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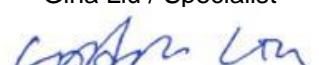
Report No. : SA190628C20-2
Applicant : Fibocom Wireless Inc.
Address : 5/F,Tower A,Technology Building II,1057 Nanhai Ave, 1057 Nanhai Avenue, ShenZhen 518000, China
Product : Notebook Computer
FCC ID : ZMOL850GL
Brand : Lenovo
Model No. : Lenovo Yoga C640-13IML LTE, 81XL
Standards : FCC 47 CFR Part 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, KDB 941225 D05A v01r02
Sample Received Date : Jun. 28, 2019
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Lab Address : No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location : No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

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

Prepared By :


Gina Liu / Specialist

Approved By :


Gordon Lin / Assistant Manager



FCC Accredited No.: TW0003

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Release Control Record

Report No.	Reason for Change	Date Issued
SA190628C20-2	Initial release	Aug. 16, 2019

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1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Body (W/kg)	
		Tablet Mode	Laptop Mode
PCB	WCDMA II	0.48	0.45
	WCDMA IV	0.46	0.37
	WCDMA V	0.75	0.47
	LTE 2	0.43	0.42
	LTE 4	0.44	0.37
	LTE 5	0.73	0.40
	LTE 7	0.47	0.26
	LTE 12	0.67	0.41
	LTE 13	0.38	0.44
	LTE 17	0.66	0.53
	LTE 26	0.76	0.44
	LTE 30	0.50	0.67
	LTE 41	0.31	0.27
	LTE 66	0.41	0.67
		9560NGW module	RTL8822CE module
DTS	2.4G WLAN	0.70	0.29
NII	5.2G WLAN	0.49	0.51
	5.3G WLAN	0.71	0.83
	5.6G WLAN	0.58	0.66
	5.8G WLAN	0.55	0.62
DSS	Bluetooth	0.09	0.12
		9560NGW module	RTL8822CE module

Highest Simultaneous Transmission SAR	Highest SAR-1g Body (W/kg)			
	Tablet Mode		Laptop Mode	
	9560NGW module	RTL8822CE module	9560NGW module	RTL8822CE module
	1.56	1.59	1.11	1.24

Note:

1. The SAR criteria (**Head & Body: SAR-1g 1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg**) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

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2. Description of Equipment Under Test

EUT Type	Notebook Computer
FCC ID	ZMOL850GL
Brand Name	Lenovo
Model Name	Lenovo Yoga C640-13IML LTE, 81XL
Tx Frequency Bands (Unit: MHz)	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 17 : 706.5 ~ 713.5 (BW: 5M, 10M) 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 41 : 2498.5 ~ 2687.5 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) WLAN : 2412 ~ 2462, 5180 ~ 5240, 5250 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480
Uplink Modulations	WCDMA : QPSK LTE : QPSK, 16QAM 802.11b : DSSS 802.11a/g/n/ac/ax : OFDM Bluetooth : GFSK, π/4-DQPSK, 8-DPSK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
Antenna Type	PIFA Antenna
EUT Stage	Engineering Sample

Note:

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

Item	Brand Name	Model Name	Specification
BT/WLAN Module	Intel	9560NGW	802.11a/b/g/n/ac, Bluetooth
	Realtek	RTL8822CE	802.11a/b/g/n/ac, Bluetooth

2. The antenna information is listed as below.

Antenna Type	Manufacturer	Parts Number	Antenna Gain (dBi)			
			BT/WLAN 2.4GHz	WLAN 5.15~5.35 GHz	WLAN 5.47~5.725 GHz	WLAN 5.725~5.85 GHz
			Laptop Mode			
PIFA	Wistron Neweb Corporation	Main Antenna: DQ6615G4100 (81EAA615.G41) Aux. Antenna: DQ6615G4200 (81EAA615.G42)	Main: 1.99	Main: 1.99	Main: 1.96	Main: 1.98
			Aux.: 1.97	Aux.: 1.21	Aux.: 0.05	Aux.: -0.29
			Tablet Mode			
			Main: 0.98	Main: 1.98	Main: 1.98	Main: 1.98
			Aux.: 1.34	Aux.: -0.41	Aux.: 0.77	Aux.: 0.02

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Antenna Type	Manufacturer	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 17	LTE 26	LTE 30	LTE 41	LTE 66
Tablet Mode													
PIFA	Wistron Neweb Corporation	Main Antenna: DQ6615G3700 (81EAA615.G37) Aux. Antenna: DQ6615G3800 (81EAA615.G38)	-1.30	-2.33	-6.05	-2.28	-6.64	-6.42	-7.00	-6.03	-3.56	-1.47	-2.16
Laptop Mode													
			1.27	1.50	-1.40	1.77	-1.09	-1.85	-1.08	-0.64	-0.04	1.39	1.89

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

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 (ρ). 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: σ is the conductivity of the tissue, ρ 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.

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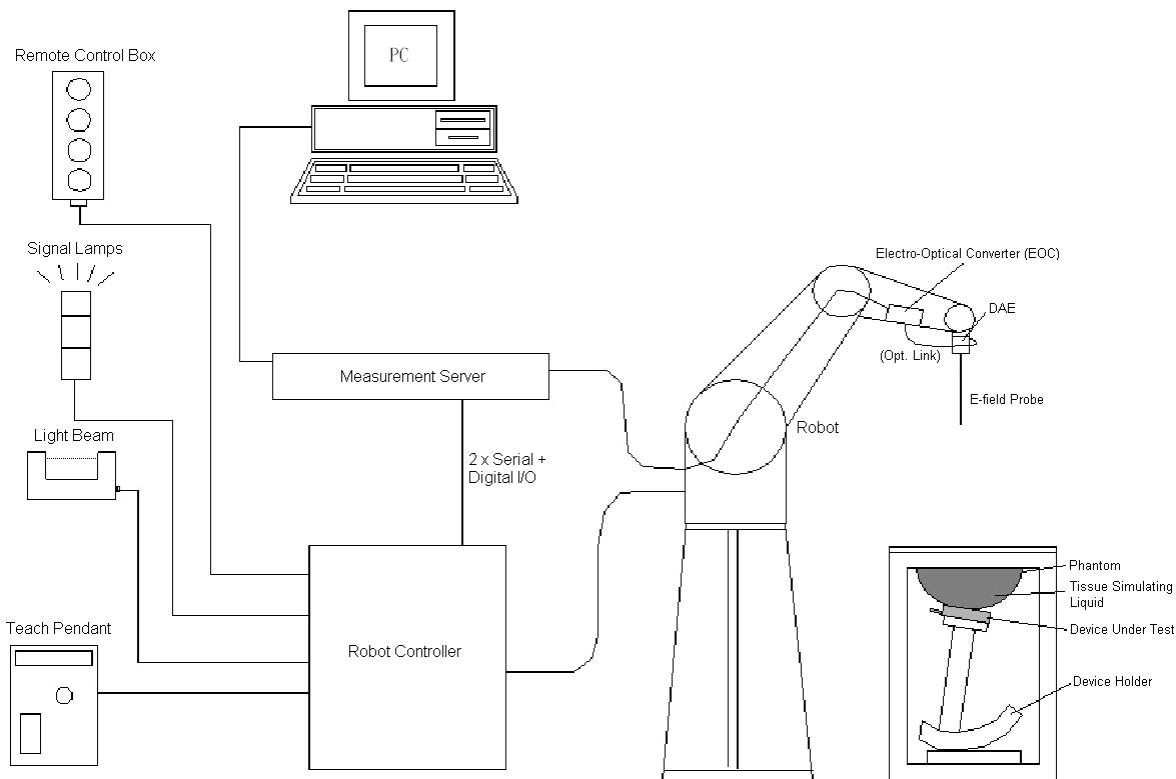


Fig-3.1 SPEAG DASY52 System Setup

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 ± 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.

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	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	

Model	ES3DV3	
Construction	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g Linearity: ± 0.2 dB	
Dimensions	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	

Model	ET3DV6	
Construction	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)	
Frequency	10 MHz to 2.3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.4 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	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)

Model	DAE3, DAE4	
Construction	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.	
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
Input Offset Voltage	< 5 μ V (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

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3.2.4 Phantoms

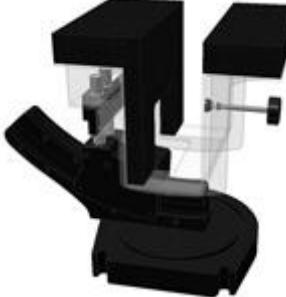
Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover 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.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	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.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

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3.2.5 Device Holder

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

Model	Laptop Extensions Kit	
Construction	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.	
Material	POM, Acrylic glass, Foam	

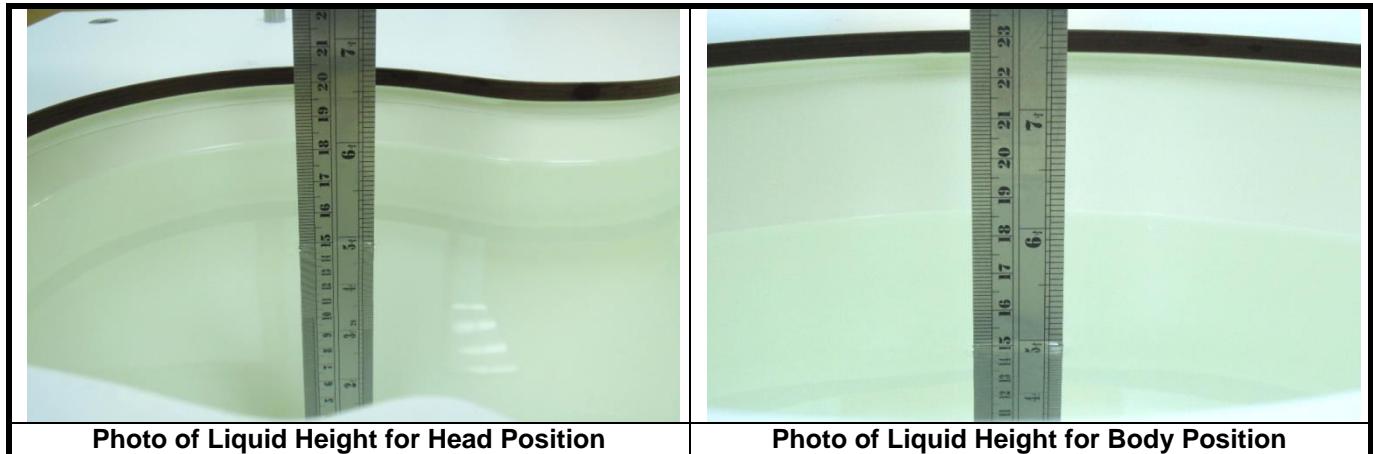
3.2.6 System Validation Dipoles

Model	D-Serial	
Construction	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.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

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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.



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Table-3.1 Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of ±5%	Target Conductivity	Range of ±5%
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

The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

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

3.3 SAR System Verification

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

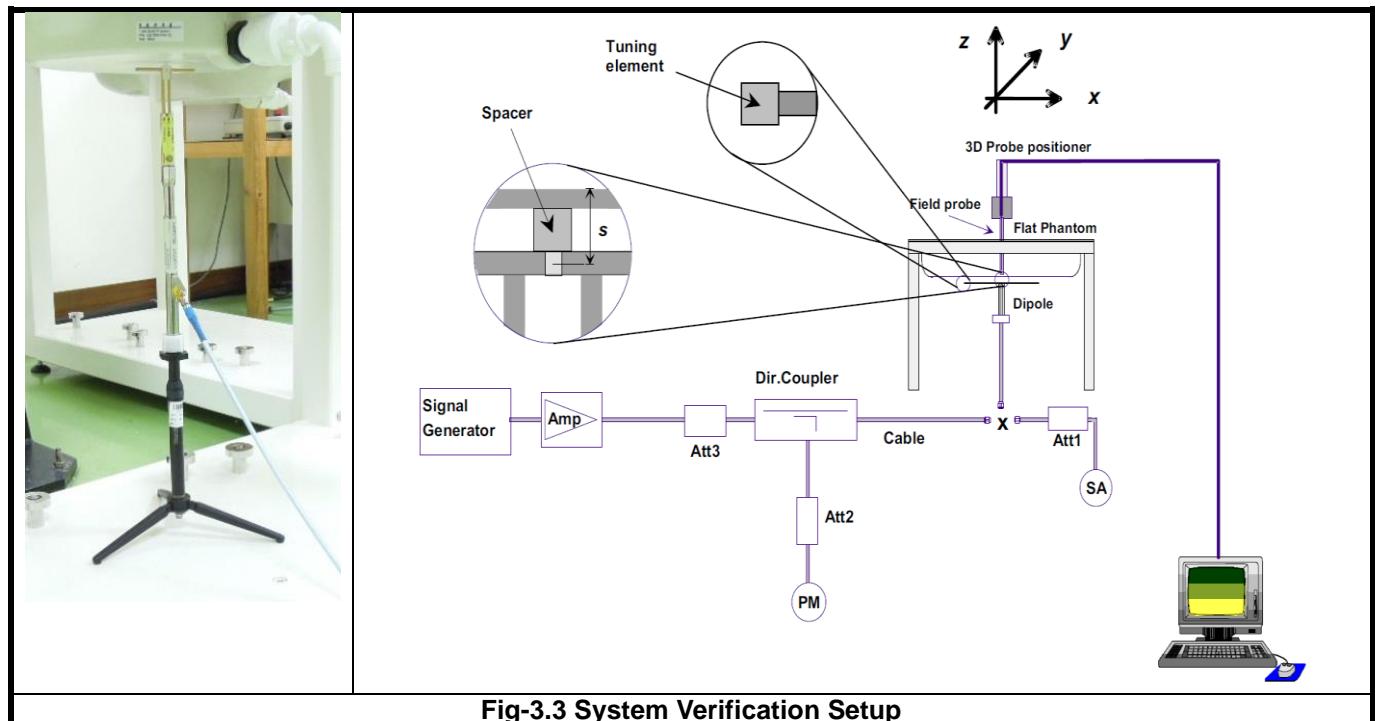


Fig-3.3 System Verification Setup

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

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

3.4 SAR Measurement Procedure

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

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

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

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

3.4.1 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 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 (Δz)	<= 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 $<= 1.4 \text{ W/kg}$, the zoom scan resolution of $\Delta x / \Delta y$ (2-3GHz: $<= 8 \text{ mm}$, 3-4GHz: $<= 7 \text{ mm}$, 4-6GHz: $<= 5 \text{ mm}$) 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.



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3.4.3 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY 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 DASY 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 form 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 DASY, 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.

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4. SAR Measurement Evaluation

4.1 EUT Configuration and Setting

<Considerations Related to Proximity Sensor>

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

Proximity Sensor Triggering Distances (KDB 616217 D04 §6.2)

Proximity Sensor Triggering Distances of test result in below.

Orientation 1		<A> From 30 mm, move toward phantom in 3 mm steps, until sensor trigger.																																
Back Surface		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Smallest Distance		 Move back by 5 mm, then move toward phantom in 1 mm steps, until touch phantom.																																
26		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Conservative Distance		<C> From 0 mm, move away phantom in 3 mm steps, until sensor release.																																
25		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	O		O		O		O		O		O		O		O		O		O		O		O		O		X							
	<D> Move back by 5 mm, then move away phantom in 1 mm steps, until at least 10 mm beyond triggering point.																																	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Orientation 2		<A> From 30 mm, move toward phantom in 3 mm steps, until sensor trigger.																																
Left Side		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Smallest Distance		 Move back by 5 mm, then move toward phantom in 1 mm steps, until touch phantom.																																
21		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Conservative Distance		<C> From 0 mm, move away phantom in 3 mm steps, until sensor release.																																
20		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	O		O		O		O		O		O		O		O		O		O		O		O		X									
	<D> Move back by 5 mm, then move away phantom in 1 mm steps, until at least 10 mm beyond triggering point.																																	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			

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Orientation 3	<A> From 30 mm, move toward phantom in 3 mm steps, until sensor trigger.																																
Top Side	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Smallest Distance	 Move back by 5 mm, then move toward phantom in 1 mm steps, until touch phantom.																																
18	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Conservative Distance	<C> From 0 mm, move away phantom in 3 mm steps, until sensor release.																																
17	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	O		O		O		O		O		O		O		O		O		O		O		O		O		O		O		X		
	<D> Move back by 5 mm, then move away phantom in 1 mm steps, until at least 10 mm beyond triggering point.																																
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		

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

Output Power Verification in dBm for EUT Rear Face											
Distance (mm)	21	22	23	24	25	26	27	28	29	30	31
WCDMA II	10.7	10.5	10.7	10.5	10.6	10.8	23.2	23.0	23.5	23.0	23.5
WCDMA IV	10.5	10.6	10.7	10.5	10.5	10.9	23.5	23.5	23.4	23.8	23.3
WCDMA V	17.5	17.6	17.7	17.7	17.7	18.0	24.1	24.2	24.4	24.0	24.3
LTE 2	10.4	10.1	10.1	10.0	10.1	10.0	23.2	23.4	23.2	22.9	23.2
LTE 4	10.3	10.2	10.4	10.3	10.3	10.5	22.8	22.9	22.7	23.0	23.1
LTE 5	18.0	17.8	17.9	17.8	17.9	17.5	22.9	22.4	22.4	22.7	22.7
LTE 7	10.7	11.0	10.7	10.6	10.7	10.6	22.8	22.9	23.0	22.8	23.0
LTE 12	16.9	16.6	17.0	16.9	16.7	16.6	22.6	22.1	22.5	22.1	22.3
LTE 13	15.7	15.5	16.0	15.9	15.6	15.8	23.1	22.7	22.7	22.9	22.9
LTE 17	16.9	16.9	17.0	16.6	16.6	17.0	22.5	22.3	22.6	22.6	22.2
LTE 26	18.2	18.5	18.5	18.0	18.4	18.1	22.4	22.5	22.8	22.9	22.4
LTE 30	10.8	10.7	10.6	10.8	10.8	10.9	22.2	22.5	22.3	22.7	22.5
LTE 66	10.5	10.5	10.4	10.5	10.3	10.5	22.8	22.6	23.0	22.9	22.5
LTE 41	10.5	10.7	10.6	10.5	10.7	10.9	22.3	22.0	22.5	22.1	22.2
9560NGW module											
WLAN 2.4G	9.9	9.5	9.6	9.5	9.6	9.9	16.8	17.0	16.7	16.9	16.6
WLAN 5.3G	12.1	12.1	11.8	12.3	11.9	11.9	18.1	18.4	18.5	18.1	18.4
WLAN 5.6G	8.7	8.8	8.6	8.6	8.4	8.9	17.5	17.8	17.8	17.9	17.8
WLAN 5.8G	11.1	11.2	11.4	11.3	11.5	11.5	17.9	17.6	17.5	17.4	17.8
RTL8822CE module											
WLAN 2.4G	9.7	9.5	9.5	10.0	9.8	9.5	16.8	16.5	16.7	16.7	16.5
WLAN 5.3G	11.9	12.1	11.8	12.0	12.2	11.8	18.5	18.0	18.4	18.1	18.3
WLAN 5.6G	8.5	8.6	8.8	8.9	8.9	8.9	17.6	17.9	17.5	17.9	17.9
WLAN 5.8G	11.5	11.5	11.5	11.5	11.4	11.5	17.8	17.4	17.6	17.4	17.4

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Output Power Verification in dBm for EUT Left Edge											
Distance (mm)	16	17	18	19	20	21	22	23	24	25	26
WCDMA II	10.9	11.0	10.6	10.7	10.9	10.6	23.2	23.4	23.5	23.5	23.4
WCDMA IV	10.6	10.4	10.7	10.7	10.4	10.7	23.4	23.4	23.4	23.3	23.7
WCDMA V	17.7	17.5	17.9	17.9	17.5	18.0	24.1	23.9	24.2	24.1	24.4
LTE 2	10.5	10.0	10.5	10.0	10.1	10.4	23.4	22.9	23.0	23.1	22.9
LTE 4	10.4	10.7	10.5	10.7	10.3	10.3	22.8	23.1	22.8	23.0	23.0
LTE 5	17.6	17.6	17.6	17.6	17.5	17.9	22.5	22.6	22.7	22.4	22.5
LTE 7	10.5	11.0	10.7	10.9	10.8	10.9	22.6	22.9	22.7	22.8	22.9
LTE 12	16.9	17.0	16.9	17.0	17.0	16.6	22.6	22.2	22.6	22.6	22.1
LTE 13	15.7	15.8	15.6	15.5	15.8	15.8	22.7	22.8	22.8	22.9	23.2
LTE 17	16.9	16.8	16.5	16.9	16.5	16.8	22.6	22.6	22.2	22.6	22.2
LTE 26	18.0	18.1	18.4	18.4	18.2	18.1	22.6	22.9	22.6	22.6	22.4
LTE 30	10.5	10.5	10.6	10.4	10.7	10.9	22.3	22.7	22.6	22.2	22.7
LTE 66	10.4	10.2	10.0	10.0	10.5	10.2	22.7	22.8	22.7	22.9	22.5
LTE 41	10.5	11.0	10.9	11.0	10.8	10.7	22.0	22.3	22.3	22.1	22.3
9560NGW module											
WLAN 2.4G	9.8	9.9	9.6	9.5	9.6	9.9	16.9	16.8	17.0	16.8	16.7
WLAN 5.3G	12.0	11.9	11.8	12.0	11.8	11.9	18.2	18.3	18.3	18.3	18.3
WLAN 5.6G	8.7	8.5	8.8	8.4	8.5	8.7	18.0	17.8	17.9	17.9	17.8
WLAN 5.8G	11.3	11.0	11.1	11.0	11.4	11.0	17.4	17.7	17.7	17.6	17.7
RTL8822CE module											
WLAN 2.4G	9.5	9.6	9.9	9.8	10.0	9.7	16.5	16.5	16.5	16.7	16.6
WLAN 5.3G	12.3	11.9	12.1	12.0	12.3	12.1	18.0	18.3	18.2	18.1	18.4
WLAN 5.6G	8.6	8.8	8.7	8.4	8.8	8.5	17.6	17.9	18.0	17.6	18.0
WLAN 5.8G	11.1	11.2	11.5	11.4	11.3	11.3	17.9	17.8	17.5	17.9	17.9

Output Power Verification in dBm for EUT Top Edge											
Distance (mm)	9	10	11	12	13	14	15	16	17	18	19
WCDMA II	11.0	10.6	10.8	10.8	10.8	10.7	23.2	23.4	23.0	23.3	23.3
WCDMA IV	10.8	10.6	10.8	10.4	10.5	10.7	23.4	23.7	23.5	23.7	23.8
WCDMA V	17.8	17.5	18.0	17.5	18.0	17.6	23.9	24.4	24.1	24.0	24.1
LTE 2	10.1	10.5	10.3	10.3	10.3	10.4	23.2	23.4	23.3	23.4	23.4
LTE 4	10.3	10.5	10.5	10.6	10.3	10.5	22.8	22.7	22.8	22.9	22.8
LTE 5	17.8	18.0	17.9	17.8	18.0	18.0	22.7	22.4	22.9	22.8	22.5
LTE 7	10.9	10.6	10.6	10.7	10.5	10.9	23.0	22.6	22.9	22.7	22.5
LTE 12	16.7	17.0	16.6	16.7	16.6	17.0	22.3	22.6	22.4	22.3	22.5
LTE 13	16.0	15.8	15.7	16.0	15.7	15.9	22.9	23.2	23.0	23.1	23.2
LTE 17	16.9	16.5	16.6	17.0	16.5	17.0	22.6	22.3	22.5	22.3	22.6
LTE 26	18.4	18.3	18.3	18.5	18.3	18.1	22.8	22.8	22.4	22.8	22.9
LTE 66	10.3	10.4	10.4	10.5	10.3	10.1	22.6	23.0	22.8	22.5	22.5
LTE 41	10.8	10.8	10.8	10.7	10.6	10.7	22.5	22.4	22.5	22.3	22.4
9560NGW module											
WLAN 2.4G	9.5	9.9	10.0	10.0	9.5	9.7	16.6	16.7	16.5	16.8	16.9
WLAN 5.3G	11.9	11.8	12.3	11.9	12.3	12.0	18.4	18.2	18.4	18.2	18.3
WLAN 5.6G	8.7	8.9	8.4	8.9	8.8	8.8	18.0	17.8	17.7	18.0	17.9
WLAN 5.8G	11.3	11.1	11.0	11.3	11.4	11.3	17.4	17.7	17.6	17.5	17.5
RTL8822CE module											
WLAN 2.4G	9.6	10.0	9.7	9.7	9.8	9.5	16.6	16.8	17.0	16.7	16.6
WLAN 5.3G	12.1	12.2	11.9	12.0	12.0	12.2	18.1	18.5	18.1	18.5	18.0
WLAN 5.6G	8.5	8.4	8.7	8.9	8.4	8.5	17.9	17.8	17.8	17.7	17.8
WLAN 5.8G	11.1	11.4	11.5	11.0	11.2	11.5	17.4	17.7	17.7	17.8	17.7

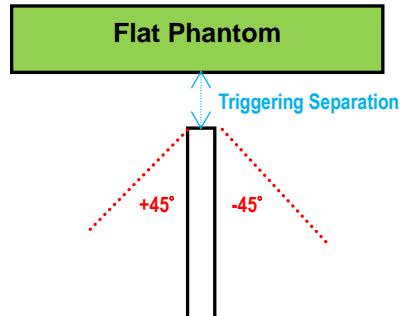
Proximity Sensor Coverage (KDB 616217 D04 §6.3)

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

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

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



Orientation	Separation Distance (mm)	Tilt Angle											
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°	
Left Edge	21	On	On	On	On	On	On	On	On	On	On	On	
Top Edge	14	On	On	On	On	On	On	On	On	On	On	On	

Summary for Proximity Sensor Triggering Test

According to the procedures noticed in KDB 616217 D04, the proximity sensor triggering distance is 26 mm for EUT Rear Face, 21mm for Left Side and 14 mm for Top Side. The separation distance of 14 mm determined by the smallest triggering distance on Top Side is used to access the tilt angle influence and the sensor does not release during ± 45 degree. Therefore, the smallest separation distance for tilt angle influence is 21 mm for the Left Side. The conservation triggering distances based on the separation distance for the sensor trigger / not triggered as EUT with power reduction at 25 mm, and EUT without power reduction at 25 mm for EUT Rear Face, 20 mm for EUT Left Side and 13 mm for Top Side were used to test SAR.

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

<Connections between EUT and System Simulator>

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

<Considerations Related to WCDMA for Setup and Testing>

Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the "Release 5 HSDPA Data Devices", for the highest reported SAR body-worn exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

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Handsets with Release 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices”, for the highest reported body-worn exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn measurements is tested for next to the ear head exposure.

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 DPDCCH gain factors (β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{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	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{HS}^{(1)(2)}$	CM ⁽³⁾ (dB)	MPR ⁽³⁾ (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	12/15 ⁽⁴⁾	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: Δ_{ACK} , Δ_{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, Δ_{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 DPDCCH, 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 β_c/β_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 β values indicated in below.

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{HS} ⁽¹⁾	β_{ec}	β_{ed} ⁽⁴⁾⁽⁵⁾	β_{ed} (SF)	β_{ed} (Codes)	CM ⁽²⁾ (dB)	MPR ⁽²⁾⁽⁶⁾ (dB)	AG ⁽⁵⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	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, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{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, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_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: β_{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.

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.

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<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		
17			V	V		
26	V	V	V	V	V	
30			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

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

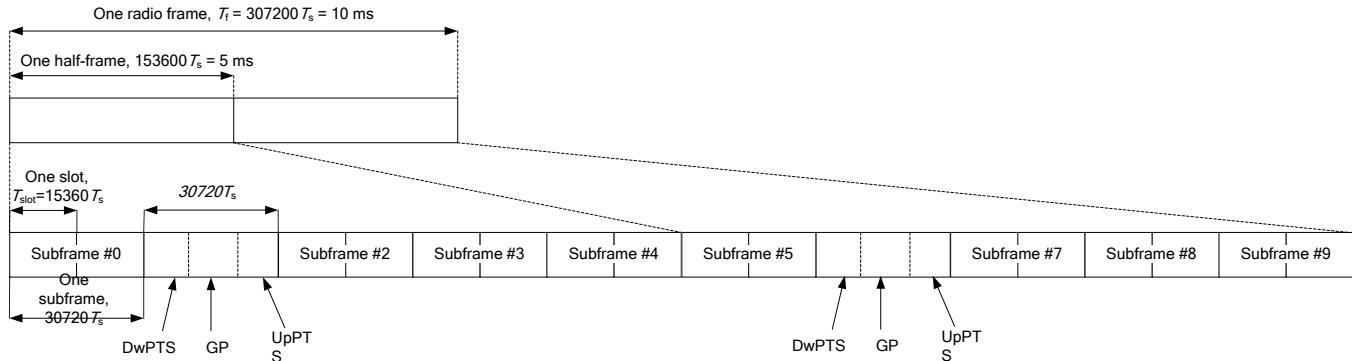
In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

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

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TDD-LTE Setup Configurations

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



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

Special Subframe Configuration	Normal Cyclic Prefix in Downlink				Extended Cyclic Prefix in Downlink			
	DwPTS	UpPTS		DwPTS	UpPTS			
		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		
0	6592 • T_s			7680 • T_s				
1	19760 • T_s			20480 • T_s				
2	21952 • T_s			23040 • T_s				
3	24144 • T_s			25600 • T_s				
4	26336 • T_s			7680 • T_s				
5	6592 • T_s			20480 • T_s				
6	19760 • T_s			23040 • T_s				
7	21952 • T_s			12800 • T_s				
8	24144 • T_s			-				
9	13168 • 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

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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%.

LTE Downlink Carrier Aggregation (CA) Setup Configurations

LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Downlink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel bandwidths for carrier-3 (MHz)		
CA_2C	5	20		40	0
	10	15, 20			
	15	10, 15, 20			
	20	5, 10, 15, 20			
CA_7C	15	15		40	0
	20	20			
	10	20		40	1
	15	15, 20			
	20	10, 15, 20			
	15	10, 15		40	2
	20	15, 20			
CA_41C	10	20		40	0
	15	15, 20			
	20	10, 15, 20			
	5, 10	20		40	1
	15	15, 20			
	20	5, 10, 15, 20			
	10	15, 20		40	2
	15	10, 15, 20			
	20	10, 15, 20			
	10	20		40	3
	20	20			

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Downlink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel bandwidths for carrier-3 (MHz)		
CA_41D	10	20	15	60	0
	10	15, 20	20		
	15	20	10, 15		
	15	10, 15, 20	20		
	20	15, 20	10		
	20	10, 15, 20	15, 20		

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Non-Contiguous CA

Downlink CA Configuration	Component Carriers in order of Increasing Carrier Frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel Bandwidths for Carrier-1 (MHz)	Channel Bandwidths for Carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20		40	0
CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20		40	0
	5, 10	5, 10		20	1
CA_7A-7A	5	15		40	0
	10	10, 15			
	15	15, 20			
	20	20			
	5, 10, 15, 20	5, 10, 15, 20		40	1
	5, 10, 15, 20	5, 10		30	2
	10, 15, 20	10, 15, 20		40	3
	10, 15, 20	10, 15, 20		40	0
CA_41A-41A	5, 10, 15, 20	5, 10, 15, 20		40	1
	5, 10, 15, 20	5, 10, 15, 20		40	0
CA_41A-41C	5, 10, 15, 20	Refer to CA_41C (BCS1)		60	0
	Refer to CA_41C (BCS1)	5, 10, 15, 20			
CA_66A-66C	5, 10, 15, 20	Refer to CA_66C (BCS0)		60	0
	Refer to CA_66C (BCS0)	5, 10, 15, 20			

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LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Two Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A	2	1.4, 3, 5, 10, 15, 20	40	0
	4	5, 10, 15, 20		
	2	5, 10	20	1
	4	5, 10		
	2	5, 10, 15, 20	40	2
	4	5, 10, 15, 20		
CA_2A-5A	2	5, 10, 15, 20	30	0
	5	5, 10		
	2	5, 10	20	1
	5	5, 10		
CA_2A-2A-5A	2	Refer to CA_2A-2A (BCS0)	50	0
	5	5, 10		
CA_2A-12A	2	5, 10, 15, 20	30	0
	12	5, 10		
	2	5, 10, 15, 20	30	1
	12	3, 5, 10		
	2	5, 10	20	2
	12	5, 10		
CA_2A-13A	2	5, 10, 15, 20	30	0
	13	10		
	2	5, 10	20	1
	13	10		
CA_2A-2A-13A	2	Refer to CA_2A-2A (BCS0)	50	0
	13	10		
CA_2A-17A	2	5, 10	20	0
	17	5, 10		
CA_2A-29A	2	5, 10	20	0
	29	3, 5, 10		
	2	5, 10	20	1
	29	5, 10		
	2	5, 10, 15, 20	30	2
	29	5, 10		
CA_2C-29A	2	Refer to CA_2C (BCS0)	50	0
	29	5, 10		
CA_2A-30A	2	5, 10, 15, 20	30	0
	30	5, 10		
CA_2A-66A	2	1.4, 3, 5, 10, 15, 20	40	0
	66	5, 10, 15, 20		
	2	5, 10	20	1
	66	5, 10		
	2	5, 10, 15, 20	40	2
	66	5, 10, 15, 20		
CA_2A-66C	2	5, 10, 15, 20	60	0
	66	Refer to CA_66C (BCS0)		

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Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_4A-5A	4	5, 10	20	0
	5	5, 10		
	4	5, 10, 15, 20	30	1
	5	5, 10		
CA_4A-4A-5A	4	Refer to CA_4A-4A (BCS0)	50	0
	5	5, 10		
CA_4A-12A	4	1.4, 3, 5, 10	20	0
	12	5, 10		
	4	1.4, 3, 5, 10, 15, 20	30	1
	12	5, 10		
	4	5, 10, 15, 20	30	2
	12	3, 5, 10		
	4	5, 10	20	3
	12	5, 10		
	4	5, 10, 15, 20	30	4
	12	5, 10		
	4	5, 10, 15	20	5
	12	5		
CA_4A-13A	4	5, 10, 15, 20	30	0
	13	10		
	4	5, 10	20	1
	13	10		
CA_4A-4A-13A	4	Refer to CA_4A-4A (BCS0)	50	0
	13	10		
CA_4A-17A	4	5, 10	20	0
	17	5, 10		
CA_4A-29A	4	5, 10	20	0
	29	3, 5, 10		
	4	5, 10	20	1
	29	5, 10		
	4	5, 10, 15, 20	30	2
	29	5, 10		
CA_4A-30A	4	5, 10, 15, 20	30	0
	30	5, 10		
CA_5A-7A	5	1.4, 3, 5, 10	30	0
	7	10, 15, 20		
	5	5, 10	30	1
	7	10, 15, 20		
CA_5A-30A	5	5, 10	20	0
	30	5, 10		
CA_5A-66A	5	5, 10	30	0
	66	5, 10, 15, 20		
CA_5A-66C	5	5, 10	50	0
	66	Refer to CA_66C (BCS0)		
CA_12A-30A	12	5, 10	20	0
	30	5, 10		
CA_13A-66A	13	5, 10	30	0
	66	5, 10, 15, 20		
CA_13A-66C	13	5, 10	50	0
	66	Refer to CA_66C (BCS0)		
CA_29A-30A	29	5, 10	20	0
	30	5, 10		

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LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Three Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A-5A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	5	5, 10		
CA_2A-4A-13A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	13	10		
CA_2A-5A-30A	2	5, 10, 15, 20	40	0
	5	5, 10		
	30	5, 10		
CA_2A-5A-66A	2	5, 10, 15, 20	50	0
	5	5, 10		
	66	5, 10, 15, 20		
CA_2A-12A-30A	2	5, 10, 15, 20	40	0
	12	5, 10		
	30	5, 10		
CA_2A-13A-66A	2	5, 10, 15, 20	50	0
	13	5, 10		
	66	5, 10, 15, 20		
CA_2A-29A-30A	2	5, 10, 15, 20	40	0
	29	5, 10		
	30	5, 10		
CA_4A-5A-30A	4	5, 10, 15, 20	40	0
	5	5, 10		
	30	5, 10		
CA_4A-12A-30A	4	5, 10, 15, 20	40	0
	12	5, 10		
	30	5, 10		
CA_4A-29A-30A	4	5, 10, 15, 20	40	0
	29	5, 10		
	30	5, 10		

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<SAR Test Exclusion Evaluations for LTE Downlink CA>

According to Nov 2017 TCB Workshop, SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. The downlink Carrier Aggregation configurations are tabulated in separate columns. DL CA would be listed in the columns corresponding to Intra Band contiguous, Intra Band Non-contiguous, 2bands/2CCs, 2bands/3CCs, 2bands/4CCs, 3bands/3CCs, 3bands/4CCs, 3bands/5CC, 4bands/4CCs and 4bands/5CC. The CA/CC combinations in each columns are sorted so that frequency bands listed in subsequent columns on each row are ascending subsets, as following LTE Downlink CA table and LTE Downlink CA (4*4 MIMO) table ; i.e., columns to the right correspond to increasing number of frequency bands and CCs.

LTE Downlink CA-Configure	Intra Band			Inter Band		
	Contiguous	2CC	3CC	2 Bands / 2CC	2 Bands / 3CC	3 Bands / 3CC
				CA_2A-4A		CA_2A-4A-5A
CA_2C	CA_2A-2A			CA_2A-13A	CA_2A-2A-13A	CA_2A-4A-13A
				CA_4A-13A	CA_4A-4A-13A	
				CA_2A-12A		CA_2A-12A-30A
				CA_2A-30A		
				CA_2A-5A	CA_2A-2A-5A	CA_2A-5A-30A
				CA_5A-66A	CA_5A-66C	CA_2A-5A-66A
				CA_2A-66A		
					CA_2A-66C	CA_2A-13A-66A
				CA_13A-66A	CA_13A-66C	
				CA_2A-29A	CA_2C-29A	CA_2A-29A-30A
CA_4A-4A				CA_4A-5A	CA_4A-4A-5A	
				CA_4A-30A		CA_4A-5A-30A
				CA_5A-30A		
				CA_4A-12A		CA_4A-12A-30A
				CA_12A-30A		
				CA_4A-29A		
				CA_29A-30A		CA_4A-29A-30A
				CA_2A-17A		
				CA_4A-17A		
				CA_5A-7A		
CA_41C	CA_41A-41A		CA_41C-41A			
CA_41D						
			CA_66C-66A			
CA_7C	CA_7A-7A					

*Only yellow highlighted cells need power measurement.



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<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 $\leq 1.2 \text{ W/kg}$, SAR is not required for that subsequent test configuration.



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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.

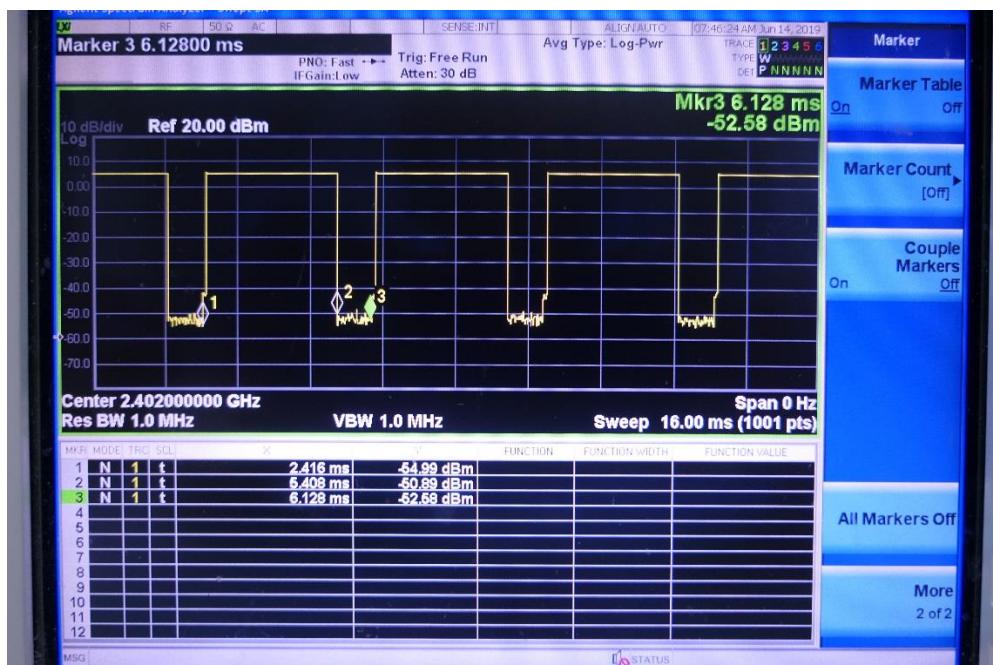
- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is $\leq 1.2 \text{ W/kg}$, SAR is not required for U-NII-1 band for that configuration (802.11 mode 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 $\leq 1.2 \text{ W/kg}$, 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.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (5.408 - 2.416) / (6.128 - 2.416) = 80.6\%$$

4.2 EUT Testing Position

4.2.1 Body Exposure Conditions

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

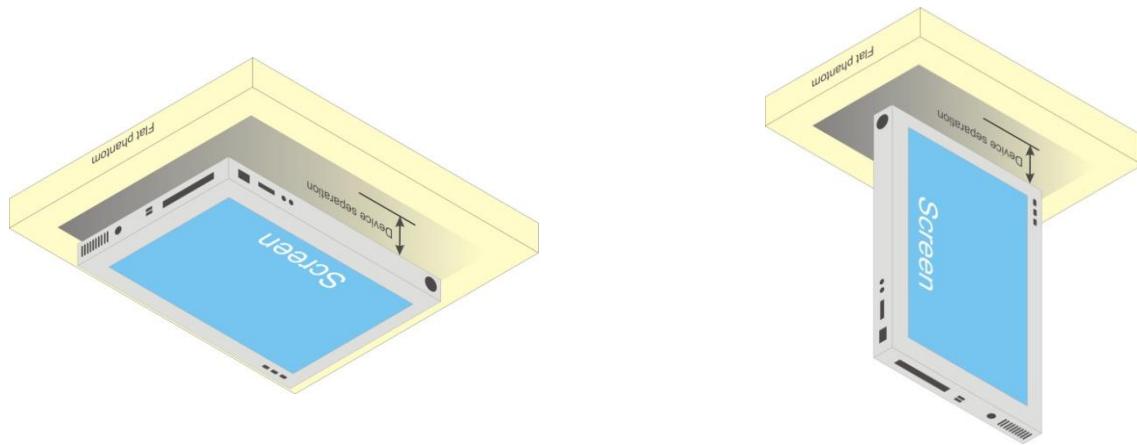


Fig-4.1 Illustration for Tablet Setup

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.

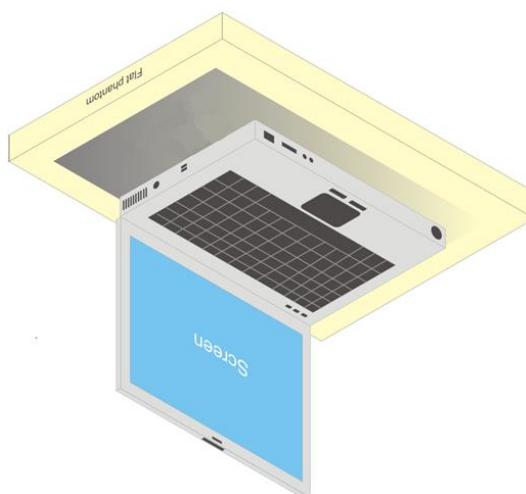


Fig-4.2 Illustration for Laptop Setup

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4.2.2 SAR Test Exclusion Evaluations

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

1. For the test separation distance ≤ 50 mm

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

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

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

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

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

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

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	24.5	282	5	77.9	Yes	1.8	77.9	Yes	298.2	2591 mW	No	17.5	22.26	Yes	135	959 mW	No
WCDMA IV	24	251	5	66.46	Yes	1.8	66.46	Yes	298.2	2595 mW	No	17.5	18.99	Yes	135	963 mW	No
WCDMA V	24.5	282	5	51.89	Yes	1.8	51.89	Yes	298.2	1564 mW	No	17.5	14.83	Yes	135	643 mW	No
LTE 2	24.5	282	5	77.95	Yes	1.8	77.95	Yes	298.2	2591 mW	No	17.5	22.27	Yes	135	959 mW	No
LTE 4	24	251	5	66.5	Yes	1.8	66.5	Yes	298.2	2595 mW	No	17.5	19	Yes	135	963 mW	No
LTE 5	24.5	282	5	51.97	Yes	1.8	51.97	Yes	298.2	1568 mW	No	17.5	14.85	Yes	135	644 mW	No
LTE 7	24	251	5	80.48	Yes	1.8	80.48	Yes	298.2	2576 mW	No	17.5	22.99	Yes	135	944 mW	No
LTE 12	24.5	282	5	47.72	Yes	1.8	47.72	Yes	298.2	1362 mW	No	17.5	13.64	Yes	135	583 mW	No
LTE 13	24.5	282	5	50.03	Yes	1.8	50.03	Yes	298.2	1471 mW	No	17.5	14.3	Yes	135	615 mW	No
LTE 17	24.5	282	5	47.72	Yes	1.8	47.72	Yes	298.2	1362 mW	No	17.5	13.64	Yes	135	583 mW	No
LTE 26	24.5	282	5	51.97	Yes	1.8	51.97	Yes	298.2	1568 mW	No	17.5	14.85	Yes	135	644 mW	No
LTE 30	23	200	5	60.86	Yes	1.8	60.86	Yes	298.2	2581 mW	No	17.5	17.39	Yes	135	949 mW	No
LTE 41	24	251	5	82.33	Yes	1.8	82.33	Yes	298.2	2573 mW	No	17.5	23.52	Yes	135	941 mW	No
LTE 66	24	251	5	66.98	Yes	1.8	66.98	Yes	298.2	2594 mW	No	17.5	19.14	Yes	135	962 mW	No

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<Intel9560 & RTL8822CE>

<For WLAN Ant. 0>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	18	63	5	19.77	Yes	42	2.35	No	215	1746 mW	No	7	14.12	Yes	161	1206 mW	No
WLAN 5.2G	18	63	5	28.84	Yes	42	3.43	Yes	215	1716 mW	No	7	20.6	Yes	161	1176 mW	No
WLAN 5.3G	18	63	5	29.06	Yes	42	3.46	Yes	215	1715 mW	No	7	20.76	Yes	161	1175 mW	No
WLAN 5.6G	18	63	5	30.13	Yes	42	3.59	Yes	215	1713 mW	No	7	21.52	Yes	161	1173 mW	No
WLAN 5.8G	18	63	5	30.41	Yes	42	3.62	Yes	215	1712 mW	No	7	21.72	Yes	161	1172 mW	No

<For BT/WLAN Ant. 1>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	18	63	5	19.77	Yes	235	1946 mW	No	26	3.8	Yes	7	14.12	Yes	161	1206 mW	No
WLAN 5.2G	18	63	5	28.84	Yes	235	1916 mW	No	26	5.55	Yes	7	20.6	Yes	161	1176 mW	No
WLAN 5.3G	18	63	5	29.06	Yes	235	1915 mW	No	26	5.59	Yes	7	20.76	Yes	161	1175 mW	No
WLAN 5.6G	18	63	5	30.13	Yes	235	1913 mW	No	26	5.8	Yes	7	21.52	Yes	161	1173 mW	No
WLAN 5.8G	18	63	5	30.41	Yes	235	1912 mW	No	26	5.85	Yes	7	21.72	Yes	161	1172 mW	No
BT	6	4	5	1.26	No	235	1945 mW	No	26	0.24	No	7	0.9	No	161	1205 mW	No

<For WLAN Ant. 0+1>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	18	63	5	19.77	Yes	42	2.35	No	26	3.8	Yes	7	14.12	Yes	161	1206 mW	No
WLAN 5.2G	21	126	5	57.69	Yes	42	6.87	Yes	26	11.09	Yes	7	41.2	Yes	161	1176 mW	No
WLAN 5.3G	18.5	71	5	32.75	Yes	42	3.9	Yes	26	6.3	Yes	7	23.39	Yes	161	1175 mW	No
WLAN 5.6G	18	63	5	30.13	Yes	42	3.59	Yes	26	5.8	Yes	7	21.52	Yes	161	1173 mW	No
WLAN 5.8G	18	63	5	30.41	Yes	42	3.62	Yes	26	5.85	Yes	7	21.72	Yes	161	1172 mW	No

Note:

- When separation distance ≤ 50 mm and the calculated result shown in above table is ≤ 3.0 for SAR-1g exposure condition, or ≤ 7.5 for SAR-10g exposure condition, the SAR testing exclusion is applied.
- 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.

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4.3 Tissue Verification

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

Test Date	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Jun. 12, 2019	750	23.1	0.892	42.971	0.89	41.9	0.22	2.56
Jun. 13, 2019	750	23.3	0.9	41.7	0.89	41.9	1.12	-0.48
Jul. 03, 2019	750	23.3	0.883	41.268	0.89	41.9	-0.79	-1.51
Jul. 05, 2019	750	23.2	0.886	43.438	0.89	41.9	-0.45	3.67
Jul. 20, 2019	750	23.3	0.893	43.414	0.89	41.9	0.34	3.61
Jun. 12, 2019	835	23.1	0.919	41.768	0.9	41.5	2.11	0.65
Jun. 13, 2019	835	23.2	0.908	42.279	0.9	41.5	0.89	1.88
Jul. 03, 2019	835	23.3	0.909	40.632	0.9	41.5	1.00	-2.09
Jul. 05, 2019	835	23.4	0.925	42.471	0.9	41.5	2.78	2.34
Jul. 05, 2019	835	23.1	0.92	41.297	0.9	41.5	2.22	-0.49
Aug. 07, 2019	835	23.4	0.907	40.492	0.9	41.5	0.78	-2.43
Jun. 12, 2019	1750	23.2	1.325	39.349	1.37	40.1	-3.28	-1.87
Jun. 13, 2019	1750	23.1	1.322	39.378	1.37	40.1	-3.50	-1.80
Jul. 04, 2019	1750	23.3	1.318	39.352	1.37	40.1	-3.80	-1.87
Jul. 05, 2019	1750	23.4	1.332	39.526	1.37	40.1	-2.77	-1.43
Jul. 20, 2019	1750	23.3	1.328	40.136	1.37	40.1	-3.07	0.09
Jun. 12, 2019	1900	23.2	1.46	38.759	1.4	40	4.29	-3.10
Jun. 13, 2019	1900	23.1	1.459	38.812	1.4	40	4.21	-2.97
Jul. 03, 2019	1900	23.3	1.444	38.836	1.4	40	3.14	-2.91
Jul. 05, 2019	1900	23.4	1.459	38.999	1.4	40	4.21	-2.50
Jul. 05, 2019	1900	23.1	1.455	39.605	1.4	40	3.93	-0.99
Jun. 12, 2019	2300	23.2	1.707	39.627	1.67	39.5	2.22	0.32
Jul. 03, 2019	2300	23.3	1.732	38.842	1.67	39.5	3.71	-1.67
Jul. 05, 2019	2300	23.2	1.716	38.883	1.67	39.5	2.75	-1.56
Jul. 10, 2019	2450	23.4	1.861	39.172	1.8	39.2	3.39	-0.07
Jul. 16, 2019	2450	23.4	1.885	38.339	1.8	39.2	4.72	-2.20
Jul. 31, 2019	2450	23.1	1.885	38.34	1.8	39.2	4.72	-2.19
Aug. 06, 2019	2450	23.1	1.866	38.329	1.8	39.2	3.67	-2.22
Jun. 12, 2019	2600	23.2	2.017	38.567	1.96	39	2.91	-1.11
Jul. 03, 2019	2600	23.3	2.036	37.736	1.96	39	3.88	-3.24
Jul. 05, 2019	2600	23.2	2.049	37.692	1.96	39	4.54	-3.35
Jul. 10, 2019	5250	23.4	4.799	35.398	4.71	35.9	1.89	-1.40
Jul. 17, 2019	5250	23.4	4.601	35.761	4.71	35.9	-2.31	-0.39
Jul. 31, 2019	5250	23.1	4.796	37.265	4.71	35.9	1.83	3.80
Aug. 01, 2019	5250	23.2	4.793	35.468	4.71	35.9	1.76	-1.20
Aug. 07, 2019	5250	23.2	4.682	35.441	4.71	35.9	-0.59	-1.28
Jul. 10, 2019	5600	23.4	5.175	34.802	5.07	35.5	2.07	-1.97
Jul. 18, 2019	5600	23.4	5.237	34.759	5.07	35.5	3.29	-2.09
Jul. 31, 2019	5600	23.1	5.14	36.704	5.07	35.5	1.38	3.39
Aug. 01, 2019	5600	23.2	5.17	34.876	5.07	35.5	1.97	-1.76
Aug. 13, 2019	5600	23.2	5.08	34.289	5.07	35.5	0.20	-3.41
Jul. 19, 2019	5750	23.4	5.383	35.944	5.22	35.4	3.12	1.54
Jul. 31, 2019	5750	23.1	5.287	36.324	5.22	35.4	1.28	2.61
Aug. 02, 2019	5750	23.2	5.061	35.952	5.22	35.4	-3.05	1.56
Aug. 12, 2019	5750	23.2	5.022	35.942	5.22	35.4	-3.79	1.53

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 (σ)	Measured Permittivity (ϵ_r)	Validation for CW			Validation for Modulation		
					Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Jun. 12, 2019	7472	750	0.892	42.971	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 13, 2019	3650	750	0.9	41.7	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 03, 2019	3650	750	0.883	41.268	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	7375	750	0.886	43.438	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 20, 2019	3971	750	0.893	43.414	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 12, 2019	7472	835	0.919	41.768	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 13, 2019	3650	835	0.908	42.279	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 03, 2019	3650	835	0.909	40.632	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	3650	835	0.925	42.471	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	3971	835	0.92	41.297	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2019	7375	835	0.907	40.492	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 12, 2019	7472	1750	1.325	39.349	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 13, 2019	3650	1750	1.322	39.378	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 04, 2019	3650	1750	1.318	39.352	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	3650	1750	1.332	39.526	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 20, 2019	3971	1750	1.328	40.136	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 12, 2019	7472	1900	1.46	38.759	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 13, 2019	3650	1900	1.459	38.812	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 03, 2019	3650	1900	1.444	38.836	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	3650	1900	1.459	38.999	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	3971	1900	1.455	39.605	Pass	Pass	Pass	N/A	N/A	N/A
Jun. 12, 2019	7472	2300	1.707	39.627	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 03, 2019	3650	2300	1.732	38.842	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	7375	2300	1.716	38.883	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 10, 2019	3650	2450	1.861	39.172	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 16, 2019	3971	2450	1.885	38.339	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 31, 2019	7472	2450	1.885	38.34	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 06, 2019	7472	2450	1.866	38.329	Pass	Pass	Pass	OFDM	N/A	Pass
Jun. 12, 2019	7472	2600	2.017	38.567	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 03, 2019	3650	2600	2.036	37.736	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 05, 2019	7375	2600	2.049	37.692	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 10, 2019	3650	5250	4.799	35.398	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 17, 2019	3971	5250	4.601	35.761	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 31, 2019	7472	5250	4.796	37.265	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 01, 2019	7472	5250	4.793	35.468	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 07, 2019	7472	5250	4.682	35.441	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 10, 2019	3650	5600	5.175	34.802	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 18, 2019	3971	5600	5.237	34.759	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 31, 2019	7472	5600	5.14	36.704	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 01, 2019	7472	5600	5.17	34.876	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 13, 2019	7472	5600	5.08	34.289	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 19, 2019	3971	5750	5.383	35.944	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 31, 2019	7472	5750	5.287	36.324	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 02, 2019	7472	5750	5.061	35.952	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 12, 2019	7472	5750	5.022	35.942	Pass	Pass	Pass	OFDM	N/A	Pass

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4.5 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jun. 12, 2019	750	8.15	2.05	8.20	0.61	1013	7472	1277
Jun. 13, 2019	750	8.15	2.03	8.12	-0.37	1013	3650	861
Jul. 03, 2019	750	8.15	2.01	8.04	-1.35	1013	3650	861
Jul. 05, 2019	750	8.15	1.95	7.80	-4.29	1013	7375	1277
Jul. 20, 2019	750	8.15	2.01	8.04	-1.35	1013	3971	1431
Jun. 12, 2019	835	9.44	2.4	9.60	1.69	4d121	7472	1277
Jun. 13, 2019	835	9.44	2.22	8.88	-5.93	4d121	3650	861
Jul. 03, 2019	835	9.44	2.27	9.08	-3.81	4d121	3650	861
Jul. 05, 2019	835	9.44	2.29	9.16	-2.97	4d121	3650	861
Jul. 05, 2019	835	9.44	2.3	9.20	-2.54	4d121	3971	1431
Aug. 07, 2019	835	9.44	2.39	9.56	1.27	4d121	7375	1277
Jun. 12, 2019	1750	36.90	8.87	35.48	-3.85	1055	7472	1277
Jun. 13, 2019	1750	36.90	8.94	35.76	-3.09	1055	3650	861
Jul. 04, 2019	1750	36.90	9.05	36.20	-1.90	1055	3650	861
Jul. 05, 2019	1750	36.90	9.01	36.04	-2.33	1055	3650	861
Jul. 20, 2019	1750	36.90	8.92	35.68	-3.31	1055	3971	1431
Jun. 12, 2019	1900	40.20	10.7	42.80	6.47	5d036	7472	1277
Jun. 13, 2019	1900	40.20	10.2	40.80	1.49	5d036	3650	861
Jul. 03, 2019	1900	40.20	10.3	41.20	2.49	5d036	3650	861
Jul. 05, 2019	1900	40.20	10.2	40.80	1.49	5d036	3650	861
Jul. 05, 2019	1900	40.20	10	40.00	-0.50	5d036	3971	1431
Jun. 12, 2019	2300	49.10	11.9	47.60	-3.05	1004	7472	1277
Jul. 03, 2019	2300	49.10	12.7	50.80	3.46	1004	3650	861
Jul. 05, 2019	2300	49.10	12	48.00	-2.24	1004	7375	1277
Jul. 10, 2019	2450	51.50	12.9	51.60	0.19	737	3650	861
Jul. 16, 2019	2450	51.50	13	52.00	0.97	737	3971	1431
Jul. 31, 2019	2450	51.50	13.2	52.80	2.52	737	7472	579
Aug. 06, 2019	2450	51.50	13.1	52.40	1.75	737	7472	579
Jun. 12, 2019	2600	55.70	14.5	58.00	4.13	1020	7472	1277
Jul. 03, 2019	2600	55.70	13.6	54.40	-2.33	1020	3650	861
Jul. 05, 2019	2600	55.70	13.9	55.60	-0.18	1020	7375	1277
Jul. 10, 2019	5250	80.70	7.97	79.70	-1.24	1019	3650	861
Jul. 17, 2019	5250	80.70	7.96	79.60	-1.36	1019	3971	1431
Jul. 31, 2019	5250	80.70	7.83	78.30	-2.97	1019	7472	579
Aug. 01, 2019	5250	80.70	7.81	78.10	-3.22	1019	7472	579
Aug. 07, 2019	5250	80.70	7.86	78.60	-2.60	1019	7472	579
Jul. 10, 2019	5600	85.80	8.25	82.50	-3.85	1019	3650	861
Jul. 18, 2019	5600	85.80	8.81	88.10	2.68	1019	3971	1431
Jul. 31, 2019	5600	85.80	8.64	86.40	0.70	1019	7472	579
Aug. 01, 2019	5600	85.80	7.95	79.50	-7.34	1019	7472	579
Aug. 13, 2019	5600	85.80	8.12	81.20	-5.36	1019	7472	579
Jul. 19, 2019	5750	81.50	8.18	81.80	0.37	1019	3971	1431
Jul. 31, 2019	5750	81.50	7.97	79.70	-2.21	1019	7472	579
Aug. 02, 2019	5750	81.50	7.65	76.50	-6.13	1019	7472	579
Aug. 12, 2019	5750	81.50	7.79	77.90	-4.42	1019	7472	579

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 (without Power Reduction)	WCDMA Band II (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	24.5	11.0	13.5
HSDPA / HSUPA / DC-HSDPA	23.5	11.0	12.5

Mode	WCDMA Band IV (without Power Reduction)	WCDMA Band IV (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	24.0	11.0	13.0
HSDPA / HSUPA / DC-HSDPA	23.0	11.0	12.0

Mode	WCDMA Band V (without Power Reduction)	WCDMA Band V (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	24.5	18.0	6.5
HSDPA / HSUPA / DC-HSDPA	23.5	18.0	5.5

Mode	LTE 2 (without Power Reduction)	LTE 2 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	10.5	14.0

Mode	LTE 4 (without Power Reduction)	LTE 4 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	10.7	13.3

Mode	LTE 5 (without Power Reduction)	LTE 5 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	18.0	6.5

Mode	LTE 7 (without Power Reduction)	LTE 7 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	11.0	13.0

Mode	LTE 12 (without Power Reduction)	LTE 12 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	17.0	7.5

Mode	LTE 13 (without Power Reduction)	LTE 13 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	16.0	8.5

Mode	LTE 17 (without Power Reduction)	LTE 17 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	17.0	7.5

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Mode	LTE 26 (without Power Reduction)	LTE 26 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	18.5	6.0

Mode	LTE 30 (without Power Reduction)	LTE 30 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	23.0	11.0	12.0

Mode	LTE 41 (without Power Reduction)	LTE 41 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	11.0	13.0

Mode	LTE 66 (without Power Reduction)	LTE 66 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.0	10.5	13.5

Laptop Mode

Mode	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC 12.2K	13.5	13.5	18.5
HSDPA / HSUPA / DC-HSDPA	13.5	13.5	18.5

Mode	LTE 2	LTE 4	LTE 5	LTE 7
Maximum Target Power	13.5	13.5	18.0	11.5

Mode	LTE 12	LTE 13	LTE 17	LTE 26
Maximum Target Power	18.0	17.0	19.5	18.5

Mode	LTE 30	LTE 41	LTE 66
Maximum Target Power	15.0	14.0	16.5

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Tablet Mode

<9560NGW & RTL8822CE>

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11b	1	2412	17.0	17.0	17.0
	6	2437	17.0	17.0	17.0
	11	2462	17.0	17.0	17.0
802.11g	1	2412	18.0	18.0	18.0
	6	2437	18.0	18.0	18.0
	11	2462	18.0	18.0	18.0
802.11n (HT20)	1	2412	18.0	18.0	18.0
	6	2437	18.0	18.0	18.0
	11	2462	18.0	18.0	18.0
802.11n (HT40)	3	2422	15.5	15.5	15.5
	6	2437	15.5	15.5	15.5
	9	2452	15.5	15.5	15.5
EUT with Power Reduction (P-Sensor Triggered)					
802.11b	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11g	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11n (HT20)	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11n (HT40)	3	2422	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	9	2452	10.0	10.0	12.5

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<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	36	5180	18.0	18.0	21.0
	40	5200	18.0	18.0	21.0
	44	5220	18.0	18.0	21.0
	48	5240	18.0	18.0	21.0
802.11n (HT20)	36	5180	17.0	17.0	21.0
	40	5200	17.0	17.0	21.0
	44	5220	17.0	17.0	21.0
	48	5240	17.0	17.0	21.0
802.11n (HT40)	38	5190	18.0	18.0	18.0
	46	5230	18.0	18.0	18.0
802.11ac (VHT80)	42	5210	18.0	18.0	18.0
EUT with Power Reduction (P-Sensor Triggered)					
802.11a	36	5180	9.0	9.5	12.5
	40	5200	9.0	9.5	12.5
	44	5220	9.0	9.5	12.5
	48	5240	9.0	9.5	12.5
802.11n (HT20)	36	5180	9.0	9.5	12.5
	40	5200	9.0	9.5	12.5
	44	5220	9.0	9.5	12.5
	48	5240	9.0	9.5	12.5
802.11n (HT40)	38	5190	9.0	9.5	12.5
	46	5230	9.0	9.5	12.5
802.11ac (VHT80)	42	5210	9.0	9.5	12.5

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	52	5260	18.0	18.0	18.5
	56	5280	18.0	18.0	18.5
	60	5300	18.0	18.0	18.5
	64	5320	18.0	18.0	18.5
802.11n (HT20)	52	5260	17.0	17.0	18.0
	56	5280	17.0	17.0	18.0
	60	5300	17.0	17.0	18.0
	64	5320	17.0	17.0	18.0
802.11n (HT40)	54	5270	18.0	18.0	18.0
	62	5310	18.0	18.0	18.0
802.11ac (VHT80)	58	5290	18.0	18.0	18.0
EUT with Power Reduction (P-Sensor Triggered)					
802.11a	52	5260	9.0	9.5	12.5
	56	5280	9.0	9.5	12.5
	60	5300	9.0	9.5	12.5
	64	5320	9.0	9.5	12.5
802.11n (HT20)	52	5260	9.0	9.5	12.5
	56	5280	9.0	9.5	12.5
	60	5300	9.0	9.5	12.5
	64	5320	9.0	9.5	12.5
802.11n (HT40)	54	5270	9.0	9.5	12.5
	62	5310	9.0	9.5	12.5
802.11ac (VHT80)	58	5290	9.0	9.5	12.5

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<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	100	5500	18.0	18.0	18.0
	116	5580	18.0	18.0	18.0
	120	5600	18.0	18.0	18.0
	124	5620	18.0	18.0	18.0
	132	5660	18.0	18.0	18.0
	140	5700	18.0	18.0	18.0
	144	5720	18.0	18.0	18.0
802.11n (HT20)	100	5500	17.0	17.0	17.0
	116	5580	17.0	17.0	17.0
	120	5600	17.0	17.0	17.0
	124	5620	17.0	17.0	17.0
	132	5660	17.0	17.0	17.0
	140	5700	17.0	17.0	17.0
	144	5720	17.0	17.0	17.0
802.11n (HT40)	102	5510	18.0	18.0	18.0
	110	5550	18.0	18.0	18.0
	118	5590	18.0	18.0	18.0
	126	5630	18.0	18.0	18.0
	134	5670	18.0	18.0	18.0
	142	5710	18.0	18.0	18.0
802.11ac (VHT80)	106	5530	18.0	18.0	18.0
	122	5610	18.0	18.0	18.0
	138	5690	18.0	18.0	18.0
EUT with Power Reduction (P-Sensor Triggered)					
802.11a	100	5500	8.0	9.0	12.0
	116	5580	8.0	9.0	12.0
	120	5600	8.0	9.0	12.0
	124	5620	8.0	9.0	12.0
	132	5660	8.0	9.0	12.0
	140	5700	8.0	9.0	12.0
	144	5720	8.0	9.0	12.0
802.11n (HT20)	100	5500	8.0	9.0	12.0
	116	5580	8.0	9.0	12.0
	120	5600	8.0	9.0	12.0
	124	5620	8.0	9.0	12.0
	132	5660	8.0	9.0	12.0
	140	5700	8.0	9.0	12.0
	144	5720	8.0	9.0	12.0
802.11n (HT40)	102	5510	8.0	9.0	12.0
	110	5550	8.0	9.0	12.0
	118	5590	8.0	9.0	12.0
	126	5630	8.0	9.0	12.0
	134	5670	8.0	9.0	12.0
	142	5710	8.0	9.0	12.0
802.11ac (VHT80)	106	5530	9.0	9.0	12.0
	122	5610	9.0	9.0	12.0
	138	5690	9.0	9.0	12.0

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<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	149	5745	18.0	18.0	18.0
	153	5765	18.0	18.0	18.0
	157	5785	18.0	18.0	18.0
	161	5805	18.0	18.0	18.0
	165	5825	18.0	18.0	18.0
802.11n (HT20)	149	5745	18.0	18.0	18.0
	153	5765	18.0	18.0	18.0
	157	5785	18.0	18.0	18.0
	161	5805	18.0	18.0	18.0
	165	5825	18.0	18.0	18.0
802.11n (HT40)	151	5755	18.0	18.0	18.0
	159	5795	18.0	18.0	18.0
802.11ac (VHT80)	155	5775	18.0	18.0	18.0
EUT with Power Reduction (P-Sensor Triggered)					
802.11a	149	5745	8.5	9.0	11.5
	153	5765	8.5	9.0	11.5
	157	5785	8.5	9.0	11.5
	161	5805	8.5	9.0	11.5
	165	5825	8.5	9.0	11.5
802.11n (HT20)	149	5745	8.5	9.0	11.5
	153	5765	8.5	9.0	11.5
	157	5785	8.5	9.0	11.5
	161	5805	8.5	9.0	11.5
	165	5825	8.5	9.0	11.5
802.11n (HT40)	151	5755	8.5	9.0	11.5
	159	5795	8.5	9.0	11.5
802.11ac (VHT80)	155	5775	8.5	9.0	11.5

<Bluetooth>

Mode	Channel	Frequency (MHz)	Tune-up Power
Bluetooth EDR	0	2402	6.0
	39	2441	6.0
	78	2480	6.0
Bluetooth LE	0	2402	6.0
	19	2440	6.0
	39	2480	6.0

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Laptop Mode

<9560NGW & RTL8822CE>

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
802.11b	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11g	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11n (HT20)	1	2412	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	11	2462	10.0	10.0	12.5
802.11n (HT40)	3	2422	10.0	10.0	12.5
	6	2437	10.0	10.0	12.5
	9	2452	10.0	10.0	12.5

<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
802.11a	36	5180	9.0	9.5	12.5
	40	5200	9.0	9.5	12.5
	44	5220	9.0	9.5	12.5
	48	5240	9.0	9.5	12.5
802.11n (HT20)	36	5180	9.0	9.5	12.5
	40	5200	9.0	9.5	12.5
	44	5220	9.0	9.5	12.5
	48	5240	9.0	9.5	12.5
802.11n (HT40)	38	5190	9.0	9.5	12.5
	46	5230	9.0	9.5	12.5
802.11ac (VHT80)	42	5210	9.0	9.5	12.5

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
802.11a	52	5260	9.0	9.5	12.5
	56	5280	9.0	9.5	12.5
	60	5300	9.0	9.5	12.5
	64	5320	9.0	9.5	12.5
802.11n (HT20)	52	5260	9.0	9.5	12.5
	56	5280	9.0	9.5	12.5
	60	5300	9.0	9.5	12.5
	64	5320	9.0	9.5	12.5
802.11n (HT40)	54	5270	9.0	9.5	12.5
	62	5310	9.0	9.5	12.5
802.11ac (VHT80)	58	5290	9.0	9.5	12.5

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<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
802.11a	100	5500	8.0	9.0	12.0
	116	5580	8.0	9.0	12.0
	120	5600	8.0	9.0	12.0
	124	5620	8.0	9.0	12.0
	132	5660	8.0	9.0	12.0
	140	5700	8.0	9.0	12.0
	144	5720	8.0	9.0	12.0
802.11n (HT20)	100	5500	8.0	9.0	12.0
	116	5580	8.0	9.0	12.0
	120	5600	8.0	9.0	12.0
	124	5620	8.0	9.0	12.0
	132	5660	8.0	9.0	12.0
	140	5700	8.0	9.0	12.0
	144	5720	8.0	9.0	12.0
802.11n (HT40)	102	5510	8.0	9.0	12.0
	110	5550	8.0	9.0	12.0
	118	5590	8.0	9.0	12.0
	126	5630	8.0	9.0	12.0
	134	5670	8.0	9.0	12.0
	142	5710	8.0	9.0	12.0
	106	5530	9.0	9.0	12.0
802.11ac (VHT80)	122	5610	9.0	9.0	12.0
	138	5690	9.0	9.0	12.0

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Tune-up Power (Ant-0)	Tune-up Power (Ant-1)	Tune-up Power (Ant-0 + Ant-1)
802.11a	149	5745	8.5	9.0	11.5
	153	5765	8.5	9.0	11.5
	157	5785	8.5	9.0	11.5
	161	5805	8.5	9.0	11.5
	165	5825	8.5	9.0	11.5
802.11n (HT20)	149	5745	8.5	9.0	11.5
	153	5765	8.5	9.0	11.5
	157	5785	8.5	9.0	11.5
	161	5805	8.5	9.0	11.5
	165	5825	8.5	9.0	11.5
802.11n (HT40)	151	5755	8.5	9.0	11.5
	159	5795	8.5	9.0	11.5
802.11ac (VHT80)	155	5775	8.5	9.0	11.5

<Bluetooth>

Mode	Channel	Frequency (MHz)	Tune-up Power
Bluetooth EDR	0	2402	6.0
	39	2441	6.0
	78	2480	6.0
Bluetooth LE	0	2402	6.0
	19	2440	6.0
	39	2480	6.0

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4.6.2 Measured Conducted Power Result

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

Tablet Mode

Band	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
Channel	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	
EUT without Power Reduction (P-Sensor NOT Triggered)										
RMC 12.2K	23.31	23.48	23.45	23.68	23.69	23.75	24.11	24.29	24.36	-
HSDPA Subtest-1	23.31	23.46	23.45	23.35	23.36	23.42	23.80	23.98	23.99	0
HSDPA Subtest-2	22.34	22.51	22.48	22.37	22.38	22.44	23.30	23.48	23.55	0
HSDPA Subtest-3	21.88	22.05	22.02	22.01	22.02	22.08	22.83	23.01	23.08	0.5
HSDPA Subtest-4	21.56	21.73	21.70	21.74	21.75	21.81	22.63	22.81	22.88	0.5
DC-HSDPA Subtest-1	23.26	23.43	23.40	23.32	23.33	23.39	23.73	23.91	23.92	0
DC-HSDPA Subtest-2	22.29	22.46	22.43	22.34	22.35	22.41	23.23	23.41	23.48	0
DC-HSDPA Subtest-3	21.83	22.00	21.97	21.98	21.99	22.05	22.76	22.94	23.01	0.5
DC-HSDPA Subtest-4	21.51	21.68	21.65	21.71	21.72	21.78	22.56	22.74	22.81	0.5
HSUPA Subtest-1	22.46	22.63	22.60	22.44	22.45	22.51	23.03	23.21	23.28	0
HSUPA Subtest-2	20.11	20.28	20.25	20.25	20.26	20.32	20.95	21.13	21.20	2
HSUPA Subtest-3	21.06	21.23	21.20	21.01	21.02	21.08	21.94	22.12	22.19	1
HSUPA Subtest-4	20.41	20.58	20.55	20.40	20.41	20.47	21.29	21.47	21.54	2
HSUPA Subtest-5	22.44	22.61	22.58	22.61	22.62	22.68	23.32	23.50	23.57	0
EUT with Power Reduction (P-Sensor Triggered)										
RMC 12.2K	10.89	10.96	10.94	10.91	10.87	10.93	17.92	17.94	17.96	-
HSDPA Subtest-1	10.87	10.94	10.92	10.86	10.82	10.88	17.75	17.77	17.79	0
HSDPA Subtest-2	10.86	10.93	10.91	10.83	10.79	10.85	17.86	17.88	17.90	0
HSDPA Subtest-3	10.87	10.94	10.92	10.85	10.81	10.87	17.87	17.89	17.91	0.5
HSDPA Subtest-4	10.85	10.92	10.90	10.86	10.82	10.88	17.89	17.91	17.93	0.5
DC-HSDPA Subtest-1	10.84	10.91	10.89	10.80	10.76	10.82	17.68	17.70	17.72	0
DC-HSDPA Subtest-2	10.83	10.90	10.88	10.77	10.73	10.79	17.79	17.81	17.83	0
DC-HSDPA Subtest-3	10.84	10.91	10.89	10.79	10.75	10.81	17.80	17.82	17.84	0.5
DC-HSDPA Subtest-4	10.82	10.89	10.87	10.80	10.76	10.82	17.82	17.84	17.86	0.5
HSUPA Subtest-1	10.79	10.86	10.84	10.79	10.75	10.81	17.81	17.83	17.85	0
HSUPA Subtest-2	10.82	10.89	10.87	10.78	10.74	10.80	17.85	17.87	17.89	2
HSUPA Subtest-3	10.71	10.78	10.76	10.82	10.78	10.84	17.88	17.90	17.92	1
HSUPA Subtest-4	10.74	10.81	10.79	10.71	10.67	10.73	17.82	17.84	17.86	2
HSUPA Subtest-5	10.78	10.85	10.83	10.68	10.64	10.70	17.84	17.86	17.88	0

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LTE Band 2															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	18700	18900	19100					Channel	18675	18900	19125		
		Frequency (MHz)	1860.0	1880.0	1900.0					Frequency (MHz)	1857.5	1880.0	1902.5		
20M	QPSK	1	0	23.14	23.36	23.21	0	15M	QPSK	1	0	23.06	23.31	23.17	0
		1	50	22.86	23.08	22.93	0			1	37	22.79	23.03	22.90	0
		1	99	22.84	23.06	22.91	0			1	74	22.74	22.98	22.85	0
		50	0	21.76	21.98	21.83	1			36	0	21.71	21.88	21.81	1
		50	25	21.73	21.95	21.80	1			36	19	21.72	21.91	21.77	1
		50	50	21.71	21.93	21.78	1			36	39	21.61	21.87	21.76	1
		100	0	21.89	22.11	21.96	1			75	0	21.83	22.03	21.89	1
	16QAM	1	0	22.21	22.43	22.28	1		16QAM	1	0	22.11	22.41	22.26	1
		1	50	22.14	22.36	22.21	1			1	37	22.04	22.27	22.21	1
		1	99	22.00	22.22	22.07	1			1	74	21.95	22.21	22.06	1
		50	0	20.80	21.02	20.87	2			36	0	20.76	20.96	20.80	2
		50	25	20.76	20.98	20.83	2			36	19	20.73	20.98	20.80	2
		50	50	20.81	21.03	20.88	2			36	39	20.75	20.94	20.86	2
		100	0	20.91	21.13	20.98	2			75	0	20.83	21.04	20.95	2
10M	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	18650	18900	19150		Channel			18625	18900	19175			
		Frequency (MHz)	1865.0	1880.0	1905.0		Frequency (MHz)			1852.5	1880.0	1907.5			
		1	0	22.98	23.33	23.06	0			1	0	22.98	23.25	22.89	0
		1	24	22.75	22.91	22.87	0			1	12	22.68	22.99	22.64	0
		1	49	22.73	22.94	22.71	0			1	24	22.78	22.96	22.66	0
		25	0	21.62	21.88	21.77	1			12	0	21.74	21.87	21.73	1
	16QAM	25	12	21.71	21.75	21.62	1			12	6	21.62	21.93	21.57	1
		25	25	21.61	21.86	21.69	1			12	13	21.60	21.85	21.68	1
		50	0	21.68	21.94	21.82	1			25	0	21.72	21.92	21.83	1
		1	0	22.06	22.29	22.15	1		16QAM	1	0	22.05	22.36	22.28	1
		1	24	21.96	22.29	22.11	1			1	12	21.95	22.25	22.13	1
		1	49	21.91	22.18	21.97	1			1	24	21.98	22.17	21.88	1
		25	0	20.56	20.99	20.64	2			12	0	20.72	20.90	20.75	2
		25	12	20.59	20.89	20.70	2			12	6	20.63	20.82	20.60	2
		25	25	20.72	20.92	20.80	2			12	13	20.64	20.83	20.72	2
		50	0	20.71	20.96	20.88	2			25	0	20.85	21.02	20.87	2
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	18615	18900	19185		Channel			18607	18900	19193			
		Frequency (MHz)	1861.5	1880.0	1908.5		Frequency (MHz)			1850.7	1880.0	1909.3			
		1	0	23.02	23.33	23.14	0		QPSK	1	0	22.99	23.22	23.04	0
		1	7	22.65	23.01	22.85	0			1	2	22.80	23.00	22.85	0
		1	14	22.77	22.93	22.71	0			1	5	22.70	22.97	22.69	0
		8	0	21.65	21.86	21.68	1			3	0	22.67	22.89	22.78	0
	16QAM	8	3	21.64	21.87	21.72	1			3	1	22.62	22.83	22.67	0
		8	7	21.56	21.88	21.58	1			3	3	22.62	22.79	22.64	0
		15	0	21.85	22.05	21.73	1			6	0	21.72	22.05	21.89	1
		1	0	22.04	22.42	22.18	1		16QAM	1	0	22.14	22.31	22.16	1
		1	7	21.93	22.19	22.06	1			1	2	22.01	22.26	22.21	1
		1	14	21.91	22.15	21.96	1			1	5	21.95	22.07	21.95	1
		8	0	20.65	20.92	20.65	2			3	0	21.72	21.87	21.70	1
		8	3	20.63	20.86	20.65	2			3	1	21.69	21.91	21.82	1
		8	7	20.77	20.94	20.76	2			3	3	21.72	21.94	21.76	1
		15	0	20.70	21.02	20.89	2			6	0	20.74	21.05	20.86	2

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LTE Band 2															
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	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	10.43	10.48	10.46	0	15M	QPSK	1	0	10.37	10.39	10.39	0
		1	50	10.40	10.45	10.43	0			1	37	10.37	10.40	10.43	0
		1	99	10.37	10.42	10.40	0			1	74	10.35	10.36	10.37	0
		50	0	10.41	10.46	10.44	0			36	0	10.37	10.40	10.44	0
		50	25	10.37	10.42	10.40	0			36	19	10.30	10.40	10.32	0
		50	50	10.35	10.40	10.38	0			36	39	10.27	10.34	10.33	0
		100	0	10.40	10.45	10.43	0			75	0	10.35	10.42	10.35	0
	16QAM	1	0	10.34	10.38	10.38	0		16QAM	1	0	10.31	10.39	10.35	0
		1	50	10.33	10.39	10.34	0			1	37	10.30	10.30	10.37	0
		1	99	10.34	10.37	10.36	0			1	74	10.27	10.34	10.24	0
		50	0	10.31	10.37	10.40	0			36	0	10.34	10.36	10.29	0
		50	25	10.35	10.36	10.38	0			36	19	10.29	10.37	10.32	0
		50	50	10.26	10.31	10.38	0			36	39	10.21	10.25	10.36	0
		100	0	10.36	10.43	10.35	0			75	0	10.25	10.36	10.39	0
10M	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	18650	18900	19150		Channel			18625	18900	19175			
		Frequency (MHz)	1855.0	1880.0	1905.0		Frequency (MHz)			1852.5	1880.0	1907.5			
		1	0	10.30	10.40	10.36	0			1	0	10.30	10.27	10.42	0
		1	24	10.25	10.41	10.21	0			1	12	10.29	10.34	10.22	0
		1	49	10.24	10.27	10.18	0			1	24	10.20	10.25	10.12	0
		25	0	10.25	10.36	10.40	0			12	0	10.33	10.24	10.22	0
	16QAM	25	12	10.25	10.24	10.19	0			12	6	10.29	10.35	10.10	0
		25	25	10.25	10.29	10.16	0			12	13	10.14	10.28	10.27	0
		50	0	10.31	10.36	10.42	0			25	0	10.17	10.23	10.19	0
		1	0	10.22	10.25	10.27	0			1	0	10.32	10.25	10.16	0
		1	24	10.16	10.35	10.20	0			1	12	10.32	10.21	10.31	0
		1	49	10.16	10.33	10.24	0			1	24	10.13	10.27	10.26	0
		25	0	10.37	10.28	10.29	0			12	0	10.22	10.27	10.30	0
3M	QPSK	25	12	10.15	10.25	10.25	0	1.4M	QPSK	12	6	10.19	10.13	10.29	0
		25	25	10.16	10.25	10.20	0			12	13	10.16	10.17	10.22	0
		50	0	10.21	10.31	10.26	0			25	0	10.15	10.23	10.33	0
		1	0	10.40	10.27	10.22	0			1	0	10.31	10.27	10.22	0
		1	7	10.33	10.22	10.29	0			1	2	10.19	10.28	10.21	0
		1	14	10.20	10.32	10.36	0			1	5	10.31	10.37	10.34	0
		8	0	10.28	10.46	10.19	0			3	0	10.35	10.31	10.29	0
	16QAM	8	3	10.15	10.37	10.32	0			3	1	10.21	10.26	10.25	0
		8	7	10.19	10.34	10.20	0			3	3	10.23	10.28	10.31	0
		15	0	10.27	10.29	10.33	0			6	0	10.29	10.25	10.37	0
		1	0	10.35	10.31	10.29	0			1	0	10.19	10.26	10.32	0
		1	7	10.11	10.27	10.23	0			1	2	10.14	10.23	10.31	0
		1	14	10.25	10.30	10.31	0			1	5	10.20	10.32	10.23	0
		8	0	10.22	10.35	10.20	0			3	0	10.09	10.32	10.30	0
		8	3	10.21	10.36	10.13	0			3	1	10.20	10.12	10.27	0
		8	7	10.07	10.18	10.15	0			3	3	10.10	10.26	10.16	0
		15	0	10.18	10.40	10.26	0			6	0	10.12	10.31	10.23	0

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FCC SAR Test Report

LTE Band 4															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	20050	20175	20300					Channel	20025	20175	20325		
		Frequency (MHz)	1720.0	1732.5	1745.0					Frequency (MHz)	1717.5	1732.5	1747.5		
20M	QPSK	1	0	23.14	23.15	23.09	0	15M	QPSK	1	0	23.09	23.13	23.05	0
		1	50	22.84	22.85	22.79	0			1	37	22.75	22.79	22.72	0
		1	99	22.82	22.83	22.77	0			1	74	22.80	22.80	22.70	0
		50	0	21.97	21.98	21.92	1			36	0	21.90	21.94	21.88	1
		50	25	21.87	21.88	21.82	1			36	19	21.77	21.84	21.72	1
		50	50	21.84	21.85	21.79	1			36	39	21.78	21.78	21.69	1
		100	0	21.96	21.97	21.91	1			75	0	21.87	21.94	21.89	1
	16QAM	1	0	22.28	22.29	22.23	1		16QAM	1	0	22.24	22.19	22.23	1
		1	50	22.02	22.03	21.97	1			1	37	21.93	22.02	21.94	1
		1	99	22.04	22.05	21.99	1			1	74	21.94	21.98	21.99	1
		50	0	21.00	21.01	20.95	2			36	0	21.00	20.99	20.92	2
		50	25	20.88	20.89	20.83	2			36	19	20.83	20.86	20.74	2
		50	50	20.91	20.92	20.86	2			36	39	20.91	20.89	20.77	2
		100	0	20.99	21.00	20.94	2			75	0	20.91	20.94	20.91	2
10M	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	20000	20175	20350					Channel	19975	20175	20375		
		Frequency (MHz)	1715.0	1732.5	1750.0					Frequency (MHz)	1712.5	1732.5	1752.5		
		1	0	22.97	22.94	22.99	0			1	0	22.98	22.98	22.89	0
		1	24	22.76	22.70	22.60	0			1	12	22.68	22.64	22.58	0
		1	49	22.69	22.64	22.60	0			1	24	22.71	22.76	22.66	0
		25	0	21.94	21.95	21.87	1			12	0	21.82	21.88	21.74	1
	16QAM	25	12	21.84	21.85	21.74	1			12	6	21.65	21.72	21.63	1
		25	25	21.71	21.72	21.63	1			12	13	21.84	21.76	21.61	1
		50	0	21.75	21.89	21.80	1			25	0	21.77	21.86	21.75	1
		1	0	22.05	22.17	22.21	1			1	0	22.07	22.23	22.10	1
		1	24	21.84	21.90	21.74	1			1	12	21.86	21.97	21.90	1
		1	49	21.94	21.88	21.95	1			1	24	21.92	21.95	21.82	1
		25	0	20.84	20.90	20.70	2			12	0	20.98	20.79	20.85	2
3M	QPSK	25	12	20.77	20.74	20.73	2	5M	QPSK	12	6	20.74	20.70	20.66	2
		25	25	20.77	20.81	20.66	2			12	13	20.74	20.76	20.71	2
		50	0	20.81	20.88	20.89	2			25	0	20.89	20.93	20.90	2
		1	0	22.99	23.01	22.87	0			1	0	23.00	23.07	22.89	0
		1	7	22.72	22.81	22.63	0			1	2	22.65	22.67	22.73	0
		1	14	22.61	22.78	22.61	0			1	5	22.68	22.77	22.63	0
		8	0	21.88	21.79	21.71	1			3	0	22.78	22.89	22.79	0
	16QAM	8	3	21.68	21.78	21.66	1			3	1	22.81	22.77	22.65	0
		8	7	21.75	21.78	21.59	1			3	3	22.78	22.72	22.65	0
		15	0	21.84	21.96	21.80	1			6	0	21.85	21.95	21.75	1
		1	0	22.24	22.20	22.01	1	1.4M	16QAM	1	0	22.24	22.15	22.13	1
		1	7	21.97	21.93	21.79	1			1	2	21.91	21.92	21.92	1
		1	14	21.90	21.86	21.92	1			1	5	21.88	21.82	21.94	1
		8	0	20.90	20.92	20.85	2			3	0	21.91	21.77	21.71	1
		8	3	20.77	20.79	20.65	2			3	1	21.75	21.81	21.79	1
		8	7	20.78	20.80	20.64	2			3	3	21.73	21.77	21.67	1
		15	0	20.82	20.75	20.79	2			6	0	20.84	20.80	20.86	2

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FCC SAR Test Report

LTE Band 4															
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	20050	20175	20300					Channel	20025	20175	20325		
		Frequency (MHz)	1720.0	1732.5	1745.0					Frequency (MHz)	1717.5	1732.5	1747.5		
20M	QPSK	1	0	10.63	10.67	10.58	0	15M	QPSK	1	0	10.59	10.65	10.55	0
		1	50	10.59	10.63	10.54	0			1	37	10.49	10.63	10.46	0
		1	99	10.60	10.64	10.55	0			1	74	10.58	10.61	10.52	0
		50	0	10.58	10.62	10.53	0			36	0	10.58	10.59	10.47	0
		50	25	10.49	10.53	10.44	0			36	19	10.42	10.47	10.43	0
		50	50	10.55	10.59	10.50	0			36	39	10.47	10.57	10.46	0
		100	0	10.58	10.62	10.53	0			75	0	10.56	10.52	10.52	0
	16QAM	1	0	10.60	10.63	10.53	0		16QAM	1	0	10.51	10.62	10.52	0
		1	50	10.56	10.62	10.52	0			1	37	10.55	10.60	10.53	0
		1	99	10.53	10.59	10.48	0			1	74	10.52	10.47	10.48	0
		50	0	10.49	10.59	10.45	0			36	0	10.47	10.47	10.44	0
		50	25	10.49	10.52	10.44	0			36	19	10.43	10.50	10.27	0
		50	50	10.55	10.57	10.46	0			36	39	10.41	10.51	10.42	0
		100	0	10.49	10.61	10.52	0			75	0	10.42	10.52	10.40	0
10M	QPSK	1	0	10.61	10.49	10.45	0	5M	QPSK	1	0	10.46	10.58	10.35	0
		1	24	10.44	10.46	10.45	0			1	12	10.41	10.53	10.33	0
		1	49	10.35	10.53	10.50	0			1	24	10.44	10.42	10.44	0
		25	0	10.45	10.51	10.41	0			12	0	10.48	10.53	10.23	0
		25	12	10.28	10.48	10.34	0			12	6	10.40	10.47	10.15	0
		25	25	10.44	10.55	10.41	0			12	13	10.43	10.57	10.26	0
		50	0	10.49	10.44	10.36	0			25	0	10.47	10.48	10.35	0
	16QAM	1	0	10.43	10.47	10.32	0		16QAM	1	0	10.49	10.56	10.39	0
		1	24	10.46	10.41	10.25	0			1	12	10.41	10.47	10.31	0
		1	49	10.48	10.44	10.42	0			1	24	10.39	10.43	10.30	0
		25	0	10.46	10.34	10.24	0			12	0	10.49	10.43	10.35	0
		25	12	10.30	10.45	10.24	0			12	6	10.44	10.44	10.41	0
		25	25	10.42	10.30	10.31	0			12	13	10.40	10.39	10.45	0
		50	0	10.48	10.49	10.33	0			25	0	10.46	10.41	10.35	0
3M	QPSK	1	0	10.42	10.55	10.43	0	1.4M	QPSK	1	0	10.47	10.44	10.36	0
		1	7	10.44	10.46	10.45	0			1	2	10.52	10.51	10.49	0
		1	14	10.52	10.47	10.32	0			1	5	10.50	10.55	10.41	0
		8	0	10.48	10.40	10.40	0			3	0	10.39	10.50	10.51	0
		8	3	10.24	10.40	10.32	0			3	1	10.44	10.44	10.35	0
		8	7	10.35	10.40	10.31	0			3	3	10.48	10.45	10.41	0
		15	0	10.45	10.60	10.46	0			6	0	10.46	10.44	10.42	0
	16QAM	1	0	10.34	10.49	10.33	0		16QAM	1	0	10.43	10.45	10.37	0
		1	7	10.42	10.43	10.40	0			1	2	10.42	10.36	10.45	0
		1	14	10.49	10.38	10.38	0			1	5	10.52	10.55	10.33	0
		8	0	10.40	10.52	10.49	0			3	0	10.41	10.43	10.32	0
		8	3	10.29	10.43	10.16	0			3	1	10.36	10.36	10.26	0
		8	7	10.39	10.36	10.37	0			3	3	10.33	10.35	10.34	0
		15	0	10.48	10.38	10.21	0			6	0	10.33	10.46	10.45	0



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LTE Band 5															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	20450	20525	20600					Channel	20425	20525	20625		
		Frequency (MHz)	829.0	836.5	844.0					Frequency (MHz)	826.5	836.5	846.5		
10M	QPSK	1	0	22.89	22.79	22.93	0	5M	QPSK	1	0	22.83	22.74	22.87	0
		1	24	22.87	22.77	22.91	0			1	12	22.81	22.73	22.84	0
		1	49	22.85	22.75	22.89	0			1	24	22.80	22.67	22.86	0
		25	0	21.99	21.89	22.03	1			12	0	21.95	21.87	21.97	1
		25	12	21.95	21.85	21.99	1			12	6	21.91	21.83	21.92	1
		25	25	21.91	21.81	21.95	1			12	13	21.81	21.75	21.95	1
		50	0	22.05	21.95	22.09	1			25	0	22.05	21.93	22.09	1
	16QAM	1	0	21.87	21.77	21.91	1	1.4M	16QAM	1	0	21.82	21.75	21.83	1
		1	24	21.85	21.75	21.89	1			1	12	21.85	21.75	21.87	1
		1	49	21.83	21.73	21.87	1			1	24	21.79	21.63	21.84	1
		25	0	20.97	20.87	21.01	2			12	0	20.88	20.80	20.96	2
		25	12	20.93	20.83	20.97	2			12	6	20.83	20.81	20.95	2
		25	25	20.89	20.79	20.93	2			12	13	20.86	20.74	20.85	2
		50	0	21.03	20.93	21.07	2			25	0	20.96	20.91	21.06	2
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		
		1	0	22.87	22.68	22.73	0			1	0	22.72	22.74	22.80	0
		1	7	22.70	22.76	22.84	0			1	2	22.75	22.57	22.85	0
		1	14	22.77	22.69	22.82	0			1	5	22.82	22.54	22.78	0
		8	0	21.92	21.69	22.01	1			3	0	22.77	22.71	22.85	0
	16QAM	8	3	21.84	21.77	21.92	1			3	1	22.79	22.75	22.91	0
		8	7	21.76	21.61	21.82	1			3	3	22.70	22.68	22.90	0
		15	0	21.82	21.82	21.90	1			6	0	21.87	21.90	21.94	1
		1	0	21.65	21.71	21.80	1		16QAM	1	0	21.77	21.55	21.80	1
		1	7	21.78	21.61	21.64	1			1	2	21.63	21.67	21.80	1
		1	14	21.69	21.66	21.78	1			1	5	21.79	21.62	21.69	1
		8	0	20.85	20.66	20.84	2			3	0	21.87	21.76	21.92	1
		8	3	20.80	20.79	20.93	2			3	1	21.87	21.73	21.75	1
		8	7	20.79	20.70	20.72	2			3	3	21.79	21.70	21.88	1
		15	0	20.84	20.78	20.89	2			6	0	20.84	20.80	21.04	2
EUT with Power Reduction (P-Sensor Triggered)															
10M	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	20450	20525	20600					Channel	20425	20525	20625		
		Frequency (MHz)	829.0	836.5	844.0					Frequency (MHz)	826.5	836.5	846.5		
		1	0	17.92	17.94	17.98	0			1	0	17.76	17.77	17.70	0
		1	24	17.84	17.86	17.90	0			1	12	17.70	17.69	17.71	0
		1	49	17.89	17.91	17.95	0			1	24	17.81	17.75	17.63	0
		25	0	17.91	17.93	17.97	0			12	0	17.84	17.83	17.83	0
	16QAM	25	12	17.81	17.83	17.87	0			12	6	17.73	17.76	17.61	0
		25	25	17.87	17.89	17.93	0			12	13	17.77	17.82	17.64	0
		50	0	17.89	17.91	17.95	0			25	0	17.72	17.69	17.66	0
		1	0	17.92	17.91	17.97	0		16QAM	1	0	17.69	17.85	17.80	0
		1	24	17.76	17.76	17.83	0			1	12	17.69	17.73	17.76	0
		1	49	17.88	17.86	17.85	0			1	24	17.72	17.69	17.73	0
		25	0	17.85	17.92	17.95	0			12	0	17.67	17.73	17.86	0
		25	12	17.79	17.80	17.83	0			12	6	17.73	17.62	17.68	0
		25	25	17.81	17.87	17.88	0			12	13	17.71	17.79	17.87	0
		50	0	17.85	17.91	17.86	0			25	0	17.71	17.61	17.77	0
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		
		1	0	17.86	17.82	17.89	0			1	0	17.83	17.72	17.78	0
		1	7	17.66	17.79	17.80	0			1	2	17.68	17.75	17.73	0
		1	14	17.65	17.74	17.86	0			1	5	17.81	17.76	17.88	0
		8	0	17.74	17.85	17.77	0			3	0	17.77	17.73	17.83	0
	16QAM	8	3	17.71	17.58	17.77	0			3	1	17.61	17.69	17.77	0
		8	7	17.81	17.77	17.77	0			3	3	17.71	17.71	17.77	0
		15	0	17.76	17.77	17.89	0			6	0	17.77	17.82	17.86	0
		1	0	17.74	17.86	17.76	0		16QAM	1	0	17.70	17.76	17.79	0
		1	7	17.56	17.62	17.77	0			1	2	17.79	17.61	17.71	0
		1	14	17.66	17.70	17.86	0			1	5	17.78	17.85	17.70	0
		8	0	17.78	17.80	17.91	0			3	0	17.75	17.74	17.79	0
		8	3	17.66	17.55	17.79	0			3	1	17.67	17.62	17.84	0
		8	7	17.74	17.82	17.87	0			3	3	17.71	17.65	17.74	0
		15	0	17.86	17.81	17.78	0			6	0	17.70	17.77	17.78	0



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FCC SAR Test Report

LTE Band 12															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	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	22.56	22.61	22.58	0	5M	QPSK	1	0	22.56	22.52	22.57	0
		1	24	22.51	22.52	22.53	0			1	12	22.51	22.56	22.53	0
		1	49	22.53	22.58	22.55	0			1	24	22.53	22.59	22.58	0
		25	0	21.60	21.65	21.62	1			12	0	21.55	21.64	21.57	1
		25	12	21.54	21.59	21.56	1			12	6	21.53	21.54	21.56	1
		25	25	21.58	21.63	21.60	1			12	13	21.61	21.54	21.52	1
		50	0	21.63	21.68	21.65	1			25	0	21.57	21.58	21.65	1
		1	0	21.61	21.72	21.65	1			1	0	21.54	21.70	21.65	1
	16QAM	1	24	21.58	21.60	21.60	1			1	12	21.54	21.51	21.55	1
		1	49	21.58	21.62	21.62	1			1	24	21.58	21.59	21.52	1
		25	0	20.69	20.68	20.66	2			12	0	20.64	20.61	20.66	2
		25	12	20.62	20.70	20.59	2			12	6	20.52	20.69	20.53	2
		25	25	20.67	20.71	20.63	2			12	13	20.60	20.67	20.53	2
		50	0	20.66	20.77	20.75	2			25	0	20.57	20.76	20.70	2
		1	0	21.61	21.69	21.64	1			1	0	21.54	21.70	21.65	1
		1	7	21.51	21.57	21.59	1			1	12	21.54	21.51	21.55	1
3M	QPSK	1	14	22.54	22.57	22.56	0	1.4M	QPSK	1	0	22.51	22.55	22.52	0
		8	0	21.67	21.66	21.58	1			1	5	22.60	22.56	22.53	0
		8	3	21.53	21.57	22.54	1			3	0	22.57	22.58	22.52	0
		8	7	22.53	21.54	21.51	1			3	1	22.58	22.51	22.57	0
		15	0	21.58	21.68	21.59	1			3	3	22.53	22.54	22.52	0
		1	0	21.57	21.69	21.64	1			6	0	21.76	21.76	21.81	1
		1	7	21.51	21.57	21.59	1			1	0	21.70	21.91	21.92	1
		1	14	21.56	21.61	21.59	1			1	5	21.82	21.82	21.67	1
	16QAM	8	0	20.57	20.66	20.61	2			3	0	21.91	21.78	21.94	1
		8	3	20.52	20.70	20.59	2			3	1	21.81	21.79	21.76	1
		8	7	20.52	20.67	20.62	2			3	3	21.88	21.87	21.71	1
		15	0	20.51	20.60	20.69	2			6	0	20.55	20.59	20.56	2
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	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	16.91	16.96	16.94	0	5M	QPSK	1	0	16.84	16.75	16.82	0
		1	24	16.83	16.88	16.86	0			1	12	16.73	16.72	16.63	0
		1	49	16.88	16.93	16.91	0			1	24	16.80	16.80	16.88	0
		25	0	16.89	16.94	16.92	0			12	0	16.78	16.76	16.73	0
		25	12	16.84	16.89	16.87	0			12	6	16.77	16.72	16.53	0
		25	25	16.86	16.91	16.89	0			12	13	16.84	16.76	16.74	0
		50	0	16.90	16.95	16.93	0			25	0	16.77	16.77	16.64	0
		1	0	16.85	16.90	16.93	0			1	0	16.65	16.81	16.89	0
	16QAM	1	24	16.79	16.88	16.82	0			1	12	16.66	16.59	16.67	0
		1	49	16.85	16.89	16.90	0			1	24	16.65	16.79	16.74	0
		25	0	16.84	16.90	16.86	0			12	0	16.67	16.67	16.76	0
		25	12	16.76	16.87	16.86	0			12	6	16.69	16.74	16.68	0
		25	25	16.80	16.90	16.82	0			12	13	16.72	16.75	16.75	0
		50	0	16.85	16.93	16.91	0			25	0	16.64	16.72	16.64	0
		1	0	16.73	16.83	16.81	0			1	0	16.76	16.94	16.75	0
		1	7	16.77	16.85	16.67	0			1	2	16.74	16.82	16.72	0
3M	QPSK	1	14	16.72	16.86	16.76	0	1.4M	QPSK	1	5	16.79	16.87	16.76	0
		8	0	16.67	16.87	16.78	0			3	0	16.81	16.74	16.87	0
		8	3	16.77	16.79	16.80	0			3	1	16.68	16.85	16.80	0
		8	7	16.83	16.77	16.78	0			3	3	16.65	16.83	16.78	0
		15	0	16.79	16.75	16.78	0			6	0	16.67	16.92	16.93	0
		1	0	16.73	16.83	16.81	0			1	0	16.64	16.72	16.73	0
		1	7	16.73	16.61	16.80	0			1	2	16.56	16.71	16.75	0
		1	14	16.76	16.82	16.64	0			1	5	16.75	16.86	16.77	0
	16QAM	8	0	16.81	16.72	16.80	0			3	0	16.72	16.78	16.78	0
		8	3	16.69	16.67	16.76	0			3	1	16.71	16.71	16.64	0
		8	7	16.68	16.82	16.83	0			3	3	16.70	16.79	16.83	0
		15	0	16.79	16.94	16.73	0			6	0	16.58	16.74	16.78	0

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LTE Band 26															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	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	22.77	22.87	22.84	0	10M	QPSK	1	0	22.71	22.80	22.76	0
		1	37	22.61	22.71	22.68	0			1	24	22.53	22.62	22.63	0
		1	74	22.68	22.78	22.75	0			1	49	22.67	22.70	22.68	0
		36	0	21.71	21.81	21.78	1			25	0	21.69	21.73	21.72	1
		36	19	21.68	21.78	21.75	1			25	12	21.68	21.70	21.65	1
		36	39	21.69	21.79	21.76	1			25	25	21.60	21.70	21.66	1
		75	0	21.73	21.83	21.80	1			50	0	21.67	21.81	21.76	1
	16QAM	1	0	21.75	21.88	21.83	1		16QAM	1	0	21.66	21.80	21.81	1
		1	37	21.60	21.72	21.63	1			1	24	21.56	21.68	21.58	1
		1	74	21.62	21.73	21.68	1			1	49	21.58	21.71	21.60	1
		36	0	20.69	20.74	20.70	2			25	0	20.67	20.67	20.61	2
		36	19	20.61	20.77	20.69	2			25	12	20.58	20.68	20.61	2
		36	39	20.67	20.71	20.76	2			25	25	20.58	20.63	20.69	2
		75	0	20.70	20.78	20.72	2			50	0	20.64	20.76	20.63	2
5M	QPSK	1	0	22.62	22.72	22.67	0	3M	QPSK	1	0	22.56	22.78	22.73	0
		1	12	22.55	22.56	22.60	0			1	7	22.55	22.60	22.54	0
		1	24	22.62	22.70	22.67	0			1	14	22.58	22.55	22.58	0
		12	0	21.65	21.67	21.63	1			8	0	21.53	21.74	21.60	1
		12	6	21.64	21.60	21.59	1			8	3	21.52	21.70	21.61	1
		12	13	21.60	21.64	21.59	1			8	7	21.55	21.66	21.55	1
		25	0	21.59	21.75	21.69	1			15	0	21.59	21.70	21.56	1
	16QAM	1	0	21.61	21.71	21.81	1		16QAM	1	0	21.61	21.65	21.64	1
		1	12	21.59	21.63	21.51	1			1	7	21.56	21.60	21.54	1
		1	24	21.58	21.68	21.52	1			1	14	21.51	21.52	21.61	1
		12	0	20.59	20.64	20.52	2			8	0	20.54	20.54	20.56	2
		12	6	20.59	20.62	20.52	2			8	3	20.57	20.66	20.55	2
		12	13	20.58	20.62	20.68	2			8	7	20.57	20.56	20.65	2
		25	0	20.64	20.67	20.56	2			15	0	20.62	20.66	20.66	2
1.4M	QPSK	1	0	22.60	22.78	22.67	0								
		1	2	22.56	22.59	22.52	0								
		1	5	22.60	22.76	22.59	0								
		3	0	22.60	22.73	22.72	0								
		3	1	22.53	22.63	22.58	0								
		3	3	22.51	22.68	22.58	0								
		6	0	21.63	21.71	21.64	1								
	16QAM	1	0	21.61	21.72	21.62	1								
		1	2	21.53	21.57	21.58	1								
		1	5	21.59	21.66	21.65	1								
		3	0	21.56	21.70	21.59	1								
		3	1	21.52	21.66	21.53	1								
		3	3	21.67	21.66	21.66	1								
		6	0	20.57	20.77	20.66	2								

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FCC SAR Test Report

LTE Band 26															
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	26765	26865	26965					Channel	26740	26865	26990		
		Frequency (MHz)	821.5	831.5	841.5					Frequency (MHz)	819.0	831.5	844.0		
15M	QPSK	1	0	18.47	18.45	18.42	0	10M	QPSK	1	0	18.32	18.33	18.36	0
		1	37	18.44	18.42	18.40	0			1	24	18.26	18.26	18.29	0
		1	74	18.41	18.39	18.37	0			1	49	18.22	18.19	18.20	0
		36	0	18.46	18.44	18.42	0			25	0	18.29	18.39	18.28	0
		36	19	18.41	18.39	18.37	0			25	12	18.28	18.23	18.25	0
		36	39	18.43	18.41	18.39	0			25	25	18.26	18.36	18.38	0
		75	0	18.44	18.42	18.40	0			50	0	18.32	18.27	18.34	0
	16QAM	1	0	18.39	18.37	18.42	0		16QAM	1	0	18.21	18.33	18.26	0
		1	37	18.35	18.37	18.36	0			1	24	18.15	18.28	18.31	0
		1	74	18.38	18.30	18.31	0			1	49	18.30	18.25	18.26	0
		36	0	18.45	18.34	18.33	0			25	0	18.35	18.23	18.25	0
		36	19	18.35	18.30	18.27	0			25	12	18.24	18.21	18.33	0
		36	39	18.37	18.40	18.38	0			25	25	18.31	18.19	18.29	0
		75	0	18.41	18.33	18.38	0			50	0	18.27	18.21	18.28	0
5M	QPSK	1	0	18.36	18.33	18.23	0	3M	QPSK	1	0	18.26	18.35	18.26	0
		1	12	18.28	18.34	18.20	0			1	7	18.37	18.28	18.25	0
		1	24	18.33	18.23	18.30	0			1	14	18.37	18.19	18.21	0
		12	0	18.37	18.31	18.12	0			8	0	18.36	18.31	18.22	0
		12	6	18.34	18.25	18.08	0			8	3	18.27	18.30	18.33	0
		12	13	18.37	18.33	18.18	0			8	7	18.26	18.25	18.26	0
		25	0	18.27	18.34	18.30	0			15	0	18.37	18.31	18.22	0
	16QAM	1	0	18.31	18.22	18.20	0		16QAM	1	0	18.29	18.41	18.28	0
		1	12	18.33	18.35	18.30	0			1	7	18.30	18.28	18.18	0
		1	24	18.26	18.34	18.19	0			1	14	18.19	18.31	18.25	0
		12	0	18.26	18.28	18.17	0			8	0	18.14	18.27	18.13	0
		12	6	18.19	18.31	18.20	0			8	3	18.22	18.30	18.19	0
		12	13	18.28	18.19	18.21	0			8	7	18.16	18.25	18.29	0
		25	0	18.20	18.20	18.38	0			15	0	18.17	18.29	18.25	0
1.4M	QPSK	1	0	18.29	18.27	18.34	0			1	0	18.25	18.23	18.25	0
		1	2	18.40	18.37	18.29	0			1	5	18.21	18.28	18.20	0
		1	5	18.21	18.28	18.20	0			3	0	18.28	18.37	18.30	0
		3	1	18.19	18.31	18.22	0			3	3	18.24	18.22	18.26	0
		3	6	18.27	18.23	18.19	0			6	0	18.27	18.23	18.19	0
		1	0	18.25	18.25	18.23	0			1	2	18.26	18.16	18.11	0
		1	5	18.13	18.24	18.23	0			3	0	18.29	18.24	18.15	0
	16QAM	3	1	18.25	18.24	18.21	0			3	1	18.36	18.17	18.26	0
		3	3	18.36	18.17	18.26	0			6	0	18.27	18.31	18.29	0
		6	0	18.27	18.31	18.29	0								

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LTE Band 30																					
EUT without Power Reduction (P-Sensor NOT Triggered)																					
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						Channel													
		Frequency (MHz)						Frequency (MHz)													
10M	QPSK	1	0	22.65	0	5M	QPSK	1	0	22.48	22.57	22.50	0								
		1	24	22.32	0			1	12	22.10	22.24	22.20	0								
		1	49	22.15	0			1	24	22.13	22.15	22.11	0								
		25	0	21.45	1			12	0	21.35	21.39	21.34	1								
		25	12	21.32	1			12	6	21.17	21.25	21.16	1								
		25	25	21.21	1			12	13	21.15	21.21	21.14	1								
		50	0	21.47	1			25	0	21.30	21.44	21.29	1								
	16QAM	1	0	21.65	1	5M	16QAM	1	0	21.46	21.56	21.45	1								
		1	24	21.26	1			1	12	21.20	21.24	21.08	1								
		1	49	21.08	1			1	24	21.03	21.02	20.96	1								
		25	0	20.46	2			12	0	20.36	20.43	20.39	2								
		25	12	20.24	2			12	6	20.21	20.23	20.17	2								
		25	25	20.13	2			12	13	20.10	20.07	20.09	2								
		50	0	20.44	2			25	0	20.30	20.44	20.27	2								
EUT with Power Reduction (P-Sensor Triggered)																					
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						Channel													
		Frequency (MHz)						Frequency (MHz)													
10M	QPSK	1	0	10.94	0	5M	QPSK	1	0	10.57	10.80	10.43	0								
		1	24	10.82	0			1	12	10.52	10.75	10.38	0								
		1	49	10.79	0			1	24	10.39	10.62	10.25	0								
		25	0	10.88	0			12	0	10.50	10.73	10.36	0								
		25	12	10.81	0			12	6	10.39	10.62	10.25	0								
		25	25	10.79	0			12	13	10.48	10.71	10.34	0								
		50	0	10.93	0			25	0	10.63	10.86	10.49	0								
	16QAM	1	0	10.88	0	5M	16QAM	1	0	10.44	10.67	10.30	0								
		1	24	10.78	0			1	12	10.35	10.58	10.21	0								
		1	49	10.73	0			1	24	10.24	10.47	10.10	0								
		25	0	10.80	0			12	0	10.46	10.69	10.32	0								
		25	12	10.78	0			12	6	10.36	10.59	10.22	0								
		25	25	10.69	0			12	13	10.38	10.61	10.24	0								
		50	0	10.87	0			25	0	10.52	10.75	10.38	0								

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LTE Band 66															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	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	22.98	22.93	22.92	0	15M	QPSK	1	0	22.97	22.87	22.91	0
		1	50	22.78	22.73	22.72	0			1	37	22.78	22.69	22.69	0
		1	99	22.77	22.72	22.71	0			1	74	22.73	22.65	22.67	0
		50	0	21.87	21.82	21.81	1			36	0	21.79	21.74	21.72	1
		50	25	21.86	21.81	21.80	1			36	19	21.78	21.76	21.79	1
		50	50	21.80	21.75	21.74	1			36	39	21.72	21.66	21.70	1
		100	0	21.90	21.85	21.84	1			75	0	21.85	21.83	21.84	1
	16QAM	1	0	22.06	22.04	22.03	1		16QAM	1	0	21.98	21.99	21.96	1
		1	50	21.82	21.82	21.73	1			1	37	21.79	21.82	21.66	1
		1	99	21.83	21.80	21.80	1			1	74	21.80	21.73	21.79	1
		50	0	20.89	20.93	20.82	2			36	0	20.87	20.91	20.80	2
		50	25	20.93	20.88	20.87	2			36	19	20.92	20.86	20.86	2
		50	50	20.82	20.84	20.76	2			36	39	20.76	20.82	20.69	2
		100	0	21.00	20.86	20.88	2			75	0	20.95	20.77	20.81	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	132022	132322	132622	Channel			131997	132322	132647				
		Frequency (MHz)	1715.0	1745.0	1775.0	Frequency (MHz)			1712.5	1745.0	1777.5				
10M	QPSK	1	0	22.82	22.86	22.71	0	5M	QPSK	1	0	22.91	22.80	22.87	0
		1	24	22.56	22.64	22.53	0			1	12	22.55	22.68	22.55	0
		1	49	22.65	22.59	22.54	0			1	24	22.69	22.62	22.52	0
		25	0	21.73	21.78	21.66	1			12	0	21.74	21.69	21.69	1
		25	12	21.71	21.75	21.62	1			12	6	21.83	21.69	21.65	1
		25	25	21.65	21.65	21.64	1			12	13	21.75	21.51	21.59	1
		50	0	21.80	21.78	21.74	1			25	0	21.73	21.79	21.56	1
	16QAM	1	0	21.92	22.00	21.94	1		16QAM	1	0	21.88	21.96	21.92	1
		1	24	21.69	21.73	21.60	1			1	12	21.68	21.72	21.63	1
		1	49	21.70	21.68	21.72	1			1	24	21.69	21.61	21.61	1
		25	0	20.66	20.83	20.80	2			12	0	20.79	20.87	20.66	2
		25	12	20.80	20.76	20.85	2			12	6	20.87	20.79	20.73	2
		25	25	20.67	20.75	20.62	2			12	13	20.73	20.75	20.55	2
		50	0	20.77	20.67	20.81	2			25	0	20.93	20.66	20.85	2
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	131987	132322	132657	Channel			131979	132322	132665				
		Frequency (MHz)	1711.5	1745.5	1778.5	Frequency (MHz)			1710.7	1745.0	1779.3				
		1	0	22.88	22.82	22.82	0		QPSK	1	0	22.87	22.84	22.83	0
		1	7	22.72	22.62	22.52	0			1	2	22.71	22.58	22.57	0
		1	14	22.57	22.54	22.63	0			1	5	22.65	22.66	22.62	0
		8	0	21.73	21.74	21.81	1			3	0	22.79	22.73	22.66	0
		8	3	21.81	21.76	21.64	1			3	1	22.69	22.71	22.63	0
		8	7	21.61	21.69	21.61	1			3	3	22.57	22.73	22.64	0
		15	0	21.77	21.74	21.72	1			6	0	21.85	21.69	21.73	1
	16QAM	1	0	21.95	21.80	22.00	1	1.4M	16QAM	1	0	21.96	21.86	21.91	1
		1	7	21.76	21.61	21.51	1			1	2	21.67	21.61	21.54	1
		1	14	21.61	21.62	21.68	1			1	5	21.59	21.62	21.64	1
		8	0	20.70	20.87	20.65	2			3	0	21.81	21.84	21.76	1
		8	3	20.86	20.77	20.76	2			3	1	21.85	21.65	21.77	1
		8	7	20.72	20.72	20.64	2			3	3	21.71	21.75	21.63	1
		15	0	20.83	20.66	20.70	2			6	0	20.91	20.83	20.79	2

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LTE Band 66															
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel	132072	132322	132572					Channel	132047	132322	132597		
		Frequency (MHz)	1720.0	1745.0	1770.0					Frequency (MHz)	1717.5	1745.0	1772.5		
20M	QPSK	1	0	10.49	10.47	10.41	0	15M	QPSK	1	0	10.48	10.39	10.39	0
		1	50	10.47	10.45	10.39	0			1	37	10.39	10.37	10.33	0
		1	99	10.39	10.37	10.31	0			1	74	10.29	10.37	10.24	0
		50	0	10.46	10.44	10.38	0			36	0	10.46	10.37	10.33	0
		50	25	10.43	10.41	10.35	0			36	19	10.34	10.41	10.27	0
		50	50	10.41	10.39	10.33	0			36	39	10.38	10.29	10.33	0
		100	0	10.47	10.45	10.39	0			75	0	10.38	10.40	10.34	0
	16QAM	1	0	10.45	10.41	10.37	0		16QAM	1	0	10.38	10.36	10.30	0
		1	50	10.41	10.43	10.35	0			1	37	10.40	10.42	10.23	0
		1	99	10.32	10.33	10.27	0			1	74	10.23	10.24	10.26	0
		50	0	10.45	10.41	10.32	0			36	0	10.38	10.33	10.31	0
		50	25	10.41	10.37	10.34	0			36	19	10.25	10.37	10.25	0
		50	50	10.38	10.36	10.26	0			36	39	10.24	10.33	10.25	0
		100	0	10.40	10.44	10.29	0			75	0	10.34	10.33	10.26	0
10M	QPSK	1	0	10.33	10.27	10.28	0	5M	QPSK	1	0	10.40	10.42	10.20	0
		1	24	10.33	10.43	10.35	0			1	12	10.45	10.33	10.23	0
		1	49	10.26	10.22	10.28	0			1	24	10.26	10.15	10.04	0
		25	0	10.23	10.24	10.31	0			12	0	10.40	10.31	10.36	0
		25	12	10.37	10.26	10.14	0			12	6	10.28	10.27	10.15	0
		25	25	10.37	10.25	10.25	0			12	13	10.29	10.20	10.13	0
		50	0	10.32	10.30	10.31	0			25	0	10.36	10.37	10.18	0
	16QAM	1	0	10.42	10.36	10.17	0		16QAM	1	0	10.34	10.29	10.18	0
		1	24	10.31	10.23	10.15	0			1	12	10.27	10.32	10.24	0
		1	49	10.24	10.12	10.15	0			1	24	10.30	10.21	10.13	0
		25	0	10.23	10.29	10.09	0			12	0	10.23	10.31	10.32	0
		25	12	10.11	10.21	10.10	0			12	6	10.28	10.18	10.17	0
		25	25	10.28	10.09	10.17	0			12	13	10.33	10.18	10.21	0
		50	0	10.36	10.22	10.21	0			25	0	10.37	10.27	10.08	0
3M	QPSK	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	10.4	10.4	10.2	0
		Channel	131987	132322	132657		0			2	0	0			
		Frequency (MHz)	1711.5	1745.5	1778.5		Channel			131979	132322	132665			
		1	0	10.35	10.39	10.36	0			Frequency (MHz)	1710.7	1745.0	1779.3		
		1	7	10.41	10.38	10.24	0			1	0	10.44	10.39	10.26	
		1	14	10.31	10.29	10.25	0			1	2	10.35	10.32	10.18	
		8	0	10.35	10.33	10.25	0			1	5	10.25	10.22	10.20	
	16QAM	8	3	10.31	10.24	10.14	0	1.4M	QPSK	3	0	10.29	10.24	10.23	0
		8	7	10.35	10.17	10.17	0			3	1	10.34	10.24	10.24	
		15	0	10.35	10.39	10.29	0			3	3	10.24	10.28	10.25	
		1	0	10.28	10.25	10.19	0			6	0	10.39	10.42	10.24	
		1	7	10.21	10.36	10.31	0			1	0	10.41	10.35	10.31	
		1	14	10.21	10.23	10.17	0			1	2	10.35	10.23	10.09	
		8	0	10.35	10.27	10.18	0			1	5	10.28	10.25	10.21	

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Laptop Mode

Band	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
Channel	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	13.36	13.46	13.45	13.40	13.43	13.31	18.12	18.27	18.19	-
HSDPA Subtest-1	13.35	13.45	13.44	13.35	13.38	13.26	17.95	18.10	18.02	0
HSDPA Subtest-2	13.33	13.43	13.42	13.32	13.35	13.23	18.06	18.21	18.13	0
HSDPA Subtest-3	13.35	13.45	13.44	13.34	13.37	13.25	18.07	18.22	18.14	0.5
HSDPA Subtest-4	13.34	13.44	13.43	13.35	13.38	13.26	18.09	18.24	18.16	0.5
DC-HSDPA Subtest-1	13.35	13.45	13.44	13.31	13.34	13.22	17.87	18.02	17.94	0
DC-HSDPA Subtest-2	13.33	13.43	13.42	13.28	13.31	13.19	17.98	18.13	18.05	0
DC-HSDPA Subtest-3	13.35	13.45	13.44	13.30	13.33	13.21	17.99	18.14	18.06	0.5
DC-HSDPA Subtest-4	13.34	13.44	13.43	13.31	13.34	13.22	18.01	18.16	18.08	0.5
HSUPA Subtest-1	13.28	13.38	13.37	13.28	13.31	13.19	18.01	18.16	18.08	0
HSUPA Subtest-2	13.31	13.41	13.40	13.27	13.30	13.18	18.05	18.20	18.12	2
HSUPA Subtest-3	13.20	13.30	13.29	13.31	13.34	13.22	18.10	18.25	18.17	1
HSUPA Subtest-4	13.27	13.37	13.36	13.20	13.23	13.11	18.02	18.17	18.09	2
HSUPA Subtest-5	13.30	13.40	13.40	13.20	13.20	13.10	18.10	18.20	18.10	0

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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	13.41	13.49	13.43	0	15M	QPSK	1	0	13.35	13.46	13.39	0
		1	50	13.37	13.45	13.39	0			1	37	13.37	13.39	13.29	0
		1	99	13.32	13.40	13.34	0			1	74	13.26	13.31	13.27	0
		50	0	13.37	13.45	13.39	0			36	0	13.30	13.41	13.30	0
		50	25	13.32	13.40	13.34	0			36	19	13.24	13.31	13.28	0
		50	50	13.29	13.37	13.31	0			36	39	13.27	13.29	13.28	0
		100	0	13.39	13.47	13.41	0			75	0	13.35	13.45	13.36	0
	16QAM	1	0	13.39	13.47	13.41	0		16QAM	1	0	13.35	13.46	13.34	0
		1	50	13.36	13.44	13.38	0			1	37	13.35	13.42	13.33	0
		1	99	13.31	13.39	13.33	0			1	74	13.21	13.37	13.23	0
		50	0	13.36	13.44	13.38	0			36	0	13.32	13.34	13.31	0
		50	25	13.34	13.42	13.36	0			36	19	13.29	13.36	13.36	0
		50	50	13.31	13.39	13.33	0			36	39	13.31	13.32	13.24	0
		100	0	13.40	13.48	13.42	0			75	0	13.30	13.48	13.34	0
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		18650	18900	19150				1	0	13.31	13.45	13.23	0
		Frequency (MHz)		1855.0	1880.0	1905.0				1	12	13.22	13.38	13.14	0
		1	24	13.29	13.40	13.28	0			1	24	13.20	13.23	13.06	0
		1	49	13.18	13.36	13.28	0			12	0	13.19	13.40	13.21	0
		25	0	13.28	13.32	13.33	0			12	6	13.21	13.28	13.09	0
		25	12	13.23	13.17	13.14	0			12	13	13.16	13.26	13.05	0
	16QAM	25	25	13.19	13.29	13.19	0		16QAM	25	0	13.27	13.31	13.21	0
		50	0	13.20	13.29	13.36	0			1	0	13.23	13.37	13.29	0
		1	24	13.37	13.34	13.20	0			1	12	13.22	13.29	13.29	0
		1	49	13.16	13.19	13.17	0			1	24	13.21	13.23	13.16	0
		25	0	13.18	13.36	13.32	0			12	0	13.24	13.29	13.30	0
		25	12	13.16	13.40	13.22	0			12	6	13.21	13.31	13.12	0
		25	25	13.30	13.26	13.13	0			12	13	13.23	13.25	13.16	0
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		18615	18900	19185				1	0	13.33	13.37	13.30	0
		Frequency (MHz)		1851.5	1880.0	1908.5				1	2	13.24	13.45	13.22	0
		1	7	13.28	13.27	13.18	0			1	5	13.11	13.29	13.18	0
		1	14	13.13	13.26	13.16	0			3	0	13.31	13.29	13.21	0
		8	0	13.23	13.31	13.31	0			3	1	13.19	13.21	13.21	0
		8	3	13.15	13.16	13.26	0			3	3	13.17	13.25	13.17	0
	16QAM	8	7	13.15	13.37	13.19	0		16QAM	6	0	13.23	13.34	13.35	0
		15	0	13.21	13.35	13.31	0			1	0	13.29	13.33	13.26	0
		1	7	13.26	13.25	13.31	0			1	2	13.26	13.26	13.21	0
		1	14	13.17	13.22	13.23	0			1	5	13.20	13.24	13.12	0
		8	0	13.25	13.32	13.21	0			3	0	13.36	13.35	13.33	0
		8	3	13.26	13.27	13.30	0			3	1	13.17	13.26	13.17	0
		8	7	13.29	13.29	13.25	0			3	3	13.21	13.27	13.22	0
		15	0	13.24	13.41	13.35	0			6	0	13.28	13.43	13.22	0



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LTE Band 4



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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	Frequency (MHz)		829.0	836.5	844.0	Channel		20425	20525	20625	Frequency (MHz)		826.5	836.5	846.5	
		1	0	17.81	17.80	17.83	0		1	0	17.72	17.75	17.82	0								
10M	QPSK	1	24	17.68	17.67	17.70	0	5M	QPSK	1	12	17.68	17.63	17.60	0							
		1	49	17.76	17.75	17.78	0			1	24	17.68	17.68	17.73	0							
		25	0	17.74	17.73	17.76	0			12	0	17.74	17.68	17.73	0							
		25	12	17.72	17.71	17.74	0			12	6	17.63	17.61	17.72	0							
		25	25	17.75	17.74	17.77	0			12	13	17.70	17.69	17.69	0							
	16QAM	50	0	17.73	17.72	17.75	0		16QAM	25	0	17.65	17.67	17.75	0							
		1	0	17.72	17.71	17.74	0			1	0	17.64	17.68	17.71	0							
		1	24	17.68	17.67	17.70	0			1	12	17.68	17.64	17.68	0							
		1	49	17.74	17.73	17.76	0			1	24	17.67	17.71	17.66	0							
		25	0	17.71	17.70	17.73	0			12	0	17.63	17.60	17.67	0							
3M	QPSK	25	12	17.75	17.74	17.77	0			12	6	17.73	17.71	17.70	0							
		25	25	17.70	17.69	17.72	0			12	13	17.63	17.62	17.72	0							
		50	0	17.74	17.73	17.76	0			25	0	17.64	17.73	17.73	0							
	16QAM	50	7	17.72	17.71	17.74	0		16QAM	1	0	17.62	17.57	17.57	0							
		1	14	17.68	17.62	17.70	0			1	2	17.62	17.58	17.53	0							
		8	0	17.59	17.64	17.56	0			1	5	17.63	17.66	17.67	0							
		8	3	17.69	17.57	17.64	0			3	0	17.64	17.60	17.65	0							
		8	7	17.64	17.61	17.63	0			3	1	17.66	17.58	17.62	0							
	16QAM	15	0	17.61	17.59	17.60	0			3	3	17.58	17.69	17.58	0							
		1	0	17.56	17.60	17.66	0			6	0	17.60	17.62	17.45	0							
		1	7	17.55	17.55	17.63	0			1	0	17.57	17.63	17.52	0							
		1	14	17.68	17.62	17.70	0			1	2	17.64	17.53	17.54	0							
		8	0	17.59	17.57	17.64	0			1	5	17.55	17.57	17.59	0							
	16QAM	8	3	17.73	17.65	17.68	0			3	0	17.56	17.58	17.58	0							
		8	7	17.58	17.53	17.65	0			3	1	17.71	17.50	17.55	0							
		15	0	17.72	17.60	17.66	0			3	3	17.50	17.52	17.70	0							
		15	7	17.69	17.64	17.72	0			6	0	17.49	17.53	17.51	0							

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	Frequency (MHz)		2510.0	2535.0	2560.0	Channel		20825	21100	21375	Frequency (MHz)		2507.5	2535.0	2562.5
		1	0	10.89	11.25	11.32	0	15M	QPSK	1	0	10.80	11.18	11.30	0						
20M	QPSK	1	50	10.65	11.01	11.08	0			1	37	10.60	11.01	11.05	0						
		1	99	10.71	11.07	11.14	0			1	74	10.61	10.97	11.04	0						
		50	0	10.74	11.10	11.17	0			36	0	10.70	11.07	11.12	0						
		50	25	10.69	11.05	11.12	0			36	19	10.59	11.04	11.08	0						
		50	50	10.79	11.15	11.22	0			36	39	10.71	11.13	11.21	0						
	16QAM	100	0	10.83	11.19	11.26	0			75	0	10.83	11.15	11.20	0						
		1	0	10.86	11.22	11.29	0		16QAM	1	0	10.82	11.14	11.28	0						
		1	50	10.74	11.10	11.17	0			1	37	10.69	11.06	11.15	0						
		1	99	10.79	11.15	11.22	0			1	74	10.73	11.05	11.19	0						
		50	0	10.63	10.99	11.06	0			36	0	10.61	10.91	11.00	0						
10M	QPSK	50	25	10.59	10.95	11.02	0			36	19	10.56	10.95	10.97	0						
		50	50	10.66	11.02	11.09	0			36	39	10.61	10.93	11.03	0						
		100	0	10.69	11.05	11.12	0			75	0	10.67	11.00	11.08	0						
	16QAM	100	7	10.69	11.05	11.12	0			1	0	10.82	11.14	11.28	0						
		1	49	10.79	11.15	11.22	0			1	37	10.69	11.06	11.15	0						
		1	99	10.70	10.91	11.07	0			1	74	10.73	11.05	11.19	0						
		25	0	10.63	10.94	11.00	0			36	0	10.53	10.84	10.93	0						
		25	12	10.39	10.80	10.82	0			36	6	10.55	10.85	10.86	0						

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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				Channel		23035	23095	23155
		Frequency (MHz)		704.0	707.5	711.0 <th data-cs="2" data-kind="parent">Frequency (MHz)</th> <th data-kind="ghost"></th> <td data-kind="ghost"></td> <td data-kind="ghost"></td> <th data-cs="2" data-kind="parent">Frequency (MHz)</th> <th data-kind="ghost"></th> <td>701.5</td> <td>707.5</td> <td>713.5</td>	Frequency (MHz)				Frequency (MHz)		701.5	707.5	713.5
10M	QPSK	1	0	17.77	17.79	17.75	0	5M	QPSK	1	0	17.75	17.75	17.65	0
		1	24	17.61	17.63	17.59	0			1	12	17.51	17.57	17.53	0
		1	49	17.69	17.71	17.67	0			1	24	17.66	17.61	17.58	0
		25	0	17.71	17.73	17.69	0			12	0	17.63	17.73	17.69	0
		25	12	17.65	17.67	17.63	0			12	6	17.64	17.66	17.60	0
	16QAM	25	25	17.64	17.66	17.62	0			12	13	17.54	17.61	17.54	0
		50	0	17.69	17.71	17.67	0			25	0	17.60	17.65	17.61	0
		1	0	17.74	17.76	17.72	0		16QAM	1	0	17.67	17.75	17.71	0
		1	24	17.58	17.60	17.56	0			1	12	17.55	17.59	17.56	0
		1	49	17.66	17.68	17.64	0			1	24	17.58	17.59	17.56	0
3M	QPSK	25	0	17.68	17.70	17.66	0			12	0	17.65	17.69	17.64	0
		25	12	17.62	17.64	17.60	0			12	6	17.59	17.64	17.60	0
		25	25	17.61	17.63	17.59	0			12	13	17.56	17.55	17.59	0
		50	0	17.66	17.68	17.64	0			25	0	17.58	17.58	17.63	0
	16QAM	1	0	17.71	17.73	17.69	0			1	0	17.72	17.73	17.44	0
		1	7	17.42	17.52	17.50	0			1	2	17.49	17.42	17.31	0
		1	14	17.58	17.57	17.50	0			1	5	17.57	17.65	17.42	0
		8	0	17.47	17.63	17.44	0			3	0	17.61	17.65	17.49	0
		8	3	17.53	17.56	17.53	0			3	1	17.51	17.48	17.38	0
10M	QPSK	8	7	17.63	17.48	17.58	0			3	3	17.55	17.53	17.38	0
		15	0	17.55	17.62	17.59	0			6	0	17.57	17.61	17.48	0
		1	0	17.70	17.60	17.58	0		16QAM	1	0	17.56	17.59	17.68	0
		1	7	17.47	17.47	17.49	0			1	2	17.40	17.37	17.33	0
		1	14	17.58	17.51	17.53	0			1	5	17.49	17.45	17.56	0
	16QAM	8	0	17.62	17.57	17.61	0			3	0	17.63	17.51	17.49	0
		8	3	17.41	17.58	17.57	0			3	1	17.57	17.60	17.54	0
		8	7	17.48	17.46	17.41	0			3	3	17.57	17.56	17.36	0
		15	0	17.53	17.50	17.56	0			6	0	17.45	17.52	17.48	0

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)		779.5	782.0	784.5	
		Frequency (MHz)		782.0			Frequency (MHz)		779.5	782.0	784.5	Frequency (MHz)		782.0	784.5	784.5	
10M	QPSK	1	0		16.94		0	5M	QPSK	1	0	16.89	16.92	16.91	0		
		1	24		16.84		0			1	12	16.79	16.82	16.81	0		
		1	49		16.87		0			1	24	16.82	16.85	16.84	0		
		25	0		16.89		0			12	0	16.84	16.87	16.86	0		
		25	12		16.91		0			12	6	16.86	16.89	16.88	0		
	16QAM	25	25		16.88		0			12	13	16.83	16.86	16.85	0		
		50	0		16.92		0			25	0	16.87	16.90	16.89	0		
		1	0		16.92		0		16QAM	1	0	16.87	16.90	16.89	0		
		1	24		16.81		0			1	12	16.76	16.79	16.78	0		
		1	49		16.86		0			1	24	16.81	16.84	16.83	0		
3M	QPSK	25	0		16.83		0			12	0	16.78	16.81	16.80	0		
		25	12		16.92		0			12	6	16.87	16.90	16.89	0		
		25	25		16.89		0			12	13	16.84	16.87	16.86	0		
		50	0		16.91		0			25	0	16.86	16.89	16.88	0		

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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	23755	23790	23825		Channel	23755	23790	23825	23755	
		Frequency (MHz)	709.0	710.0	711.0 <th>706.5</th> <td>710.0</td> <td>713.5</td> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th>Frequency (MHz)</th> <td>706.5</td> <td>710.0</td> <td>713.5</td> <th>706.5</th>	706.5	710.0	713.5			Frequency (MHz)	706.5	710.0	713.5	706.5
10M	QPSK	1	0	19.48	19.41	19.37	0	5M	QPSK	1	0	19.44	19.39	19.31	0
		1	24	19.35	19.28	19.24	0			1	12	19.32	19.18	19.18	0
		1	49	19.29	19.22	19.18	0			1	24	19.20	19.15	19.12	0
		25	0	19.34	19.27	19.23	0			12	0	19.31	19.26	19.14	0
		25	12	19.37	19.30	19.26	0			12	6	19.28	19.25	19.23	0
		25	25	19.43	19.36	19.32	0			12	13	19.42	19.35	19.26	0
		50	0	19.45	19.38	19.34	0			25	0	19.43	19.28	19.25	0
	16QAM	1	0	19.47	19.40	19.36	0		16QAM	1	0	19.47	19.37	19.36	0
		1	24	19.34	19.27	19.23	0			1	12	19.27	19.26	19.17	0
		1	49	19.26	19.19	19.15	0			1	24	19.26	19.12	19.13	0
		25	0	19.33	19.26	19.22	0			12	0	19.33	19.24	19.21	0
		25	12	19.36	19.29	19.25	0			12	6	19.31	19.24	19.23	0
		25	25	19.40	19.33	19.29	0			12	13	19.38	19.25	19.22	0
		50	0	19.44	19.37	19.33	0			25	0	19.44	19.37	19.26	0
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	26740	26865	26990		Channel	26740	26865	26990	26740	
		Frequency (MHz)	821.5	831.5	841.5 <th>819.0</th> <td>831.5</td> <td>844.0</td> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th>Frequency (MHz)</th> <td>819.0</td> <td>831.5</td> <td>844.0</td> <th>819.0</th>	819.0	831.5	844.0			Frequency (MHz)	819.0	831.5	844.0	819.0
15M	QPSK	1	0	18.48	18.38	18.43	0	10M	QPSK	1	0	18.45	18.38	18.41	0
		1	37	18.38	18.28	18.33	0			1	24	18.38	18.27	18.27	0
		1	74	18.29	18.19	18.24	0			1	49	18.19	18.10	18.17	0
		36	0	18.42	18.32	18.37	0			25	0	18.36	18.23	18.37	0
		36	19	18.46	18.36	18.41	0			25	12	18.38	18.32	18.37	0
		36	39	18.34	18.24	18.29	0			25	25	18.27	18.20	18.20	0
		75	0	18.45	18.35	18.40	0			50	0	18.35	18.29	18.40	0
	16QAM	1	0	18.46	18.36	18.41	0		16QAM	1	0	18.46	18.30	18.35	0
		1	37	18.36	18.26	18.31	0			1	24	18.30	18.19	18.22	0
		1	74	18.27	18.17	18.22	0			1	49	18.22	18.13	18.16	0
		36	0	18.40	18.30	18.35	0			25	0	18.39	18.22	18.30	0
		36	19	18.44	18.34	18.39	0			25	12	18.44	18.28	18.32	0
		36	39	18.32	18.22	18.27	0			25	25	18.25	18.17	18.22	0
		75	0	18.43	18.33	18.38	0			50	0	18.43	18.31	18.38	0
5M	QPSK	1	0	18.31	18.36	18.18	0	3M	QPSK	1	0	18.27	18.33	18.23	0
		1	12	18.19	18.11	18.15	0			1	7	18.29	18.24	18.12	0
		1	24	18.07	18.05	18.12	0			1	14	18.17	17.97	18.19	0
		12	0	18.30	18.16	18.28	0			8	0	18.33	18.16	18.16	0
		12	6	18.28	18.21	18.35	0			8	3	18.29	18.27	18.18	0
		12	13	18.28	18.03	18.21	0			8	7	18.22	18.17	18.01	0
		25	0	18.23	18.23	18.27	0			15	0	18.37	18.31	18.20	0
	16QAM	1	0	18.28	18.20	18.22	0		16QAM	1	0	18.31	18.22	18.23	0
		1	12	18.20	18.10	18.08	0			1	7	18.26	18.16	18.31	0
		1	24	18.10	17.98	18.06	0			1	14	18.23	17.98	18.12	0
		12	0	18.18	18.22	18.21	0			8	0	18.28	18.11	18.18	0
		12	6	18.27	18.22	18.21	0			8	3	18.30	18.23	18.33	0
		12	13	18.12	18.15	18.13	0			8	7	18.16	18.19	18.11	0
		25	0	18.33	18.22	18.30	0			15	0	18.23	18.18	18.36	0
1.4M	QPSK	1	0	18.26	18.19	18.22	0	1.4M	QPSK	1	2	18.19	18.16	18.19	0
		1	5	18.22	18.11	18.04	0			3	0	18.31	18.10	18.15	0
		3	1	18.26	18.26	18.30	0			3	3	18.21	18.13	18.21	0
		6	0	18.36	18.28	18.24	0			6	0	18.26	18.26	18.26	0
	16QAM	1	0	18.23	18.30	18.26	0			1	2	18.21	18.20	18.10	0
		1	5	18.12	18.08	18.09	0			1	5	18.24	18.07	18.21	0
		3	0	18.24	18.07	18.21	0			3	1	18.23	18.16	18.24	0
		3	3	18.19	18.13	18.18	0			3	0	18.29	18.32	18.20	0
		6	0	18.29	18.32	18.20	0			6	0	18.29	18.32	18.20	0



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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		Frequency (MHz)				Channel		27685	27710	27735	Frequency (MHz)	2307.5	2310.0	2312.5		
		Frequency (MHz)		2310.0		Channel				Frequency (MHz)		2307.5	2310.0	2312.5	Frequency (MHz)	2307.5	2310.0	2312.5		
10M	QPSK	1	0	14.87		0		5M	QPSK	1	0	14.74	14.76	14.73	0					
		1	24	14.71		0				1	12	14.59	14.61	14.58	0					
		1	49	14.69		0				1	24	14.57	14.59	14.56	0					
		25	0	14.80		0				12	0	14.68	14.70	14.67	0					
		25	12	14.74		0				12	6	14.62	14.64	14.61	0					
		25	25	14.68		0				12	13	14.56	14.58	14.55	0					
		50	0	14.81		0				25	0	14.69	14.71	14.68	0					
	16QAM	1	0	14.84		0			16QAM	1	0	14.72	14.74	14.71	0					
		1	24	14.68		0				1	12	14.56	14.58	14.55	0					
		1	49	14.66		0				1	24	14.54	14.56	14.53	0					
		25	0	14.77		0				12	0	14.65	14.67	14.64	0					
		25	12	14.71		0				12	6	14.59	14.61	14.58	0					
		25	25	14.65		0				12	13	14.53	14.55	14.52	0					
		50	0	14.78		0				25	0	14.66	14.68	14.65	0					

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	High	3GPP MPR (dB)	
		Channel		39750	40185	40620	41055	41490	39725			Channel	2503.5	2548.3	2593.0	2637.8	2682.5		
		Frequency (MHz)		39750	40185	40620	41055	41490	39725			Frequency (MHz)	2503.5	2548.3	2593.0	2637.8	2682.5		
20M	QPSK	1	0	13.70	13.90	13.77	13.96	13.73	0	15M	QPSK	1	0	13.65	13.80	13.74	13.92	13.67	0
		1	50	13.66	13.86	13.73	13.92	13.69	0			1	37	13.66	13.80	13.70	13.88	13.60	0
		1	99	13.68	13.88	13.75	13.94	13.71	0			1	74	13.62	13.87	13.72	13.93	13.66	0
		50	0	13.50	13.70	13.57	13.76	13.53	0			36	0	13.49	13.60	13.54	13.71	13.51	0
		50	25	13.43	13.63	13.50	13.69	13.46	0			36	19	13.42	13.62	13.42	13.60	13.36	0
		50	50	13.48	13.68	13.55	13.74	13.51	0			36	39	13.42	13.68	13.48	13.68	13.44	0
		100	0	13.42	13.62	13.49	13.68	13.45	0			75	0	13.36	13.53	13.49	13.60	13.43	0
	16QAM	1	0	13.68	13.88	13.75	13.94	13.71	0		16QAM	1	0	13.62	13.80	13.71	13.90	13.68	0
		1	50	13.64	13.84	13.71	13.90	13.67	0			1	37	13.63	13.80	13.70	13.89	13.66	0
		1	99	13.66	13.86	13.73	13.92	13.69	0			1	74	13.64	13.85	13.75	13.92	13.66	0
		50	0	13.48	13.68	13.55	13.74	13.51	0			36	0	13.40	13.62	13.48	13.75	13.45	0
		50	25	13.41	13.61	13.48	13.67	13.44	0			36	19	13.35	13.59	13.49	13.60	13.37	0
		50	50	13.46	13.66	13.53	13.72	13.49	0			36	39	13.39	13.67	13.47	13.66	13.46	0
		100	0	13.40	13.60	13.47	13.66	13.43	0			75	0	13.35	13.53	13.44	13.62	13.35	0
10M	QPSK	1	0	13.61	13.76	13.66	13.84	13.71	0	5M	QPSK	1	0	13.64	13.83	13.77	13.90	13.61	0
		1	24	13.51	13.71	13.67	13.77	13.59	0			1	12	13.61	13.79	13.61	13.88	13.59	0
		1	49	13.58	13.87	13.63	13.76	13.62	0			1	24	13.62	13.78	13.67	13.86	13.60	0
		25	0	13.40	13.64	13.47	13.64	13.39	0			12	0	13.34	13.59	13.44	13.73	13.43	0
		25	12	13.40	13.49	13.44	13.67	13.33	0			12	6	13.25	13.45	13.44	13.60	13.34	0
		25	25	13.33	13.61	13.44	13.68	13.45	0			12	13	13.38	13.57	13.36	13.60	13.39	0
		50	0	13.32	13.54	13.30	13.66	13.43	0			25	0	13.31	13.57	13.39	13.53	13.38	0
	16QAM	1	0	13.59	13.76	13.70	13.81	13.71	0		16QAM	1	0	13.60	13.75	13.76	13.84	13.67	0
		1	24	13.53	13.69	13.64	13.80	13.66	0			1	12	13.56	13.80	13.58	13.85	13.54	0
		1	49	13.56	13.87	13.64	13.83	13.67	0			1	24	13.56	13.73	13.70	13.77	13.59	0
		25	0	13.35	13.60	13.41	13.61	13.42	0			12	0	13.42	13.62	13.47	13.72	13.40	0
		25	12	13.33	13.53	13.37	13.62	13.36	0			12	6	13.32	13.47	13.46	13.57	13.37	0
		25	25	13.33	13.65	13.39	13.68	13.47	0			12	13	13.44	13.54	13.42	13.61	13.45	0
		50	0	13.35	13.48	13.33	13.64	13.41	0			25	0	13.41	13.50	13.40	13.60	13.28	0

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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		BW	MCS Index	Channel		132047	132322	132597		
		Frequency (MHz)		1720.0	1745.0	1770.0				Frequency (MHz)		1717.5	1745.0	1772.5		
20M	QPSK	1	0	16.39	16.34	16.27	0	15M	QPSK	1	0	16.33	16.24	16.17	0	
		1	50	16.30	16.25	16.18	0			1	37	16.25	16.22	16.17	0	
		1	99	16.19	16.14	16.07	0			1	74	16.19	16.14	15.97	0	
		50	0	16.36	16.31	16.24	0			36	0	16.30	16.30	16.16	0	
		50	25	16.37	16.32	16.25	0			36	19	16.31	16.24	16.16	0	
		50	50	16.29	16.24	16.17	0			36	39	16.24	16.17	16.14	0	
		100	0	16.36	16.31	16.24	0			75	0	16.35	16.26	16.17	0	
		1	0	16.35	16.30	16.23	0		16QAM	1	0	16.26	16.20	16.22	0	
		1	50	16.26	16.21	16.14	0			1	37	16.18	16.12	16.06	0	
		1	99	16.15	16.10	16.03	0			1	74	16.11	16.02	15.99	0	
		50	0	16.32	16.27	16.20	0			36	0	16.27	16.21	16.19	0	
		50	25	16.33	16.28	16.21	0			36	19	16.32	16.27	16.17	0	
		50	50	16.25	16.20	16.13	0			36	39	16.23	16.14	16.04	0	
		100	0	16.32	16.27	16.20	0			75	0	16.31	16.18	16.14	0	
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)	
10M	QPSK	Channel		132022	132322	132622	3GPP MPR (dB)	5M	QPSK	Channel		131997	132322	132647	3GPP MPR (dB)	
		Frequency (MHz)		1715.0	1745.0	1775.0				1	0	16.33	16.24	16.03		
		1	24	16.20	16.12	16.12				1	12	16.15	16.18	15.90		
		1	49	16.03	15.98	16.02				1	24	16.11	15.99	15.80		
		25	0	16.21	16.12	16.06				12	0	16.19	16.19	16.02		
		25	12	16.28	16.21	16.08				12	6	16.24	16.18	16.04		
		25	25	16.14	16.01	15.98				12	13	16.21	16.12	16.00		
		50	0	16.19	16.25	16.15				25	0	16.19	16.15	16.04		
		1	0	16.16	16.15	16.07		16QAM	16QAM	1	0	16.27	16.23	16.07		
		1	24	16.09	16.15	15.96				1	12	16.22	16.16	16.08		
		1	49	15.98	15.94	15.98				1	24	15.94	15.95	15.95		
		25	0	16.17	16.04	15.99				12	0	16.09	16.21	16.15		
		25	12	16.18	16.13	16.06				12	6	16.25	16.22	16.00		
		25	25	16.04	16.05	15.97				12	13	16.18	16.06	15.96		
		50	0	16.14	16.18	16.09				25	0	16.16	16.09	16.00		
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)	
3M	QPSK	Channel		131987	132322	132657	3GPP MPR (dB)	1.4M	QPSK	Channel		131979	132322	132665	3GPP MPR (dB)	
		Frequency (MHz)		1711.5	1745.5	1778.5				1	0	16.33	16.19	16.20		
		1	7	16.19	16.07	16.05				1	2	16.18	16.11	16.12		
		1	14	16.11	16.04	15.93				1	5	16.11	15.98	15.89		
		8	0	16.20	16.14	16.20				3	0	16.16	16.16	16.08		
		8	3	16.22	16.14	16.14				3	1	16.14	16.19	16.07		
		8	7	16.20	16.06	16.04				3	3	16.12	16.13	16.08		
		15	0	16.16	16.21	16.05				6	0	16.19	16.19	16.23		
		1	0	16.30	16.11	16.04		16QAM	16QAM	1	0	16.29	16.26	16.14		
		1	7	16.13	16.08	16.14				1	2	16.13	16.07	15.99		
		1	14	16.02	16.01	15.96				1	5	16.05	16.01	15.89		
		8	0	16.20	16.16	16.09				3	0	16.24	16.08	16.10		
		8	3	16.25	16.13	16.13				3	1	16.18	16.23	16.14		
		8	7	16.07	16.03	15.94				3	3	16.18	16.14	15.93		
		15	0	16.19	16.18	15.99				6	0	16.22	16.02	15.98		

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<9560NGW module>

Tablet Mode

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11b	1	2412	16.95	16.85	16.91
	6	2437	16.97	16.98	16.94
	11	2462	16.92	16.94	16.85
EUT with Power Reduction (P-Sensor Triggered)					
802.11b	1	2412	9.89	9.96	12.38
	6	2437	9.98	9.99	12.48
	11	2462	9.92	9.91	12.46

<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	36	5180	-	-	20.87
	40	5200	-	-	20.95
	44	5220	-	-	20.88
	48	5240	-	-	20.92

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	58	5290	17.97	17.94	-
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	58	5290	8.92	9.42	12.32

<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	106	5530	17.95	17.94	17.94
	122	5610	17.91	17.89	17.92
	138	5690	17.86	17.85	17.84
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	106	5530	8.96	8.94	11.97
	122	5610	8.91	8.92	11.89
	138	5690	8.92	8.93	11.90

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	155	5775	17.91	17.89	17.93
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	155	5775	8.47	8.95	11.46

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<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	5.95
	39	2441	5.94
	78	2480	5.89
Bluetooth LE	0	2402	5.44
	19	2440	5.42
	39	2480	5.38

Laptop Mode

<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	9.89	9.96	12.38
	6	2437	9.98	9.99	12.48
	11	2462	9.92	9.91	12.46

<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	8.92	9.42	12.32

<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	8.96	8.94	11.97
	122	5610	8.91	8.92	11.89
	138	5690	8.92	8.93	11.90

<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	8.47	8.95	11.46

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	5.95
	39	2441	5.94
	78	2480	5.89
Bluetooth LE	0	2402	5.44
	19	2440	5.42
	39	2480	5.38

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<RTL8822CE module>

Tablet Mode

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11b	1	2412	16.94	16.85	16.92
	6	2437	16.96	16.87	16.94
	11	2462	16.91	16.86	16.89
EUT with Power Reduction (P-Sensor Triggered)					
802.11b	1	2412	9.92	9.97	12.38
	6	2437	9.94	9.99	12.44
	11	2462	9.87	9.89	12.43

<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11a	36	5180	-	-	20.81
	40	5200	-	-	20.87
	44	5220	-	-	20.86
	48	5240	-	-	20.85

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	58	5290	17.88	17.92	-
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	58	5290	8.96	9.48	12.41

<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	106	5530	17.93	17.91	17.95
	122	5610	17.88	17.86	17.92
	138	5690	17.91	17.81	17.93
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	106	5530	8.95	8.94	11.97
	122	5610	8.86	8.82	11.88
	138	5690	8.84	8.84	11.91

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (P-Sensor NOT Triggered)					
802.11ac (VHT80)	155	5775	17.96	17.86	17.93
EUT with Power Reduction (P-Sensor Triggered)					
802.11ac (VHT80)	155	5775	8.44	8.92	11.44

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<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	4.63
	39	2441	4.21
	78	2480	4.61
Bluetooth LE	0	2402	5.30
	19	2440	5.43
	39	2480	4.80

Laptop Mode

<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	9.92	9.97	12.38
	6	2437	9.94	9.99	12.44
	11	2462	9.87	9.89	12.43

<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	8.96	9.48	12.41

<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	8.95	8.94	11.97
	122	5610	8.86	8.82	11.88
	138	5690	8.84	8.84	11.91

<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	8.44	8.92	11.44

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	4.63
	39	2441	4.21
	78	2480	4.61
Bluetooth LE	0	2402	5.30
	39	2441	5.43
	78	2480	4.80



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

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 $\leq 1/4 \text{ dB}$ 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 $\leq 1.2 \text{ W/kg}$, 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 $\leq 0.8 \text{ W/kg}$, 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 $> 1.45 \text{ W/kg}$, SAR is required for all three RB offset configurations for that required test channel.

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(2) QPSK with 100% RB allocation

SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are $\leq 0.8 \text{ W/kg}$. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is $> 1.45 \text{ W/kg}$, 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 $> 1/2 \text{ dB}$ higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is $> 1.45 \text{ W/kg}$.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is $> 1/2 \text{ dB}$ 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 $> 1.45 \text{ W/kg}$.

<Power Confirmation for SAR Test Exclusion for LTE Downlink CA>

According to KDB 941225 D05A, the uplink maximum output power below was measured with downlink CA active on the channel with highest measured maximum output power when downlink CA is inactive. The downlink SCC channel was paired with the uplink channel as normal operation. For intra-band contiguous CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing per section 5.4.1A of 3GPP TS36.521. For intra-band non-contiguous CA, the downlink channel spacing between the component carriers was set to maximum separation from PCC and remain fully within the downlink transmission band. For Inter-band CA, the SCC downlink channel was set to near the middle of its transmission band.

Tablet Mode

Power Measurements for Intra-Band Non-Contiguous Downlink CA

CA Combination	PCC							SCC1				SCC2				Power		
	LTE Band	BW (MHz)	UL Channel	UL Freq. (MHz)	RB Size	RB Offset	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Tx Power with DL-CA Active (dBm)	Single Carrier Tx Power (dBm)
EUT without Power Reduction (P-Sensor NOT Triggered)																		
CA_7A_7A	7	20	21350	2560	1	0	3350	2680	7	20	2850	2630					22.93	22.95
CA_41C_41A	41	20	40185	2549.5	1	0	40185	2549.5	41	20	40620	2593	41	20	41055	2636.5	22.72	22.80
CA_66C_66A	66	20	132072	1720	1	0	66536	2120	66	20	66734	2139.8	66	20	67036	2170	21.94	22.35
EUT with Power Reduction (P-Sensor Triggered)																		
CA_7A_7A	7	20	21350	2560	1	0	3350	2680	7	20	2850	2630					10.71	10.98
CA_41C_41A	41	20	40185	2549.5	1	0	40185	2549.5	41	20	40620	2593	41	20	41055	2636.5	10.78	10.90
CA_66C_66A	66	20	132072	1720	1	0	66536	2120	66	20	66734	2139.8	66	20	67036	2170	10.43	10.45



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Summary for SAR Test Exclusion for LTE Downlink CA

Per power confirmation results in above, the uplink maximum output power with downlink CA active remains within the specified tune-up tolerance and not more than 0.25 dB higher than the maximum output power with downlink CA inactive. According to KDB 941225 D05A, the SAR test exclusion applies to LTE downlink CA operation.

<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 ≤ 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 ≤ 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 ≤ 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 ≤ 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 ≤ 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 ≤ 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 (mm)	Ch.	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
01	WCDMA II	RMC12.2K	Rear Face	25	9400	w/o	24.5	23.48	1.26	-0.12	0.240	0.30
	WCDMA II	RMC12.2K	Left Side	20	9400	w/o	24.5	23.48	1.26	-0.13	0.161	0.20
	WCDMA II	RMC12.2K	Top Side	13	9400	w/o	24.5	23.48	1.26	-0.16	0.115	0.14
	WCDMA II	RMC12.2K	Rear Face	0	9400	w/	11.0	10.96	1.01	-0.07	0.478	0.48
	WCDMA II	RMC12.2K	Left Side	0	9400	w/	11.0	10.96	1.01	-0.11	0.165	0.17
	WCDMA II	RMC12.2K	Top Side	0	9400	w/	11.0	10.96	1.01	-0.07	<0.001	0.00
	WCDMA II	RMC12.2K	Rear Face	0	9262	w/	11.0	10.89	1.03	0.18	0.457	0.47
02	WCDMA II	RMC12.2K	Rear Face	0	9538	w/	11.0	10.94	1.01	0.16	0.454	0.46
	WCDMA IV	RMC12.2K	Rear Face	25	1513	w/o	24.0	23.75	1.06	-0.01	0.223	0.24
	WCDMA IV	RMC12.2K	Left Side	20	1513	w/o	24.0	23.75	1.06	0.12	0.167	0.18
	WCDMA IV	RMC12.2K	Top Side	13	1513	w/o	24.0	23.75	1.06	0.01	0.099	0.10
	WCDMA IV	RMC12.2K	Rear Face	0	1513	w/	11.0	10.93	1.02	-0.03	0.428	0.44
	WCDMA IV	RMC12.2K	Left Side	0	1513	w/	11.0	10.93	1.02	0.08	0.251	0.26
	WCDMA IV	RMC12.2K	Top Side	0	1513	w/	11.0	10.93	1.02	0.00	<0.001	0.00
03	WCDMA IV	RMC12.2K	Rear Face	0	1312	w/	11.0	10.91	1.02	-0.04	0.451	0.46
	WCDMA IV	RMC12.2K	Rear Face	0	1413	w/	11.0	10.87	1.03	0.06	0.437	0.45
	WCDMA V	RMC12.2K	Rear Face	25	4233	w/o	24.5	24.36	1.03	-0.02	0.083	0.09
	WCDMA V	RMC12.2K	Left Side	20	4233	w/o	24.5	24.36	1.03	-0.11	0.067	0.07
	WCDMA V	RMC12.2K	Top Side	13	4233	w/o	24.5	24.36	1.03	-0.03	0.04	0.04
	WCDMA V	RMC12.2K	Rear Face	0	4233	w/	18.0	17.96	1.01	0.04	0.739	0.75
	WCDMA V	RMC12.2K	Left Side	0	4233	w/	18.0	17.96	1.01	0.01	0.281	0.28
03	WCDMA V	RMC12.2K	Top Side	0	4233	w/	18.0	17.96	1.01	-0.09	<0.001	0.00
	WCDMA V	RMC12.2K	Rear Face	0	4132	w/	18.0	17.92	1.02	0.15	0.665	0.68
	WCDMA V	RMC12.2K	Rear Face	0	4182	w/	18.0	17.94	1.01	0.09	0.708	0.72

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
04	LTE 2	QPSK20M	Rear Face	25	18900	1	0	w/o	24.5	23.36	1.30	-0.15	0.222	0.29
	LTE 2	QPSK20M	Left Side	20	18900	1	0	w/o	24.5	23.36	1.30	-0.06	0.163	0.21
	LTE 2	QPSK20M	Top Side	13	18900	1	0	w/o	24.5	23.36	1.30	-0.03	0.093	0.12
	LTE 2	QPSK20M	Rear Face	25	18900	50	0	w/o	23.5	21.98	1.42	0.08	0.156	0.22
	LTE 2	QPSK20M	Left Side	20	18900	50	0	w/o	23.5	21.98	1.42	0.01	0.135	0.19
	LTE 2	QPSK20M	Top Side	13	18900	50	0	w/o	23.5	21.98	1.42	-0.07	0.062	0.09
	LTE 2	QPSK20M	Rear Face	0	18900	1	0	w/	10.5	10.48	1.00	-0.16	0.434	0.43
04	LTE 2	QPSK20M	Left Side	0	18900	1	0	w/	10.5	10.48	1.00	0.10	0.147	0.15
	LTE 2	QPSK20M	Top Side	0	18900	1	0	w/	10.5	10.48	1.00	-0.16	<0.001	0.00
	LTE 2	QPSK20M	Rear Face	0	18900	50	0	w/	10.5	10.46	1.01	0.17	0.420	0.42
	LTE 2	QPSK20M	Left Side	0	18900	50	0	w/	10.5	10.46	1.01	0.06	0.142	0.14
	LTE 2	QPSK20M	Top Side	0	18900	50	0	w/	10.5	10.46	1.01	0.07	<0.001	0.00
	LTE 2	QPSK20M	Rear Face	0	18700	1	0	w/	10.5	10.43	1.02	0.01	0.414	0.42
	LTE 2	QPSK20M	Rear Face	0	19100	1	0	w/	10.5	10.46	1.01	0.14	0.410	0.41
05	LTE 4	QPSK20M	Rear Face	25	20175	1	0	w/o	24.0	23.15	1.22	0.02	0.194	0.24
	LTE 4	QPSK20M	Left Side	20	20175	1	0	w/o	24.0	23.15	1.22	-0.06	0.136	0.17
	LTE 4	QPSK20M	Top Side	13	20175	1	0	w/o	24.0	23.15	1.22	0.11	0.079	0.10
	LTE 4	QPSK20M	Rear Face	25	20175	50	0	w/o	23.0	21.98	1.26	-0.05	0.149	0.19
	LTE 4	QPSK20M	Left Side	20	20175	50	0	w/o	23.0	21.98	1.26	0.01	0.101	0.13
	LTE 4	QPSK20M	Top Side	13	20175	50	0	w/o	23.0	21.98	1.26	0.03	0.048	0.06
	LTE 4	QPSK20M	Rear Face	0	20175	1	0	w/	10.7	10.67	1.01	-0.01	0.430	0.43
05	LTE 4	QPSK20M	Left Side	0	20175	1	0	w/	10.7	10.67	1.01	0.17	0.261	0.26
	LTE 4	QPSK20M	Top Side	0	20175	1	0	w/	10.7	10.67	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Rear Face	0	20175	50	0	w/	10.7	10.62	1.02	-0.10	0.422	0.43
	LTE 4	QPSK20M	Left Side	0	20175	50	0	w/	10.7	10.62	1.02	-0.14	0.256	0.26
	LTE 4	QPSK20M	Top Side	0	20175	50	0	w/	10.7	10.62	1.02	0.00	<0.001	0.00
	LTE 4	QPSK20M	Rear Face	0	20050	1	0	w/	10.7	10.63	1.02	-0.07	0.432	0.44
	LTE 4	QPSK20M	Rear Face	0	20300	1	0	w/	10.7	10.58	1.03	-0.16	0.426	0.44

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

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Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 5	QPSK10M	Rear Face	25	20600	1	0	w/o	24.5	22.93	1.44	-0.04	0.065	0.09
	LTE 5	QPSK10M	Left Side	20	20600	1	0	w/o	24.5	22.93	1.44	-0.01	0.051	0.07
	LTE 5	QPSK10M	Top Side	13	20600	1	0	w/o	24.5	22.93	1.44	-0.03	0.022	0.03
	LTE 5	QPSK10M	Rear Face	25	20600	25	0	w/o	23.5	22.03	1.40	-0.06	0.054	0.08
	LTE 5	QPSK10M	Left Side	20	20600	25	0	w/o	23.5	22.03	1.40	0.02	0.028	0.04
	LTE 5	QPSK10M	Top Side	13	20600	25	0	w/o	23.5	22.03	1.40	0.00	<0.001	0.00
06	LTE 5	QPSK10M	Rear Face	0	20600	1	0	w/	18.0	17.98	1.00	-0.09	0.727	0.73
	LTE 5	QPSK10M	Left Side	0	20600	1	0	w/	18.0	17.98	1.00	-0.07	0.270	0.27
	LTE 5	QPSK10M	Top Side	0	20600	1	0	w/	18.0	17.98	1.00	0.14	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	0	20600	25	0	w/	18.0	17.97	1.01	0.10	0.714	0.72
	LTE 5	QPSK10M	Left Side	0	20600	25	0	w/	18.0	17.97	1.01	0.19	0.265	0.27
	LTE 5	QPSK10M	Top Side	0	20600	25	0	w/	18.0	17.97	1.01	-0.04	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	0	20450	1	0	w/	18.0	17.92	1.02	0.16	0.677	0.69
	LTE 5	QPSK10M	Rear Face	0	20525	1	0	w/	18.0	17.94	1.01	-0.02	0.654	0.66
	LTE 7	QPSK20M	Rear Face	25	21350	1	0	w/o	24.0	22.95	1.27	0.01	0.139	0.18
	LTE 7	QPSK20M	Left Side	20	21350	1	0	w/o	24.0	22.95	1.27	0.08	0.083	0.11
	LTE 7	QPSK20M	Top Side	13	21350	1	0	w/o	24.0	22.95	1.27	-0.05	0.076	0.10
	LTE 7	QPSK20M	Rear Face	25	21350	50	0	w/o	23.0	21.84	1.31	0.01	0.108	0.14
	LTE 7	QPSK20M	Left Side	20	21350	50	0	w/o	23.0	21.84	1.31	0.06	0.058	0.08
	LTE 7	QPSK20M	Top Side	13	21350	50	0	w/o	23.0	21.84	1.31	-0.07	0.048	0.06
07	LTE 7	QPSK20M	Rear Face	0	21350	1	0	w/	11.0	10.98	1.00	-0.09	0.467	0.47
	LTE 7	QPSK20M	Left Side	0	21350	1	0	w/	11.0	10.98	1.00	-0.15	0.114	0.11
	LTE 7	QPSK20M	Top Side	0	21350	1	0	w/	11.0	10.98	1.00	0.13	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	0	21350	50	50	w/	11.0	10.96	1.01	0.07	0.451	0.46
	LTE 7	QPSK20M	Left Side	0	21350	50	50	w/	11.0	10.96	1.01	-0.14	0.11	0.11
	LTE 7	QPSK20M	Top Side	0	21350	50	50	w/	11.0	10.96	1.01	-0.16	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	0	20850	1	0	w/	11.0	10.76	1.06	0.06	0.376	0.40
	LTE 7	QPSK20M	Rear Face	0	21100	1	0	w/	11.0	10.94	1.01	-0.16	0.414	0.42
	LTE 12	QPSK10M	Rear Face	25	23095	1	0	w/o	24.5	22.61	1.55	-0.02	0.061	0.09
	LTE 12	QPSK10M	Left Side	20	23095	1	0	w/o	24.5	22.61	1.55	-0.03	0.058	0.09
	LTE 12	QPSK10M	Top Side	13	23095	1	0	w/o	24.5	22.61	1.55	-0.05	0.013	0.02
	LTE 12	QPSK10M	Rear Face	25	23095	25	0	w/o	23.5	21.65	1.53	0.11	0.049	0.07
	LTE 12	QPSK10M	Left Side	20	23095	25	0	w/o	23.5	21.65	1.53	0.03	0.043	0.07
	LTE 12	QPSK10M	Top Side	13	23095	25	0	w/o	23.5	21.65	1.53	0.00	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	0	23095	1	0	w/	17.0	16.96	1.01	0.07	0.64	0.65
	LTE 12	QPSK10M	Left Side	0	23095	1	0	w/	17.0	16.96	1.01	-0.19	0.33	0.33
	LTE 12	QPSK10M	Top Side	0	23095	1	0	w/	17.0	16.96	1.01	-0.11	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	0	23095	25	0	w/	17.0	16.94	1.01	0.18	0.623	0.63
	LTE 12	QPSK10M	Left Side	0	23095	25	0	w/	17.0	16.94	1.01	0.00	0.309	0.31
	LTE 12	QPSK10M	Top Side	0	23095	25	0	w/	17.0	16.94	1.01	-0.11	<0.001	0.00
08	LTE 12	QPSK10M	Rear Face	0	23060	1	0	w/	17.0	16.91	1.02	-0.07	0.652	0.67
	LTE 12	QPSK10M	Rear Face	0	23130	1	0	w/	17.0	16.94	1.01	0.03	0.646	0.65

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

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Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 13	QPSK10M	Rear Face	25	23230	1	0	w/o	24.5	23.15	1.36	-0.03	0.122	0.17
	LTE 13	QPSK10M	Left Side	20	23230	1	0	w/o	24.5	23.15	1.36	0.03	0.102	0.14
	LTE 13	QPSK10M	Top Side	13	23230	1	0	w/o	24.5	23.15	1.36	0.01	0.036	0.05
	LTE 13	QPSK10M	Rear Face	25	23230	25	0	w/o	23.5	22.19	1.35	-0.08	0.099	0.13
	LTE 13	QPSK10M	Left Side	20	23230	25	0	w/o	23.5	22.19	1.35	-0.04	0.077	0.10
	LTE 13	QPSK10M	Top Side	13	23230	25	0	w/o	23.5	22.19	1.35	0.02	0.027	0.04
09	LTE 13	QPSK10M	Rear Face	0	23230	1	0	w/	16.0	15.98	1.00	-0.08	0.382	0.38
	LTE 13	QPSK10M	Left Side	0	23230	1	0	w/	16.0	15.98	1.00	-0.10	0.147	0.15
	LTE 13	QPSK10M	Top Side	0	23230	1	0	w/	16.0	15.98	1.00	0.19	<0.001	0.00
	LTE 13	QPSK10M	Rear Face	0	23230	25	0	w/	16.0	15.96	1.01	0.02	0.368	0.37
	LTE 13	QPSK10M	Left Side	0	23230	25	0	w/	16.0	15.96	1.01	0.05	0.143	0.14
	LTE 13	QPSK10M	Top Side	0	23230	25	0	w/	16.0	15.96	1.01	0.12	<0.001	0.00
	LTE 17	QPSK10M	Rear Face	25	23780	1	0	w/o	24.5	22.62	1.54	-0.06	0.059	0.09
	LTE 17	QPSK10M	Left Side	20	23780	1	0	w/o	24.5	22.62	1.54	-0.06	0.062	0.10
	LTE 17	QPSK10M	Top Side	13	23780	1	0	w/o	24.5	22.62	1.54	-0.17	0.013	0.02
	LTE 17	QPSK10M	Rear Face	25	23780	25	0	w/o	23.5	21.78	1.49	-0.02	0.046	0.07
	LTE 17	QPSK10M	Left Side	20	23780	25	0	w/o	23.5	21.78	1.49	0.01	0.037	0.06
	LTE 17	QPSK10M	Top Side	13	23780	25	0	w/o	23.5	21.78	1.49	0.00	<0.001	0.00
	LTE 17	QPSK10M	Rear Face	0	23780	1	0	w/	17.0	16.98	1.00	0.12	0.644	0.64
	LTE 17	QPSK10M	Left Side	0	23780	1	0	w/	17.0	16.98	1.00	0.04	0.519	0.52
	LTE 17	QPSK10M	Top Side	0	23780	1	0	w/	17.0	16.98	1.00	0.01	<0.001	0.00
	LTE 17	QPSK10M	Rear Face	0	23780	25	25	w/	17.0	16.95	1.01	0.17	0.625	0.63
	LTE 17	QPSK10M	Left Side	0	23780	25	25	w/	17.0	16.95	1.01	0.07	0.508	0.51
	LTE 17	QPSK10M	Top Side	0	23780	25	25	w/	17.0	16.95	1.01	-0.05	<0.001	0.00
	LTE 17	QPSK10M	Rear Face	0	23790	1	0	w/	17.0	16.96	1.01	-0.04	0.642	0.65
10	LTE 17	QPSK10M	Rear Face	0	23800	1	0	w/	17.0	16.93	1.02	0.05	0.648	0.66

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

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Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 26	QPSK15M	Rear Face	25	26865	1	0	w/o	24.5	22.87	1.46	0.14	0.064	0.09
	LTE 26	QPSK15M	Left Side	20	26865	1	0	w/o	24.5	22.87	1.46	0.05	0.051	0.07
	LTE 26	QPSK15M	Top Side	13	26865	1	0	w/o	24.5	22.87	1.46	-0.10	0.028	0.04
	LTE 26	QPSK15M	Rear Face	25	26865	36	0	w/o	23.5	21.81	1.48	0.01	0.053	0.08
	LTE 26	QPSK15M	Left Side	20	26865	36	0	w/o	23.5	21.81	1.48	-0.06	0.041	0.06
	LTE 26	QPSK15M	Top Side	13	26865	36	0	w/o	23.5	21.81	1.48	0.02	0.016	0.02
	LTE 26	QPSK15M	Rear Face	0	26765	1	0	w/	18.5	18.47	1.01	0.12	0.732	0.74
	LTE 26	QPSK15M	Left Side	0	26765	1	0	w/	18.5	18.47	1.01	-0.08	0.245	0.25
	LTE 26	QPSK15M	Top Side	0	26765	1	0	w/	18.5	18.47	1.01	-0.03	<0.001	0.00
	LTE 26	QPSK15M	Rear Face	0	26765	36	0	w/	18.5	18.46	1.01	-0.18	0.719	0.73
	LTE 26	QPSK15M	Left Side	0	26765	36	0	w/	18.5	18.46	1.01	0.15	0.229	0.23
	LTE 26	QPSK15M	Top Side	0	26765	36	0	w/	18.5	18.46	1.01	-0.13	<0.001	0.00
	LTE 26	QPSK15M	Rear Face	0	26865	1	0	w/	18.5	18.45	1.01	0.00	0.729	0.74
11	LTE 26	QPSK15M	Rear Face	0	26965	1	0	w/	18.5	18.42	1.02	0.05	0.745	0.76
	LTE 30	QPSK10M	Rear Face	25	27710	1	0	w/o	23.0	22.65	1.08	0.01	0.111	0.12
	LTE 30	QPSK10M	Left Side	20	27710	1	0	w/o	23.0	22.65	1.08	0.14	0.052	0.06
	LTE 30	QPSK10M	Top Side	13	27710	1	0	w/o	23.0	22.65	1.08	0.09	0.025	0.03
	LTE 30	QPSK10M	Rear Face	25	27710	25	0	w/o	22.0	21.45	1.14	-0.05	0.074	0.08
	LTE 30	QPSK10M	Left Side	20	27710	25	0	w/o	22.0	21.45	1.14	-0.01	0.039	0.04
	LTE 30	QPSK10M	Top Side	13	27710	25	0	w/o	22.0	21.45	1.14	0.00	<0.001	0.00
12	LTE 30	QPSK10M	Rear Face	0	27710	1	0	w/	11.0	10.94	1.01	-0.17	0.496	0.50
	LTE 30	QPSK10M	Left Side	0	27710	1	0	w/	11.0	10.94	1.01	-0.01	0.117	0.12
	LTE 30	QPSK10M	Top Side	0	27710	1	0	w/	11.0	10.94	1.01	0.05	<0.001	0.00
	LTE 30	QPSK10M	Rear Face	0	27710	25	0	w/	11.0	10.88	1.03	0.10	0.478	0.49
	LTE 30	QPSK10M	Left Side	0	27710	25	0	w/	11.0	10.88	1.03	-0.19	0.114	0.12
	LTE 30	QPSK10M	Top Side	0	27710	25	0	w/	11.0	10.88	1.03	-0.08	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	25	40185	1	0	w/o	24.0	22.45	1.43	0.07	0.046	0.07
	LTE 41	QPSK20M	Left Side	20	40185	1	0	w/o	24.0	22.45	1.43	0.09	0.026	0.04
	LTE 41	QPSK20M	Top Side	13	40185	1	0	w/o	24.0	22.45	1.43	-0.05	0.023	0.03
	LTE 41	QPSK20M	Rear Face	25	40185	50	0	w/o	23.0	21.48	1.42	0.03	0.034	0.05
	LTE 41	QPSK20M	Left Side	20	40185	50	0	w/o	23.0	21.48	1.42	0.00	<0.001	0.00
	LTE 41	QPSK20M	Top Side	13	40185	50	0	w/o	23.0	21.48	1.42	0.00	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	41055	1	0	w/	11.0	10.96	1.01	0.11	0.270	0.27
	LTE 41	QPSK20M	Left Side	0	41055	1	0	w/	11.0	10.96	1.01	-0.13	0.062	0.06
	LTE 41	QPSK20M	Top Side	0	41055	1	0	w/	11.0	10.96	1.01	-0.15	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	41055	50	0	w/	11.0	10.90	1.02	-0.05	0.258	0.26
	LTE 41	QPSK20M	Left Side	0	41055	50	0	w/	11.0	10.90	1.02	0.07	0.053	0.05
	LTE 41	QPSK20M	Top Side	0	41055	50	0	w/	11.0	10.90	1.02	0.08	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	39750	1	0	w/	11.0	10.89	1.03	-0.15	0.237	0.24
	LTE 41	QPSK20M	Rear Face	0	40185	1	0	w/	11.0	10.90	1.02	-0.02	0.284	0.29
13	LTE 41	QPSK20M	Rear Face	0	40620	1	0	w/	11.0	10.95	1.01	-0.07	0.308	0.31
	LTE 41	QPSK20M	Rear Face	0	41490	1	0	w/	11.0	10.81	1.04	-0.07	0.212	0.22
	LTE 66	QPSK20M	Rear Face	25	132072	1	0	w/o	24.0	22.98	1.26	0.16	0.197	0.25
	LTE 66	QPSK20M	Left Side	20	132072	1	0	w/o	24.0	22.98	1.26	-0.08	0.124	0.16
	LTE 66	QPSK20M	Top Side	13	132072	1	0	w/o	24.0	22.98	1.26	0.02	0.071	0.09
	LTE 66	QPSK20M	Rear Face	25	132072	50	0	w/o	23.0	21.87	1.30	-0.03	0.159	0.21
	LTE 66	QPSK20M	Left Side	20	132072	50	0	w/o	23.0	21.87	1.30	0.01	0.094	0.12
	LTE 66	QPSK20M	Top Side	13	132072	50	0	w/o	23.0	21.87	1.30	0.05	0.039	0.05
14	LTE 66	QPSK20M	Rear Face	0	132072	1	0	w/	10.5	10.49	1.00	-0.06	0.411	0.41
	LTE 66	QPSK20M	Left Side	0	132072	1	0	w/	10.5	10.49	1.00	-0.19	0.231	0.23
	LTE 66	QPSK20M	Top Side	0	132072	1	0	w/	10.5	10.49	1.00	0.00	<0.001	0.00
	LTE 66	QPSK20M	Rear Face	0	132072	50	0	w/	10.5	10.46	1.01	-0.18	0.400	0.40
	LTE 66	QPSK20M	Left Side	0	132072	50	0	w/	10.5	10.46	1.01	-0.04	0.223	0.23
	LTE 66	QPSK20M	Top Side	0	132072	50	0	w/	10.5	10.46	1.01	0.00	<0.001	0.00
	LTE 66	QPSK20M	Rear Face	0	132322	1	0	w/	10.5	10.47	1.01	0.08	0.398	0.40
	LTE 66	QPSK20M	Rear Face	0	132572	1	0	w/	10.5	10.41	1.02	-0.18	0.387	0.39

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



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FCC SAR Test Report

<9560NGW module>

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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	25	6	Ant 0	w/o	99.90	1.00	17.0	16.97	1.01	0.03	0.048	0.05
	WLAN2.4G	802.11b	Left Side	20	6	Ant 0	w/o	99.90	1.00	17.0	16.97	1.01	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	13	6	Ant 0	w/o	99.90	1.00	17.0	16.97	1.01	0.02	0.055	0.06
	WLAN2.4G	802.11b	Rear Face	25	6	Ant 1	w/o	99.90	1.00	17.0	16.98	1.00	0.09	0.034	0.03
	WLAN2.4G	802.11b	Right Side	0	6	Ant 1	w/o	99.90	1.00	17.0	16.98	1.00	0.10	0.033	0.03
	WLAN2.4G	802.11b	Top Side	13	6	Ant 1	w/o	99.90	1.00	17.0	16.98	1.00	0.03	0.059	0.06
	WLAN2.4G	802.11b	Rear Face	25	6	Ant 0+1	w/o	99.90	1.00	17.0	16.94	1.01	0.09	0.053	0.05
	WLAN2.4G	802.11b	Left Side	20	6	Ant 0+1	w/o	99.90	1.00	17.0	16.94	1.01	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Right Side	0	6	Ant 0+1	w/o	99.90	1.00	17.0	16.94	1.01	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	13	6	Ant 0+1	w/o	99.90	1.00	17.0	16.94	1.01	-0.14	0.159	0.16
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0	w/	99.90	1.00	10.0	9.98	1.00	-0.04	0.485	0.49
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0	w/	99.90	1.00	10.0	9.98	1.00	0.02	0.047	0.05
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0	w/	99.90	1.00	10.0	9.98	1.00	0.13	0.067	0.07
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 1	w/	99.90	1.00	10.0	9.99	1.00	0.00	0.207	0.21
	WLAN2.4G	802.11b	Top Side	0	6	Ant 1	w/	99.90	1.00	10.0	9.99	1.00	0.09	0.048	0.05
15	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0+1	w/	99.90	1.00	12.5	12.48	1.00	0.04	0.697	0.70
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0+1	w/	99.90	1.00	12.5	12.48	1.00	0.02	0.044	0.04
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0+1	w/	99.90	1.00	12.5	12.48	1.00	0.09	0.045	0.05
	WLAN2.4G	802.11b	Rear Face	0	1	Ant 0+1	w/	99.90	1.00	12.5	12.38	1.03	-0.13	0.645	0.66
	WLAN2.4G	802.11b	Rear Face	0	11	Ant 0+1	w/	99.90	1.00	12.5	12.46	1.01	0.02	0.604	0.61

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.	Ant Status	P-Sensor	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	802.11ac VHT80	Rear Face	25	58	Ant 0	w/o	97.60	1.02	18.0	17.97	1.01	0.02	0.154	0.16
	WLAN5.3G	802.11ac VHT80	Left Side	20	58	Ant 0	w/o	97.60	1.02	18.0	17.97	1.01	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	13	58	Ant 0	w/o	97.60	1.02	18.0	17.97	1.01	0.13	0.342	0.35
	WLAN5.3G	802.11ac VHT80	Rear Face	25	58	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	0.09	0.142	0.15
	WLAN5.3G	802.11ac VHT80	Right Side	0	58	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	13	58	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	0.05	0.072	0.08
	WLAN5.2G	802.11a	Rear Face	25	40	Ant 0+1	w/o	98.90	1.01	21.0	20.95	1.01	0.01	0.172	0.18
	WLAN5.2G	802.11a	Left Side	20	40	Ant 0+1	w/o	98.90	1.01	21.0	20.95	1.01	0.00	<0.001	0.00
	WLAN5.2G	802.11a	Right Side	0	40	Ant 0+1	w/o	98.90	1.01	21.0	20.95	1.01	0.00	<0.001	0.00
	WLAN5.2G	802.11a	Top Side	13	40	Ant 0+1	w/o	98.90	1.01	21.0	20.95	1.01	-0.14	0.477	0.49
16	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 0	w/	97.60	1.02	9.0	8.92	1.02	0.10	0.680	0.71
	WLAN5.3G	802.11ac VHT80	Left Side	0	58	Ant 0	w/	97.60	1.02	9.0	8.92	1.02	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 0	w/	97.60	1.02	9.0	8.92	1.02	0.02	0.278	0.29
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 1	w/	92.70	1.08	9.5	9.42	1.02	-0.01	0.570	0.63
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 1	w/	92.70	1.08	9.5	9.42	1.02	0.09	0.124	0.14
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 0+1	w/	89.70	1.11	12.5	12.32	1.04	-0.12	0.614	0.71
	WLAN5.3G	802.11ac VHT80	Left Side	0	58	Ant 0+1	w/	89.70	1.11	12.5	12.32	1.04	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 0+1	w/	89.70	1.11	12.5	12.32	1.04	0.03	0.284	0.33

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

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FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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)
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 0	w/o	97.60	1.02	18.0	17.95	1.01	0.18	0.130	0.13
	WLAN5.6G	802.11ac VHT80	Left Side	20	106	Ant 0	w/o	97.60	1.02	18.0	17.95	1.01	-0.07	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 0	w/o	97.60	1.02	18.0	17.95	1.01	0.05	0.266	0.27
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	0.17	0.078	0.09
	WLAN5.6G	802.11ac VHT80	Right Side	0	106	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	-0.04	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 1	w/o	92.70	1.08	18.0	17.94	1.01	-0.01	0.083	0.09
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 0+1	w/o	89.70	1.11	18.0	17.94	1.01	0.11	0.066	0.07
	WLAN5.6G	802.11ac VHT80	Left Side	20	106	Ant 0+1	w/o	89.70	1.11	18.0	17.94	1.01	-0.16	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Right Side	0	106	Ant 0+1	w/o	89.70	1.11	18.0	17.94	1.01	-0.04	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 0+1	w/o	89.70	1.11	18.0	17.94	1.01	-0.14	0.096	0.11
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 0	w/	97.60	1.02	9.0	8.96	1.01	-0.07	0.162	0.17
	WLAN5.6G	802.11ac VHT80	Left Side	0	106	Ant 0	w/	97.60	1.02	9.0	8.96	1.01	0.03	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 0	w/	97.60	1.02	9.0	8.96	1.01	0.11	0.064	0.07
17	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 1	w/	92.70	1.08	9.0	8.94	1.01	-0.08	0.532	0.58
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 1	w/	92.70	1.08	9.0	8.94	1.01	-0.03	0.126	0.14
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 0+1	w/	89.70	1.11	12.0	11.97	1.01	0.11	0.439	0.49
	WLAN5.6G	802.11ac VHT80	Left Side	0	106	Ant 0+1	w/	89.70	1.11	12.0	11.97	1.01	-0.04	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 0+1	w/	89.70	1.11	12.0	11.97	1.01	0.16	0.122	0.14
	WLAN5.6G	802.11ac VHT80	Rear Face	0	122	Ant 1	w/	92.70	1.08	9.0	8.92	1.02	-0.04	0.446	0.49
	WLAN5.6G	802.11ac VHT80	Rear Face	0	138	Ant 1	w/	92.70	1.08	9.0	8.93	1.02	0.09	0.452	0.50
	WLAN5.8G	802.11ac VHT80	Rear Face	25	155	Ant 0	w/o	97.60	1.02	18.0	17.91	1.02	0.04	0.144	0.15
	WLAN5.8G	802.11ac VHT80	Left Side	20	155	Ant 0	w/o	97.60	1.02	18.0	17.91	1.02	-0.03	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 0	w/o	97.60	1.02	18.0	17.91	1.02	0.03	0.279	0.29
	WLAN5.8G	802.11ac VHT80	Rear Face	25	155	Ant 1	w/o	92.70	1.08	18.0	17.89	1.03	-0.10	0.137	0.15
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 1	w/o	92.70	1.08	18.0	17.89	1.03	-0.10	0.063	0.07
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 1	w/o	92.70	1.08	18.0	17.89	1.03	-0.05	0.114	0.13
	WLAN5.8G	802.11ac VHT80	Rear Face	25	155	Ant 0+1	w/o	89.70	1.11	18.0	17.93	1.02	-0.03	0.079	0.09
	WLAN5.8G	802.11ac VHT80	Left Side	20	155	Ant 0+1	w/o	89.70	1.11	18.0	17.93	1.02	0.06	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 0+1	w/o	89.70	1.11	18.0	17.93	1.02	-0.07	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 0+1	w/o	89.70	1.11	18.0	17.93	1.02	0.00	0.115	0.13
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0	w/	97.60	1.02	8.5	8.47	1.01	-0.15	0.196	0.20
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0	w/	97.60	1.02	8.5	8.47	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0	w/	97.60	1.02	8.5	8.47	1.01	0.13	0.082	0.08
18	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 1	w/	92.70	1.08	9.0	8.95	1.01	-0.01	0.506	0.55
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 1	w/	92.70	1.08	9.0	8.95	1.01	0.05	0.032	0.03
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0+1	w/	89.70	1.11	11.5	11.46	1.01	0.01	0.429	0.48
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0+1	w/	89.70	1.11	11.5	11.46	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0+1	w/	89.70	1.11	11.5	11.46	1.01	-0.07	0.141	0.16
	BT	BDR	Rear Face	0	0	Ant 1	w/o	80.60	1.24	6.0	5.95	1.01	0.09	0.055	0.07
	BT	BDR	Right Side	0	0	Ant 1	w/o	80.60	1.24	6.0	5.95	1.01	0.00	<0.001	0.00
	BT	BDR	Top Side	0	0	Ant 1	w/o	80.60	1.24	6.0	5.95	1.01	0.00	<0.001	0.00
	BT	BDR	Rear Face	0	39	Ant 1	w/o	80.60	1.24	6.0	5.94	1.01	0.01	0.061	0.08
19	BT	BDR	Rear Face	0	78	Ant 1	w/o	80.60	1.24	6.0	5.89	1.03	0.16	0.070	0.09

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

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FCC SAR Test Report

<RTL8822CE module>

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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	25	6	Ant 0	w/o	100.00	1.00	17.0	16.96	1.01	-0.09	0.067	0.07
	WLAN2.4G	802.11b	Left Side	20	6	Ant 0	w/o	100.00	1.00	17.0	16.96	1.01	-0.15	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	13	6	Ant 0	w/o	100.00	1.00	17.0	16.96	1.01	-0.04	0.144	0.15
	WLAN2.4G	802.11b	Rear Face	25	6	Ant 1	w/o	100.00	1.00	17.0	16.87	1.03	-0.06	0.022	0.02
	WLAN2.4G	802.11b	Right Side	0	6	Ant 1	w/o	100.00	1.00	17.0	16.87	1.03	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	13	6	Ant 1	w/o	100.00	1.00	17.0	16.87	1.03	-0.09	0.072	0.07
	WLAN2.4G	802.11b	Rear Face	25	6	Ant 0+1	w/o	100.00	1.00	17.0	16.94	1.01	-0.15	0.026	0.03
	WLAN2.4G	802.11b	Left Side	20	6	Ant 0+1	w/o	100.00	1.00	17.0	16.94	1.01	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Right Side	0	6	Ant 0+1	w/o	100.00	1.00	17.0	16.94	1.01	0.13	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	13	6	Ant 0+1	w/o	100.00	1.00	17.0	16.94	1.01	0.12	0.077	0.08
20	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0	w/	100.00	1.00	10.0	9.94	1.01	-0.10	0.290	0.29
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0	w/	100.00	1.00	10.0	9.94	1.01	0.00	0.048	0.05
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0	w/	100.00	1.00	10.0	9.94	1.01	0.00	0.165	0.17
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 1	w/	100.00	1.00	10.0	9.99	1.00	0.01	0.191	0.19
	WLAN2.4G	802.11b	Top Side	0	6	Ant 1	w/	100.00	1.00	10.0	9.99	1.00	0.00	0.092	0.09
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0+1	w/	100.00	1.00	12.5	12.44	1.01	-0.03	0.251	0.25
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0+1	w/	100.00	1.00	12.5	12.44	1.01	0.01	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0+1	w/	100.00	1.00	12.5	12.44	1.01	0.14	0.156	0.16
	WLAN2.4G	802.11b	Rear Face	0	1	Ant 0	w/	100.00	1.00	10.0	9.92	1.02	-0.03	0.277	0.28
	WLAN2.4G	802.11b	Rear Face	0	11	Ant 0	w/	100.00	1.00	10.0	9.87	1.03	0.13	0.273	0.28
	WLAN5.3G	802.11ac VHT80	Rear Face	25	58	Ant 0	w/o	100.00	1.00	18.0	17.88	1.03	-0.06	0.13	0.13
	WLAN5.3G	802.11ac VHT80	Left Side	20	58	Ant 0	w/o	100.00	1.00	18.0	17.88	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	13	58	Ant 0	w/o	100.00	1.00	18.0	17.88	1.03	-0.09	0.285	0.29
	WLAN5.3G	802.11ac VHT80	Rear Face	25	58	Ant 1	w/o	100.00	1.00	18.0	17.92	1.02	-0.15	0.16	0.16
	WLAN5.3G	802.11ac VHT80	Right Side	0	58	Ant 1	w/o	100.00	1.00	18.0	17.92	1.02	0.00	<0.001	0.00
	WLAN5.3G	802.11ac VHT80	Top Side	13	58	Ant 1	w/o	100.00	1.00	18.0	17.92	1.02	0.13	0.121	0.12
	WLAN5.2G	802.11a	Rear Face	25	40	Ant 0+1	w/o	100.00	1.00	21.0	20.87	1.03	0.12	0.242	0.25
	WLAN5.2G	802.11a	Left Side	20	40	Ant 0+1	w/o	100.00	1.00	21.0	20.87	1.03	0.00	<0.001	0.00
	WLAN5.2G	802.11a	Right Side	0	40	Ant 0+1	w/o	100.00	1.00	21.0	20.87	1.03	0.00	<0.001	0.00
	WLAN5.2G	802.11a	Top Side	13	40	Ant 0+1	w/o	100.00	1.00	21.0	20.87	1.03	0.09	0.493	0.51
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 0	w/	100.00	1.00	9.0	8.96	1.01	0.01	0.67	0.68
	WLAN5.3G	802.11ac VHT80	Left Side	0	58	Ant 0	w/	100.00	1.00	9.0	8.96	1.01	0.00	0.081	0.08
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 0	w/	100.00	1.00	9.0	8.96	1.01	-0.02	0.633	0.64
21	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 1	w/	100.00	1.00	9.5	9.48	1.00	-0.16	0.829	0.83
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 1	w/	100.00	1.00	9.5	9.48	1.00	0.14	0.257	0.26
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 0+1	w/	100.00	1.00	12.5	12.41	1.02	-0.03	0.725	0.74
	WLAN5.3G	802.11ac VHT80	Left Side	0	58	Ant 0+1	w/	100.00	1.00	12.5	12.41	1.02	0.00	0.071	0.07
	WLAN5.3G	802.11ac VHT80	Top Side	0	58	Ant 0+1	w/	100.00	1.00	12.5	12.41	1.02	0.11	0.574	0.59
	WLAN5.3G	802.11ac VHT80	Rear Face	0	58	Ant 1	w/	100.00	1.00	9.5	9.48	1.00	0.03	0.818	0.82
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 0	w/o	100.00	1.00	18.0	17.93	1.02	0.01	0.134	0.14
	WLAN5.6G	802.11ac VHT80	Left Side	20	106	Ant 0	w/o	100.00	1.00	18.0	17.93	1.02	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 0	w/o	100.00	1.00	18.0	17.93	1.02	0.10	0.218	0.22
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 1	w/o	100.00	1.00	18.0	17.91	1.02	-0.02	0.084	0.09
	WLAN5.6G	802.11ac VHT80	Right Side	0	106	Ant 1	w/o	100.00	1.00	18.0	17.91	1.02	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 1	w/o	100.00	1.00	18.0	17.91	1.02	-0.04	0.071	0.07
	WLAN5.6G	802.11ac VHT80	Rear Face	25	106	Ant 0+1	w/o	100.00	1.00	18.0	17.95	1.01	0.02	0.077	0.08
	WLAN5.6G	802.11ac VHT80	Left Side	20	106	Ant 0+1	w/o	100.00	1.00	18.0	17.95	1.01	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Right Side	0	106	Ant 0+1	w/o	100.00	1.00	18.0	17.95	1.01	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	13	106	Ant 0+1	w/o	100.00	1.00	18.0	17.95	1.01	0.11	0.153	0.15
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 0	w/	100.00	1.00	9.0	8.95	1.01	0.01	0.176	0.18
	WLAN5.6G	802.11ac VHT80	Left Side	0	106	Ant 0	w/	100.00	1.00	9.0	8.95	1.01	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 0	w/	100.00	1.00	9.0	8.95	1.01	-0.01	0.139	0.14
22	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 1	w/	100.00	1.00	9.0	8.94	1.01	-0.02	0.651	0.66
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 1	w/	100.00	1.00	9.0	8.94	1.01	0.17	0.238	0.24
	WLAN5.6G	802.11ac VHT80	Rear Face	0	106	Ant 0+1	w/	100.00	1.00	12.0	11.97	1.01	-0.14	0.532	0.54
	WLAN5.6G	802.11ac VHT80	Left Side	0	106	Ant 0+1	w/	100.00	1.00	12.0	11.97	1.01	0.00	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Top Side	0	106	Ant 0+1	w/	100.00	1.00	12.0	11.97	1.01	0.01	0.175	0.18
	WLAN5.6G	802.11ac VHT80	Rear Face	0	122	Ant 1	w/	100.00	1.00	9.0	8.82	1.04	-0.01	0.592	0.62
	WLAN5.6G	802.11ac VHT80	Rear Face	0	138	Ant 1	w/	100.00	1.00	9.0	8.84	1.04	0.09	0.507	0.53

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

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FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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	25	155	Ant 0	w/o	100.00	1.00	18.0	17.96	1.01	0.03	0.083	0.08
	WLAN5.8G	802.11ac VHT80	Left Side	20	155	Ant 0	w/o	100.00	1.00	18.0	17.96	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 0	w/o	100.00	1.00	18.0	17.96	1.01	0.11	0.132	0.13
	WLAN5.8G	802.11ac VHT80	Rear Face	25	155	Ant 1	w/o	100.00	1.00	18.0	17.86	1.03	0.01	0.081	0.08
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 1	w/o	100.00	1.00	18.0	17.86	1.03	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 1	w/o	100.00	1.00	18.0	17.86	1.03	0.03	0.078	0.08
	WLAN5.8G	802.11ac VHT80	Rear Face	25	155	Ant 0+1	w/o	100.00	1.00	18.0	17.93	1.02	-0.09	0.052	0.05
	WLAN5.8G	802.11ac VHT80	Left Side	20	155	Ant 0+1	w/o	100.00	1.00	18.0	17.93	1.02	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 0+1	w/o	100.00	1.00	18.0	17.93	1.02	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	13	155	Ant 0+1	w/o	100.00	1.00	18.0	17.93	1.02	0.11	0.076	0.08
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0	w/	100.00	1.00	8.5	8.44	1.01	0.06	0.206	0.21
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0	w/	100.00	1.00	8.5	8.44	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0	w/	100.00	1.00	8.5	8.44	1.01	0.11	0.138	0.14
23	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 1	w/	100.00	1.00	9.0	8.92	1.02	-0.19	0.606	0.62
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 1	w/	100.00	1.00	9.0	8.92	1.02	0.01	0.304	0.31
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0+1	w/	100.00	1.00	11.5	11.44	1.01	0.13	0.606	0.61
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0+1	w/	100.00	1.00	11.5	11.44	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0+1	w/	100.00	1.00	11.5	11.44	1.01	0.08	0.278	0.28
	BT	LE	Rear Face	0	19	Ant 1	-	85.60	1.17	6.0	5.43	1.14	0.03	0.042	0.06
	BT	LE	Right Side	0	19	Ant 1	-	85.60	1.17	6.0	5.43	1.14	0.01	<0.001	0.00
	BT	LE	Top Side	0	19	Ant 1	-	85.60	1.17	6.0	5.43	1.14	-0.01	<0.001	0.00
24	BT	LE	Rear Face	0	0	Ant 1	-	85.60	1.17	6.0	5.30	1.17	0.13	0.064	0.09

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

Laptop Mode

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
25	WCDMA II	RMC12.2K	Bottom	0	9400	w/	13.5	13.46	1.01	0.04	0.446	0.45
	WCDMA II	RMC12.2K	Bottom	0	9262	w/	13.5	13.36	1.03	-0.04	0.423	0.44
	WCDMA II	RMC12.2K	Bottom	0	9538	w/	13.5	13.45	1.01	0.18	0.418	0.42
	WCDMA IV	RMC12.2K	Bottom	0	1413	w/	13.5	13.43	1.02	-0.04	0.343	0.35
	WCDMA IV	RMC12.2K	Bottom	0	1312	w/	13.5	13.40	1.02	0.12	0.332	0.34
26	WCDMA IV	RMC12.2K	Bottom	0	1513	w/	13.5	13.31	1.04	0.01	0.356	0.37
	WCDMA V	RMC12.2K	Bottom	0	4182	w/	18.5	18.27	1.05	0.17	0.438	0.46
	WCDMA V	RMC12.2K	Bottom	0	4132	w/	18.5	18.12	1.09	-0.18	0.434	0.47
27	WCDMA V	RMC12.2K	Bottom	0	4233	w/	18.5	18.19	1.07	0.02	0.442	0.47

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
28	LTE 2	QPSK20M	Bottom	0	18900	1	0	w/	13.5	13.49	1.00	0.02	0.416	0.42
	LTE 2	QPSK20M	Bottom	0	18900	50	0	w/	13.5	13.45	1.01	0.14	0.398	0.40
	LTE 2	QPSK20M	Bottom	0	18700	1	0	w/	13.5	13.41	1.02	0.13	0.386	0.39
	LTE 2	QPSK20M	Bottom	0	19100	1	0	w/	13.5	13.43	1.02	-0.08	0.40	0.41
	LTE 4	QPSK20M	Bottom	0	20175	1	0	w/	13.5	13.41	1.02	-0.18	0.349	0.36
	LTE 4	QPSK20M	Bottom	0	20175	50	50	w/	13.5	13.36	1.03	0.13	0.33	0.34
	LTE 4	QPSK20M	Bottom	0	20050	1	0	w/	13.5	13.39	1.03	0.11	0.353	0.36
29	LTE 4	QPSK20M	Bottom	0	20300	1	0	w/	13.5	13.37	1.03	0.07	0.364	0.37
	LTE 5	QPSK20M	Bottom	0	20600	1	0	w/	18.0	17.83	1.04	0.02	0.359	0.37
	LTE 5	QPSK20M	Bottom	0	20600	25	25	w/	18.0	17.77	1.05	0.06	0.371	0.39
48	LTE 5	QPSK20M	Bottom	0	20450	1	0	w/	18.0	17.81	1.04	0.08	0.388	0.40
	LTE 5	QPSK20M	Bottom	0	20525	1	0	w/	18.0	17.80	1.05	-0.11	0.352	0.37
	LTE 7	QPSK20M	Bottom	0	21350	1	0	w/	11.5	11.32	1.04	0.19	0.244	0.25
	LTE 7	QPSK20M	Bottom	0	21350	50	50	w/	11.5	11.22	1.07	-0.01	0.233	0.25
	LTE 7	QPSK20M	Bottom	0	20850	1	0	w/	11.5	10.89	1.15	0.04	0.227	0.26
30	LTE 7	QPSK20M	Bottom	0	21100	1	0	w/	11.5	11.25	1.06	-0.08	0.249	0.26

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FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
31	LTE 12	QPSK10M	Bottom	0	23095	1	0	w/	18.0	17.79	1.05	0.09	0.388	0.41
	LTE 12	QPSK10M	Bottom	0	23095	25	0	w/	18.0	17.73	1.06	0.12	0.38	0.40
	LTE 12	QPSK10M	Bottom	0	23060	1	0	w/	18.0	17.77	1.05	-0.03	0.376	0.39
	LTE 12	QPSK10M	Bottom	0	23130	1	0	w/	18.0	17.75	1.06	-0.08	0.382	0.40
32	LTE 13	QPSK10M	Bottom	0	23230	1	0	w/	17.0	16.94	1.01	0.07	0.438	0.44
	LTE 13	QPSK10M	Bottom	0	23230	25	12	w/	17.0	16.91	1.02	0.16	0.426	0.43
33	LTE 17	QPSK10M	Bottom	0	23780	1	0	w/	19.5	19.48	1.00	-0.09	0.525	0.53
	LTE 17	QPSK10M	Bottom	0	23780	25	25	w/	19.5	19.43	1.02	-0.12	0.476	0.49
	LTE 17	QPSK10M	Bottom	0	23790	1	0	w/	19.5	19.41	1.02	0.04	0.504	0.51
	LTE 17	QPSK10M	Bottom	0	23800	1	0	w/	19.5	19.37	1.03	-0.10	0.509	0.52
34	LTE 26	QPSK15M	Bottom	0	26765	1	0	w/	18.5	18.48	1.00	0.05	0.440	0.44
	LTE 26	QPSK15M	Bottom	0	26765	36	19	w/	18.5	18.46	1.01	-0.02	0.413	0.42
	LTE 26	QPSK15M	Bottom	0	26865	1	0	w/	18.5	18.38	1.03	0.17	0.421	0.43
	LTE 26	QPSK15M	Bottom	0	26965	1	0	w/	18.5	18.43	1.02	0.01	0.404	0.41
35	LTE 30	QPSK10M	Bottom	0	27710	1	0	w/	15.0	14.87	1.03	-0.08	0.654	0.67
	LTE 30	QPSK10M	Bottom	0	27710	25	0	w/	15.0	14.80	1.05	-0.02	0.622	0.65
	LTE 41	QPSK20M	Bottom	0	41055	1	0	w/	14.0	13.96	1.01	0.01	0.202	0.20
	LTE 41	QPSK20M	Bottom	0	41055	50	0	w/	14.0	13.76	1.06	-0.01	0.196	0.21
	LTE 41	QPSK20M	Bottom	0	39750	1	0	w/	14.0	13.70	1.07	0.11	0.247	0.26
36	LTE 41	QPSK20M	Bottom	0	40185	1	0	w/	14.0	13.90	1.02	-0.08	0.264	0.27
	LTE 41	QPSK20M	Bottom	0	40620	1	0	w/	14.0	13.77	1.05	-0.01	0.241	0.25
	LTE 41	QPSK20M	Bottom	0	41490	1	0	w/	14.0	13.73	1.06	0.08	0.187	0.20
	LTE 66	QPSK20M	Bottom	0	132072	1	0	w/	16.5	16.39	1.03	-0.08	0.615	0.63
	LTE 66	QPSK20M	Bottom	0	132072	50	25	w/	16.5	16.37	1.03	-0.13	0.581	0.60
	LTE 66	QPSK20M	Bottom	0	132322	1	0	w/	16.5	16.34	1.04	0.15	0.621	0.65
37	LTE 66	QPSK20M	Bottom	0	132572	1	0	w/	16.5	16.27	1.05	0.07	0.641	0.67

<9560NGW module>

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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)
38	WLAN2.4G	802.11b	Bottom	0	6	Ant 0	w/	99.90	1.00	10.0	9.98	1.00	-0.11	0.403	0.40
	WLAN2.4G	802.11b	Bottom	0	6	Ant 1	w/	99.90	1.00	10.0	9.99	1.00	0.13	0.268	0.27
	WLAN2.4G	802.11b	Bottom	0	6	Ant 0+1	w/	99.90	1.00	12.5	12.48	1.00	-0.11	0.348	0.35
	WLAN2.4G	802.11b	Bottom	0	1	Ant 0	w/	99.90	1.00	10.0	9.89	1.03	0.05	0.382	0.39
	WLAN2.4G	802.11b	Bottom	0	11	Ant 0	w/	99.90	1.00	10.0	9.92	1.02	-0.19	0.366	0.37
39	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 0	w/	97.60	1.02	9.0	8.92	1.02	-0.17	0.201	0.21
	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 1	w/	92.70	1.08	9.5	9.42	1.02	0.11	0.083	0.09
	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 0+1	w/	89.70	1.11	12.5	12.32	1.04	0.08	0.176	0.20
	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 0	w/	97.60	1.02	9.0	8.96	1.01	0.13	0.204	0.21
	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 1	w/	92.70	1.08	9.0	8.94	1.01	0.13	0.144	0.16
	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 0+1	w/	89.70	1.11	12.0	11.97	1.01	-0.11	0.185	0.21
	WLAN5.6G	802.11ac VHT80	Bottom	0	122	Ant 0	w/	97.60	1.02	9.0	8.91	1.02	0.02	0.199	0.21
40	WLAN5.6G	802.11ac VHT80	Bottom	0	138	Ant 0	w/	97.60	1.02	9.0	8.92	1.02	-0.08	0.240	0.25
	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 0	w/	97.60	1.02	8.5	8.47	1.01	-0.07	0.178	0.18
	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 1	w/	92.70	1.08	9.0	8.95	1.01	0.01	0.162	0.18
41	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 0+1	w/	89.70	1.11	11.5	11.46	1.01	-0.11	0.234	0.26
42	BT	BDR	Bottom	0	0	Ant 1	w/	80.60	1.24	6.0	5.95	1.01	0.10	0.028	0.04
	BT	BDR	Bottom	0	39	Ant 1	w/	80.60	1.24	6.0	5.94	1.01	0.03	0.025	0.03
	BT	BDR	Bottom	0	78	Ant 1	w/	80.60	1.24	6.0	5.89	1.03	0.13	0.026	0.03

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<RTL8822CE module>

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant Status	P-Sensor	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)
43	WLAN2.4G	802.11b	Bottom	0	6	Ant 0	w/	100.00	1.00	10.0	9.94	1.01	0.10	0.213	0.22
	WLAN2.4G	802.11b	Bottom	0	6	Ant 1	w/	100.00	1.00	10.0	9.99	1.00	-0.02	0.141	0.14
	WLAN2.4G	802.11b	Bottom	0	6	Ant 0+1	w/	100.00	1.00	12.5	12.44	1.01	0.05	0.188	0.19
	WLAN2.4G	802.11b	Bottom	0	1	Ant 0	w/	100.00	1.00	10.0	9.92	1.02	-0.02	0.208	0.21
	WLAN2.4G	802.11b	Bottom	0	11	Ant 0	w/	100.00	1.00	10.0	9.87	1.03	0.01	0.200	0.21
	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 0	w/	100.00	1.00	9.0	8.96	1.01	0.02	0.428	0.43
	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 1	w/	100.00	1.00	9.5	9.48	1.00	0.01	0.456	0.46
44	WLAN5.3G	802.11ac VHT80	Bottom	0	58	Ant 0+1	w/	100.00	1.00	12.5	12.41	1.02	-0.08	0.562	0.57
45	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 0	w/	100.00	1.00	9.0	8.95	1.01	-0.06	0.190	0.19
	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 1	w/	100.00	1.00	9.0	8.94	1.01	0.01	0.066	0.07
	WLAN5.6G	802.11ac VHT80	Bottom	0	106	Ant 0+1	w/	100.00	1.00	12.0	11.97	1.01	-0.01	0.175	0.18
	WLAN5.6G	802.11ac VHT80	Bottom	0	122	Ant 0	w/	100.00	1.00	9.0	8.86	1.03	-0.02	0.109	0.11
	WLAN5.6G	802.11ac VHT80	Bottom	0	138	Ant 0	w/	100.00	1.00	9.0	8.84	1.04	0.05	0.077	0.08
46	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 0	w/	100.00	1.00	8.5	8.44	1.01	-0.07	0.210	0.21
	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 1	w/	100.00	1.00	9.0	8.92	1.02	0.07	0.16	0.16
	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 0+1	w/	100.00	1.00	11.5	11.44	1.01	-0.11	0.171	0.17
47	BT	LE	Bottom	0	19	Ant 1	-	85.60	1.17	6.0	5.43	1.14	-0.05	0.028	0.04
	BT	LE	Bottom	0	0	Ant 1	-	85.60	1.17	6.0	5.30	1.17	-0.01	0.024	0.03
	BT	LE	Bottom	0	39	Ant 1	-	85.60	1.17	6.0	4.80	1.32	-0.01	0.022	0.03

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 ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 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:

- When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
- When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
- 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 ≥ 1.5 W/kg, perform a third repeated measurement.

Band	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
WLAN5.3G	Rear Face	58	0.829	0.818	1.01	N/A	N/A	N/A	N/A



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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 Ant0	Yes
2	WWAN + WLAN2.4G Ant1	Yes
3	WWAN + WLAN5G Ant0	Yes
4	WWAN + WLAN5G Ant1	Yes
5	WWAN + BT Ant1	Yes
6	WLAN2.4G Ant0 + BT Ant1	Yes
7	WLAN5G Ant0 + BT Ant1	Yes
8	WWAN + WLAN2.4G Ant0 + BT Ant1	Yes
9	WWAN + WLAN5G Ant0 + BT Ant1	Yes
10	WWAN + WLAN2.4G MIMO	Yes
11	WWAN + WLAN5G MIMO	Yes

Note:

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.
2. Plot 1 is covered by plot8
3. Plot 3 is covered by plot9
4. Plot 5 is covered by plot9
5. Plot 6 is covered by plot8
6. Plot 7 is covered by plot9

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<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 <= 0.4 W/kg to determine simultaneous transmission SAR test exclusion.

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

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

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Estimated SAR (W/kg)
WCDMA II	1.9076	24.5	Body	5	0.40
WCDMA IV	1.7526	24.0	Body	5	0.40
WCDMA V	0.8466	24.5	Body	5	0.40
LTE 2	1.91	24.5	Body	5	0.40
LTE 4	1.755	24.0	Body	5	0.40
LTE 5	0.849	24.5	Body	5	0.40
LTE 7	2.57	24.0	Body	5	0.40
LTE 12	0.716	24.5	Body	5	0.40
LTE 13	0.787	24.5	Body	5	0.40
LTE17	0.716	24.5	Body	5	0.40
LTE 26	0.849	24.5	Body	5	0.40
LTE 30	2.315	23.0	Body	5	0.40
LTE 41	2.69	24.0	Body	5	0.40
LTE 66	1.78	24.0	Body	5	0.40
WLAN (DTS)	2.462	18.0	Body	5	0.40
WLAN (NII)	5.24	21.0	Body	5	0.40
WLAN (NII)	5.32	18.5	Body	5	0.40
WLAN (NII)	5.72	18.0	Body	5	0.40
WLAN (NII)	5.825	18.0	Body	5	0.40
BT (DSS)	2.48	6.0	Body	5	0.17

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.

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<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_{1g} of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR_{1g} 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR_{1g} is greater than the SAR limit (SAR_{1g} 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

<9560NGW module>

Tablet Mode

Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
WCDMA II	Rear Face	0.48	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.06	1.28	1.18	1.19	0.69	1.11
	Left Side	0.20	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.42	0.37	0.24	0.20	0.60	0.60
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.14	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.21	0.49	0.30	0.63	0.20	0.28
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
WCDMA IV	Rear Face	0.46	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.04	1.26	1.16	1.17	0.67	1.09
	Left Side	0.26	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.48	0.43	0.30	0.26	0.66	0.66
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.10	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.17	0.45	0.26	0.59	0.16	0.24
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
WCDMA V	Rear Face	0.75	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.33	1.55	1.45	1.46	0.96	1.38
	Left Side	0.28	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.50	0.45	0.32	0.28	0.68	0.68
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.04	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.11	0.39	0.20	0.53	0.10	0.18
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
LTE 2	Rear Face	0.43	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.01	1.23	1.13	1.14	0.64	1.06
	Left Side	0.21	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.43	0.38	0.25	0.21	0.61	0.61
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.12	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.19	0.47	0.28	0.61	0.18	0.26
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 4	Rear Face	0.44	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.02	1.24	1.14	1.15	0.65	1.07
	Left Side	0.26	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.48	0.43	0.30	0.26	0.66	0.66
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.10	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.17	0.45	0.26	0.59	0.16	0.24
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 5	Rear Face	0.73	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.31	1.53	1.43	1.44	0.94	1.36
	Left Side	0.27	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.49	0.44	0.31	0.27	0.67	0.67
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.03	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.10	0.38	0.19	0.52	0.09	0.17
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 7	Rear Face	0.47	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.05	1.27	1.17	1.18	0.68	1.10
	Left Side	0.11	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.33	0.28	0.15	0.11	0.51	0.51
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.10	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.17	0.45	0.26	0.59	0.16	0.24
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 12	Rear Face	0.67	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.25	1.47	1.37	1.38	0.88	1.30
	Left Side	0.33	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.55	0.50	0.37	0.33	0.73	0.73
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.02	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.09	0.37	0.18	0.51	0.08	0.16
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 13	Rear Face	0.38	0.49	0.21	0.70	0.71	0.63	0.71	0.09	0.96	1.18	1.08	1.09	0.59	1.01
	Left Side	0.15	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.37	0.32	0.19	0.15	0.55	0.55
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.05	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.12	0.40	0.21	0.54	0.11	0.19
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
LTE 17	Rear Face	0.66	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.24	1.46	1.36	1.37	0.87	1.29
	Left Side	0.52	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.74	0.69	0.56	0.52	0.92	0.92
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.02	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.09	0.37	0.18	0.51	0.08	0.16
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 26	Rear Face	0.76	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.34	1.56	1.46	1.47	0.97	1.39
	Left Side	0.25	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.47	0.42	0.29	0.25	0.65	0.65
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.04	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.11	0.39	0.20	0.53	0.10	0.18
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 30	Rear Face	0.50	0.49	0.21	0.70	0.71	0.63	0.71	0.09	1.08	1.30	1.20	1.21	0.71	1.13
	Left Side	0.12	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.34	0.29	0.16	0.12	0.52	0.52
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.03	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.10	0.38	0.19	0.52	0.09	0.17
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 41	Rear Face	0.31	0.49	0.21	0.70	0.71	0.63	0.71	0.09	0.89	1.11	1.01	1.02	0.52	0.94
	Left Side	0.06	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.28	0.23	0.10	0.06	0.46	0.46
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.03	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.10	0.38	0.19	0.52	0.09	0.17
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 66	Rear Face	0.41	0.49	0.21	0.70	0.71	0.63	0.71	0.09	0.99	1.21	1.11	1.12	0.62	1.04
	Left Side	0.23	0.05	0.40	0.04	0.00	0.40	0.00	0.17	0.45	0.40	0.27	0.23	0.63	0.63
	Right Side	0.40	0.40	0.03	0.00	0.40	0.07	0.00	0.00	0.80	0.80	0.40	0.40	0.43	0.47
	Top Side	0.09	0.07	0.06	0.16	0.35	0.14	0.49	0.00	0.16	0.44	0.25	0.58	0.15	0.23
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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FCC SAR Test Report

Laptop Mode

Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
WCDMA II	Bottom	0.45	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.89	0.74	0.80	0.71	0.72	0.63
WCDMA IV	Bottom	0.37	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.81	0.66	0.72	0.63	0.64	0.55
WCDMA V	Bottom	0.47	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.91	0.76	0.82	0.73	0.74	0.65
LTE 2	Bottom	0.42	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.86	0.71	0.77	0.68	0.69	0.60
LTE 4	Bottom	0.37	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.81	0.66	0.72	0.63	0.64	0.55
LTE 5	Bottom	0.40	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.84	0.69	0.75	0.66	0.67	0.58
LTE 7	Bottom	0.26	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.70	0.55	0.61	0.52	0.53	0.44
LTE 12	Bottom	0.41	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.85	0.70	0.76	0.67	0.68	0.59
LTE 13	Bottom	0.44	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.88	0.73	0.79	0.70	0.71	0.62
LTE 17	Bottom	0.53	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.97	0.82	0.88	0.79	0.80	0.71
LTE 26	Bottom	0.44	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.88	0.73	0.79	0.70	0.71	0.62
LTE 30	Bottom	0.67	0.40	0.27	0.35	0.25	0.18	0.26	0.04	1.11	0.96	1.02	0.93	0.94	0.85
LTE 41	Bottom	0.27	0.40	0.27	0.35	0.25	0.18	0.26	0.04	0.71	0.56	0.62	0.53	0.54	0.45
LTE 66	Bottom	0.67	0.40	0.27	0.35	0.25	0.18	0.26	0.04	1.11	0.96	1.02	0.93	0.94	0.85

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FCC SAR Test Report

<RTL8822CE module>

Tablet Mode

Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
WCDMA II	Rear Face	0.48	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.89	1.28	0.73	1.22	0.67	1.31
	Left Side	0.20	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.42	0.45	0.20	0.27	0.60	0.60
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.14	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.31	0.78	0.30	0.73	0.23	0.45
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
WCDMA IV	Rear Face	0.46	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.87	1.26	0.71	1.20	0.65	1.29
	Left Side	0.26	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.48	0.51	0.26	0.33	0.66	0.66
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.10	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.27	0.74	0.26	0.69	0.19	0.41
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
WCDMA V	Rear Face	0.75	0.29	0.19	0.25	0.68	0.83	0.74	0.12	1.16	1.55	1.00	1.49	0.94	1.58
	Left Side	0.28	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.50	0.53	0.28	0.35	0.68	0.68
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.04	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.21	0.68	0.20	0.63	0.13	0.35
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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FCC SAR Test Report

Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
LTE 2	Rear Face	0.43	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.84	1.23	0.68	1.17	0.62	1.26
	Left Side	0.21	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.43	0.46	0.21	0.28	0.61	0.61
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.12	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.29	0.76	0.28	0.71	0.21	0.43
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 4	Rear Face	0.44	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.85	1.24	0.69	1.18	0.63	1.27
	Left Side	0.26	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.48	0.51	0.26	0.33	0.66	0.66
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.10	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.27	0.74	0.26	0.69	0.19	0.41
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 5	Rear Face	0.73	0.29	0.19	0.25	0.68	0.83	0.74	0.12	1.14	1.53	0.98	1.47	0.92	1.56
	Left Side	0.27	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.49	0.52	0.27	0.34	0.67	0.67
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.03	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.20	0.67	0.19	0.62	0.12	0.34
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 7	Rear Face	0.47	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.88	1.27	0.72	1.21	0.66	1.30
	Left Side	0.11	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.33	0.36	0.11	0.18	0.51	0.51
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.10	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.27	0.74	0.26	0.69	0.19	0.41
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 12	Rear Face	0.67	0.29	0.19	0.25	0.68	0.83	0.74	0.12	1.08	1.47	0.92	1.41	0.86	1.50
	Left Side	0.33	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.55	0.58	0.33	0.40	0.73	0.73
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.02	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.19	0.66	0.18	0.61	0.11	0.33
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 13	Rear Face	0.38	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.79	1.18	0.63	1.12	0.57	1.21
	Left Side	0.15	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.37	0.40	0.15	0.22	0.55	0.55
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.05	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.22	0.69	0.21	0.64	0.14	0.36
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	Summimg result 1g SAR W/kg					
LTE 17	Rear Face	0.66	0.29	0.19	0.25	0.68	0.83	0.74	0.12	1.07	1.46	0.91	1.40	0.85	1.49
	Left Side	0.52	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.74	0.77	0.52	0.59	0.92	0.92
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.02	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.19	0.66	0.18	0.61	0.11	0.33
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 26	Rear Face	0.76	0.29	0.19	0.25	0.68	0.83	0.74	0.12	1.17	1.56	1.01	1.50	0.95	1.59
	Left Side	0.25	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.47	0.50	0.25	0.32	0.65	0.65
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.04	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.21	0.68	0.20	0.63	0.13	0.35
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 30	Rear Face	0.50	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.91	1.30	0.75	1.24	0.69	1.33
	Left Side	0.12	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.34	0.37	0.12	0.19	0.52	0.52
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.03	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.20	0.67	0.19	0.62	0.12	0.34
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 41	Rear Face	0.31	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.72	1.11	0.56	1.05	0.50	1.14
	Left Side	0.06	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.28	0.31	0.06	0.13	0.46	0.46
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.03	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.20	0.67	0.19	0.62	0.12	0.34
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80
LTE 66	Rear Face	0.41	0.29	0.19	0.25	0.68	0.83	0.74	0.12	0.82	1.21	0.66	1.15	0.60	1.24
	Left Side	0.23	0.05	0.40	0.00	0.08	0.40	0.07	0.17	0.45	0.48	0.23	0.30	0.63	0.63
	Right Side	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.80	0.80	0.40	0.40	0.40	0.40
	Top Side	0.09	0.17	0.09	0.16	0.64	0.31	0.59	0.00	0.26	0.73	0.25	0.68	0.18	0.40
	Bottom Side	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.17	0.97	0.97	0.80	0.80	0.80	0.80

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FCC SAR Test Report

Laptop Mode

Band	Position	A	3	4	5	6	7	8	10	A+3+10	A+6+10	A+5	A+8	A+4	A+7
		Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	BT Ant 1	Summimg result 1g SAR W/kg					
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg							
WCDMA II	Bottom	0.45	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.71	0.92	0.64	1.02	0.59	0.91
WCDMA IV	Bottom	0.37	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.63	0.84	0.56	0.94	0.51	0.83
WCDMA V	Bottom	0.47	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.73	0.94	0.66	1.04	0.61	0.93
LTE 2	Bottom	0.42	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.68	0.89	0.61	0.99	0.56	0.88
LTE 4	Bottom	0.37	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.63	0.84	0.56	0.94	0.51	0.83
LTE 5	Bottom	0.40	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.66	0.87	0.59	0.97	0.54	0.86
LTE 7	Bottom	0.26	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.52	0.73	0.45	0.83	0.40	0.72
LTE 12	Bottom	0.41	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.67	0.88	0.60	0.98	0.55	0.87
LTE 13	Bottom	0.44	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.70	0.91	0.63	1.01	0.58	0.90
LTE 17	Bottom	0.53	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.79	1.00	0.72	1.10	0.67	0.99
LTE 26	Bottom	0.44	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.70	0.91	0.63	1.01	0.58	0.90
LTE 30	Bottom	0.67	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.93	1.14	0.86	1.24	0.81	1.13
LTE 41	Bottom	0.27	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.53	0.74	0.46	0.84	0.41	0.73
LTE 66	Bottom	0.67	0.22	0.14	0.19	0.43	0.46	0.57	0.04	0.93	1.14	0.86	1.24	0.81	1.13

Test Engineer : Isaac Liao, and Eric Wu

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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	3650	May. 20, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Mar. 29, 2019	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	DAE3	579	Aug. 27, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May. 08, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 25, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1277	Jan. 24, 2019	1 Year
Radio Communication Analyzer	Anritsu	MT8820C	6201381727	May. 06, 2019	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
				Jun. 17, 2019	
MXG Analong Signal Generator	Agilent	N5181A	MY50143868	Jul. 03, 2018	1 Year
				Jun. 27, 2019	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jul. 03, 2018	1 Year
				Jun. 28, 2019	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jul. 03, 2018	1 Year
				Jun. 28, 2019	1 Year
Thermometer	YFE	YF-160A	130504591	Mar. 22, 2019	1 Year
Thermometer	YFE	YF-160A	120702365	Aug. 07, 2018	1 Year



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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 $\geq 1.5 \text{ W/kg}$ for 1-g SAR, and $\geq 3.75 \text{ W/kg}$ 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 $< 1.5 \text{ W/kg}$ for 1-g and $< 3.75 \text{ W/kg}$ 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.



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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:

Taiwan HwaYa EMC/RF/Safety/Telecom Lab:

Add: No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil., Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.
Tel: 886-3-318-3232
Fax: 886-3-327-0892

Taiwan LinKou EMC/RF Lab:

Add: No. 47-2, 14th Ling, Chia Pau Vil., Linkou Dist., New Taipei City 244, Taiwan, R.O.C.
Tel: 886-2-2605-2180
Fax: 886-2-2605-1924

Taiwan HsinChu EMC/RF Lab:

Add: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 30078, Taiwan, R.O.C.
Tel: 886-3-593-5343
Fax: 886-3-593-5342

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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_190705

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

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

Medium: H06T09N1_0705 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.886 \text{ S/m}$; $\epsilon_r = 43.438$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(10.35, 10.35, 10.35); Calibrated: 2018/12/13
- 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 (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.58 W/kg

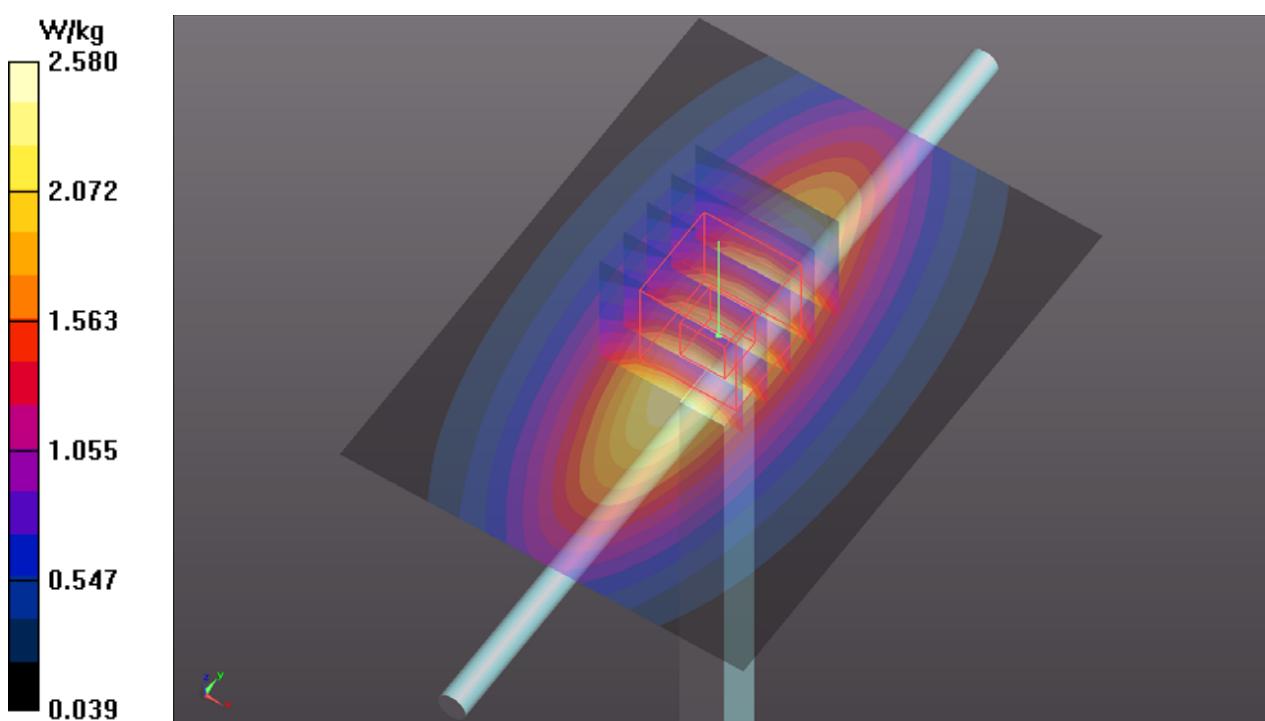
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 56.04 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.79 W/kg

SAR(1 g) = 1.95 W/kg; SAR(10 g) = 1.32 W/kg

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



System Check_H835_190613

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

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

Medium: H07T10N1_0613 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.908 \text{ S/m}$; $\epsilon_r = 42.279$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.80 W/kg

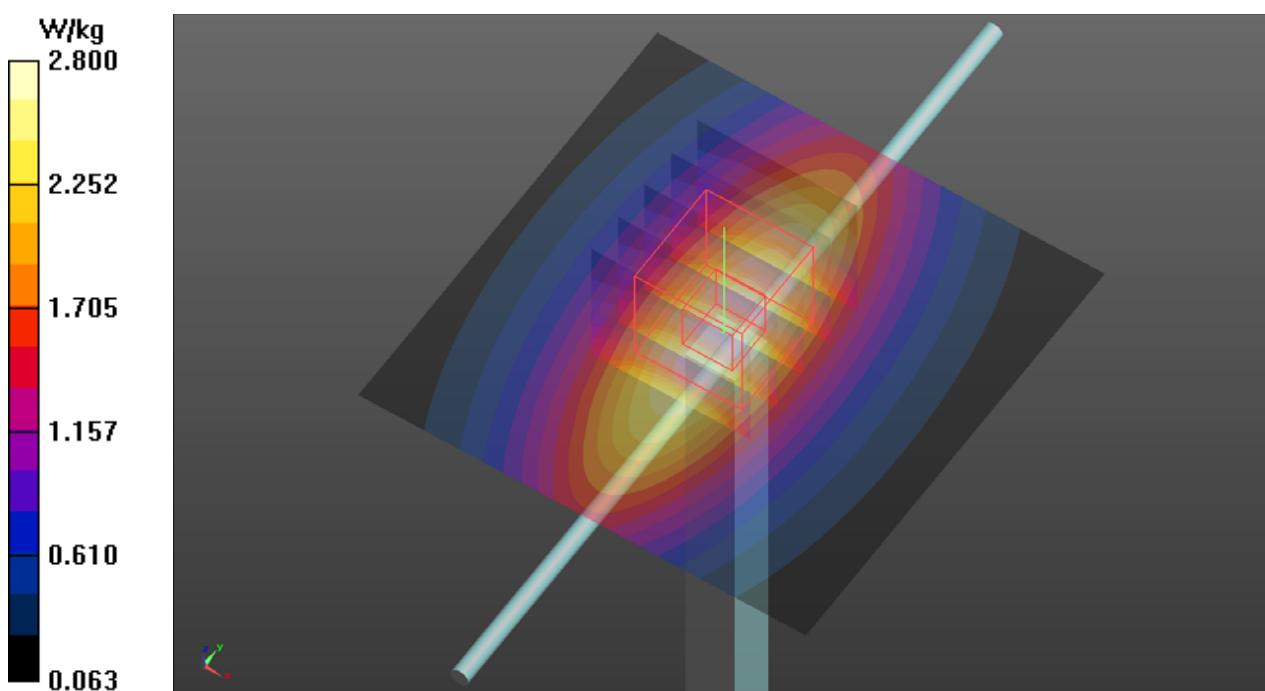
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 54.22 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.21 W/kg

SAR(1 g) = 2.22 W/kg; SAR(10 g) = 1.47 W/kg

Maximum value of SAR (measured) = 2.91 W/kg



System Check_H1750_190612

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

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

Medium: H16T20N1_0612 Medium parameters used: $f = 1750 \text{ MHz}$; $\sigma = 1.325 \text{ S/m}$; $\epsilon_r = 39.349$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(8.79, 8.79, 8.79); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2019/01/24
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 12.9 W/kg

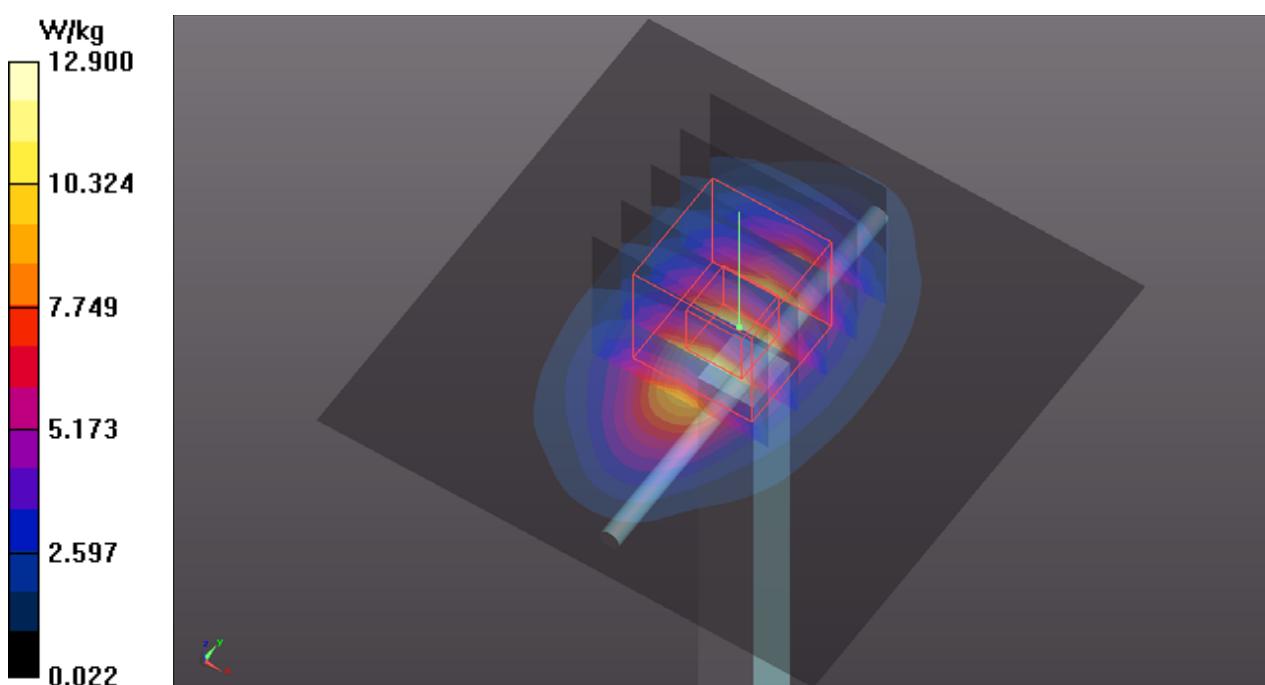
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.3 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 15.4 W/kg

SAR(1 g) = 8.87 W/kg; SAR(10 g) = 4.85 W/kg

Maximum value of SAR (measured) = 12.9 W/kg



System Check_H1900_190612

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

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

Medium: H16T20N1_0612 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.46 \text{ S/m}$; $\epsilon_r = 38.759$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(8.44, 8.44, 8.44); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2019/01/24
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 16.4 W/kg

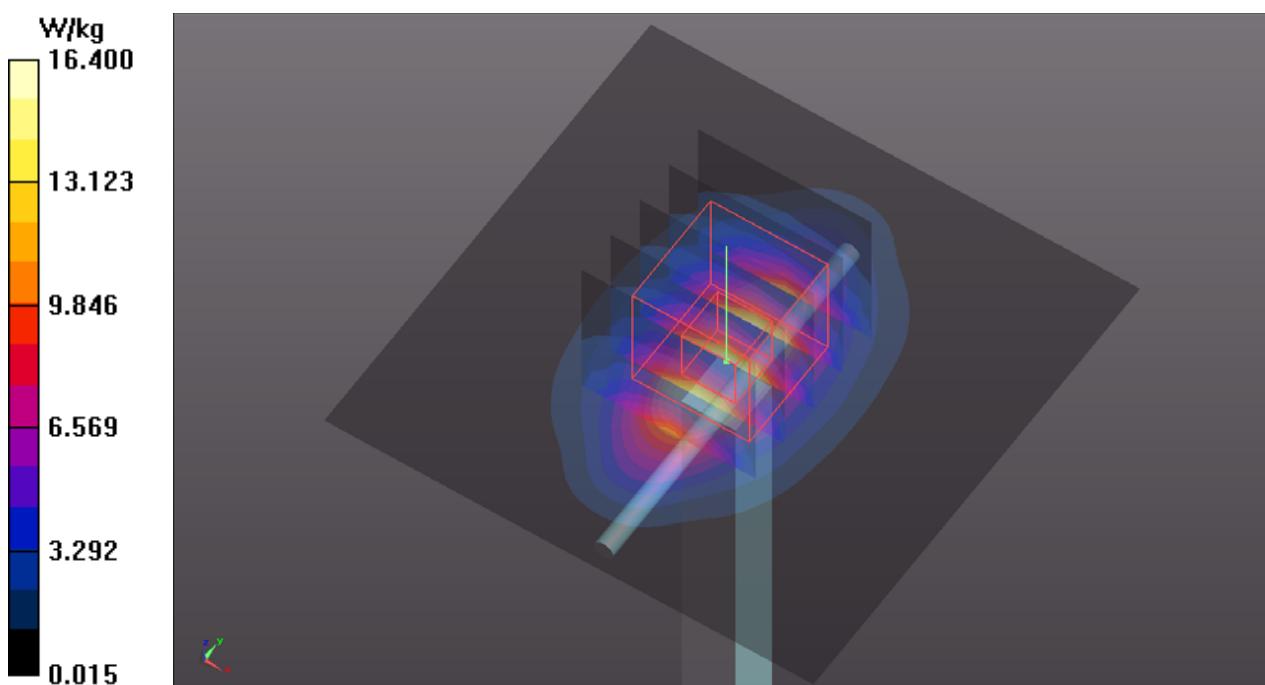
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 110.7 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 20.0 W/kg

SAR(1 g) = 10.7 W/kg; SAR(10 g) = 5.57 W/kg

Maximum value of SAR (measured) = 16.8 W/kg



System Check_H2300_190703

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

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

Medium: H19T27N1_0703 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.732$ S/m; $\epsilon_r = 38.842$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8, 8, 8); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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

Maximum value of SAR (interpolated) = 21.5 W/kg

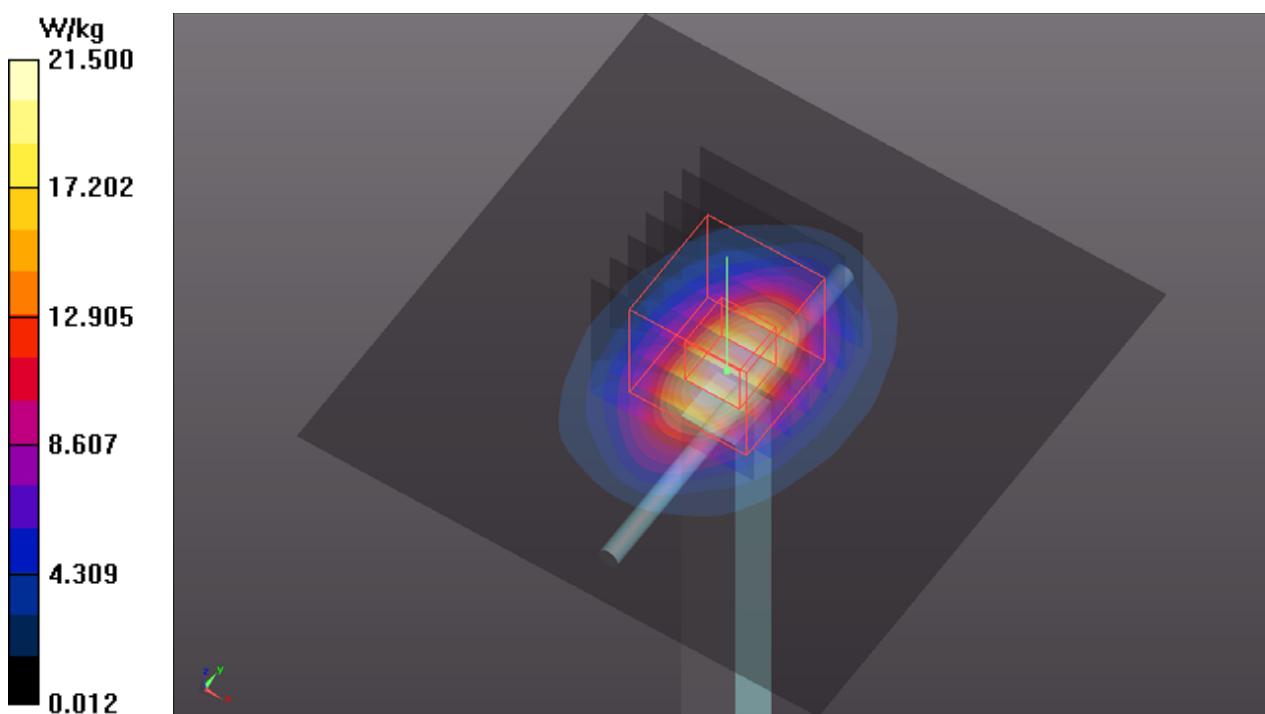
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 114.8 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 26.6 W/kg

SAR(1 g) = 12.7 W/kg; SAR(10 g) = 6.03 W/kg

Maximum value of SAR (measured) = 21.4 W/kg



System Check_H2450_190731

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

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

Medium: H19T27N4_0731 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.885$ S/m; $\epsilon_r = 38.34$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.1 °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: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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

Maximum value of SAR (interpolated) = 21.9 W/kg

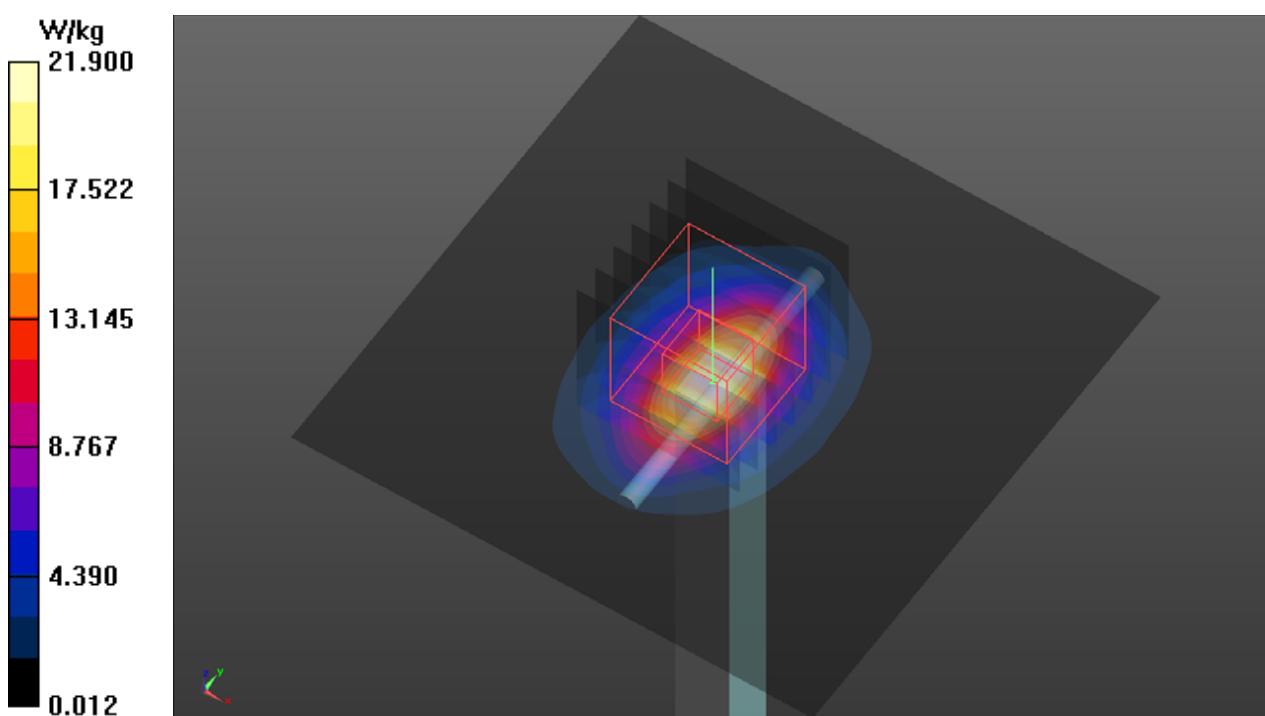
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 110.1 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 26.9 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.15 W/kg

Maximum value of SAR (measured) = 21.9 W/kg



System Check_H2600_190612

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

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

Medium: H19T27N1_0612 Medium parameters used: $f = 2600 \text{ MHz}$; $\sigma = 2.017 \text{ S/m}$; $\epsilon_r = 38.567$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(7.53, 7.53, 7.53); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2019/01/24
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 25.4 W/kg

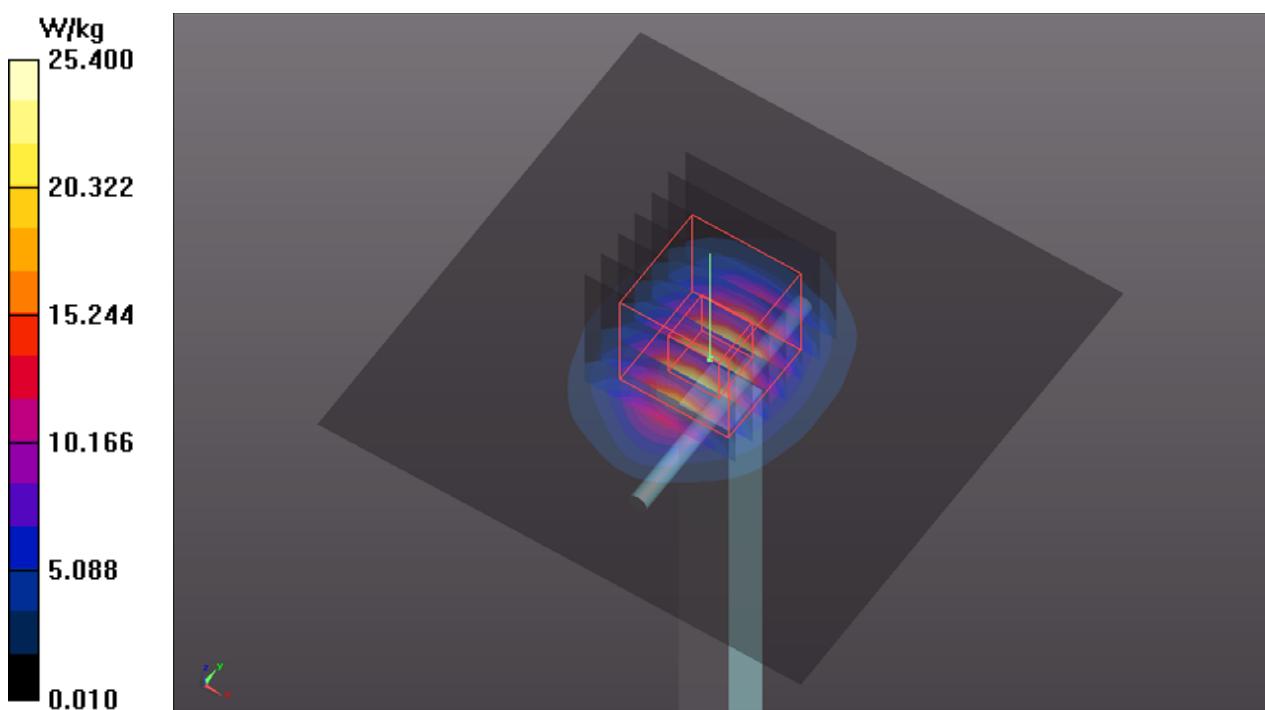
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.9 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 31.9 W/kg

SAR(1 g) = 14.5 W/kg; SAR(10 g) = 6.38 W/kg

Maximum value of SAR (measured) = 25.3 W/kg



System Check_H5250_190801

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

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

Medium: H34T60N2_0801 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.793$ S/m; $\epsilon_r = 35.468$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.62, 5.62, 5.62); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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

Maximum value of SAR (interpolated) = 18.0 W/kg

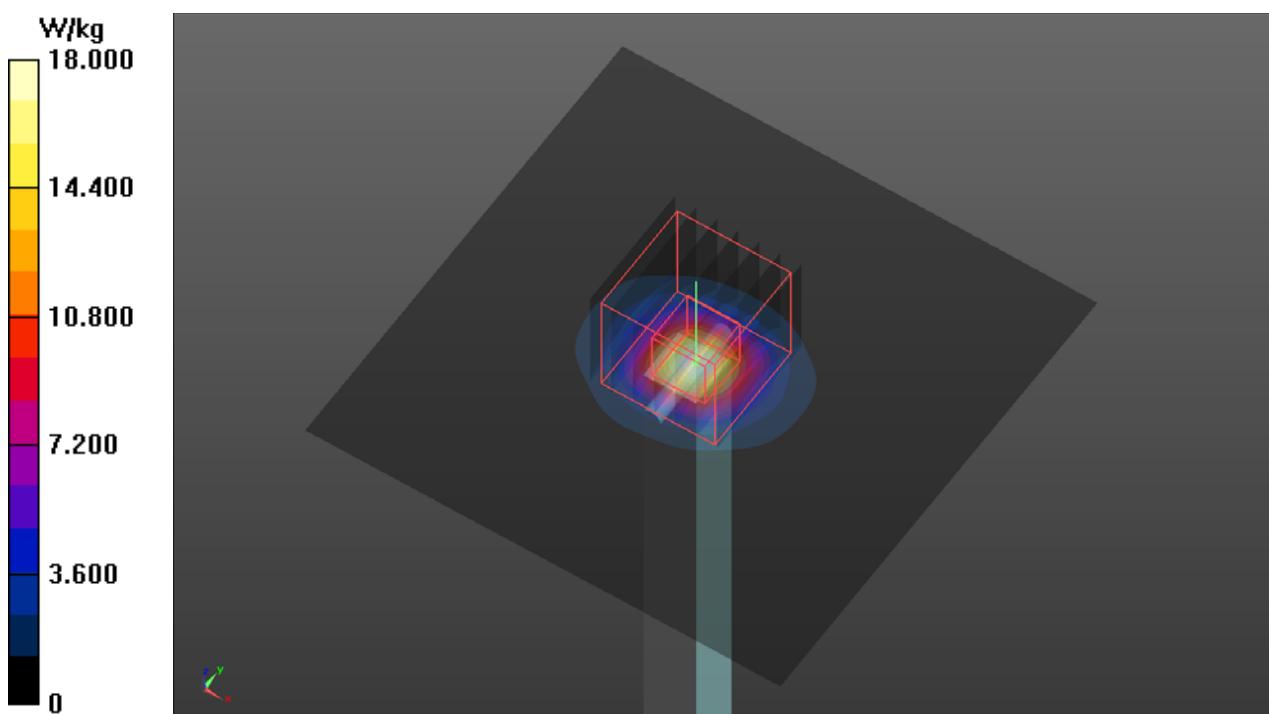
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 70.53 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 30.6 W/kg

SAR(1 g) = 7.81 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 19.6 W/kg



System Check_H5600_190801

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

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

Medium: H34T60N2_0801 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.17$ S/m; $\epsilon_r = 34.876$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.16, 5.16, 5.16); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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

Maximum value of SAR (interpolated) = 19.4 W/kg

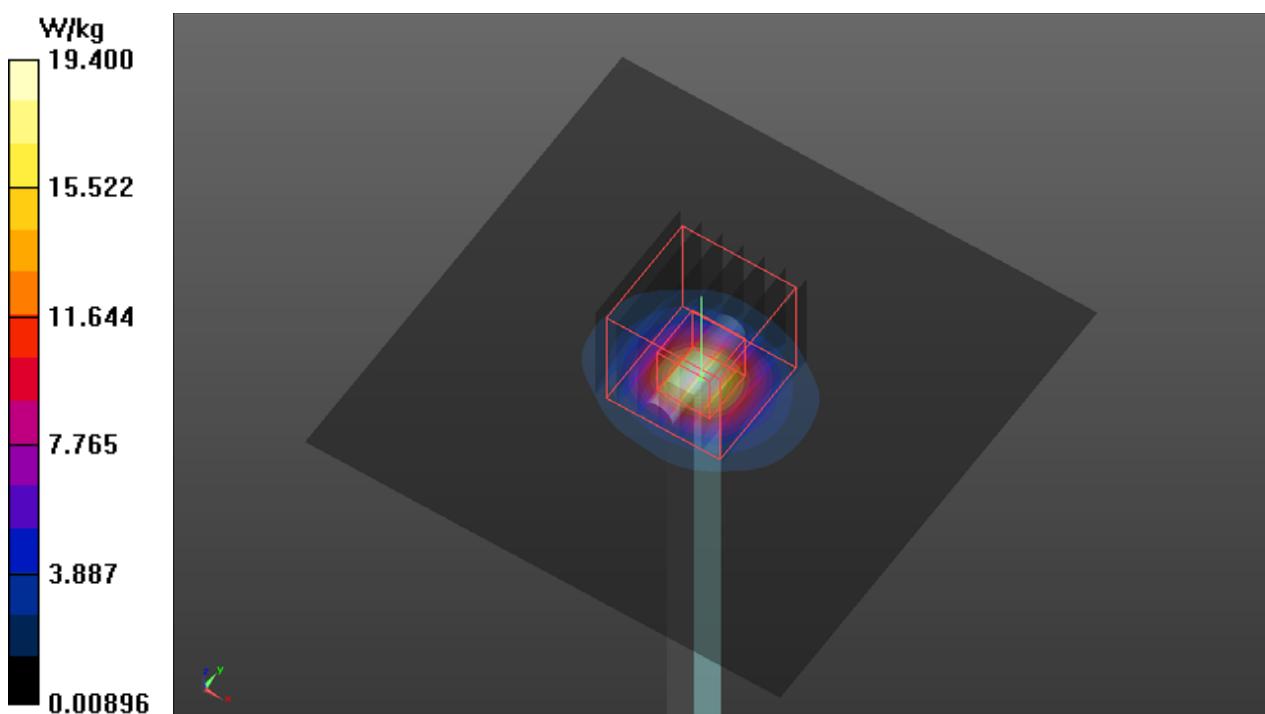
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 70.17 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 33.1 W/kg

SAR(1 g) = 7.95 W/kg; SAR(10 g) = 2.29 W/kg

Maximum value of SAR (measured) = 20.2 W/kg



System Check_H5750_190802

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

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

Medium: H34T60N1_0802 Medium parameters used: $f = 5750 \text{ MHz}$; $\sigma = 5.061 \text{ S/m}$; $\epsilon_r = 35.952$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.32, 5.32, 5.32); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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

Maximum value of SAR (interpolated) = 19.1 W/kg

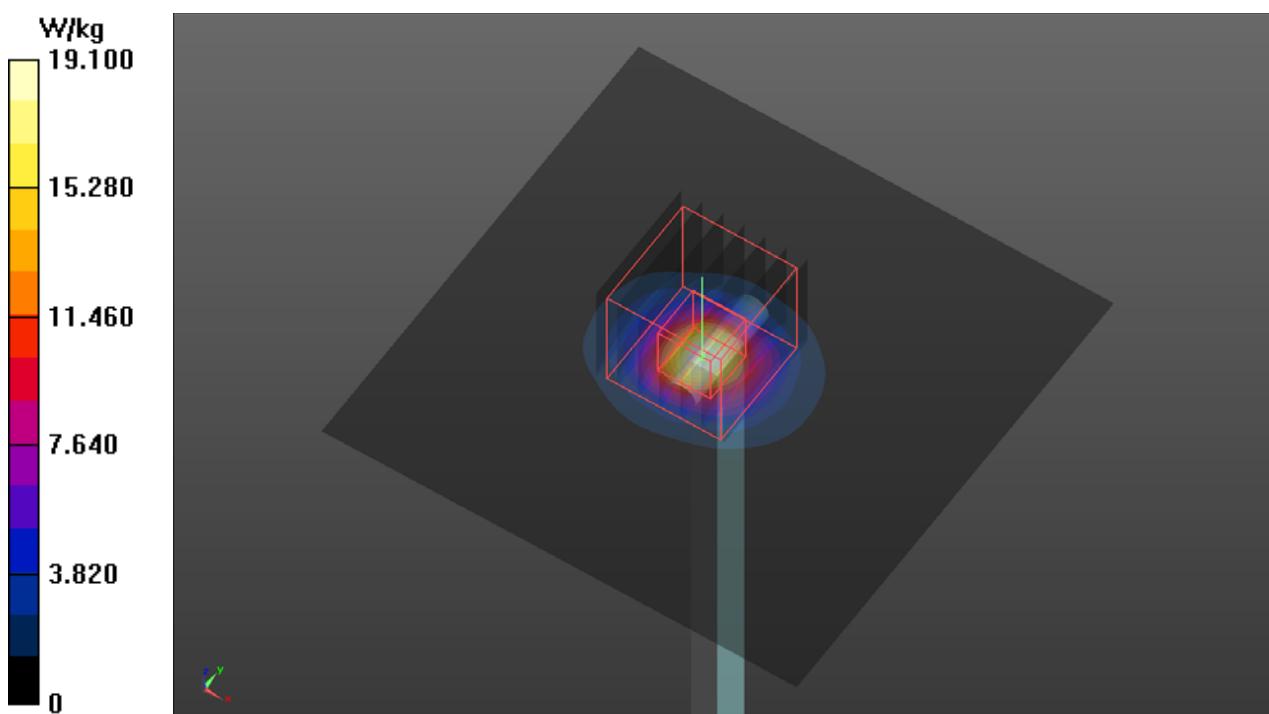
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.48 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 35.5 W/kg

SAR(1 g) = 7.65 W/kg; SAR(10 g) = 2.19 W/kg

Maximum value of SAR (measured) = 20.1 W/kg





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Appendix B. SAR Plots of SAR Measurement

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

P01 WCDMA II_RMC12.2K_Rear Face_0mm_Ch9400_P-Sensor w**DUT: 19Q2-017**

Communication System: WCDMA; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: H16T20N1_0703 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.425 \text{ S/m}$; $\epsilon_r = 38.929$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.738 W/kg

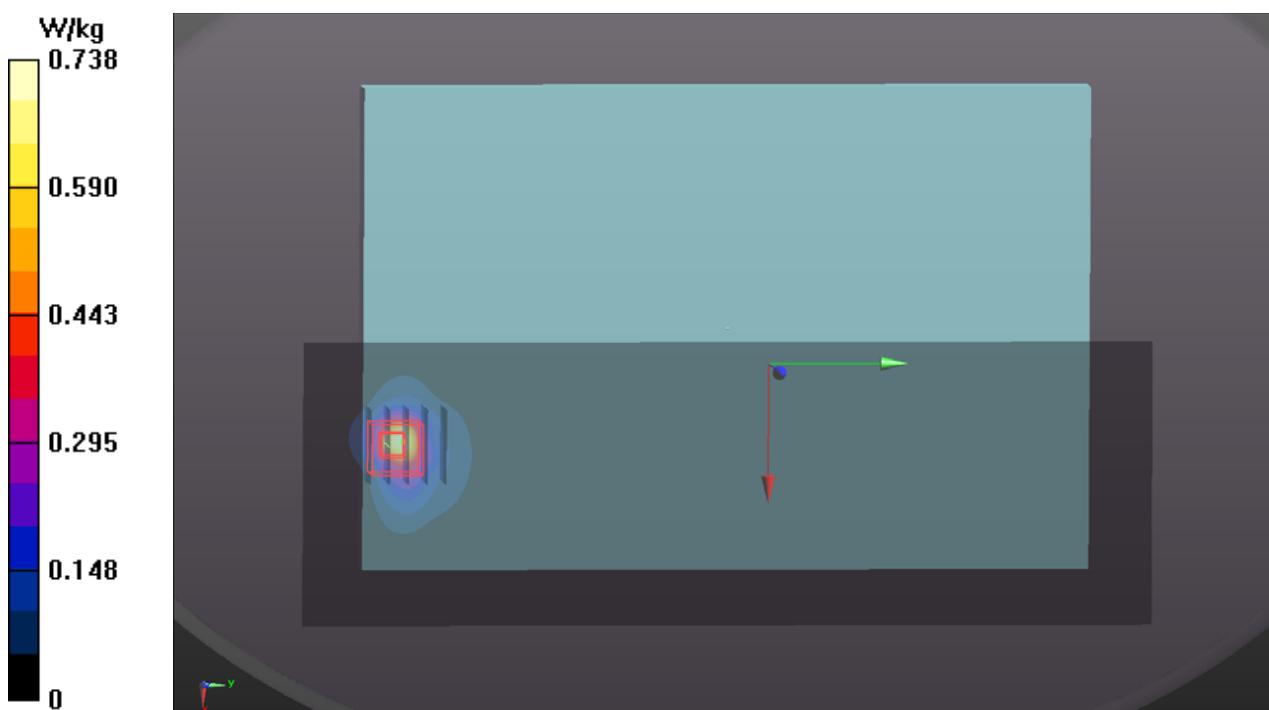
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.25 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.478 W/kg; SAR(10 g) = 0.200 W/kg

Maximum value of SAR (measured) = 0.911 W/kg



P02 WCDMA IV_RMC12.2K_Rear Face_0mm_Ch1312_P-Sensor w**DUT: 19Q2-017**

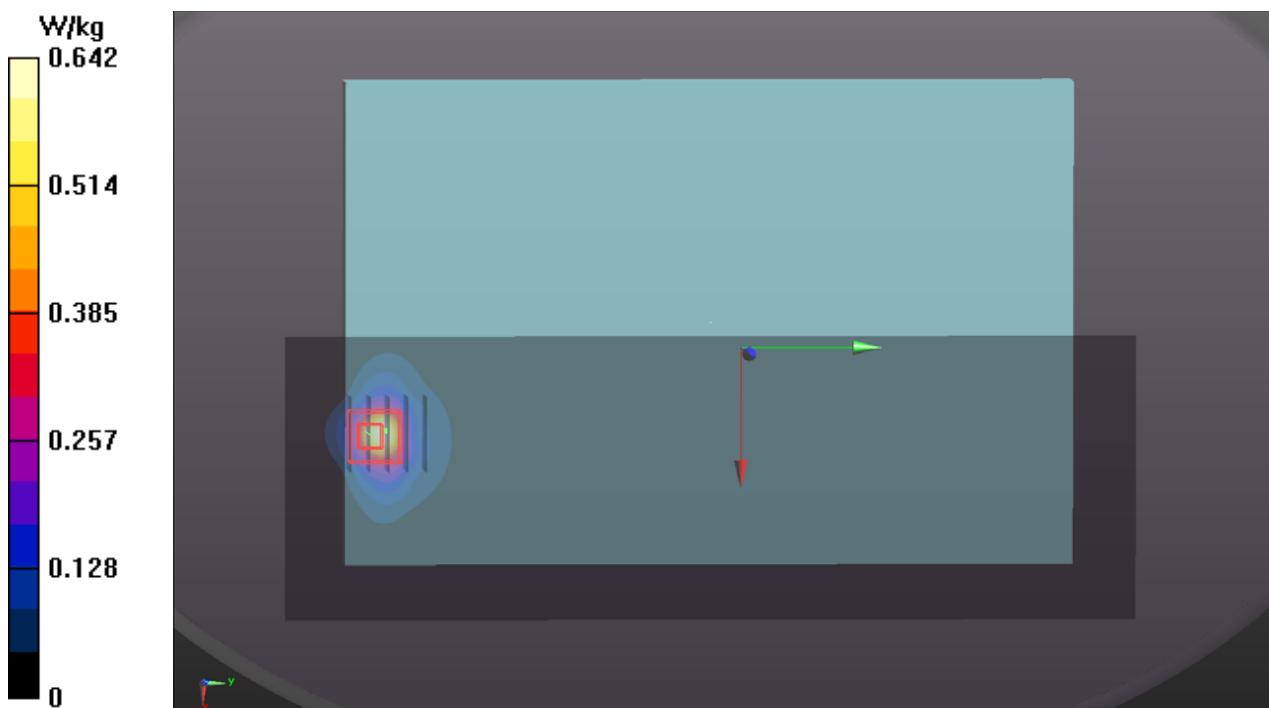
Communication System: WCDMA; Frequency: 1712.4 MHz; Duty Cycle: 1:1
Medium: H16T20N1_0704 Medium parameters used: $f = 1712.4$ MHz; $\sigma = 1.286$ S/m; $\epsilon_r = 39.528$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.642 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.46 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.195 W/kg
Maximum value of SAR (measured) = 0.877 W/kg



P03 WCDMA V_RMC12.2K_Rear Face_0mm_Ch4233_P-Sensor w**DUT: 19Q2-017**

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

Medium: H07T10N1_0703 Medium parameters used: $f = 847 \text{ MHz}$; $\sigma = 0.921 \text{ S/m}$; $\epsilon_r = 40.493$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.04 W/kg

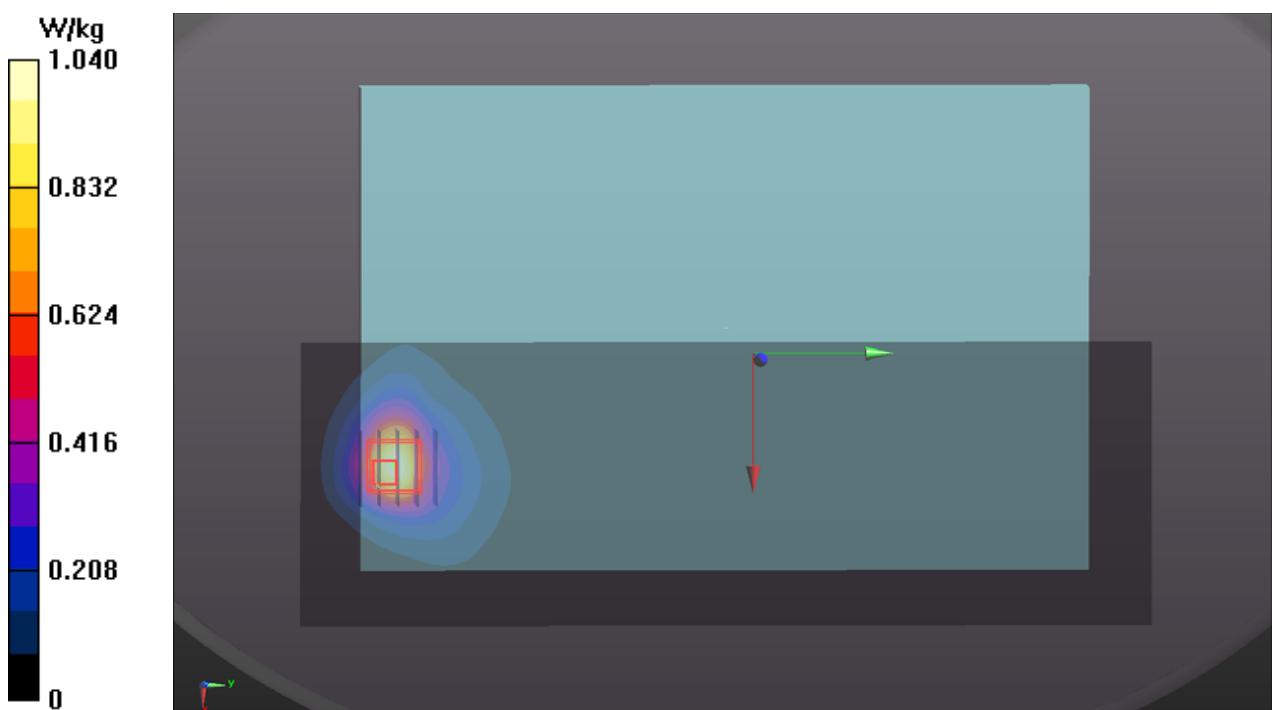
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 30.00 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.11 W/kg

SAR(1 g) = 0.739 W/kg; SAR(10 g) = 0.403 W/kg

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



P04 LTE 2_QPSK20M_Rear Face_0mm_Ch18900_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

Communication System: LTE; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: H16T20N1_0703 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.425$ S/m; $\epsilon_r = 38.929$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.677 W/kg

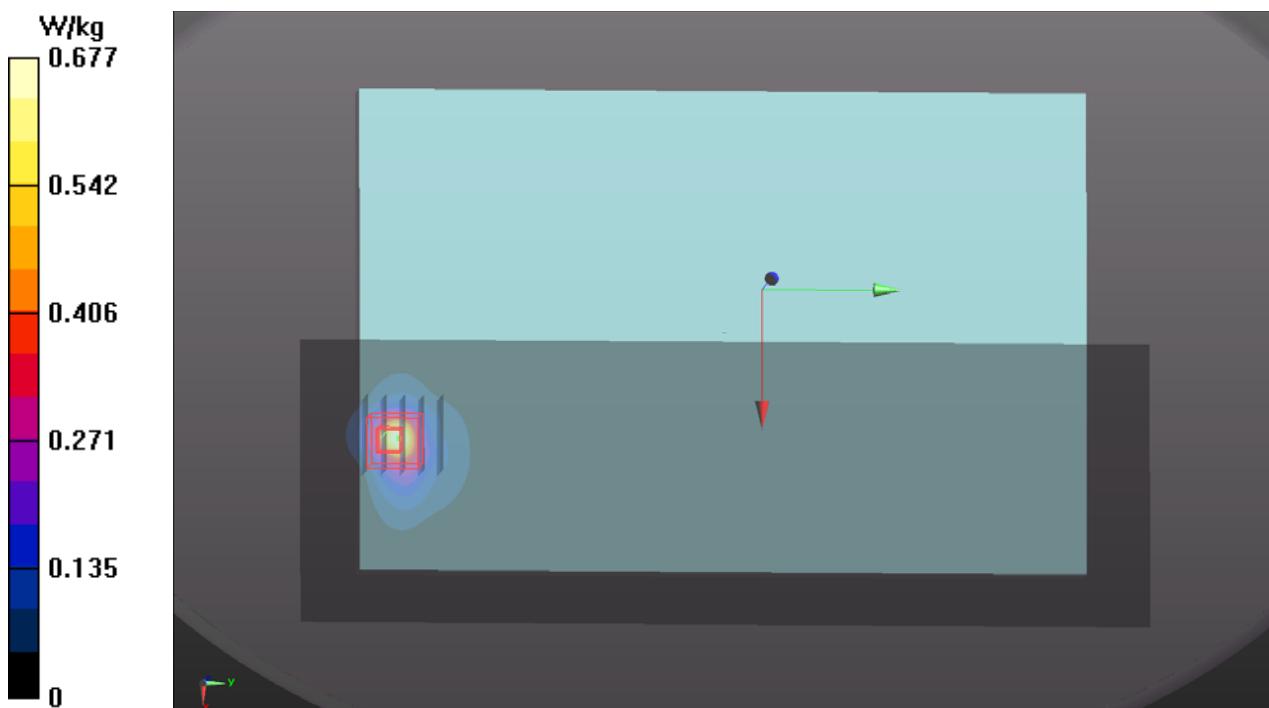
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.24 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.181 W/kg

Maximum value of SAR (measured) = 0.816 W/kg



P05 LTE 4_QPSK20M_Rear Face_0mm_Ch20050_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

Communication System: LTE; Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: H16T20N1_0704 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.293$ S/m; $\epsilon_r = 39.498$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.610 W/kg

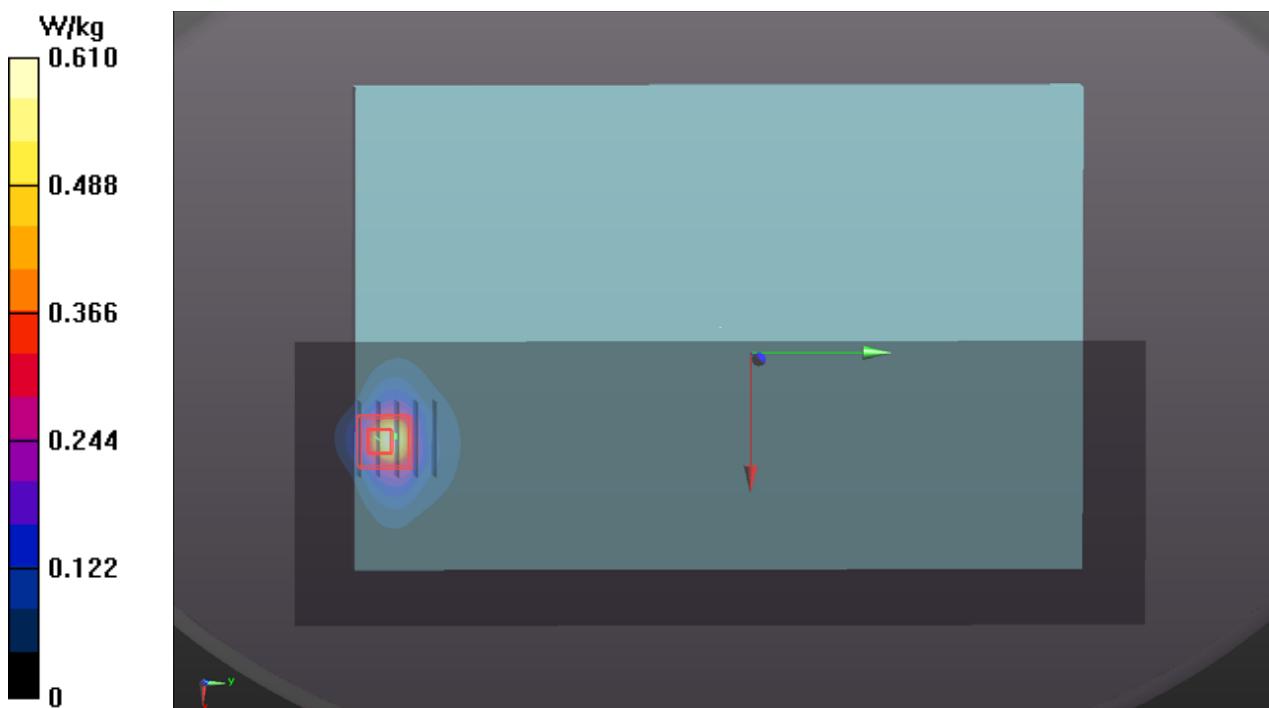
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.94 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.841 W/kg



P06 LTE 5_QPSK10M_Rear Face_0mm_Ch20600_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H07T10N1_0703 Medium parameters used: $f = 844 \text{ MHz}$; $\sigma = 0.918 \text{ S/m}$; $\epsilon_r = 40.529$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.13 W/kg

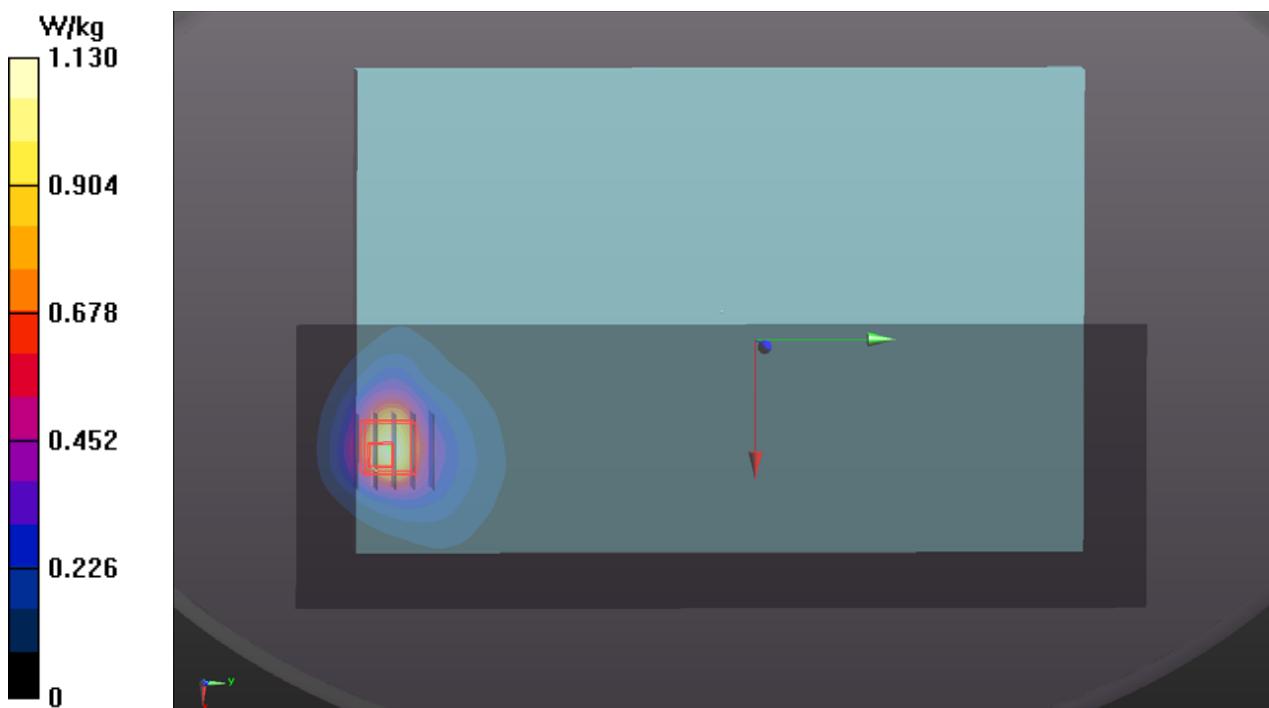
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 31.37 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 0.727 W/kg; SAR(10 g) = 0.399 W/kg

Maximum value of SAR (measured) = 1.39 W/kg



P07 LTE 7_QPSK20M_Rear Face_0mm_Ch21350_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H19T27N1_0703 Medium parameters used: $f = 2560$ MHz; $\sigma = 1.992$ S/m; $\epsilon_r = 37.936$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.5, 7.5, 7.5); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (101x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

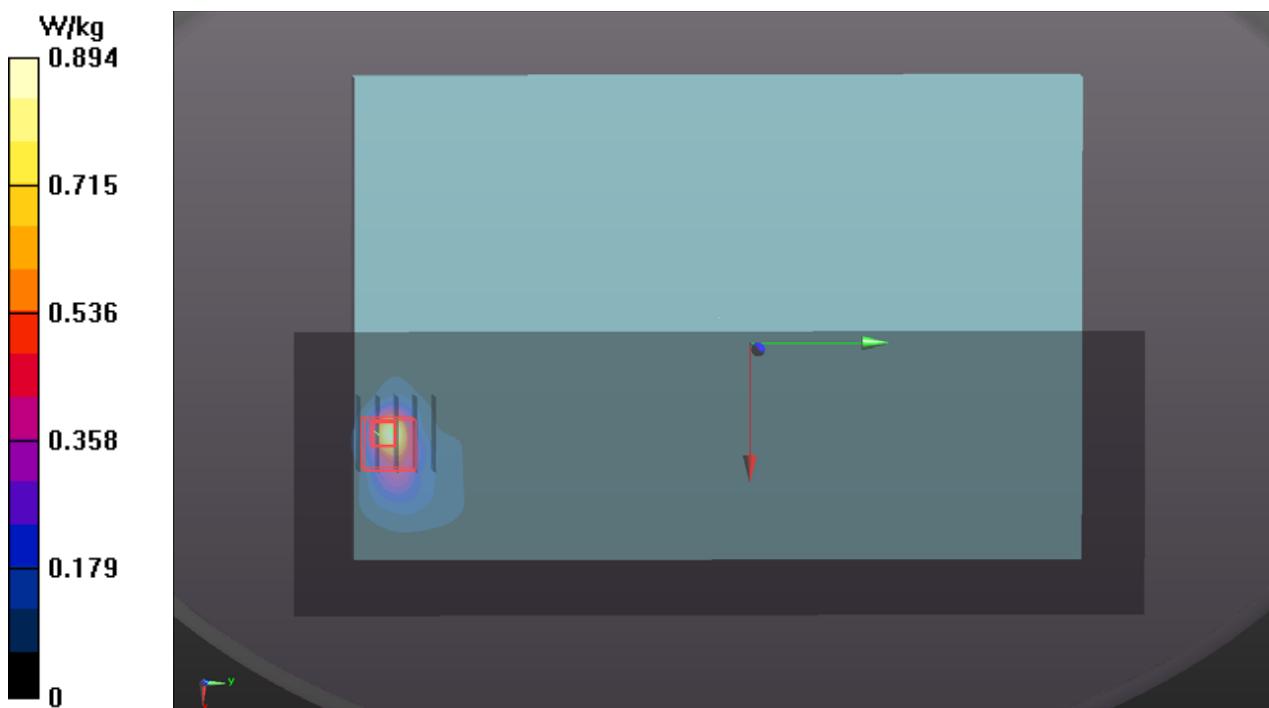
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.39 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.467 W/kg; SAR(10 g) = 0.180 W/kg

Maximum value of SAR (measured) = 0.909 W/kg



P08 LTE 12_QPSK10M_Rear Face_0mm_Ch23060_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H06T09N1_0703 Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.846 \text{ S/m}$; $\epsilon_r = 41.858$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.651 W/kg

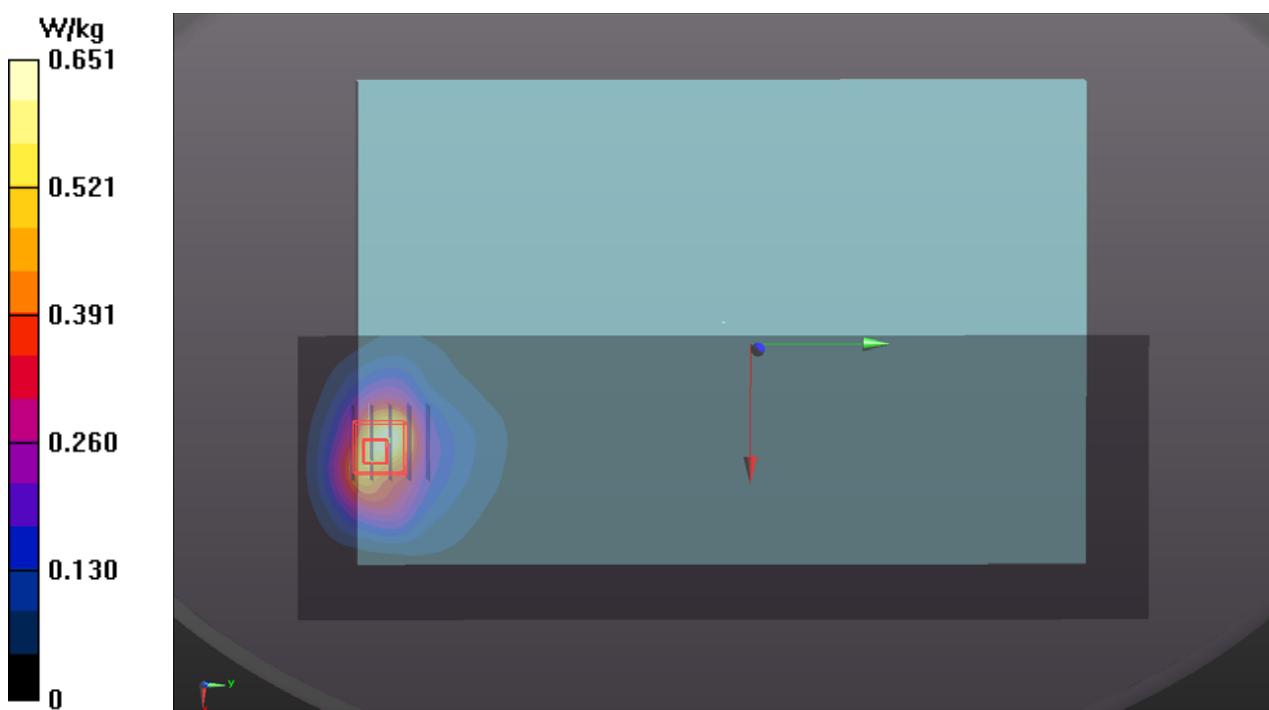
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.57 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.652 W/kg; SAR(10 g) = 0.329 W/kg

Maximum value of SAR (measured) = 1.15 W/kg



P09 LTE 13_QPSK10M_Rear Face_0mm_Ch23230_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H06T09N1_0703 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.911 \text{ S/m}$; $\epsilon_r = 40.882$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.458 W/kg

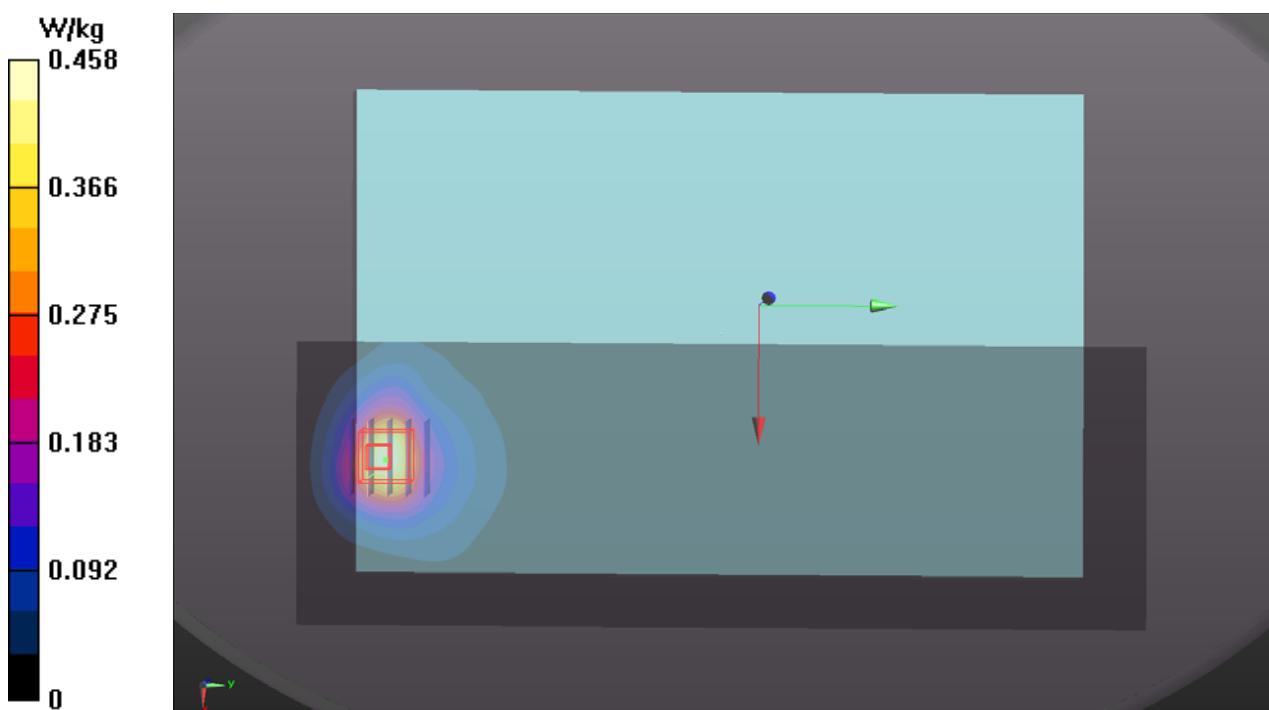
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.49 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.979 W/kg

SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.205 W/kg

Maximum value of SAR (measured) = 0.662 W/kg



P10 LTE 17_QPSK10M_Rear Face_0mm_Ch23800_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H06T09N1_0703 Medium parameters used: $f = 711 \text{ MHz}$; $\sigma = 0.851 \text{ S/m}$; $\epsilon_r = 41.769$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.422 W/kg

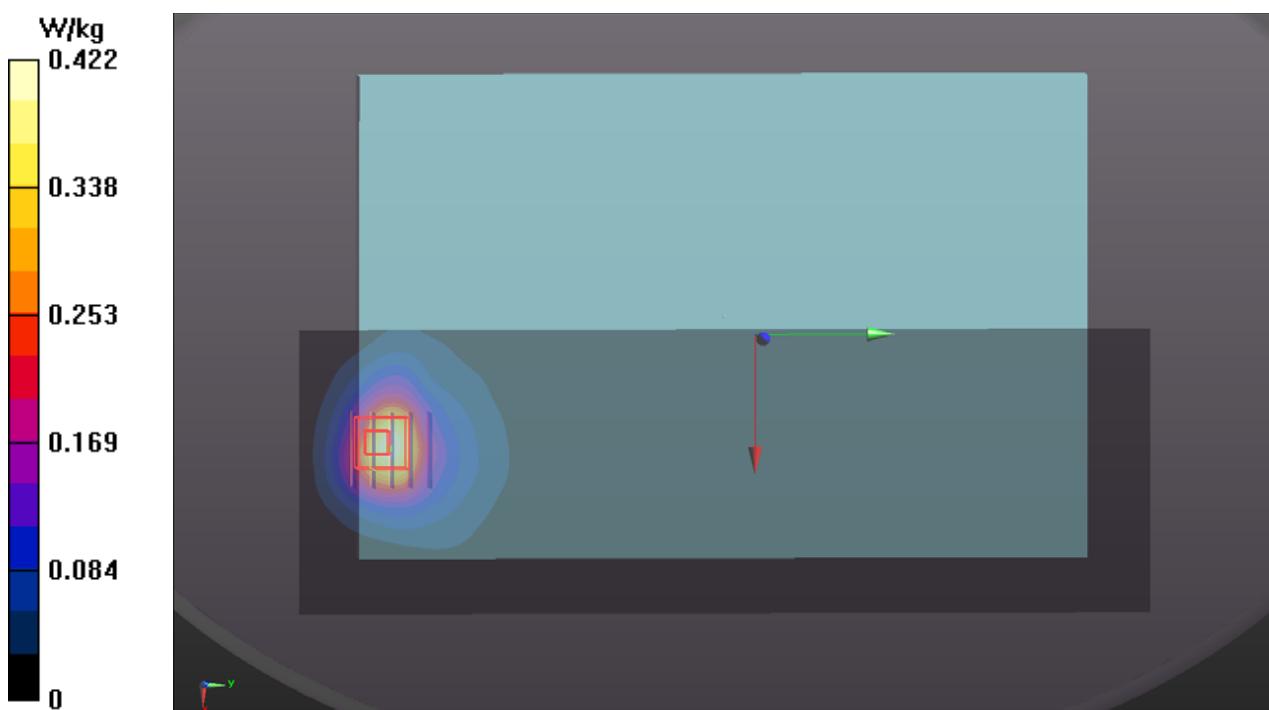
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.22 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.328 W/kg

Maximum value of SAR (measured) = 1.15 W/kg



P11 LTE 26_QPSK15M_Rear Face_0mm_Ch26965_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H07T10N1_0703 Medium parameters used: $f = 841.5 \text{ MHz}$; $\sigma = 0.915 \text{ S/m}$; $\epsilon_r = 40.555$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.07 W/kg

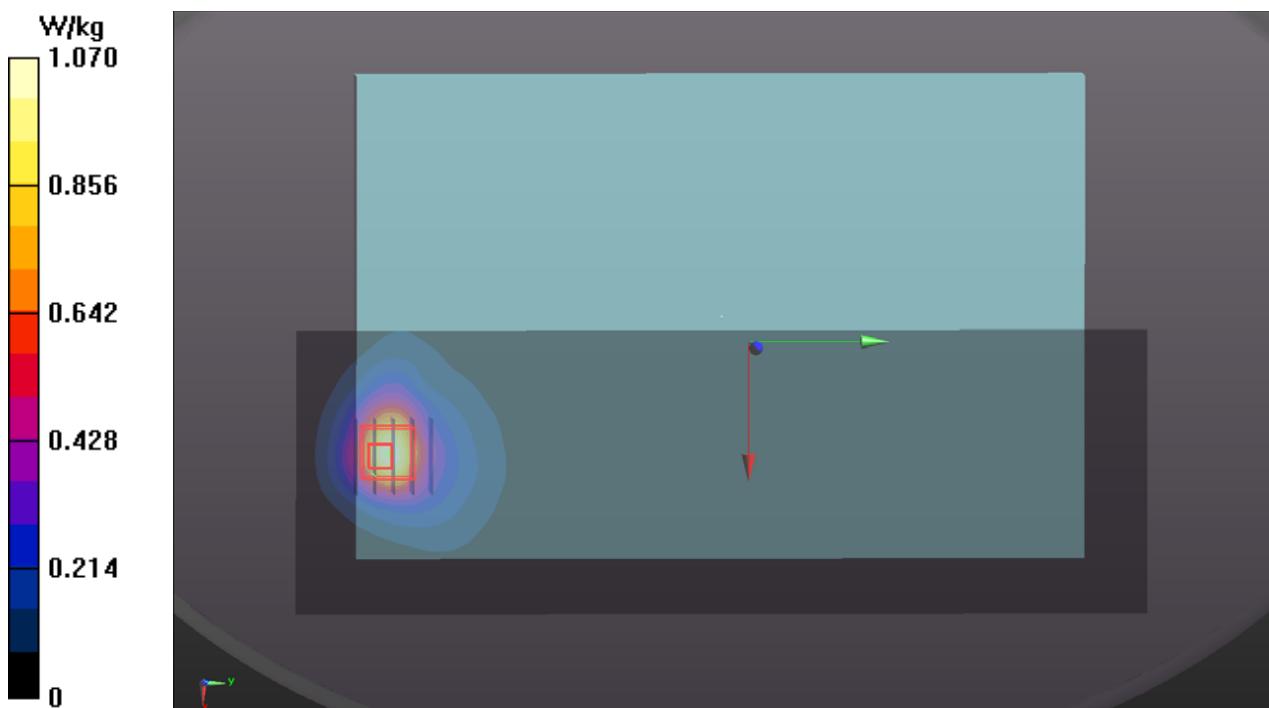
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 30.44 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.26 W/kg

SAR(1 g) = 0.745 W/kg; SAR(10 g) = 0.426 W/kg

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



P12 LTE 30_QPSK10M_Rear Face_0mm_Ch27710_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

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

Medium: H19T27N1_0703 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.742$ S/m; $\epsilon_r = 38.807$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8, 8, 8); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (101x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.920 W/kg

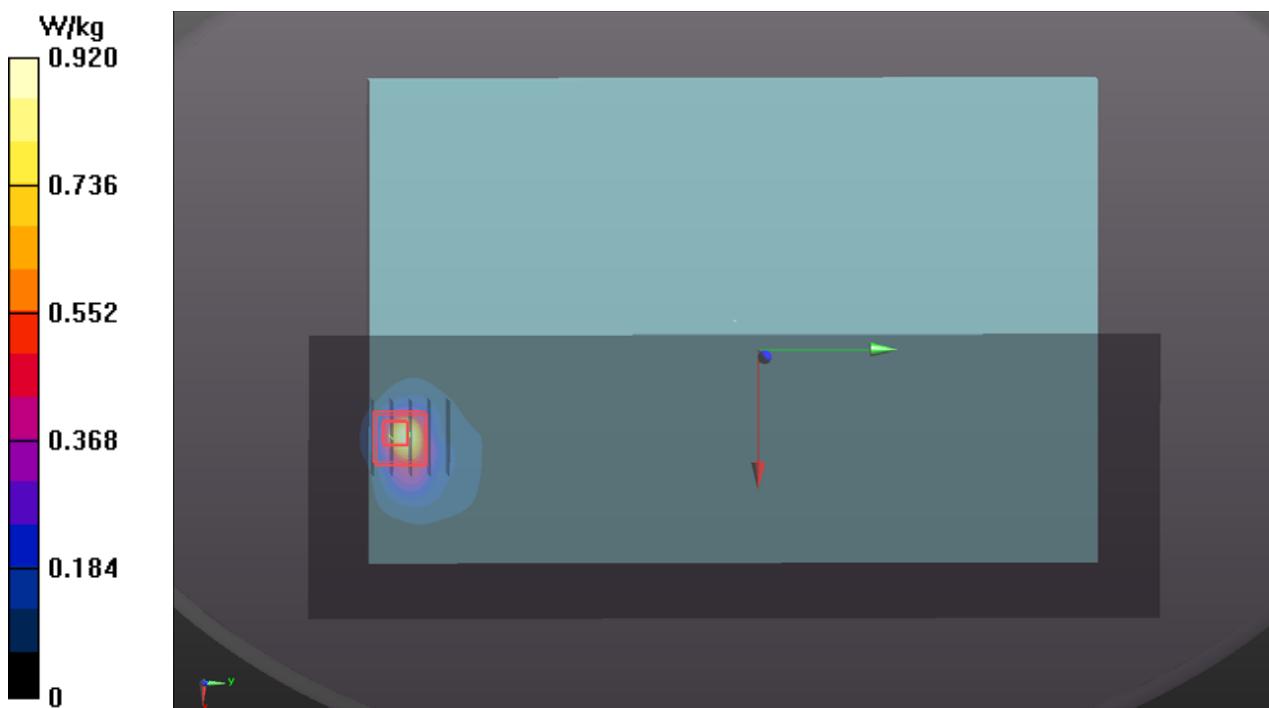
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.95 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.496 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 1.02 W/kg



P13 LTE 41_QPSK20M_Rear Face_0mm_Ch40620_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

Communication System: LTE TDD CF0; Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium: H19T27N1_0703 Medium parameters used: $f = 2593$ MHz; $\sigma = 2.027$ S/m; $\epsilon_r = 37.765$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.5, 7.5, 7.5); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (101x301x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.598 W/kg

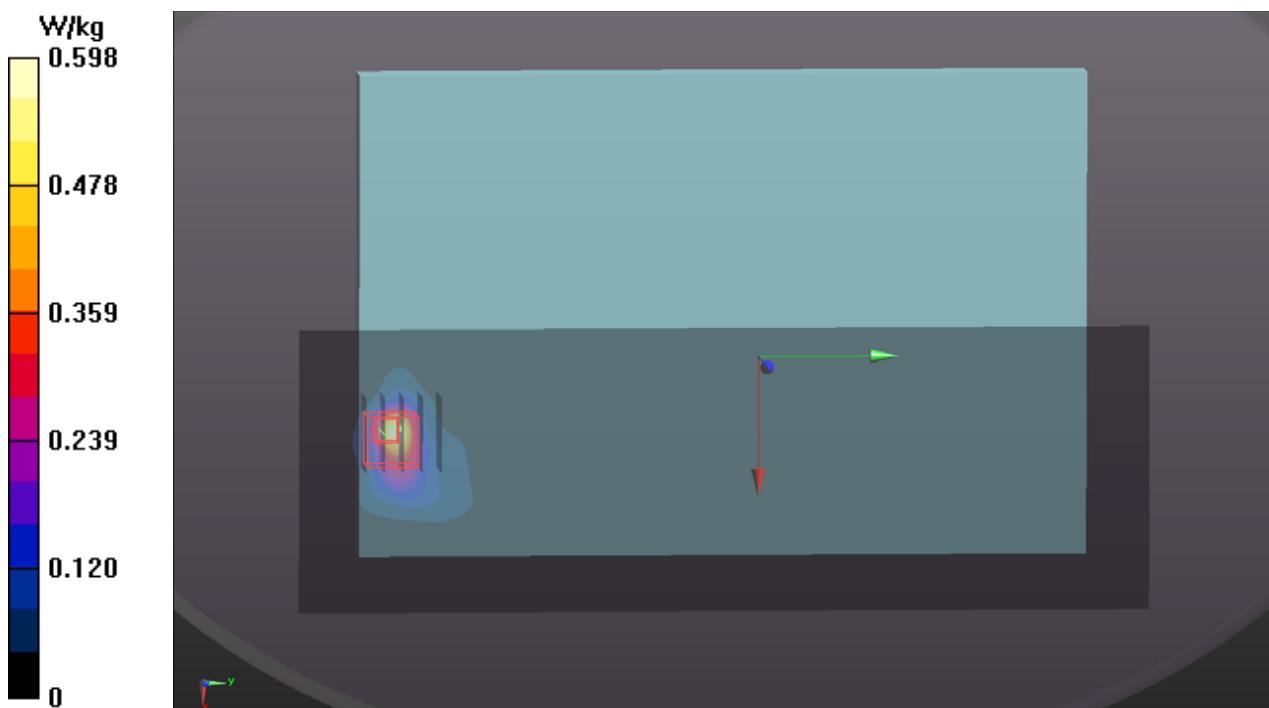
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.86 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.877 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.116 W/kg

Maximum value of SAR (measured) = 0.651 W/kg



P14 LTE 66_QPSK20M_Rear Face_0mm_Ch132072_1RB_OS0_P-Sensor w**DUT: 19Q2-017**

Communication System: LTE; Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: H16T20N1_0704 Medium parameters used: $f = 1720 \text{ MHz}$; $\sigma = 1.293 \text{ S/m}$; $\epsilon_r = 39.498$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.585 W/kg

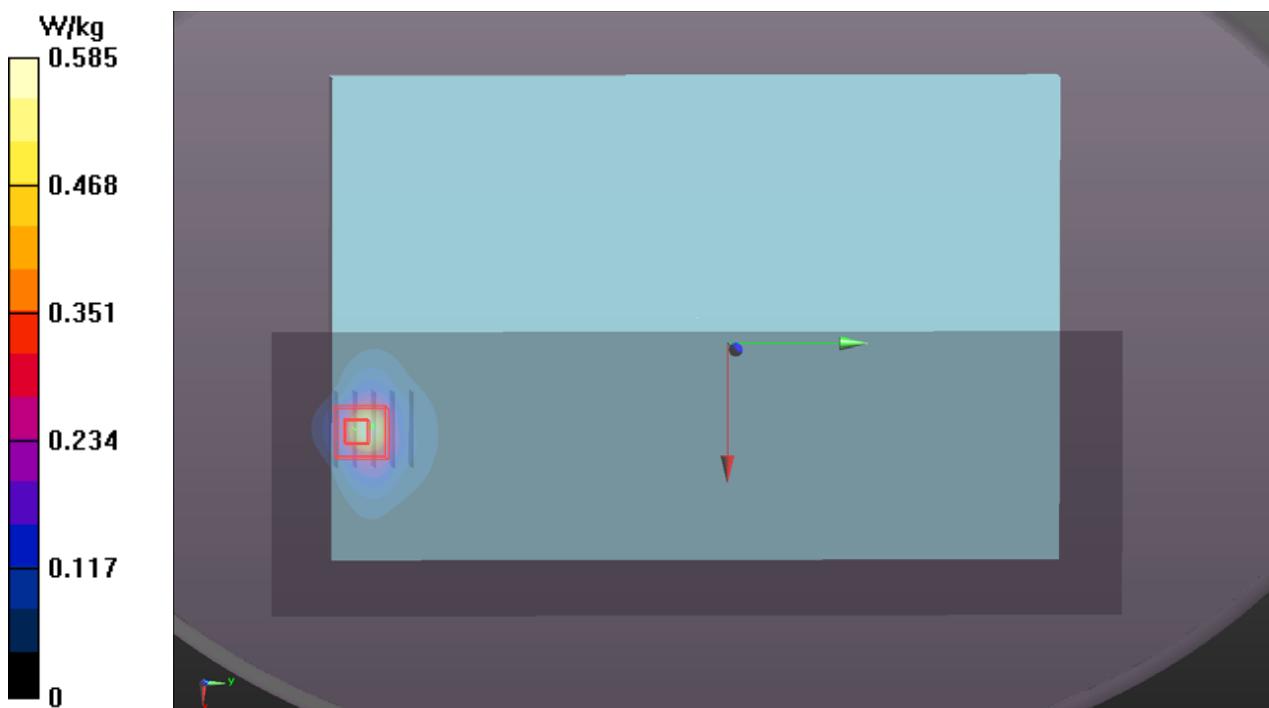
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.41 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.178 W/kg

Maximum value of SAR (measured) = 0.800 W/kg



P15 WLAN2.4G_802.11b_Rear Face_0mm_Ch6_Ant0+1_P-Sensor w**DUT: 190628C20**

Communication System: WLAN_2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: H19T27N3_0716 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.871$ S/m; $\epsilon_r = 38.387$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.65, 7.65, 7.65); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.80 W/kg

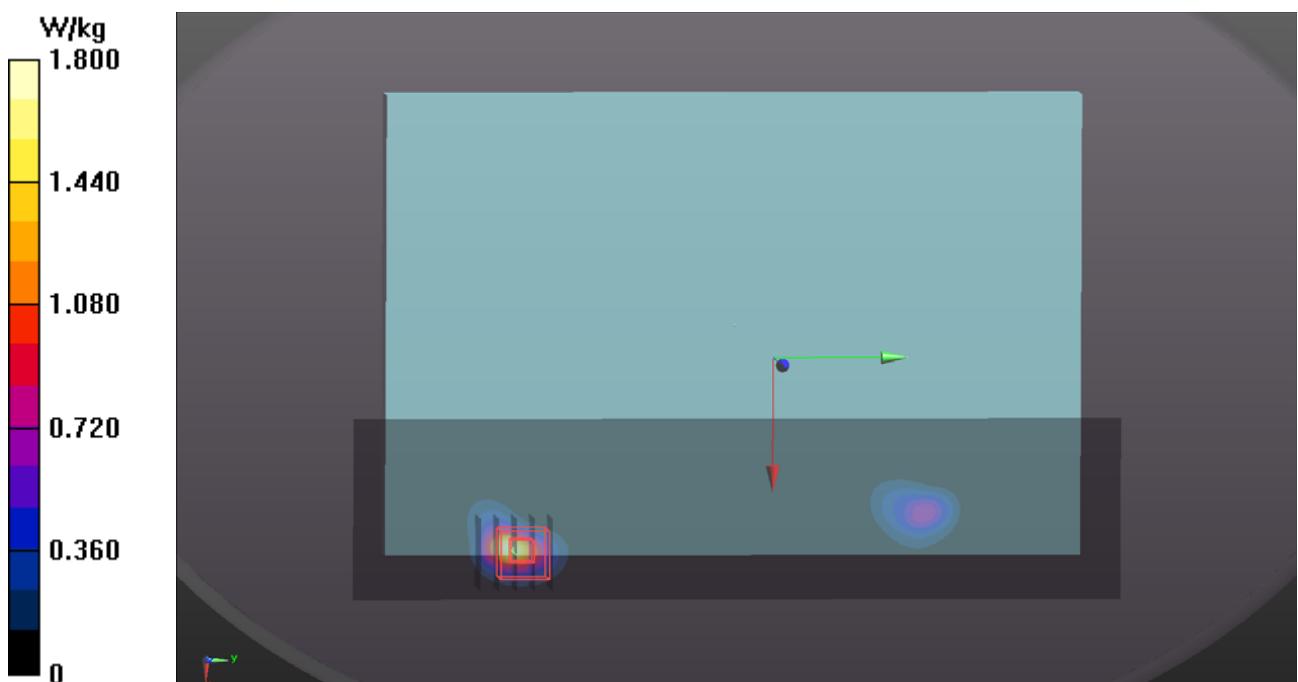
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.36 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.697 W/kg; SAR(10 g) = 0.284 W/kg

Maximum value of SAR (measured) = 1.27 W/kg



P16 WLAN5.3G_802.11ac VHT80_Rear Face_0mm_Ch58_Ant0_P-Sensor w**DUT: 190628C20**

Communication System: WLAN_5G; Frequency: 5290 MHz; Duty Cycle: 1:1.02

Medium: H34T60N1_0717 Medium parameters used: $f = 5290$ MHz; $\sigma = 4.671$ S/m; $\epsilon_r = 35.686$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(5.12, 5.12, 5.12); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x341x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.18 W/kg

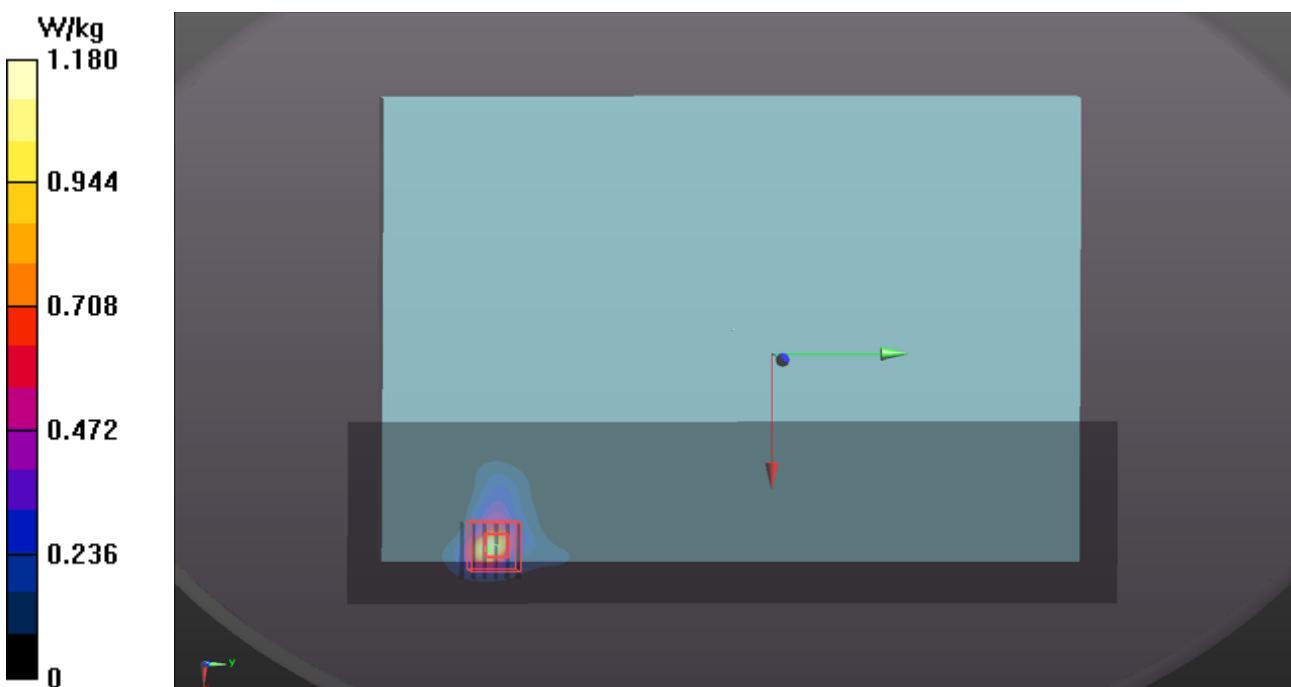
- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 14.80 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 3.03 W/kg

SAR(1 g) = 0.680 W/kg; SAR(10 g) = 0.181 W/kg

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



P17 WLAN5.6G_802.11ac VHT80_Rear Face_0mm_Ch106_Ant1_P-Sensor w**DUT: 190628C20**

Communication System: WLAN_5G; Frequency: 5530 MHz; Duty Cycle: 1:1.08

Medium: H34T60N1_0718 Medium parameters used: $f = 5530$ MHz; $\sigma = 5.164$ S/m; $\epsilon_r = 34.952$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(4.78, 4.78, 4.78); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x341x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.50 W/kg

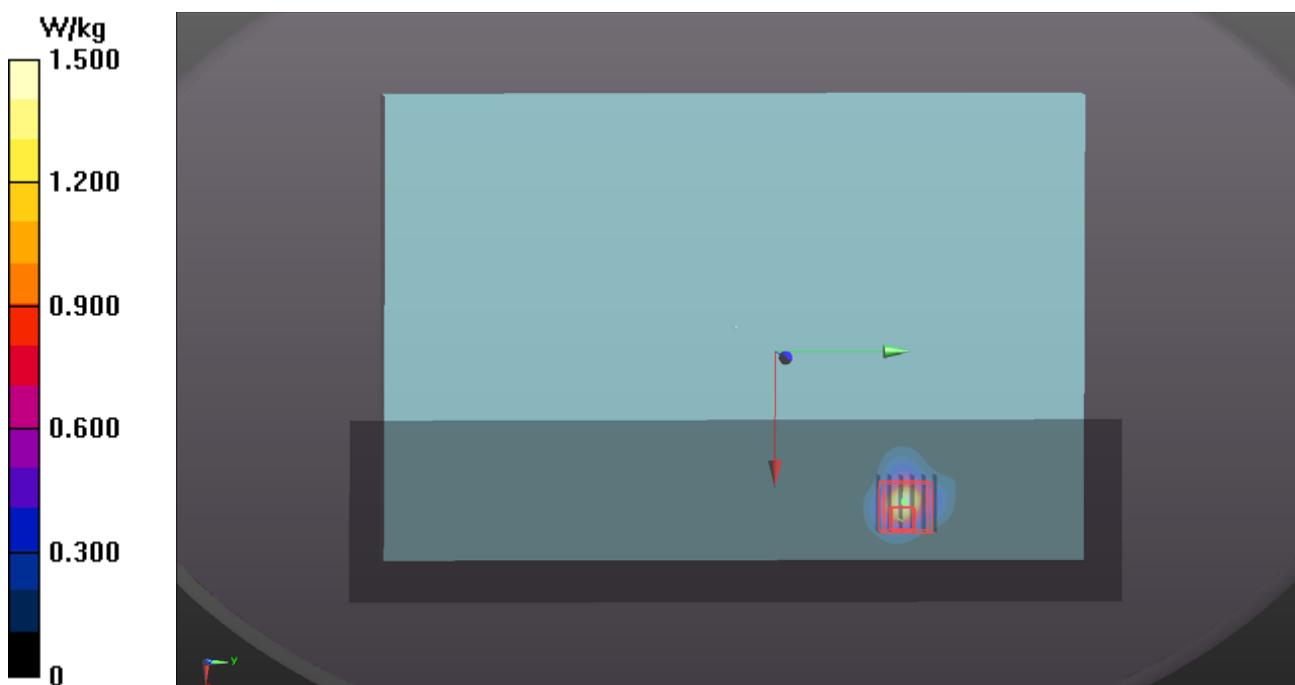
- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 16.83 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 0.532 W/kg; SAR(10 g) = 0.189 W/kg

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



P18 WLAN5.8G_802.11ac VHT80_Rear Face_0mm_Ch155_Ant1_P-Sensor w**DUT: 190628C20**

Communication System: WLAN_5G; Frequency: 5775 MHz; Duty Cycle: 1:1.08

Medium: H34T60N1_0719 Medium parameters used: $f = 5775$ MHz; $\sigma = 5.403$ S/m; $\epsilon_r = 35.876$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(4.92, 4.92, 4.92); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x341x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

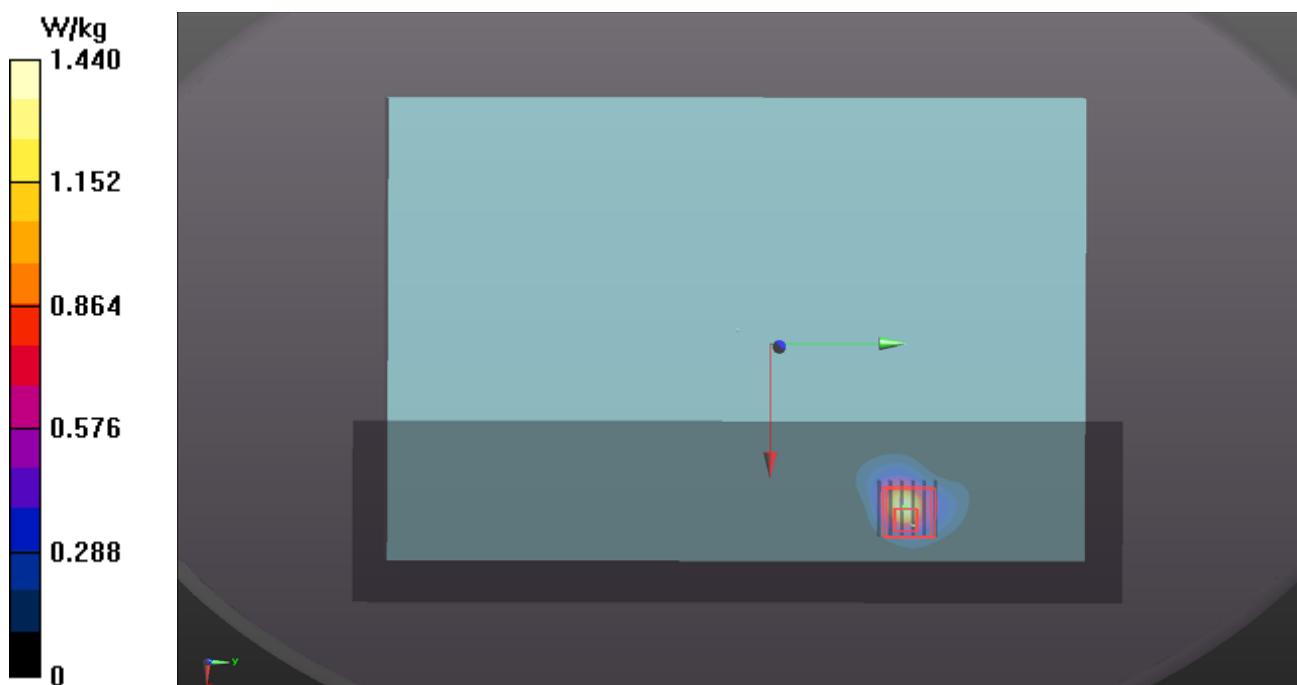
- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm

Reference Value = 16.39 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.15 W/kg

SAR(1 g) = 0.506 W/kg; SAR(10 g) = 0.171 W/kg

Maximum value of SAR (measured) = 1.21 W/kg



P19 BT_BDR_Rear Face_0mm_Ch78_Ant1_P-Sensor w_o**DUT: 190628C20**

Communication System: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.24

Medium: H19T27N1_0716 Medium parameters used: $f = 2480$ MHz; $\sigma = 1.917$ S/m; $\epsilon_r = 38.258$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(7.65, 7.65, 7.65); Calibrated: 2019/03/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2019/03/25
- Phantom: ELI Phantom_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.226 W/kg

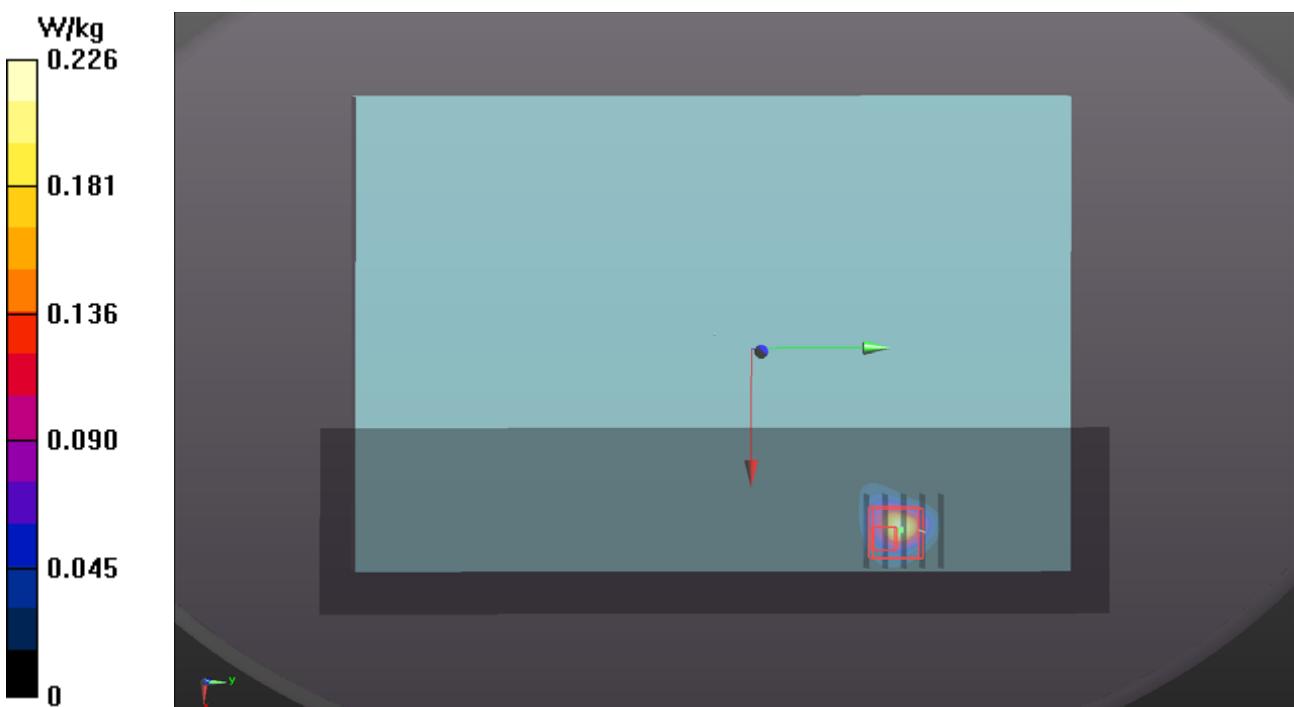
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.396 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.214 W/kg

SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.029 W/kg

Maximum value of SAR (measured) = 0.137 W/kg



P20 WLAN2.4G_802.11b_Rear Face_0mm_Ch6_Ant0_P-Sensor_w**DUT: 190628C20**

Communication System: WLAN_2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: H19T27N4_0731 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.871$ S/m; $\epsilon_r = 38.384$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.1 °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: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (101x271x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.569 W/kg

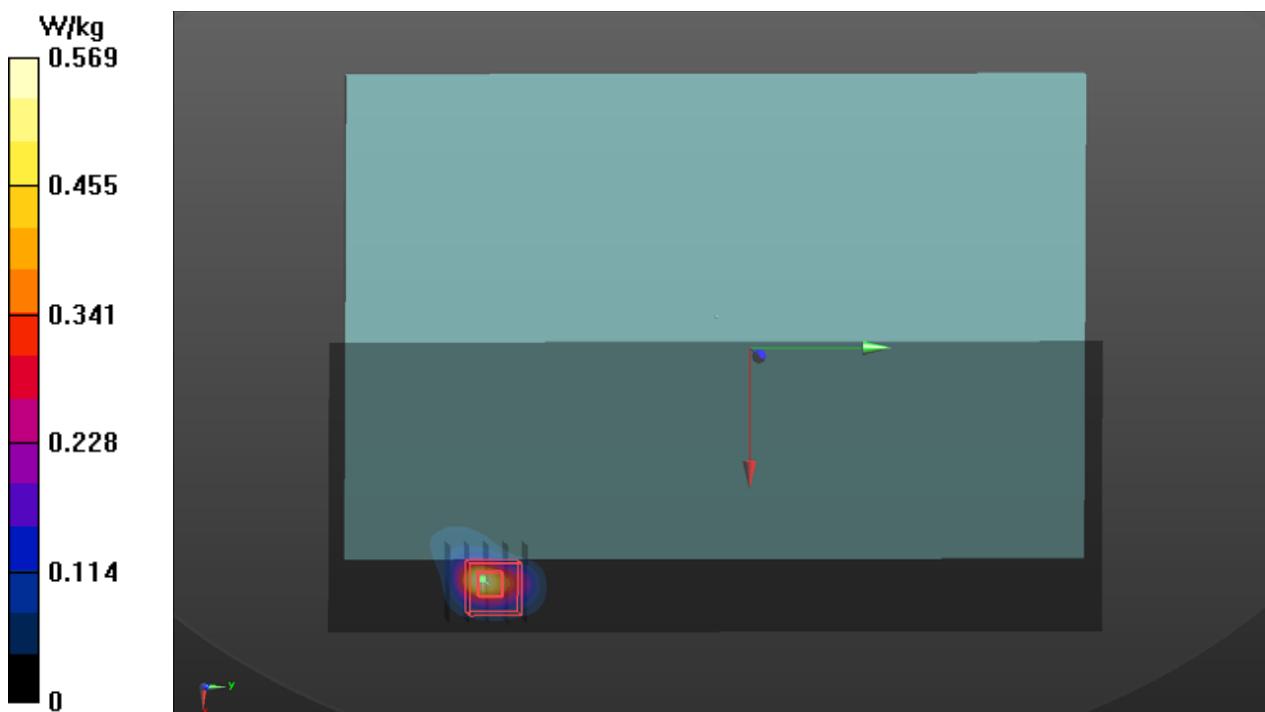
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.32 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.764 W/kg

SAR(1 g) = 0.290 W/kg; SAR(10 g) = 0.112 W/kg

Maximum value of SAR (measured) = 0.576 W/kg



P21 WLAN5.3G_802.11ac VHT80_Rear Face_0mm_Ch58_Ant1_P-Sensor_w**DUT: 190628C20**

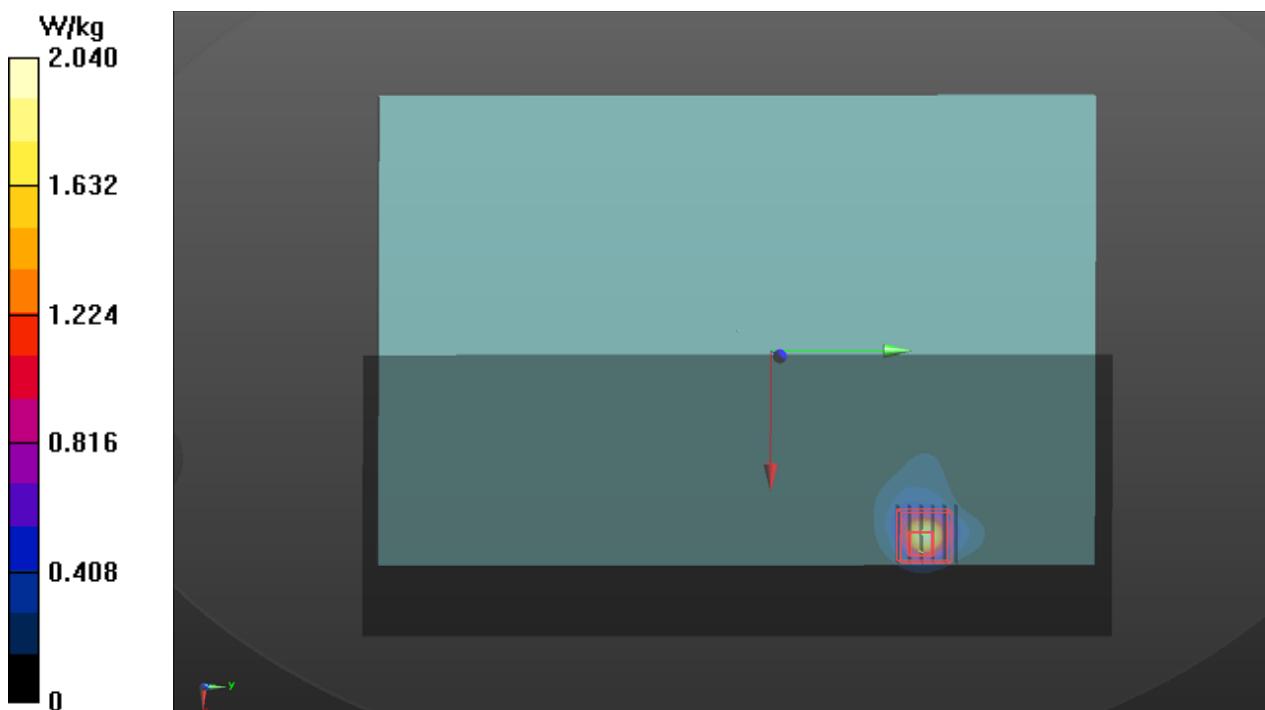
Communication System: WLAN_5G; Frequency: 5290 MHz; Duty Cycle: 1:1
Medium: H34T60N2_0801 Medium parameters used: $f = 5290$ MHz; $\sigma = 4.825$ S/m; $\epsilon_r = 35.396$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.62, 5.62, 5.62); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (121x321x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.04 W/kg

- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm
Reference Value = 21.78 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.19 W/kg
SAR(1 g) = 0.829 W/kg; SAR(10 g) = 0.294 W/kg
Maximum value of SAR (measured) = 1.83 W/kg



P22 WLAN5.6G_802.11ac VHT80_Rear Face_0mm_Ch106_Ant1_P-Sensor_w**DUT: 190628C20**

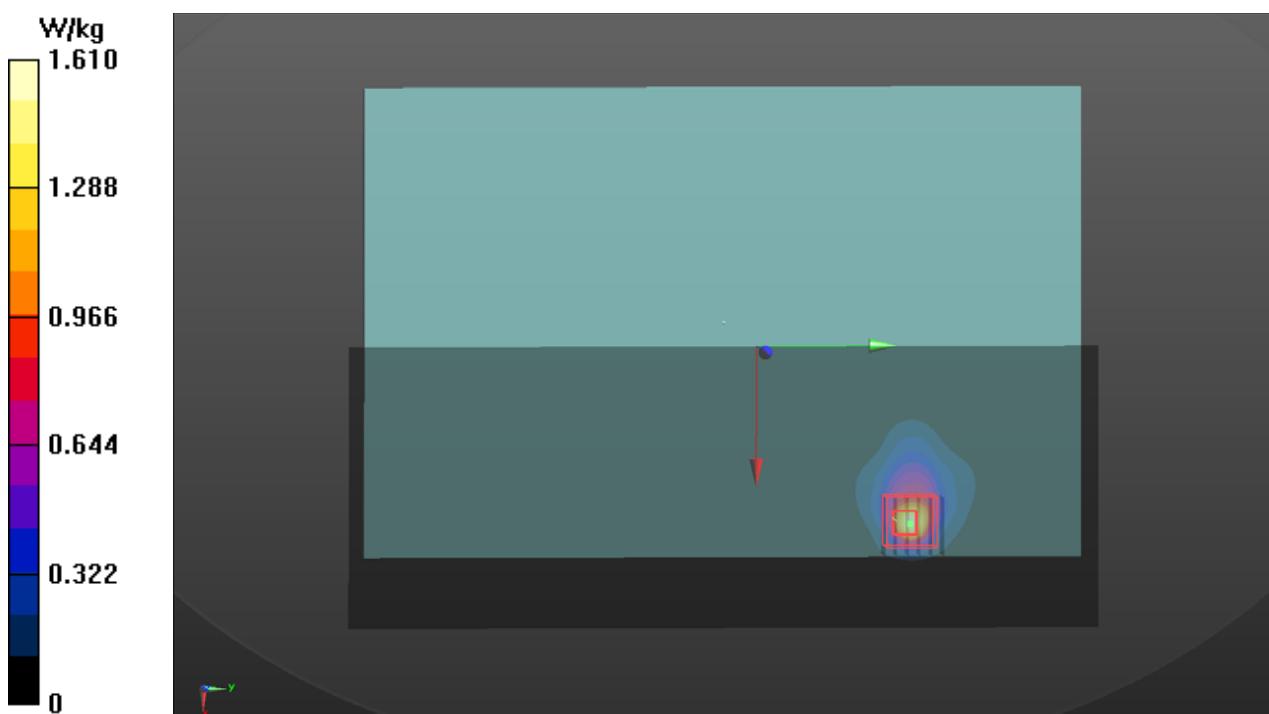
Communication System: WLAN_5G; Frequency: 5530 MHz; Duty Cycle: 1:1
Medium: H34T60N2_0801 Medium parameters used: $f = 5530$ MHz; $\sigma = 5.092$ S/m; $\epsilon_r = 34.933$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.16, 5.16, 5.16); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (121x321x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.61 W/kg

- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm
Reference Value = 17.68 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.72 W/kg
SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.230 W/kg
Maximum value of SAR (measured) = 1.50 W/kg



P23 WLAN5.8G_802.11ac VHT80_Rear Face_0mm_Ch155_Ant1_P-Sensor_w**DUT: 190628C20**

Communication System: WLAN_5G; Frequency: 5775 MHz; Duty Cycle: 1:1
Medium: H34T60N1_0802 Medium parameters used: $f = 5775$ MHz; $\sigma = 5.086$ S/m; $\epsilon_r = 35.926$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7472; ConvF(5.32, 5.32, 5.32); Calibrated: 2018/08/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

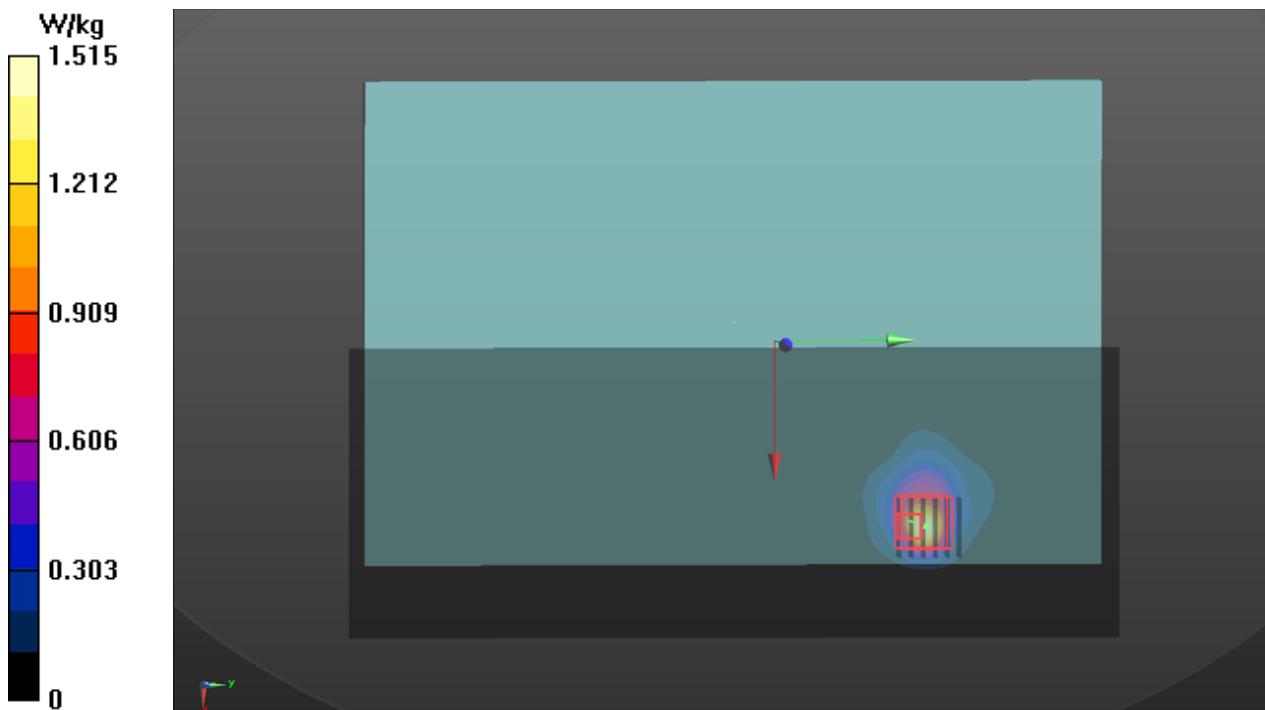
- Area Scan (121x321x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.52 W/kg

- Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm
Reference Value = 16.79 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 2.74 W/kg

SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.219 W/kg

Maximum value of SAR (measured) = 1.51 W/kg



P24 BT_LE_Rear Face_0mm_Ch39_Ant1

DUT: 190628C20

Communication System: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.17

Medium: H19T27N4_0731 Medium parameters used: $f = 2480 \text{ MHz}$; $\sigma = 1.917 \text{ S/m}$; $\epsilon_r = 38.257$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.1 °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: DAE3 Sn579; Calibrated: 2018/08/27
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (101x271x1):** Interpolated grid: $dx=1.200 \text{ mm}$, $dy=1.200 \text{ mm}$

Maximum value of SAR (interpolated) = 0.135 W/kg

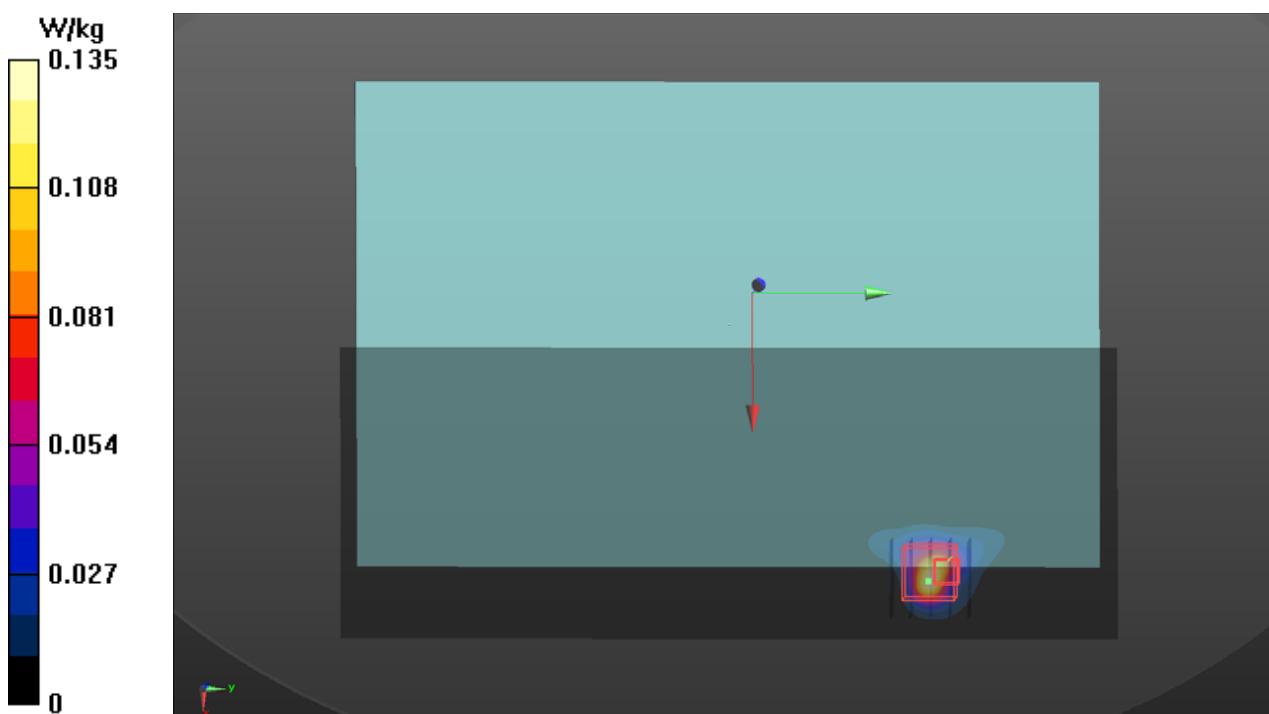
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.885 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.253 W/kg

SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.033 W/kg

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



P25 WCDMA II_RMC12.2K_Bottom_0mm_Ch9400_P-Sensor w**DUT: 19Q2-017**

Communication System: WCDMA; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: H16T20N1_0705 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ S/m; $\epsilon_r = 39.097$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.516 W/kg

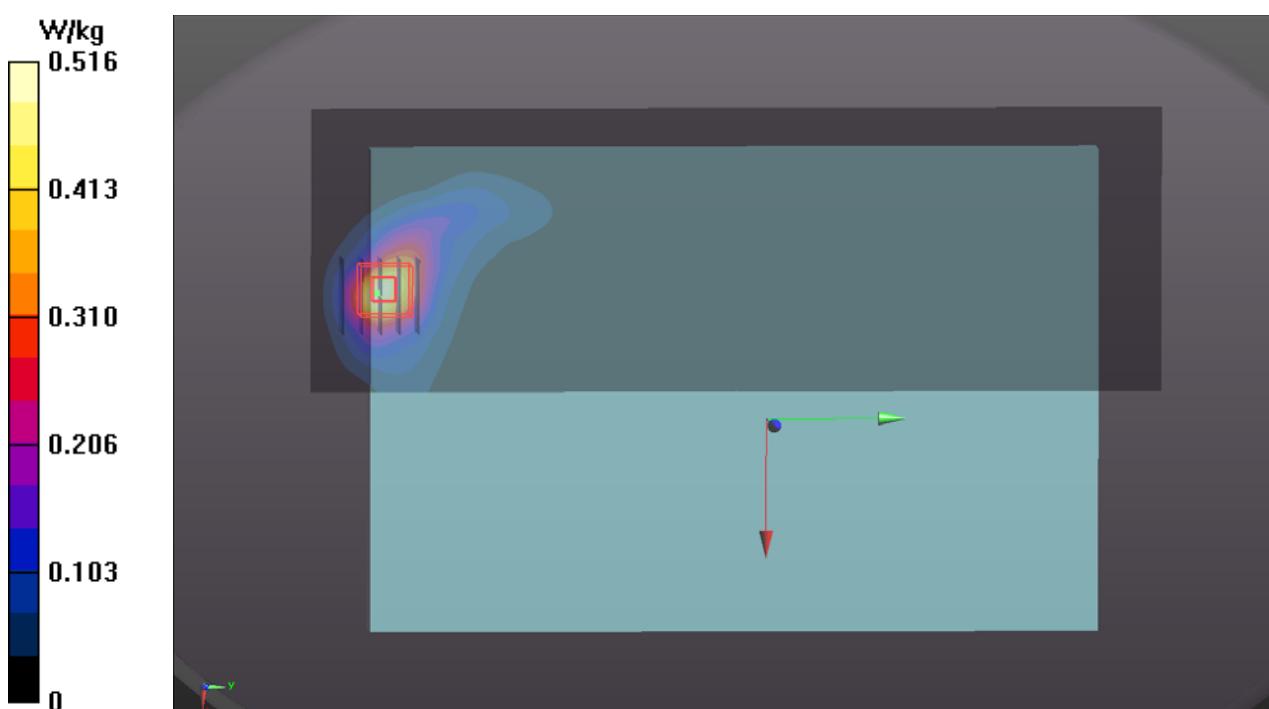
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.66 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.912 W/kg

SAR(1 g) = 0.446 W/kg; SAR(10 g) = 0.214 W/kg

Maximum value of SAR (measured) = 0.707 W/kg



P26 WCDMA IV_RMC12.2K_Bottom_0mm_Ch1513_P-Sensor w**DUT: 19Q2-017**

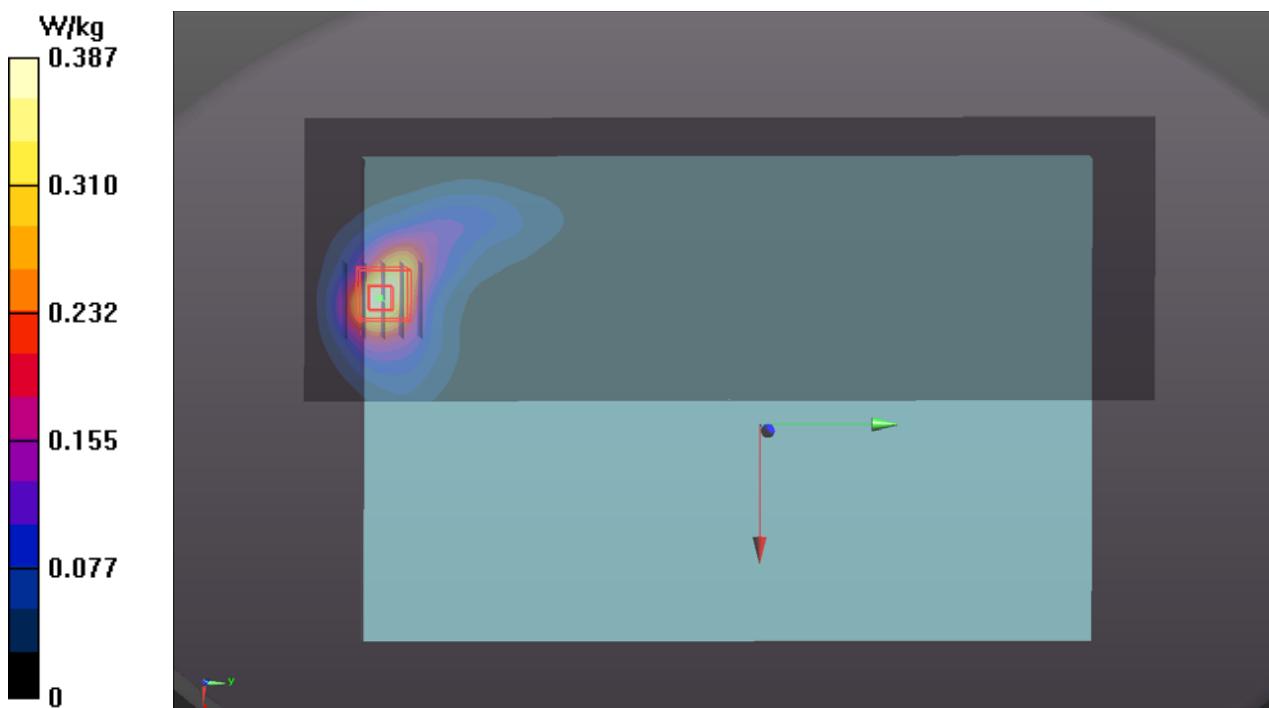
Communication System: WCDMA; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: H16T20N1_0705 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.335$ S/m; $\epsilon_r = 39.515$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.387 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.99 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.721 W/kg
SAR(1 g) = 0.356 W/kg; SAR(10 g) = 0.177 W/kg
Maximum value of SAR (measured) = 0.591 W/kg



P27 WCDMA V_RMC12.2K_Bottom_0mm_Ch4233_P-Sensor w**DUT: 19Q2-017**

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

Medium: H16T20N1_0705 Medium parameters used: $f = 847 \text{ MHz}$; $\sigma = 0.936 \text{ S/m}$; $\epsilon_r = 42.322$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (81x241x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.579 W/kg

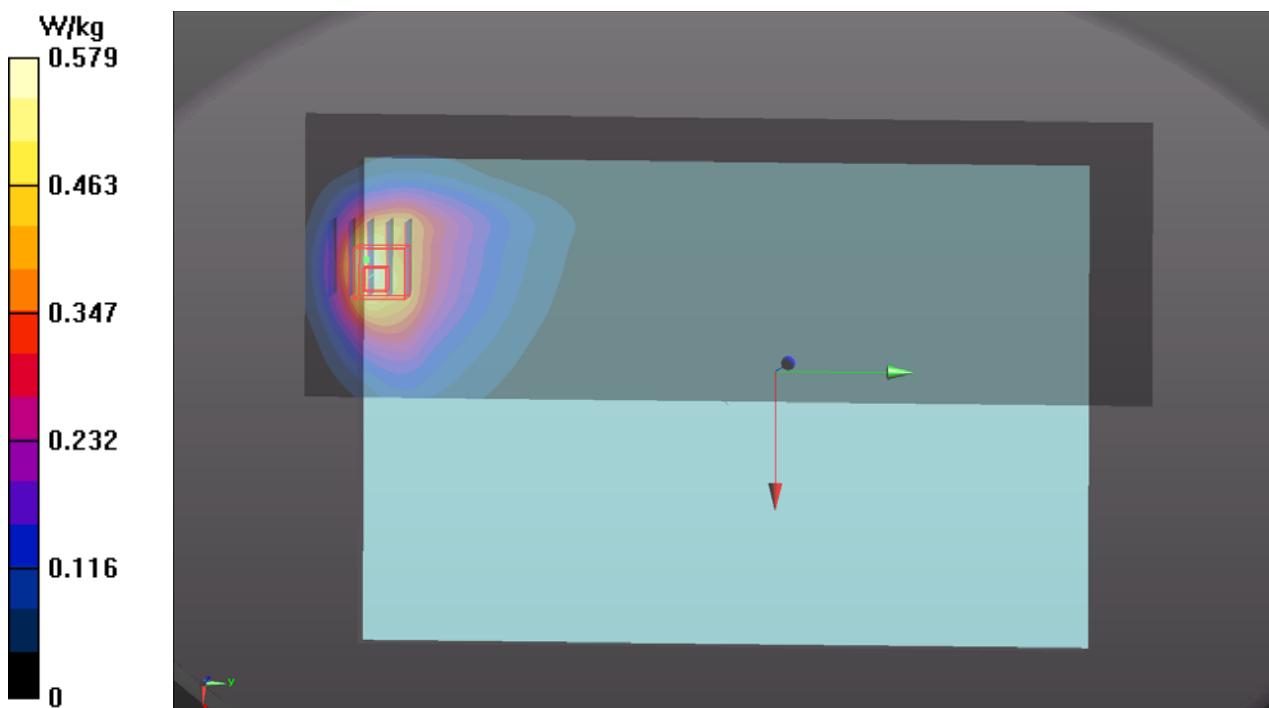
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.46 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.744 W/kg

SAR(1 g) = 0.442 W/kg; SAR(10 g) = 0.269 W/kg

Maximum value of SAR (measured) = 0.619 W/kg



P28 LTE 2_QPSK20M_Bottom_0mm_Ch18900_1RB_OS0_P-Sensor w**DUT: 190628C20**

Communication System: LTE; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: H16T20N2_0705 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.446$ S/m; $\epsilon_r = 39.572$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.1 °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_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.734 W/kg

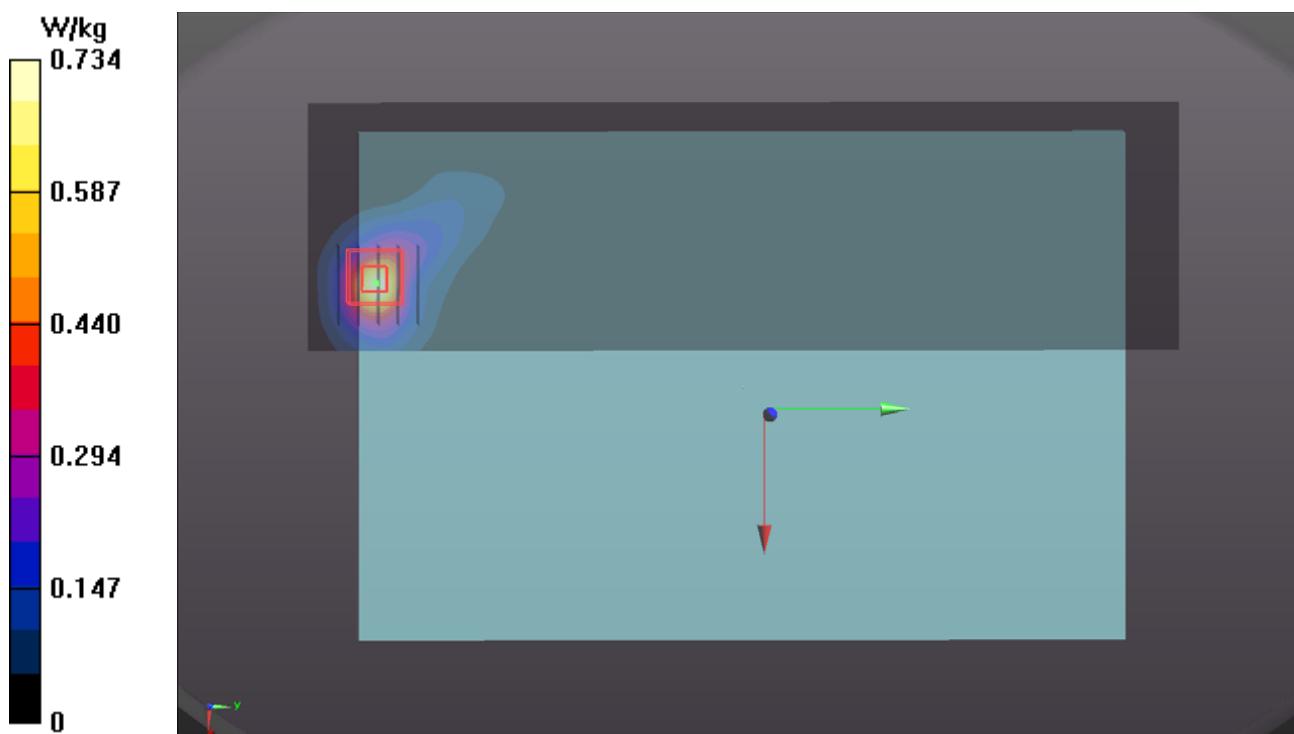
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.65 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.889 W/kg

SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.195 W/kg

Maximum value of SAR (measured) = 0.707 W/kg



P29 LTE 4_QPSK20M_Bottom_0mm_Ch20300_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H16T20N1_0720 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.323$ S/m; $\epsilon_r = 40.154$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °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_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.595 W/kg

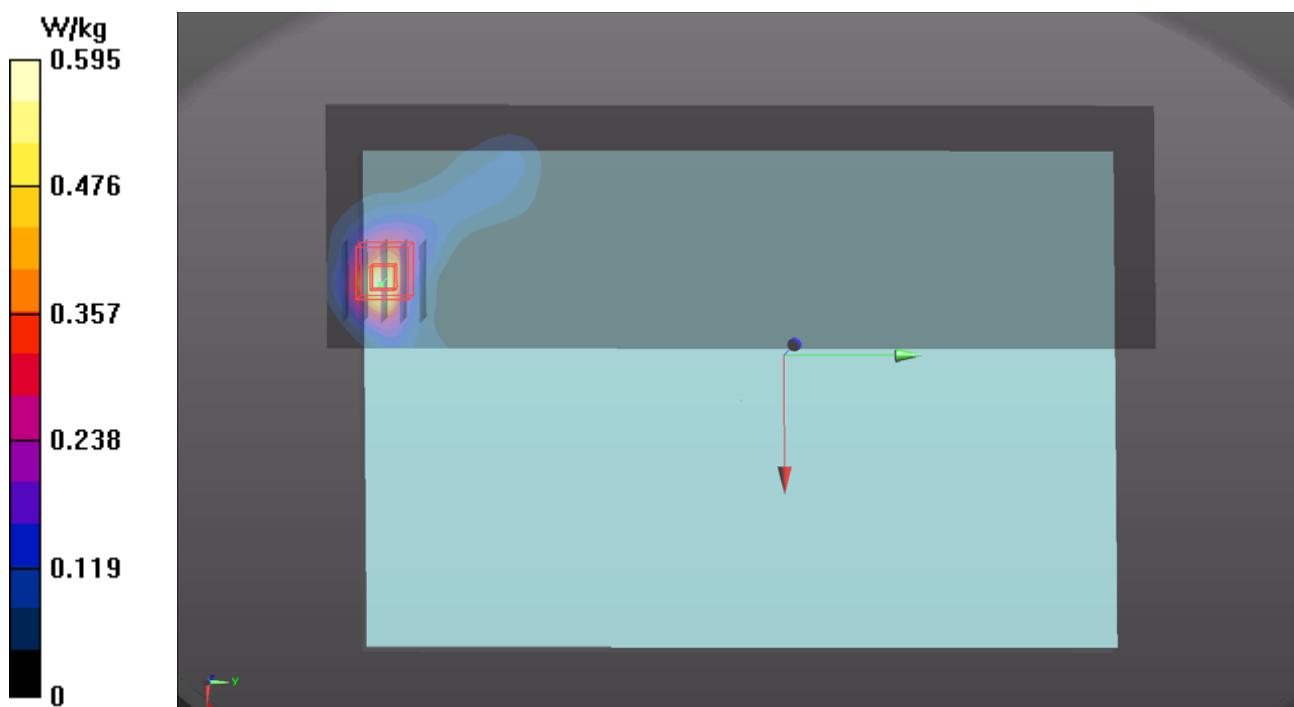
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.82 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.720 W/kg

SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.190 W/kg

Maximum value of SAR (measured) = 0.584 W/kg



P48 LTE 5_QPSK10M_Bottom_0mm_Ch20450_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H07T10N2_0807 Medium parameters used: $f = 829 \text{ MHz}$; $\sigma = 0.902 \text{ S/m}$; $\epsilon_r = 41.012$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(10.13, 10.13, 10.13); Calibrated: 2018/12/13
- 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 (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

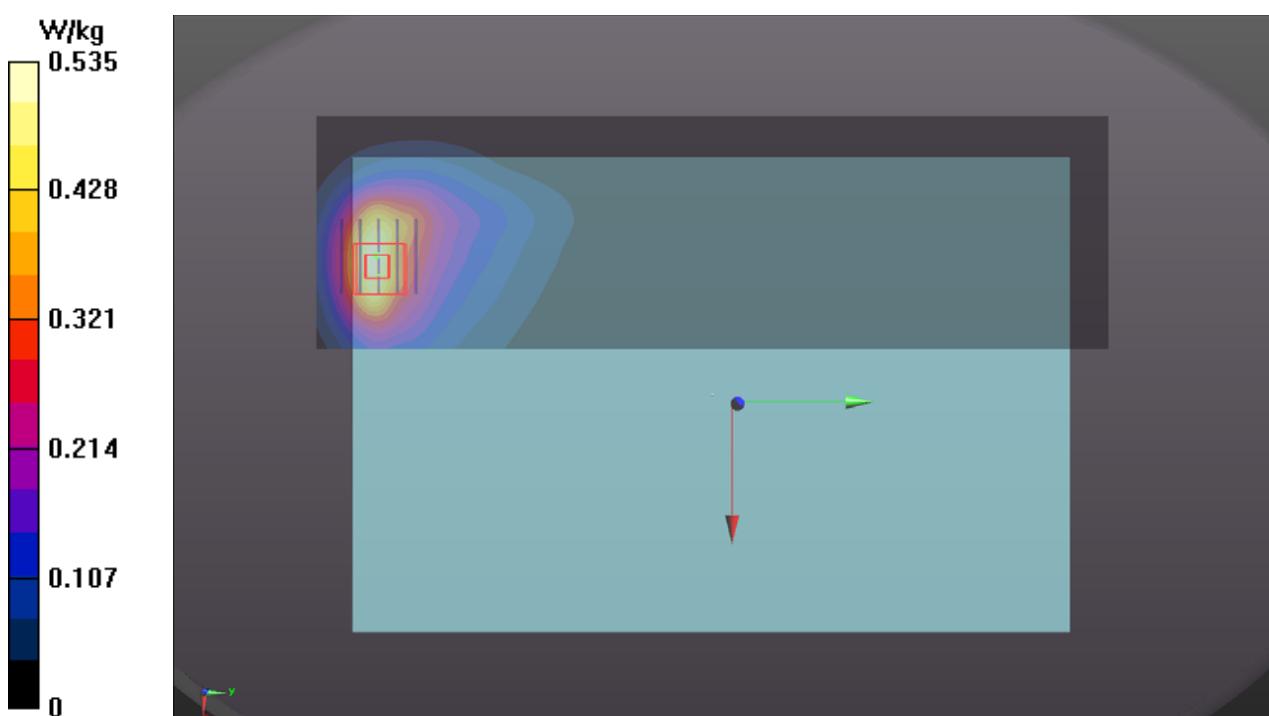
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.99 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.628 W/kg

SAR(1 g) = 0.388 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.542 W/kg



P30 LTE 7_QPSK20M_Bottom_0mm_Ch21100_1RB_OS0_P-Sensor w**DUT: 190628C20**

Communication System: LTE; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: H19T27N1_0705 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.958$ S/m; $\epsilon_r = 38.044$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.42, 7.42, 7.42); Calibrated: 2018/12/13
- 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 (91x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.396 W/kg

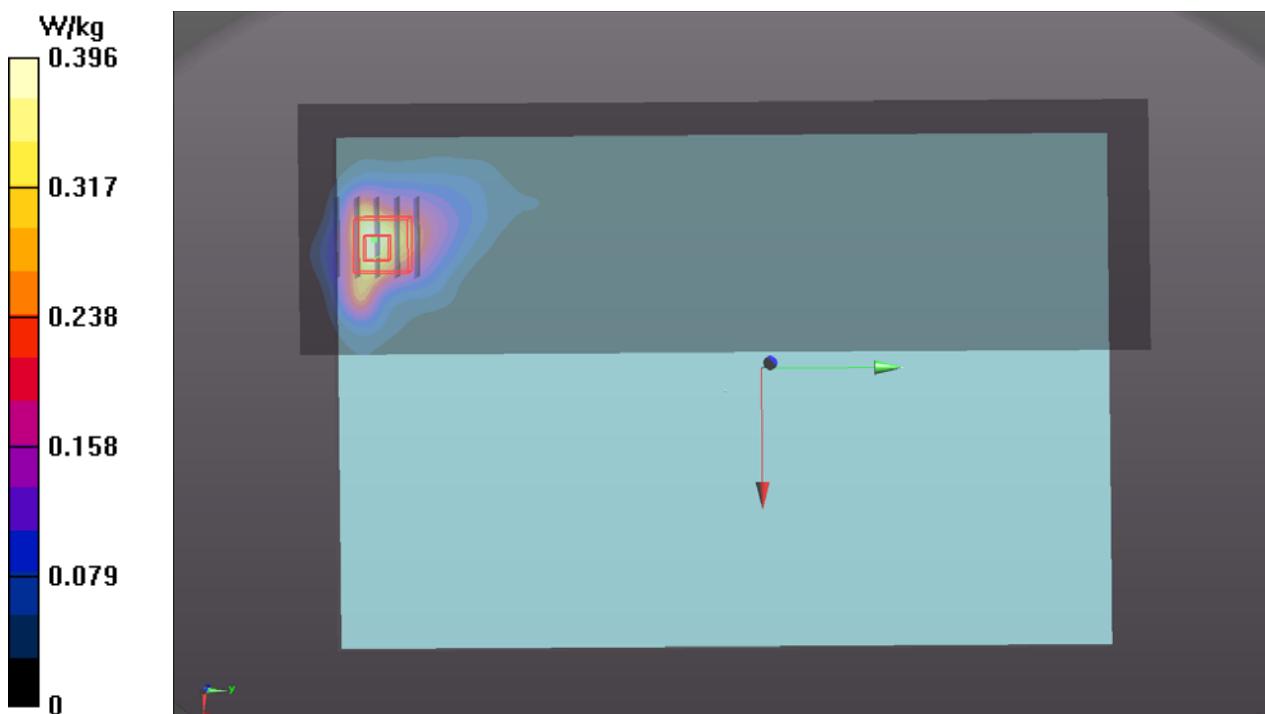
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.63 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.133 W/kg

Maximum value of SAR (measured) = 0.376 W/kg



P31 LTE 12_QPSK10M_Bottom_0mm_Ch23095_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H06T09N1_0705 Medium parameters used: $f = 707.5$ MHz; $\sigma = 0.847$ S/m; $\epsilon_r = 43.988$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(10.35, 10.35, 10.35); Calibrated: 2018/12/13
- 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 (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.586 W/kg

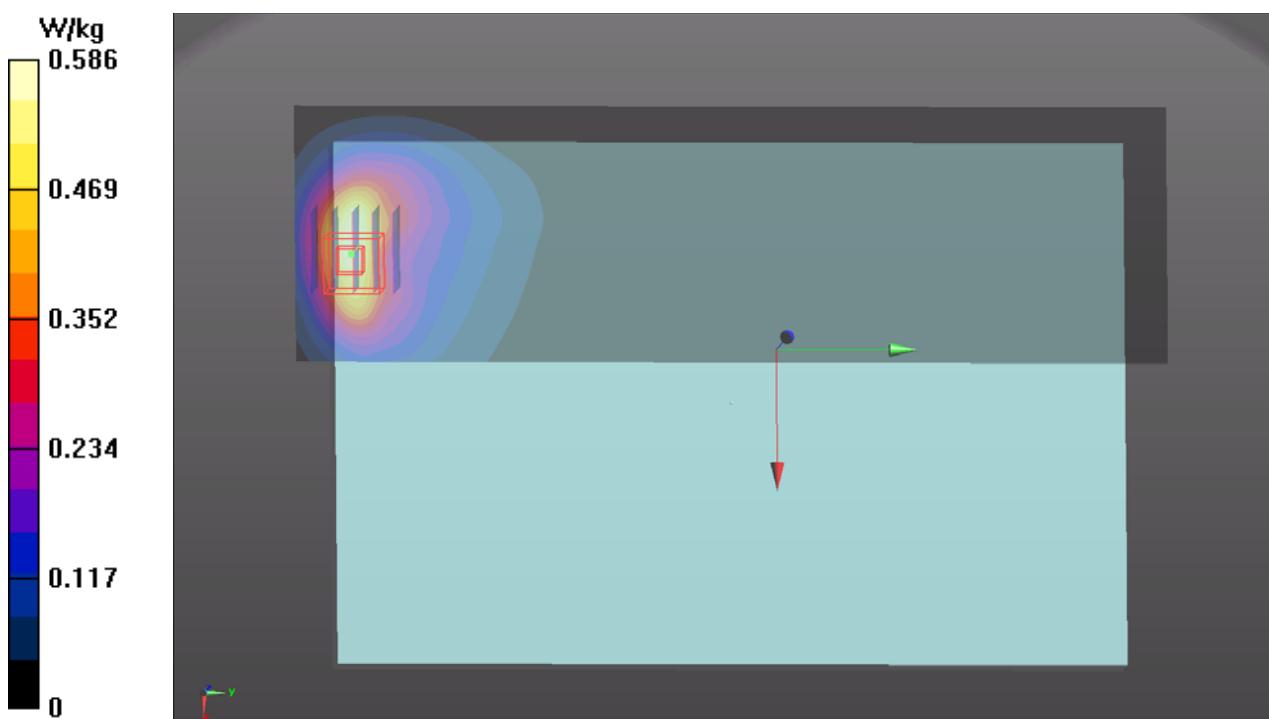
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.13 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.683 W/kg

SAR(1 g) = 0.388 W/kg; SAR(10 g) = 0.232 W/kg

Maximum value of SAR (measured) = 0.584 W/kg



P32 LTE 13_QPSK10M_Bottom_0mm_Ch23230_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H06T09N1_0705 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.918 \text{ S/m}$; $\epsilon_r = 43.052$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(10.35, 10.35, 10.35); Calibrated: 2018/12/13
- 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 (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.645 W/kg

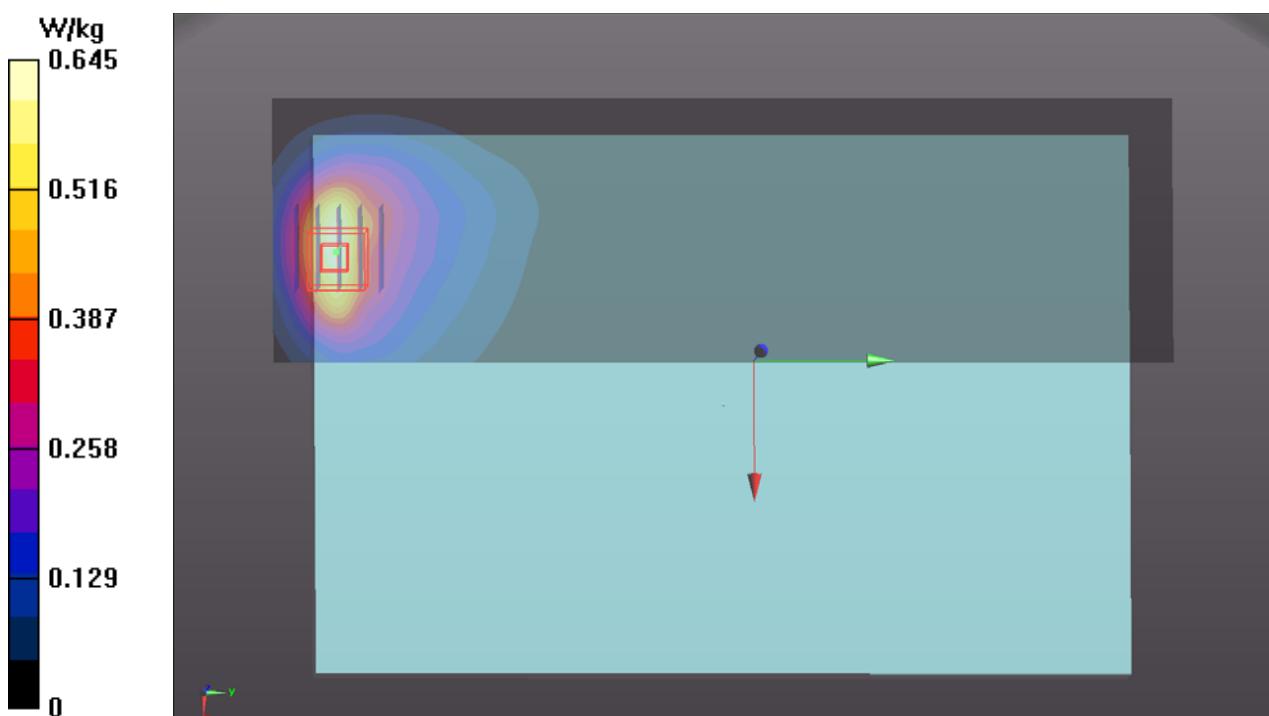
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.16 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.726 W/kg

SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.268 W/kg

Maximum value of SAR (measured) = 0.626 W/kg



P33 LTE 17_QPSK10M_Bottom_0mm_Ch23780_1RB_OS0_P-Sensor w**DUT: 190628C20**

Communication System: LTE; Frequency: 709 MHz; Duty Cycle: 1:1

Medium: H06T09N1_0720 Medium parameters used: $f = 709$ MHz; $\sigma = 0.856$ S/m; $\epsilon_r = 43.95$; $\rho = 1000$ kg/m³

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_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.756 W/kg

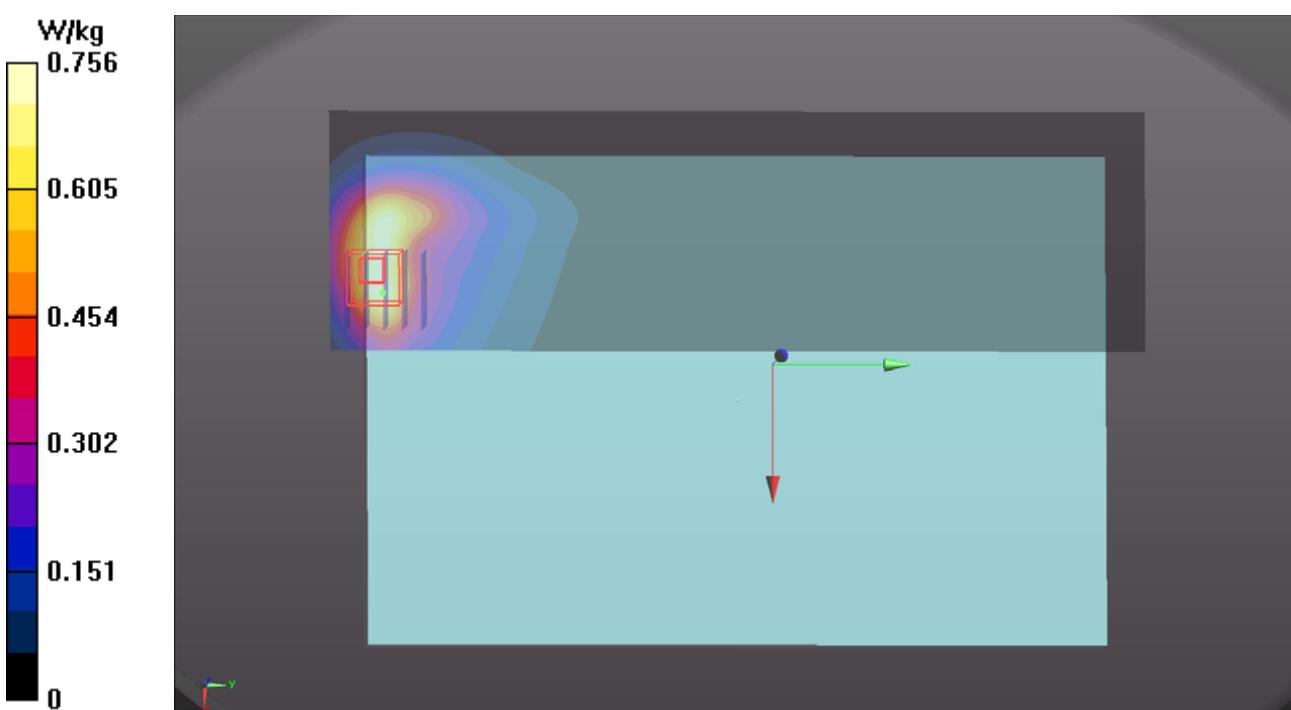
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.45 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.931 W/kg

SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.315 W/kg

Maximum value of SAR (measured) = 0.751 W/kg



P34 LTE 26_QPSK15M_Bottom_0mm_Ch26765_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H07T10N2_0705 Medium parameters used: $f = 821.5$ MHz; $\sigma = 0.907$ S/m; $\epsilon_r = 41.454$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.1 °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_1043; Type: QDOVA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- Area Scan (71x241x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.642 W/kg

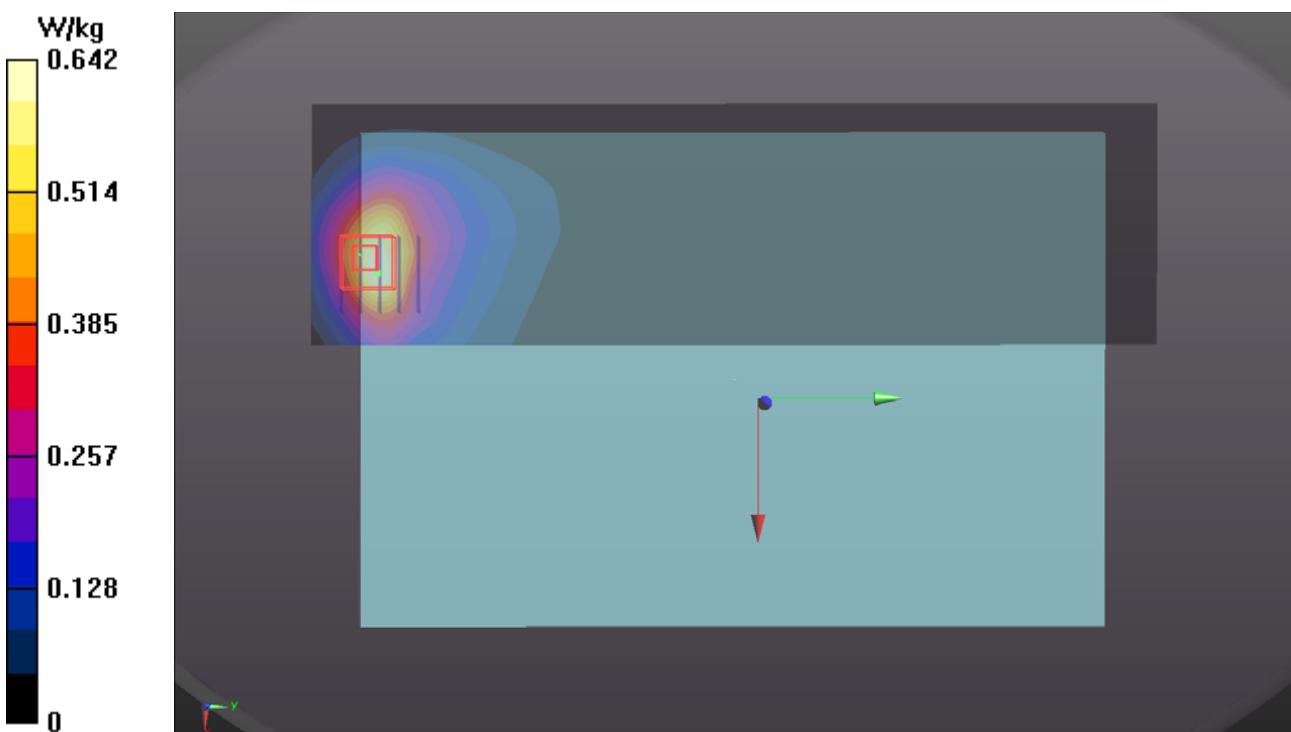
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.19 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.777 W/kg

SAR(1 g) = 0.440 W/kg; SAR(10 g) = 0.264 W/kg

Maximum value of SAR (measured) = 0.642 W/kg



P35 LTE 30_QPSK10M_Bottom_0mm_Ch27710_1RB_OS0_P-Sensor w**DUT: 190628C20**

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

Medium: H19T27N1_0705 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.726$ S/m; $\epsilon_r = 38.852$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.79, 7.79, 7.79); Calibrated: 2018/12/13
- 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 (91x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

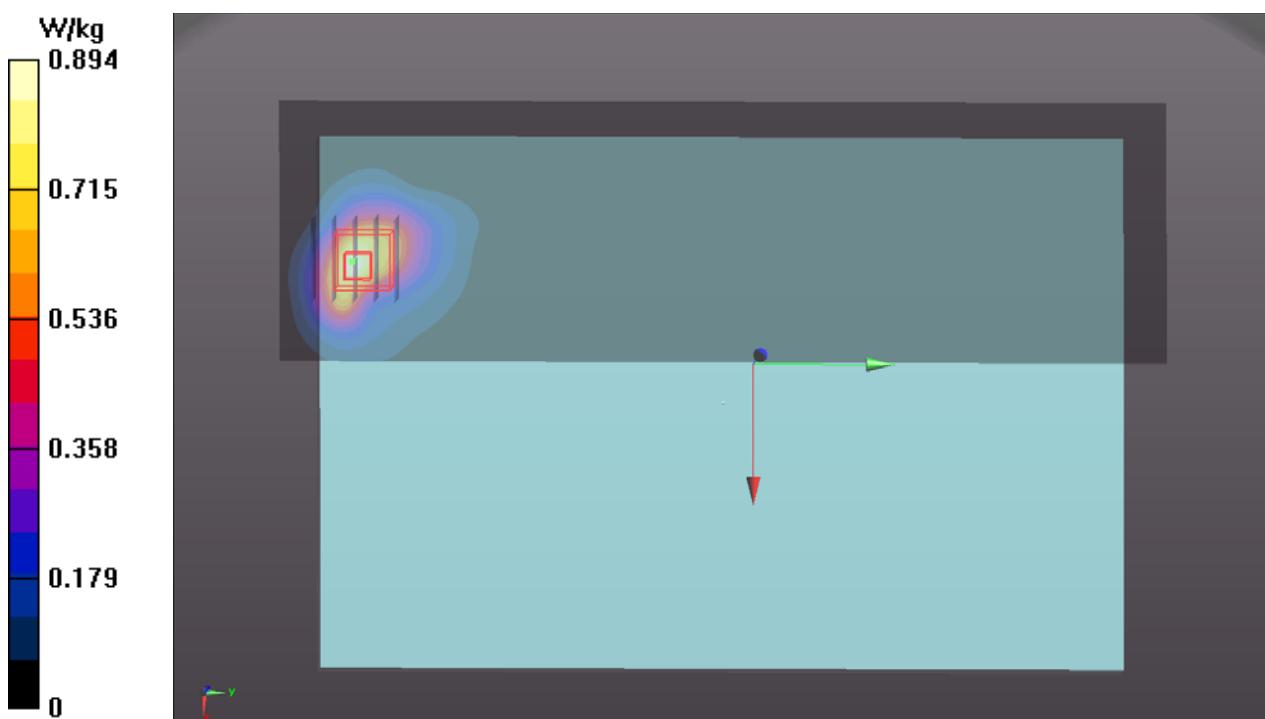
- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.65 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.654 W/kg; SAR(10 g) = 0.340 W/kg

Maximum value of SAR (measured) = 0.980 W/kg



P36 LTE 41_QPSK20M_Bottom_0mm_Ch40185_1RB_OS0_P-Sensor w**DUT: 190628C20**

Communication System: LTE TDD CF0; Frequency: 2549.5 MHz; Duty Cycle: 1:1.58
Medium: H19T27N1_0705 Medium parameters used: $f = 2550$ MHz; $\sigma = 1.974$ S/m; $\epsilon_r = 37.973$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.42, 7.42, 7.42); Calibrated: 2018/12/13
- 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 (91x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.393 W/kg

- Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.86 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.484 W/kg
SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.140 W/kg
Maximum value of SAR (measured) = 0.394 W/kg

