	13.29	13.26	13.27	2		
		1	24	13.22	13.28	13.11	2		1		12	13.16	13.23	13.08	2		
		1	49	13.19	13.23	13.24	2		1		24	13.19	13.36	13.14	2		
		25	0	12.26	12.30	12.14	3		12		0	12.20	12.21	12.25	3		
		25	12	12.13	12.29	12.20	3		12		6	12.14	12.32	12.17	3		
		25	25	12.17	12.15	12.24	3		12		13	12.21	12.26	12.10	3		
		50	0	12.06	12.25	12.16	3		25		0	12.22	12.22	12.18	3		
3M		QPSK	1	0	15.24	15.47	15.36	0	1.4M		QPSK	1	0	15.32	15.26	15.26	0
			1	7	15.19	15.34	15.10	0				1	2	15.17	15.22	15.25	0
			1	14	15.24	15.31	15.07	0				1	5	15.17	15.28	15.16	0
	8		0	14.20	14.24	14.27	1	3		0		15.15	15.22	15.32	0		
	8		3	14.14	14.16	14.12	1	3		1		15.18	15.13	15.13	0		
	8		7	14.12	14.22	14.08	1	3		3		15.13	15.16	15.23	0		
	15		0	14.13	14.20	14.17	1	6		0		14.21	14.14	14.09	1		
	16QAM	1	0	14.20	14.40	14.33	1	16QAM		1	0	14.22	14.27	14.30	1		
		1	7	14.23	14.26	14.30	1			1	2	14.20	14.16	14.21	1		
		1	14	14.14	14.14	14.19	1			1	5	14.22	14.23	14.09	1		
		8	0	13.15	13.32	13.21	2			3	0	14.17	14.15	14.19	1		
		8	3	13.09	13.13	13.24	2			3	1	14.14	14.23	14.18	1		
		8	7	13.17	13.07	13.03	2			3	3	14.15	14.15	14.14	1		
		15	0	13.14	13.17	13.16	2			6	0	13.11	13.25	13.10	2		
	64QAM	1	0	13.27	13.40	13.20	2	64QAM		1	0	13.24	13.40	13.28	2		
		1	7	13.10	13.22	13.15	2			1	2	13.26	13.22	13.16	2		
		1	14	13.27	13.26	13.16	2			1	5	13.12	13.24	13.12	2		
		8	0	12.15	12.38	12.23	3			3	0	13.10	13.17	13.29	2		
		8	3	12.12	12.28	12.10	3			3	1	13.23	13.13	13.21	2		
		8	7	12.08	12.24	12.16	3			3	3	13.11	13.15	13.12	2		
		15	0	12.04	12.27	12.25	3			6	0	12.26	12.24	12.19	3		

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LTE Band 4																	
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	14.99	14.97	14.95	0	15M	QPSK	1	0	14.94	14.90	14.86	0		
		1	50	14.97	14.95	14.93	0			1	37	14.89	14.86	14.93	0		
		1	99	14.95	14.93	14.91	0			1	74	14.89	14.93	14.84	0		
		50	0	13.97	13.95	13.93	1			36	0	13.92	13.93	13.83	1		
		50	25	13.95	13.93	13.91	1			36	19	13.92	13.90	13.88	1		
		50	50	13.91	13.89	13.87	1			36	39	13.89	13.84	13.85	1		
		100	0	13.94	13.92	13.90	1			75	0	13.94	13.82	13.87	1		
	16QAM	1	0	13.98	13.96	13.94	1		1	0	13.90	13.90	13.94	1			
		1	50	13.96	13.94	13.92	1		1	37	13.90	13.84	13.91	1			
		1	99	13.94	13.92	13.90	1		1	74	13.93	13.89	13.90	1			
		50	0	12.96	12.94	12.92	2		36	0	12.89	12.88	12.87	2			
		50	25	12.94	12.92	12.90	2		36	19	12.94	12.87	12.90	2			
		50	50	12.90	12.88	12.86	2		36	39	12.84	12.84	12.80	2			
		100	0	12.93	12.91	12.89	2		75	0	12.86	12.88	12.84	2			
	64QAM	1	0	13.00	12.98	12.96	2		1	0	12.95	12.98	12.94	2			
		1	50	12.98	12.96	12.94	2		1	37	12.90	12.96	12.94	2			
		1	99	12.96	12.94	12.92	2		1	74	12.86	12.85	12.83	2			
		50	0	11.98	11.96	11.94	3		36	0	11.89	11.89	11.91	3			
		50	25	11.96	11.94	11.92	3		36	19	11.88	11.89	11.85	3			
		50	50	11.92	11.90	11.88	3		36	39	11.91	11.80	11.80	3			
		100	0	11.95	11.93	11.91	3		75	0	11.89	11.89	11.91	3			
	10M	QPSK	1	0	14.91	14.95	14.84		0	5M	QPSK	1	0	14.90	14.79	14.71	0
			1	24	14.84	14.86	14.73		0			1	12	14.78	14.80	14.63	0
			1	49	14.93	14.85	14.77		0			1	24	14.72	14.84	14.64	0
25			0	13.89	13.85	13.86	1	12	0			13.84	13.85	13.80	1		
25			12	13.80	13.75	13.76	1	12	6			13.87	13.86	13.77	1		
25			25	13.70	13.82	13.65	1	12	13			13.71	13.75	13.62	1		
50			0	13.84	13.75	13.76	1	25	0			13.75	13.84	13.62	1		
16QAM		1	0	13.86	13.91	13.74	1	1	0		13.89	13.81	13.73	1			
		1	24	13.86	13.89	13.77	1	1	12		13.82	13.90	13.75	1			
		1	49	13.72	13.81	13.74	1	1	24		13.77	13.74	13.81	1			
		25	0	12.74	12.75	12.70	2	12	0		12.87	12.84	12.76	2			
		25	12	12.81	12.79	12.75	2	12	6		12.88	12.86	12.78	2			
		25	25	12.79	12.74	12.72	2	12	13		12.79	12.83	12.67	2			
		50	0	12.71	12.70	12.85	2	25	0		12.71	12.89	12.73	2			
64QAM		1	0	12.77	12.82	12.91	2	1	0		12.94	12.83	12.93	2			
		1	24	12.94	12.77	12.81	2	1	12		12.88	12.88	12.91	2			
		1	49	12.93	12.80	12.88	2	1	24		12.81	12.90	12.85	2			
		25	0	11.87	11.89	11.86	3	12	0		11.92	11.80	11.84	3			
		25	12	11.81	11.73	11.80	3	12	6		11.81	11.85	11.76	3			
		25	25	11.83	11.77	11.71	3	12	13		11.83	11.74	11.76	3			
		50	0	11.79	11.78	11.85	3	25	0		11.91	11.74	11.91	3			
3M		QPSK	1	0	14.87	14.79	14.89	0	1.4M		QPSK	1	0	14.94	14.96	14.82	0
			1	7	14.92	14.89	14.84	0				1	2	14.74	14.77	14.88	0
			1	14	14.81	14.80	14.76	0				1	5	14.82	14.81	14.85	0
	8		0	13.77	13.74	13.80	1	3		0		14.89	14.82	14.77	0		
	8		3	13.81	13.90	13.82	1	3		1		14.84	14.74	14.71	0		
	8		7	13.71	13.83	13.77	1	3		3		14.74	14.76	14.74	0		
	15		0	13.82	13.83	13.79	1	6		0		13.88	13.82	13.81	1		
	16QAM	1	0	13.96	13.84	13.83	1	1		0	13.86	13.87	13.70	1			
		1	7	13.89	13.86	13.75	1	1		2	13.91	13.85	13.69	1			
		1	14	13.88	13.85	13.79	1	1		5	13.77	13.83	13.80	1			
		8	0	12.90	12.79	12.88	2	3		0	13.83	13.79	13.75	1			
		8	3	12.86	12.83	12.68	2	3		1	13.86	13.85	13.75	1			
		8	7	12.75	12.74	12.67	2	3		3	13.80	13.71	13.65	1			
		15	0	12.76	12.87	12.78	2	6		0	12.88	12.83	12.74	2			
	64QAM	1	0	12.90	12.83	12.80	2	1		0	12.81	12.87	12.82	2			
		1	7	12.96	12.75	12.82	2	1		2	12.79	12.81	12.79	2			
		1	14	12.82	12.70	12.76	2	1		5	12.92	12.79	12.84	2			
		8	0	11.73	11.84	11.87	3	3		0	12.93	12.78	12.84	2			
		8	3	11.90	11.80	11.82	3	3		1	12.90	12.78	12.70	2			
		8	7	11.85	11.78	11.79	3	3		3	12.80	12.89	12.72	2			
		15	0	11.85	11.76	11.79	3	6		0	11.90	11.89	11.79	3			

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LTE Band 5															
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	18.40	18.44	18.42	0	5M	QPSK	1	0	18.38	18.35	18.42	0
		1	24	18.35	18.39	18.37	0			1	12	18.26	18.36	18.36	0
		1	49	18.32	18.36	18.34	0			1	24	18.30	18.33	18.30	0
		25	0	17.38	17.42	17.40	1			12	0	17.31	17.41	17.36	1
		25	12	17.35	17.39	17.37	1			12	6	17.25	17.33	17.32	1
		25	25	17.31	17.35	17.33	1			12	13	17.30	17.30	17.33	1
		50	0	17.33	17.37	17.35	1			25	0	17.27	17.37	17.28	1
	16QAM	1	0	17.45	17.49	17.47	1		16QAM	1	0	17.39	17.40	17.43	1
		1	24	17.40	17.44	17.42	1			1	12	17.33	17.41	17.38	1
		1	49	17.37	17.41	17.39	1			1	24	17.32	17.38	17.37	1
		25	0	16.43	16.47	16.45	2			12	0	16.41	16.43	16.44	2
		25	12	16.40	16.44	16.42	2			12	6	16.35	16.42	16.40	2
		25	25	16.36	16.40	16.38	2			12	13	16.30	16.30	16.33	2
		50	0	16.38	16.42	16.40	2			25	0	16.32	16.37	16.36	2
	64QAM	1	0	16.47	16.51	16.49	2		64QAM	1	0	16.44	16.43	16.45	2
		1	24	16.42	16.46	16.44	2			1	12	16.35	16.45	16.40	2
		1	49	16.39	16.43	16.41	2			1	24	16.31	16.35	16.33	2
		25	0	15.45	15.49	15.47	3			12	0	15.43	15.44	15.37	3
		25	12	15.42	15.46	15.44	3			12	6	15.32	15.41	15.36	3
		25	25	15.38	15.42	15.40	3			12	13	15.33	15.34	15.30	3
		50	0	15.40	15.44	15.42	3			25	0	15.40	15.38	15.33	3
3M	QPSK	1	0	18.29	18.34	18.24	0	1.4M	QPSK	1	0	18.30	18.28	18.24	0
		1	7	18.25	18.15	18.22	0			1	2	18.19	18.26	18.21	0
		1	14	18.23	18.22	18.21	0			1	5	18.11	18.22	18.19	0
		8	0	17.31	17.25	17.30	1			3	0	18.23	18.34	18.28	0
		8	3	17.35	17.36	17.27	1			3	1	18.24	18.32	18.22	0
		8	7	17.28	17.17	17.13	1			3	3	18.14	18.20	18.25	0
		15	0	17.24	17.26	17.21	1			6	0	17.20	17.24	17.21	1
	16QAM	1	0	17.31	17.39	17.30	1		16QAM	1	0	17.30	17.32	17.30	1
		1	7	17.28	17.35	17.33	1			1	2	17.29	17.38	17.31	1
		1	14	17.19	17.23	17.21	1			1	5	17.27	17.24	17.29	1
		8	0	16.39	16.32	16.29	2			3	0	17.24	17.30	17.38	1
		8	3	16.22	16.28	16.30	2			3	1	17.34	17.35	17.33	1
		8	7	16.28	16.33	16.26	2			3	3	17.14	17.17	17.16	1
		15	0	16.29	16.25	16.18	2			6	0	16.34	16.28	16.39	2
	64QAM	1	0	16.28	16.43	16.49	2		64QAM	1	0	16.33	16.31	16.38	2
		1	7	16.27	16.36	16.34	2			1	2	16.39	16.40	16.40	2
		1	14	16.20	16.29	16.21	2			1	5	16.19	16.33	16.29	2
		8	0	15.26	15.30	15.30	3			3	0	16.30	16.32	16.42	2
		8	3	15.38	15.31	15.38	3			3	1	16.24	16.38	16.23	2
		8	7	15.23	15.38	15.40	3			3	3	16.17	16.25	16.29	2
		15	0	15.33	15.30	15.39	3			6	0	15.20	15.33	15.22	3

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LTE Band 7																	
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	12.94	<b>12.97</b>	12.95	0	15M	QPSK	1	0	12.89	12.87	12.90	0		
		1	50	12.92	12.95	12.93	0			1	37	12.82	12.86	12.92	0		
		1	99	12.90	12.93	12.91	0			1	74	12.84	12.84	12.86	0		
		50	0	11.93	<b>11.96</b>	11.94	1			36	0	11.90	11.92	11.87	1		
		50	25	11.91	11.94	11.92	1			36	19	11.81	11.91	11.92	1		
		50	50	11.88	11.91	11.89	1			36	39	11.82	11.89	11.84	1		
		100	0	11.90	<b>11.93</b>	11.91	1			75	0	11.82	11.87	11.86	1		
	16QAM	1	0	11.99	10.98	12.00	1		16QAM	1	0	11.99	10.94	11.98	1		
		1	50	11.97	12.00	11.98	1			1	37	11.93	11.93	11.96	1		
		1	99	11.95	11.98	11.96	1			1	74	11.93	11.96	11.96	1		
		50	0	10.98	10.95	10.99	2			36	0	10.94	10.93	10.95	2		
		50	25	10.96	10.99	10.97	2			36	19	10.94	10.92	10.97	2		
		50	50	10.93	10.96	10.94	2			36	39	10.90	10.88	10.94	2		
		100	0	10.95	10.98	10.96	2			75	0	10.95	10.88	10.90	2		
	64QAM	1	0	10.97	10.95	10.98	2		64QAM	1	0	10.93	10.95	10.97	2		
		1	50	10.95	10.98	10.96	2			1	37	10.95	10.90	10.88	2		
		1	99	10.93	10.96	10.94	2			1	74	10.88	10.90	10.86	2		
		50	0	9.96	9.99	9.97	3			36	0	9.95	9.99	9.90	3		
		50	25	9.94	9.97	9.95	3			36	19	9.86	9.96	9.89	3		
		50	50	9.91	9.94	9.92	3			36	39	9.84	9.88	9.82	3		
		100	0	9.93	9.96	9.94	3			75	0	9.93	9.87	9.91	3		
	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	12.80	12.79	12.80	0	5M	QPSK	1	0	12.82	12.89	12.64	0		
		1	24	12.71	12.83	12.71	0			1	12	12.84	12.78	12.72	0		
		1	49	12.84	12.78	12.85	0			1	24	12.66	12.78	12.60	0		
		25	0	11.71	11.77	11.82	1			12	0	11.80	11.74	11.67	1		
		25	12	11.77	11.73	11.78	1			12	6	11.73	11.81	11.68	1		
		25	25	11.83	11.76	11.80	1			12	13	11.66	11.69	11.85	1		
		50	0	11.76	11.87	11.74	1			25	0	11.87	11.80	11.59	1		
	16QAM	1	0	11.76	10.90	11.80	1		16QAM	1	0	11.92	10.90	11.94	1		
		1	24	11.80	11.80	11.79	1			1	12	11.80	11.84	11.83	1		
		1	49	11.83	11.98	11.82	1			1	24	11.80	11.74	11.80	1		
		25	0	10.86	10.76	10.87	2			12	0	10.95	10.87	10.80	2		
		25	12	10.81	10.90	10.88	2			12	6	10.87	10.77	10.87	2		
		25	25	10.77	10.81	10.78	2			12	13	10.88	10.78	10.82	2		
		50	0	10.76	10.78	10.96	2			25	0	10.83	10.89	10.71	2		
	64QAM	1	0	10.85	10.85	10.91	2		64QAM	1	0	10.89	10.86	10.87	2		
		1	24	10.90	10.93	10.80	2			1	12	10.78	10.87	10.81	2		
		1	49	10.79	10.78	10.82	2			1	24	10.72	10.86	10.75	2		
		25	0	9.89	9.91	9.75	3			12	0	9.89	9.79	9.86	3		
		25	12	9.79	9.81	9.74	3			12	6	9.83	9.85	9.78	3		
		25	25	9.78	9.83	9.89	3			12	13	9.77	9.82	9.84	3		
		50	0	9.81	9.77	9.91	3			25	0	9.76	9.88	9.70	3		



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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	17.92	17.93	17.97	0	5M	QPSK	1	0	17.83	17.83	17.93	0
		1	24	17.90	17.91	17.95	0			1	12	17.86	17.89	17.88	0
		1	49	17.88	17.89	17.93	0			1	24	17.78	17.79	17.87	0
		25	0	16.94	16.95	16.99	1			12	0	16.86	16.91	16.91	1
		25	12	16.90	16.91	16.95	1			12	6	16.87	16.84	16.93	1
		25	25	16.87	16.88	16.92	1			12	13	16.78	16.81	16.86	1
		50	0	16.86	16.87	16.91	1			25	0	16.86	16.87	16.85	1
	16QAM	1	0	16.97	16.98	16.98	1		16QAM	1	0	16.88	16.93	16.95	1
		1	24	16.95	16.96	16.99	1			1	12	16.92	16.91	17.00	1
		1	49	16.93	16.94	16.98	1			1	24	16.83	16.84	16.88	1
		25	0	15.99	16.00	15.95	2			12	0	15.99	15.90	15.96	2
		25	12	15.95	15.96	16.00	2			12	6	15.93	15.95	15.99	2
		25	25	15.92	15.93	15.97	2			12	13	15.84	15.87	15.97	2
		50	0	15.91	15.92	15.96	2			25	0	15.89	15.89	15.91	2
	64QAM	1	0	15.95	15.96	16.00	2		64QAM	1	0	15.85	15.95	15.91	2
		1	24	15.93	15.94	15.98	2			1	12	15.87	15.84	15.96	2
		1	49	15.91	15.92	15.96	2			1	24	15.88	15.87	15.88	2
		25	0	14.97	14.98	14.96	3			12	0	14.92	14.93	14.98	3
		25	12	14.93	14.94	14.98	3			12	6	14.88	14.93	14.95	3
		25	25	14.90	14.91	14.95	3			12	13	14.87	14.85	14.87	3
		50	0	14.89	14.90	14.94	3			25	0	14.84	14.80	14.86	3
3M	QPSK	1	0	17.84	17.72	17.84	0	1.4M	QPSK	1	0	17.84	17.80	17.78	0
		1	7	17.80	17.77	17.83	0			1	2	17.69	17.80	17.77	0
		1	14	17.71	17.72	17.88	0			1	5	17.83	17.73	17.90	0
		8	0	16.80	16.79	16.94	1			3	0	17.91	17.78	17.93	0
		8	3	16.79	16.80	16.91	1			3	1	17.72	17.82	17.87	0
		8	7	16.68	16.72	16.72	1			3	3	17.78	17.78	17.70	0
		15	0	16.73	16.69	16.74	1			6	0	16.84	16.79	16.76	1
	16QAM	1	0	16.83	16.90	16.86	1		16QAM	1	0	16.82	16.97	16.88	1
		1	7	16.77	16.77	16.84	1			1	2	16.77	16.75	16.87	1
		1	14	16.87	16.89	16.81	1			1	5	16.80	16.91	16.91	1
		8	0	15.84	15.84	15.88	2			3	0	16.85	16.96	16.93	1
		8	3	15.86	15.89	15.81	2			3	1	16.83	16.92	16.88	1
		8	7	15.81	15.87	15.83	2			3	3	16.77	16.80	16.86	1
		15	0	15.75	15.74	15.82	2			6	0	15.78	15.75	15.85	2
	64QAM	1	0	15.71	15.90	15.92	2		64QAM	1	0	15.86	15.86	15.89	2
		1	7	15.81	15.69	15.90	2			1	2	15.88	15.80	15.79	2
		1	14	15.72	15.80	15.88	2			1	5	15.74	15.87	15.91	2
		8	0	14.73	14.84	14.92	3			3	0	15.89	15.86	15.93	2
		8	3	14.92	14.79	14.85	3			3	1	15.75	15.75	15.80	2
		8	7	14.81	14.78	14.75	3			3	3	15.80	15.75	15.87	2
		15	0	14.74	14.75	14.83	3			6	0	14.77	14.81	14.82	3

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LTE Band 13																			
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								23230	Channel					23205	23230	23225	
		Frequency (MHz)								782.0	Frequency (MHz)					779.5	782.0	784.5	
10M	QPSK	1	0		18.48		0	5M	QPSK	1	0	18.40	18.43	18.36	0				
		1	24		18.46		0			1	12	18.38	18.41	18.34	0				
		1	49		18.45		0			1	24	18.37	18.40	18.33	0				
		25	0		17.47		1			12	0	17.39	17.42	17.35	1				
		25	12		17.44		1			12	6	17.36	17.39	17.32	1				
		25	25		17.43		1			12	13	17.35	17.38	17.31	1				
		50	0		17.45		1			25	0	17.37	17.40	17.33	1				
	16QAM	1	0		17.47		1		1	0	17.39	17.42	17.35	1					
		1	24		17.45		1		1	12	17.37	17.40	17.33	1					
		1	49		17.44		1		1	24	17.36	17.39	17.32	1					
		25	0		16.46		2		12	0	16.38	16.41	16.34	2					
		25	12		16.43		2		12	6	16.35	16.38	16.31	2					
		25	25		16.42		2		12	13	16.34	16.37	16.30	2					
		50	0		16.44		2		25	0	16.36	16.39	16.32	2					
	64QAM	1	0		16.45		2		1	0	16.37	16.40	16.33	2					
		1	24		16.43		2		1	12	16.35	16.38	16.31	2					
		1	49		16.42		2		1	24	16.34	16.37	16.30	2					
		25	0		15.44		3		12	0	15.36	15.39	15.32	3					
		25	12		15.41		3		12	6	15.33	15.36	15.29	3					
		25	25		15.40		3		12	13	15.32	15.35	15.28	3					
		50	0		15.42		3		25	0	15.34	15.37	15.30	3					

LTE Band 14																			
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								23330	Channel					23305	23330	23355	
		Frequency (MHz)								793.0	Frequency (MHz)					790.5	793.0	795.5	
10M	QPSK	1	0		20.47		0	5M	QPSK	1	0	20.37	20.42	20.34	0				
		1	24		20.45		0			1	12	20.35	20.40	20.32	0				
		1	49		20.43		0			1	24	20.33	20.38	20.30	0				
		25	0		19.49		1			12	0	19.39	19.44	19.36	1				
		25	12		19.47		1			12	6	19.37	19.42	19.34	1				
		25	25		19.45		1			12	13	19.35	19.40	19.32	1				
		50	0		19.42		1			25	0	19.32	19.37	19.29	1				
	16QAM	1	0		19.46		1		1	0	19.36	19.41	19.33	1					
		1	24		19.44		1		1	12	19.34	19.39	19.31	1					
		1	49		19.42		1		1	24	19.32	19.37	19.29	1					
		25	0		18.48		2		12	0	18.38	18.43	18.35	2					
		25	12		18.46		2		12	6	18.36	18.41	18.33	2					
		25	25		18.44		2		12	13	18.34	18.39	18.31	2					
		50	0		18.41		2		25	0	18.31	18.36	18.28	2					
	64QAM	1	0		18.44		2		1	0	18.34	18.39	18.31	2					
		1	24		18.42		2		1	12	18.32	18.37	18.29	2					
		1	49		18.40		2		1	24	18.30	18.35	18.27	2					
		25	0		17.46		3		12	0	17.36	17.41	17.33	3					
		25	12		17.44		3		12	6	17.34	17.39	17.31	3					
		25	25		17.42		3		12	13	17.32	17.37	17.29	3					
		50	0		17.39		3		25	0	17.29	17.34	17.26	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	17.89	17.95	17.98	0	5M	QPSK	1	0	17.86	17.90	17.94	0
		1	24	17.85	17.91	17.94	0			1	12	17.84	17.81	17.94	0
		1	49	17.82	17.88	17.91	0			1	24	17.76	17.80	17.83	0
		25	0	16.90	16.96	16.99	1			12	0	16.89	16.91	16.99	1
		25	12	16.89	16.95	16.98	1			12	6	16.79	16.86	16.89	1
		25	25	16.87	16.93	16.96	1			12	13	16.77	16.88	16.92	1
		50	0	16.86	16.92	16.95	1			25	0	16.82	16.91	16.89	1
	16QAM	1	0	16.87	16.93	16.96	1		16QAM	1	0	16.77	16.92	16.91	1
		1	24	16.83	16.89	16.92	1			1	12	16.81	16.86	16.89	1
		1	49	16.80	16.86	16.89	1			1	24	16.74	16.81	16.87	1
		25	0	15.88	15.94	15.97	2			12	0	15.85	15.91	15.97	2
		25	12	15.87	15.93	15.96	2			12	6	15.86	15.90	15.90	2
		25	25	15.85	15.91	15.94	2			12	13	15.85	15.84	15.86	2
		50	0	15.84	15.90	15.93	2			25	0	15.78	15.84	15.83	2
	64QAM	1	0	15.85	15.91	15.94	2		64QAM	1	0	15.79	15.84	15.94	2
		1	24	15.81	15.87	15.90	2			1	12	15.79	15.77	15.86	2
		1	49	15.78	15.84	15.87	2			1	24	15.69	15.82	15.87	2
		25	0	14.86	14.92	14.95	3			12	0	14.83	14.82	14.88	3
		25	12	14.85	14.91	14.94	3			12	6	14.85	14.91	14.92	3
		25	25	14.83	14.89	14.92	3			12	13	14.75	14.79	14.92	3
		50	0	14.82	14.88	14.91	3			25	0	14.76	14.82	14.88	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	14.98	14.95	14.92	0	15M	QPSK	1	0	14.89	14.87	14.85	0
		1	50	14.94	14.91	14.88	0			1	37	14.91	14.88	14.86	0
		1	99	14.92	14.89	14.86	0			1	74	14.83	14.86	14.82	0
		50	0	13.99	13.98	13.95	1			36	0	13.92	13.94	13.95	1
		50	25	13.95	13.92	13.89	1			36	19	13.85	13.92	13.82	1
		50	50	13.94	13.91	13.88	1			36	39	13.86	13.87	13.79	1
	100	0	13.97	13.94	13.91	1	75		0	13.95	13.85	13.81	1		
	16QAM	1	0	13.96	13.93	13.90	1		16QAM	1	0	13.89	13.91	13.85	1
		1	50	13.92	13.89	13.86	1			1	37	13.82	13.80	13.77	1
		1	99	13.90	13.87	13.84	1			1	74	13.88	13.84	13.78	1
		50	0	12.99	12.96	12.93	2			36	0	12.97	12.96	12.86	2
		50	25	12.93	12.90	12.87	2			36	19	12.92	12.84	12.78	2
		50	50	12.92	12.89	12.86	2			36	39	12.83	12.87	12.81	2
	100	0	12.95	12.92	12.89	2	75		0	12.94	12.83	12.85	2		
	64QAM	1	0	12.94	12.91	12.88	2		64QAM	1	0	12.85	12.86	12.79	2
		1	50	12.90	12.87	12.84	2			1	37	12.84	12.81	12.74	2
		1	99	12.88	12.85	12.82	2			1	74	12.85	12.83	12.77	2
		50	0	11.97	11.94	11.91	3			36	0	11.94	11.88	11.90	3
50		25	11.91	11.88	11.85	3	36	19		11.84	11.83	11.78	3		
50		50	11.90	11.87	11.84	3	36	39		11.82	11.84	11.76	3		
100	0	11.93	11.90	11.87	3	75	0	11.84	11.87	11.87	3				
10M	QPSK	1	0	14.90	14.83	14.81	0	5M	QPSK	1	0	14.86	14.81	14.66	0
		1	24	14.85	14.79	14.85	0			1	12	14.86	14.82	14.65	0
		1	49	14.77	14.76	14.81	0			1	24	14.84	14.70	14.68	0
		25	0	13.82	13.91	13.87	1			12	0	13.89	13.79	13.72	1
		25	12	13.82	13.77	13.80	1			12	6	13.87	13.86	13.74	1
		25	25	13.81	13.81	13.85	1			12	13	13.81	13.86	13.76	1
	50	0	13.74	13.84	13.76	1	25		0	13.90	13.90	13.68	1		
	16QAM	1	0	13.91	13.80	13.81	1		16QAM	1	0	13.81	13.76	13.75	1
		1	24	13.84	13.76	13.79	1			1	12	13.75	13.72	13.81	1
		1	49	13.74	13.71	13.63	1			1	24	13.78	13.71	13.77	1
		25	0	12.95	12.81	12.85	2			12	0	12.93	12.75	12.86	2
		25	12	12.82	12.69	12.76	2			12	6	12.74	12.88	12.83	2
		25	25	12.76	12.68	12.78	2			12	13	12.79	12.68	12.84	2
	50	0	12.84	12.74	12.72	2	25		0	12.72	12.82	12.85	2		
	64QAM	1	0	12.81	12.81	12.78	2		64QAM	1	0	12.77	12.83	12.82	2
		1	24	12.73	12.70	12.81	2			1	12	12.74	12.70	12.69	2
		1	49	12.68	12.68	12.73	2			1	24	12.66	12.73	12.71	2
		25	0	11.89	11.88	11.84	3			12	0	11.79	11.76	11.87	3
25		12	11.77	11.79	11.69	3	12	6		11.74	11.84	11.75	3		
25		25	11.84	11.70	11.72	3	12	13		11.78	11.70	11.60	3		
50	0	11.71	11.69	11.74	3	25	0	11.81	11.79	11.76	3				
3M	QPSK	1	0	14.76	14.75	14.78	0	1.4M	QPSK	1	0	14.88	14.79	14.81	0
		1	7	14.75	14.81	14.75	0			1	2	14.76	14.69	14.75	0
		1	14	14.86	14.88	14.79	0			1	5	14.72	14.84	14.61	0
		8	0	13.82	13.85	13.86	1			3	0	14.79	14.73	14.83	0
		8	3	13.83	13.79	13.83	1			3	1	14.76	14.77	14.78	0
		8	7	13.85	13.78	13.66	1			3	3	14.87	14.70	14.77	0
	15	0	13.80	13.80	13.76	1	6		0	13.85	13.89	13.75	1		
	16QAM	1	0	13.77	13.85	13.86	1		16QAM	1	0	13.77	13.77	13.82	1
		1	7	13.85	13.77	13.73	1			1	2	13.73	13.76	13.68	1
		1	14	13.87	13.79	13.68	1			1	5	13.69	13.79	13.72	1
		8	0	12.95	12.94	12.71	2			3	0	13.92	13.81	13.76	1
		8	3	12.87	12.77	12.72	2			3	1	13.86	13.77	13.66	1
		8	7	12.76	12.68	12.76	2			3	3	13.84	13.81	13.74	1
	15	0	12.79	12.85	12.69	2	6		0	12.85	12.87	12.87	2		
	64QAM	1	0	12.94	12.79	12.79	2		64QAM	1	0	12.83	12.78	12.79	2
		1	7	12.74	12.67	12.78	2			1	2	12.75	12.77	12.70	2
		1	14	12.71	12.76	12.69	2			1	5	12.66	12.69	12.59	2
		8	0	11.79	11.83	11.88	3			3	0	12.86	12.75	12.84	2
8		3	11.79	11.78	11.70	3	3	1		12.75	12.66	12.72	2		
8		7	11.75	11.77	11.65	3	3	3		12.73	12.67	12.73	2		
15	0	11.84	11.82	11.72	3	6	0	11.80	11.81	11.77	3				

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LTE Band 26																	
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	19.44	19.49	19.41	0	10M	QPSK	1	0	19.40	19.39	19.36	0		
		1	37	19.42	19.47	19.39	0			1	24	19.33	19.43	19.36	0		
		1	74	19.36	19.41	19.33	0			1	49	19.26	19.31	19.25	0		
		36	0	18.43	18.48	18.40	1			25	0	18.36	18.42	18.34	1		
		36	19	18.38	18.43	18.35	1			25	12	18.37	18.42	18.34	1		
		36	39	18.36	18.41	18.33	1			25	25	18.27	18.33	18.33	1		
		75	0	18.40	18.45	18.37	1			50	0	18.32	18.39	18.36	1		
	16QAM	1	0	18.41	18.46	18.38	1		16QAM	1	0	18.39	18.40	18.30	1		
		1	37	18.39	18.44	18.36	1			1	24	18.31	18.42	18.28	1		
		1	74	18.33	18.38	18.30	1			1	49	18.28	18.30	18.28	1		
		36	0	17.40	17.45	17.37	2			25	0	17.40	17.36	17.29	2		
		36	19	17.35	17.40	17.32	2			25	12	17.31	17.38	17.28	2		
		36	39	17.33	17.38	17.30	2			25	25	17.24	17.37	17.30	2		
		75	0	17.37	17.42	17.34	2			50	0	17.37	17.34	17.33	2		
	64QAM	1	0	17.39	17.44	17.36	2		64QAM	1	0	17.30	17.40	17.26	2		
		1	37	17.37	17.42	17.34	2			1	24	17.31	17.33	17.24	2		
		1	74	17.31	17.36	17.28	2			1	49	17.26	17.28	17.24	2		
		36	0	16.38	16.43	16.35	3			25	0	16.29	16.42	16.29	3		
		36	19	16.33	16.38	16.30	3			25	12	16.25	16.29	16.28	3		
		36	39	16.31	16.36	16.28	3			25	25	16.28	16.35	16.26	3		
		75	0	16.35	16.40	16.32	3			50	0	16.35	16.34	16.25	3		
5M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	3M	QPSK	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			
		QPSK	1	0	19.32	19.29	19.32			0	QPSK	1	0	19.40	19.38	19.30	0
			1	12	19.35	19.28	19.36			0		1	7	19.27	19.38	19.30	0
			1	24	19.35	19.26	19.15			0		1	14	19.31	19.38	19.28	0
			12	0	18.25	18.37	18.29			1		8	0	18.27	18.30	18.26	1
	12		6	18.20	18.33	18.34	1		8	3		18.18	18.24	18.26	1		
	12		13	18.24	18.28	18.23	1		8	7		18.22	18.32	18.23	1		
	25		0	18.25	18.38	18.29	1		15	0		18.35	18.36	18.24	1		
	16QAM	1	0	18.38	18.36	18.31	1		16QAM	1	0	18.31	18.36	18.14	1		
		1	12	18.29	18.31	18.16	1			1	7	18.20	18.37	18.16	1		
		1	24	18.18	18.27	18.21	1			1	14	18.22	18.15	18.16	1		
		12	0	17.24	17.28	17.30	2			8	0	17.36	17.33	17.29	2		
		12	6	17.19	17.23	17.08	2			8	3	17.14	17.27	17.11	2		
		12	13	17.18	17.20	17.25	2			8	7	17.28	17.30	17.22	2		
		25	0	17.28	17.30	17.25	2			15	0	17.25	17.24	17.14	2		
	64QAM	1	0	17.18	17.29	17.22	2		64QAM	1	0	17.20	17.28	17.17	2		
		1	12	17.24	17.30	17.26	2			1	7	17.18	17.29	17.12	2		
		1	24	17.24	17.22	17.22	2			1	14	17.16	17.19	17.11	2		
		12	0	16.23	16.36	16.24	3			8	0	16.26	16.29	16.30	3		
12		6	16.19	16.24	16.19	3	8	3		16.13	16.26	16.16	3				
12		13	16.08	16.17	16.27	3	8	7		16.21	16.24	16.11	3				
25		0	16.12	16.29	16.10	3	15	0		16.13	16.31	16.11	3				
1.4M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	<div style="border: 2px solid black; width: 100%; height: 100%; transform: rotate(45deg);"></div>									
		Channel		26697	26865	27033											
		Frequency (MHz)		814.7	831.5	848.3											
		QPSK	1	0	19.27	19.46	19.29								0		
			1	2	19.31	19.26	19.25								0		
			1	5	19.18	19.32	19.18								0		
			3	0	19.39	19.33	19.26								0		
	3		1	19.19	19.35	19.18	0										
	3		3	19.20	19.37	19.26	0										
	6		0	18.34	18.27	18.26	1										
	16QAM	1	0	18.29	18.22	18.23	1										
		1	2	18.24	18.35	18.26	1										
		1	5	18.16	18.34	18.22	1										
		3	0	18.19	18.33	18.22	1										
		3	1	18.25	18.27	18.18	1										
		3	3	18.13	18.30	18.22	1										
		6	0	17.27	17.32	17.23	2										
	64QAM	1	0	17.22	17.30	17.28	2										
		1	2	17.29	17.21	17.15	2										
		1	5	17.18	17.30	17.20	2										
		3	0	17.24	17.29	17.22	2										
3		1	17.26	17.33	17.13	2											
3		3	17.16	17.22	17.12	2											
6		0	16.20	16.33	16.29	3											

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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		12.47		0	5M	QPSK	1	0	12.41	12.47	12.39	0
		1	24		12.43		0			1	12	12.37	12.43	12.35	0
		1	49		12.41		0			1	24	12.35	12.41	12.33	0
		25	0		11.49		1			12	0	11.43	11.49	11.41	1
		25	12		11.48		1			12	6	11.42	11.48	11.40	1
		25	25		11.46		1			12	13	11.40	11.46	11.38	1
	50	0		11.47		1	25		0	11.41	11.47	11.39	1		
	16QAM	1	0		11.44		1		16QAM	1	0	11.38	11.44	11.36	1
		1	24		11.40		1			1	12	11.34	11.40	11.32	1
		1	49		11.38		1			1	24	11.32	11.38	11.30	1
		25	0		10.46		2			12	0	10.40	10.46	10.38	2
		25	12		10.45		2			12	6	10.39	10.45	10.37	2
		25	25		10.43		2			12	13	10.37	10.43	10.35	2
	50	0		10.44		2	25		0	10.38	10.44	10.36	2		
	64QAM	1	0		10.42		2		64QAM	1	0	10.36	10.42	10.34	2
		1	24		10.38		2			1	12	10.32	10.38	10.30	2
		1	49		10.36		2			1	24	10.30	10.36	10.28	2
		25	0		9.44		3			12	0	9.38	9.44	9.36	3
		25	12		9.43		3			12	6	9.37	9.43	9.35	3
		25	25		9.41		3			12	13	9.35	9.41	9.33	3
	50	0		9.42		3	25		0	9.36	9.42	9.34	3		

LTE Band 38																	
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	16.47	16.43	16.42	0	15M	QPSK	1	0	16.46	16.33	16.39	0		
		1	50	16.46	16.42	16.41	0			1	37	16.38	16.42	16.40	0		
		1	99	16.43	16.39	16.38	0			1	74	16.38	16.38	16.38	0		
		50	0	15.49	15.47	15.46	1			36	0	15.45	15.41	15.42	1		
		50	25	15.47	15.43	15.42	1			36	19	15.45	15.43	15.36	1		
		50	50	15.45	15.41	15.40	1			36	39	15.37	15.31	15.40	1		
	100	0	15.49	15.45	15.44	1	75		0	15.46	15.37	15.43	1				
	16QAM	1	0	15.44	15.40	15.39	1		16QAM	1	0	15.39	15.37	15.31	1		
		1	50	15.43	15.39	15.38	1			1	37	15.39	15.35	15.29	1		
		1	99	15.40	15.36	15.35	1			1	74	15.38	15.35	15.29	1		
		50	0	14.48	14.44	14.43	2			36	0	14.46	14.42	14.43	2		
		50	25	14.44	14.40	14.39	2			36	19	14.43	14.32	14.30	2		
		50	50	14.42	14.38	14.37	2			36	39	14.39	14.38	14.36	2		
	100	0	14.46	14.42	14.41	2	75		0	14.36	14.37	14.32	2				
	64QAM	1	0	14.42	14.38	14.37	2		64QAM	1	0	14.32	14.38	14.27	2		
		1	50	14.41	14.37	14.36	2			1	37	14.37	14.34	14.27	2		
		1	99	14.38	14.34	14.33	2			1	74	14.37	14.32	14.29	2		
		50	0	13.46	13.42	13.41	3			36	0	13.44	13.41	13.34	3		
		50	25	13.42	13.38	13.37	3			36	19	13.39	13.30	13.34	3		
		50	50	13.40	13.36	13.35	3			36	39	13.39	13.29	13.28	3		
	100	0	13.44	13.40	13.39	3	75		0	13.35	13.36	13.29	3				
	10M	QPSK	1	0	16.32	16.24	16.23		0	5M	QPSK	1	0	16.39	16.40	16.36	0
			1	24	16.39	16.30	16.13		0			1	12	16.29	16.29	16.31	0
			1	49	16.30	16.29	16.18		0			1	24	16.35	16.19	16.30	0
25			0	15.42	15.30	15.31	1	12	0			15.37	15.37	15.40	1		
25			12	15.38	15.27	15.19	1	12	6			15.47	15.24	15.31	1		
25			25	15.38	15.29	15.20	1	12	13			15.30	15.38	15.28	1		
50		0	15.36	15.33	15.31	1	25	0	15.45		15.32	15.34	1				
16QAM		1	0	15.34	15.22	15.33	1	16QAM	1		0	15.34	15.28	15.15	1		
		1	24	15.23	15.30	15.20	1		1		12	15.28	15.25	15.30	1		
		1	49	15.24	15.17	15.26	1		1		24	15.25	15.21	15.23	1		
		25	0	14.32	14.33	14.41	2		12		0	14.44	14.19	14.28	2		
		25	12	14.21	14.26	14.21	2		12		6	14.36	14.22	14.26	2		
		25	25	14.21	14.18	14.20	2		12		13	14.33	14.26	14.21	2		
50		0	14.32	14.29	14.18	2	25	0	14.36		14.38	14.41	2				
64QAM		1	0	14.39	14.29	14.17	2	64QAM	1		0	14.26	14.23	14.19	2		
		1	24	14.22	14.28	14.22	2		1		12	14.37	14.29	14.18	2		
		1	49	14.31	14.28	14.22	2		1		24	14.28	14.09	14.23	2		
		25	0	13.26	13.37	13.25	3		12		0	13.28	13.36	13.27	3		
		25	12	13.29	13.23	13.21	3		12		6	13.23	13.23	13.33	3		
		25	25	13.27	13.13	13.15	3		12		13	13.40	13.14	13.25	3		
50		0	13.39	13.30	13.29	3	25	0	13.36		13.21	13.29	3				

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## LTE Band 41

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		39750	40185	40620	41055	41490				Channel		39725	40173	40620	41068	41515	
		Frequency (MHz)		2506.0	2549.5	2593.0	2636.5	2680.0				Frequency (MHz)		2503.5	2548.3	2593.0	2637.8	2682.5	
20M	QPSK	1	0	14.47	14.49	14.43	14.41	14.38	0	15M	QPSK	1	0	14.44	14.46	14.40	14.38	14.35	0
		1	50	14.41	14.43	14.37	14.35	14.32	0			1	37	14.38	14.40	14.34	14.32	14.29	0
		1	99	14.37	14.39	14.33	14.31	14.28	0			1	74	14.34	14.36	14.30	14.28	14.25	0
		50	0	13.45	13.47	13.41	13.39	13.36	1			36	0	13.42	13.44	13.38	13.36	13.33	1
		50	25	13.43	13.45	13.39	13.37	13.34	1			36	19	13.40	13.42	13.36	13.34	13.31	1
		50	50	13.39	13.41	13.35	13.33	13.30	1			36	39	13.36	13.38	13.32	13.30	13.27	1
	16QAM	100	0	13.41	13.43	13.37	13.35	13.32	1		75	0	13.38	13.40	13.34	13.32	13.29	1	
		1	0	13.45	13.47	13.41	13.39	13.36	1		16QAM	1	0	13.42	13.44	13.38	13.36	13.33	1
		1	50	13.39	13.41	13.35	13.33	13.30	1			1	37	13.36	13.38	13.32	13.30	13.27	1
		1	99	13.35	13.37	13.31	13.29	13.26	1			1	74	13.32	13.34	13.28	13.26	13.23	1
		50	0	12.43	12.45	12.39	12.37	12.34	2			36	0	12.40	12.42	12.36	12.34	12.31	2
		50	25	12.41	12.43	12.37	12.35	12.32	2			36	19	12.38	12.40	12.34	12.32	12.29	2
	50	50	12.37	12.39	12.33	12.31	12.28	2	36			39	12.34	12.36	12.30	12.28	12.25	2	
	64QAM	100	0	12.39	12.41	12.35	12.33	12.30	2		75	0	12.36	12.38	12.32	12.30	12.27	2	
		1	0	12.47	12.49	12.43	12.41	12.38	2		64QAM	1	0	12.44	12.46	12.40	12.38	12.35	2
		1	50	12.41	12.43	12.37	12.35	12.32	2			1	37	12.38	12.40	12.34	12.32	12.29	2
		1	99	12.37	12.39	12.33	12.31	12.28	2			1	74	12.34	12.36	12.30	12.28	12.25	2
		50	0	11.45	11.47	11.41	11.39	11.36	3			36	0	11.42	11.44	11.38	11.36	11.33	3
50		25	11.43	11.45	11.39	11.37	11.34	3	36	19		11.40	11.42	11.36	11.34	11.31	3		
50	50	11.39	11.41	11.35	11.33	11.30	3	36	39	11.36		11.38	11.32	11.30	11.27	3			
10M	QPSK	100	0	11.41	11.43	11.37	11.35	11.32	3	75	0	11.38	11.40	11.34	11.32	11.29	3		
		1	0	14.39	14.41	14.35	14.33	14.30	0	5M	QPSK	1	0	14.35	14.37	14.31	14.29	14.26	0
		1	24	14.33	14.35	14.29	14.27	14.24	0			1	12	14.29	14.31	14.25	14.23	14.20	0
		1	49	14.29	14.31	14.25	14.23	14.20	0			1	24	14.25	14.27	14.21	14.19	14.16	0
		25	0	13.37	13.39	13.33	13.31	13.28	1			12	0	13.33	13.35	13.29	13.27	13.24	1
		25	12	13.35	13.37	13.31	13.29	13.26	1			12	6	13.31	13.33	13.27	13.25	13.22	1
	25	25	13.31	13.33	13.27	13.25	13.22	1	12			13	13.27	13.29	13.23	13.21	13.18	1	
	16QAM	50	0	13.33	13.35	13.29	13.27	13.24	1		25	0	13.29	13.31	13.25	13.23	13.20	1	
		1	0	13.37	13.39	13.33	13.31	13.28	1		16QAM	1	0	13.33	13.35	13.29	13.27	13.24	1
		1	24	13.31	13.33	13.27	13.25	13.22	1			1	12	13.27	13.29	13.23	13.21	13.18	1
		1	49	13.27	13.29	13.23	13.21	13.18	1			1	24	13.23	13.25	13.19	13.17	13.14	1
		25	0	12.35	12.37	12.31	12.29	12.26	2			12	0	12.31	12.33	12.27	12.25	12.22	2
		25	12	12.33	12.35	12.29	12.27	12.24	2			12	6	12.29	12.31	12.25	12.23	12.20	2
	25	25	12.29	12.31	12.25	12.23	12.20	2	12			13	12.25	12.27	12.21	12.19	12.16	2	
	64QAM	50	0	12.31	12.33	12.27	12.25	12.22	2		25	0	12.27	12.29	12.23	12.21	12.18	2	
		1	0	12.39	12.41	12.35	12.33	12.30	2		64QAM	1	0	12.35	12.37	12.31	12.29	12.26	2
		1	24	12.33	12.35	12.29	12.27	12.24	2			1	12	12.29	12.31	12.25	12.23	12.20	2
		1	49	12.29	12.31	12.25	12.23	12.20	2			1	24	12.25	12.27	12.21	12.19	12.16	2
25		0	11.37	11.39	11.33	11.31	11.28	3	12			0	11.33	11.35	11.29	11.27	11.24	3	
25		12	11.35	11.37	11.31	11.29	11.26	3	12	6		11.31	11.33	11.27	11.25	11.22	3		
25	25	11.31	11.33	11.27	11.25	11.22	3	12	13	11.27		11.29	11.23	11.21	11.18	3			
50	0	11.33	11.35	11.29	11.27	11.24	3	25	0	11.29	11.31	11.25	11.23	11.20	3				

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LTE Band 66															
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	13.92	13.99	13.96	0	15M	QPSK	1	0	13.86	13.97	13.89	0
		1	50	13.88	13.95	13.92	0			1	37	13.78	13.90	13.85	0
		1	99	13.84	13.91	13.88	0			1	74	13.75	13.83	13.82	0
		50	0	12.91	12.98	12.95	1			36	0	12.83	12.98	12.86	1
		50	25	12.89	12.96	12.93	1			36	19	12.79	12.93	12.88	1
		50	50	12.85	12.92	12.89	1			36	39	12.85	12.91	12.79	1
	100	0	12.88	12.95	12.92	1	75		0	12.78	12.93	12.85	1		
	16QAM	1	0	12.89	12.96	12.93	1		16QAM	1	0	12.89	12.94	12.93	1
		1	50	12.85	12.92	12.89	1			1	37	12.79	12.83	12.88	1
		1	99	12.81	12.88	12.85	1			1	74	12.80	12.88	12.84	1
		50	0	11.88	11.95	11.92	2			36	0	11.85	11.89	11.91	2
		50	25	11.86	11.93	11.90	2			36	19	11.82	11.83	11.87	2
		50	50	11.82	11.89	11.86	2			36	39	11.75	11.89	11.78	2
	100	0	11.85	11.92	11.89	2	75		0	11.79	11.88	11.84	2		
	64QAM	1	0	11.87	11.94	11.91	2		64QAM	1	0	11.80	11.89	11.87	2
		1	50	11.83	11.90	11.87	2			1	37	11.77	11.87	11.80	2
		1	99	11.79	11.86	11.83	2			1	74	11.75	11.81	11.76	2
		50	0	10.86	10.93	10.90	3			36	0	10.77	10.89	10.82	3
50		25	10.84	10.91	10.88	3	36	19		10.81	10.81	10.88	3		
50		50	10.80	10.87	10.84	3	36	39		10.74	10.84	10.84	3		
100	0	10.83	10.90	10.87	3	75	0	10.76	10.82	10.87	3				
10M	QPSK	1	0	13.83	13.89	13.83	0	5M	QPSK	1	0	13.82	13.80	13.85	0
		1	24	13.78	13.92	13.75	0			1	12	13.77	13.87	13.81	0
		1	49	13.82	13.87	13.72	0			1	24	13.79	13.83	13.64	0
		25	0	12.87	12.76	12.89	1			12	0	12.73	12.88	12.79	1
		25	12	12.66	12.78	12.76	1			12	6	12.71	12.84	12.80	1
		25	25	12.67	12.73	12.80	1			12	13	12.77	12.75	12.67	1
	50	0	12.75	12.90	12.88	1	25		0	12.65	12.76	12.73	1		
	16QAM	1	0	12.70	12.87	12.83	1		16QAM	1	0	12.67	12.93	12.81	1
		1	24	12.69	12.80	12.81	1			1	12	12.75	12.70	12.85	1
		1	49	12.81	12.79	12.68	1			1	24	12.67	12.77	12.67	1
		25	0	11.67	11.76	11.73	2			12	0	11.78	11.77	11.70	2
		25	12	11.77	11.70	11.76	2			12	6	11.75	11.82	11.76	2
		25	25	11.72	11.78	11.75	2			12	13	11.66	11.79	11.74	2
	50	0	11.83	11.86	11.76	2	25		0	11.77	11.83	11.80	2		
	64QAM	1	0	11.76	11.85	11.83	2		64QAM	1	0	11.71	11.89	11.84	2
		1	24	11.79	11.73	11.76	2			1	12	11.63	11.87	11.75	2
		1	49	11.63	11.72	11.65	2			1	24	11.61	11.78	11.60	2
		25	0	10.64	10.88	10.68	3			12	0	10.75	10.86	10.76	3
25		12	10.66	10.81	10.87	3	12	6		10.66	10.74	10.73	3		
25		25	10.70	10.72	10.72	3	12	13		10.68	10.72	10.74	3		
50	0	10.72	10.78	10.81	3	25	0	10.78	10.79	10.83	3				
3M	QPSK	1	0	13.74	13.78	13.77	0	1.4M	QPSK	1	0	13.82	13.80	13.79	0
		1	7	13.83	13.86	13.73	0			1	2	13.75	13.76	13.85	0
		1	14	13.59	13.71	13.64	0			1	5	13.71	13.83	13.68	0
		8	0	12.80	12.88	12.77	1			3	0	13.73	13.93	13.77	0
		8	3	12.78	12.92	12.79	1			3	1	13.81	13.87	13.79	0
		8	7	12.85	12.83	12.75	1			3	3	13.65	13.76	13.74	0
	15	0	12.85	12.77	12.79	1	6		0	12.80	12.75	12.76	1		
	16QAM	1	0	12.74	12.87	12.81	1		16QAM	1	0	12.77	12.79	12.71	1
		1	7	12.63	12.79	12.75	1			1	2	12.76	12.88	12.83	1
		1	14	12.73	12.74	12.61	1			1	5	12.78	12.82	12.70	1
		8	0	11.77	11.88	11.75	2			3	0	12.87	12.86	12.84	1
		8	3	11.86	11.84	11.83	2			3	1	12.70	12.77	12.79	1
		8	7	11.75	11.71	11.75	2			3	3	12.72	12.81	12.76	1
	15	0	11.80	11.87	11.83	2	6		0	11.72	11.77	11.88	2		
	64QAM	1	0	11.68	11.74	11.84	2		64QAM	1	0	11.69	11.73	11.77	2
		1	7	11.79	11.74	11.75	2			1	2	11.64	11.74	11.75	2
		1	14	11.72	11.68	11.72	2			1	5	11.64	11.73	11.77	2
		8	0	10.76	10.84	10.85	3			3	0	11.79	11.72	11.85	2
8		3	10.64	10.81	10.80	3	3	1		11.80	11.84	11.70	2		
8		7	10.71	10.72	10.78	3	3	3		11.63	11.79	11.69	2		
15	0	10.77	10.71	10.74	3	6	0	10.72	10.82	10.81	3				



# FCC SAR Test Report

## <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	15.84	16.93	-
	6	2437	15.94	16.87	-
	11	2462	15.99	16.91	-
	12	2467	15.86	16.83	-
	13	2472	15.23	15.14	-
802.11g	1	2412	-	16.97	-
	6	2437	-	16.98	-
	11	2462	-	15.45	-
	12	2467	-	13.42	-
	13	2472	-	10.71	-
802.11n (HT20)	1	2412	-	16.97	-
	6	2437	-	16.98	-
	11	2462	-	15.45	-
	12	2467	-	13.32	-
	13	2472	-	10.68	-
802.11n (HT40)	3	2422	-	15.98	15.95
	6	2437	-	15.98	15.94
	9	2452	-	13.97	13.24
	10	2457	-	11.36	10.41
	11	2462	-	11.32	8.36

## <WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT80)	58	5290	14.99	16.93	14.94

## <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT80)	106	5530	-	16.99	14.94
	122	5610	-	16.95	14.86
	138	5690	-	16.93	14.98
802.11ac (VHT160)	114	5570	14.98	-	-

## <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	14.86	16.94	14.91

## <Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth BDR	0	2402	9.47
	39	2441	9.31
	78	2480	9.49
Bluetooth LE	0	2402	4.82
	19	2440	4.51
	39	2480	4.54

# FCC SAR Test Report

## Laptop Mode

Band Channel	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
	9262	9400	9538	1312	1413	1513	4132	4182	4233	
Frequency (MHz)	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6	
RMC 12.2K	23.35	<b>23.41</b>	23.31	23.61	<b>23.75</b>	23.69	23.37	<b>23.41</b>	23.35	-
HSDPA Subtest-1	22.75	22.81	22.71	22.71	22.85	22.79	22.52	22.56	22.50	0
HSDPA Subtest-2	22.72	22.78	22.68	22.67	22.81	22.75	22.47	22.51	22.45	0
HSDPA Subtest-3	22.26	22.32	22.22	22.28	22.42	22.36	21.97	22.01	21.95	0.5
HSDPA Subtest-4	22.21	22.27	22.17	22.25	22.39	22.33	21.91	21.95	21.89	0.5
DC-HSDPA Subtest-1	22.64	22.70	22.60	22.62	22.76	22.70	22.44	22.48	22.42	0
DC-HSDPA Subtest-2	22.61	22.67	22.57	22.58	22.72	22.66	22.39	22.43	22.37	0
DC-HSDPA Subtest-3	22.15	22.21	22.11	22.19	22.33	22.27	21.89	21.93	21.87	0.5
DC-HSDPA Subtest-4	22.10	22.16	22.06	22.16	22.30	22.24	21.83	21.87	21.81	0.5
HSUPA Subtest-1	22.51	22.57	22.47	22.67	22.81	22.75	22.67	22.71	22.65	0
HSUPA Subtest-2	20.69	20.75	20.65	20.68	20.82	20.76	20.45	20.49	20.43	2
HSUPA Subtest-3	21.65	21.71	21.61	21.63	21.77	21.71	21.18	21.22	21.16	1
HSUPA Subtest-4	20.85	20.91	20.81	20.79	20.93	20.87	20.57	20.61	20.55	2
HSUPA Subtest-5	22.75	22.81	22.71	22.80	22.94	22.88	22.75	22.79	22.73	0

# 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	22.85	22.83	22.88	0	15M	QPSK	1	0	22.76	22.78	22.78	0
		1	50	22.83	22.81	22.86	0			1	37	22.74	22.72	22.79	0
		1	99	22.82	22.80	22.85	0			1	74	22.79	22.79	22.84	0
		50	0	21.80	21.78	21.83	1			36	0	21.74	21.72	21.74	1
		50	25	21.79	21.77	21.82	1			36	19	21.72	21.70	21.77	1
		50	50	21.75	21.73	21.78	1			36	39	21.68	21.66	21.74	1
	100	0	21.78	21.76	21.81	1	75		0	21.69	21.75	21.81	1		
	16QAM	1	0	21.82	21.80	21.85	1		16QAM	1	0	21.73	21.75	21.81	1
		1	50	21.80	21.78	21.83	1			1	37	21.71	21.74	21.74	1
		1	99	21.79	21.77	21.82	1			1	74	21.75	21.70	21.82	1
		50	0	20.77	20.75	20.80	2			36	0	20.73	20.74	20.78	2
		50	25	20.76	20.74	20.79	2			36	19	20.67	20.68	20.76	2
		50	50	20.72	20.70	20.75	2			36	39	20.64	20.66	20.73	2
	100	0	20.75	20.73	20.78	2	75		0	20.66	20.65	20.77	2		
	64QAM	1	0	20.80	20.78	20.83	2		64QAM	1	0	20.75	20.77	20.79	2
		1	50	20.78	20.76	20.81	2			1	37	20.72	20.68	20.74	2
		1	99	20.77	20.75	20.80	2			1	74	20.71	20.74	20.70	2
		50	0	19.75	19.73	19.78	3			36	0	19.73	19.67	19.68	3
50		25	19.74	19.72	19.77	3	36	19		19.72	19.62	19.74	3		
50		50	19.70	19.68	19.73	3	36	39		19.67	19.66	19.71	3		
100	0	19.73	19.71	19.76	3	75	0	19.73	19.70	19.66	3				
10M	QPSK	1	0	22.76	22.74	22.76	0	5M	QPSK	1	0	22.69	22.73	22.63	0
		1	24	22.67	22.76	22.75	0			1	12	22.71	22.62	22.66	0
		1	49	22.80	22.63	22.70	0			1	24	22.70	22.73	22.56	0
		25	0	21.70	21.67	21.75	1			12	0	21.62	21.70	21.55	1
		25	12	21.66	21.59	21.70	1			12	6	21.58	21.53	21.59	1
		25	25	21.63	21.52	21.71	1			12	13	21.63	21.66	21.54	1
	50	0	21.62	21.54	21.61	1	25		0	21.58	21.58	21.65	1		
	16QAM	1	0	21.69	21.70	21.79	1		16QAM	1	0	21.75	21.69	21.70	1
		1	24	21.73	21.61	21.73	1			1	12	21.62	21.74	21.76	1
		1	49	21.61	21.65	21.66	1			1	24	21.73	21.54	21.61	1
		25	0	20.65	20.62	20.71	2			12	0	20.68	20.55	20.67	2
		25	12	20.68	20.62	20.62	2			12	6	20.60	20.67	20.58	2
		25	25	20.50	20.60	20.67	2			12	13	20.60	20.65	20.51	2
	50	0	20.52	20.63	20.69	2	25		0	20.63	20.69	20.70	2		
	64QAM	1	0	20.66	20.63	20.70	2		64QAM	1	0	20.64	20.62	20.79	2
		1	24	20.57	20.61	20.71	2			1	12	20.59	20.64	20.73	2
		1	49	20.68	20.70	20.77	2			1	24	20.67	20.65	20.69	2
		25	0	19.61	19.64	19.65	3			12	0	19.73	19.59	19.64	3
25		12	19.65	19.60	19.58	3	12	6		19.54	19.68	19.69	3		
25		25	19.64	19.60	19.72	3	12	13		19.60	19.54	19.69	3		
50	0	19.48	19.63	19.56	3	25	0	19.53	19.56	19.66	3				
3M	QPSK	1	0	22.83	22.77	22.74	0	1.4M	QPSK	1	0	22.81	22.71	22.70	0
		1	7	22.59	22.68	22.82	0			1	2	22.75	22.61	22.66	0
		1	14	22.73	22.71	22.64	0			1	5	22.57	22.68	22.71	0
		8	0	21.62	21.71	21.67	1			3	0	22.65	22.62	22.82	0
		8	3	21.70	21.69	21.65	1			3	1	22.65	22.61	22.74	0
		8	7	21.63	21.71	21.59	1			3	3	22.70	22.62	22.58	0
	15	0	21.60	21.57	21.64	1	6		0	21.71	21.57	21.79	1		
	16QAM	1	0	21.76	21.71	21.74	1		16QAM	1	0	21.60	21.75	21.72	1
		1	7	21.64	21.59	21.61	1			1	2	21.63	21.56	21.58	1
		1	14	21.75	21.59	21.78	1			1	5	21.69	21.65	21.71	1
		8	0	20.57	20.59	20.68	2			3	0	21.61	21.69	21.75	1
		8	3	20.73	20.64	20.67	2			3	1	21.64	21.59	21.69	1
		8	7	20.58	20.62	20.64	2			3	3	21.49	21.56	21.62	1
	15	0	20.53	20.62	20.69	2	6		0	20.56	20.54	20.68	2		
	64QAM	1	0	20.79	20.69	20.76	2		64QAM	1	0	20.70	20.66	20.68	2
		1	7	20.63	20.63	20.62	2			1	2	20.56	20.73	20.80	2
		1	14	20.61	20.60	20.71	2			1	5	20.66	20.65	20.75	2
		8	0	19.64	19.70	19.68	3			3	0	20.60	20.69	20.56	2
8		3	19.57	19.54	19.71	3	3	1		20.60	20.69	20.62	2		
8		7	19.49	19.58	19.55	3	3	3		20.65	20.59	20.53	2		
15	0	19.57	19.59	19.62	3	6	0	19.65	19.49	19.62	3				

# FCC SAR Test Report

LTE Band 4																	
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	23.37	<b>23.42</b>	23.33	0	15M	QPSK	1	0	23.33	23.37	23.28	0		
		1	50	23.34	23.39	23.30	0			1	37	23.24	23.37	23.26	0		
		1	99	23.32	23.37	23.28	0			1	74	23.24	23.36	23.24	0		
		50	0	22.33	<b>22.38</b>	22.29	1			36	0	22.30	22.36	22.25	1		
		50	25	22.31	22.36	22.27	1			36	19	22.26	22.35	22.17	1		
		50	50	22.27	22.32	22.23	1			36	39	22.22	22.23	22.20	1		
		100	0	22.22	<b>22.27</b>	22.18	1			75	0	22.12	22.22	22.18	1		
	16QAM	1	0	22.36	22.41	22.32	1		16QAM	1	0	22.26	22.33	22.29	1		
		1	50	22.33	22.38	22.29	1			1	37	22.27	22.31	22.19	1		
		1	99	22.31	22.36	22.27	1			1	74	22.24	22.26	22.18	1		
		50	0	21.32	21.37	21.28	2			36	0	21.28	21.29	21.26	2		
		50	25	21.30	21.35	21.26	2			36	19	21.23	21.29	21.20	2		
		50	50	21.26	21.31	21.22	2			36	39	21.23	21.24	21.18	2		
		100	0	21.21	21.26	21.17	2			75	0	21.13	21.17	21.10	2		
	64QAM	1	0	21.38	21.43	21.34	2		64QAM	1	0	21.31	21.33	21.28	2		
		1	50	21.35	21.40	21.31	2			1	37	21.29	21.35	21.23	2		
		1	99	21.33	21.38	21.29	2			1	74	21.29	21.34	21.26	2		
		50	0	20.34	20.39	20.30	3			36	0	20.25	20.38	20.25	3		
		50	25	20.32	20.37	20.28	3			36	19	20.32	20.27	20.25	3		
		50	50	20.28	20.33	20.24	3			36	39	20.22	20.33	20.15	3		
		100	0	20.23	20.28	20.19	3			75	0	20.13	20.19	20.16	3		
10M	QPSK	1	0	23.33	23.32	23.11	0	5M	QPSK	1	0	23.22	23.21	23.14	0		
		1	24	23.16	23.23	23.23	0			1	12	23.15	23.20	23.00	0		
		1	49	23.25	23.20	23.19	0			1	24	23.15	23.31	23.14	0		
		25	0	22.21	22.29	22.23	1			12	0	22.16	22.25	22.04	1		
		25	12	22.30	22.25	22.12	1			12	6	22.26	22.20	22.15	1		
		25	25	22.24	22.25	22.08	1			12	13	22.05	22.19	22.02	1		
		50	0	22.07	22.11	22.09	1			25	0	22.06	22.22	21.92	1		
	16QAM	1	0	22.23	22.37	22.25	1		16QAM	1	0	22.26	22.34	22.23	1		
		1	24	22.11	22.23	22.18	1			1	12	22.28	22.27	22.21	1		
		1	49	22.08	22.18	22.17	1			1	24	22.15	22.19	22.08	1		
		25	0	21.12	21.25	21.13	2			12	0	21.22	21.17	21.12	2		
		25	12	21.16	21.33	21.10	2			12	6	21.15	21.29	21.10	2		
		25	25	21.16	21.18	21.02	2			12	13	21.14	21.19	21.19	2		
		50	0	21.04	21.18	21.03	2			25	0	21.15	21.24	21.04	2		
	64QAM	1	0	21.19	<b>21.40</b>	21.26	2		64QAM	1	0	21.26	<b>21.33</b>	21.13	2		
		1	24	21.18	21.21	21.13	2			1	12	21.22	21.30	21.15	2		
		1	49	21.13	21.27	21.20	2			1	24	21.13	21.28	21.19	2		
		25	0	20.16	20.20	20.14	3			12	0	20.29	20.23	20.19	3		
		25	12	20.15	20.16	20.05	3			12	6	20.25	20.18	20.18	3		
		25	25	20.18	20.16	20.10	3			12	13	20.15	20.26	20.02	3		
		50	0	20.16	20.18	19.99	3			25	0	20.00	20.20	20.03	3		
3M	QPSK	1	0	23.16	23.23	23.17	0	1.4M	QPSK	1	0	23.33	23.29	23.18	0		
		1	7	23.29	23.28	23.14	0			1	2	23.34	23.27	23.25	0		
		1	14	23.19	23.26	23.25	0			1	5	23.27	23.15	23.20	0		
		8	0	22.16	22.14	22.18	1			3	0	23.08	23.30	23.25	0		
		8	3	22.12	22.21	22.21	1			3	1	23.19	23.21	23.27	0		
		8	7	22.26	22.24	22.04	1			3	3	23.10	23.23	23.08	0		
		15	0	22.17	22.14	22.06	1			6	0	21.98	22.13	22.04	1		
	16QAM	1	0	22.31	22.33	22.20	1		16QAM	1	0	22.32	22.34	22.24	1		
		1	7	22.09	22.25	22.18	1			1	2	22.19	22.31	22.23	1		
		1	14	22.26	22.26	22.23	1			1	5	22.22	22.22	22.22	1		
		8	0	21.09	21.24	21.17	2			3	0	22.26	22.30	22.18	1		
		8	3	21.17	21.26	21.19	2			3	1	22.27	22.29	22.17	1		
		8	7	21.07	21.15	21.08	2			3	3	22.12	22.17	22.12	1		
		15	0	21.05	21.08	21.01	2			6	0	21.09	21.13	21.04	2		
	64QAM	1	0	21.15	21.24	21.26	2		64QAM	1	0	21.26	<b>21.33</b>	21.19	2		
		1	7	21.21	21.22	21.22	2			1	2	21.28	21.28	21.22	2		
		1	14	21.19	21.29	21.16	2			1	5	21.19	21.16	21.11	2		
		8	0	20.22	20.30	20.10	3			3	0	21.25	21.28	21.12	2		
		8	3	20.22	20.18	20.22	3			3	1	21.17	21.21	21.12	2		
		8	7	20.17	20.11	20.02	3			3	3	21.10	21.19	21.04	2		
		15	0	20.04	20.10	20.14	3			6	0	20.10	20.13	20.03	3		

# FCC SAR Test Report

LTE Band 5																	
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	22.84	<b>22.93</b>	22.91	0	5M	QPSK	1	0	22.84	22.90	22.86	0		
		1	24	22.81	22.90	22.88	0			1	12	22.72	22.86	22.81	0		
		1	49	22.78	22.87	22.85	0			1	24	22.70	22.79	22.82	0		
		25	0	21.74	<b>21.83</b>	21.81	1			12	0	21.74	21.76	21.75	1		
		25	12	21.73	21.82	21.80	1			12	6	21.63	21.79	21.78	1		
		25	25	21.71	21.80	21.78	1			12	13	21.69	21.74	21.70	1		
		50	0	21.68	<b>21.77</b>	21.75	1			25	0	21.62	21.69	21.72	1		
	16QAM	1	0	21.83	<b>21.92</b>	21.90	1		16QAM	1	0	21.82	21.84	21.85	1		
		1	24	21.80	21.89	21.87	1			1	12	21.70	21.86	21.81	1		
		1	49	21.77	21.86	21.84	1			1	24	21.68	21.80	21.80	1		
		25	0	20.73	20.82	20.80	2			12	0	20.68	20.75	20.70	2		
		25	12	20.72	20.81	20.79	2			12	6	20.67	20.77	20.70	2		
		25	25	20.70	20.79	20.77	2			12	13	20.70	20.70	20.72	2		
		50	0	20.67	20.76	20.74	2			25	0	20.57	20.74	20.67	2		
	64QAM	1	0	20.85	<b>20.94</b>	20.92	2		64QAM	1	0	20.79	20.84	20.87	2		
		1	24	20.82	20.91	20.89	2			1	12	20.75	20.88	20.83	2		
		1	49	20.79	20.88	20.86	2			1	24	20.71	<b>20.88</b>	20.83	2		
		25	0	19.75	19.84	19.82	3			12	0	19.66	19.83	19.82	3		
		25	12	19.74	19.83	19.81	3			12	6	19.72	19.82	19.73	3		
		25	25	19.72	19.81	19.79	3			12	13	19.67	19.80	19.76	3		
		50	0	19.69	19.78	19.76	3			25	0	19.67	19.71	19.75	3		
	3M	QPSK	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	
QPSK			1	0	22.74	22.71	22.77	0	1.4M	QPSK	1	0	22.71	22.83	22.83	0	
			1	7	22.75	22.82	22.64	0			1	2	22.65	22.79	22.72	0	
			1	14	22.67	22.80	22.63	0			1	5	22.62	22.71	22.75	0	
			8	0	21.66	21.65	21.56	1			3	0	22.69	22.76	22.66	0	
			8	3	21.50	21.67	21.58	1			3	1	22.67	22.75	22.69	0	
			8	7	21.57	21.66	21.54	1			3	3	22.54	22.67	22.66	0	
			15	0	21.47	21.61	21.58	1			6	0	21.65	21.64	21.66	1	
		16QAM	1	0	21.69	21.75	21.90	1			16QAM	1	0	21.72	21.81	<b>21.82</b>	1
			1	7	21.59	21.82	21.73	1				1	2	21.74	21.77	21.77	1
			1	14	21.70	21.75	21.79	1				1	5	21.65	21.78	21.67	1
8			0	20.58	20.64	20.59	2	3		0		21.60	21.65	21.65	1		
8			3	20.52	20.72	20.61	2	3		1		21.58	21.76	21.58	1		
8			7	20.55	20.77	20.71	2	3		3		21.66	21.63	21.66	1		
15			0	20.57	20.55	20.50	2	6		0		20.50	20.62	20.56	2		
64QAM		1	0	20.62	20.85	<b>20.86</b>	2	64QAM		1	0	20.76	<b>20.88</b>	20.70	2		
		1	7	20.62	20.82	20.66	2			1	2	20.65	20.77	20.84	2		
		1	14	20.66	20.66	20.78	2			1	5	20.57	20.73	20.78	2		
		8	0	19.71	19.81	19.58	3			3	0	20.57	20.67	20.70	2		
		8	3	19.57	19.68	19.73	3			3	1	20.58	20.63	20.71	2		
		8	7	19.60	19.75	19.63	3			3	3	20.63	20.68	20.67	2		
		15	0	19.61	19.73	19.59	3			6	0	19.60	19.62	19.64	3		

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LTE Band 7																	
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	22.65	22.76	22.71	0	15M	QPSK	1	0	22.57	22.67	22.67	0		
		1	50	22.74	22.85	22.80	0			1	37	22.73	22.79	22.76	0		
		1	99	23.18	23.29	23.24	0			1	74	23.12	23.27	23.14	0		
		50	0	21.64	21.75	21.70	1			36	0	21.63	21.71	21.61	1		
		50	25	21.78	21.89	21.84	1			36	19	21.74	21.81	21.76	1		
		50	50	22.10	22.21	22.16	1			36	39	22.01	22.12	22.16	1		
		100	0	21.82	21.93	21.88	1			75	0	21.73	21.86	21.86	1		
	16QAM	1	0	21.63	21.74	21.69	1		16QAM	1	0	21.63	21.68	21.64	1		
		1	50	21.72	21.83	21.78	1			1	37	21.70	21.77	21.69	1		
		1	99	22.16	22.27	22.22	1			1	74	22.15	22.22	22.19	1		
		50	0	20.62	20.73	20.68	2			36	0	20.57	20.63	20.64	2		
		50	25	20.76	20.87	20.82	2			36	19	20.69	20.81	20.81	2		
		50	50	21.08	21.19	21.14	2			36	39	21.03	21.19	21.11	2		
		100	0	20.80	20.91	20.86	2			75	0	20.74	20.90	20.77	2		
	64QAM	1	0	20.65	20.76	20.71	2		64QAM	1	0	20.64	20.76	20.69	2		
		1	50	20.74	20.85	20.80	2			1	37	20.69	20.80	20.79	2		
		1	99	21.18	21.29	21.24	2			1	74	21.17	21.26	21.16	2		
		50	0	19.64	19.75	19.70	3			36	0	19.61	19.75	19.63	3		
		50	25	19.78	19.89	19.84	3			36	19	19.75	19.84	19.79	3		
		50	50	20.10	20.21	20.16	3			36	39	20.08	20.15	20.12	3		
		100	0	19.82	19.93	19.88	3			75	0	19.80	19.89	19.81	3		
	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	22.54	22.58	22.61	0	5M	QPSK	1	0	22.59	22.69	22.47	0		
		1	24	22.64	22.71	22.56	0			1	12	22.64	22.69	22.56	0		
		1	49	23.02	23.11	23.13	0			1	24	23.10	23.15	23.03	0		
		25	0	21.55	21.71	21.60	1			12	0	21.43	21.60	21.56	1		
		25	12	21.69	21.77	21.68	1			12	6	21.69	21.75	21.55	1		
		25	25	21.98	22.01	22.07	1			12	13	22.04	22.05	21.97	1		
		50	0	21.71	21.72	21.71	1			25	0	21.66	21.81	21.67	1		
	16QAM	1	0	21.53	21.65	21.58	1		16QAM	1	0	21.47	21.62	21.52	1		
		1	24	21.65	21.59	21.69	1			1	12	21.53	21.82	21.58	1		
		1	49	22.00	22.17	22.15	1			1	24	22.03	22.17	22.02	1		
		25	0	20.42	20.57	20.63	2			12	0	20.39	20.56	20.53	2		
		25	12	20.69	20.72	20.66	2			12	6	20.63	20.78	20.71	2		
		25	25	20.97	21.00	21.05	2			12	13	21.00	21.08	21.00	2		
		50	0	20.62	20.80	20.77	2			25	0	20.70	20.74	20.74	2		
	64QAM	1	0	20.60	20.52	20.56	2		64QAM	1	0	20.46	20.64	20.62	2		
		1	24	20.61	20.69	20.69	2			1	12	20.57	20.70	20.63	2		
		1	49	21.04	21.08	21.09	2			1	24	21.15	21.26	21.23	2		
		25	0	19.56	19.64	19.58	3			12	0	19.56	19.66	19.60	3		
		25	12	19.67	19.76	19.69	3			12	6	19.63	19.70	19.80	3		
		25	25	20.00	20.02	20.00	3			12	13	19.97	20.06	20.02	3		
		50	0	19.79	19.83	19.77	3			25	0	19.77	19.82	19.81	3		

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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	22.76	22.88	22.81	0	5M	QPSK	1	0	22.71	22.87	22.80	0		
		1	24	22.71	22.83	22.76	0			1	12	22.67	22.73	22.73	0		
		1	49	22.67	22.79	22.72	0			1	24	22.59	22.78	22.62	0		
		25	0	21.69	21.81	21.74	1			12	0	21.63	21.76	21.73	1		
		25	12	21.67	21.79	21.72	1			12	6	21.66	21.70	21.70	1		
		25	25	21.65	21.77	21.70	1			12	13	21.61	21.74	21.63	1		
	50	0	21.66	21.78	21.71	1	25		0	21.57	21.78	21.63	1				
	16QAM	1	0	21.74	21.86	21.79	1		16QAM	1	0	21.71	21.79	21.78	1		
		1	24	21.69	21.81	21.74	1			1	12	21.59	21.76	21.67	1		
		1	49	21.65	21.77	21.70	1			1	24	21.56	21.70	21.64	1		
		25	0	20.67	20.79	20.72	2			12	0	20.60	20.77	20.65	2		
		25	12	20.65	20.77	20.70	2			12	6	20.65	20.71	20.60	2		
		25	25	20.63	20.75	20.68	2			12	13	20.58	20.68	20.63	2		
	50	0	20.64	20.76	20.69	2	25		0	20.56	20.67	20.66	2				
	64QAM	1	0	20.76	20.88	20.81	2		64QAM	1	0	20.74	20.86	20.75	2		
		1	24	20.71	20.83	20.76	2			1	12	20.68	20.75	20.67	2		
		1	49	20.67	20.79	20.72	2			1	24	20.60	20.79	20.72	2		
		25	0	19.69	19.81	19.74	3			12	0	19.64	19.78	19.73	3		
		25	12	19.67	19.79	19.72	3			12	6	19.62	19.73	19.68	3		
		25	25	19.65	19.77	19.70	3			12	13	19.65	19.71	19.70	3		
	50	0	19.66	19.78	19.71	3	25		0	19.66	19.69	19.66	3				
	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		23025	23095	23165					Channel		23017	23095	23173	
			Frequency (MHz)		700.5	707.5	714.5					Frequency (MHz)		699.7	707.5	715.3	
3M	QPSK	1	0	22.60	22.73	22.67	0	1.4M	QPSK	1	0	22.62	22.67	22.71	0		
		1	7	22.60	22.71	22.65	0			1	2	22.58	22.69	22.68	0		
		1	14	22.48	22.72	22.64	0			1	5	22.55	22.63	22.64	0		
		8	0	21.55	21.64	21.56	1			3	0	22.60	22.69	22.58	0		
		8	3	21.52	21.67	21.58	1			3	1	22.58	22.69	22.53	0		
		8	7	21.57	21.70	21.67	1			3	3	22.50	22.64	22.56	0		
	15	0	21.45	21.60	21.60	1	6		0	21.45	21.54	21.60	1				
	16QAM	1	0	21.73	21.82	21.73	1		16QAM	1	0	21.59	21.80	21.62	1		
		1	7	21.46	21.70	21.64	1			1	2	21.59	21.73	21.59	1		
		1	14	21.50	21.76	21.61	1			1	5	21.48	21.62	21.61	1		
		8	0	20.44	20.55	20.69	2			3	0	21.56	21.66	21.54	1		
		8	3	20.46	20.58	20.65	2			3	1	21.56	21.57	21.58	1		
		8	7	20.55	20.66	20.59	2			3	3	21.47	21.61	21.52	1		
	15	0	20.43	20.65	20.53	2	6		0	20.64	20.56	20.54	2				
	64QAM	1	0	20.64	20.82	20.65	2		64QAM	1	0	20.61	20.68	20.65	2		
		1	7	20.58	20.70	20.73	2			1	2	20.56	20.65	20.57	2		
		1	14	20.55	20.66	20.49	2			1	5	20.49	20.62	20.65	2		
		8	0	19.64	19.62	19.62	3			3	0	20.61	20.74	20.66	2		
		8	3	19.62	19.67	19.67	3			3	1	20.47	20.76	20.53	2		
		8	7	19.61	19.62	19.62	3			3	3	20.50	20.52	20.53	2		
	15	0	19.56	19.66	19.56	3	6		0	19.51	19.65	19.64	3				

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LTE Band 13																			
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								23230	Channel					23205	23230	23225	
		Frequency (MHz)								782.0	Frequency (MHz)					779.5	782.0	784.5	
10M	QPSK	1	0		22.68		0	5M	QPSK	1	0	22.56	22.63	22.54	0				
		1	24		22.75		0			1	12	22.63	22.70	22.61	0				
		1	49		22.83		0			1	24	22.71	22.78	22.69	0				
		25	0		21.74		1			12	0	21.62	21.69	21.60	1				
		25	12		21.76		1			12	6	21.64	21.71	21.62	1				
		25	25		21.89		1			12	13	21.77	21.84	21.75	1				
		50	0		21.82		1			25	0	21.70	21.77	21.68	1				
	16QAM	1	0		21.64		1		16QAM	1	0	21.54	21.59	21.52	1				
		1	24		21.71		1			1	12	21.61	21.66	21.59	1				
		1	49		21.79		1			1	24	21.69	21.74	21.67	1				
		25	0		20.70		2			12	0	20.60	20.65	20.58	2				
		25	12		20.72		2			12	6	20.62	20.67	20.60	2				
		25	25		20.85		2			12	13	20.75	20.80	20.73	2				
		50	0		20.78		2			25	0	20.68	20.73	20.66	2				
	64QAM	1	0		20.66		2		64QAM	1	0	20.56	20.61	20.54	2				
		1	24		20.73		2			1	12	20.63	20.68	20.61	2				
		1	49		20.81		2			1	24	20.71	20.76	20.69	2				
		25	0		19.72		3			12	0	19.62	19.67	19.60	3				
		25	12		19.74		3			12	6	19.64	19.69	19.62	3				
		25	25		19.87		3			12	13	19.77	19.82	19.75	3				
		50	0		19.80		3			25	0	19.70	19.75	19.68	3				

LTE Band 14																			
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								23330	Channel					23305	23330	23355	
		Frequency (MHz)								793.0	Frequency (MHz)					790.5	793.0	795.5	
10M	QPSK	1	0		22.82		0	5M	QPSK	1	0	22.50	22.71	22.48	0				
		1	24		22.78		0			1	12	22.60	22.67	22.58	0				
		1	49		22.77		0			1	24	22.59	22.66	22.57	0				
		25	0		21.77		1			12	0	21.59	21.66	21.57	1				
		25	12		21.75		1			12	6	21.57	21.64	21.55	1				
		25	25		21.72		1			12	13	21.54	21.61	21.52	1				
		50	0		21.71		1			25	0	21.53	21.60	21.51	1				
	16QAM	1	0		21.81		1		16QAM	1	0	21.48	21.70	21.46	1				
		1	24		21.77		1			1	12	21.58	21.66	21.56	1				
		1	49		21.76		1			1	24	21.57	21.65	21.55	1				
		25	0		20.76		2			12	0	20.57	20.65	20.55	2				
		25	12		20.74		2			12	6	20.55	20.63	20.53	2				
		25	25		20.71		2			12	13	20.52	20.60	20.50	2				
		50	0		20.70		2			25	0	20.51	20.59	20.49	2				
	64QAM	1	0		20.82		2		64QAM	1	0	20.50	20.71	20.48	2				
		1	24		20.78		2			1	12	20.60	20.67	20.58	2				
		1	49		20.77		2			1	24	20.59	20.66	20.57	2				
		25	0		19.77		3			12	0	19.59	19.66	19.57	3				
		25	12		19.75		3			12	6	19.57	19.64	19.55	3				
		25	25		19.72		3			12	13	19.54	19.61	19.52	3				
		50	0		19.71		3			25	0	19.53	19.60	19.51	3				



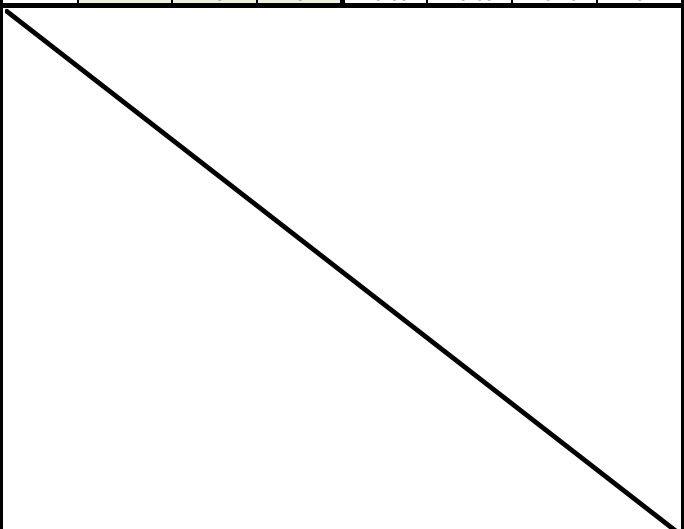
# FCC SAR Test Report

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	22.84	<b>22.85</b>	22.76	0	5M	QPSK	1	0	22.76	22.75	22.68	0
		1	24	22.75	22.76	22.67	0			1	12	22.69	22.68	22.67	0
		1	49	22.70	22.71	22.62	0			1	24	22.67	22.61	22.62	0
		25	0	21.80	<b>21.81</b>	21.72	1			12	0	21.75	21.80	21.69	1
		25	12	21.78	21.79	21.70	1			12	6	21.74	21.69	21.62	1
		25	25	21.72	21.73	21.64	1			12	13	21.64	21.67	21.60	1
		50	0	21.74	<b>21.75</b>	21.66	1			25	0	21.64	21.67	21.56	1
	16QAM	1	0	21.82	21.83	21.74	1		16QAM	1	0	21.75	21.80	21.68	1
		1	24	21.73	21.74	21.65	1			1	12	21.72	21.69	21.59	1
		1	49	21.68	21.69	21.60	1			1	24	21.59	21.62	21.51	1
		25	0	20.78	20.79	20.70	2			12	0	20.75	20.69	20.67	2
		25	12	20.76	20.77	20.68	2			12	6	20.66	20.68	20.60	2
		25	25	20.70	20.71	20.62	2			12	13	20.70	20.67	20.53	2
		50	0	20.72	20.73	20.64	2			25	0	20.71	20.66	20.57	2
	64QAM	1	0	20.83	20.84	20.75	2		64QAM	1	0	20.82	20.82	20.67	2
		1	24	20.74	20.75	20.66	2			1	12	20.64	20.67	20.63	2
		1	49	20.69	20.70	20.61	2			1	24	20.64	20.67	20.58	2
		25	0	19.79	19.80	19.71	3			12	0	19.79	19.80	19.64	3
		25	12	19.77	19.78	19.69	3			12	6	19.70	19.73	19.63	3
		25	25	19.71	19.72	19.63	3			12	13	19.67	19.62	19.63	3
		50	0	19.73	19.74	19.65	3			25	0	19.66	19.72	19.62	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	22.93	22.78	22.85	0	15M	QPSK	1	0	22.85	22.69	22.78	0		
		1	50	22.88	22.73	22.80	0			1	37	22.81	22.68	22.80	0		
		1	99	22.84	22.69	22.76	0			1	74	22.77	22.64	22.74	0		
		50	0	21.92	21.77	21.84	1			36	0	21.92	21.71	21.75	1		
		50	25	21.90	21.75	21.82	1			36	19	21.80	21.74	21.80	1		
		50	50	21.87	21.72	21.79	1			36	39	21.85	21.69	21.71	1		
		100	0	21.89	21.74	21.81	1			75	0	21.84	21.67	21.77	1		
	16QAM	1	0	21.91	21.76	21.83	1		16QAM	1	0	21.91	21.67	21.78	1		
		1	50	21.86	21.71	21.78	1			1	37	21.83	21.67	21.77	1		
		1	99	21.82	21.67	21.74	1			1	74	21.73	21.67	21.67	1		
		50	0	20.90	20.75	20.82	2			36	0	20.84	20.75	20.72	2		
		50	25	20.88	20.73	20.80	2			36	19	20.85	20.69	20.72	2		
		50	50	20.85	20.70	20.77	2			36	39	20.84	20.70	20.67	2		
		100	0	20.87	20.72	20.79	2			75	0	20.83	20.65	20.74	2		
	64QAM	1	0	20.92	20.77	20.84	2		64QAM	1	0	20.84	20.74	20.83	2		
		1	50	20.87	20.72	20.79	2			1	37	20.86	20.64	20.73	2		
		1	99	20.83	20.68	20.75	2			1	74	20.79	20.66	20.72	2		
		50	0	19.91	19.76	19.83	3			36	0	19.81	19.67	19.73	3		
		50	25	19.89	19.74	19.81	3			36	19	19.84	19.67	19.74	3		
		50	50	19.86	19.71	19.78	3			36	39	19.76	19.62	19.73	3		
		100	0	19.88	19.73	19.80	3			75	0	19.88	19.70	19.80	3		
10M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	5M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		26090	26365	26640				Channel		26065	26365	26665			
		Frequency (MHz)		2855.0	1882.5	1910.0				Frequency (MHz)		1852.5	1882.5	1912.5			
		QPSK	1	0	22.91	22.68	22.74			0	QPSK	1	0	22.86	22.61	22.61	0
			1	24	22.84	22.56	22.58			0		1	12	22.75	22.51	22.57	0
			1	49	22.71	22.53	22.73			0		1	24	22.63	22.57	22.61	0
			25	0	21.72	21.63	21.74			1		12	0	21.84	21.65	21.73	1
	25		12	21.79	21.67	21.65	1		12	6		21.79	21.67	21.58	1		
	25		25	21.82	21.56	21.75	1		12	13		21.74	21.58	21.65	1		
	50		0	21.83	21.65	21.67	1		25	0		21.71	21.64	21.57	1		
	16QAM	1	0	21.90	21.55	21.72	1		16QAM	1	0	21.89	21.67	21.74	1		
		1	24	21.73	21.51	21.61	1			1	12	21.78	21.56	21.66	1		
		1	49	21.71	21.56	21.66	1			1	24	21.62	21.56	21.62	1		
		25	0	20.72	20.67	20.64	2			12	0	20.73	20.56	20.65	2		
		25	12	20.82	20.63	20.78	2			12	6	20.79	20.59	20.58	2		
		25	25	20.71	20.63	20.56	2			12	13	20.77	20.60	20.64	2		
		50	0	20.76	20.55	20.60	2			25	0	20.75	20.57	20.60	2		
	64QAM	1	0	20.91	20.55	20.73	2		64QAM	1	0	20.92	20.69	20.65	2		
		1	24	20.76	20.63	20.73	2			1	12	20.78	20.56	20.65	2		
		1	49	20.61	20.60	20.55	2			1	24	20.74	20.59	20.61	2		
		25	0	19.77	19.59	19.66	3			12	0	19.86	19.61	19.64	3		
25		12	19.78	19.52	19.68	3	12	6		19.78	19.65	19.67	3				
25		25	19.64	19.51	19.63	3	12	13		19.67	19.61	19.62	3				
50		0	19.79	19.56	19.60	3	25	0		19.76	19.63	19.68	3				
3M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	1.4M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		26055	26365	26675				Channel		26047	26365	26683			
		Frequency (MHz)		1851.5	1882.5	1913.5				Frequency (MHz)		1850.7	1882.5	1914.3			
		QPSK	1	0	22.91	22.59	22.70			0	QPSK	1	0	22.81	22.67	22.76	0
			1	7	22.88	22.53	22.70			0		1	2	22.76	22.65	22.67	0
			1	14	22.67	22.46	22.66			0		1	5	22.67	22.51	22.66	0
			8	0	21.83	21.73	21.72			1		3	0	22.74	22.64	22.65	0
	8		3	21.79	21.64	21.68	1		3	1		22.79	22.62	22.74	0		
	8		7	21.80	21.63	21.72	1		3	3		22.80	22.65	22.62	0		
	15		0	21.79	21.59	21.66	1		6	0		21.84	21.68	21.78	1		
	16QAM	1	0	21.88	21.68	21.70	1		16QAM	1	0	21.82	21.69	21.76	1		
		1	7	21.82	21.58	21.64	1			1	2	21.81	21.58	21.69	1		
		1	14	21.74	21.57	21.56	1			1	5	21.75	21.46	21.67	1		
		8	0	20.78	20.58	20.69	2			3	0	21.76	21.63	21.71	1		
		8	3	20.73	20.58	20.62	2			3	1	21.82	21.53	21.72	1		
		8	7	20.67	20.50	20.65	2			3	3	21.72	21.68	21.59	1		
		15	0	20.79	20.55	20.77	2			6	0	20.77	20.62	20.76	2		
	64QAM	1	0	20.76	20.60	20.79	2		64QAM	1	0	20.82	20.63	20.65	2		
		1	7	20.75	20.57	20.67	2			1	2	20.69	20.55	20.66	2		
		1	14	20.67	20.58	20.67	2			1	5	20.79	20.55	20.75	2		
		8	0	19.88	19.76	19.79	3			3	0	20.83	20.61	20.69	2		
8		3	19.76	19.63	19.68	3	3	1		20.80	20.64	20.69	2				
8		7	19.65	19.66	19.65	3	3	3		20.65	20.66	20.62	2				
15		0	19.73	19.52	19.72	3	6	0		19.78	19.66	19.62	3				

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LTE Band 26																	
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	22.83	22.84	22.87	0	10M	QPSK	1	0	22.76	22.75	22.68	0		
		1	37	22.80	22.81	22.84	0			1	24	22.75	22.57	22.66	0		
		1	74	22.79	22.80	22.83	0			1	49	22.61	22.74	22.70	0		
		36	0	21.85	21.86	21.89	1			25	0	21.84	21.77	21.69	1		
		36	19	21.84	21.85	21.88	1			25	12	21.77	21.66	21.80	1		
		36	39	21.80	21.81	21.84	1			25	25	21.62	21.64	21.70	1		
		75	0	21.81	21.82	21.85	1			50	0	21.67	21.75	21.75	1		
	16QAM	1	0	21.81	21.82	21.85	1		16QAM	1	0	21.63	21.61	21.80	1		
		1	37	21.78	21.79	21.82	1			1	24	21.75	21.65	21.64	1		
		1	74	21.77	21.78	21.81	1			1	49	21.64	21.56	21.62	1		
		36	0	20.83	20.84	20.87	2			25	0	20.75	20.75	20.71	2		
		36	19	20.82	20.83	20.86	2			25	12	20.70	20.67	20.71	2		
		36	39	20.78	20.79	20.82	2			25	25	20.74	20.67	20.69	2		
		75	0	20.79	20.80	20.83	2			50	0	20.72	20.72	20.76	2		
	64QAM	1	0	20.82	20.83	20.86	2		64QAM	1	0	20.69	20.65	20.75	2		
		1	37	20.79	20.80	20.83	2			1	24	20.59	20.65	20.77	2		
		1	74	20.78	20.79	20.82	2			1	49	20.65	20.64	20.67	2		
		36	0	19.84	19.85	19.88	3			25	0	19.69	19.65	19.67	3		
		36	19	19.83	19.84	19.87	3			25	12	19.74	19.67	19.71	3		
		36	39	19.79	19.80	19.83	3			25	25	19.64	19.64	19.68	3		
		75	0	19.80	19.81	19.84	3			50	0	19.68	19.71	19.75	3		
5M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	3M	QPSK	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			
		QPSK	1	0	22.72	22.73	22.67			0	QPSK	1	0	22.65	22.79	22.83	0
			1	12	22.65	22.67	22.74			0		1	7	22.65	22.75	22.81	0
			1	24	22.75	22.58	22.46			0		1	14	22.67	22.70	22.69	0
			12	0	21.67	21.76	21.86			1		8	0	21.68	21.73	21.75	1
	12		6	21.69	21.76	21.56	1		8	3		21.68	21.61	21.81	1		
	12		13	21.70	21.70	21.72	1		8	7		21.70	21.74	21.66	1		
	25		0	21.66	21.77	21.65	1		15	0		21.64	21.79	21.72	1		
	16QAM	1	0	21.71	21.67	21.75	1		16QAM	1	0	21.74	21.79	21.67	1		
		1	12	21.65	21.73	21.71	1			1	7	21.56	21.72	21.59	1		
		1	24	21.67	21.65	21.71	1			1	14	21.64	21.59	21.75	1		
		12	0	20.64	20.63	20.77	2			8	0	20.64	20.77	20.82	2		
		12	6	20.66	20.69	20.75	2			8	3	20.67	20.72	20.73	2		
		12	13	20.71	20.60	20.72	2			8	7	20.72	20.60	20.66	2		
		25	0	20.62	20.65	20.70	2			15	0	20.71	20.73	20.64	2		
	64QAM	1	0	20.75	20.73	20.82	2		64QAM	1	0	20.71	20.74	20.79	2		
		1	12	20.70	20.76	20.65	2			1	7	20.66	20.70	20.79	2		
		1	24	20.72	20.61	20.60	2			1	14	20.61	20.61	20.73	2		
		12	0	19.79	19.71	19.78	3			8	0	19.74	19.72	19.75	3		
12		6	19.70	19.81	19.69	3	8	3		19.69	19.67	19.84	3				
12		13	19.59	19.59	19.67	3	8	7		19.60	19.76	19.74	3				
25		0	19.68	19.71	19.68	3	15	0		19.59	19.63	19.79	3				
1.4M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)										
		Channel		26697	26865	27033											
		Frequency (MHz)		814.7	831.5	848.3											
		QPSK	1	0	22.68	22.62	22.70								0		
			1	2	22.64	22.62	22.72								0		
			1	5	22.60	22.72	22.73								0		
			3	0	22.85	22.63	22.79								0		
	3		1	22.78	22.73	22.75	0										
	3		3	22.65	22.73	22.75	0										
	6		0	21.72	21.73	21.71	1										
	16QAM	1	0	21.70	21.69	21.73	1										
		1	2	21.60	21.73	21.72	1										
		1	5	21.72	21.69	21.68	1										
		3	0	21.70	21.70	21.72	1										
		3	1	21.61	21.62	21.75	1										
		3	3	21.66	21.60	21.68	1										
		6	0	20.71	20.62	20.77	2										
	64QAM	1	0	20.69	20.81	20.81	2										
		1	2	20.67	20.58	20.63	2										
		1	5	20.69	20.56	20.61	2										
		3	0	20.71	20.74	20.65	2										
3		1	20.66	20.63	20.83	2											
3		3	20.64	20.74	20.71	2											
6		0	19.62	19.66	19.64	3											

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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		<b>21.97</b>		0	5M	QPSK	1	0	21.88	21.92	21.82	0
		1	24		21.89		0			1	12	21.80	21.84	21.74	0
		1	49		21.75		0			1	24	21.66	21.70	21.60	0
		25	0		20.92		1			12	0	20.83	20.87	20.77	1
		25	12		20.87		1			12	6	20.78	20.82	20.72	1
		25	25		20.81		1			12	13	20.72	20.76	20.66	1
	16QAM	50	0		20.77		1		25	0	20.68	20.72	20.62	1	
		1	0		20.95		1		16QAM	1	0	20.86	20.90	20.80	1
		1	24		20.87		1			1	12	20.78	20.82	20.72	1
		1	49		20.73		1			1	24	20.64	20.68	20.58	1
		25	0		19.90		2			12	0	19.81	19.85	19.75	2
		25	12		19.85		2			12	6	19.76	19.80	19.70	2
	25	25		19.79		2	12			13	19.70	19.74	19.64	2	
	64QAM	50	0		19.75		2		25	0	19.66	19.70	19.60	2	
		1	0		19.96		2		64QAM	1	0	19.87	19.91	19.81	2
		1	24		19.88		2			1	12	19.79	19.83	19.73	2
		1	49		19.74		2			1	24	19.65	19.69	19.59	2
		25	0		18.91		3			12	0	18.82	18.86	18.76	3
		25	12		18.86		3			12	6	18.77	18.81	18.71	3
	25	25		18.80		3	12			13	18.71	18.75	18.65	3	
	50	0		18.76		3	25		0	18.67	18.71	18.61	3		

LTE Band 38																	
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	<b>22.92</b>	<b>22.84</b>	<b>22.81</b>	0	15M	QPSK	1	0	22.88	22.74	22.75	0		
		1	50	22.90	22.82	22.79	0			1	37	22.83	22.72	22.73	0		
		1	99	22.89	22.81	22.78	0			1	74	22.82	22.79	22.77	0		
		50	0	21.96	21.88	21.85	1			36	0	21.96	21.83	21.82	1		
		50	25	21.94	21.86	21.83	1			36	19	21.90	21.81	21.77	1		
		50	50	21.89	21.81	21.78	1			36	39	21.86	21.79	21.78	1		
	16QAM	100	0	21.90	21.82	21.79	1		75	0	21.89	21.78	21.75	1			
		1	0	21.89	21.81	21.78	1		16QAM	1	0	21.81	21.76	21.70	1		
		1	50	21.87	21.79	21.76	1			1	37	21.82	21.69	21.67	1		
		1	99	21.86	21.78	21.75	1			1	74	21.85	21.68	21.72	1		
		50	0	20.93	20.85	20.82	2			36	0	20.86	20.82	20.74	2		
		50	25	20.91	20.83	20.80	2			36	19	20.90	20.79	20.75	2		
	50	50	20.86	20.78	20.75	2	36			39	20.81	20.78	20.72	2			
	64QAM	100	0	20.87	20.79	20.76	2		75	0	20.85	20.79	20.67	2			
		1	0	20.88	20.80	20.77	2		64QAM	1	0	20.87	20.76	20.75	2		
		1	50	20.86	20.78	20.75	2			1	37	20.78	20.74	20.75	2		
		1	99	20.85	20.77	20.74	2			1	74	20.84	20.76	20.66	2		
		50	0	19.92	19.84	19.81	3			36	0	19.83	19.76	19.73	3		
		50	25	19.90	19.82	19.79	3			36	19	19.82	19.81	19.77	3		
	50	50	19.85	19.77	19.74	3	36			39	19.79	19.75	19.71	3			
	100	0	19.86	19.78	19.75	3	75		0	19.79	19.74	19.71	3				
	10M	QPSK	1	0	<b>22.73</b>	<b>22.70</b>	<b>22.75</b>		0	5M	QPSK	1	0	22.68	22.71	22.60	0
			1	24	22.79	22.69	22.64		0			1	12	22.81	22.64	22.60	0
			1	49	22.78	22.71	22.69		0			1	24	22.72	22.70	22.54	0
25			0	21.91	21.67	21.76	1	12	0			21.91	21.71	21.67	1		
25			12	21.88	21.69	21.78	1	12	6			21.88	21.82	21.56	1		
25			25	21.70	21.65	21.63	1	12	13			21.67	21.67	21.68	1		
16QAM		50	0	21.78	21.66	21.60	1	25	0		21.69	21.59	21.52	1			
		1	0	21.79	21.77	21.68	1	16QAM	1		0	21.72	21.60	21.65	1		
		1	24	21.72	21.59	21.62	1		1		12	21.70	21.57	21.60	1		
		1	49	21.80	21.65	21.59	1		1		24	21.83	21.66	21.65	1		
		25	0	20.82	20.80	20.68	2		12		0	20.71	20.73	20.78	2		
		25	12	20.74	20.63	20.59	2		12		6	20.74	20.71	20.69	2		
25		25	20.75	20.60	20.70	2	12		13		20.79	20.61	20.61	2			
64QAM		50	0	20.80	20.74	20.71	2	25	0		20.71	20.64	20.67	2			
		1	0	20.69	20.75	20.59	2	64QAM	1		0	20.80	20.64	20.61	2		
		1	24	20.70	20.60	20.66	2		1		12	20.72	20.62	20.64	2		
		1	49	20.75	20.62	20.71	2		1		24	20.80	20.62	20.64	2		
		25	0	19.76	19.74	19.74	3		12		0	19.82	19.74	19.77	3		
		25	12	19.88	19.71	19.61	3		12		6	19.86	19.76	19.77	3		
25		25	19.81	19.63	19.59	3	12		13		19.75	19.59	19.64	3			
50		0	19.74	19.66	19.64	3	25	0	19.68		19.68	19.65	3				

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## LTE Band 41

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		39750	40185	40620	41055	41490				Channel		39725	40173	40620	41068	41515			
		Frequency (MHz)		2506.0	2549.5	2593.0	2636.5	2680.0				Frequency (MHz)		2503.5	2548.3	2593.0	2637.8	2682.5			
20M	QPSK	1	0	22.88	22.89	22.81	22.87	22.82	0	15M	QPSK	1	0	22.86	22.81	22.71	22.83	22.75	0		
		1	50	22.80	22.79	22.72	22.78	22.73	0			1	37	22.78	22.74	22.65	22.77	22.64	0		
		1	99	22.78	22.77	22.70	22.76	22.71	0			1	74	22.78	22.73	22.67	22.68	22.68	0		
		50	0	21.83	21.84	21.76	21.82	21.77	1			36	0	21.82	21.79	21.73	21.76	21.70	1		
		50	25	21.81	21.80	21.73	21.79	21.74	1			36	19	21.80	21.74	21.65	21.77	21.64	1		
		50	50	21.80	21.79	21.72	21.78	21.73	1			36	39	21.72	21.79	21.65	21.71	21.73	1		
	100	0	21.73	21.74	21.66	21.72	21.67	1	75		0	21.68	21.66	21.59	21.70	21.67	1				
	16QAM	1	0	21.87	21.86	21.79	21.85	21.80	1		16QAM	1	0	21.89	21.86	21.79	21.79	21.81	1		
		1	50	21.78	21.77	21.70	21.76	21.71	1			1	37	21.79	21.74	21.67	21.76	21.64	1		
		1	99	21.76	21.75	21.68	21.74	21.69	1			1	74	21.72	21.74	21.64	21.69	21.66	1		
		50	0	20.82	20.81	20.74	20.80	20.75	2			36	0	20.83	20.73	20.69	20.72	20.71	2		
		50	25	20.79	20.78	20.71	20.77	20.72	2			36	19	20.77	20.72	20.68	20.79	20.72	2		
		50	50	20.78	20.77	20.70	20.76	20.71	2			36	39	20.71	20.69	20.62	20.71	20.68	2		
	100	0	20.72	20.71	20.64	20.70	20.65	2	75		0	20.67	20.65	20.66	20.65	20.58	2				
	64QAM	1	0	20.89	20.88	20.81	20.87	20.82	2		64QAM	1	0	20.80	20.84	20.73	20.85	20.81	2		
		1	50	20.80	20.79	20.72	20.78	20.73	2			1	37	20.74	20.76	20.71	20.68	20.65	2		
		1	99	20.78	20.77	20.70	20.76	20.71	2			1	74	20.74	20.74	20.65	20.67	20.68	2		
		50	0	19.84	19.83	19.76	19.82	19.77	3			36	0	19.78	19.79	19.69	19.77	19.69	3		
		50	25	19.81	19.80	19.73	19.79	19.74	3			36	19	19.77	19.78	19.72	19.77	19.74	3		
		50	50	19.80	19.79	19.72	19.78	19.73	3			36	39	19.70	19.78	19.69	19.76	19.73	3		
	100	0	19.74	19.73	19.66	19.72	19.67	3	75		0	19.73	19.71	19.59	19.68	19.61	3				
	10M	QPSK	1	0	22.84	22.82	22.68	22.70	22.77		0	5M	QPSK	1	0	22.80	22.81	22.68	22.81	22.69	0
			1	24	22.74	22.72	22.60	22.61	22.65		0			1	12	22.67	22.70	22.67	22.75	22.67	0
			1	49	22.67	22.64	22.56	22.65	22.60		0			1	24	22.66	22.61	22.65	22.63	22.59	0
25			0	21.71	21.68	21.60	21.71	21.74	1	12	0			21.77	21.69	21.66	21.76	21.67	1		
25			12	21.74	21.74	21.64	21.69	21.74	1	12	6			21.66	21.69	21.63	21.67	21.68	1		
25			25	21.76	21.76	21.67	21.71	21.68	1	12	13			21.76	21.73	21.61	21.78	21.65	1		
50		0	21.64	21.54	21.58	21.57	21.56	1	25	0	21.65		21.60	21.58	21.60	21.61	1				
16QAM		1	0	21.76	21.83	21.75	21.73	21.71	1	16QAM	1		0	21.74	21.83	21.72	21.79	21.74	1		
		1	24	21.70	21.72	21.62	21.68	21.68	1		1		12	21.75	21.74	21.67	21.73	21.63	1		
		1	49	21.64	21.61	21.57	21.67	21.64	1		1		24	21.73	21.59	21.65	21.66	21.54	1		
		25	0	20.73	20.73	20.62	20.69	20.69	2		12		0	20.79	20.70	20.65	20.77	20.67	2		
		25	12	20.76	20.74	20.61	20.62	20.67	2		12		6	20.65	20.67	20.58	20.68	20.64	2		
		25	25	20.77	20.68	20.70	20.74	20.67	2		12		13	20.77	20.76	20.63	20.71	20.69	2		
50		0	20.65	20.63	20.60	20.59	20.62	2	25	0	20.70		20.60	20.53	20.70	20.59	2				
64QAM		1	0	20.82	20.82	20.75	20.79	20.74	2	64QAM	1		0	20.73	20.81	20.62	20.82	20.71	2		
		1	24	20.72	20.71	20.60	20.68	20.66	2		1		12	20.76	20.71	20.67	20.74	20.67	2		
		1	49	20.62	20.64	20.64	20.60	20.60	2		1		24	20.66	20.64	20.61	20.62	20.62	2		
		25	0	19.81	19.68	19.63	19.77	19.72	3		12		0	19.81	19.64	19.68	19.76	19.69	3		
		25	12	19.75	19.68	19.66	19.70	19.68	3		12		6	19.66	19.64	19.65	19.67	19.69	3		
		25	25	19.79	19.75	19.62	19.76	19.64	3		12		13	19.76	19.71	19.62	19.74	19.70	3		
50		0	19.66	19.58	19.53	19.61	19.58	3	25	0	19.63		19.68	19.54	19.67	19.64	3				

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LTE Band 66															
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	23.36	23.33	23.35	0	15M	QPSK	1	0	23.29	23.23	23.31	0
		1	50	23.34	23.31	23.33	0			1	37	23.32	23.29	23.27	0
		1	99	23.31	23.28	23.30	0			1	74	23.21	23.23	23.25	0
		50	0	21.35	21.32	21.34	1			36	0	21.34	21.23	21.31	1
		50	25	21.31	21.28	21.30	1			36	19	21.27	21.26	21.25	1
		50	50	21.29	21.26	21.28	1			36	39	21.22	21.20	21.25	1
	100	0	21.21	21.18	21.20	1	75		0	21.18	21.08	21.10	1		
	16QAM	1	0	22.34	22.24	22.26	1		16QAM	1	0	22.30	22.24	22.25	1
		1	50	22.34	22.30	22.27	1			1	37	22.19	22.28	22.31	1
		1	99	22.30	22.27	22.30	1			1	74	22.19	22.23	22.25	1
		50	0	20.30	20.23	20.33	2			36	0	20.20	20.19	20.24	2
		50	25	20.29	20.25	20.22	2			36	19	20.21	20.21	20.21	2
		50	50	20.24	20.25	20.25	2			36	39	20.14	20.18	20.10	2
	100	0	20.15	20.12	20.17	2	75		0	20.15	20.05	20.06	2		
	64QAM	1	0	21.31	21.25	21.25	2		64QAM	1	0	21.29	21.30	21.17	2
		1	50	21.30	21.24	21.25	2			1	37	21.28	21.22	21.26	2
		1	99	21.25	21.18	21.28	2			1	74	21.12	21.17	21.29	2
		50	0	19.27	19.27	19.25	3			36	0	19.22	19.22	19.31	3
50		25	19.21	19.22	19.26	3	36	19		19.21	19.22	19.27	3		
50		50	19.20	19.21	19.20	3	36	39		19.16	19.19	19.15	3		
100	0	19.14	19.11	19.11	3	75	0	19.03	19.08	19.13	3				
10M	QPSK	1	0	23.29	23.19	23.22	0	5M	QPSK	1	0	23.29	23.13	23.27	0
		1	24	23.26	23.28	23.09	0			1	12	23.14	23.26	23.15	0
		1	49	23.11	23.11	23.16	0			1	24	23.10	23.14	23.04	0
		25	0	21.29	21.23	21.28	1			12	0	21.20	21.23	21.12	1
		25	12	21.20	21.22	21.22	1			12	6	21.22	21.20	21.17	1
		25	25	21.12	21.12	21.28	1			12	13	21.24	21.11	21.16	1
	50	0	21.06	20.99	20.99	1	25		0	21.07	21.08	20.97	1		
	16QAM	1	0	22.26	22.15	22.21	1		16QAM	1	0	22.20	22.08	22.13	1
		1	24	22.09	22.02	22.12	1			1	12	22.16	22.14	22.22	1
		1	49	22.11	22.19	22.20	1			1	24	22.26	22.14	22.06	1
		25	0	20.13	20.19	20.23	2			12	0	20.25	20.23	20.23	2
		25	12	20.10	20.18	20.14	2			12	6	20.15	19.94	20.11	2
		25	25	20.13	20.01	20.16	2			12	13	20.17	20.18	20.10	2
	50	0	20.06	20.05	19.99	2	25		0	20.06	20.02	20.05	2		
	64QAM	1	0	21.11	21.12	21.25	2		64QAM	1	0	21.08	21.18	21.24	2
		1	24	21.20	21.19	21.19	2			1	12	21.20	21.15	21.11	2
		1	49	21.13	21.06	21.20	2			1	24	21.19	21.04	21.17	2
		25	0	19.30	19.06	19.14	3			12	0	19.20	19.13	19.14	3
25		12	19.14	19.18	19.07	3	12	6		19.02	19.08	19.22	3		
25		25	19.04	19.06	19.17	3	12	13		19.20	19.14	19.14	3		
50	0	19.01	18.91	19.01	3	25	0	18.98	18.97	19.08	3				
3M	QPSK	1	0	23.24	23.21	23.15	0	1.4M	QPSK	1	0	23.15	23.16	23.10	0
		1	7	23.21	23.24	23.23	0			1	2	23.26	23.25	23.17	0
		1	14	23.20	23.28	23.08	0			1	5	23.30	23.14	23.18	0
		8	0	21.30	21.19	21.17	1			3	0	23.12	23.11	23.01	0
		8	3	21.16	21.11	21.22	1			3	1	23.01	22.99	22.95	0
		8	7	21.25	21.20	21.18	1			3	3	22.94	22.94	23.01	0
	15	0	21.01	21.00	21.14	1	6		0	21.13	21.00	20.99	1		
	16QAM	1	0	22.19	22.17	22.13	1		16QAM	1	0	22.19	22.11	22.35	1
		1	7	22.16	22.22	22.16	1			1	2	22.05	22.12	22.20	1
		1	14	22.15	22.06	22.09	1			1	5	22.16	21.97	22.14	1
		8	0	20.22	20.23	20.16	2			3	0	22.13	22.10	22.15	1
		8	3	20.11	20.18	20.05	2			3	1	22.17	22.08	22.13	1
		8	7	20.15	20.05	20.23	2			3	3	22.17	22.07	22.09	1
	15	0	20.08	20.02	20.05	2	6		0	19.99	19.99	20.08	2		
	64QAM	1	0	21.13	21.24	21.20	2		64QAM	1	0	21.22	21.13	21.17	2
		1	7	21.20	21.02	21.12	2			1	2	21.24	21.15	21.12	2
		1	14	21.02	21.11	21.16	2			1	5	21.16	21.11	21.15	2
		8	0	19.15	19.18	19.12	3			3	0	21.08	20.96	20.95	2
8		3	19.13	19.13	19.14	3	3	1		21.12	20.85	20.91	2		
8		7	19.04	19.12	19.07	3	3	3		20.91	20.90	20.87	2		
15	0	19.02	19.03	19.04	3	6	0	18.99	19.06	19.00	3				

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## <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	19.45	19.34	-
	6	2437	20.45	20.32	-
	11	2462	18.23	18.19	-
	12	2467	16.43	17.38	-
	13	2472	15.24	15.23	-
802.11n (HT20)	1	2412	-	-	16.22
	6	2437	-	-	17.38
	11	2462	-	-	14.48
	12	2467	-	-	12.98
	13	2472	-	-	7.61

## <WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11n (HT20)	52	5260	-	-	19.48
	56	5280	-	-	19.45
	60	5300	-	-	19.31
	64	5320	-	-	17.36
802.11n (HT40)	54	5270	20.48	20.43	-
	62	5310	17.42	17.43	-

## <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT80)	106	5530	18.43	18.44	17.48
	122	5610	19.35	19.37	18.44
	138	5690	20.41	20.42	19.49

## <WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11n (HT40)	151	5755	20.39	20.42	19.36
	159	5795	20.42	20.48	19.48

## <Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth BDR	0	2402	9.47
	39	2441	9.31
	78	2480	9.49
Bluetooth LE	0	2402	4.82
	19	2440	4.51
	39	2480	4.54

## 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.



(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 5 GHz, 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

### Tablet Mode

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	Keyboard	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	RMC 12.2K	Rear Face	0	9538	-	15.0	14.71	1.07	-0.07	0.699	0.75
	WCDMA II	RMC 12.2K	Right Side	0	9538	-	15.0	14.71	1.07	0.12	0.178	0.19
	WCDMA II	RMC 12.2K	Top side	0	9538	-	15.0	14.71	1.07	0.12	1.08	1.16
01	WCDMA II	RMC 12.2K	Top side	0	9262	-	15.0	14.53	1.11	-0.02	1.17	1.30
	WCDMA II	RMC 12.2K	Top side	0	9400	-	15.0	14.61	1.09	0.01	1.07	1.17
	WCDMA II	HSDPA Subtest-1	Top side	0	9400	-	15.0	14.66	1.08	0.15	0.953	1.03
	WCDMA II	HSDPA Subtest-1	Top side	0	9262	-	15.0	14.58	1.10	-0.03	1.02	1.12
	WCDMA II	HSDPA Subtest-1	Top side	0	9538	-	15.0	14.65	1.08	0.05	0.939	1.01
	WCDMA II	DC-HSDPA Subtest-1	Top side	0	9538	-	15.0	14.69	1.07	0.06	0.948	1.01
	WCDMA II	DC-HSDPA Subtest-1	Top side	0	9262	-	15.0	14.56	1.11	0.01	1.01	1.12
	WCDMA II	DC-HSDPA Subtest-1	Top side	0	9400	-	15.0	14.64	1.09	0.03	0.973	1.06
	WCDMA II	HSUPA Subtest-1	Top side	0	9400	-	15.0	13.98	1.26	0.01	0.931	1.17
	WCDMA II	HSUPA Subtest-1	Top side	0	9262	-	15.0	13.84	1.31	-0.06	0.969	1.27
	WCDMA II	HSUPA Subtest-1	Top side	0	9538	-	15.0	13.89	1.29	0.07	0.921	1.19
	WCDMA II	RMC 12.2K	Top side	0	9262	1	15.0	14.53	1.11	0.02	1.16	1.29
	WCDMA II	RMC 12.2K	Top side	0	9400	1	15.0	14.61	1.09	0.05	1.05	1.14
	WCDMA II	RMC 12.2K	Top side	0	9538	1	15.0	14.71	1.07	0.14	1.1	1.18
	WCDMA II	RMC 12.2K	Top side	0	9262	2	15.0	14.53	1.11	0.06	1.16	1.29
	WCDMA II	RMC 12.2K	Top side	0	9400	2	15.0	14.61	1.09	0.03	1.02	1.11
	WCDMA II	RMC 12.2K	Top side	0	9538	2	15.0	14.71	1.07	-0.05	1.01	1.08
	WCDMA II	RMC 12.2K	Top side	0	9262	-	15.0	14.53	1.11	0.12	1.11	1.23
	WCDMA IV	RMC 12.2K	Rear Face	0	1413	-	15.0	14.78	1.05	-0.08	0.645	0.68
	WCDMA IV	RMC 12.2K	Right Side	0	1413	-	15.0	14.78	1.05	0.13	0.264	0.28
02	WCDMA IV	RMC 12.2K	Top side	0	1413	-	15.0	14.78	1.05	0.01	1.13	1.19
	WCDMA IV	RMC 12.2K	Top side	0	1312	-	15.0	14.64	1.09	0.12	1.05	1.14
	WCDMA IV	RMC 12.2K	Top side	0	1513	-	15.0	14.69	1.07	0.02	1.08	1.16
	WCDMA IV	RMC 12.2K	Top side	0	1413	1	15.0	14.78	1.05	0.01	1.11	1.17
	WCDMA IV	RMC 12.2K	Top side	0	1312	1	15.0	14.64	1.09	0.05	0.963	1.05
	WCDMA IV	RMC 12.2K	Top side	0	1513	1	15.0	14.69	1.07	0.06	1.02	1.09
	WCDMA IV	RMC 12.2K	Top side	0	1413	2	15.0	14.78	1.05	0.11	1.12	1.18
	WCDMA IV	RMC 12.2K	Top side	0	1312	2	15.0	14.64	1.09	0.05	0.988	1.08
	WCDMA IV	RMC 12.2K	Top side	0	1513	2	15.0	14.69	1.07	0.14	1.01	1.08
	WCDMA IV	RMC 12.2K	Top side	0	1413	-	15.0	14.78	1.05	0.01	1.09	1.14

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	Keyboard	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 V	RMC 12.2K	Rear Face	0	4233	-	17.0	16.74	1.06	-0.05	0.539	0.57
	WCDMA V	RMC 12.2K	Right Side	0	4233	-	17.0	16.74	1.06	0.11	1.1	1.17
	WCDMA V	RMC 12.2K	Top side	0	4233	-	17.0	16.74	1.06	0.12	0.706	0.75
	WCDMA V	RMC 12.2K	Right Side	0	4132	-	17.0	16.69	1.07	0.06	1.02	1.09
03	WCDMA V	RMC 12.2K	Right Side	0	4182	-	17.0	16.62	1.09	0.15	1.17	1.28
	WCDMA V	HSDPA Subtest-1	Right Side	0	4233	-	17.0	16.72	1.07	0.02	0.971	1.04
	WCDMA V	HSDPA Subtest-1	Right Side	0	4132	-	17.0	16.67	1.08	-0.09	0.983	1.06
	WCDMA V	HSDPA Subtest-1	Right Side	0	4182	-	17.0	16.62	1.09	0.01	1.01	1.10
	WCDMA V	DC-HSDPA Subtest-1	Right Side	0	4233	-	17.0	16.71	1.07	0.05	0.951	1.02
	WCDMA V	DC-HSDPA Subtest-1	Right Side	0	4132	-	17.0	16.66	1.08	-0.06	0.962	1.04
	WCDMA V	DC-HSDPA Subtest-1	Right Side	0	4182	-	17.0	16.61	1.09	0.02	0.996	1.09
	WCDMA V	HSUPA Subtest-5	Right Side	0	4233	-	17.0	16.66	1.08	0.11	0.932	1.01
	WCDMA V	HSUPA Subtest-5	Right Side	0	4132	-	17.0	16.50	1.12	0.09	0.947	1.06
	WCDMA V	HSUPA Subtest-5	Right Side	0	4182	-	17.0	16.45	1.14	-0.02	0.989	1.13
	WCDMA V	RMC 12.2K	Right Side	0	4182	1	17.0	16.62	1.09	0.14	1.12	1.22
	WCDMA V	RMC 12.2K	Right Side	0	4132	1	17.0	16.69	1.07	-0.04	1.08	1.16
	WCDMA V	RMC 12.2K	Right Side	0	4233	1	17.0	16.74	1.06	0.03	1.06	1.12
	WCDMA V	RMC 12.2K	Right Side	0	4182	2	17.0	16.62	1.09	0.14	1.09	1.19
	WCDMA V	RMC 12.2K	Right Side	0	4132	2	17.0	16.69	1.07	0.01	1.08	1.16
	WCDMA V	RMC 12.2K	Right Side	0	4233	2	17.0	16.74	1.06	-0.09	1.11	1.18
	WCDMA V	RMC 12.2K	Right Side	0	4182	-	17.0	16.62	1.09	0.15	1.13	1.23

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	RB#	RB Offset	Keyboard	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 2	QPSK20M	Rear Face	0	18900	1	0	-	15.5	15.49	1.00	-0.13	0.827	0.83
	LTE 2	QPSK20M	Right Side	0	18900	1	0	-	15.5	15.49	1.00	0.12	0.272	0.27
	LTE 2	QPSK20M	Top side	0	18900	1	0	-	15.5	15.49	1.00	0.11	1.11	1.11
	LTE 2	QPSK20M	Rear Face	0	18900	50	0	-	14.5	14.39	1.03	0.14	0.573	0.59
	LTE 2	QPSK20M	Right Side	0	18900	50	0	-	14.5	14.39	1.03	0.06	0.197	0.20
	LTE 2	QPSK20M	Top side	0	18900	50	0	-	14.5	14.39	1.03	0.14	0.765	0.79
	LTE 2	QPSK20M	Rear Face	0	18700	1	0	-	15.5	15.41	1.02	-0.13	0.813	0.83
	LTE 2	QPSK20M	Rear Face	0	19100	1	0	-	15.5	15.43	1.02	-0.13	0.805	0.82
04	LTE 2	QPSK20M	Top side	0	18700	1	0	-	15.5	15.41	1.02	-0.07	1.23	1.25
	LTE 2	QPSK20M	Top side	0	19100	1	0	-	15.5	15.43	1.02	0.14	1.05	1.07
	LTE 2	QPSK20M	Rear Face	0	18900	100	0	-	14.5	14.33	1.04	-0.06	0.598	0.62
	LTE 2	QPSK20M	Top side	0	18900	100	0	-	14.5	14.33	1.04	0.05	0.968	1.01
	LTE 2	QPSK20M	Top side	0	18700	1	0	1	15.5	15.41	1.02	0.02	1.22	1.24
	LTE 2	QPSK20M	Top side	0	18900	1	0	1	15.5	15.49	1.00	0.11	0.975	0.98
	LTE 2	QPSK20M	Top side	0	19100	1	0	1	15.5	15.43	1.02	0.13	1.01	1.03
	LTE 2	QPSK20M	Top side	0	18700	1	0	2	15.5	15.41	1.02	0.14	1.15	1.17
	LTE 2	QPSK20M	Top side	0	18900	1	0	2	15.5	15.49	1.00	0.15	1.16	1.16
	LTE 2	QPSK20M	Top side	0	19100	1	0	2	15.5	15.43	1.02	0.15	1.12	1.14
	LTE 2	QPSK20M	Top side	0	18700	1	0	-	15.5	15.41	1.02	-0.07	1.21	1.23
	LTE 4	QPSK20M	Rear Face	0	20050	1	0	-	15.0	14.99	1.00	-0.11	0.684	0.68
	LTE 4	QPSK20M	Right Side	0	20050	1	0	-	15.0	14.99	1.00	-0.03	0.316	0.32
	LTE 4	QPSK20M	Top side	0	20050	1	0	-	15.0	14.99	1.00	0.01	1.09	1.09
	LTE 4	QPSK20M	Rear Face	0	20050	50	0	-	14.0	13.97	1.01	0.05	0.311	0.31
	LTE 4	QPSK20M	Right Side	0	20050	50	0	-	14.0	13.97	1.01	-0.02	0.248	0.25
	LTE 4	QPSK20M	Top side	0	20050	50	0	-	14.0	13.97	1.01	0.13	0.933	0.94
	LTE 4	QPSK20M	Top side	0	20175	1	0	-	15.0	14.97	1.01	0.07	1.24	1.25
05	LTE 4	QPSK20M	Top side	0	20300	1	0	-	15.0	14.95	1.01	0.02	1.25	1.26
	LTE 4	QPSK20M	Top side	0	20175	50	0	-	14.0	13.95	1.01	-0.09	0.909	0.92
	LTE 4	QPSK20M	Top side	0	20300	50	0	-	14.0	13.93	1.02	0.01	0.861	0.88
	LTE 4	QPSK20M	Top side	0	20050	100	0	-	14.0	13.94	1.01	-0.08	0.921	0.93
	LTE 4	QPSK20M	Top side	0	20300	1	0	1	15.0	14.95	1.01	0.12	1.23	1.24
	LTE 4	QPSK20M	Top side	0	20050	1	0	1	15.0	14.99	1.00	0.05	1.13	1.13
	LTE 4	QPSK20M	Top side	0	20175	1	0	1	15.0	14.97	1.01	-0.03	1.22	1.23
	LTE 4	QPSK20M	Top side	0	20300	1	0	2	15.0	14.95	1.01	0.07	1.23	1.24
	LTE 4	QPSK20M	Top side	0	20050	1	0	2	15.0	14.99	1.00	0.02	1.18	1.18
	LTE 4	QPSK20M	Top side	0	20175	1	0	2	15.0	14.97	1.01	-0.01	1.14	1.15
	LTE 4	QPSK20M	Top side	0	20300	1	0	-	15.0	14.95	1.01	-0.09	1.22	1.23
	LTE 5	QPSK10M	Rear Face	0	20525	1	0	-	18.5	18.44	1.01	-0.08	0.761	0.77
	LTE 5	QPSK10M	Left Side	0	20525	1	0	-	18.5	18.44	1.01	0.00	<0.001	0.00
	LTE 5	QPSK10M	Right Side	0	20525	1	0	-	18.5	18.44	1.01	-0.06	1.13	1.14
	LTE 5	QPSK10M	Top side	0	20525	1	0	-	18.5	18.44	1.01	0.02	0.662	0.67
	LTE 5	QPSK10M	Rear Face	0	20525	25	0	-	17.5	17.42	1.02	0.07	0.653	0.67
	LTE 5	QPSK10M	Left Side	0	20525	25	0	-	17.5	17.42	1.02	0.00	<0.001	0.00
	LTE 5	QPSK10M	Right Side	0	20525	25	0	-	17.5	17.42	1.02	0.13	0.829	0.85
	LTE 5	QPSK10M	Top side	0	20525	25	0	-	17.5	17.42	1.02	0.05	0.613	0.63
06	LTE 5	QPSK10M	Right Side	0	20450	1	0	-	18.5	18.40	1.02	-0.17	1.21	1.23
	LTE 5	QPSK10M	Right Side	0	20600	1	0	-	18.5	18.42	1.02	-0.06	1.07	1.09
	LTE 5	QPSK10M	Right Side	0	20450	25	0	-	17.5	17.38	1.03	0.11	0.841	0.87
	LTE 5	QPSK10M	Right Side	0	20600	25	0	-	17.5	17.40	1.02	-0.05	0.803	0.82
	LTE 5	QPSK10M	Right Side	0	20450	50	0	-	17.5	17.37	1.03	0.09	0.803	0.83
	LTE 5	QPSK10M	Right Side	0	20450	1	0	1	18.5	18.40	1.02	0.12	1.13	1.15
	LTE 5	QPSK10M	Right Side	0	20525	1	0	1	18.5	18.44	1.01	-0.02	0.983	0.99
	LTE 5	QPSK10M	Right Side	0	20600	1	0	1	18.5	18.42	1.02	0.05	1.02	1.04
	LTE 5	QPSK10M	Right Side	0	20450	1	0	2	18.5	18.40	1.02	0.05	1.12	1.14
	LTE 5	QPSK10M	Right Side	0	20525	1	0	2	18.5	18.44	1.01	-0.11	0.996	1.01
	LTE 5	QPSK10M	Right Side	0	20600	1	0	2	18.5	18.42	1.02	-0.08	1.04	1.06
	LTE 5	QPSK10M	Right Side	0	20450	1	0	-	18.5	18.40	1.02	-0.06	1.17	1.19

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 (cm)	Ch.	RB#	RB Offset	Keyboard	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	21100	1	0	-	13.0	12.97	1.01	0.01	0.765	0.77
	LTE 7	QPSK20M	Right Side	0	21100	1	0	-	13.0	12.97	1.01	-0.08	0.772	0.78
	LTE 7	QPSK20M	Top side	0	21100	1	0	-	13.0	12.97	1.01	0.13	1.16	1.17
	LTE 7	QPSK20M	Rear Face	0	21100	50	0	-	12.0	11.96	1.01	0.05	0.544	0.55
	LTE 7	QPSK20M	Right Side	0	21100	50	0	-	12.0	11.96	1.01	-0.06	0.555	0.56
	LTE 7	QPSK20M	Top side	0	21100	50	0	-	12.0	11.96	1.01	-0.02	0.969	0.98
07	LTE 7	QPSK20M	Top side	0	20850	1	0	-	13.0	12.94	1.01	-0.02	1.28	1.29
	LTE 7	QPSK20M	Top side	0	21350	1	0	-	13.0	12.95	1.01	0.07	1.05	1.06
	LTE 7	QPSK20M	Top side	0	20850	50	0	-	12.0	11.93	1.02	0.03	1.03	1.05
	LTE 7	QPSK20M	Top side	0	21350	50	0	-	12.0	11.94	1.01	-0.08	0.889	0.90
	LTE 7	QPSK20M	Top side	0	21100	100	0	-	12.0	11.93	1.02	0.02	0.963	0.98
	LTE 7	QPSK20M	Top side	0	20850	1	0	1	13.0	12.94	1.01	0.05	0.905	0.91
	LTE 7	QPSK20M	Top side	0	21100	1	0	1	13.0	12.97	1.01	-0.11	0.979	0.99
	LTE 7	QPSK20M	Top side	0	21350	1	0	1	13.0	12.95	1.01	0.01	0.921	0.93
	LTE 7	QPSK20M	Top side	0	20850	1	0	2	13.0	12.94	1.01	-0.05	1.05	1.06
	LTE 7	QPSK20M	Top side	0	21100	1	0	2	13.0	12.97	1.01	-0.03	1.01	1.02
	LTE 7	QPSK20M	Top side	0	21350	1	0	2	13.0	12.95	1.01	0.08	0.954	0.96
	LTE 7	QPSK20M	Top side	0	20850	1	0	-	13.0	12.94	1.01	0.06	1.24	1.25
	LTE 12	QPSK10M	Rear Face	0	23130	1	0	-	18.0	17.97	1.01	-0.10	0.772	0.78
	LTE 12	QPSK10M	Right Side	0	23130	1	0	-	18.0	17.97	1.01	-0.05	1.22	1.23
	LTE 12	QPSK10M	Top side	0	23130	1	0	-	18.0	17.97	1.01	0.13	0.546	0.55
	LTE 12	QPSK10M	Rear Face	0	23130	25	0	-	17.0	16.99	1.00	0.05	0.512	0.51
	LTE 12	QPSK10M	Right Side	0	23130	25	0	-	17.0	16.99	1.00	-0.07	0.959	0.96
	LTE 12	QPSK10M	Top side	0	23130	25	0	-	17.0	16.99	1.00	0.02	0.398	0.40
08	LTE 12	QPSK10M	Right Side	0	23060	1	0	-	18.0	17.92	1.02	-0.11	1.26	1.29
	LTE 12	QPSK10M	Right Side	0	23095	1	0	-	18.0	17.93	1.02	0.08	1.23	1.25
	LTE 12	QPSK10M	Right Side	0	23060	25	0	-	17.0	16.94	1.01	-0.03	0.996	1.01
	LTE 12	QPSK10M	Right Side	0	23095	25	0	-	17.0	16.95	1.01	0.11	0.938	0.95
	LTE 12	QPSK10M	Right Side	0	23130	50	0	-	17.0	16.91	1.02	0.05	0.926	0.94
	LTE 12	QPSK10M	Right Side	0	23060	1	0	1	18.0	17.92	1.02	0.03	1.03	1.05
	LTE 12	QPSK10M	Right Side	0	23095	1	0	1	18.0	17.93	1.02	-0.08	0.985	1.00
	LTE 12	QPSK10M	Right Side	0	23130	1	0	1	18.0	17.97	1.01	0.02	0.975	0.98
	LTE 12	QPSK10M	Right Side	0	23060	1	0	2	18.0	17.92	1.02	-0.01	1.01	1.03
	LTE 12	QPSK10M	Right Side	0	23095	1	0	2	18.0	17.93	1.02	0.16	0.993	1.01
	LTE 12	QPSK10M	Right Side	0	23130	1	0	2	18.0	17.97	1.01	0.05	0.971	0.98
	LTE 12	QPSK10M	Right Side	0	23060	1	0	-	18.0	17.92	1.02	-0.08	1.23	1.25
	LTE 13	QPSK10M	Rear Face	0	23230	1	0	-	18.5	18.48	1.00	-0.09	0.832	0.83
	LTE 13	QPSK10M	Left Side	0	23230	1	0	-	18.5	18.48	1.00	0.00	<0.001	0.00
09	LTE 13	QPSK10M	Right Side	0	23230	1	0	-	18.5	18.48	1.00	-0.14	1.22	1.22
	LTE 13	QPSK10M	Top side	0	23230	1	0	-	18.5	18.48	1.00	-0.08	0.699	0.70
	LTE 13	QPSK10M	Rear Face	0	23230	25	0	-	17.5	17.47	1.01	0.02	0.583	0.59
	LTE 13	QPSK10M	Left Side	0	23230	25	0	-	17.5	17.47	1.01	0.00	<0.001	0.00
	LTE 13	QPSK10M	Right Side	0	23230	25	0	-	17.5	17.47	1.01	0.13	0.932	0.94
	LTE 13	QPSK10M	Top side	0	23230	25	0	-	17.5	17.47	1.01	0.05	0.513	0.52
	LTE 13	QPSK10M	Rear Face	0	23230	50	0	-	17.5	17.45	1.01	0.16	0.562	0.57
	LTE 13	QPSK10M	Right Side	0	23230	50	0	-	17.5	17.45	1.01	-0.06	0.929	0.94
	LTE 13	QPSK10M	Right Side	0	23230	1	0	1	18.5	18.48	1.00	0.01	1.03	1.03
	LTE 13	QPSK10M	Right Side	0	23230	1	0	2	18.5	18.48	1.00	-0.08	1.02	1.02
	LTE 13	QPSK10M	Right Side	0	23230	1	0	-	18.5	18.48	1.00	-0.14	1.19	1.19

**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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 14	QPSK10M	Rear Face	0	23330	1	0	-	20.5	20.47	1.01	-0.03	0.714	0.72
	LTE 14	QPSK10M	Left Side	0	23330	1	0	-	20.5	20.47	1.01	0.00	<0.001	0.00
10	LTE 14	QPSK10M	Right Side	0	23330	1	0	-	20.5	20.47	1.01	-0.08	1.28	1.29
	LTE 14	QPSK10M	Top side	0	23330	1	0	-	20.5	20.47	1.01	0.13	0.968	0.98
	LTE 14	QPSK10M	Rear Face	0	23330	25	0	-	19.5	19.49	1.00	0.05	0.564	0.56
	LTE 14	QPSK10M	Left Side	0	23330	25	0	-	19.5	19.49	1.00	0.00	<0.001	0.00
	LTE 14	QPSK10M	Right Side	0	23330	25	0	-	19.5	19.49	1.00	0.01	1.01	1.01
	LTE 14	QPSK10M	Top side	0	23330	25	0	-	19.5	19.49	1.00	-0.06	0.775	0.78
	LTE 14	QPSK10M	Right Side	0	23330	50	0	-	19.5	19.42	1.02	-0.03	1.01	1.03
	LTE 14	QPSK10M	Top side	0	23330	50	0	-	19.5	19.42	1.02	0.03	0.753	0.77
	LTE 14	QPSK10M	Right Side	0	23330	1	0	1	20.5	20.47	1.01	-0.05	1.07	1.08
	LTE 14	QPSK10M	Right Side	0	23330	1	0	2	20.5	20.47	1.01	0.01	1.17	1.18
	LTE 14	QPSK10M	Right Side	0	23330	1	0	-	20.5	20.47	1.01	-0.09	1.22	1.23
	LTE 17	QPSK10M	Rear Face	0	23800	1	0	-	18.0	17.98	1.00	-0.11	0.786	0.79
11	LTE 17	QPSK10M	Right Side	0	23800	1	0	-	18.0	17.98	1.00	-0.14	1.24	1.24
	LTE 17	QPSK10M	Top side	0	23800	1	0	-	18.0	17.98	1.00	-0.05	0.794	0.79
	LTE 17	QPSK10M	Rear Face	0	23800	25	0	-	17.0	16.99	1.00	0.03	0.612	0.61
	LTE 17	QPSK10M	Right Side	0	23800	25	0	-	17.0	16.99	1.00	0.01	0.967	0.97
	LTE 17	QPSK10M	Top side	0	23800	25	0	-	17.0	16.99	1.00	0.07	0.626	0.63
	LTE 17	QPSK10M	Right Side	0	23780	1	0	-	18.0	17.89	1.03	-0.01	1.18	1.22
	LTE 17	QPSK10M	Right Side	0	23790	1	0	-	18.0	17.95	1.01	0.05	1.19	1.20
	LTE 17	QPSK10M	Right Side	0	23780	25	0	-	17.0	16.90	1.02	-0.09	0.932	0.95
	LTE 17	QPSK10M	Right Side	0	23790	25	0	-	17.0	16.96	1.01	0.01	0.921	0.93
	LTE 17	QPSK10M	Right Side	0	23800	50	0	-	17.0	16.95	1.01	-0.03	0.951	0.96
	LTE 17	QPSK10M	Right Side	0	23800	1	0	1	18.0	17.98	1.00	0.06	1.22	1.22
	LTE 17	QPSK10M	Right Side	0	23780	1	0	1	18.0	17.89	1.03	-0.02	1.16	1.19
	LTE 17	QPSK10M	Right Side	0	23790	1	0	1	18.0	17.95	1.01	0.05	1.13	1.14
	LTE 17	QPSK10M	Right Side	0	23800	1	0	2	18.0	17.98	1.00	0.09	1.17	1.17
	LTE 17	QPSK10M	Right Side	0	23780	1	0	2	18.0	17.89	1.03	-0.08	1.14	1.17
	LTE 17	QPSK10M	Right Side	0	23790	1	0	2	18.0	17.95	1.01	-0.13	1.09	1.10
	LTE 17	QPSK10M	Right Side	0	23800	1	0	-	18.0	17.98	1.00	0.03	1.19	1.19
	LTE 25	QPSK20M	Rear Face	0	26140	1	0	-	15.0	14.98	1.00	-0.01	0.786	0.79
	LTE 25	QPSK20M	Left Side	0	26140	1	0	-	15.0	14.98	1.00	0.00	<0.001	0.00
	LTE 25	QPSK20M	Right Side	0	26140	1	0	-	15.0	14.98	1.00	-0.03	0.239	0.24
12	LTE 25	QPSK20M	Top side	0	26140	1	0	-	15.0	14.98	1.00	-0.13	1.18	1.18
	LTE 25	QPSK20M	Rear Face	0	26140	50	0	-	14.0	13.99	1.00	0.09	0.629	0.63
	LTE 25	QPSK20M	Left Side	0	26140	50	0	-	14.0	13.99	1.00	0.00	<0.001	0.00
	LTE 25	QPSK20M	Right Side	0	26140	50	0	-	14.0	13.99	1.00	0.12	0.191	0.19
	LTE 25	QPSK20M	Top side	0	26140	50	0	-	14.0	13.99	1.00	0.05	1.01	1.01
	LTE 25	QPSK20M	Top side	0	26365	1	0	-	15.0	14.95	1.01	-0.08	1.08	1.09
	LTE 25	QPSK20M	Top side	0	26590	1	0	-	15.0	14.92	1.02	0.09	0.925	0.94
	LTE 25	QPSK20M	Top side	0	26365	50	0	-	14.0	13.98	1.00	0.01	0.808	0.81
	LTE 25	QPSK20M	Top side	0	26590	50	0	-	14.0	13.95	1.01	0.07	0.757	0.76
	LTE 25	QPSK20M	Top side	0	26140	100	0	-	14.0	13.97	1.01	-0.03	0.832	0.84
	LTE 25	QPSK20M	Top side	0	26590	1	0	1	15.0	14.92	1.02	0.12	1.07	1.09
	LTE 25	QPSK20M	Top side	0	26140	1	0	1	15.0	14.98	1.00	0.05	0.992	0.99
	LTE 25	QPSK20M	Top side	0	26365	1	0	1	15.0	14.95	1.01	-0.08	1.02	1.03
	LTE 25	QPSK20M	Top side	0	26590	1	0	2	15.0	14.92	1.02	0.03	1.09	1.11
	LTE 25	QPSK20M	Top side	0	26140	1	0	2	15.0	14.98	1.00	0.01	1.08	1.08
	LTE 25	QPSK20M	Top side	0	26365	1	0	2	15.0	14.95	1.01	-0.15	1.08	1.09
	LTE 25	QPSK20M	Top side	0	26140	1	0	-	15.0	14.98	1.00	0.03	1.15	1.15

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

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	LTE 26	QPSK15M	Rear Face	0	26865	1	0	-	19.5	19.49	1.00	-0.11	0.963	0.96
	LTE 26	QPSK15M	Left Side	0	26865	1	0	-	19.5	19.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Right Side	0	26865	1	0	-	19.5	19.49	1.00	-0.11	1.26	1.26
	LTE 26	QPSK15M	Top side	0	26865	1	0	-	19.5	19.49	1.00	0.05	0.791	0.79
	LTE 26	QPSK15M	Rear Face	0	26865	36	0	-	18.5	18.48	1.00	-0.03	0.724	0.72
	LTE 26	QPSK15M	Left Side	0	26865	36	0	-	18.5	18.48	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Right Side	0	26865	36	0	-	18.5	18.48	1.00	0.15	0.946	0.95
	LTE 26	QPSK15M	Top side	0	26865	36	0	-	18.5	18.48	1.00	0.03	0.615	0.62
	LTE 26	QPSK15M	Rear Face	0	26765	1	0	-	19.5	19.44	1.01	-0.08	0.948	0.96
	LTE 26	QPSK15M	Rear Face	0	26965	1	0	-	19.5	19.41	1.02	0.05	0.931	0.95
13	LTE 26	QPSK15M	Right Side	0	26765	1	0	-	19.5	19.44	1.01	0.13	1.27	1.28
	LTE 26	QPSK15M	Right Side	0	26965	1	0	-	19.5	19.41	1.02	-0.09	1.22	1.24
	LTE 26	QPSK15M	Right Side	0	26765	36	0	-	18.5	18.43	1.02	-0.01	0.963	0.98
	LTE 26	QPSK15M	Right Side	0	26965	36	0	-	18.5	18.40	1.02	0.03	0.922	0.94
	LTE 26	QPSK15M	Rear Face	0	26865	75	0	-	18.5	18.45	1.01	-0.09	0.732	0.74
	LTE 26	QPSK15M	Right Side	0	26865	75	0	-	18.5	18.45	1.01	0.01	0.948	0.96
	LTE 26	QPSK15M	Right Side	0	26765	1	0	1	19.5	19.44	1.01	0.05	1.25	1.26
	LTE 26	QPSK15M	Right Side	0	26865	1	0	1	19.5	19.49	1.00	-0.06	1.23	1.23
	LTE 26	QPSK15M	Right Side	0	26965	1	0	1	19.5	19.41	1.02	0.03	1.12	1.14
	LTE 26	QPSK15M	Right Side	0	26765	1	0	2	19.5	19.44	1.01	0.01	1.23	1.24
	LTE 26	QPSK15M	Right Side	0	26865	1	0	2	19.5	19.49	1.00	0.07	1.19	1.19
	LTE 26	QPSK15M	Right Side	0	26965	1	0	2	19.5	19.41	1.02	-0.02	1.08	1.10
	LTE 26	QPSK15M	Right Side	0	26765	1	0	-	19.5	19.44	1.01	0.13	1.22	1.23
	LTE 30	QPSK10M	Rear Face	0	27710	1	0	-	12.5	12.47	1.01	0.03	0.628	0.63
	LTE 30	QPSK10M	Right Side	0	27710	1	0	-	12.5	12.47	1.01	-0.08	0.149	0.15
14	LTE 30	QPSK10M	Top side	0	27710	1	0	-	12.5	12.47	1.01	0.12	1.36	1.37
	LTE 30	QPSK10M	Rear Face	0	27710	25	0	-	11.5	11.49	1.00	0.03	0.443	0.44
	LTE 30	QPSK10M	Right Side	0	27710	25	0	-	11.5	11.49	1.00	-0.06	0.115	0.12
	LTE 30	QPSK10M	Top side	0	27710	25	0	-	11.5	11.49	1.00	0.07	1.05	1.05
	LTE 30	QPSK10M	Top side	0	27710	50	0	-	11.5	11.47	1.01	0.03	1.09	1.10
	LTE 30	QPSK10M	Top side	0	27710	1	0	1	12.5	12.47	1.01	-0.11	1.08	1.09
	LTE 30	QPSK10M	Top side	0	27710	1	0	2	12.5	12.47	1.01	0.05	1.19	1.20
	LTE 30	QPSK10M	Top side	0	27710	1	0	-	12.5	12.47	1.01	0.01	1.32	1.33
	LTE 38	QPSK20M	Rear Face	0	37850	1	0	-	16.5	16.47	1.01	-0.01	0.635	0.64
	LTE 38	QPSK20M	Left Side	0	37850	1	0	-	16.5	16.47	1.01	0.00	<0.001	0.00
	LTE 38	QPSK20M	Right Side	0	37850	1	0	-	16.5	16.47	1.01	-0.08	0.959	0.97
15	LTE 38	QPSK20M	Top side	0	37850	1	0	-	16.5	16.47	1.01	0.01	1.32	1.33
	LTE 38	QPSK20M	Rear Face	0	37850	50	0	-	15.5	15.49	1.00	0.12	0.524	0.52
	LTE 38	QPSK20M	Left Side	0	37850	50	0	-	15.5	15.49	1.00	0.00	<0.001	0.00
	LTE 38	QPSK20M	Right Side	0	37850	50	0	-	15.5	15.49	1.00	-0.03	0.777	0.78
	LTE 38	QPSK20M	Top side	0	37850	50	0	-	15.5	15.49	1.00	0.09	1.12	1.12
	LTE 38	QPSK20M	Right Side	0	38000	1	0	-	16.5	16.43	1.02	0.03	0.961	0.98
	LTE 38	QPSK20M	Right Side	0	38150	1	0	-	16.5	16.42	1.02	-0.07	0.982	1.00
	LTE 38	QPSK20M	Top side	0	38000	1	0	-	16.5	16.43	1.02	-0.11	1.25	1.28
	LTE 38	QPSK20M	Top side	0	38150	1	0	-	16.5	16.42	1.02	0.05	1.28	1.31
	LTE 38	QPSK20M	Top side	0	38000	50	0	-	15.5	15.47	1.01	-0.09	1.07	1.08
	LTE 38	QPSK20M	Top side	0	38150	50	0	-	15.5	15.46	1.01	0.13	1.04	1.05
	LTE 38	QPSK20M	Right Side	0	37850	100	0	-	15.5	15.49	1.00	-0.06	0.902	0.90
	LTE 38	QPSK20M	Top side	0	37850	100	0	-	15.5	15.49	1.00	0.08	1.11	1.11
	LTE 38	QPSK20M	Top side	0	37850	1	0	1	16.5	16.47	1.01	0.12	1.15	1.16
	LTE 38	QPSK20M	Top side	0	38000	1	0	1	16.5	16.43	1.02	0.05	1.09	1.11
	LTE 38	QPSK20M	Top side	0	38150	1	0	1	16.5	16.42	1.02	-0.04	1.09	1.11
	LTE 38	QPSK20M	Top side	0	37850	1	0	2	16.5	16.47	1.01	0.07	1.21	1.22
	LTE 38	QPSK20M	Top side	0	38000	1	0	2	16.5	16.43	1.02	-0.11	1.06	1.08
	LTE 38	QPSK20M	Top side	0	38150	1	0	2	16.5	16.42	1.02	0.05	1.08	1.10
	LTE 38	QPSK20M	Top side	0	37850	1	0	-	16.5	16.47	1.01	0.03	1.28	1.29

**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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 41	QPSK20M	Rear Face	0	40185	1	0	-	14.5	14.49	1.00	0.03	0.615	0.62
	LTE 41	QPSK20M	Left Side	0	40185	1	0	-	14.5	14.49	1.00	0.00	<0.001	0.00
	LTE 41	QPSK20M	Right Side	0	40185	1	0	-	14.5	14.49	1.00	-0.06	0.712	0.71
16	LTE 41	QPSK20M	Top side	0	40185	1	0	-	14.5	14.49	1.00	-0.07	1.27	1.27
	LTE 41	QPSK20M	Rear Face	0	40185	50	0	-	13.5	13.47	1.01	0.11	0.549	0.55
	LTE 41	QPSK20M	Left Side	0	40185	50	0	-	13.5	13.47	1.01	0.05	<0.001	0.00
	LTE 41	QPSK20M	Right Side	0	40185	50	0	-	13.5	13.47	1.01	-0.06	0.602	0.61
	LTE 41	QPSK20M	Top side	0	40185	50	0	-	13.5	13.47	1.01	-0.03	0.784	0.79
	LTE 41	QPSK20M	Top side	0	39750	1	0	-	14.5	14.47	1.01	-0.07	1.06	1.07
	LTE 41	QPSK20M	Top side	0	40620	1	0	-	14.5	14.43	1.02	0.09	0.967	0.99
	LTE 41	QPSK20M	Top side	0	41055	1	0	-	14.5	14.41	1.02	0.02	0.898	0.92
	LTE 41	QPSK20M	Top side	0	41490	1	0	-	14.5	14.38	1.03	-0.06	0.823	0.85
	LTE 41	QPSK20M	Top side	0	40185	100	0	-	13.5	13.43	1.02	-0.01	0.845	0.86
	LTE 41	QPSK20M	Top side	0	39750	1	0	1	14.5	14.47	1.01	0.15	0.886	0.89
	LTE 41	QPSK20M	Top side	0	40185	1	0	1	14.5	14.49	1.00	-0.03	0.759	0.76
	LTE 41	QPSK20M	Top side	0	40620	1	0	1	14.5	14.43	1.02	0.01	0.687	0.70
	LTE 41	QPSK20M	Top side	0	41055	1	0	1	14.5	14.41	1.02	-0.05	0.555	0.57
	LTE 41	QPSK20M	Top side	0	41490	1	0	1	14.5	14.38	1.03	0.07	0.498	0.51
	LTE 41	QPSK20M	Top side	0	39750	1	0	2	14.5	14.47	1.01	0.04	1.20	1.21
	LTE 41	QPSK20M	Top side	0	40185	1	0	2	14.5	14.49	1.00	-0.03	1.03	1.03
	LTE 41	QPSK20M	Top side	0	40620	1	0	2	14.5	14.43	1.02	0.11	0.931	0.95
	LTE 41	QPSK20M	Top side	0	41055	1	0	2	14.5	14.41	1.02	0.05	0.752	0.77
	LTE 41	QPSK20M	Top side	0	41490	1	0	2	14.5	14.38	1.03	-0.06	0.676	0.70
	LTE 41	QPSK20M	Top side	0	40185	1	0	-	14.5	14.49	1.00	0.13	1.23	1.23
	LTE 66	QPSK20M	Rear Face	0	132322	1	0	-	14.0	13.99	1.00	-0.05	0.579	0.58
	LTE 66	QPSK20M	Left Side	0	132322	1	0	-	14.0	13.99	1.00	0.00	<0.001	0.00
	LTE 66	QPSK20M	Right Side	0	132322	1	0	-	14.0	13.99	1.00	0.03	0.369	0.37
	LTE 66	QPSK20M	Top side	0	132322	1	0	-	14.0	13.99	1.00	-0.08	1.27	1.27
	LTE 66	QPSK20M	Rear Face	0	132322	50	0	-	13.0	12.98	1.00	0.01	0.494	0.49
	LTE 66	QPSK20M	Left Side	0	132322	50	0	-	13.0	12.98	1.00	0.00	<0.001	0.00
	LTE 66	QPSK20M	Right Side	0	132322	50	0	-	13.0	12.98	1.00	0.05	0.288	0.29
	LTE 66	QPSK20M	Top side	0	132322	50	0	-	13.0	12.98	1.00	-0.03	1.01	1.01
	LTE 66	QPSK20M	Top side	0	132072	1	0	-	14.0	13.92	1.02	0.07	1.24	1.26
17	LTE 66	QPSK20M	Top side	0	132572	1	0	-	14.0	13.96	1.01	-0.08	1.29	1.30
	LTE 66	QPSK20M	Top side	0	132072	50	0	-	13.0	12.91	1.02	0.11	0.956	0.98
	LTE 66	QPSK20M	Top side	0	132572	50	0	-	13.0	12.95	1.01	0.08	0.987	1.00
	LTE 66	QPSK20M	Top side	0	132322	100	0	-	13.0	12.95	1.01	-0.03	1.01	1.02
	LTE 66	QPSK20M	Top side	0	132572	1	0	1	14.0	13.96	1.01	-0.08	1.04	1.05
	LTE 66	QPSK20M	Top side	0	132072	1	0	1	14.0	13.92	1.02	0.01	0.982	1.00
	LTE 66	QPSK20M	Top side	0	132322	1	0	1	14.0	13.99	1.00	-0.05	1.02	1.02
	LTE 66	QPSK20M	Top side	0	132572	1	0	2	14.0	13.96	1.01	0.03	1.07	1.08
	LTE 66	QPSK20M	Top side	0	132072	1	0	2	14.0	13.92	1.02	0.08	1.04	1.06
	LTE 66	QPSK20M	Top side	0	132322	1	0	2	14.0	13.99	1.00	0.13	1.06	1.06
	LTE 66	QPSK20M	Top side	0	132572	1	0	-	14.0	13.96	1.01	-0.02	1.25	1.26

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 (cm)	Ch.	Keyboard	Tx Antenna	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	11	-	Ant 0	99.00	1.01	16.0	15.99	1.00	-0.11	0.621	0.63
	WLAN2.4G	802.11b	Right Side	0	11	-	Ant 0	99.00	1.01	16.0	15.99	1.00	0.05	0.248	0.25
	WLAN2.4G	802.11b	Top Side	0	11	-	Ant 0	99.00	1.01	16.0	15.99	1.00	-0.03	0.117	0.12
18	WLAN2.4G	802.11b	Rear Face	0	1	-	Ant 1	99.00	1.01	17.0	16.93	1.02	0.05	1.32	1.36
	WLAN2.4G	802.11b	Right Side	0	1	-	Ant 1	99.00	1.01	17.0	16.93	1.02	0.01	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	0	1	-	Ant 1	99.00	1.01	17.0	16.93	1.02	0.05	0.536	0.55
	WLAN2.4G	802.11n HT40	Rear Face	0	3	-	Ant 0+1	97.60	1.02	16.0	15.95	1.01	0.05	0.491	0.51
	WLAN2.4G	802.11n HT40	Right Side	0	3	-	Ant 0+1	97.60	1.02	16.0	15.95	1.01	-0.09	0.148	0.15
	WLAN2.4G	802.11n HT40	Top Side	0	3	-	Ant 0+1	97.60	1.02	16.0	15.95	1.01	0.11	0.142	0.15
	WLAN2.4G	802.11b	Rear Face	0	6	-	Ant 1	99.00	1.01	17.0	16.87	1.03	-0.03	1.31	1.36
	WLAN2.4G	802.11b	Rear Face	0	11	-	Ant 1	99.00	1.01	17.0	16.91	1.02	0.08	1.22	1.26
	WLAN2.4G	802.11b	Rear Face	0	12	-	Ant 1	99.00	1.01	17.0	16.83	1.04	0.01	1.13	1.19
	WLAN2.4G	802.11b	Rear Face	0	13	-	Ant 1	99.00	1.01	15.25	15.14	1.04	-0.07	0.823	0.86
	WLAN2.4G	802.11g	Rear Face	0	6	-	Ant 1	99.00	1.01	17.0	16.98	1.00	0.01	0.736	0.74
	WLAN2.4G	802.11n HT20	Rear Face	0	6	-	Ant 1	97.60	1.02	17.0	16.98	1.00	-0.03	0.687	0.70
	WLAN2.4G	802.11n HT40	Rear Face	0	3	-	Ant 1	97.60	1.02	17.0	15.98	1.26	0.08	0.595	0.76
	WLAN2.4G	802.11n HT40	Rear Face	0	6	-	Ant 1	97.60	1.02	17.0	15.98	1.26	-0.12	0.594	0.76
	WLAN2.4G	802.11b	Rear Face	0	1	1	Ant 1	99.00	1.01	17.0	16.93	1.02	-0.07	0.29	0.30
	WLAN2.4G	802.11b	Rear Face	0	1	2	Ant 1	99.00	1.01	17.0	16.93	1.02	0.06	0.538	0.55
	WLAN2.4G	802.11b	Rear Face	0	1	-	Ant 1	99.00	1.01	17.0	16.93	1.02	0.01	1.29	1.33
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	-	Ant 0	97.80	1.02	15.0	14.99	1.00	0.08	0.611	0.62
	WLAN5.3G	802.11ac VHT80	Right Side	0	58	-	Ant 0	97.80	1.02	15.0	14.99	1.00	-0.02	0.292	0.30
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	-	Ant 0	97.80	1.02	15.0	14.99	1.00	0.04	0.368	0.38
19	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	-	Ant 1	98.00	1.02	17.0	16.93	1.02	-0.02	1.11	1.15
	WLAN5.3G	802.11ac VHT80	Right Side	0	58	-	Ant 1	98.00	1.02	17.0	16.93	1.02	0.07	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	-	Ant 1	98.00	1.02	17.0	16.93	1.02	-0.05	0.512	0.53
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	-	Ant 0+1	97.80	1.02	15.0	14.94	1.01	0.03	0.531	0.55
	WLAN5.3G	802.11ac VHT80	Right Side	0	58	-	Ant 0+1	97.80	1.02	15.0	14.94	1.01	0.09	0.133	0.14
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	-	Ant 0+1	97.80	1.02	15.0	14.94	1.01	0.11	0.155	0.16
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	1	Ant 1	98.00	1.02	17.0	16.93	1.02	0.08	0.186	0.19
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	2	Ant 1	98.00	1.02	17.0	16.93	1.02	-0.03	0.258	0.27
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	-	Ant 1	98.00	1.02	17.0	16.93	1.02	0.05	1.07	1.11
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	-	Ant 0	97.80	1.02	15.0	14.98	1.00	0.05	0.542	0.55
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	-	Ant 0	97.80	1.02	15.0	14.98	1.00	-0.06	0.023	0.02
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	-	Ant 0	97.80	1.02	15.0	14.98	1.00	0.01	0.057	0.06
20	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	-	Ant 1	98.00	1.02	17.0	16.99	1.00	-0.03	1.15	1.17
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	-	Ant 1	98.00	1.02	17.0	16.99	1.00	0.05	0.534	0.54
	WLAN5.6G	802.11ac VHT80	Rear Face	0	138	-	Ant 0+1	98.00	1.02	15.0	14.98	1.00	-0.03	0.298	0.30
	WLAN5.6G	802.11ac VHT80	Right Side	0	138	-	Ant 0+1	98.00	1.02	15.0	14.98	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	0	138	-	Ant 0+1	98.00	1.02	15.0	14.98	1.00	0.04	0.139	0.14
	WLAN5.6G	802.11ac VHT80	Rear Face	0	122	-	Ant 1	98.00	1.02	17.0	16.95	1.01	-0.02	1.11	1.14
	WLAN5.6G	802.11ac VHT80	Rear Face	0	138	-	Ant 1	98.00	1.02	17.0	16.93	1.02	0.01	1.04	1.08
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	1	Ant 1	98.00	1.02	17.0	16.99	1.00	0.03	0.175	0.18
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	2	Ant 1	98.00	1.02	17.0	16.99	1.00	-0.05	0.252	0.26
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	-	Ant 1	98.00	1.02	17.0	16.99	1.00	0.06	1.11	1.13

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 (cm)	Ch.	Keyboard	Tx Antenna	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	802.11ac VHT80	Rear Face	0	155	-	Ant 0	97.80	1.02	15.0	14.86	1.03	-0.11	0.132	0.14
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	-	Ant 0	97.80	1.02	15.0	14.86	1.03	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	-	Ant 0	97.80	1.02	15.0	14.86	1.03	0.02	0.085	0.09
21	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	-	Ant 1	98.00	1.02	17.0	16.94	1.01	-0.06	0.501	0.52
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	-	Ant 1	98.00	1.02	17.0	16.94	1.01	0.09	0.342	0.35
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	-	Ant 0+1	98.00	1.02	15.0	14.91	1.02	0.05	0.235	0.24
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	-	Ant 0+1	98.00	1.02	15.0	14.91	1.02	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	-	Ant 0+1	98.00	1.02	15.0	14.91	1.02	0.13	0.133	0.14
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	1	Ant 1	98.00	1.02	17.0	16.94	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	2	Ant 1	98.00	1.02	17.0	16.94	1.01	0.00	<0.001	0.00
	BT	BDR	Rear Face	0	78	-	Ant 0	76.40	1.31	10.5	9.49	1.26	-0.13	0.101	0.17
	BT	BDR	Right Side	0	78	-	Ant 0	76.40	1.31	10.5	9.49	1.26	0.00	<0.001	0.00
	BT	BDR	Top Side	0	78	-	Ant 0	76.40	1.31	10.5	9.49	1.26	0.16	0.028	0.05
22	BT	BDR	Rear Face	0	0	-	Ant 0	76.40	1.31	10.5	9.47	1.27	-0.08	0.126	0.21
	BT	BDR	Rear Face	0	39	-	Ant 0	76.40	1.31	10.5	9.31	1.32	0.05	0.111	0.19
	BT	BDR	Rear Face	0	0	1	Ant 0	76.40	1.31	10.5	9.47	1.27	0.00	<0.001	0.00
	BT	BDR	Rear Face	0	0	2	Ant 0	76.40	1.31	10.5	9.47	1.27	0.00	<0.001	0.00

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

# FCC SAR Test Report

## Laptop Mode

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	Keyboard	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	Bottom	0	9400	1	23.5	23.41	1.02	0.00	<0.001	0.00
	WCDMA II	RMC12.2K	Back of panel	25	9400	1	23.5	23.41	1.02	-0.06	0.149	0.15
	WCDMA II	RMC12.2K	Right of panel	25	9400	1	23.5	23.41	1.02	0.11	0.07	0.07
	WCDMA II	RMC12.2K	Top of panel	25	9400	1	23.5	23.41	1.02	0.05	0.355	0.36
23	WCDMA II	RMC12.2K	Top of panel	25	9262	1	23.5	23.35	1.04	-0.04	0.367	0.38
	WCDMA II	RMC12.2K	Top of panel	25	9538	1	23.5	23.31	1.04	-0.05	0.287	0.30
	WCDMA II	RMC12.2K	Top of panel	25	9262	2	23.5	23.35	1.04	0.12	0.304	0.32
	WCDMA IV	RMC12.2K	Bottom	0	1413	1	24.0	23.75	1.06	0	<0.001	0.00
	WCDMA IV	RMC12.2K	Back of panel	25	1413	1	24.0	23.75	1.06	0.12	0.118	0.13
	WCDMA IV	RMC12.2K	Right of panel	25	1413	1	24.0	23.75	1.06	0.05	0.051	0.05
	WCDMA IV	RMC12.2K	Top of panel	25	1413	1	24.0	23.75	1.06	0.12	0.280	0.30
	WCDMA IV	RMC12.2K	Top of panel	25	1312	1	24.0	23.61	1.09	-0.06	0.250	0.27
24	WCDMA IV	RMC12.2K	Top of panel	25	1513	1	24.0	23.69	1.07	0.01	0.307	0.33
	WCDMA IV	RMC12.2K	Top of panel	25	1513	2	24.0	23.69	1.07	0.02	0.303	0.32
	WCDMA V	RMC12.2K	Bottom	0	4182	1	23.5	23.41	1.02	0	<0.001	0.00
	WCDMA V	RMC12.2K	Back of panel	25	4182	1	23.5	23.41	1.02	0.14	0.104	0.11
	WCDMA V	RMC12.2K	Right of panel	25	4182	1	23.5	23.41	1.02	0.11	0.065	0.07
	WCDMA V	RMC12.2K	Top of panel	25	4182	1	23.5	23.41	1.02	0.02	0.109	0.11
	WCDMA V	RMC12.2K	Top of panel	25	4132	1	23.5	23.37	1.03	-0.05	0.107	0.11
25	WCDMA V	RMC12.2K	Top of panel	25	4233	1	23.5	23.35	1.04	-0.01	0.116	0.12
	WCDMA V	RMC12.2K	Top of panel	25	4233	2	23.5	23.35	1.04	0.14	0.110	0.11

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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 2	QPSK20M	Bottom	0	19100	1	0	1	23.0	22.88	1.03	0	<0.001	0.00
	LTE 2	QPSK20M	Back of panel	25	19100	1	0	1	23.0	22.88	1.03	0.12	0.096	0.10
	LTE 2	QPSK20M	Right of panel	25	19100	1	0	1	23.0	22.88	1.03	0.14	0.056	0.06
	LTE 2	QPSK20M	Top of panel	25	19100	1	0	1	23.0	22.88	1.03	0.05	0.261	0.27
	LTE 2	QPSK20M	Bottom	0	19100	50	0	1	22.0	21.83	1.04	0	<0.001	0.00
	LTE 2	QPSK20M	Back of panel	25	19100	50	0	1	22.0	21.83	1.04	0.14	0.074	0.08
	LTE 2	QPSK20M	Right of panel	25	19100	50	0	1	22.0	21.83	1.04	0.12	0.044	0.05
	LTE 2	QPSK20M	Top of panel	25	19100	50	0	1	22.0	21.83	1.04	0.05	0.200	0.21
26	LTE 2	QPSK20M	Top of panel	25	18700	1	0	1	23.0	22.85	1.04	0.14	0.338	0.35
	LTE 2	QPSK20M	Top of panel	25	18900	1	0	1	23.0	22.83	1.04	-0.05	0.295	0.31
	LTE 2	QPSK20M	Top of panel	25	18700	1	0	2	23.0	22.85	1.04	0.01	0.327	0.34
	LTE 4	QPSK20M	Bottom	0	20175	1	0	1	23.5	23.42	1.02	0	<0.001	0.00
	LTE 4	QPSK20M	Back of panel	25	20175	1	0	1	23.5	23.42	1.02	0.12	0.091	0.09
	LTE 4	QPSK20M	Right of panel	25	20175	1	0	1	23.5	23.42	1.02	0.13	0.048	0.05
27	LTE 4	QPSK20M	Top of panel	25	20175	1	0	1	23.5	23.42	1.02	0.11	0.256	0.26
	LTE 4	QPSK20M	Bottom	0	20175	50	0	1	22.5	22.38	1.03	0	<0.001	0.00
	LTE 4	QPSK20M	Back of panel	25	20175	50	0	1	22.5	22.38	1.03	0.06	0.071	0.07
	LTE 4	QPSK20M	Right of panel	25	20175	50	0	1	22.5	22.38	1.03	0.12	0.037	0.04
	LTE 4	QPSK20M	Top of panel	25	20175	50	0	1	22.5	22.38	1.03	0.14	0.205	0.21
	LTE 4	QPSK20M	Top of panel	25	20050	1	0	1	23.5	23.37	1.03	0.05	0.195	0.20
	LTE 4	QPSK20M	Top of panel	25	20300	1	0	1	23.5	23.33	1.04	0.02	0.220	0.23
	LTE 4	QPSK20M	Top of panel	25	20175	1	0	2	23.5	23.42	1.02	0.03	0.210	0.21

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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 5	QPSK10M	Bottom	0	20525	1	0	1	23.0	22.93	1.02	0	<0.001	0.00
	LTE 5	QPSK10M	Back of panel	25	20525	1	0	1	23.0	22.93	1.02	0.05	0.090	0.09
	LTE 5	QPSK10M	Right of panel	25	20525	1	0	1	23.0	22.93	1.02	0.12	0.052	0.05
28	LTE 5	QPSK10M	Top of panel	25	20525	1	0	1	23.0	22.93	1.02	-0.05	0.097	0.10
	LTE 5	QPSK10M	Bottom	0	20525	25	0	1	22.0	21.83	1.04	0	<0.001	0.00
	LTE 5	QPSK10M	Back of panel	25	20525	25	0	1	22.0	21.83	1.04	0.05	0.065	0.07
	LTE 5	QPSK10M	Right of panel	25	20525	25	0	1	22.0	21.83	1.04	0.11	0.042	0.04
	LTE 5	QPSK10M	Top of panel	25	20525	25	0	1	22.0	21.83	1.04	0.12	0.077	0.08
	LTE 5	QPSK10M	Top of panel	25	20450	1	0	1	23.0	22.84	1.04	0.11	0.087	0.09
	LTE 5	QPSK10M	Top of panel	25	20600	1	0	1	23.0	22.91	1.02	0.05	0.084	0.09
	LTE 5	QPSK10M	Top of panel	25	20525	1	0	2	23.0	22.93	1.02	0.04	0.094	0.10
	LTE 7	QPSK20M	Bottom	0	21100	1	99	1	23.5	23.29	1.05	0	<0.001	0.00
	LTE 7	QPSK20M	Back of panel	25	21100	1	99	1	23.5	23.29	1.05	0.12	0.155	0.16
	LTE 7	QPSK20M	Right of panel	25	21100	1	99	1	23.5	23.29	1.05	0.14	0.139	0.15
	LTE 7	QPSK20M	Top of panel	25	21100	1	99	1	23.5	23.29	1.05	0.15	0.296	0.31
	LTE 7	QPSK20M	Bottom	0	21100	50	50	1	22.5	22.21	1.07	0	<0.001	0.00
	LTE 7	QPSK20M	Back of panel	25	21100	50	50	1	22.5	22.21	1.07	0.05	0.117	0.13
	LTE 7	QPSK20M	Right of panel	25	21100	50	50	1	22.5	22.21	1.07	0.04	0.105	0.11
	LTE 7	QPSK20M	Top of panel	25	21100	50	50	1	22.5	22.21	1.07	0.14	0.229	0.25
29	LTE 7	QPSK20M	Top of panel	25	20850	1	99	1	23.5	23.18	1.08	-0.11	0.315	0.34
	LTE 7	QPSK20M	Top of panel	25	21350	1	99	1	23.5	23.24	1.06	0.12	0.241	0.26
	LTE 7	QPSK20M	Top of panel	25	20850	1	99	2	23.5	23.18	1.08	0.12	0.307	0.33
	LTE 12	QPSK10M	Bottom	0	23095	1	0	1	23.0	22.88	1.03	0	<0.001	0.00
	LTE 12	QPSK10M	Back of panel	25	23095	1	0	1	23.0	22.88	1.03	0.12	0.039	0.04
	LTE 12	QPSK10M	Right of panel	25	23095	1	0	1	23.0	22.88	1.03	0.12	0.036	0.04
30	LTE 12	QPSK10M	Top of panel	25	23095	1	0	1	23.0	22.88	1.03	0.03	0.047	0.05
	LTE 12	QPSK10M	Bottom	0	23095	25	0	1	22.0	21.81	1.04	0.14	<0.001	0.00
	LTE 12	QPSK10M	Back of panel	25	23095	25	0	1	22.0	21.81	1.04	-0.06	0.018	0.02
	LTE 12	QPSK10M	Right of panel	25	23095	25	0	1	22.0	21.81	1.04	-0.05	0.012	0.01
	LTE 12	QPSK10M	Top of panel	25	23095	25	0	1	22.0	21.81	1.04	0.11	0.020	0.02
	LTE 12	QPSK10M	Top of panel	25	23060	1	0	1	23.0	22.76	1.06	0.13	0.041	0.04
	LTE 12	QPSK10M	Top of panel	25	23130	1	0	1	23.0	22.81	1.04	0.14	0.042	0.04
	LTE 12	QPSK10M	Top of panel	25	23095	1	0	2	23.0	22.88	1.03	0.06	0.045	0.05
	LTE 13	QPSK10M	Bottom	0	23230	1	49	1	23.0	22.83	1.04	0	<0.001	0.00
	LTE 13	QPSK10M	Back of panel	25	23230	1	49	1	23.0	22.83	1.04	0.09	0.068	0.07
	LTE 13	QPSK10M	Right of panel	25	23230	1	49	1	23.0	22.83	1.04	0	<0.001	0.00
31	LTE 13	QPSK10M	Top of panel	25	23230	1	49	1	23.0	22.83	1.04	-0.10	0.077	0.08
	LTE 13	QPSK10M	Bottom	0	23230	25	25	1	22.0	21.89	1.03	0	<0.001	0.00
	LTE 13	QPSK10M	Back of panel	25	23230	25	25	1	22.0	21.89	1.03	0.11	0.057	0.06
	LTE 13	QPSK10M	Right of panel	25	23230	25	25	1	22.0	21.89	1.03	0	<0.001	0.00
	LTE 13	QPSK10M	Top of panel	25	23230	25	25	1	22.0	21.89	1.03	0.12	0.061	0.06
	LTE 13	QPSK10M	Top of panel	25	23230	1	49	2	23.0	22.83	1.04	0.12	0.072	0.07
	LTE 14	QPSK10M	Bottom	0	23330	1	0	1	23.0	22.82	1.04	0	<0.001	0.00
	LTE 14	QPSK10M	Back of panel	25	23330	1	0	1	23.0	22.82	1.04	0.14	0.064	0.07
	LTE 14	QPSK10M	Right of panel	25	23330	1	0	1	23.0	22.82	1.04	0	<0.001	0.00
32	LTE 14	QPSK10M	Top of panel	25	23330	1	0	1	23.0	22.82	1.04	-0.16	0.077	0.08
	LTE 14	QPSK10M	Bottom	0	23330	25	0	1	22.0	21.77	1.05	0	<0.001	0.00
	LTE 14	QPSK10M	Back of panel	25	23330	25	0	1	22.0	21.77	1.05	0.12	0.029	0.03
	LTE 14	QPSK10M	Right of panel	25	23330	25	0	1	22.0	21.77	1.05	0	<0.001	0.00
	LTE 14	QPSK10M	Top of panel	25	23330	25	0	1	22.0	21.77	1.05	0.11	0.058	0.06
	LTE 14	QPSK10M	Top of panel	25	23330	1	0	2	23.0	22.82	1.04	0.12	0.074	0.08

**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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 17	QPSK10M	Bottom	0	23790	1	0	1	23.0	22.85	1.04	0	<0.001	0.00
	LTE 17	QPSK10M	Back of panel	25	23790	1	0	1	23.0	22.85	1.04	0.1	0.045	0.05
	LTE 17	QPSK10M	Right of panel	25	23790	1	0	1	23.0	22.85	1.04	0.14	0.048	0.05
33	LTE 17	QPSK10M	Top of panel	25	23790	1	0	1	23.0	22.85	1.04	-0.02	0.050	0.05
	LTE 17	QPSK10M	Bottom	0	23790	25	0	1	22.0	21.81	1.04	0.06	<0.001	0.00
	LTE 17	QPSK10M	Back of panel	25	23790	25	0	1	22.0	21.81	1.04	0.05	0.017	0.02
	LTE 17	QPSK10M	Right of panel	25	23790	25	0	1	22.0	21.81	1.04	-0.03	0.019	0.02
	LTE 17	QPSK10M	Top of panel	25	23790	25	0	1	22.0	21.81	1.04	0.11	0.021	0.02
	LTE 17	QPSK10M	Top of panel	25	23780	1	0	1	23.0	22.84	1.04	0.14	0.048	0.05
	LTE 17	QPSK10M	Top of panel	25	23800	1	0	1	23.0	22.76	1.06	0.13	0.047	0.05
	LTE 17	QPSK10M	Top of panel	25	23790	1	0	2	23.0	22.85	1.04	0.11	0.048	0.05
	LTE 25	QPSK20M	Bottom	0	26140	1	0	1	23.0	22.93	1.02	0	<0.001	0.00
	LTE 25	QPSK20M	Back of panel	25	26140	1	0	1	23.0	22.93	1.02	0.05	0.129	0.13
	LTE 25	QPSK20M	Right of panel	25	26140	1	0	1	23.0	22.93	1.02	0.11	0.070	0.07
34	LTE 25	QPSK20M	Top of panel	25	26140	1	0	1	23.0	22.93	1.02	0.01	0.329	0.34
	LTE 25	QPSK20M	Bottom	0	26140	50	0	1	22.0	21.92	1.02	0	<0.001	0.00
	LTE 25	QPSK20M	Back of panel	25	26140	50	0	1	22.0	21.92	1.02	0.03	0.097	0.10
	LTE 25	QPSK20M	Right of panel	25	26140	50	0	1	22.0	21.92	1.02	0.05	0.055	0.06
	LTE 25	QPSK20M	Top of panel	25	26140	50	0	1	22.0	21.92	1.02	0.11	0.240	0.24
	LTE 25	QPSK20M	Top of panel	25	26365	1	0	1	23.0	22.78	1.05	0.01	0.269	0.28
	LTE 25	QPSK20M	Top of panel	25	26590	1	0	1	23.0	22.85	1.04	0.06	0.256	0.27
	LTE 25	QPSK20M	Top of panel	25	26140	1	0	2	23.0	22.93	1.02	-0.03	0.320	0.33
	LTE 26	QPSK15M	Bottom	0	26965	1	0	1	23.0	22.87	1.03	0	<0.001	0.00
	LTE 26	QPSK15M	Back of panel	25	26965	1	0	1	23.0	22.87	1.03	0.11	0.098	0.10
	LTE 26	QPSK15M	Right of panel	25	26965	1	0	1	23.0	22.87	1.03	0.14	0.054	0.06
35	LTE 26	QPSK15M	Top of panel	25	26965	1	0	1	23.0	22.87	1.03	-0.01	0.103	0.11
	LTE 26	QPSK15M	Bottom	0	26965	36	0	1	22.0	21.89	1.03	0	<0.001	0.00
	LTE 26	QPSK15M	Back of panel	25	26965	36	0	1	22.0	21.89	1.03	0.15	0.076	0.08
	LTE 26	QPSK15M	Right of panel	25	26965	36	0	1	22.0	21.89	1.03	0.13	0.022	0.02
	LTE 26	QPSK15M	Top of panel	25	26965	36	0	1	22.0	21.89	1.03	0.01	0.084	0.09
	LTE 26	QPSK15M	Top of panel	25	26765	1	0	1	23.0	22.83	1.04	0.05	0.087	0.09
	LTE 26	QPSK15M	Top of panel	25	26865	1	0	1	23.0	22.84	1.04	0.14	0.089	0.09
	LTE 26	QPSK15M	Top of panel	25	26965	1	0	2	23.0	22.87	1.03	0.11	0.100	0.10
	LTE 30	QPSK10M	Bottom	0	27710	1	0	1	22.0	21.97	1.01	0	<0.001	0.00
	LTE 30	QPSK10M	Back of panel	25	27710	1	0	1	22.0	21.97	1.01	0.14	0.085	0.09
	LTE 30	QPSK10M	Right of panel	25	27710	1	0	1	22.0	21.97	1.01	0	<0.001	0.00
36	LTE 30	QPSK10M	Top of panel	25	27710	1	0	1	22.0	21.97	1.01	0.02	0.217	0.22
	LTE 30	QPSK10M	Bottom	0	27710	25	0	1	21.0	20.92	1.02	0	<0.001	0.00
	LTE 30	QPSK10M	Back of panel	25	27710	25	0	1	21.0	20.92	1.02	0.14	0.069	0.07
	LTE 30	QPSK10M	Right of panel	25	27710	25	0	1	21.0	20.92	1.02	0	<0.001	0.00
	LTE 30	QPSK10M	Top of panel	25	27710	25	0	1	21.0	20.92	1.02	0.14	0.171	0.17
	LTE 30	QPSK10M	Top of panel	25	27710	1	0	2	22.0	21.97	1.01	0.11	0.167	0.17
	LTE 38	QPSK20M	Bottom	0	37850	1	0	1	23.0	22.92	1.02	0	<0.001	0.00
	LTE 38	QPSK20M	Back of panel	25	37850	1	0	1	23.0	22.92	1.02	0.12	0.136	0.14
	LTE 38	QPSK20M	Right of panel	25	37850	1	0	1	23.0	22.92	1.02	0.05	0.152	0.16
37	LTE 38	QPSK20M	Top of panel	25	37850	1	0	1	23.0	22.92	1.02	0.08	0.251	0.26
	LTE 38	QPSK20M	Bottom	0	37850	50	0	1	22.0	21.96	1.01	0	<0.001	0.00
	LTE 38	QPSK20M	Back of panel	25	37850	50	0	1	22.0	21.96	1.01	0.11	0.119	0.12
	LTE 38	QPSK20M	Right of panel	25	37850	50	0	1	22.0	21.96	1.01	0.14	0.124	0.13
	LTE 38	QPSK20M	Top of panel	25	37850	50	0	1	22.0	21.96	1.01	0.03	0.176	0.18
	LTE 38	QPSK20M	Top of panel	25	38000	1	0	1	23.0	22.84	1.04	0.09	0.213	0.22
	LTE 38	QPSK20M	Top of panel	25	38150	1	0	1	23.0	22.81	1.04	0.14	0.211	0.22
	LTE 38	QPSK20M	Top of panel	25	37850	1	0	2	23.0	22.92	1.02	0.15	0.246	0.25

**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 (cm)	Ch.	RB#	RB Offset	Keyboard	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 41	QPSK20M	Bottom	0	40185	1	0	1	23.0	22.89	1.03	0	<0.001	0.00
	LTE 41	QPSK20M	Back of panel	25	40185	1	0	1	23.0	22.89	1.03	0.11	0.122	0.13
	LTE 41	QPSK20M	Right of panel	25	40185	1	0	1	23.0	22.89	1.03	-0.02	0.088	0.09
38	LTE 41	QPSK20M	Top of panel	25	40185	1	0	1	23.0	22.89	1.03	-0.01	0.231	0.24
	LTE 41	QPSK20M	Bottom	0	40185	50	0	1	22.0	21.84	1.04	0	<0.001	0.00
	LTE 41	QPSK20M	Back of panel	25	40185	50	0	1	22.0	21.84	1.04	0.03	0.093	0.10
	LTE 41	QPSK20M	Right of panel	25	40185	50	0	1	22.0	21.84	1.04	0.14	0.064	0.07
	LTE 41	QPSK20M	Top of panel	25	40185	50	0	1	22.0	21.84	1.04	0.05	0.187	0.19
	LTE 41	QPSK20M	Top of panel	25	39750	1	0	1	23.0	22.88	1.03	0.12	0.192	0.20
	LTE 41	QPSK20M	Top of panel	25	40620	1	0	1	23.0	22.81	1.04	0.14	0.132	0.14
	LTE 41	QPSK20M	Top of panel	25	41055	1	0	1	23.0	22.87	1.03	0.03	0.124	0.13
	LTE 41	QPSK20M	Top of panel	25	41490	1	0	1	23.0	22.82	1.04	0.14	0.135	0.14
	LTE 41	QPSK20M	Top of panel	25	40185	1	0	2	23.0	22.89	1.03	0.12	0.223	0.23
	LTE 66	QPSK20M	Bottom	0	132072	1	0	1	23.5	23.36	1.03	0	<0.001	0.00
	LTE 66	QPSK20M	Back of panel	25	132072	1	0	1	23.5	23.36	1.03	0.02	0.098	0.10
	LTE 66	QPSK20M	Right of panel	25	132072	1	0	1	23.5	23.36	1.03	-0.05	0.052	0.05
	LTE 66	QPSK20M	Top of panel	25	132072	1	0	1	23.5	23.36	1.03	0.14	0.263	0.27
	LTE 66	QPSK20M	Bottom	0	132072	50	0	1	22.5	21.35	1.30	0.02	<0.001	0.00
	LTE 66	QPSK20M	Back of panel	25	132072	50	0	1	22.5	21.35	1.30	0.02	0.075	0.10
	LTE 66	QPSK20M	Right of panel	25	132072	50	0	1	22.5	21.35	1.30	0.03	0.040	0.05
	LTE 66	QPSK20M	Top of panel	25	132072	50	0	1	22.5	21.35	1.30	0.15	0.209	0.27
	LTE 66	QPSK20M	Top of panel	25	132322	1	0	1	23.5	23.33	1.04	0.05	0.276	0.29
39	LTE 66	QPSK20M	Top of panel	25	132572	1	0	1	23.5	23.35	1.04	-0.02	0.305	0.32
	LTE 66	QPSK20M	Top of panel	25	132572	1	0	2	23.5	23.35	1.04	0.08	0.296	0.31

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.	Keyboard	Tx Antenna	DutyCycle	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	Bottom	0	6	1	Ant 0	99.00	1.01	20.5	20.45	1.01	0.00	<0.001	0.00
40	WLAN2.4G	802.11b	Back of Panel	25	6	1	Ant 0	99.00	1.01	20.5	20.45	1.01	-0.03	0.071	0.07
	WLAN2.4G	802.11b	Top of Panel	25	6	1	Ant 0	99.00	1.01	20.5	20.45	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	6	1	Ant 1	99.00	1.01	20.5	20.32	1.04	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Back of Panel	25	6	1	Ant 1	99.00	1.01	20.5	20.32	1.04	0.06	0.065	0.07
	WLAN2.4G	802.11b	Top of Panel	25	6	1	Ant 1	99.00	1.01	20.5	20.32	1.04	0	<0.001	0.00
	WLAN2.4G	802.11n HT20	Bottom	0	6	1	Ant 0+1	97.60	1.02	17.5	17.38	1.03	0	<0.001	0.00
	WLAN2.4G	802.11n HT20	Back of Panel	25	6	1	Ant 0+1	97.60	1.02	17.5	17.38	1.03	0	<0.001	0.00
	WLAN2.4G	802.11n HT20	Top of Panel	25	6	1	Ant 0+1	97.60	1.02	17.5	17.38	1.03	0	<0.001	0.00
	WLAN2.4G	802.11b	Back of Panel	25	1	1	Ant 0	99.00	1.01	19.5	19.45	1.01	0.11	0.061	0.06
	WLAN2.4G	802.11b	Back of Panel	25	11	1	Ant 0	99.00	1.01	18.25	18.23	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Back of Panel	25	12	1	Ant 0	99.00	1.01	16.5	16.43	1.02	0	<0.001	0.00
	WLAN2.4G	802.11b	Back of Panel	25	13	1	Ant 0	99.00	1.01	15.25	15.24	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Back of Panel	25	6	2	Ant 0	99.00	1.01	20.5	20.45	1.01	-0.05	0.068	0.07

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.	Keyboard	Tx Antenna	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)
	WLAN5.3G	802.11n HT40	Bottom	0	54	1	Ant 0	97.40	1.03	20.5	20.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Back of Panel	25	54	1	Ant 0	97.40	1.03	20.5	20.48	1.00	0.12	0.059	0.06
	WLAN5.3G	802.11n HT40	Top of Panel	25	54	1	Ant 0	97.40	1.03	20.5	20.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	54	1	Ant 1	97.40	1.03	20.5	20.43	1.02	0	<0.001	0.00
41	WLAN5.3G	802.11n HT40	Back of Panel	25	54	1	Ant 1	97.40	1.03	20.5	20.43	1.02	-0.08	0.064	0.07
	WLAN5.3G	802.11n HT40	Top of Panel	25	54	1	Ant 1	97.40	1.03	20.5	20.43	1.02	0	<0.001	0.00
	WLAN5.3G	802.11n HT20	Bottom	0	52	1	Ant 0+1	99.00	1.01	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT20	Back of Panel	25	52	1	Ant 0+1	99.00	1.01	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT20	Top of Panel	25	52	1	Ant 0+1	99.00	1.01	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Back of Panel	25	62	1	Ant 1	97.40	1.03	17.5	17.43	1.02	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Back of Panel	25	54	2	Ant 1	97.40	1.03	20.5	20.43	1.02	-0.03	0.061	0.06
	WLAN5.6G	802.11ac VHT80	Bottom	0	138	1	Ant 0	97.80	1.02	20.5	20.41	1.02	0	<0.001	0.00
42	WLAN5.6G	802.11ac VHT80	Back of Panel	25	138	1	Ant 0	97.80	1.02	20.5	20.41	1.02	-0.15	0.033	0.03
	WLAN5.6G	802.11ac VHT80	Top of Panel	25	138	1	Ant 0	97.80	1.02	20.5	20.41	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	138	1	Ant 1	98.00	1.02	20.5	20.42	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Back of Panel	25	138	1	Ant 1	98.00	1.02	20.5	20.42	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top of Panel	25	138	1	Ant 1	98.00	1.02	20.5	20.42	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	138	1	Ant 0+1	98.00	1.02	19.5	19.49	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Back of Panel	25	138	1	Ant 0+1	98.00	1.02	19.5	19.49	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top of Panel	25	138	1	Ant 0+1	98.00	1.02	19.5	19.49	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Back of Panel	25	106	1	Ant 0	97.80	1.02	18.5	18.43	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Back of Panel	25	122	1	Ant 0	97.80	1.02	19.5	19.35	1.04	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Back of Panel	25	138	2	Ant 0	97.80	1.02	20.5	20.41	1.02	0.06	0.029	0.03
	WLAN5.8G	802.11n HT40	Bottom	0	159	1	Ant 0	97.40	1.03	20.5	20.42	1.02	0	<0.001	0.00
43	WLAN5.8G	802.11n HT40	Back of Panel	25	159	1	Ant 0	97.40	1.03	20.5	20.42	1.02	-0.01	0.036	0.04
	WLAN5.8G	802.11n HT40	Top of Panel	25	159	1	Ant 0	97.40	1.03	20.5	20.42	1.02	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Bottom	0	159	1	Ant 1	97.40	1.03	20.5	20.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Back of Panel	25	159	1	Ant 1	97.40	1.03	20.5	20.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Top of Panel	25	159	1	Ant 1	97.40	1.03	20.5	20.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Bottom	0	159	1	Ant 0+1	97.40	1.03	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Back of Panel	25	159	1	Ant 0+1	97.40	1.03	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Top of Panel	25	159	1	Ant 0+1	97.40	1.03	19.5	19.48	1.00	0	<0.001	0.00
	WLAN5.8G	802.11n HT40	Back of Panel	25	151	1	Ant 0	97.40	1.03	20.5	20.39	1.03	0.09	0.033	0.04
	WLAN5.8G	802.11n HT40	Back of Panel	25	159	2	Ant 0	97.40	1.03	20.5	20.42	1.02	-0.02	0.031	0.03
	Bluetooth	BDR	Bottom	0	78	1	Ant 0	76.40	1.31	10.5	9.49	1.26	0	<0.001	0.00
	Bluetooth	BDR	Back of Panel	25	78	1	Ant 0	76.40	1.31	10.5	9.49	1.26	0	<0.001	0.00
	Bluetooth	BDR	Right of panel	25	78	1	Ant 0	76.40	1.31	10.5	9.49	1.26	0	<0.001	0.00
	Bluetooth	BDR	Top of Panel	25	78	1	Ant 0	76.40	1.31	10.5	9.49	1.26	0	<0.001	0.00
	Bluetooth	BDR	Back of Panel	25	0	1	Ant 0	76.40	1.31	10.5	9.47	1.27	0	<0.001	0.00
	Bluetooth	BDR	Back of Panel	25	39	1	Ant 0	76.40	1.31	10.5	9.31	1.32	0	<0.001	0.00
	Bluetooth	BDR	Back of Panel	25	78	2	Ant 0	76.40	1.31	10.5	9.49	1.26	0	<0.001	0.00

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

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## 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 may be 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.

### <Tablet Mode>

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 II	RMC 12.2K	Top side	9262	1.17	1.11	1.05	N/A	N/A	N/A	N/A
WCDMA IV	RMC 12.2K	Top side	1413	1.13	1.09	1.04	N/A	N/A	N/A	N/A
WCDMA V	RMC 12.2K	Right Side	4182	1.17	1.13	1.04	N/A	N/A	N/A	N/A
LTE 2	QPSK20M	Top side	18700	1.23	1.21	1.02	N/A	N/A	N/A	N/A
LTE 4	QPSK20M	Top side	20300	1.25	1.22	1.02	N/A	N/A	N/A	N/A
LTE 5	QPSK10M	Right Side	20450	1.21	1.17	1.03	N/A	N/A	N/A	N/A
LTE 7	QPSK10M	Top side	20850	1.28	1.24	1.03	N/A	N/A	N/A	N/A
LTE 12	QPSK10M	Right Side	23060	1.26	1.23	1.02	N/A	N/A	N/A	N/A
LTE 13	QPSK10M	Right Side	23230	1.22	1.19	1.03	N/A	N/A	N/A	N/A
LTE 14	QPSK10M	Right Side	23330	1.28	1.22	1.05	N/A	N/A	N/A	N/A
LTE 17	QPSK10M	Right Side	23800	1.24	1.19	1.04	N/A	N/A	N/A	N/A
LTE 25	QPSK20M	Top side	26140	1.18	1.15	1.03	N/A	N/A	N/A	N/A
LTE 26	QPSK15M	Right Side	26765	1.27	1.22	1.04	N/A	N/A	N/A	N/A
LTE 30	QPSK10M	Top side	27710	1.36	1.32	1.03	N/A	N/A	N/A	N/A
LTE 38	QPSK20M	Top side	37850	1.32	1.28	1.03	N/A	N/A	N/A	N/A
LTE 41	QPSK20M	Top side	40185	1.27	1.23	1.03	N/A	N/A	N/A	N/A
LTE 66	QPSK20M	Top side	132572	1.29	1.25	1.03	N/A	N/A	N/A	N/A
WLAN2.4G	802.11b	Rear Face	1	1.32	1.29	1.02	N/A	N/A	N/A	N/A
WLAN5.3G	802.11ac VHT80	Rear Face	58	1.11	1.07	1.04	N/A	N/A	N/A	N/A
WLAN5.6G	802.11ac VHT80	Rear Face	106	1.15	1.11	1.04	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 Ant-0	Yes
2	WWAN + WLAN2.4G Ant-1	Yes
3	WWAN + WLAN5G Ant-0	Yes
4	WWAN + WLAN5G Ant-1	Yes
5	WWAN + BT	Yes
6	WWAN + WLAN2.4G (MIMO)	Yes
7	WWAN + WLAN5G (MIMO)	Yes
8	WWAN + WLAN2.4G Ant-1 + BT Ant-0	Yes
9	WWAN + WLAN5G Ant-1 + BT Ant-0	Yes
10	WWAN + WLAN 5G MIMO + BT	Yes

#### Note:

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.
2. Condition 2 is covered by condition 8.
3. Condition 4 is covered by condition 9.
4. Condition 5 is covered by condition 10.
5. Condition 7 is covered by condition 10.

# 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.

### Tablet Mode

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Estimated SAR (W/kg)
WCDMA II	1.9076	15.0	Body	0	0.40
WCDMA IV	1.7526	15.0	Body	0	0.40
WCDMA V	0.8466	17.0	Body	0	0.40
LTE 2	1.91	15.5	Body	0	0.40
LTE 4	1.755	15.0	Body	0	0.40
LTE 5	0.849	18.5	Body	0	0.40
LTE 7	2.57	13.0	Body	0	0.40
LTE 12	0.716	18.0	Body	0	0.40
LTE 13	0.787	18.5	Body	0	0.40
LTE 14	0.798	20.5	Body	0	0.40
LTE 17	0.716	18.0	Body	0	0.40
LTE 25	1.915	15.0	Body	0	0.40
LTE 26	0.849	19.5	Body	0	0.40
LTE 30	2.315	12.5	Body	0	0.40
LTE 38	2.62	16.5	Body	0	0.40
LTE 41	2.69	14.5	Body	0	0.40
LTE 66	1.78	14.0	Body	0	0.40
WLAN (DTS)	2.462	16.0	Body	0	0.40
WLAN (NII)	5.24	17.0	Body	0	0.40
WLAN (NII)	5.32	17.0	Body	0	0.40
WLAN (NII)	5.72	17.0	Body	0	0.40
WLAN (NII)	5.825	17.0	Body	0	0.40
BT (DSS)	2.48	10.5	Body	0	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

## Laptop Mode

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Estimated SAR (W/kg)
WCDMA II	1.9076	23.5	Body	25	0.40
WCDMA IV	1.7526	24.0	Body	25	0.40
WCDMA V	0.8466	23.5	Body	25	0.40
LTE 2	1.91	23.0	Body	25	0.40
LTE 4	1.755	23.5	Body	25	0.40
LTE 5	0.849	23.0	Body	25	0.40
LTE 7	2.57	23.5	Body	25	0.40
LTE 12	0.716	23.0	Body	25	0.40
LTE 13	0.787	23.0	Body	25	0.40
LTE 14	0.798	23.0	Body	25	0.40
LTE 17	0.716	23.0	Body	25	0.40
LTE 25	1.915	23.0	Body	25	0.40
LTE 26	0.849	23.0	Body	25	0.40
LTE 30	2.315	22.0	Body	25	0.40
LTE 38	2.62	23.0	Body	25	0.40
LTE 41	2.69	23.0	Body	25	0.40
LTE 66	1.78	23.5	Body	25	0.40
WLAN (DTS)	2.462	20.5	Body	25	0.40
WLAN (NII)	5.24	20.5	Body	25	0.40
WLAN (NII)	5.32	20.5	Body	25	0.40
WLAN (NII)	5.72	20.5	Body	25	0.40
WLAN (NII)	5.825	20.5	Body	25	0.40
BT (DSS)	2.48	10.5	Body	25	0.09

# 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.

### Tablet Mode

Band	Position	1g SAR W/kg								Summing Result 1g SAR W/kg					
		A	1	2	3	4	5	6	7	A+1	A+4	A+3	A+2+7	A+5+7	A+6+7
		Max WWAN	WLAN 2.4GHz Ant0	WLAN 2.4GHz Ant1	WLAN 2.4GHz Ant0+1	WLAN 5GHz Ant0	WLAN 5GHz Ant1	WLAN 5GHz Ant0+1	BT Ant0						
WCDMAII	Rear Face	0.75	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.38	1.37	1.26	2.32	2.13	1.51
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.19	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.44	0.49	0.34	0.19	0.19	0.33
	Top Side	1.30	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.42	1.68	1.45	1.90	1.89	1.51
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
WCDMAIV	Rear Face	0.68	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.31	1.30	1.19	2.25	2.06	1.44
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.28	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.53	0.58	0.43	0.28	0.28	0.42
	Top Side	1.19	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.31	1.57	1.34	1.79	1.78	1.40
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
WCDMAV	Rear Face	0.57	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.20	1.19	1.08	2.14	1.95	1.33
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	1.28	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.53	1.58	1.43	1.28	1.28	1.42
	Top Side	0.75	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.87	1.13	0.90	1.35	1.34	0.96
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 2	Rear Face	0.83	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.46	1.45	1.34	2.40	2.21	1.59
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.27	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.52	0.57	0.42	0.27	0.27	0.41
	Top Side	1.25	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.37	1.63	1.40	1.85	1.84	1.46
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 4	Rear Face	0.68	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.31	1.30	1.19	2.25	2.06	1.44
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.32	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.57	0.62	0.47	0.32	0.32	0.46
	Top Side	1.26	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.38	1.64	1.41	1.86	1.85	1.47
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 5	Rear Face	0.77	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.40	1.39	1.28	2.34	2.15	1.53
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	1.23	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.48	1.53	1.38	1.23	1.23	1.37
	Top Side	0.67	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.79	1.05	0.82	1.27	1.26	0.88
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 7	Rear Face	0.77	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.40	1.39	1.28	2.34	2.15	1.53
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.78	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.03	1.08	0.93	0.78	0.78	0.92
	Top Side	1.29	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.41	1.67	1.44	1.89	1.88	1.50
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 12	Rear Face	0.78	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.41	1.40	1.29	2.35	2.16	1.54
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	1.29	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.54	1.59	1.44	1.29	1.29	1.43
	Top Side	0.55	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.67	0.93	0.70	1.15	1.14	0.76
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 13	Rear Face	0.83	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.46	1.45	1.34	2.40	2.21	1.59
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	1.22	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.47	1.52	1.37	1.22	1.22	1.36
	Top Side	0.70	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.82	1.08	0.85	1.30	1.29	0.91
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20

# FCC SAR Test Report

Band	Position	1g SAR W/kg								Summing Result 1g SAR W/kg					
		A	1	2	3	4	5	6	7	A+1	A+4	A+3	A+2+7	A+5+7	A+6+7
		Max WWAN	WLAN 2.4GHz Ant0	WLAN 2.4GHz Ant1	WLAN 2.4GHz Ant0+1	WLAN 5GHz Ant0	WLAN 5GHz Ant1	WLAN 5GHz Ant0+1	BT Ant0						
LTE 14	Rear Face	0.72	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.35	1.34	1.23	2.29	2.10	1.48
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	1.29	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.54	1.59	1.44	1.29	1.29	1.43
	Top Side	0.98	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.10	1.36	1.13	1.58	1.57	1.19
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 17	Rear Face	0.79	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.42	1.41	1.30	2.36	2.17	1.55
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	1.24	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.49	1.54	1.39	1.24	1.24	1.38
	Top Side	0.79	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.91	1.17	0.94	1.39	1.38	1.00
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 25	Rear Face	0.79	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.42	1.41	1.30	2.36	2.17	1.55
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	0.24	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.49	0.54	0.39	0.24	0.24	0.38
	Top Side	1.18	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.30	1.56	1.33	1.78	1.77	1.39
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 26	Rear Face	0.96	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.59	1.58	1.47	2.53	2.34	1.72
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	1.28	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.53	1.58	1.43	1.28	1.28	1.42
	Top Side	0.79	0.12	0.55	0.15	0.38	0.54	0.16	0.05	0.91	1.17	0.94	1.39	1.38	1.00
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 30	Rear Face	0.63	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.26	1.25	1.14	2.20	2.01	1.39
	Left Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
	Right Side	0.15	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.40	0.45	0.30	0.15	0.15	0.29
	Top Side	1.37	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.49	1.75	1.52	1.97	1.96	1.58
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 38	Rear Face	0.64	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.27	1.26	1.15	2.21	2.02	1.40
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	1.00	0.25	0.00	0.15	0.30	0.00	0.14	0.00	1.25	1.30	1.15	1.00	1.00	1.14
	Top Side	1.33	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.45	1.71	1.48	1.93	1.92	1.54
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 41	Rear Face	0.62	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.25	1.24	1.13	2.19	2.00	1.38
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	0.71	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.96	1.01	0.86	0.71	0.71	0.85
	Top Side	1.27	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.39	1.65	1.42	1.87	1.86	1.48
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20
LTE 66	Rear Face	0.58	0.63	1.36	0.51	0.62	1.17	0.55	0.21	1.21	1.20	1.09	2.15	1.96	1.34
	Left Side	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80
	Right Side	0.37	0.25	0.00	0.15	0.30	0.00	0.14	0.00	0.62	0.67	0.52	0.37	0.37	0.51
	Top Side	1.30	0.12	0.55	0.15	0.38	0.54	0.16	0.05	1.42	1.68	1.45	1.90	1.89	1.51
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.80	0.80	0.80	1.20	1.20	1.20

# FCC SAR Test Report

## Laptop Mode

Band	Position	1g SAR W/kg								Summing Result 1g SAR W/kg					
		A	1	2	3	4	5	6	7	A+1	A+4	A+3	A+2+7	A+5+7	A+6+7
		Max WWAN	WLAN 2.4GHz Ant0	WLAN 2.4GHz Ant1	WLAN 2.4GHz Ant0+1	WLAN 5GHz Ant0	WLAN 5GHz Ant1	WLAN 5GHz Ant0+1	BT Ant 0						
WCDMA II	Back of panel	0.15	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.22	0.21	0.15	0.22	0.22	0.15
	Right of panel	0.07	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.47	0.47	0.47	0.47	0.47	0.47
	Top of Panel	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.38
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WCDMA IV	Back of panel	0.13	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.20	0.19	0.13	0.20	0.20	0.13
	Right of panel	0.05	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
	Top of Panel	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.33
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WCDMA V	Back of panel	0.11	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.18	0.17	0.11	0.18	0.18	0.11
	Right of panel	0.07	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.47	0.47	0.47	0.87	0.87	0.87
	Top of Panel	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.12
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	Back of panel	0.10	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.17	0.16	0.10	0.17	0.17	0.10
	Right of panel	0.06	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.46	0.46	0.46	0.46	0.46	0.46
	Top of Panel	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	0.35	0.35	0.35	0.35
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 4	Back of panel	0.09	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.16	0.15	0.09	0.16	0.16	0.09
	Right of panel	0.05	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
	Top of Panel	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.26	0.26	0.26	0.26
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	Back of panel	0.09	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.16	0.15	0.09	0.16	0.16	0.09
	Right of panel	0.05	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
	Top of Panel	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 7	Back of panel	0.16	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.23	0.22	0.16	0.23	0.23	0.16
	Right of panel	0.15	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.55	0.55	0.55	0.55	0.55	0.55
	Top of Panel	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.34
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	Back of panel	0.04	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.11	0.10	0.04	0.11	0.11	0.04
	Right of panel	0.04	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.44	0.44	0.44	0.44	0.44	0.44
	Top of Panel	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# FCC SAR Test Report

Band	Position	1g SAR W/kg								Summing Result 1g SAR W/kg					
		A	1	2	3	4	5	6	7	A+1	A+4	A+3	A+2+7	A+5+7	A+6+7
		Max WWAN	WLAN 2.4GHz Ant0	WLAN 2.4GHz Ant1	WLAN 2.4GHz Ant0+1	WLAN 5GHz Ant0	WLAN 5GHz Ant1	WLAN 5GHz Ant0+1	BT Ant0						
LTE 13	Back of panel	0.07	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.14	0.13	0.07	0.14	0.14	0.07
	Right of panel	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.40	0.40	0.40	0.40
	Top of Panel	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 14	Back of panel	0.07	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.14	0.13	0.07	0.14	0.14	0.07
	Right of panel	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.40	0.40	0.40	0.40
	Top of Panel	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 17	Back of panel	0.05	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.12	0.11	0.05	0.12	0.12	0.05
	Right of panel	0.05	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
	Top of Panel	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 25	Back of panel	0.13	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.20	0.19	0.13	0.20	0.20	0.13
	Right of panel	0.07	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.47	0.47	0.47	0.47	0.47	0.47
	Top of Panel	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.34
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 26	Back of panel	0.10	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.17	0.16	0.10	0.17	0.17	0.10
	Right of panel	0.06	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.46	0.46	0.46	0.46	0.46	0.46
	Top of Panel	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.11
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 30	Back of panel	0.09	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.16	0.15	0.09	0.16	0.16	0.09
	Right of panel	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.40	0.40	0.40	0.40
	Top of Panel	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.22	0.22	0.22	0.22
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 38	Back of panel	0.14	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.21	0.20	0.14	0.21	0.21	0.14
	Right of panel	0.16	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.56	0.56	0.56	0.56	0.56	0.56
	Top of Panel	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.26	0.26	0.26	0.26
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 41	Back of panel	0.13	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.20	0.19	0.13	0.20	0.20	0.13
	Right of panel	0.09	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.49	0.49	0.49	0.49	0.49	0.49
	Top of Panel	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	Back of panel	0.10	0.07	0.07	0.00	0.06	0.07	0.00	0.00	0.17	0.16	0.10	0.17	0.17	0.10
	Right of panel	0.05	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
	Top of Panel	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32	0.32	0.32	0.32
	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### <SAR to Peak Location Separation Ratio Analysis>

The simultaneous transmitting antennas in each operating mode and exposure condition combination are considered one pair at a time to determine the SPLSR. When SAR is measured for both antennas in the pair, the peak location separation distance is computed by the following formula.

$$\text{Peak Location Separation Distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Where  $(x_1, y_1, z_1)$  and  $(x_2, y_2, z_2)$  are the coordinates of the extrapolated peak SAR locations in the area or zoom scans.

When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna. Due to curvatures on the SAM phantom, when SAR is estimated for one of the antennas in an antenna pair, the measured peak SAR location will be translated onto the test device to determine the peak location separation for the antenna pair.

The SPLSR is determined by the following formula.

$$\text{SPLSR} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{R_i}$$

Where  $\text{SAR}_1$  and  $\text{SAR}_2$  are the highest reported or estimated SAR for each antenna in the pair, and  $R_i$  is the separation distance between the peak SAR locations for the antenna pair in mm.

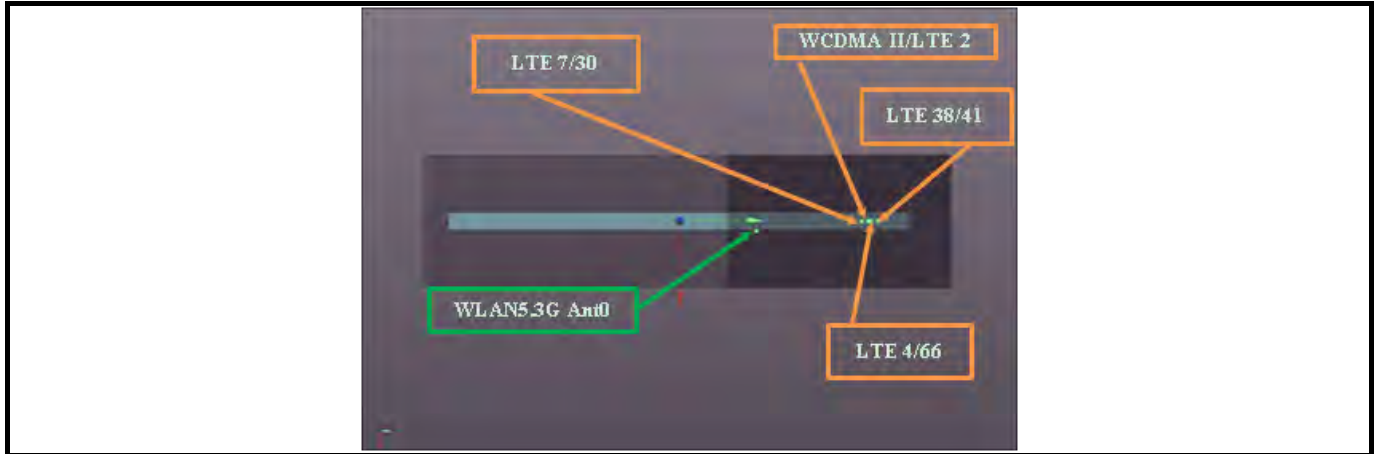
When the SPLSR is  $\leq 0.04$ , the simultaneous transmission SAR is not required. Otherwise, the enlarged zoom scan and volume scan post-processing procedures will be performed.



# FCC SAR Test Report

## Tablet Mode

### <Simultaneous TX Combination A+4>

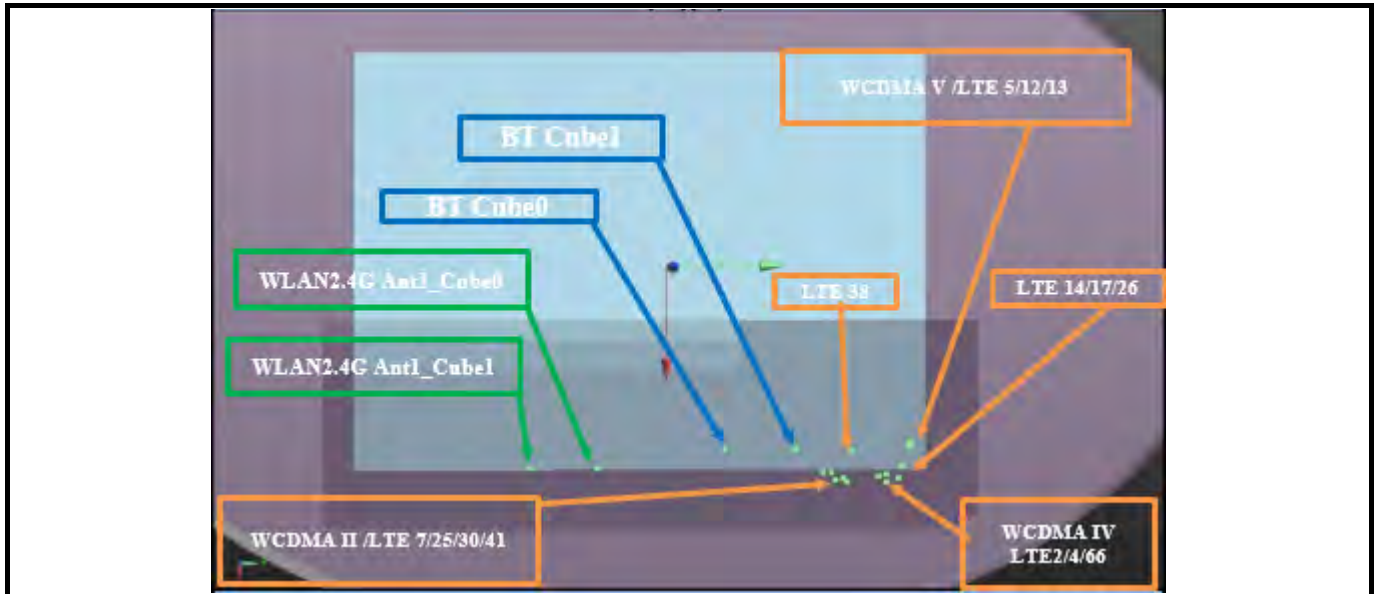


Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
WCDMA II Ch9262	Body	Top Side	1.3	0	111.6	5.95	53.6	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 2 QPSK20M Ch18700	Body	Top Side	1.25	0	111.6	5.85	53.6	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 4 QPSK20M Ch20300	Body	Top Side	1.26	0	113.6	5.62	55.6	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 7 QPSK20M Ch20850	Body	Top Side	1.29	0	107.6	6.45	49.6	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 30 QPSK10M Ch27710	Body	Top Side	1.37	-1.6	115.6	5.42	57.4	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 38 QPSK20M Ch37850	Body	Top Side	1.33	-1.6	124	5.44	65.7	0.03
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 41 QPSK20M Ch40185	Body	Top Side	1.27	0	122.4	5.46	64.3	0.03
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		
LTE 66 QPSK20M Ch132322	Body	Top Side	1.3	0	115.2	5.93	57.2	0.04
WLAN5.3G_C h58_Ant0			0.38	-7.2	58.5	5.33		

<Simultaneous TX Combination A+2+7>



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R, mm)	SPLSR
				x	y	z		
WCDMA II_Ch9538	Body	Rear Face	0.75	113	96	6.6	115.2	0.03
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
WCDMA II_Ch9538	Body	Rear Face	0.75	113	96	6.6	26.8	0.04
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
WCDMA IV_Ch1413	Body	Rear Face	0.68	109	124	6.71	143.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
WCDMA IV_Ch1413	Body	Rear Face	0.68	109	124	6.71	49.8	0.02
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
WCDMA V_Ch4233	Body	Rear Face	0.57	99.4	142.4	6.86	161.5	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
WCDMA V_Ch4233	Body	Rear Face	0.57	99.4	142.4	6.86	66.5	0.01
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
LTE 2 QPSK20M Ch18900	Body	Rear Face	0.83	111.6	104	6.38	123.1	0.03
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 2 QPSK20M Ch18900	Body	Rear Face	0.83	111.6	104	6.38	32.4	0.03
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
LTE 4 QPSK20M Ch20050	Body	Rear Face	0.68	107.8	114	7.03	133.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 4 QPSK20M Ch20050	Body	Rear Face	0.68	107.8	114	7.03	40.1	0.02
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 5 QPSK10M Ch20525	Body	Rear Face	0.77	101.4	144	6.85	163.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 5 QPSK10M Ch20525	Body	Rear Face	0.77	101.4	144	6.85	68.2	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 7 QPSK20M Ch21100	Body	Rear Face	0.77	108	93.6	6.14	112.6	0.03
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 7 QPSK20M Ch21100	Body	Rear Face	0.77	108	93.6	6.14	21.9	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 12 QPSK10M Ch23130	Body	Rear Face	0.78	101.4	142.4	6.61	161.4	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 12 QPSK10M Ch23130	Body	Rear Face	0.78	101.4	142.4	6.61	66.6	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 13 QPSK10M Ch23230	Body	Rear Face	0.83	113	144	6.71	163.1	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 13 QPSK10M Ch23230	Body	Rear Face	0.83	113	144	6.71	70.0	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 14 QPSK10M Ch23330	Body	Rear Face	0.72	103.4	148	6.43	167.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 14 QPSK10M Ch23330	Body	Rear Face	0.72	103.4	148	6.43	72.3	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 17 QPSK10M Ch23800	Body	Rear Face	0.79	101.4	144	6.66	163.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 17 QPSK10M Ch23800	Body	Rear Face	0.79	101.4	144	6.66	68.2	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 25 QPSK20 Ch26140	Body	Rear Face	0.79	115.2	94.8	6.17	114.2	0.03
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 25 QPSK20 Ch26140	Body	Rear Face	0.79	115.2	94.8	6.17	27.3	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	165.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	70.1	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 30 QPSK10M Ch27710	Body	Rear Face	0.63	109.4	95.6	6.6	114.7	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 30 QPSK10M Ch27710	Body	Rear Face	0.63	109.4	95.6	6.6	24.4	0.03
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

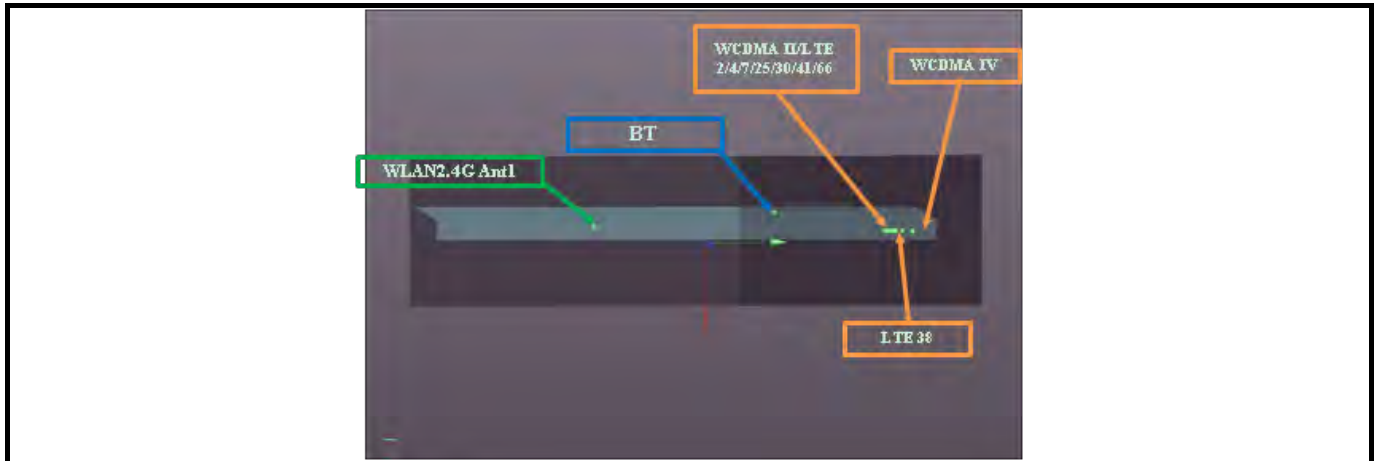
# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 38 QPSK20M Ch37850	Body	Rear Face	0.64	105	90	6.42	109.0	0.03
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 38 QPSK20M Ch37850	Body	Rear Face	0.64	105	90	6.42	17.6	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 41 QPSK20M Ch40185	Body	Rear Face	0.62	106.4	112	6.39	131.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 41 QPSK20M Ch40185	Body	Rear Face	0.62	106.4	112	6.39	37.7	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 66 QPSK20M Ch132322	Body	Rear Face	0.58	108.2	116	6.54	135.0	0.02
WLAN2.4G 802.11b Ch1 Ant1_Cube0			1.36	106	-18.8	-0.29		
LTE 66 QPSK20M Ch132322	Body	Rear Face	0.58	108.2	116	6.54	42.0	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN2.4G 802.11b Ch1 Ant1_Cube0	Body	Rear Face	1.36	106	-18.8	-0.29	67.9	0.03
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		



# FCC SAR Test Report

## <Simultaneous TX Combination A+2+7>



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>p</sub> , mm)	SPLSR
				x	y	z		
WCDMA II Ch9262	Body	Top Side	1.3	0	111.6	5.95	172.4	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant0			0.05	-2	66	7.18		
WCDMA IV Ch1431	Body	Top Side	1.19	0	128.4	-3.06	189.0	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
WCDMA IV Ch1431	Body	Top Side	1.19	0	128.4	-3.06	63.3	0.02
BT_Ch78_Ant0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant0			0.05	-2	66	7.18		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 2 QPSK20M Ch18700	Body	Top Side	1.25	0	111.6	5.85	172.4	0.01
WLAN2.4G 802.11b_Ch1_ Ant1			0.55	-8.4	-60.4	-2.01		
LTE 2 QPSK20M Ch18700	Body	Top Side	1.25	0	111.6	5.85	45.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_ Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 4 QPSK20M Ch20300	Body	Top Side	1.26	0	113.6	5.62	174.4	0.01
WLAN2.4G 802.11b_Ch1_ Ant1			0.55	-8.4	-60.4	-2.01		
LTE 4 QPSK20M Ch20300	Body	Top Side	1.26	0	113.6	5.62	47.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_ Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 7 QPSK20M Ch20850	Body	Top Side	1.29	0	107.6	6.45	168.4	0.01
WLAN2.4G 802.11b_Ch1_ Ant1			0.55	-8.4	-60.4	-2.01		
LTE 7 QPSK20M Ch20850	Body	Top Side	1.29	0	107.6	6.45	41.7	0.04
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_ Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

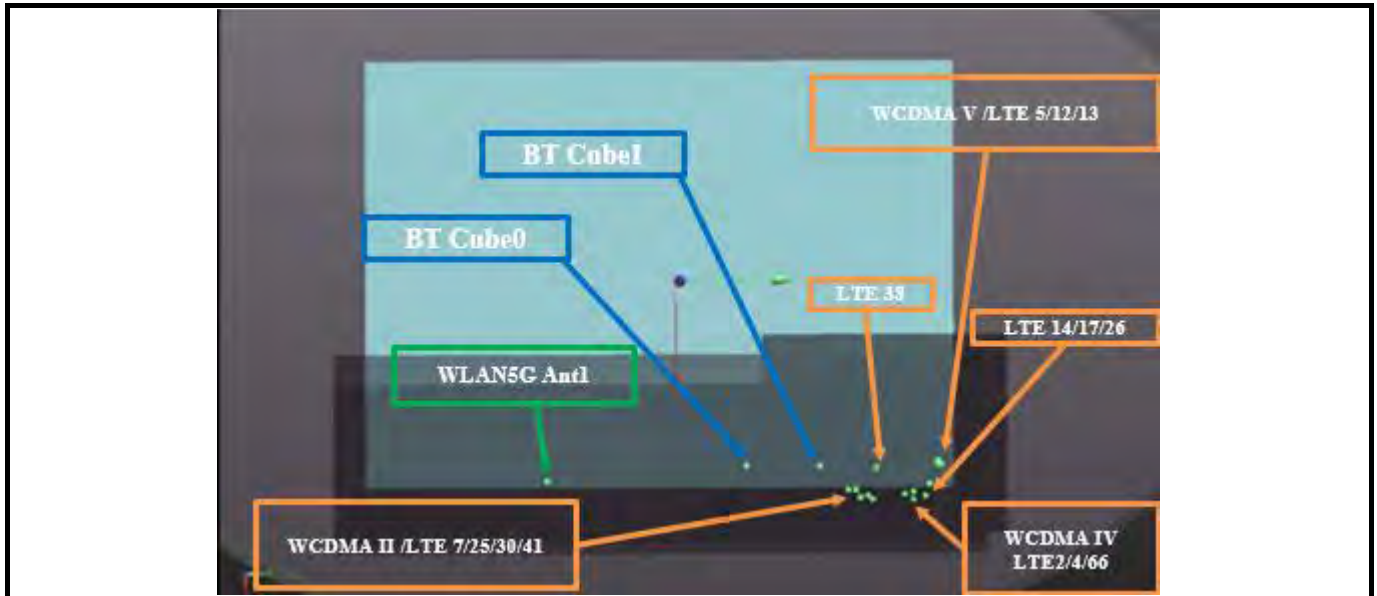
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 25 QPSK20 Ch26140	Body	Top Side	1.18	0	109.6	5.29	170.4	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
LTE 25 QPSK20 Ch26140	Body	Top Side	1.18	0	109.6	5.29	43.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 30 QPSK10M Ch27710	Body	Top Side	1.37	-1.6	115.6	5.42	176.3	0.02
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
LTE 30 QPSK10M Ch27710	Body	Top Side	1.37	-1.6	115.6	5.42	49.6	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 38 QPSK20M Ch37850	Body	Top Side	1.33	-1.6	124	5.44	184.7	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
LTE 38 QPSK20M Ch37850	Body	Top Side	1.33	-1.6	124	5.44	58.0	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 41 QPSK20M Ch40185	Body	Top Side	1.27	0	122.4	5.46	183.1	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
LTE 41 QPSK20M Ch40185	Body	Top Side	1.27	0	122.4	5.46	56.5	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 66 QPSK20M Ch132322	Body	Top Side	1.3	0	115.2	5.93	176.0	0.01
WLAN2.4G 802.11b_Ch1_Ant1			0.55	-8.4	-60.4	-2.01		
LTE 66 QPSK20M Ch132322	Body	Top Side	1.3	0	115.2	5.93	49.3	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN2.4G 802.11b_Ch1_Ant1	Body	Top Side	0.55	-8.4	-60.4	-2.01	126.9	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

## <Simultaneous TX Combination A+5+7>



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R, mm)	SPLSR
				x	y	z		
WCDMA II_Ch9538	Body	Rear Face	0.75	113	96	6.6	150.0	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
WCDMA II_Ch9538	Body	Rear Face	0.75	113	96	6.6	26.8	0.04
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
WCDMA IV_Ch1413	Body	Rear Face	0.68	109	124	6.71	177.7	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
WCDMA IV_Ch1413	Body	Rear Face	0.68	109	124	6.71	49.8	0.02
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
WCDMA V_Ch4233	Body	Rear Face	0.57	99.4	142.4	6.86	195.9	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
WCDMA V_Ch4233	Body	Rear Face	0.57	99.4	142.4	6.86	66.5	0.01
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
LTE 2 QPSK20M Ch18900	Body	Rear Face	0.83	111.6	104	6.38	157.9	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 2 QPSK20M Ch18900	Body	Rear Face	0.83	111.6	104	6.38	32.4	0.03
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		
LTE 4 QPSK20M Ch20050	Body	Rear Face	0.68	107.8	114	7.03	167.6	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 4 QPSK20M Ch20050	Body	Rear Face	0.68	107.8	114	7.03	40.1	0.02
BT_Ch0_Ant0_Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0_Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 5 QPSK10M Ch20525	Body	Rear Face	0.77	101.4	144	6.85	197.5	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 5 QPSK10M Ch20525	Body	Rear Face	0.77	101.4	144	6.85	68.2	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 7 QPSK20M Ch21100	Body	Rear Face	0.77	108	93.6	6.14	147.3	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 7 QPSK20M Ch21100	Body	Rear Face	0.77	108	93.6	6.14	21.9	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 12 QPSK10M Ch23130	Body	Rear Face	0.78	101.4	142.4	6.61	195.9	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 12 QPSK10M Ch23130	Body	Rear Face	0.78	101.4	142.4	6.61	66.6	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 13 QPSK10M Ch23230	Body	Rear Face	0.83	113	144	6.71	197.9	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 13 QPSK10M Ch23230	Body	Rear Face	0.83	113	144	6.71	70.0	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 14 QPSK10M Ch23330	Body	Rear Face	0.72	103.4	148	6.43	201.5	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 14 QPSK10M Ch23330	Body	Rear Face	0.72	103.4	148	6.43	72.3	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 17 QPSK10M Ch23800	Body	Rear Face	0.79	101.4	144	6.66	197.5	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 17 QPSK10M Ch23800	Body	Rear Face	0.79	101.4	144	6.66	68.2	0.01
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		



# FCC SAR Test Report

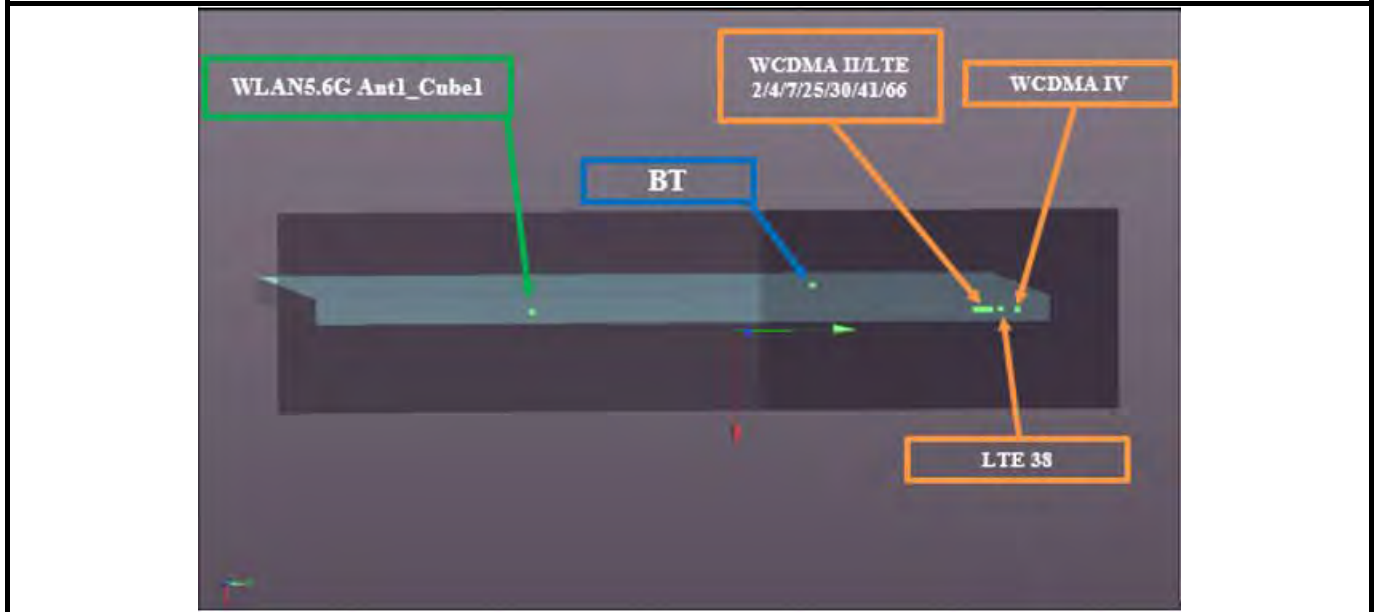
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 25 QPSK20 Ch26140	Body	Rear Face	0.79	115.2	94.8	6.17	149.0	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 25 QPSK20 Ch26140	Body	Rear Face	0.79	115.2	94.8	6.17	27.3	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	199.5	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	70.1	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 30 QPSK10M Ch27710	Body	Rear Face	0.63	109.4	95.6	6.6	149.3	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 30 QPSK10M Ch27710	Body	Rear Face	0.63	109.4	95.6	6.6	24.4	0.03
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 38 QPSK20M Ch37850	Body	Rear Face	0.64	105	90	6.42	143.6	0.02
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 38 QPSK20M Ch37850	Body	Rear Face	0.64	105	90	6.42	17.6	0.04
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 41 QPSK20M Ch40185	Body	Rear Face	0.62	106.4	112	6.39	165.6	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 41 QPSK20M Ch40185	Body	Rear Face	0.62	106.4	112	6.39	37.7	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		
LTE 66 QPSK20M Ch132322	Body	Rear Face	0.58	108.2	116	6.54	169.7	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			1.17	101.5	-53.5	9.85		
LTE 66 QPSK20M Ch132322	Body	Rear Face	0.58	108.2	116	6.54	42.0	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Rear Face	1.17	101.5	-53.5	9.85	102.5	0.02
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

# FCC SAR Test Report

## <Simultaneous TX Combination A+5+7>



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R, mm)	SPLSR
				x	y	z		
WCDMA II Ch9262	Body	Top Side	1.3	0	111.6	5.95	172.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
WCDMA II Ch9262	Body	Top Side	1.3	0	111.6	5.95	45.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WCDMA IV Ch1431	Body	Top Side	1.19	0	128.4	-3.06	189.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
WCDMA IV Ch1431	Body	Top Side	1.19	0	128.4	-3.06	63.3	0.02
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 2 QPSK20M Ch18700	Body	Top Side	1.25	0	111.6	5.85	172.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 2 QPSK20M Ch18700	Body	Top Side	1.25	0	111.6	5.85	45.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 4 QPSK20M Ch20300	Body	Top Side	1.26	0	113.6	5.62	174.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 4 QPSK20M Ch20300	Body	Top Side	1.26	0	113.6	5.62	47.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 7 QPSK20M Ch20850	Body	Top Side	1.29	0	107.6	6.45	168.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 7 QPSK20M Ch20850	Body	Top Side	1.29	0	107.6	6.45	41.7	0.04
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

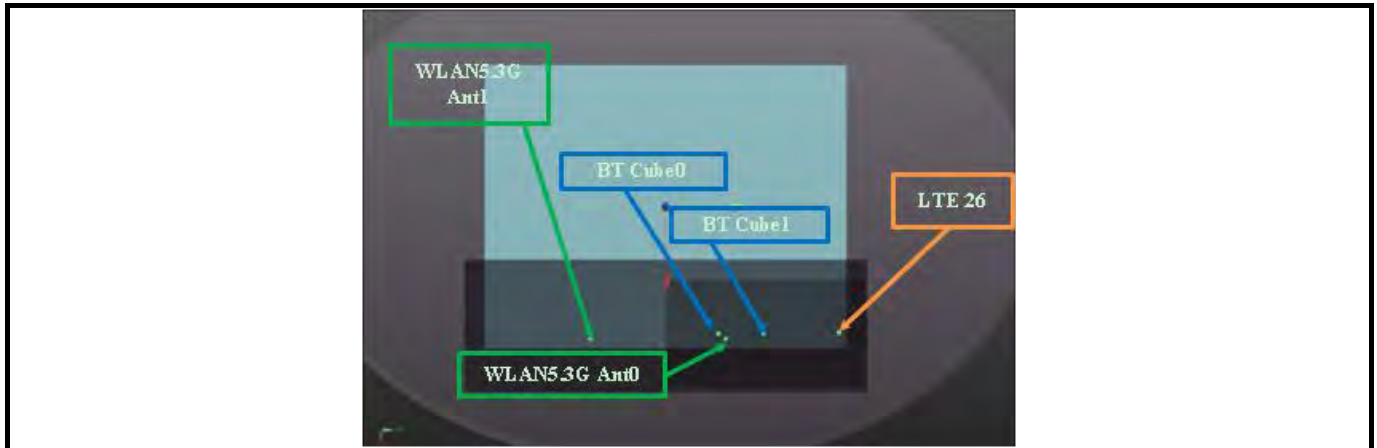
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 25 QPSK20 Ch26140	Body	Top Side	1.18	0	109.6	5.29	170.3	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 25 QPSK20 Ch26140	Body	Top Side	1.18	0	109.6	5.29	43.7	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 30 QPSK10M Ch27710	Body	Top Side	1.37	-1.6	115.6	5.42	176.2	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 30 QPSK10M Ch27710	Body	Top Side	1.37	-1.6	115.6	5.42	49.6	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 38 QPSK20M Ch37850	Body	Top Side	1.33	-1.6	124	5.44	184.6	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 38 QPSK20M Ch37850	Body	Top Side	1.33	-1.6	124	5.44	58.0	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R <sub>i</sub> , mm)	SPLSR
				x	y	z		
LTE 41 QPSK20M Ch40185	Body	Top Side	1.27	0	122.4	5.46	183.1	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 41 QPSK20M Ch40185	Body	Top Side	1.27	0	122.4	5.46	56.5	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		
LTE 66 QPSK20M Ch132322	Body	Top Side	1.3	0	115.2	5.93	175.9	0.01
WLAN5.6G 802.11ac VHT80 Ch106 Ant1			0.54	-7.5	-60.5	6.61		
LTE 66 QPSK20M Ch132322	Body	Top Side	1.3	0	115.2	5.93	49.3	0.03
BT_Ch78_Ant 0			0.05	-2	66	7.18		
WLAN5.6G 802.11ac VHT80 Ch106 Ant1	Body	Top Side	0.54	-7.5	-60.5	6.61	126.6	0.00
BT_Ch78_Ant 0			0.05	-2	66	7.18		

# FCC SAR Test Report

## <Simultaneous TX Combination A+6+7>



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R, mm)	SPLSR
				x	y	z		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	85.7	0.02
WLAN5.3G 802.11n HT40 Ch54 Ant0+1 Cube0			0.55	106.5	60.5	7.95		
LTE 26 QPSK15M Ch26865	Body	Rear Face	0.96	101.4	146	6.43	70.1	0.02
BT_Ch0_Ant0 _Cube1			0.21	96	76.4	-0.17		
WLAN5.3G 802.11n HT40 Ch54 Ant0+1 Cube0	Body	Rear Face	0.55	106.5	60.5	7.95	17.9	0.04
BT_Ch0_Ant0 _Cube0			0.21	96	48.4	0.01		

Test Engineer : Mars Chang, and Willy Chang

**5. Calibration of Test Equipment**

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1013	Aug. 23, 2018	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 23, 2018	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Aug. 27, 2018	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. 24, 2018	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 24, 2018	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 21, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3898	Jun. 26, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Mar. 29, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3820	Jun. 26, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7375	Dec. 13, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Aug. 29, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May. 30, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 25, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	910	Jun. 21, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	915	Jun. 20, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1277	Jan. 24, 2019	1 Year
Radio Communication Analyzer	Anritsu	MT8820C	6201010285	Aug. 06, 2018	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201502978	Jul. 20, 2018	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 26, 2019	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214281	Jun. 08, 2018	1 Year
MXG Analog Signal Generator	Agilent	N5181A	MY50143868	Jul. 03, 2018	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jul. 03, 2018	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jul. 03, 2018	1 Year
Thermometer	YFE	YF-160A	130504591	Mar. 22, 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\_190420

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

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

Medium: H06T09N1\_0420 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.893 \text{ S/m}$ ;  $\epsilon_r = 43.414$ ;  $\rho = 1000 \text{ kg/m}^3$

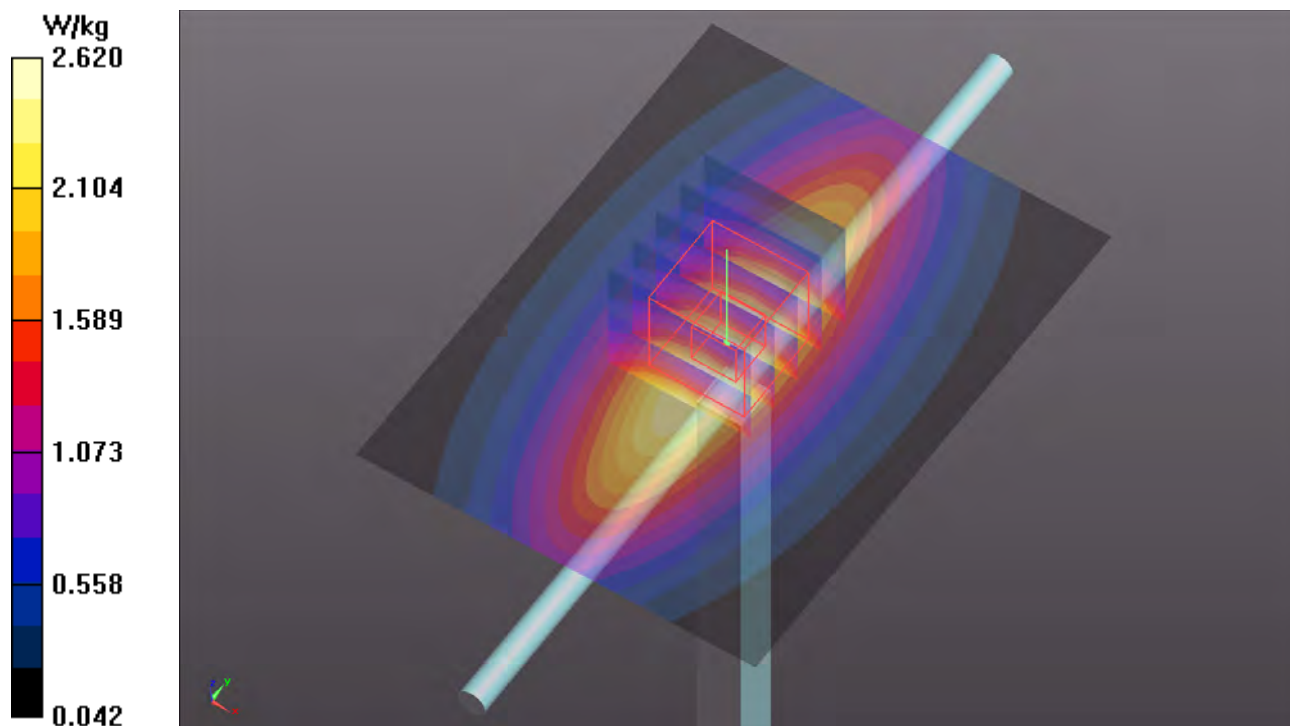
Ambient Temperature :  $23.9 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $2.62 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $56.93 \text{ V/m}$ ; Power Drift =  $-0.02 \text{ dB}$   
Peak SAR (extrapolated) =  $3.00 \text{ W/kg}$   
**SAR(1 g) =  $1.96 \text{ W/kg}$ ; SAR(10 g) =  $1.28 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $2.64 \text{ W/kg}$



## System Check\_H835\_190410

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

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

Medium: H07T10N3\_0410 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.925 \text{ S/m}$ ;  $\epsilon_r = 42.403$ ;  $\rho = 1000 \text{ kg/m}^3$

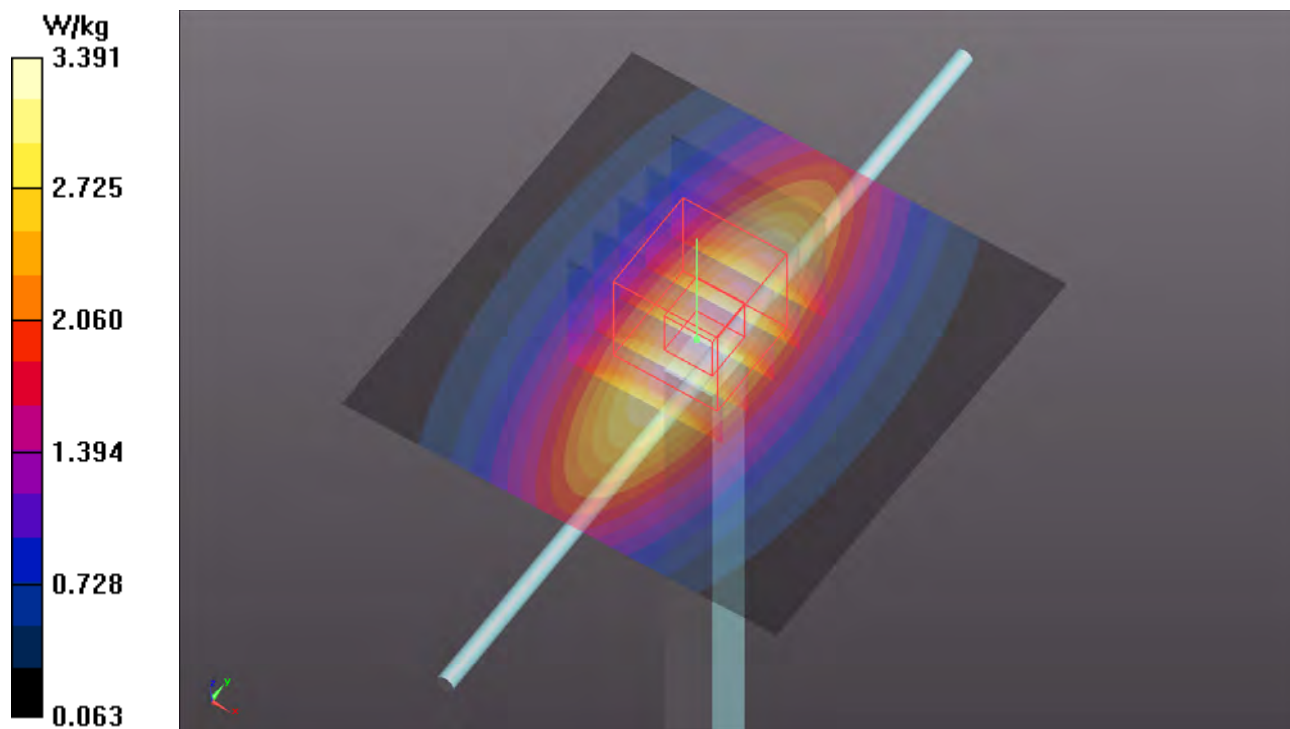
Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.4, 9.4, 9.4); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $3.39 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $63.04 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $3.90 \text{ W/kg}$   
**SAR(1 g) =  $2.51 \text{ W/kg}$ ; SAR(10 g) =  $1.62 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $3.42 \text{ W/kg}$



### System Check\_H1750\_190423

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

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

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.326$  S/m;  $\epsilon_r = 40.134$ ;  $\rho = 1000$  kg/m<sup>3</sup>

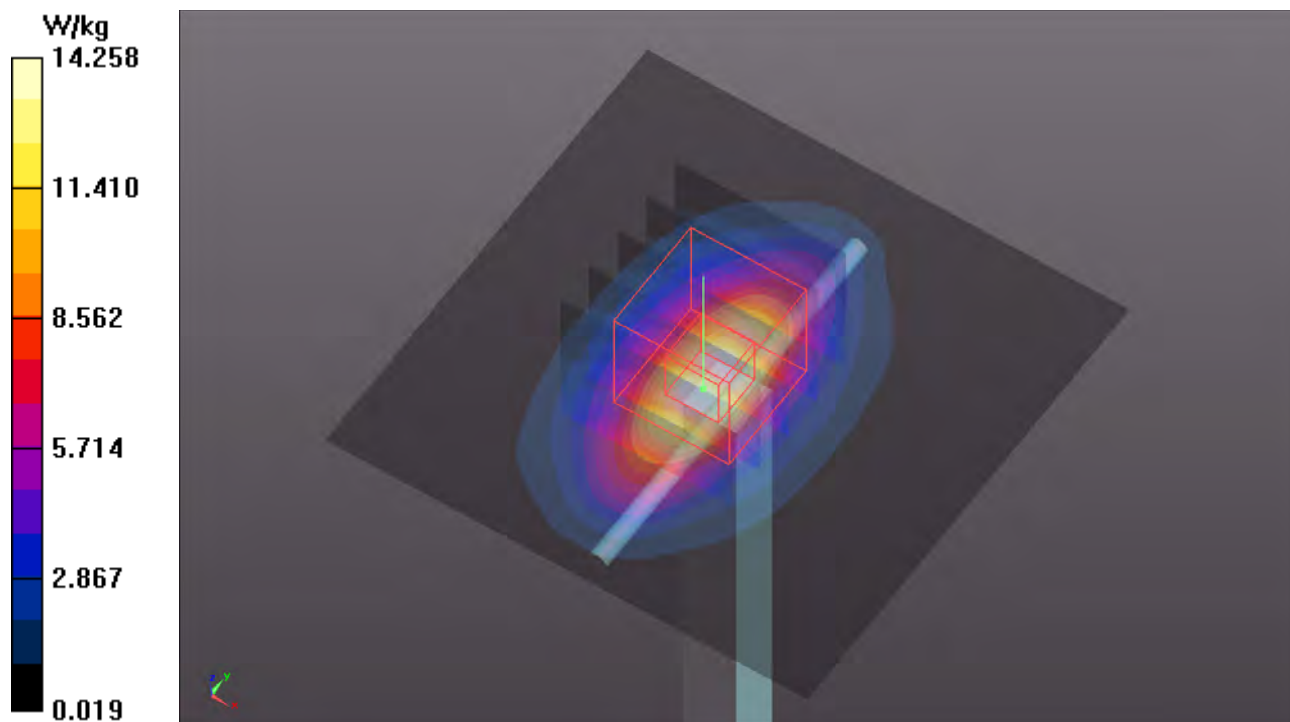
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 14.3 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 98.81 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 16.6 W/kg  
**SAR(1 g) = 9.05 W/kg; SAR(10 g) = 4.92 W/kg**  
Maximum value of SAR (measured) = 14.0 W/kg



## System Check\_H1900\_190409

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

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

Medium: H16T20N3\_0409 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.458$  S/m;  $\epsilon_r = 39.592$ ;  $\rho = 1000$  kg/m<sup>3</sup>

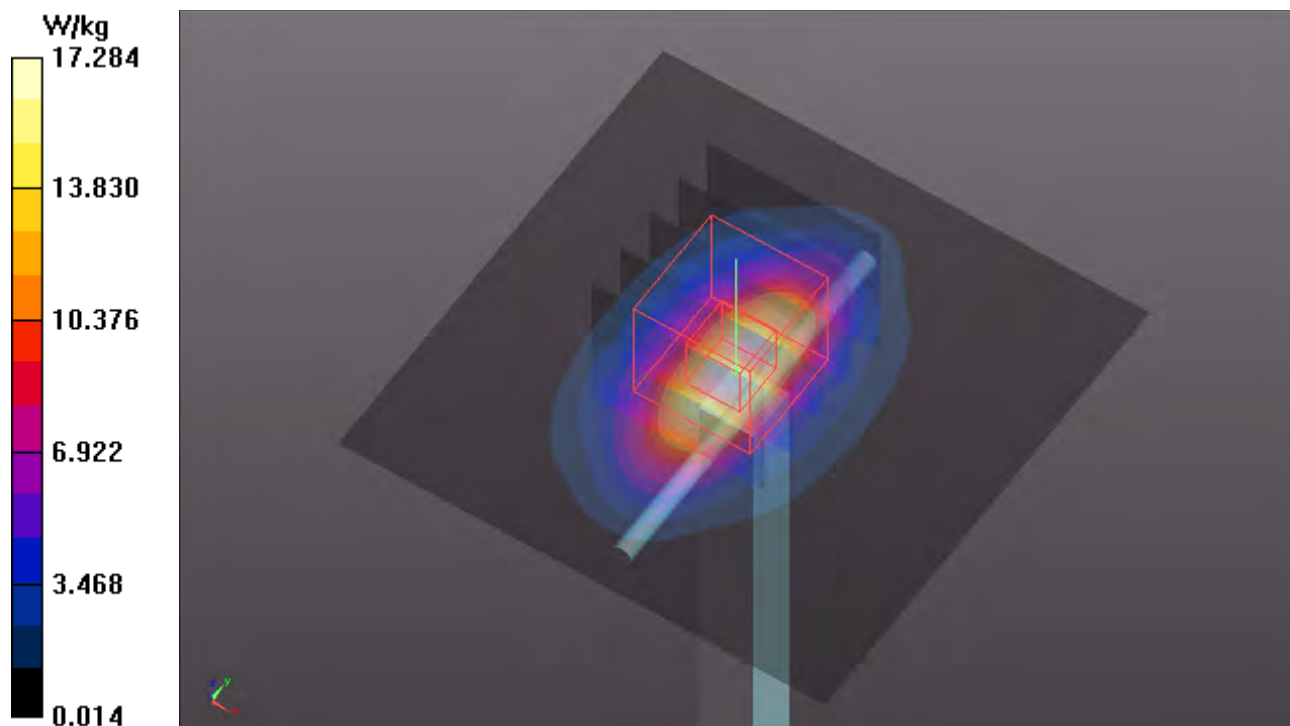
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.57, 7.57, 7.57); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 17.3 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 101.9 V/m; Power Drift = -0.05 dB  
Peak SAR (extrapolated) = 19.6 W/kg  
**SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.47 W/kg**  
Maximum value of SAR (measured) = 16.4 W/kg



## System Check\_H2300\_190420

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

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

Medium: H19T27N3\_0420 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.73$  S/m;  $\epsilon_r = 39.008$ ;  $\rho = 1000$  kg/m<sup>3</sup>

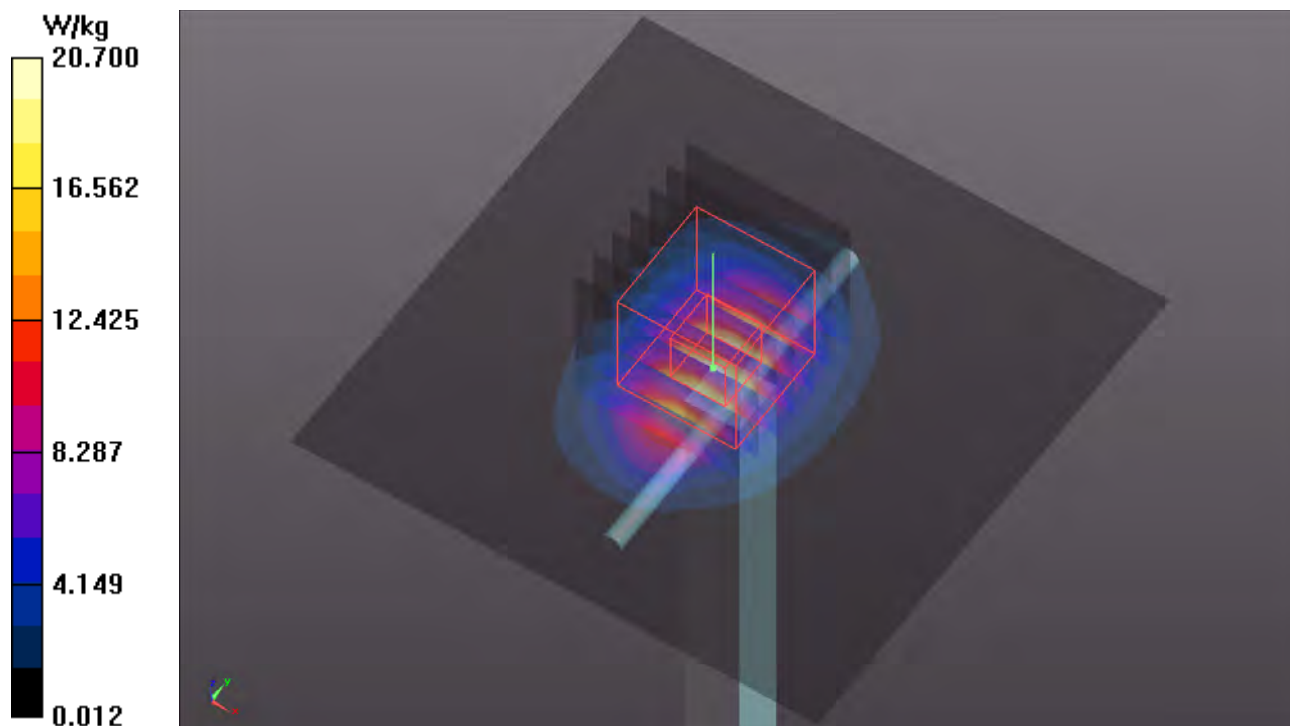
Ambient Temperature : 23.9 °C ; Liquid Temperature : 23.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.04, 8.04, 8.04); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 20.7 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 111.7 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 25.7 W/kg  
**SAR(1 g) = 12.8 W/kg; SAR(10 g) = 6.14 W/kg**  
Maximum value of SAR (measured) = 20.9 W/kg





## System Check\_H2450\_190501

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

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

Medium: H19T27N1\_0501 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.864$  S/m;  $\epsilon_r = 38.07$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.71, 7.71, 7.71); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2019/01/24
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

Maximum value of SAR (interpolated) = 21.7 W/kg

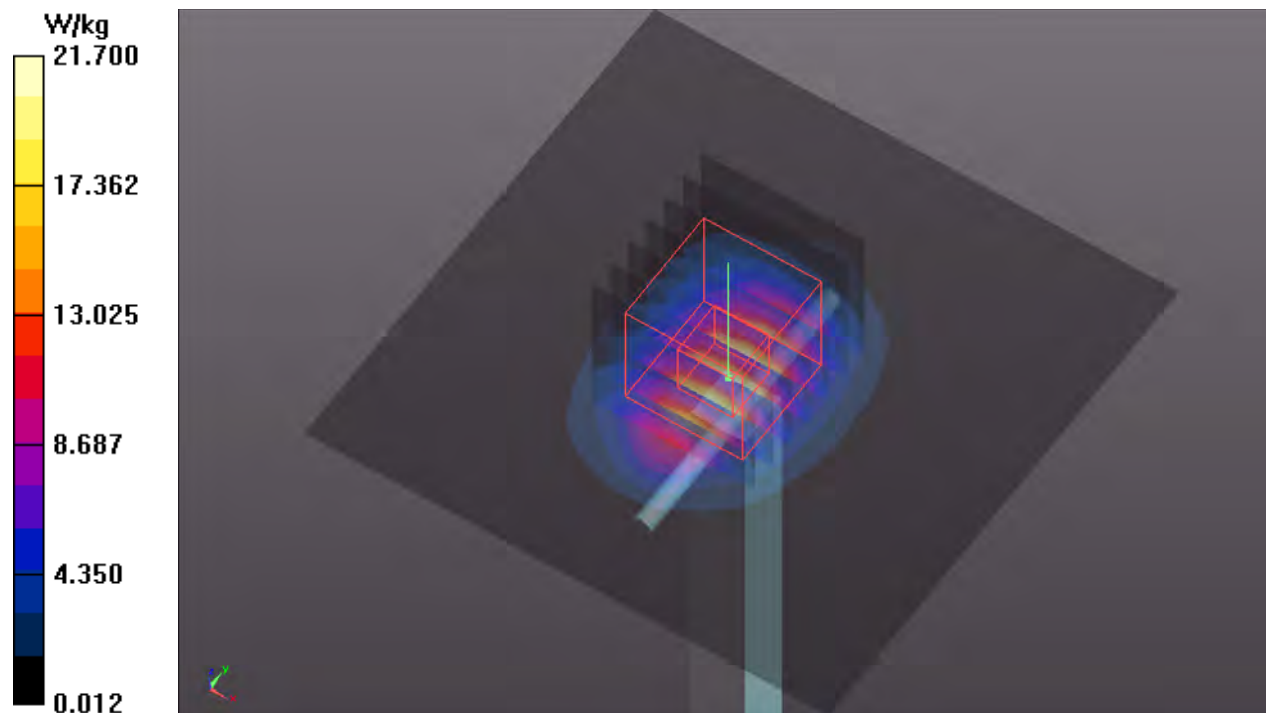
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 110.2 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 26.6 W/kg

**SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.09 W/kg**

Maximum value of SAR (measured) = 21.7 W/kg



### System Check\_H2600\_190423

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

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

Medium: H19T27N3\_0423 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.05$  S/m;  $\epsilon_r = 37.808$ ;  $\rho = 1000$  kg/m<sup>3</sup>

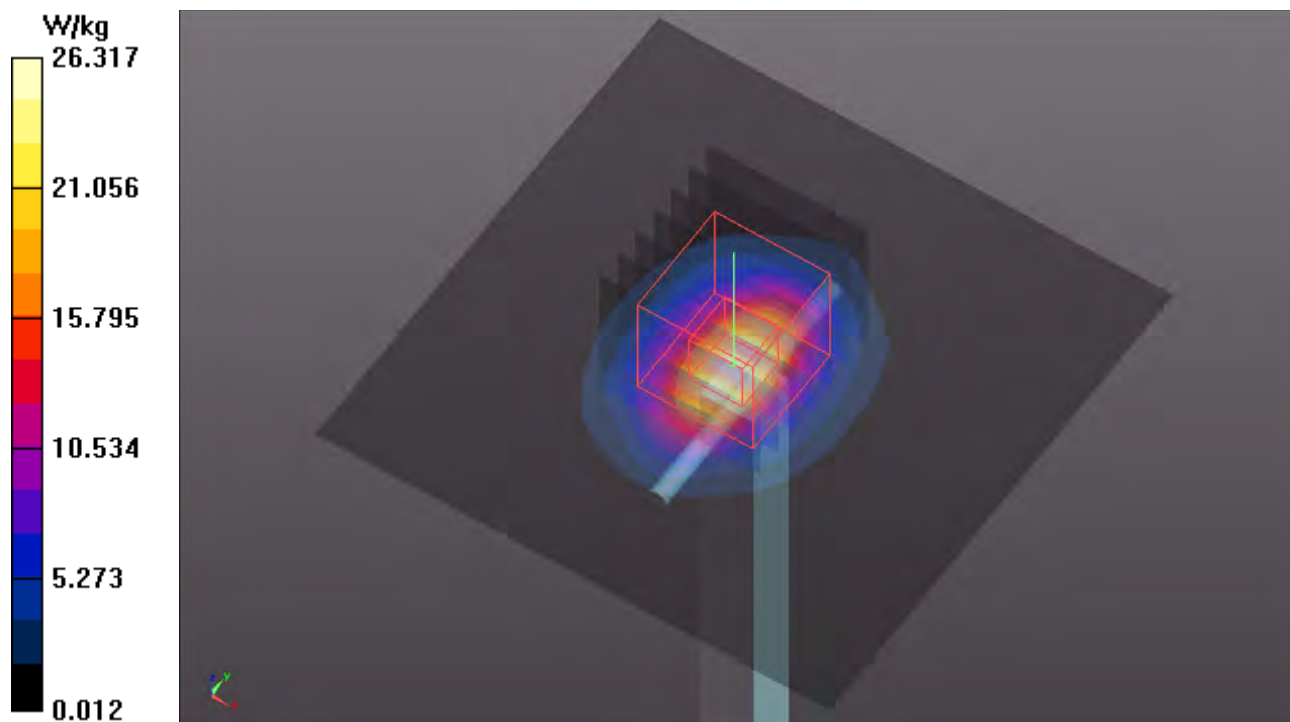
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 26.3 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 108.4 V/m; Power Drift = 0.06 dB  
Peak SAR (extrapolated) = 33.3 W/kg  
**SAR(1 g) = 15 W/kg; SAR(10 g) = 6.62 W/kg**  
Maximum value of SAR (measured) = 26.4 W/kg



## System Check\_H5250\_190502

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

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

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.714$  S/m;  $\epsilon_r = 36.093$ ;  $\rho = 1000$  kg/m<sup>3</sup>

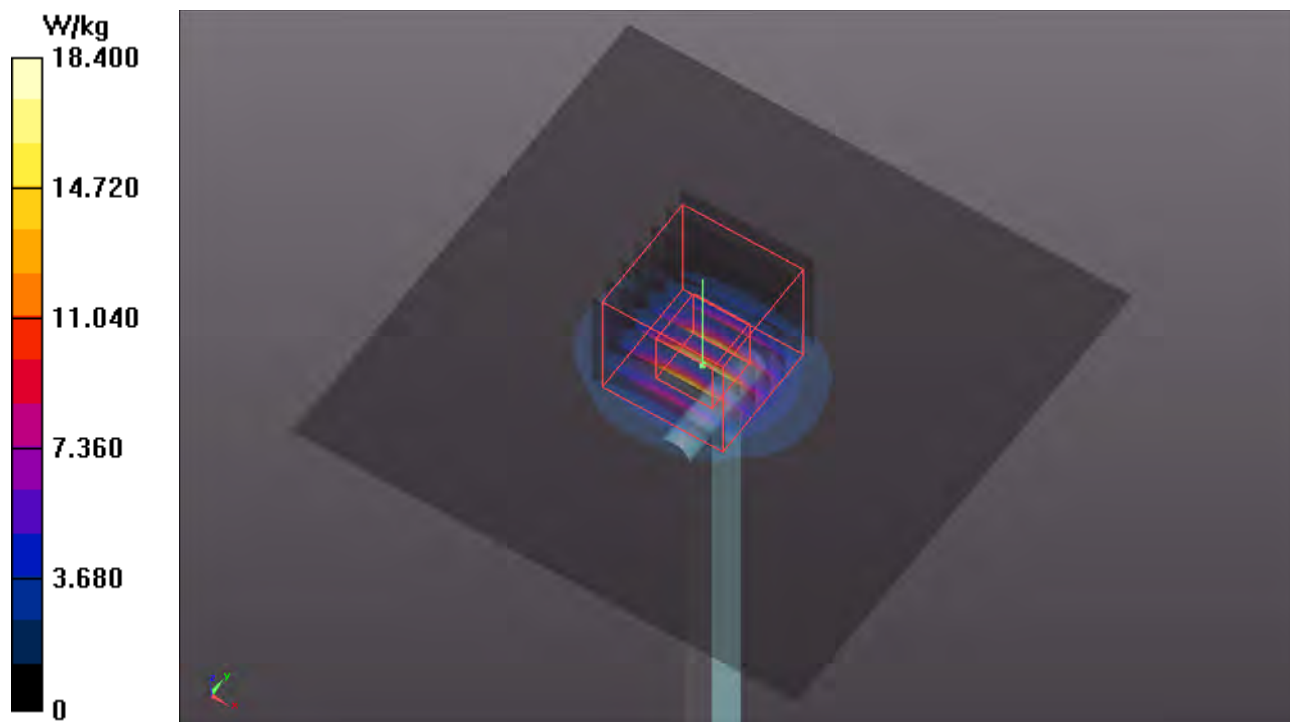
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(5.29, 5.29, 5.29); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 18.4 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 71.13 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 34.6 W/kg  
**SAR(1 g) = 8 W/kg; SAR(10 g) = 2.3 W/kg**  
Maximum value of SAR (measured) = 20.5 W/kg



## System Check\_H5600\_190502

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

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

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.056$  S/m;  $\epsilon_r = 35.61$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.69, 4.69, 4.69); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 21.6 W/kg

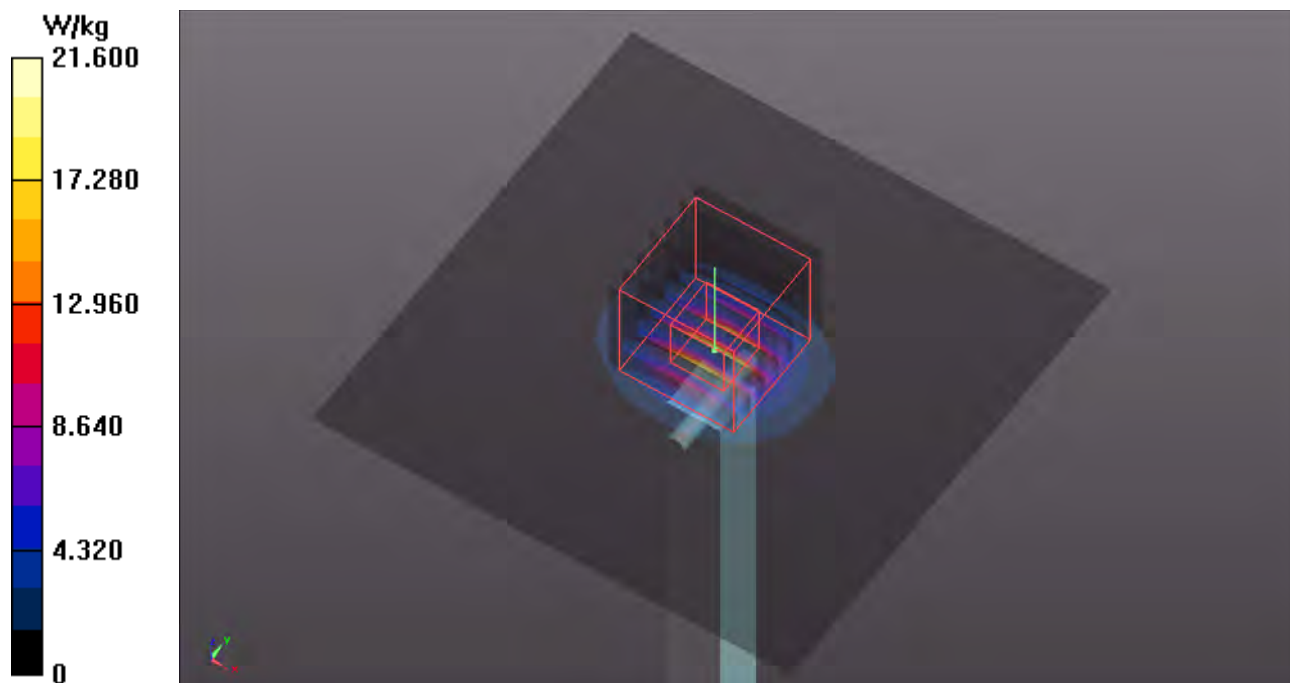
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 73.99 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 41.2 W/kg

**SAR(1 g) = 8.78 W/kg; SAR(10 g) = 2.5 W/kg**

Maximum value of SAR (measured) = 22.9 W/kg



### System Check\_H5750\_190503

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

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

Medium: H34T60N1\_0503 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.313$  S/m;  $\epsilon_r = 34.366$ ;  $\rho = 1000$  kg/m<sup>3</sup>

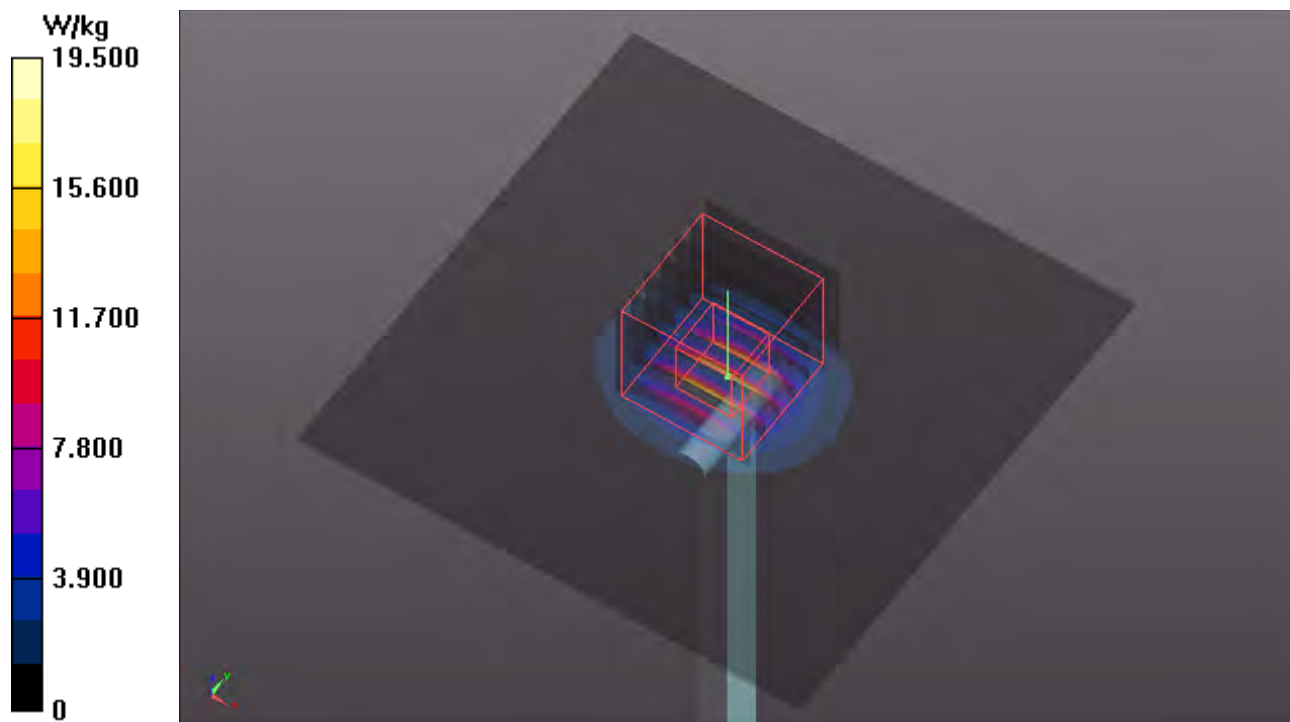
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.85, 4.85, 4.85); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 19.5 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 60.31 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 37.4 W/kg  
**SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.28 W/kg**  
Maximum value of SAR (measured) = 20.9 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\_Top Side\_0mm\_Ch9262

### DUT: 190107C03

Communication System: WCDMA; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: H16T20N3\_0411 Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.409$  S/m;  $\epsilon_r = 38.995$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.47, 8.47, 8.47); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.42 W/kg

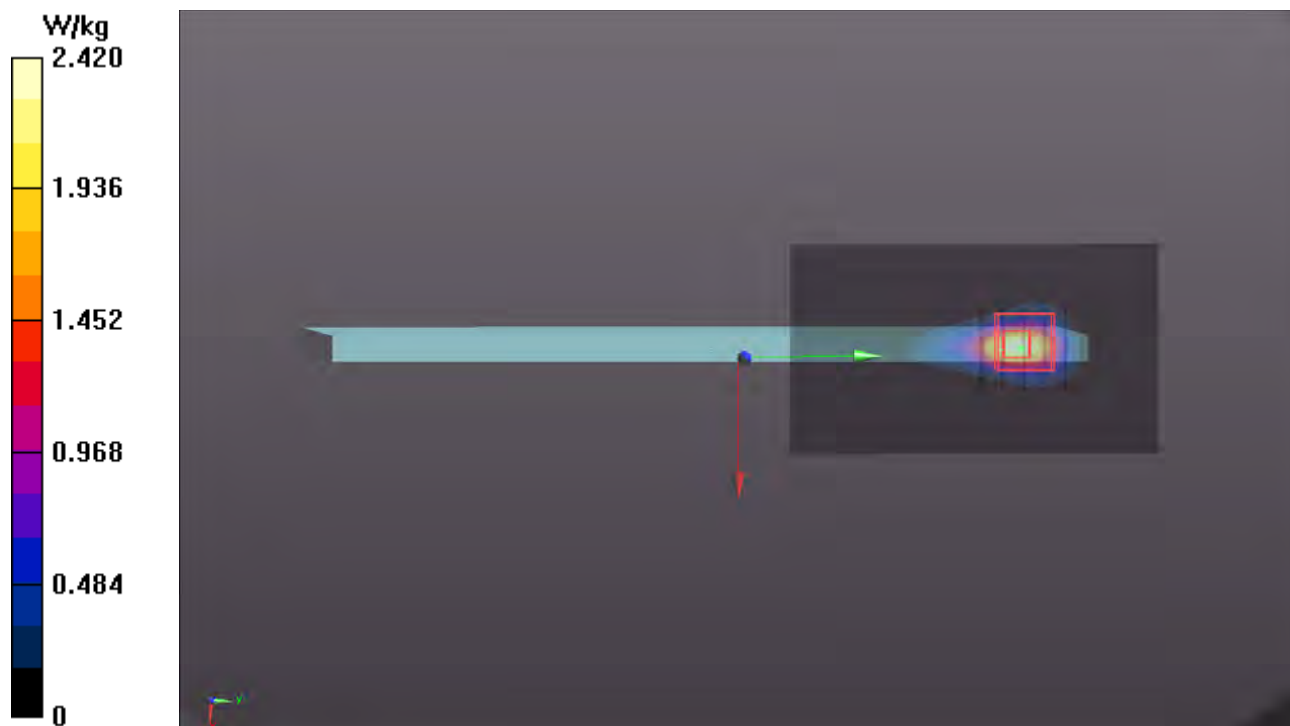
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 39.39 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.72 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.482 W/kg**

Maximum value of SAR (measured) = 2.11 W/kg



## P02 WCDMA IV\_RMC12.2K\_Top Side\_0mm\_Ch1413

**DUT: 190107C03**

Communication System: WCDMA; Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium: H16T20N4\_0412 Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.31 \text{ S/m}$ ;  $\epsilon_r = 39.387$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.4 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3898; ConvF(8.68, 8.68, 8.68); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2018/05/30
- Phantom: ELI Phantom\_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $1.91 \text{ W/kg}$

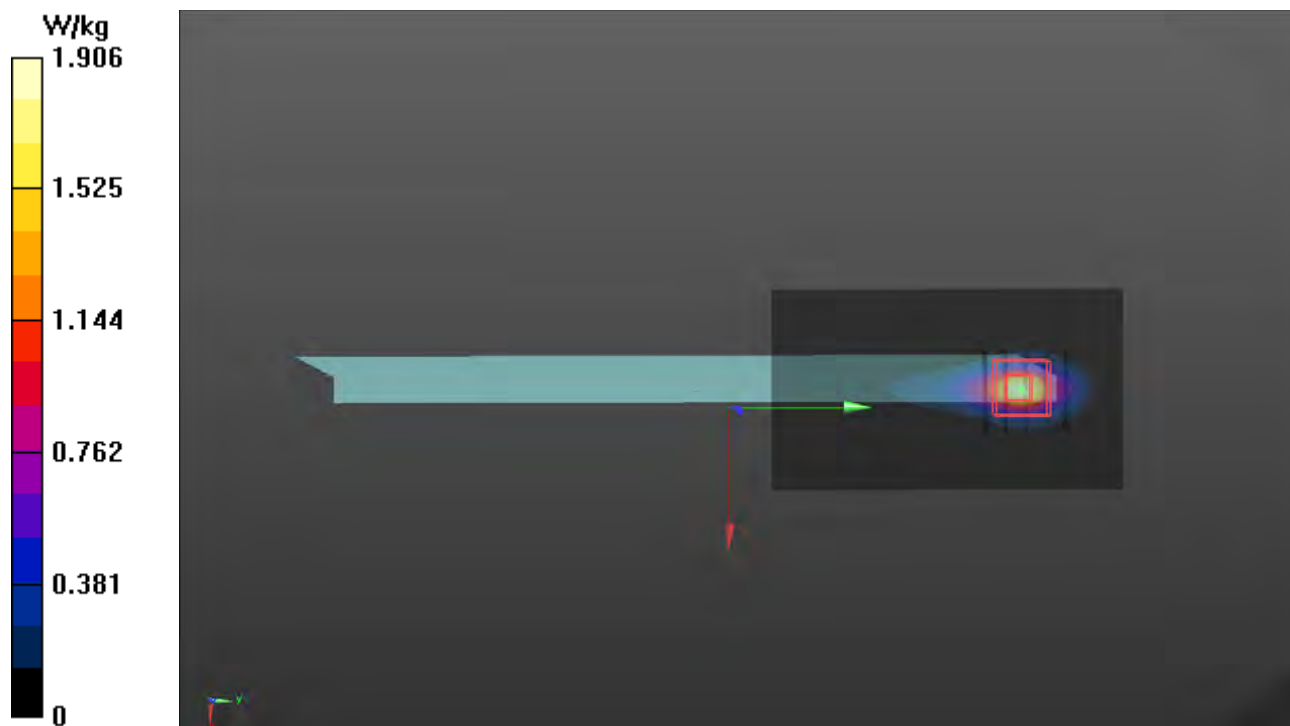
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $39.26 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$

Peak SAR (extrapolated) =  $2.36 \text{ W/kg}$

**SAR(1 g) =  $1.13 \text{ W/kg}$ ; SAR(10 g) =  $0.436 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.90 \text{ W/kg}$





### P03 WCDMA V\_RMC12.2K\_Right Side\_0mm\_Ch4182

**DUT: 190107C03**

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: H07T10N1\_0411 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 42.261$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.18, 10.18, 10.18); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.79 W/kg

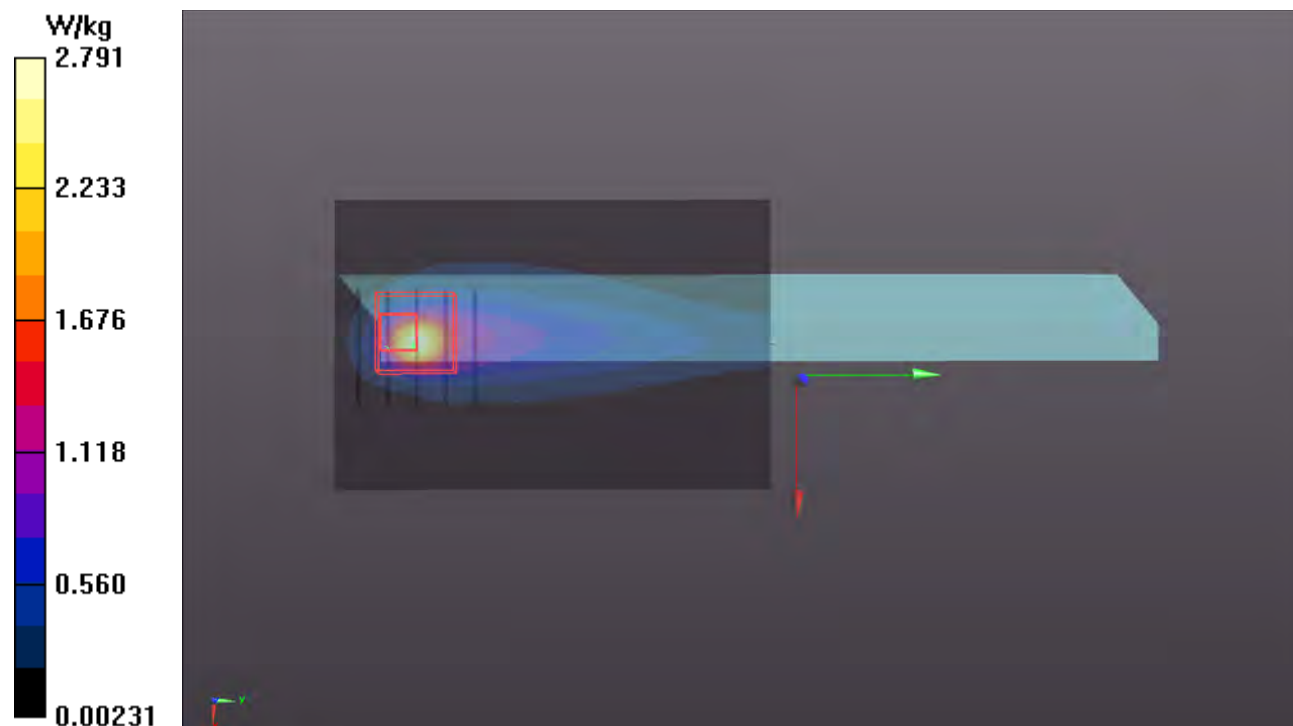
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.81 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 5.33 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.471 W/kg**

Maximum value of SAR (measured) = 2.49 W/kg



### P04 LTE 2\_QPSK20M\_Top Side\_0mm\_Ch18700\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: H16T20N3\_0409 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.424$  S/m;  $\epsilon_r = 39.708$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.57, 7.57, 7.57); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.19 W/kg

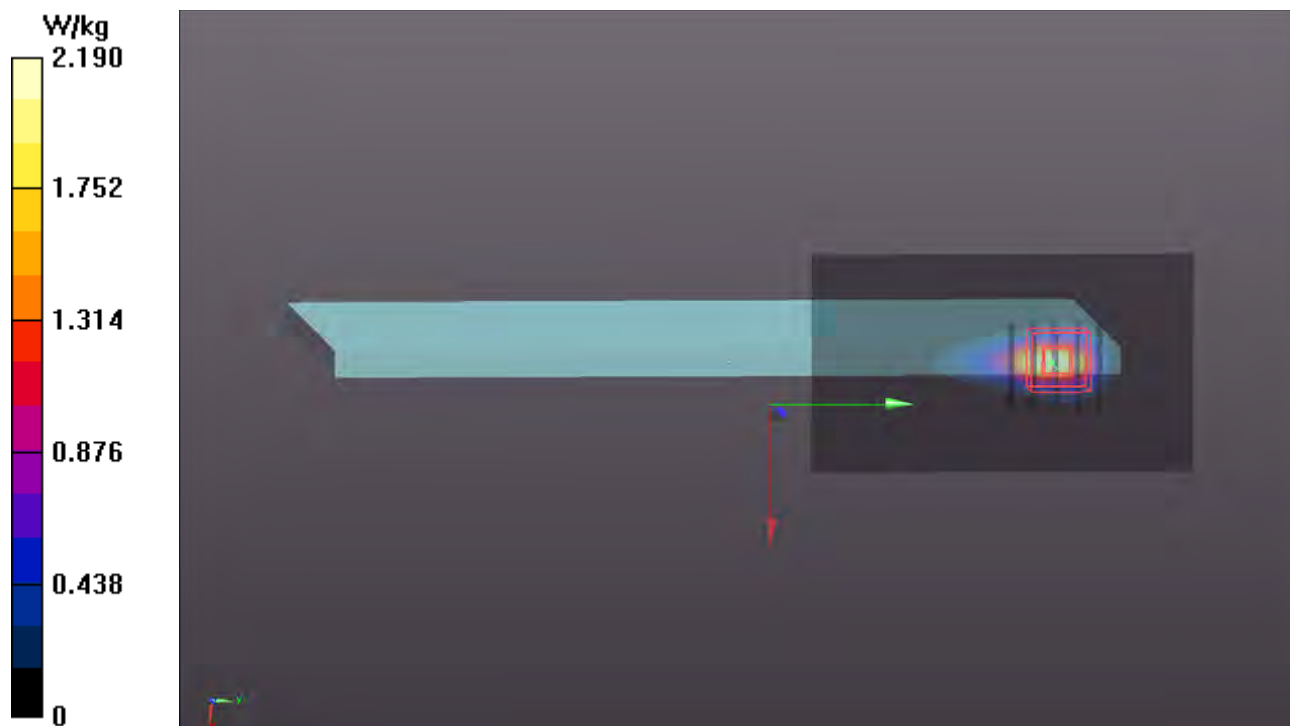
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 38.31 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.71 W/kg

**SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.504 W/kg**

Maximum value of SAR (measured) = 2.04 W/kg



### P05 LTE 4\_QPSK20M\_Top Side\_0mm\_Ch20300\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0419 Medium parameters used:  $f = 1745 \text{ MHz}$ ;  $\sigma = 1.318 \text{ S/m}$ ;  $\epsilon_r = 41.003$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.4 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $2.18 \text{ W/kg}$

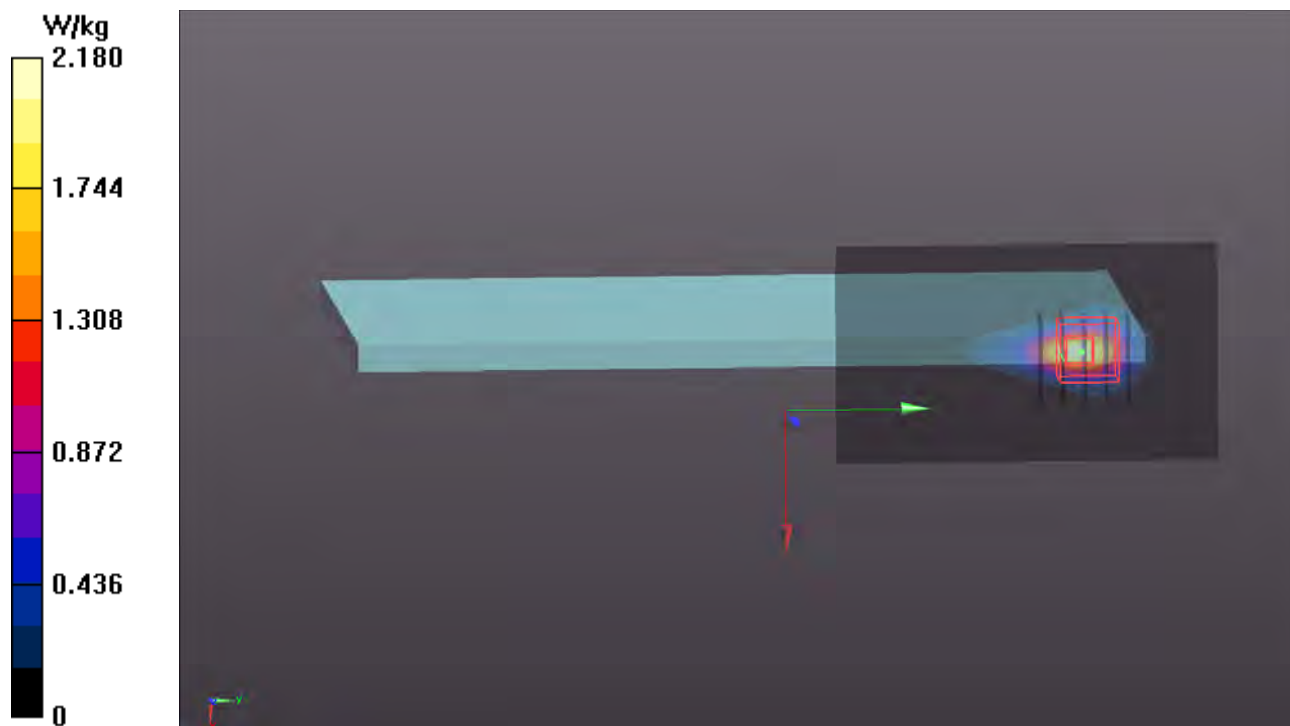
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $37.33 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

Peak SAR (extrapolated) =  $2.52 \text{ W/kg}$

**SAR(1 g) =  $1.25 \text{ W/kg}$ ; SAR(10 g) =  $0.505 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.91 \text{ W/kg}$



## P06 LTE 5\_QPSK10M\_Right Side\_0mm\_Ch20450\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 829 MHz; Duty Cycle: 1:1

Medium: H07T10N3\_0410 Medium parameters used:  $f = 829$  MHz;  $\sigma = 0.92$  S/m;  $\epsilon_r = 42.479$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.4, 9.4, 9.4); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.843 W/kg

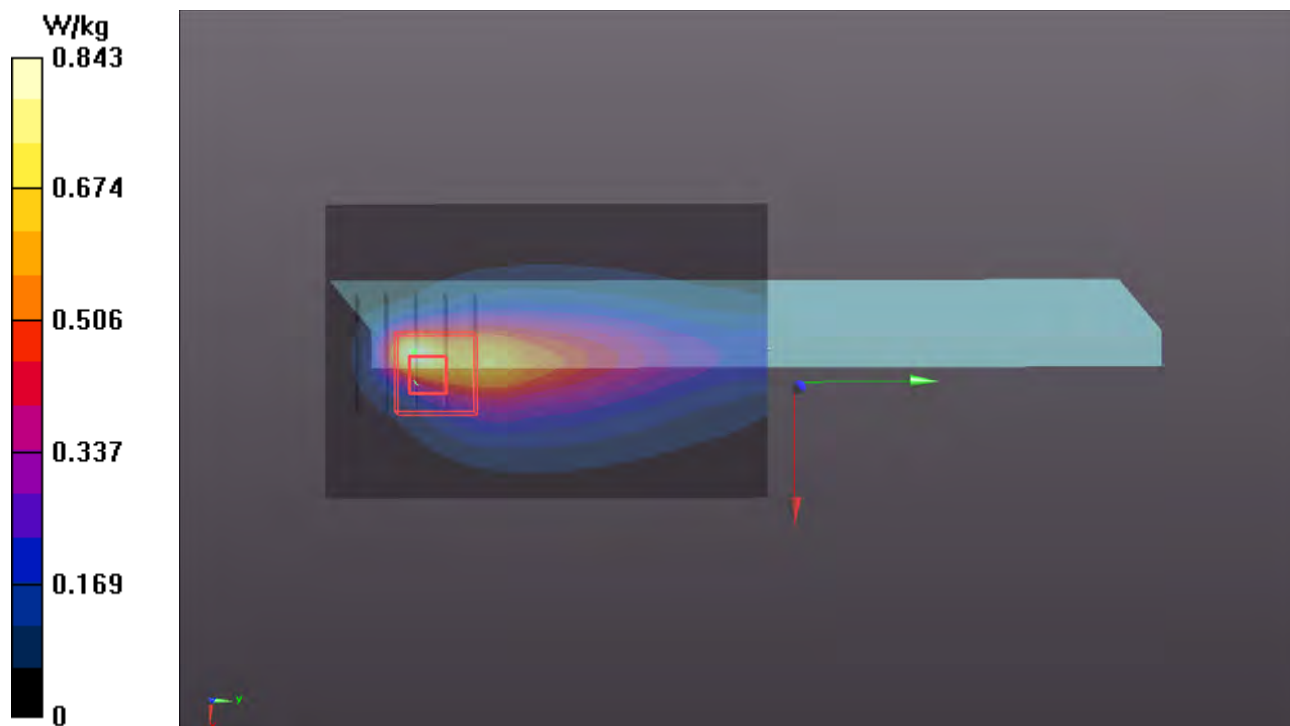
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.36 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 5.23 W/kg

**SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.427 W/kg**

Maximum value of SAR (measured) = 2.66 W/kg



### P07 LTE 7\_QPSK20M\_Top Side\_0mm\_Ch20850\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: H19T27N1\_0419 Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.962$  S/m;  $\epsilon_r = 37.994$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x121x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 2.08 W/kg

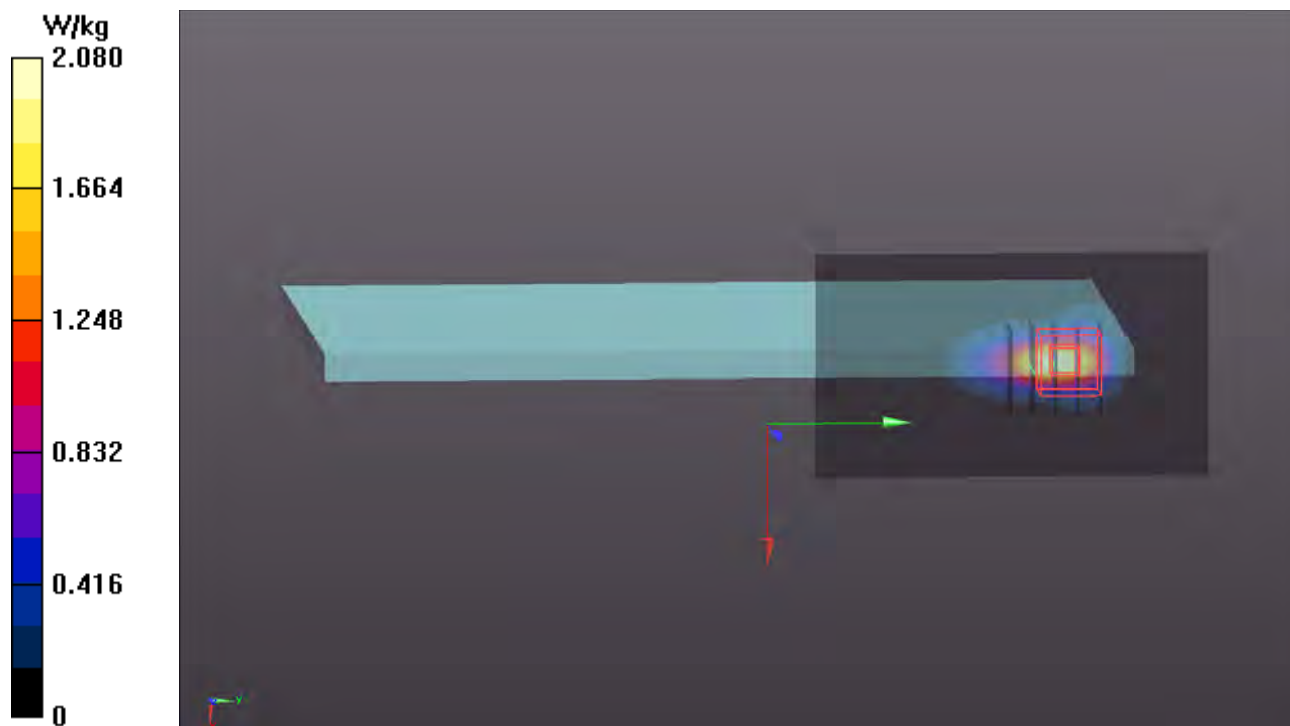
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.05 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.64 W/kg

**SAR(1 g) = 1.28 W/kg; SAR(10 g) = 0.564 W/kg**

Maximum value of SAR (measured) = 1.93 W/kg



### P08 LTE 12\_QPSK10M\_Right Side\_0mm\_Ch23060\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 704 MHz; Duty Cycle: 1:1

Medium: H06T09N3\_0410 Medium parameters used:  $f = 704 \text{ MHz}$ ;  $\sigma = 0.846 \text{ S/m}$ ;  $\epsilon_r = 43.471$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.72, 9.72, 9.72); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $3.83 \text{ W/kg}$

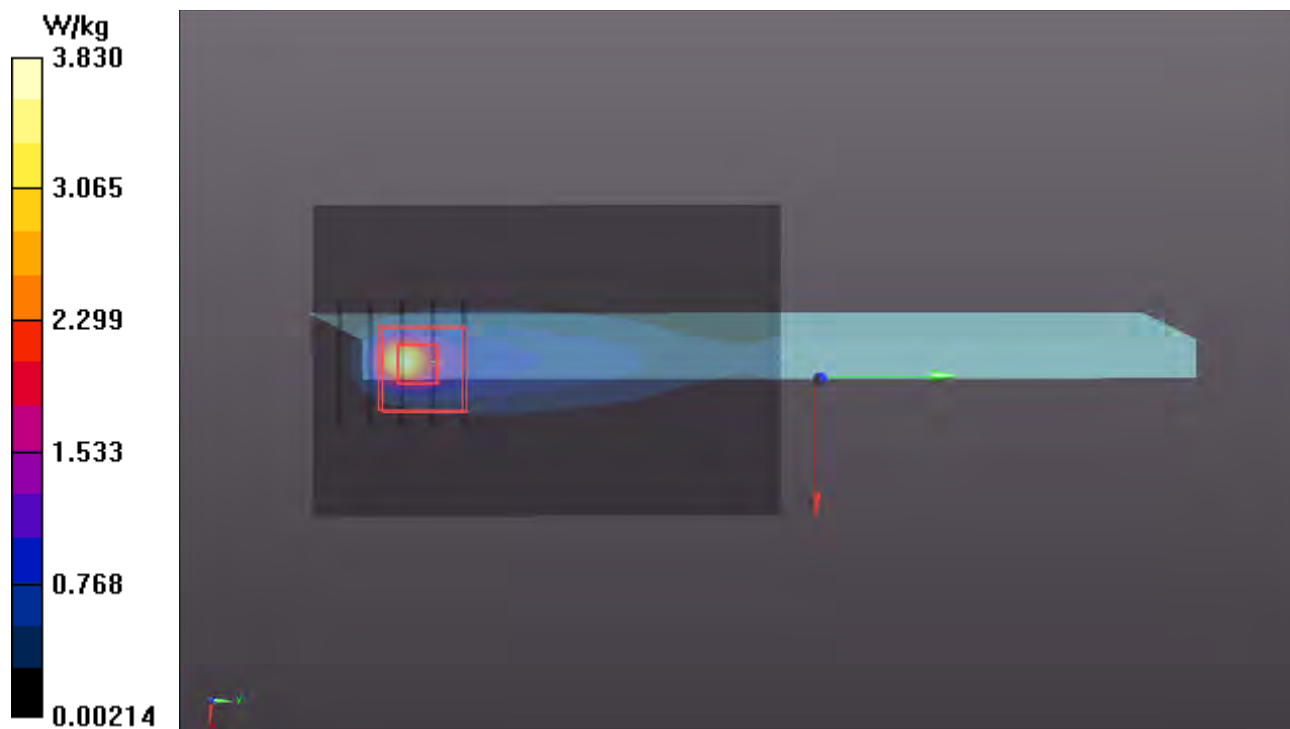
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $66.27 \text{ V/m}$ ; Power Drift =  $-0.11 \text{ dB}$

Peak SAR (extrapolated) =  $7.27 \text{ W/kg}$

**SAR(1 g) =  $1.26 \text{ W/kg}$ ; SAR(10 g) =  $0.381 \text{ W/kg}$**

Maximum value of SAR (measured) =  $4.03 \text{ W/kg}$



### P09 LTE 13\_QPSK10M\_Right Side\_0mm\_Ch23230\_1RB\_OS0

**DUT: 190107C03**

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

Medium: H06T09N3\_0410 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.912 \text{ S/m}$ ;  $\epsilon_r = 42.367$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.72, 9.72, 9.72); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $1.05 \text{ W/kg}$

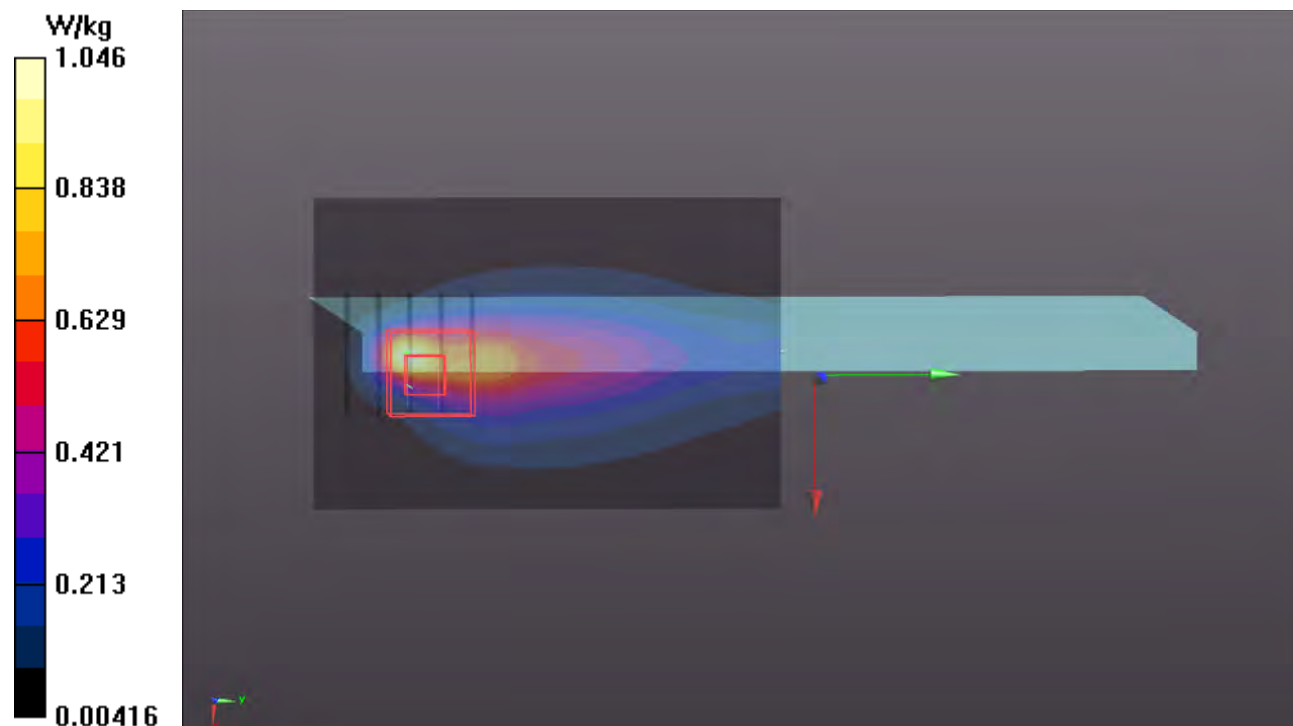
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $31.25 \text{ V/m}$ ; Power Drift =  $-0.14 \text{ dB}$

Peak SAR (extrapolated) =  $4.98 \text{ W/kg}$

**SAR(1 g) =  $1.22 \text{ W/kg}$ ; SAR(10 g) =  $0.462 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.29 \text{ W/kg}$



## P10 LTE 14\_QPSK10M\_Right Side\_0mm\_Ch23330\_1RB\_OS0

**DUT: 190107C03**

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

Medium: H06T09N1\_0420 Medium parameters used:  $f = 793$  MHz;  $\sigma = 0.933$  S/m;  $\epsilon_r = 42.878$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.9 °C ; Liquid Temperature : 23.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.54 W/kg

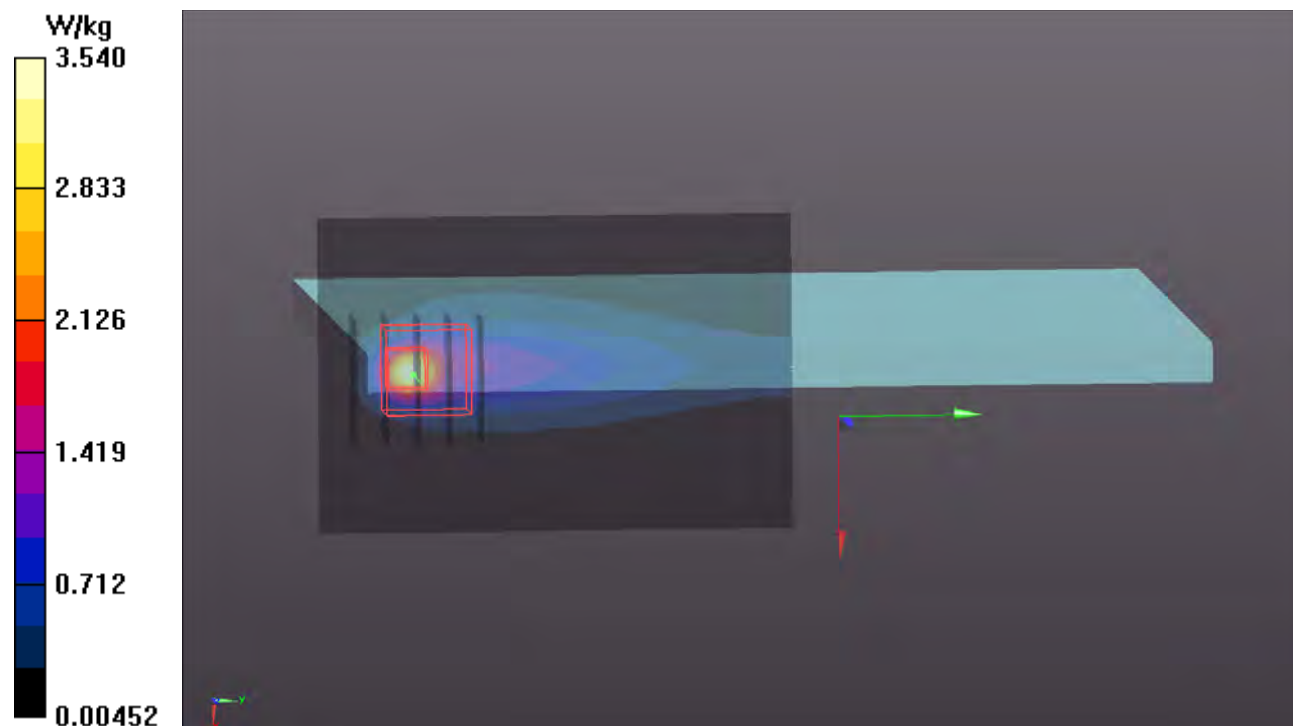
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 59.45 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 6.34 W/kg

**SAR(1 g) = 1.28 W/kg; SAR(10 g) = 0.510 W/kg**

Maximum value of SAR (measured) = 3.40 W/kg





### P11 LTE 17\_QPSK10M\_Right Side\_0mm\_Ch23800\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 711 MHz; Duty Cycle: 1:1

Medium: H06T09N3\_0410 Medium parameters used:  $f = 711 \text{ MHz}$ ;  $\sigma = 0.85 \text{ S/m}$ ;  $\epsilon_r = 43.384$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.72, 9.72, 9.72); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $3.52 \text{ W/kg}$

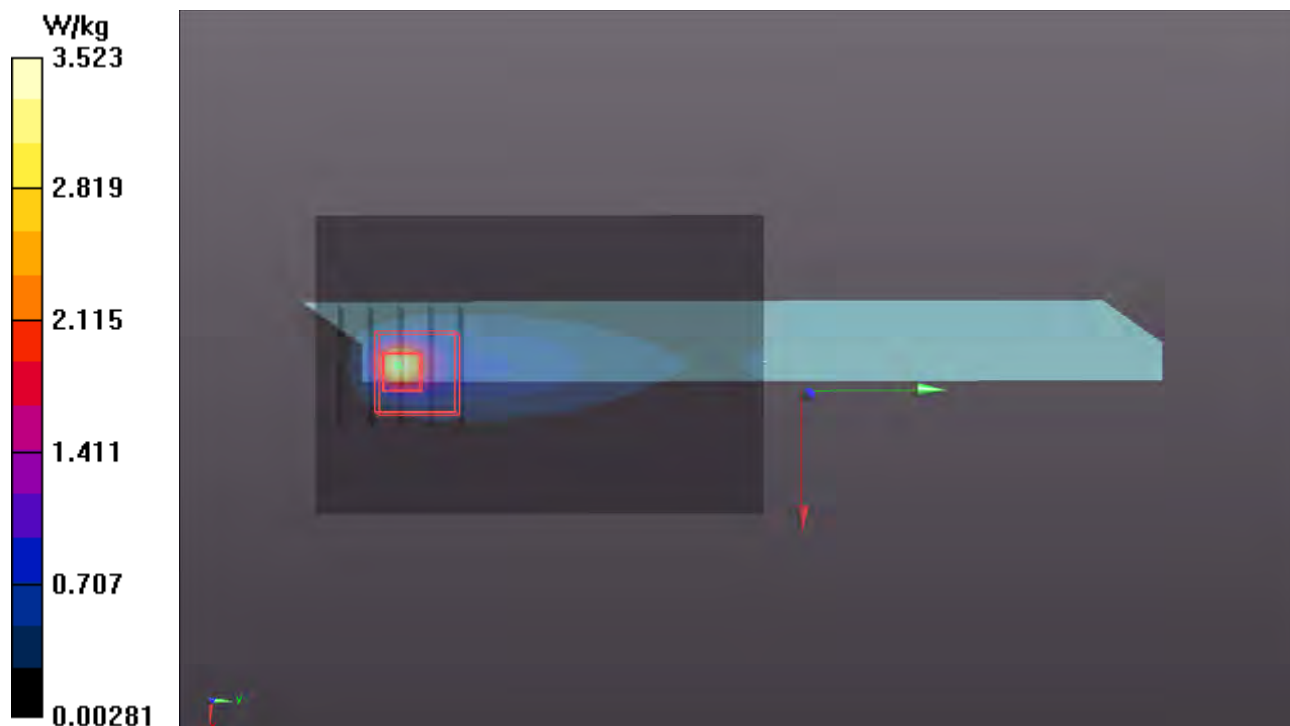
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $62.31 \text{ V/m}$ ; Power Drift =  $-0.14 \text{ dB}$

Peak SAR (extrapolated) =  $5.52 \text{ W/kg}$

**SAR(1 g) =  $1.24 \text{ W/kg}$ ; SAR(10 g) =  $0.358 \text{ W/kg}$**

Maximum value of SAR (measured) =  $3.13 \text{ W/kg}$



## P12 LTE 25\_QPSK20M\_Top Side\_0mm\_Ch26140\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: H16T20N3\_0409 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.424$  S/m;  $\epsilon_r = 39.708$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.57, 7.57, 7.57); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.24 W/kg

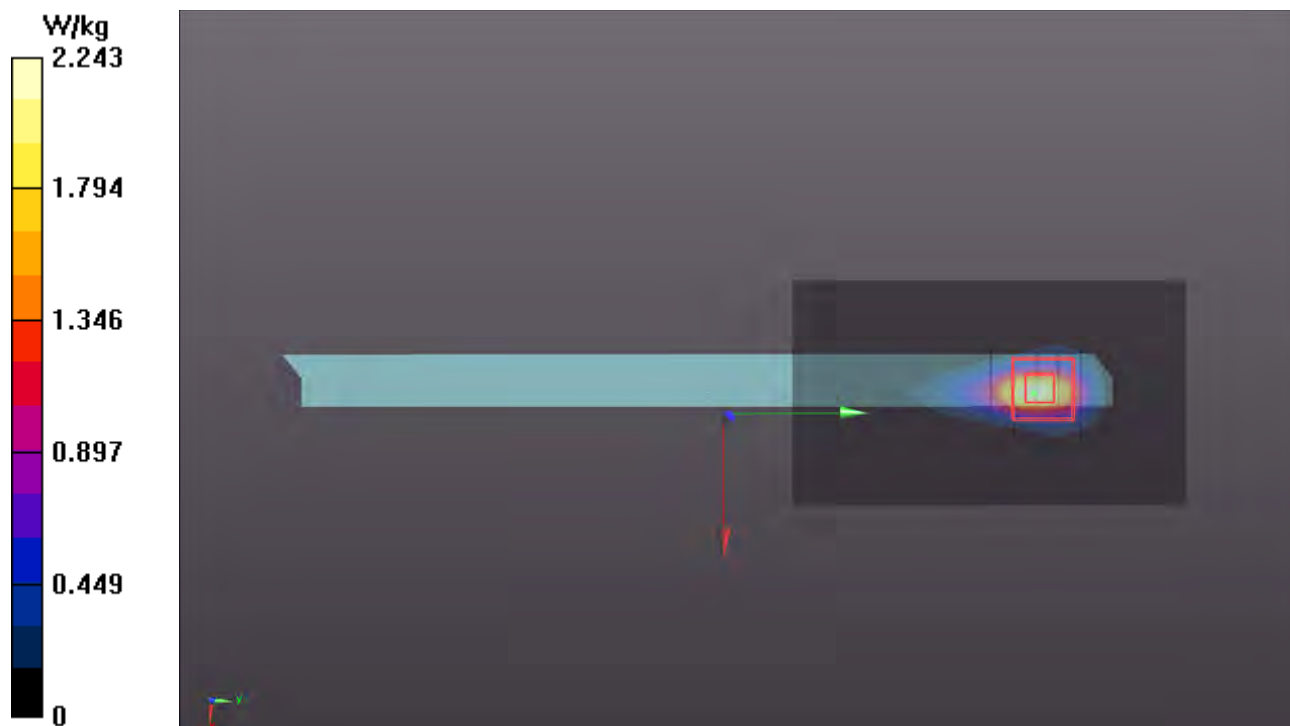
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 39.38 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.54 W/kg

**SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.487 W/kg**

Maximum value of SAR (measured) = 1.98 W/kg



### P13 LTE 26\_QPSK15M\_Right Side\_0mm\_Ch26765\_1RB\_OS0

**DUT: 190107C03**

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

Medium: H07T10N3\_0410 Medium parameters used:  $f = 821.5 \text{ MHz}$ ;  $\sigma = 0.913 \text{ S/m}$ ;  $\epsilon_r = 42.571$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(9.4, 9.4, 9.4); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $2.80 \text{ W/kg}$

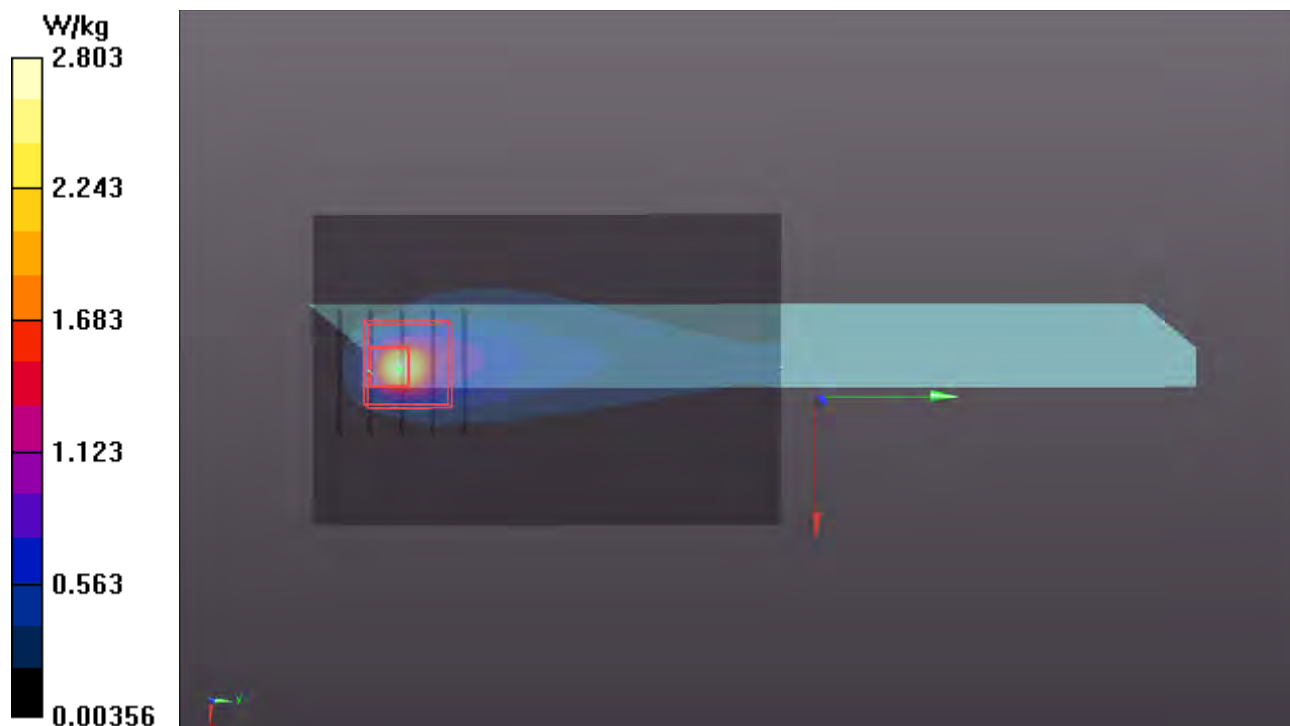
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $61.99 \text{ V/m}$ ; Power Drift =  $0.13 \text{ dB}$

Peak SAR (extrapolated) =  $4.99 \text{ W/kg}$

**SAR(1 g) =  $1.27 \text{ W/kg}$ ; SAR(10 g) =  $0.415 \text{ W/kg}$**

Maximum value of SAR (measured) =  $3.11 \text{ W/kg}$



### P14 LTE 30\_QPSK10M\_Top Side\_0mm\_Ch27710\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: H19T27N3\_0409 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.721$  S/m;  $\epsilon_r = 38.869$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3898; ConvF(7.97, 7.97, 7.97); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x121x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 2.32 W/kg

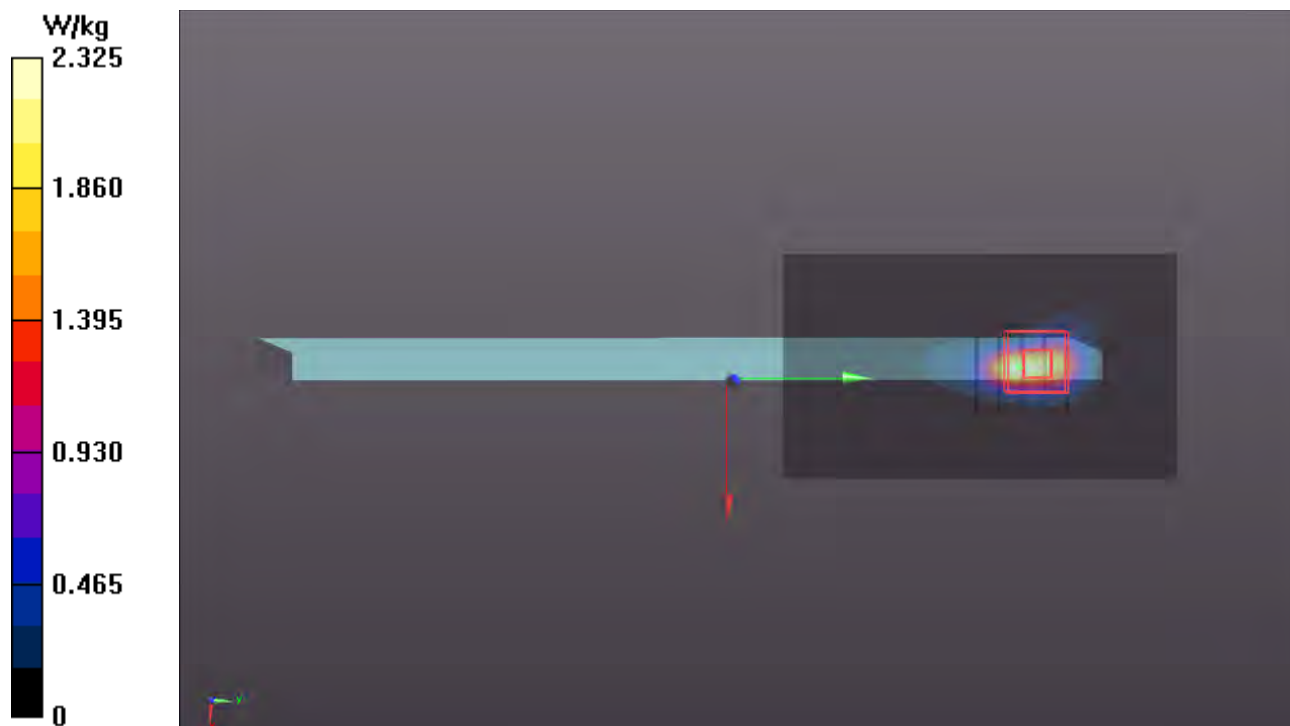
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 36.86 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 2.92 W/kg

**SAR(1 g) = 1.36 W/kg; SAR(10 g) = 0.548 W/kg**

Maximum value of SAR (measured) = 2.22 W/kg



## P15 LTE 38\_QPSK20M\_Top Side\_0mm\_Ch37850\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE TDD CF0; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium: H19T27N3\_0409 Medium parameters used:  $f = 2580$  MHz;  $\sigma = 1.998$  S/m;  $\epsilon_r = 37.907$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.61, 6.61, 6.61); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x121x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 2.56 W/kg

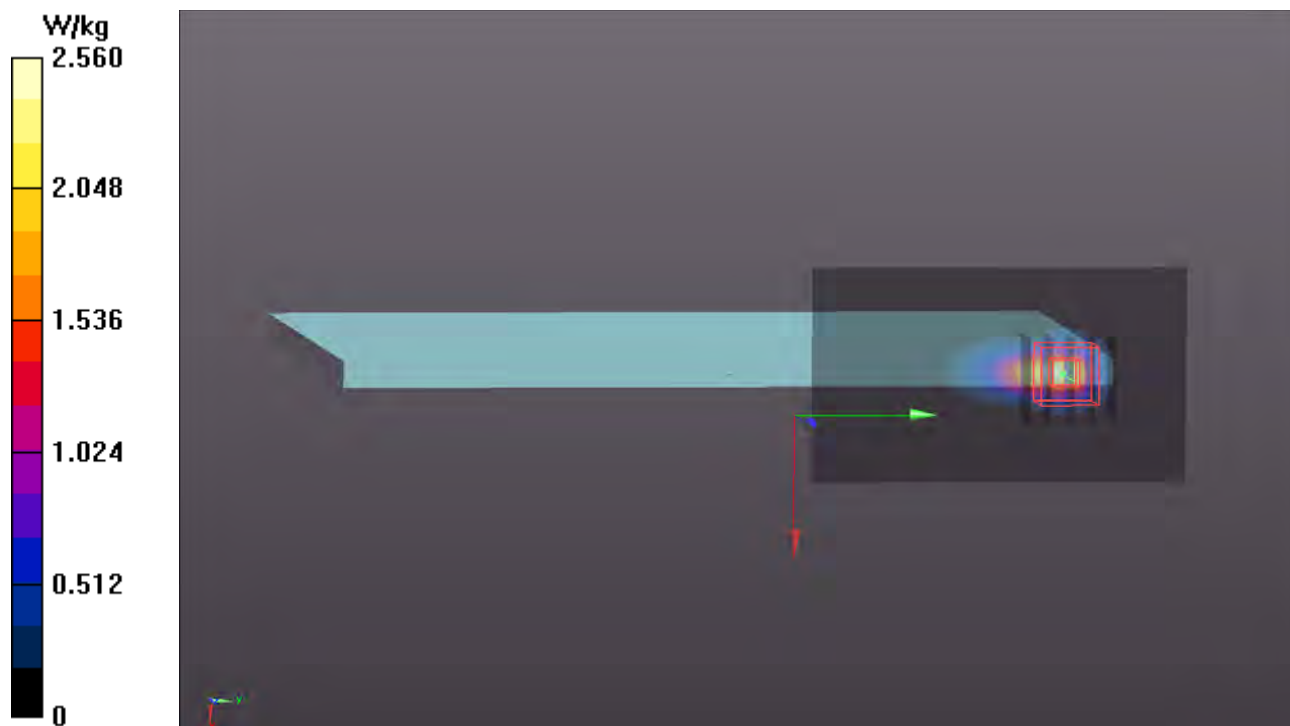
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.79 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.05 W/kg

**SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.569 W/kg**

Maximum value of SAR (measured) = 2.38 W/kg



## P16 LTE 41\_QPSK20M\_Top Side\_0mm\_Ch40185\_1RB\_OS0

**DUT: 190107C03**

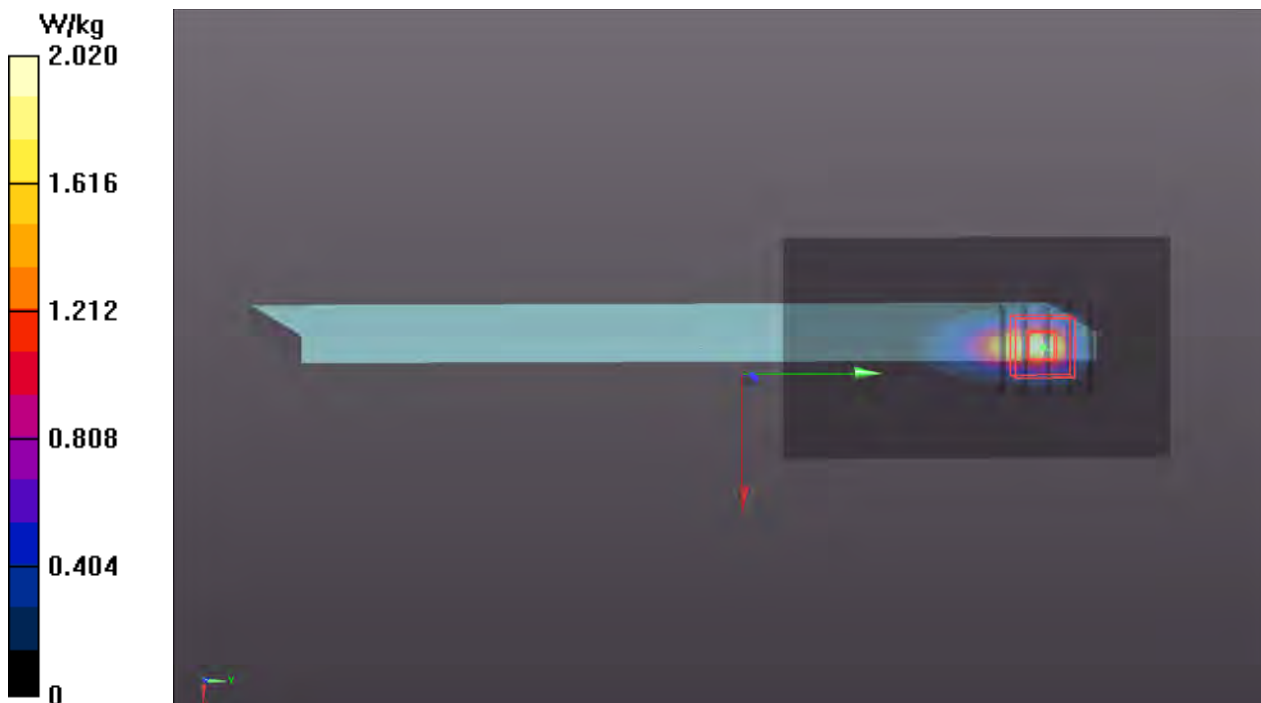
Communication System: LTE TDD CF0; Frequency: 2549.5 MHz; Duty Cycle: 1:1.58  
Medium: H19T27N3\_0409 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.972$  S/m;  $\epsilon_r = 37.968$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(6.61, 6.61, 6.61); Calibrated: 2018/06/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2018/06/21
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x121x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 2.02 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 30.25 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 2.35 W/kg  
**SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.538 W/kg**  
Maximum value of SAR (measured) = 1.84 W/kg



### P17 LTE 66\_QPSK20M\_Top Side\_0mm\_Ch132572\_1RB\_OS0

**DUT: 190107C03**

Communication System: LTE; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.346$  S/m;  $\epsilon_r = 40.072$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

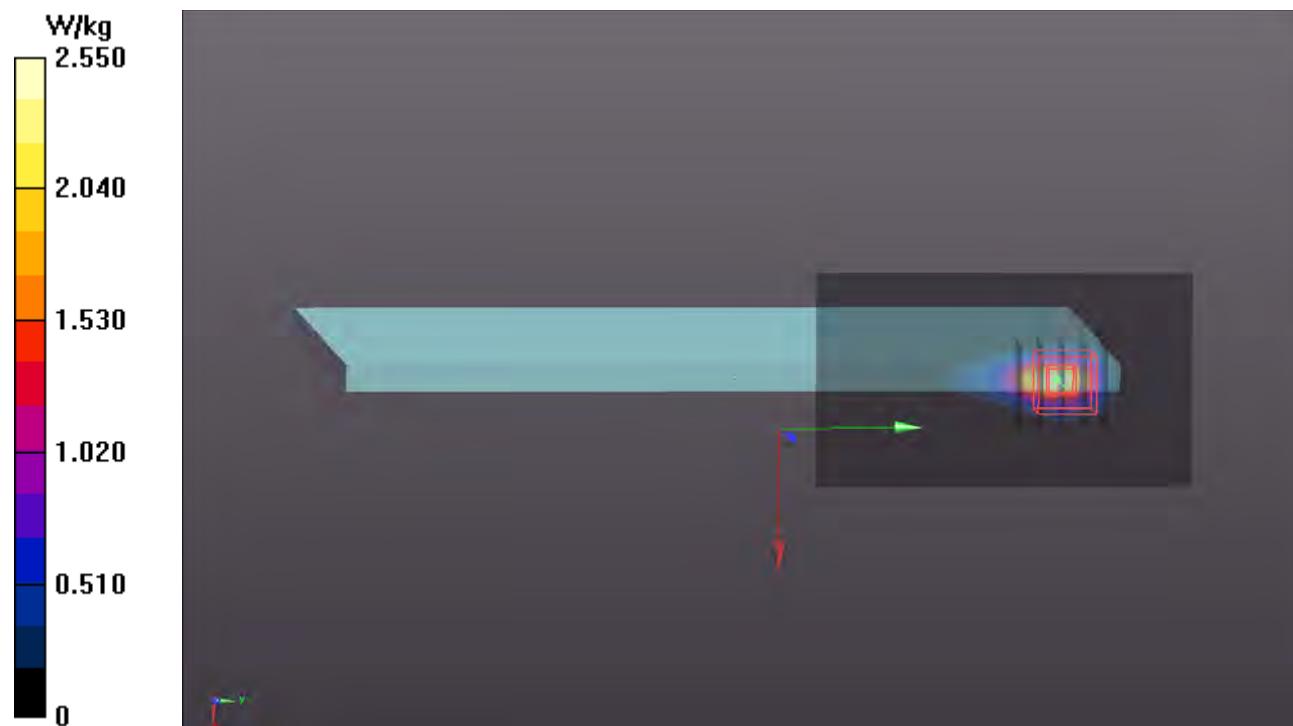
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 40.10 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.92 W/kg

**SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.529 W/kg**

Maximum value of SAR (measured) = 2.22 W/kg



## P18 WLAN2.4G\_802.11b\_Rear Face\_0mm\_Ch1\_Ant1

**DUT: 190326C26**

Communication System: WLAN\_2.4G; Frequency: 2412 MHz; Duty Cycle: 1:1.01  
Medium: H19T27N1\_0501 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.828$  S/m;  $\epsilon_r = 38.231$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

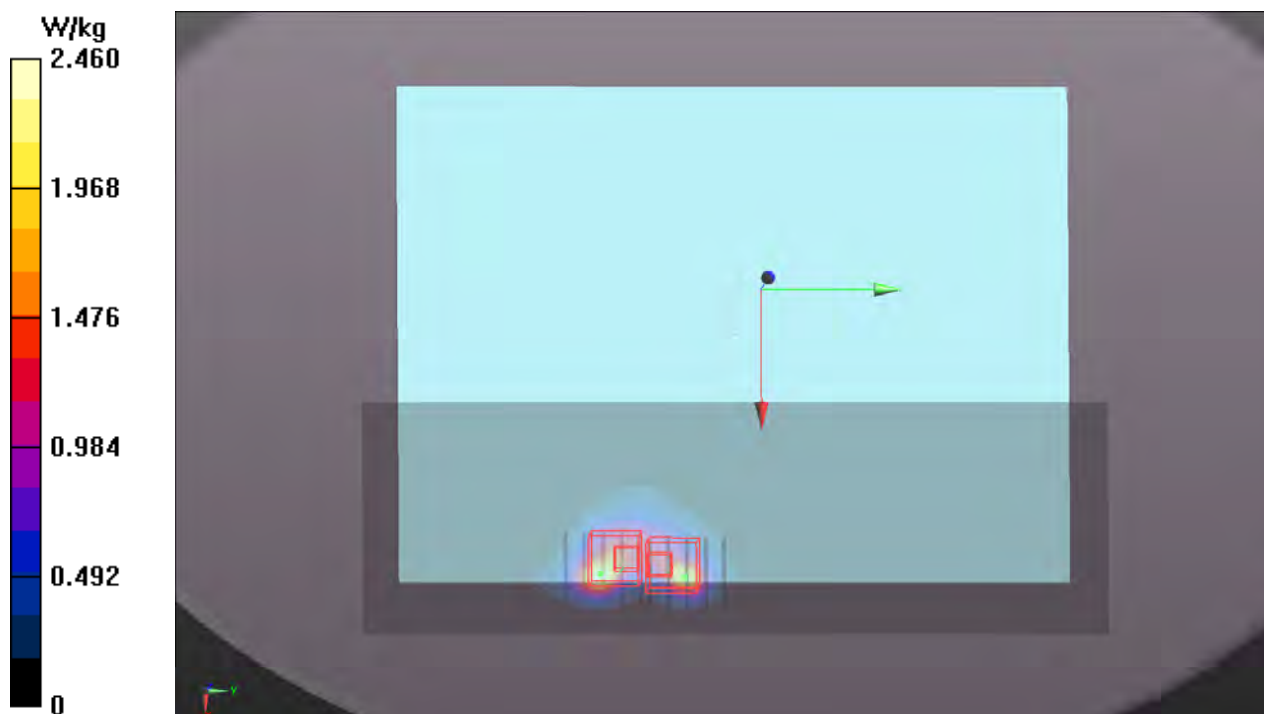
DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.71, 7.71, 7.71); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2019/01/24
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (91x271x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 2.46 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 31.16 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 3.28 W/kg  
**SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.611 W/kg**  
Maximum value of SAR (measured) = 2.11 W/kg

- **Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 31.16 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 2.97 W/kg  
**SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.485 W/kg**  
Maximum value of SAR (measured) = 2.11 W/kg





### P19 WLAN5.3G\_802.11ac VHT80\_Rear Face\_0mm\_Ch58\_Ant1

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5290 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5290$  MHz;  $\sigma = 4.754$  S/m;  $\epsilon_r = 36.052$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(5.29, 5.29, 5.29); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (81x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.86 W/kg

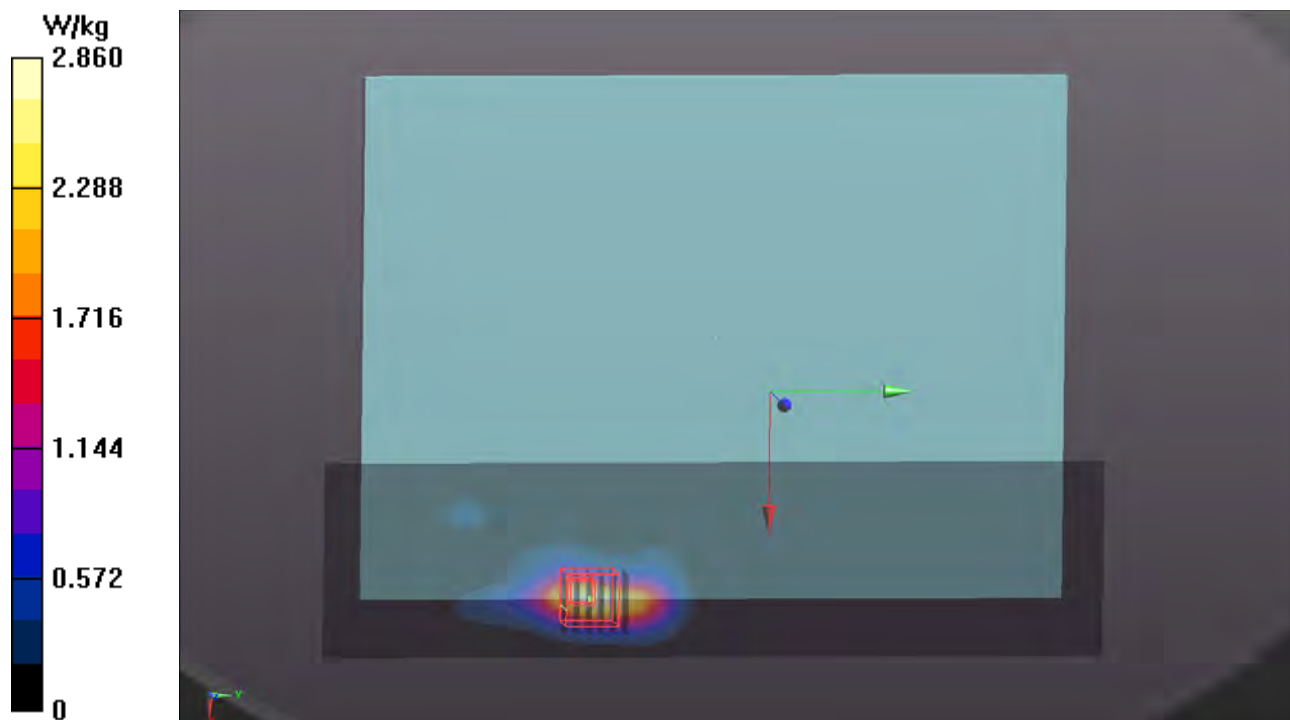
- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 24.09 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 5.29 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.388 W/kg**

Maximum value of SAR (measured) = 3.09 W/kg



## P20 WLAN5.6G\_802.11ac VHT80\_Rear Face\_0mm\_Ch106\_Ant1

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5530 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5530$  MHz;  $\sigma = 4.981$  S/m;  $\epsilon_r = 35.707$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.69, 4.69, 4.69); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (81x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.94 W/kg

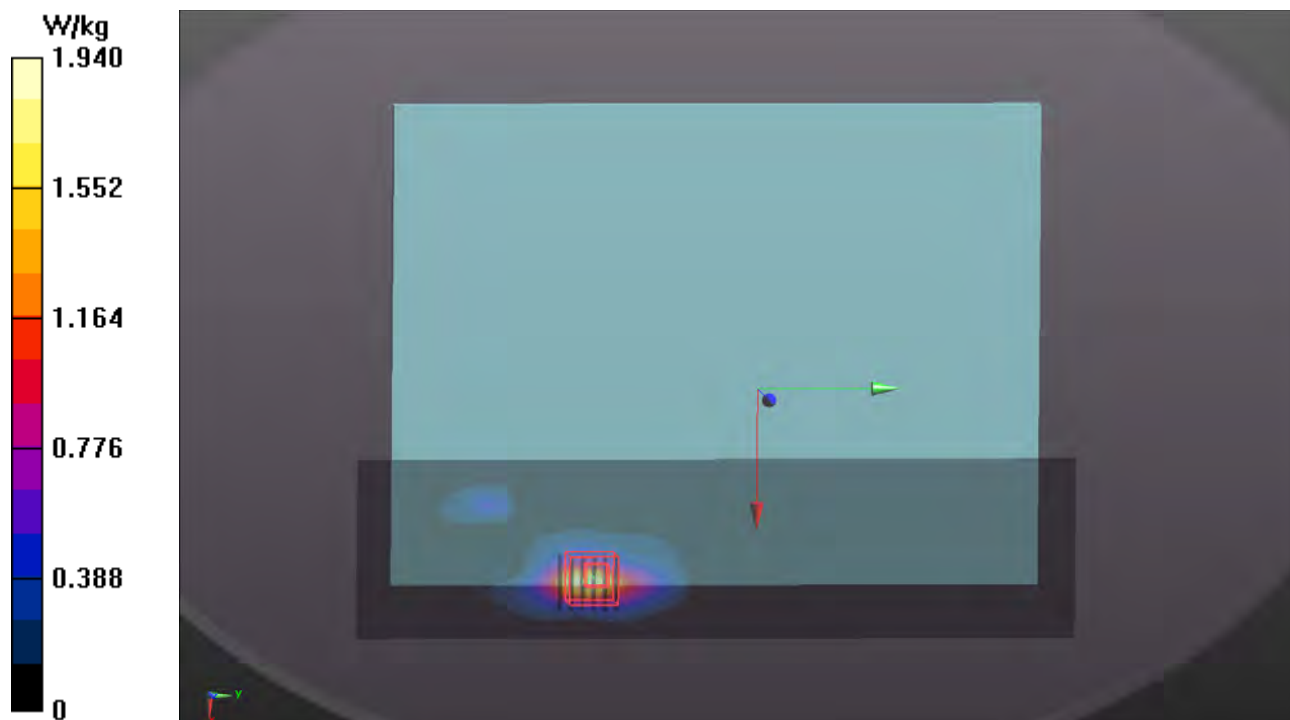
- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 18.22 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 5.14 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.262 W/kg**

Maximum value of SAR (measured) = 2.52 W/kg



## P21 WLAN5.8G\_802.11ac VHT80\_Rear Face\_0mm\_Ch155\_Ant1

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5775 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1\_0503 Medium parameters used:  $f = 5775$  MHz;  $\sigma = 5.354$  S/m;  $\epsilon_r = 34.336$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.85, 4.85, 4.85); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (81x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

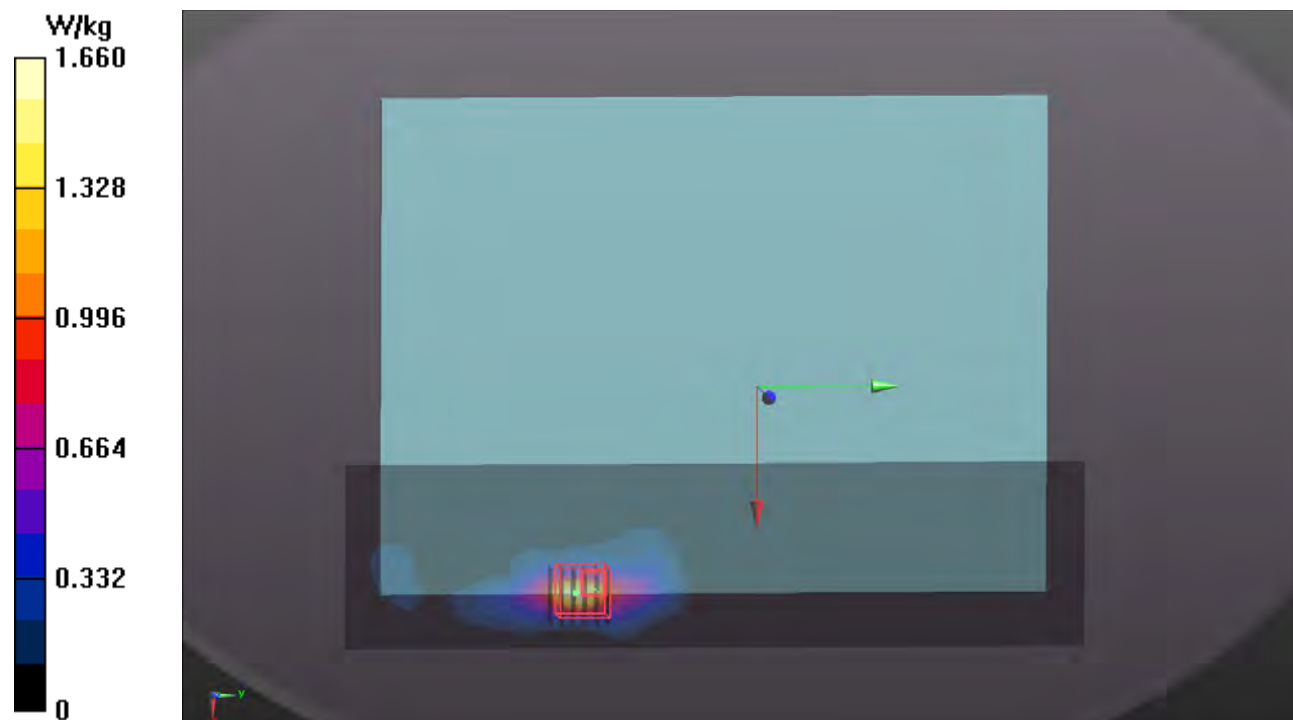
- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 17.60 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.13 W/kg

**SAR(1 g) = 0.501 W/kg; SAR(10 g) = 0.146 W/kg**

Maximum value of SAR (measured) = 1.88 W/kg



## P22 BT\_BDR\_Rear Face\_0mm\_Ch0\_Ant0

**DUT: 190326C26**

Communication System: BT; Frequency: 2402 MHz; Duty Cycle: 1:1.31

Medium: H19T27N1\_0503 Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.819$  S/m;  $\epsilon_r = 39.216$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.64, 7.64, 7.64); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x271x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.259 W/kg

- **Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.43 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.401 W/kg

**SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.048 W/kg**

Maximum value of SAR (measured) = 0.253 W/kg

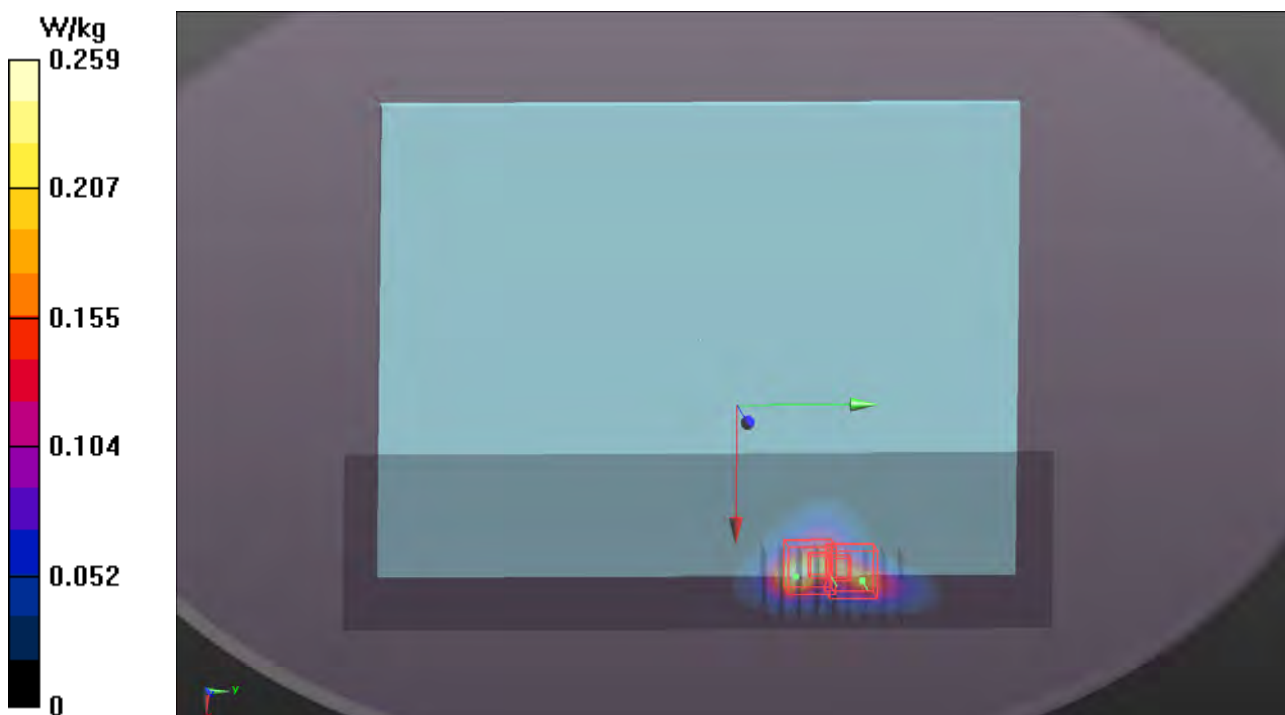
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.43 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.361 W/kg

**SAR(1 g) = 0.118 W/kg; SAR(10 g) = 0.051 W/kg**

Maximum value of SAR (measured) = 0.234 W/kg



## P23 WCDMA II\_RMC12.2K\_Top of panel\_25mm\_Ch9262\_Keyboard1

**DUT: 190326C26**

Communication System: WCDMA; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.418$  S/m;  $\epsilon_r = 39.743$ ;

$\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.47, 8.47, 8.47); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.535 W/kg

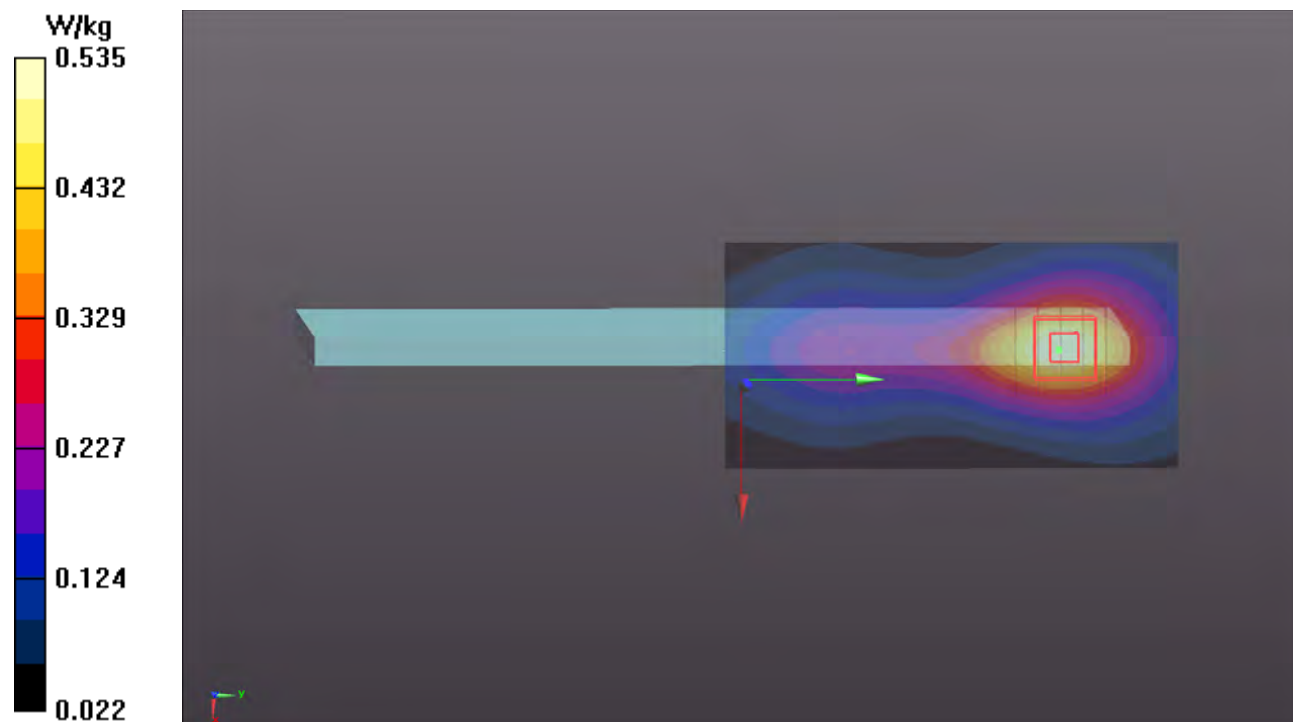
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.78 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.625 W/kg

**SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.221 W/kg**

Maximum value of SAR (measured) = 0.526 W/kg



## P24 WCDMA IV\_RMC12.2K\_Top of panel\_25mm\_Ch1513\_Keyboard1

**DUT: 190326C26**

Communication System: WCDMA; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1753$  MHz;  $\sigma = 1.33$  S/m;  $\epsilon_r = 40.122$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.424 W/kg

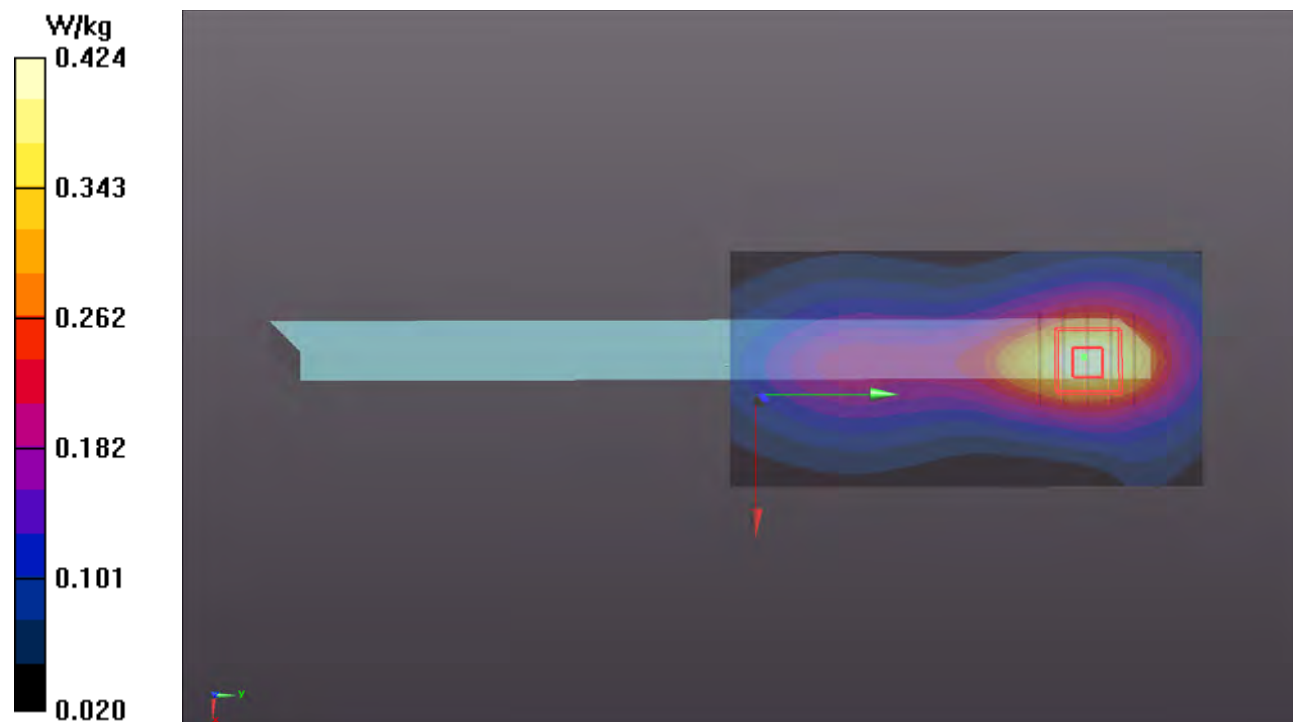
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.41 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.509 W/kg

**SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.186 W/kg**

Maximum value of SAR (measured) = 0.432 W/kg



## P25 WCDMA V\_RMC12.2K\_Top of panel\_25mm\_Ch4233\_Keyboard1

**DUT: 190326C26**

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: H07T10N2\_0424 Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.915$  S/m;  $\epsilon_r = 41.078$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.18, 10.18, 10.18); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.154 W/kg

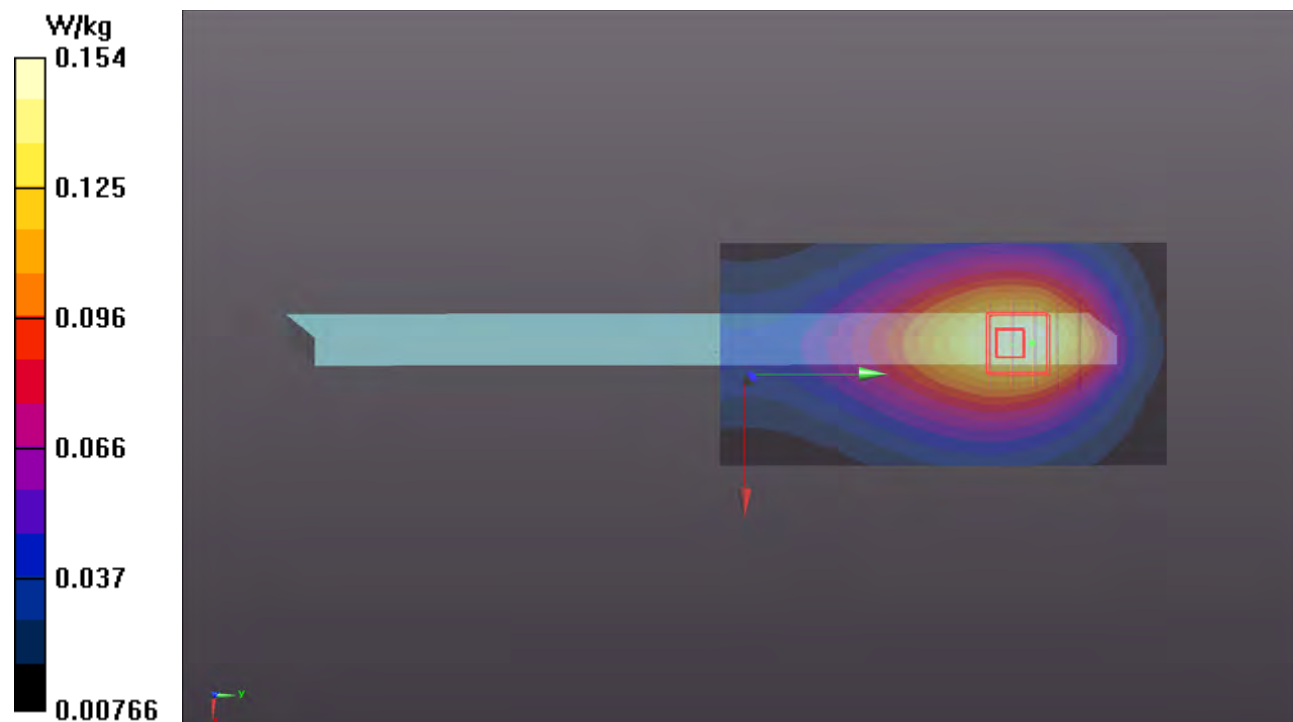
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.12 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.169 W/kg

**SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.081 W/kg**

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



## P26 LTE 2\_QPSK20M\_Top of panel\_25mm\_Ch18700\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.424$  S/m;  $\epsilon_r = 39.708$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.47, 8.47, 8.47); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.487 W/kg

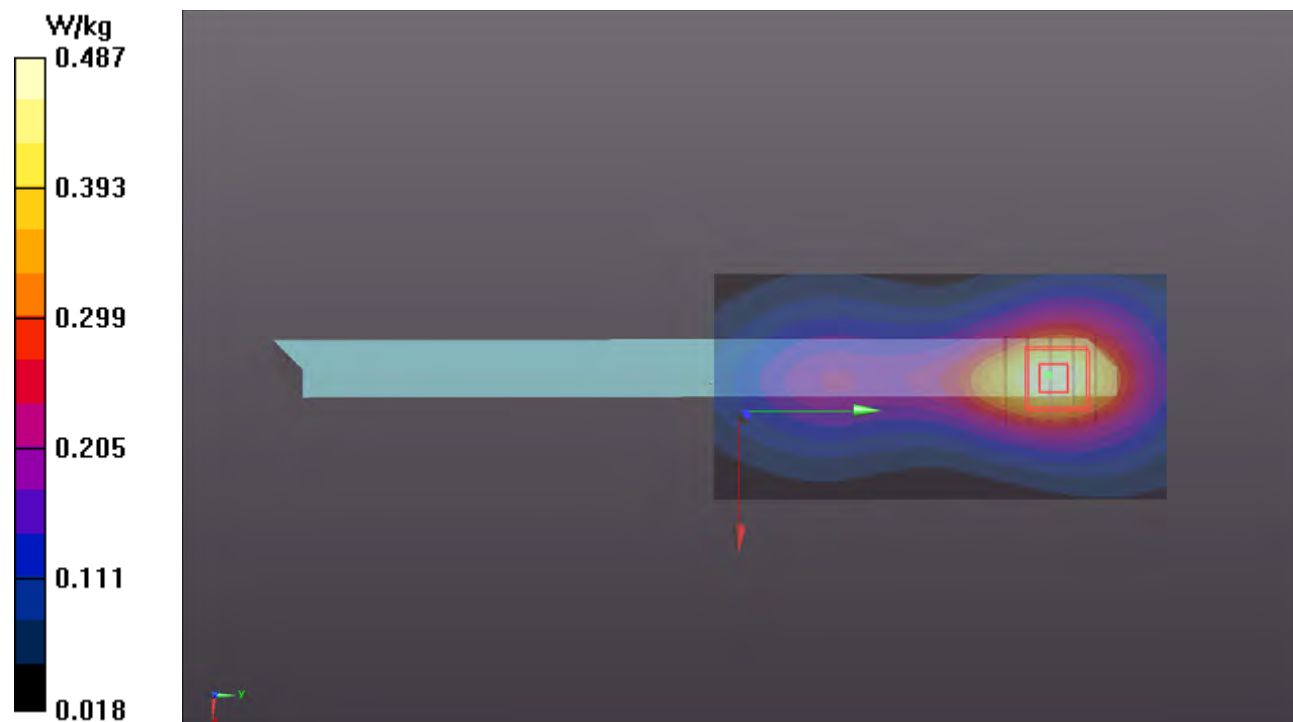
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.74 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.581 W/kg

**SAR(1 g) = 0.338 W/kg; SAR(10 g) = 0.204 W/kg**

Maximum value of SAR (measured) = 0.486 W/kg





## P27 LTE 4\_QPSK20M\_Top of panel\_25mm\_Ch20175\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.312$  S/m;  $\epsilon_r = 40.207$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.362 W/kg

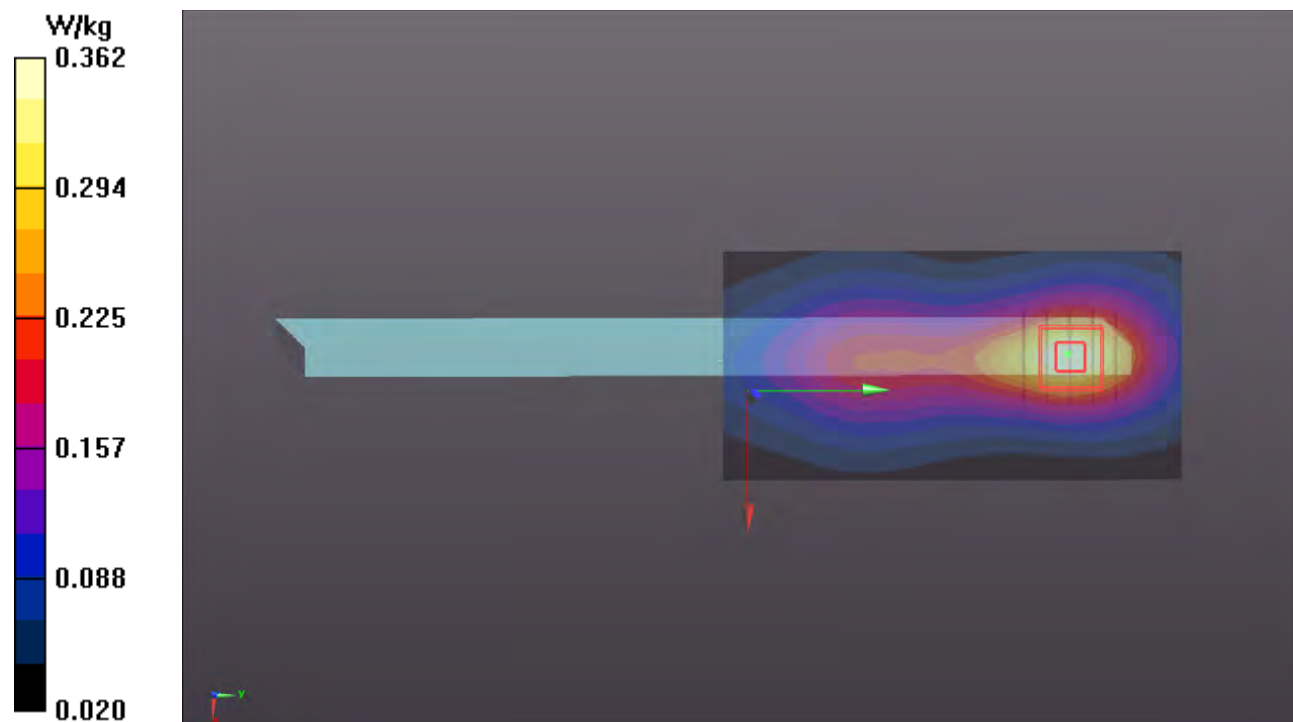
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.91 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.425 W/kg

**SAR(1 g) = 0.256 W/kg; SAR(10 g) = 0.155 W/kg**

Maximum value of SAR (measured) = 0.362 W/kg



## P28 LTE 5\_QPSK10M\_Top of panel\_25mm\_Ch20525\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: H07T10N2\_0424 Medium parameters used:  $f = 836.5$  MHz;  $\sigma = 0.905$  S/m;  $\epsilon_r = 41.202$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.18, 10.18, 10.18); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.126 W/kg

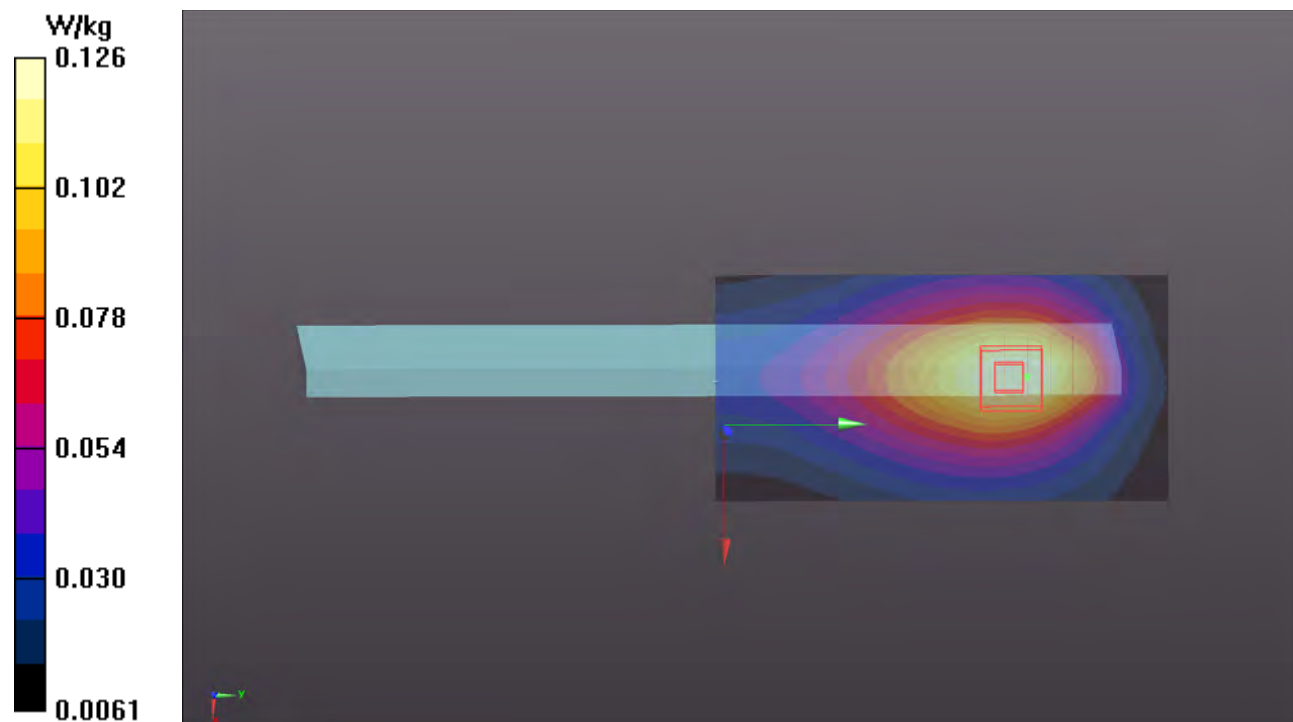
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.10 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.140 W/kg

**SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.069 W/kg**

Maximum value of SAR (measured) = 0.124 W/kg



## P29 LTE 7\_QPSK20M\_Top of panel\_25mm\_Ch20850\_1RB\_OS99\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: H19T27N3\_0423 Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.948$  S/m;  $\epsilon_r = 38.132$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x141x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.515 W/kg

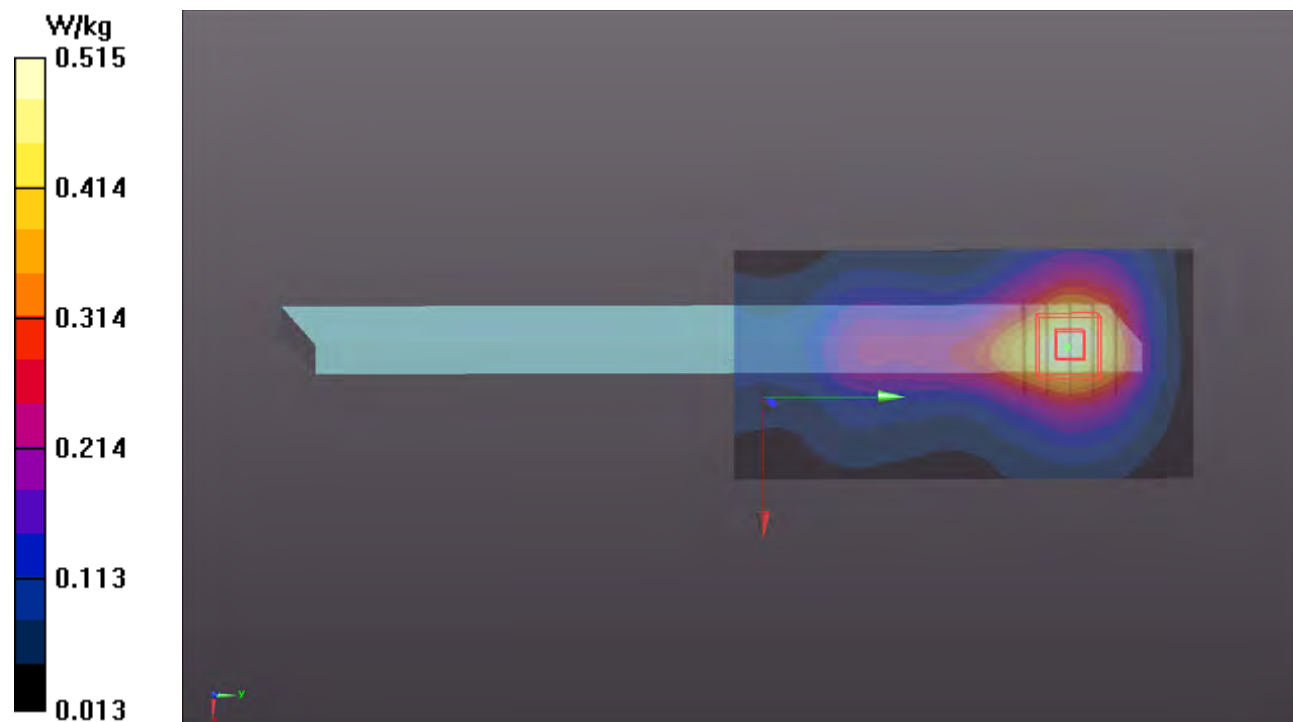
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.78 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.612 W/kg

**SAR(1 g) = 0.315 W/kg; SAR(10 g) = 0.174 W/kg**

Maximum value of SAR (measured) = 0.492 W/kg



### P30 LTE 12\_QPSK10M\_Top of panel\_25mm\_Ch23095\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: H06T09N2\_0424 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.849$  S/m;  $\epsilon_r = 42.974$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0619 W/kg

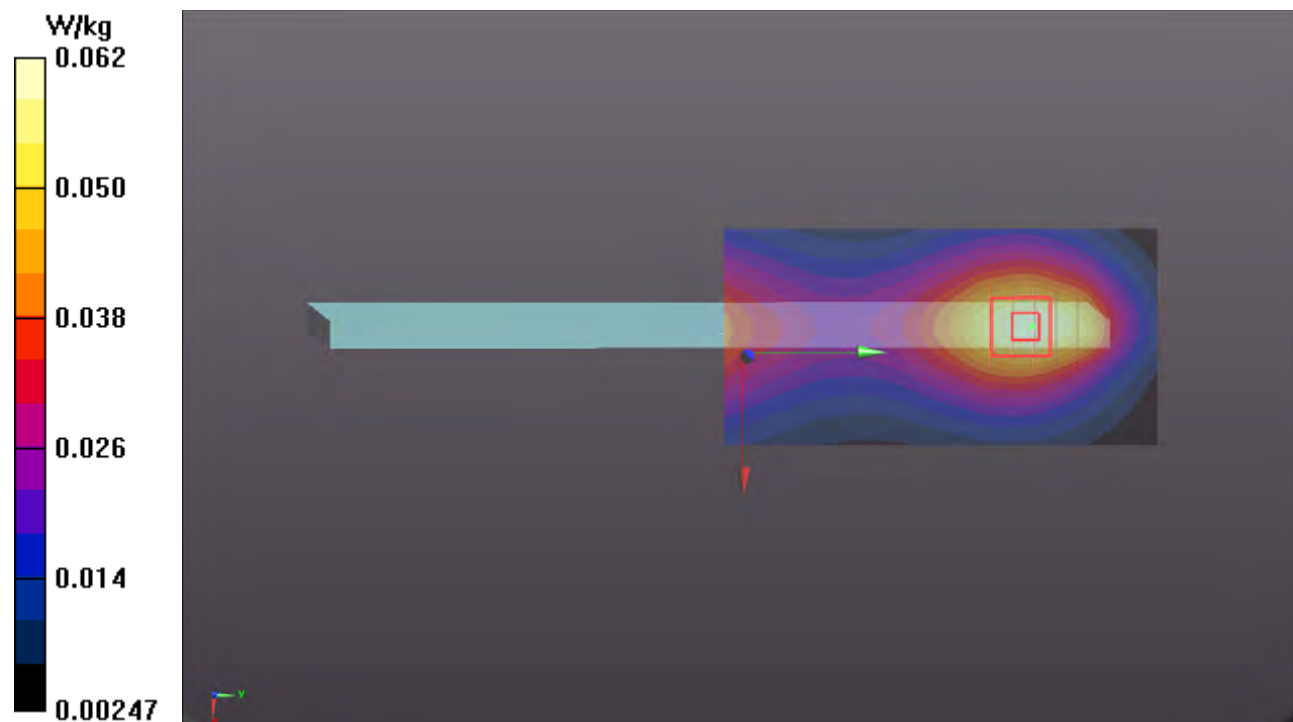
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.623 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.0670 W/kg

**SAR(1 g) = 0.047 W/kg; SAR(10 g) = 0.034 W/kg**

Maximum value of SAR (measured) = 0.0599 W/kg



### P31 LTE 13\_QPSK10M\_Top of panel\_25mm\_Ch23230\_1RB\_OS49\_Keyboard1

**DUT: 190326C26**

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

Medium: H06T09N2\_0424 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.919 \text{ S/m}$ ;  $\epsilon_r = 41.986$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.6 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.0997 \text{ W/kg}$

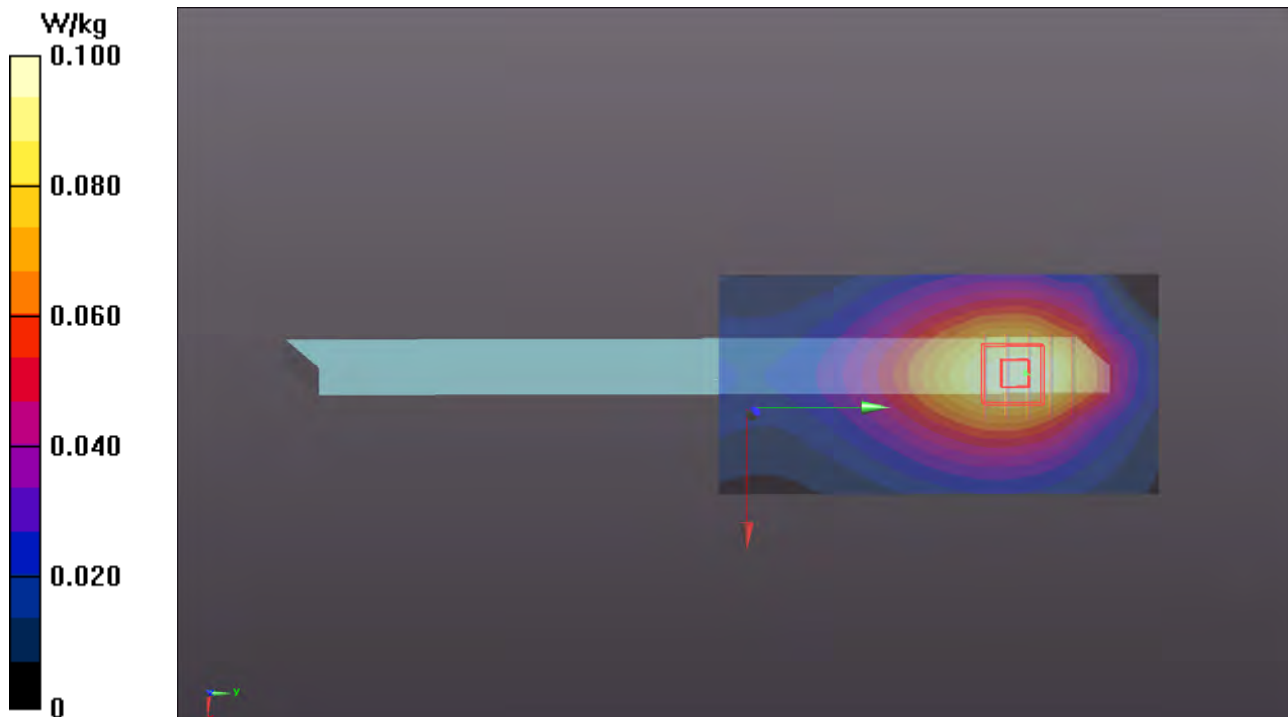
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $10.67 \text{ V/m}$ ; Power Drift =  $-0.10 \text{ dB}$

Peak SAR (extrapolated) =  $0.111 \text{ W/kg}$

**SAR(1 g) =  $0.077 \text{ W/kg}$ ; SAR(10 g) =  $0.055 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.0985 \text{ W/kg}$



### P32 LTE 14\_QPSK10M\_Top of panel\_25mm\_Ch23330\_1RB\_OS0\_Keyboard1

DUT: 190326C26

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

Medium: H06T09N2\_0424 Medium parameters used:  $f = 793 \text{ MHz}$ ;  $\sigma = 0.929 \text{ S/m}$ ;  $\epsilon_r = 41.84$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.6 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.0996 \text{ W/kg}$

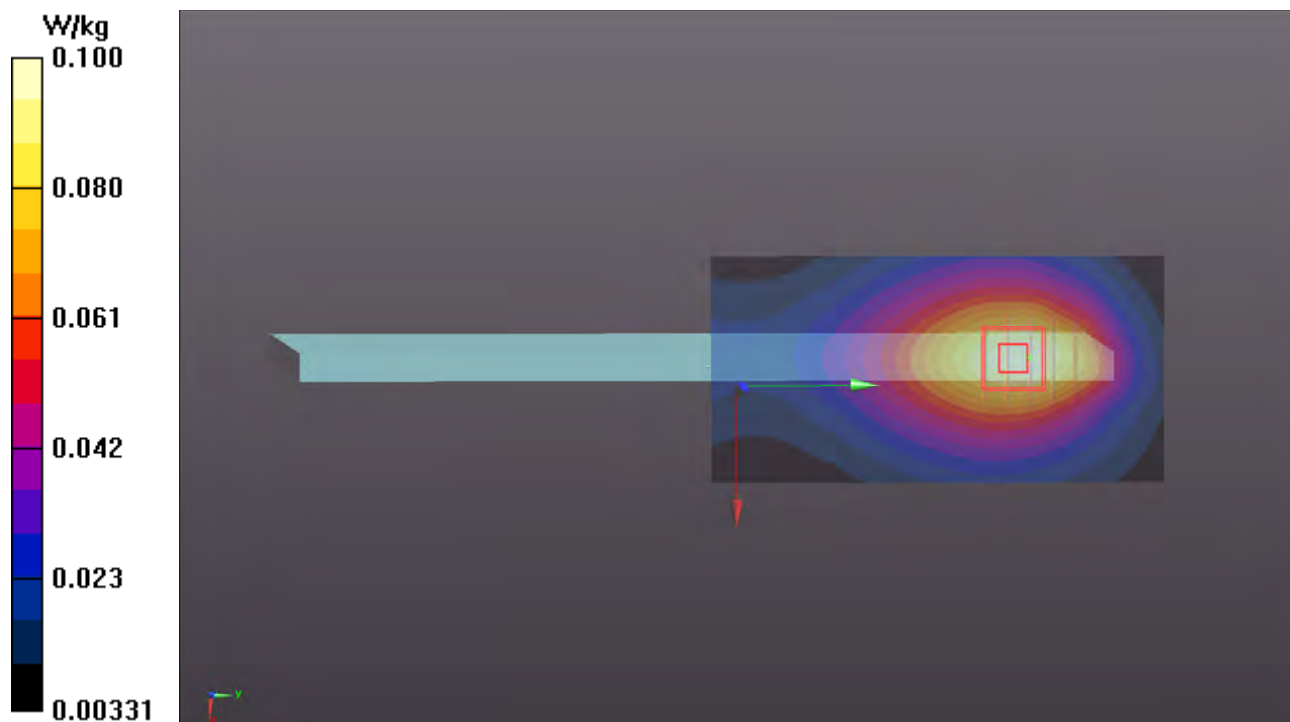
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $10.52 \text{ V/m}$ ; Power Drift =  $-0.16 \text{ dB}$

Peak SAR (extrapolated) =  $0.109 \text{ W/kg}$

**SAR(1 g) =  $0.077 \text{ W/kg}$ ; SAR(10 g) =  $0.054 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.0975 \text{ W/kg}$



### P33 LTE 17\_QPSK10M\_Top of panel\_25mm\_Ch23790\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 710 MHz; Duty Cycle: 1:1

Medium: H06T09N2\_0424 Medium parameters used:  $f = 710 \text{ MHz}$ ;  $\sigma = 0.852 \text{ S/m}$ ;  $\epsilon_r = 42.95$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.6 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.75, 10.75, 10.75); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.0660 \text{ W/kg}$

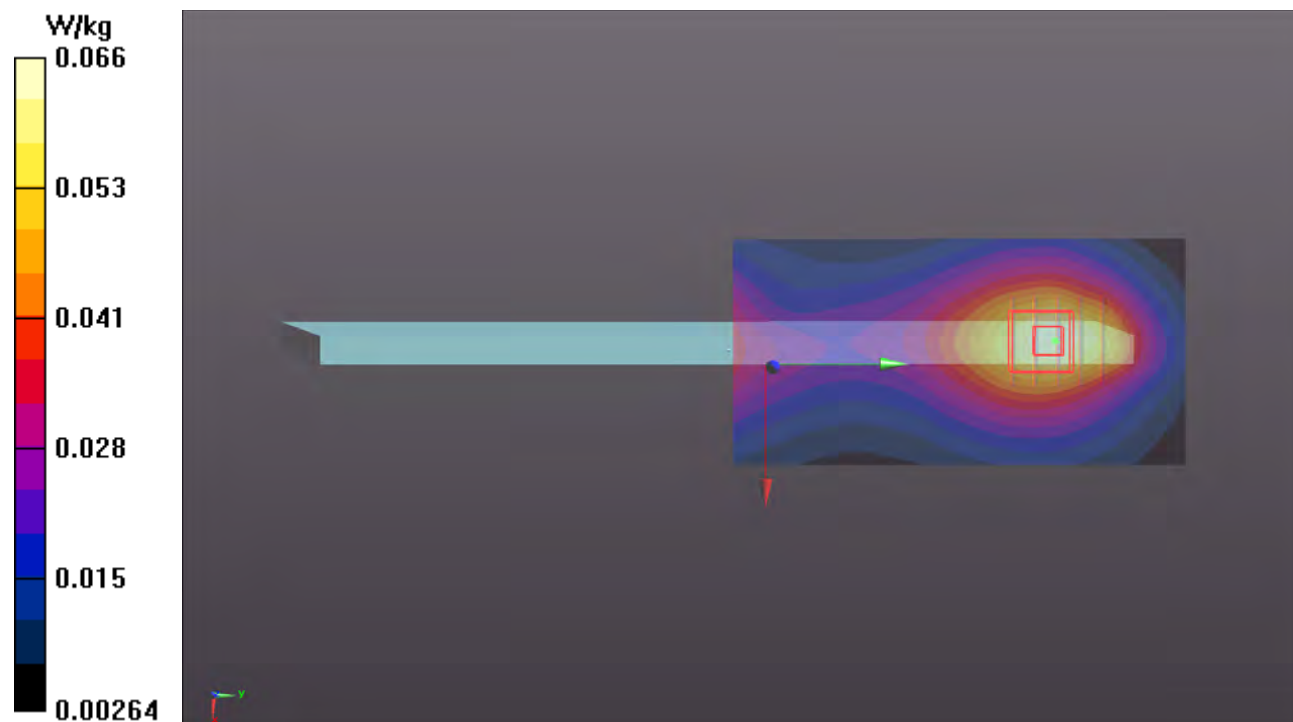
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $8.887 \text{ V/m}$ ; Power Drift =  $-0.02 \text{ dB}$

Peak SAR (extrapolated) =  $0.0710 \text{ W/kg}$

**SAR(1 g) =  $0.050 \text{ W/kg}$ ; SAR(10 g) =  $0.036 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.0637 \text{ W/kg}$



### P34 LTE 25\_QPSK20M\_Top of panel\_25mm\_Ch26140\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1860 \text{ MHz}$ ;  $\sigma = 1.424 \text{ S/m}$ ;  $\epsilon_r = 39.708$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.7 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.4 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.47, 8.47, 8.47); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.481 \text{ W/kg}$

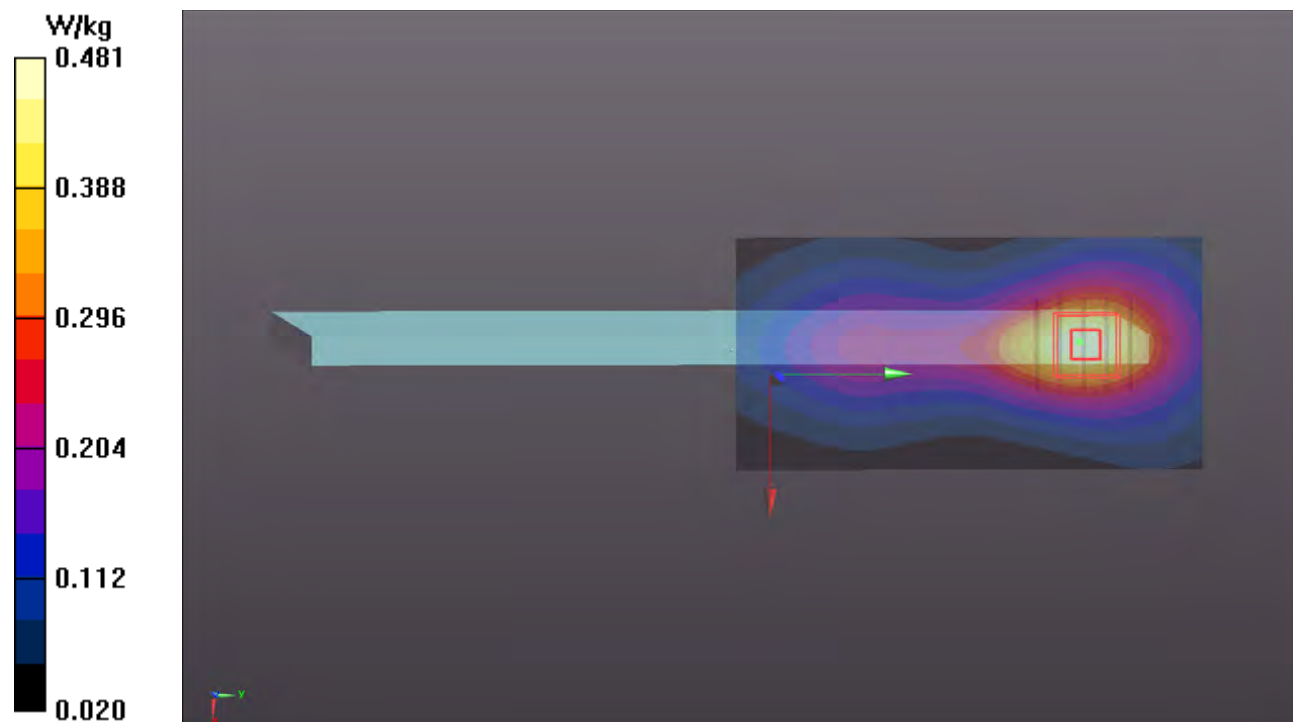
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $18.56 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$

Peak SAR (extrapolated) =  $0.566 \text{ W/kg}$

**SAR(1 g) =  $0.329 \text{ W/kg}$ ; SAR(10 g) =  $0.197 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.475 \text{ W/kg}$





### P35 LTE 26\_QPSK15M\_Top of panel\_25mm\_Ch26965\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 841.5 MHz; Duty Cycle: 1:1

Medium: H06T09N2\_0424 Medium parameters used:  $f = 841.5$  MHz;  $\sigma = 0.975$  S/m;  $\epsilon_r = 41.27$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(10.18, 10.18, 10.18); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.133 W/kg

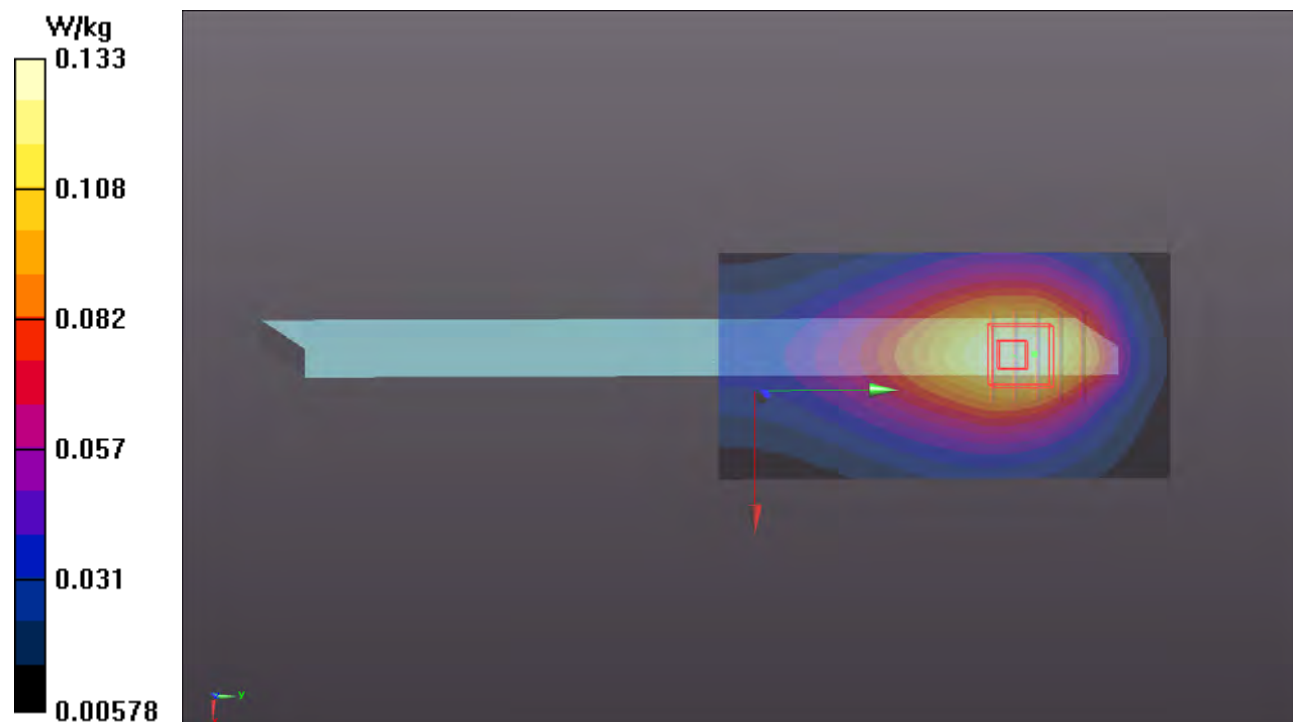
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.95 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.148 W/kg

**SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.072 W/kg**

Maximum value of SAR (measured) = 0.131 W/kg



### P36 LTE 30\_QPSK10M\_Top of panel\_25mm\_Ch27710\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: H19T27N3\_0423 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.729$  S/m;  $\epsilon_r = 38.776$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.04, 8.04, 8.04); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x141x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.328 W/kg

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

Reference Value = 13.92 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.402 W/kg

**SAR(1 g) = 0.217 W/kg; SAR(10 g) = 0.124 W/kg**

Maximum value of SAR (measured) = 0.328 W/kg

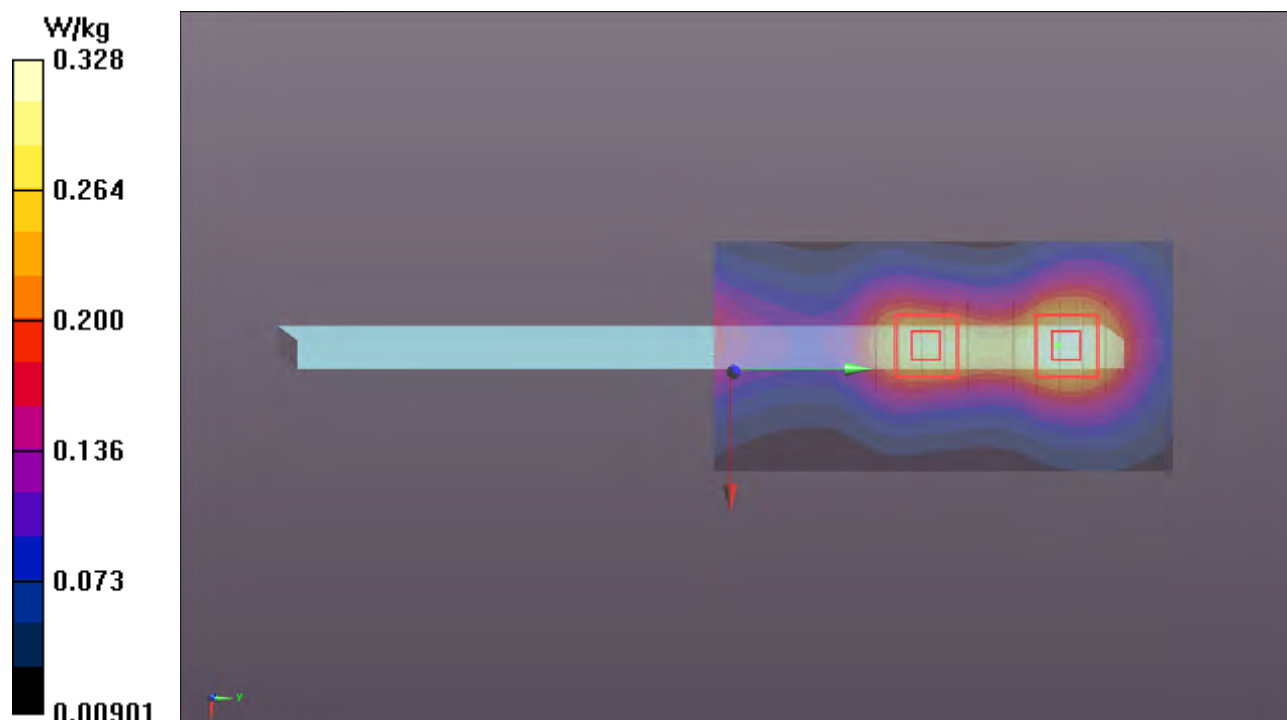
- **Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.92 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.354 W/kg

**SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.113 W/kg**

Maximum value of SAR (measured) = 0.293 W/kg



### P37 LTE 38\_QPSK20M\_Top of panel\_25mm\_Ch37850\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE TDD CF0; Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium: H19T27N3\_0423 Medium parameters used:  $f = 2580$  MHz;  $\sigma = 2.028$  S/m;  $\epsilon_r = 37.845$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x141x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.262 W/kg

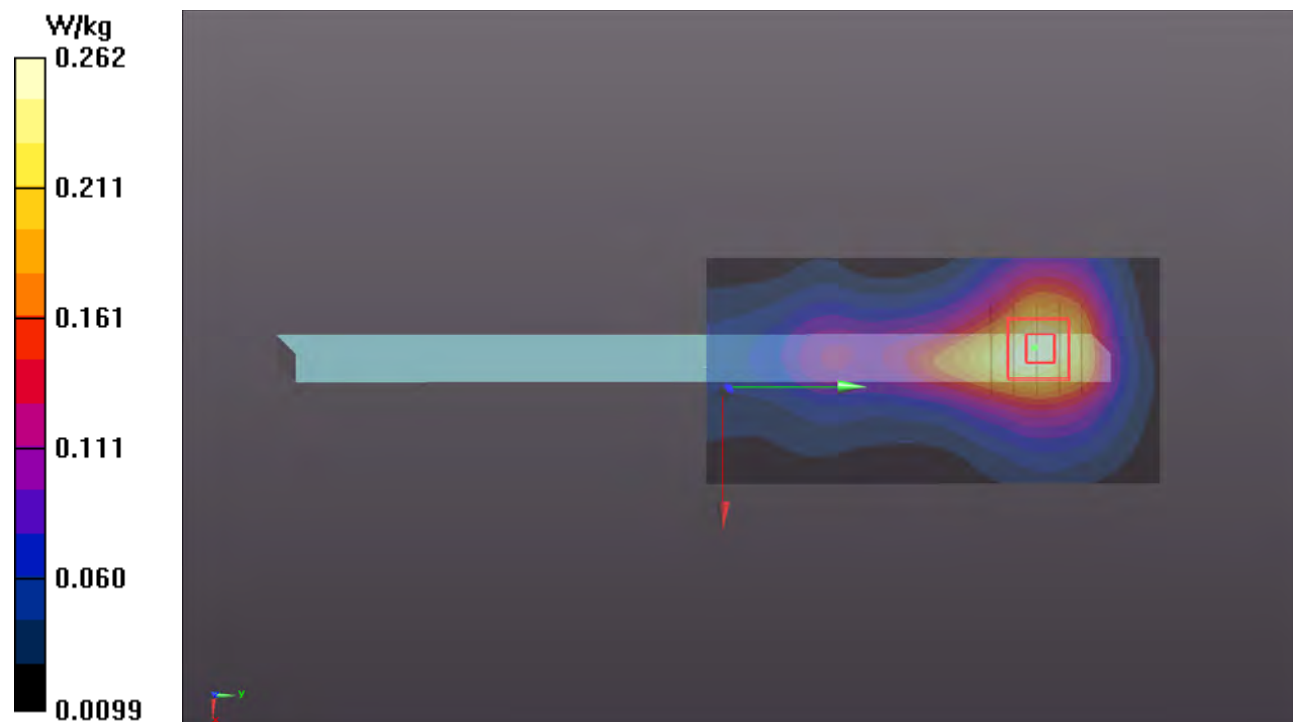
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.92 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.313 W/kg

**SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.178 W/kg**

Maximum value of SAR (measured) = 0.252 W/kg



### P38 LTE 41\_QPSK20M\_Top of panel\_25mm\_Ch40185\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

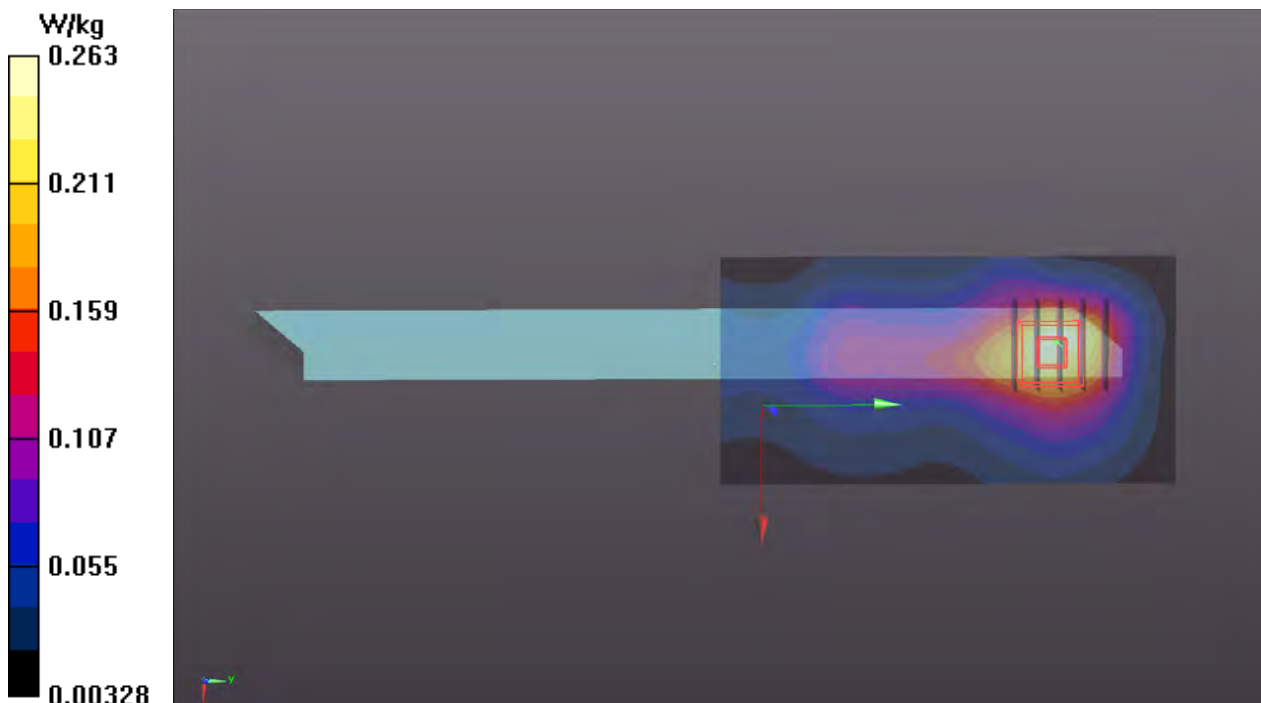
Communication System: LTE TDD CF0; Frequency: 2549.5 MHz; Duty Cycle: 1:1.58  
Medium: H19T27N3\_0423 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.992$  S/m;  $\epsilon_r = 37.908$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.48, 7.48, 7.48); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (71x141x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.263 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 10.89 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 0.295 W/kg  
**SAR(1 g) = 0.231 W/kg; SAR(10 g) = 0.152 W/kg**  
Maximum value of SAR (measured) = 0.230 W/kg



### P39 LTE 66\_QPSK20M\_Top of panel\_25mm\_Ch132572\_1RB\_OS0\_Keyboard1

**DUT: 190326C26**

Communication System: LTE; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_0423 Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.346$  S/m;  $\epsilon_r = 40.072$ ;  $\rho = 1000$  kg/m<sup>3</sup>

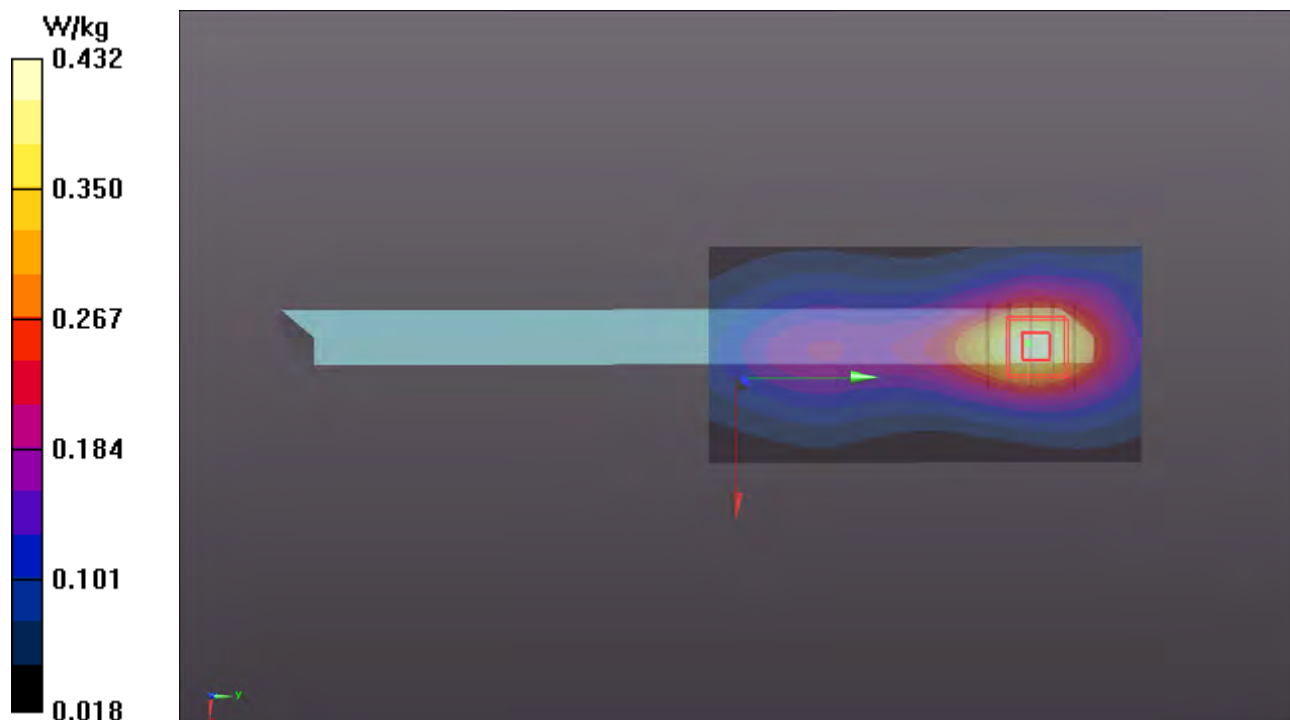
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.8, 8.8, 8.8); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.432 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 18.26 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 0.511 W/kg  
**SAR(1 g) = 0.305 W/kg; SAR(10 g) = 0.185 W/kg**  
Maximum value of SAR (measured) = 0.431 W/kg



### P40 WLAN2.4G\_802.11b\_Back of Pannel\_25mm\_Ch6\_Keyboard 1\_Ant0

**DUT: 190326C26**

Communication System: WLAN\_2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1.01

Medium: H19T27N1\_0503 Medium parameters used:  $f = 2437$  MHz;  $\sigma = 1.856$  S/m;  $\epsilon_r = 39.065$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.64, 7.64, 7.64); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (91x271x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.110 W/kg

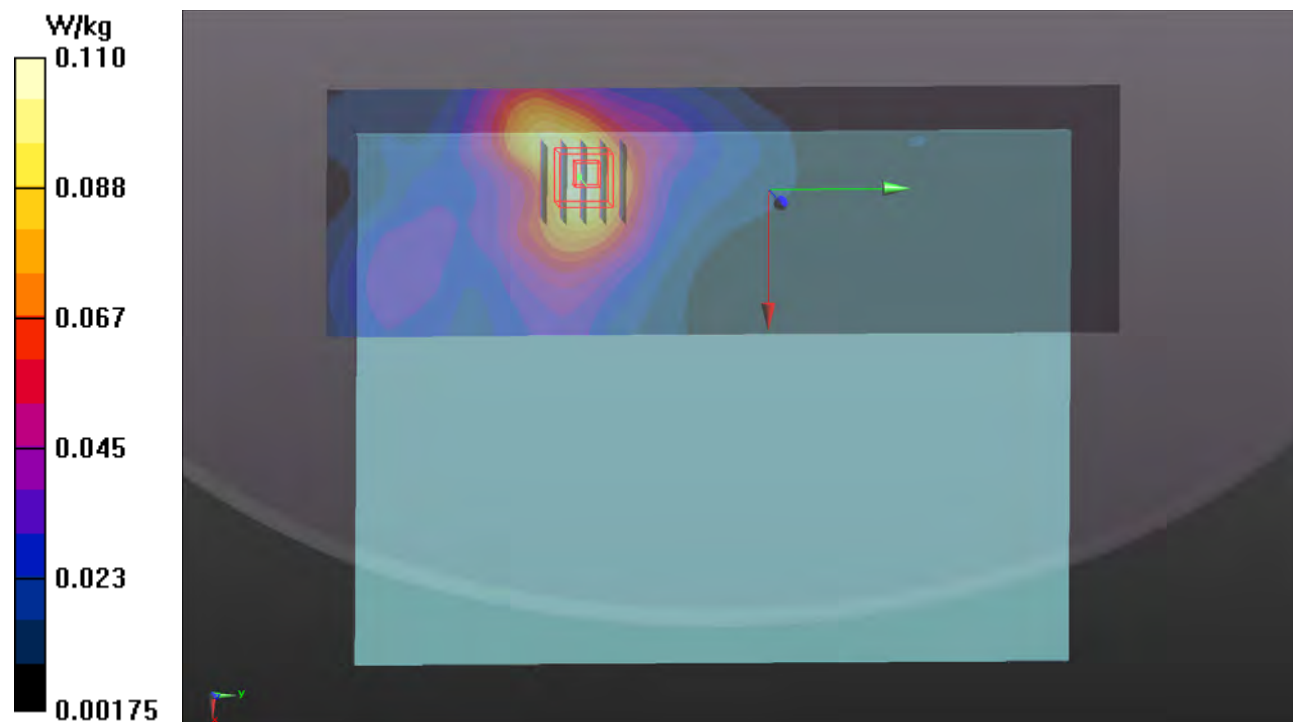
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.788 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.137 W/kg

**SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.039 W/kg**

Maximum value of SAR (measured) = 0.109 W/kg



### P41 WLAN5.3G\_802.11n HT40\_Back of Pannel\_25mm\_Ch54\_Keyboard 1\_Ant1

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5270 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5270$  MHz;  $\sigma = 4.739$  S/m;  $\epsilon_r = 36.066$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(5.29, 5.29, 5.29); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (101x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.154 W/kg

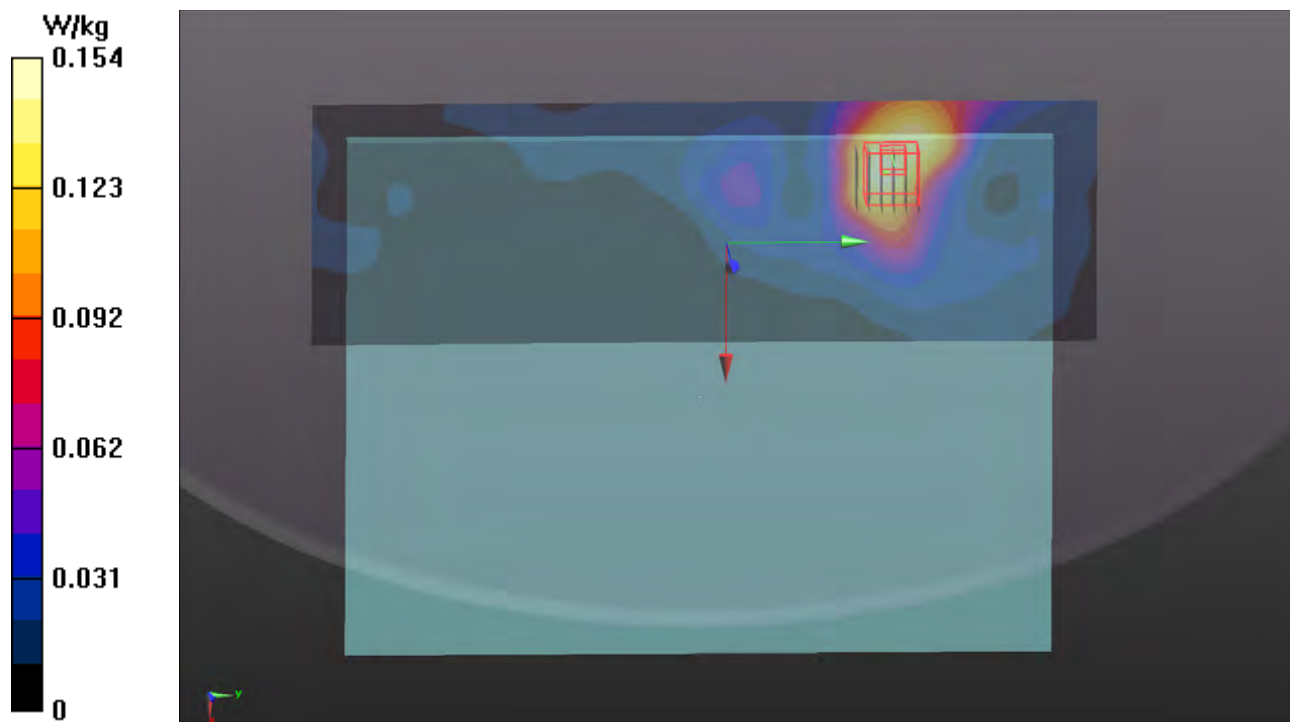
- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 5.797 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.279 W/kg

**SAR(1 g) = 0.064 W/kg; SAR(10 g) = 0.028 W/kg**

Maximum value of SAR (measured) = 0.136 W/kg



### P42 WLAN5.6G\_802.11ac VHT80\_Back of Pannel\_25mm\_Ch138\_Keyboard 1\_Ant0

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5690 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1\_0502 Medium parameters used:  $f = 5690$  MHz;  $\sigma = 5.141$  S/m;  $\epsilon_r = 35.47$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.85, 4.85, 4.85); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (101x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.0742 W/kg

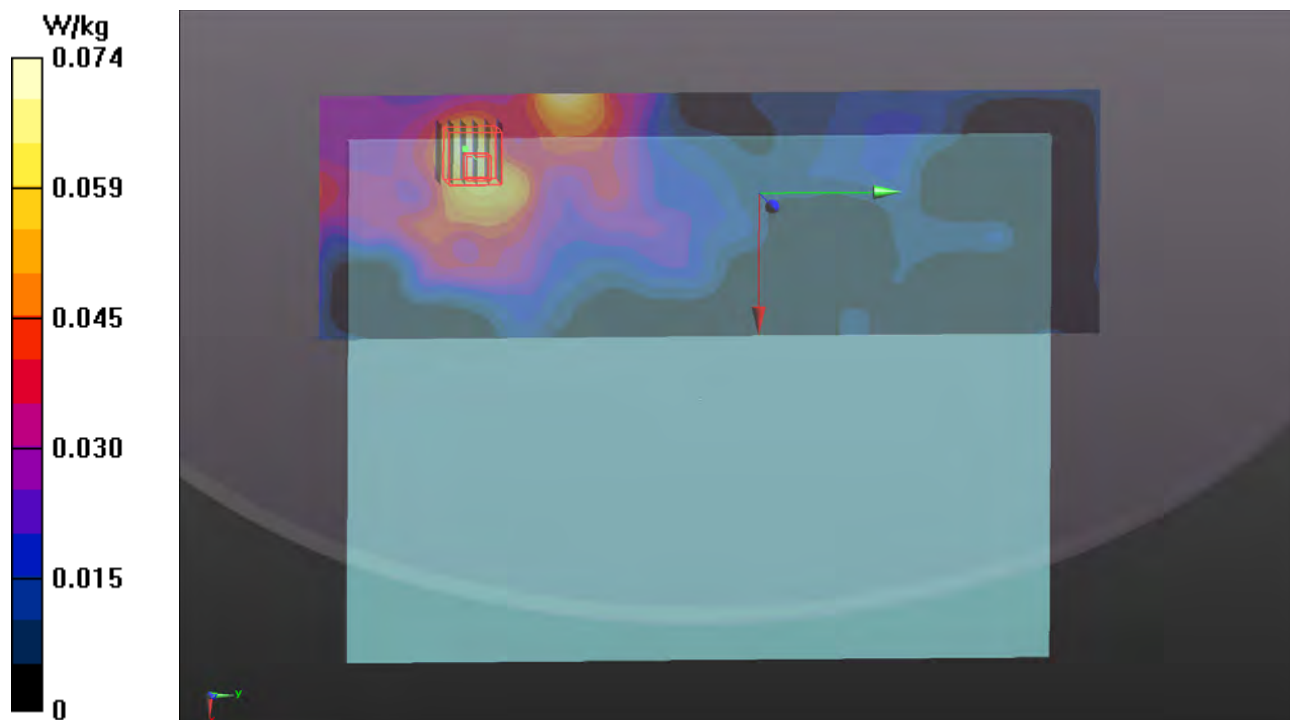
- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 3.852 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.168 W/kg

**SAR(1 g) = 0.033 W/kg; SAR(10 g) = 0.012 W/kg**

Maximum value of SAR (measured) = 0.0770 W/kg





### P43 WLAN5.8G\_802.11n HT40\_Back of Pannel\_25mm\_Ch159\_Keyboard 1\_Ant0

**DUT: 190326C26**

Communication System: WLAN\_5G; Frequency: 5795 MHz; Duty Cycle: 1:1.03

Medium: H34T60N1\_0503 Medium parameters used:  $f = 5795$  MHz;  $\sigma = 5.376$  S/m;  $\epsilon_r = 34.339$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(4.85, 4.85, 4.85); Calibrated: 2018/12/13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018/06/20
- Phantom: ELI Phantom\_1039; Type: QDOVA001BB;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

- **Area Scan (101x321x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.0809 W/kg

- **Zoom Scan (6x6x12)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 4.220 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.143 W/kg

**SAR(1 g) = 0.036 W/kg; SAR(10 g) = 0.014 W/kg**

Maximum value of SAR (measured) = 0.0855 W/kg

