FCC SAR Test Report

Report No.	:	**SA130326C14**
Applicant	:	**ASUSTek COMPUTER INC.**
Address	:	**4F., No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN**
Product	:	**ASUS Tablet**
FCC ID	:	**MSQK005**
Brand	:	**ASUS**
Model No.	:	**K005**
Standards	:	**FCC 47 CFR Part 2 (2.1093) / IEEE C95.1:1991 / IEEE 1528:2003** **FCC OET Bulletin 65 Supplement C (Edition 01-01)** **KDB 248227 D01 v01r02 / KDB 447498 D01 v05 / KDB 616217 D04 v01** **KDB 941225 D01 v02 / KDB 941225 D02 v02r01 / KDB 941225 D03 v01** **KDB 941225 D05 v02r01**
Date of Testing	:	**Apr. 02, 2013 ~ Apr. 18, 2013**

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

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Release Control Record

Issue No.	Reason for Change	Date Issued
R01	Initial release	May 09, 2013

1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest Reported Body SAR_{1g} (W/kg)
PCB	GSM850	0.97
	GSM1900	1.23
	WCDMA II	1.30
	WCDMA V	1.01
	LTE 2	1.36
	LTE 4	1.05
	LTE 5	0.76
	LTE 17	1.25
DTS	2.4G WLAN	1.11
	5.8G WLAN	1.19
NII	5.2G WLAN	0.69
DSS	Bluetooth	N/A
Highest Simultaneous Transmission SAR		Body (W/kg)
PCB + DTS		1.58
PCB + NII		1.47
PCB + DSS		1.56

Note:

1. The SAR limit **(Head & Body: SAR_{1g} 1.6 W/kg)** for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1991.

2. Description of Equipment Under Test

EUT Type	ASUS Tablet
FCC ID	MSQK005
Brand Name	ASUS
Model Name	K005
Tx Frequency Bands (Unit: MHz)	GSM850 : 824.2 ~ 848.8 GSM1900 : 1850.2 ~ 1909.8 WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band V : 826.4 ~ 846.6 LTE Band 2 : 1850.7 ~ 1909.3 LTE Band 4 : 1710.7 ~ 1754.3 LTE Band 5 : 824.7 ~ 848.3 LTE Band 17 : 706.5 ~ 713.5 WLAN : 2412 ~ 2462, 5180 ~ 5240, 5745 ~ 5805 Bluetooth : 2402 ~ 2480
Uplink Modulations	GPRS : GMSK EDGE : 8PSK WCDMA : QPSK LTE : QPSK, 16QAM 802.11b : DSSS 802.11a/g/n : OFDM Bluetooth : GFSK
Maximum Tune-up Conducted Power (Unit: dBm)	GSM850 : 32.1 GSM1900 : 30.2 WCDMA Band II : 23.0 WCDMA Band V : 23.5 LTE Band 2 : 23.6 LTE Band 4 : 23.3 LTE Band 5 : 23.7 LTE Band 17 : 23.7 WLAN 2.4G : 13.7 WLAN 5.2G : 11.5 WLAN 5.8G : 11.0 Bluetooth : 6.5
Antenna Type	Fixed Internal Antenna
EUT Stage	Identical Prototype

Note:

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

List of Key Component:

Battery	**Brand Name**	SMP (cell SDI)
	Model Name	C12P1302
	Power Rating	3.7Vdc, 6560mAh
	Type	Li-ion
LCD Panel	**Brand Name**	AUO
	Model Name	AUO/B101UAN01.7_H/W 1A
WWAN Module	**Brand Name**	Qualcomm
	Model Name	MDM-9215M
WLAN Module	**Brand Name**	Qualcomm
	Model Name	WCN-3660
Video Camera (Front)	**Brand Name**	Liteon
	Model Name	LITEON/10P2SF130K
Video Camera (Rear)	**Brand Name**	Liteon
	Model Name	LITEON/12P2BA540
CPU	**Brand Name**	Qualcomm
	Model Name	APQ-8064
	Signal Line	1.7GHz, 1067 pins
Mainboard	**Brand Name**	Asus
	Model Name	ME302KL

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:

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

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be related to the electrical field in the tissue by

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

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 DASY System

DASY 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 DASY4/5 software defined. The DASY 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 form the optical into digital electric signal of the DAE and transfers data to the PC.

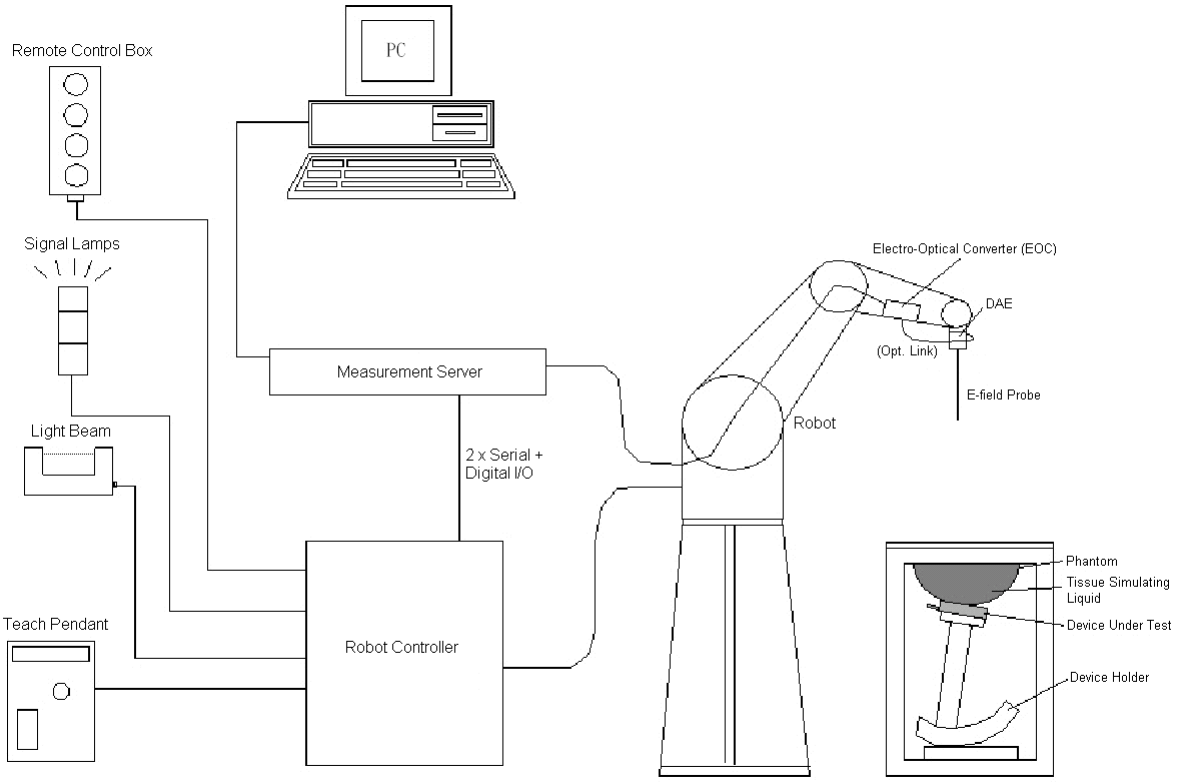


Fig-3.1 DASY System Setup

3.2.1 Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY4: CS7MB; DASY5: 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 DASY4

Fig-3.3 DASY5

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 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/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 µW/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

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 DASY4/5 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	< 5µV (with auto zero)
Input Bias Current	< 50 fA
Dimensions	60 x 60 x 68 mm

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	

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 l/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)	

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.

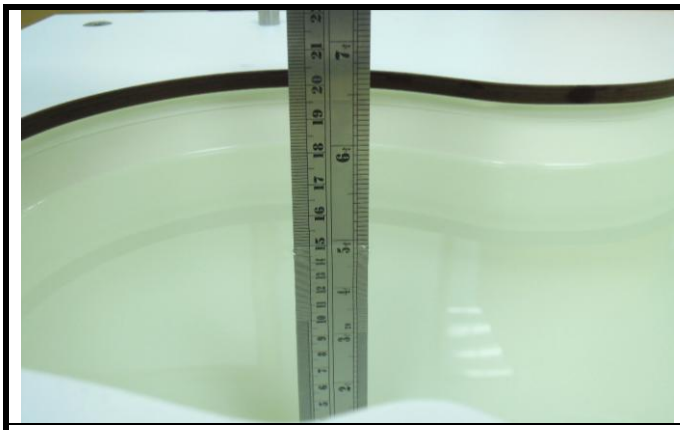
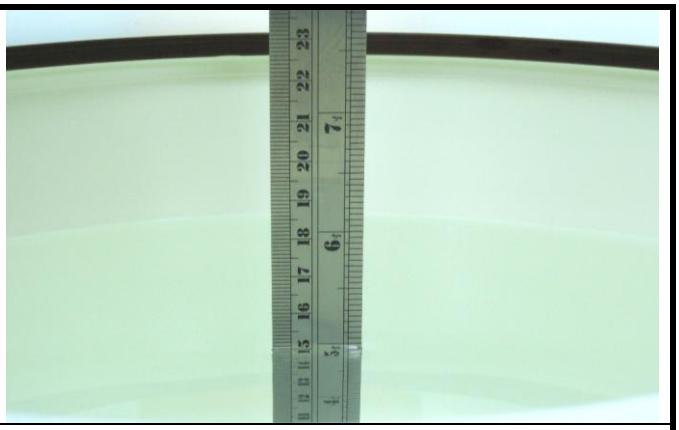
	

Photo of Liquid Height for Head Position	**Photo of Liquid Height for Body Position**

The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528 and FCC OET 65 Supplement C Appendix C. For the body tissue simulating liquids, the dielectric properties are defined in FCC OET 65 Supplement C Appendix C. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using an Agilent 85070D Dielectric Probe Kit and an Agilent Network Analyzer.

Table-3.1 Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of ±5%	Target Conductivity	Range of ±5%
For Head				
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
For Body				
750	55.5	52.7 ~ 58.3	0.96	0.91 ~ 1.01
835	55.2	52.4 ~ 58.0	0.97	0.92 ~ 1.02
900	55.0	52.3 ~ 57.8	1.05	1.00 ~ 1.10
1450	54.0	51.3 ~ 56.7	1.30	1.24 ~ 1.37
1640	53.8	51.1 ~ 56.5	1.40	1.33 ~ 1.47
1750	53.4	50.7 ~ 56.1	1.49	1.42 ~ 1.56
1800	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
1900	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2000	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2300	52.9	50.3 ~ 55.5	1.81	1.72 ~ 1.90
2450	52.7	50.1 ~ 55.3	1.95	1.85 ~ 2.05
2600	52.5	49.9 ~ 55.1	2.16	2.05 ~ 2.27
3500	51.3	48.7 ~ 53.9	3.31	3.14 ~ 3.48
5200	49.0	46.6 ~ 51.5	5.30	5.04 ~ 5.57
5300	48.9	46.5 ~ 51.3	5.42	5.15 ~ 5.69
5500	48.6	46.2 ~ 51.0	5.65	5.37 ~ 5.93
5600	48.5	46.1 ~ 50.9	5.77	5.48 ~ 6.06
5800	48.2	45.8 ~ 50.6	6.00	5.70 ~ 6.30

The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

3.3 SAR System Verification

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

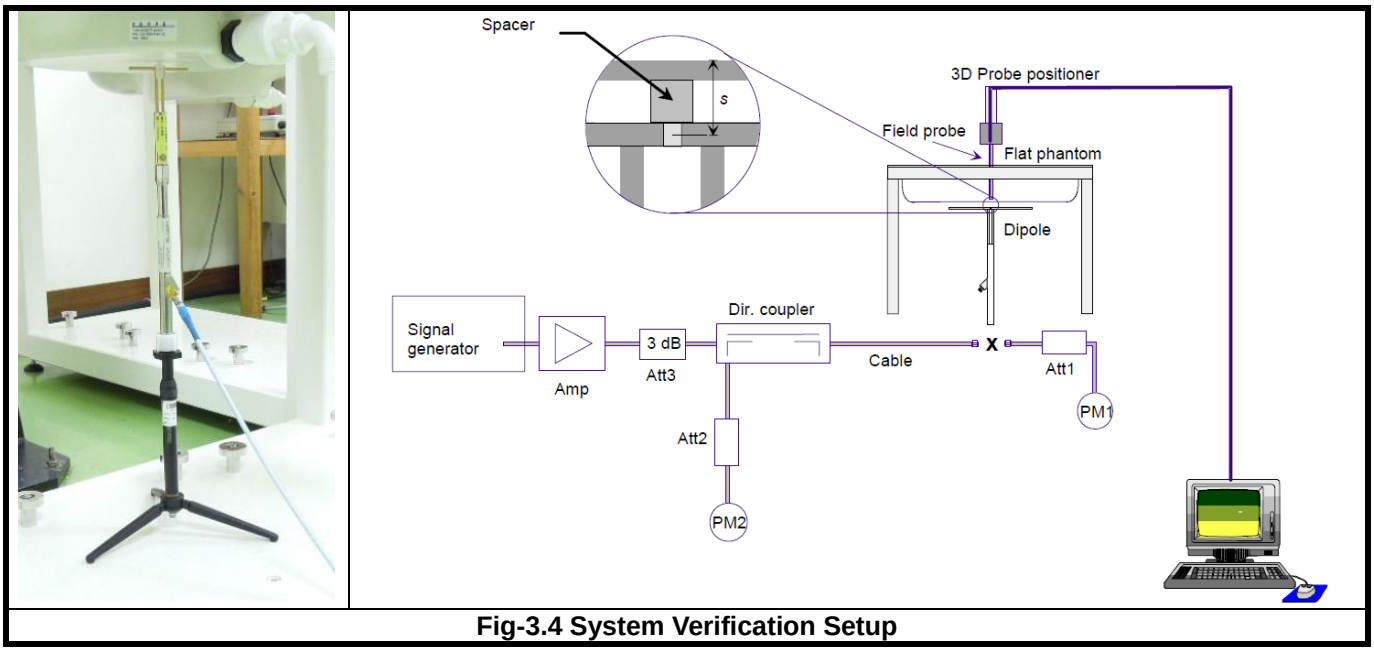


Fig-3.4 System Verification Setup

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 power meter PM1 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 PM2 is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter PM2.

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 865664D01v01, 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 (Δx, Δy)	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan (Δx, Δy)	<= 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 W/kg, the zoom scan resolution of Δx / Δy (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

3.4.2 Volume Scan Procedure

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

3.4.3 Power Drift Monitoring

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

4. SAR Measurement Evaluation

4.1 EUT Configuration and Setting

The EUT is a data transmitter device that contains one WWAN transmitter. The GSM/WCDMA and LTE cannot transmit simultaneously. Confirming the LTE transmitter follows 3GPP standards, is category 3, Band 2 (BW 1.4/3/5/10/15/20 MHz), Band 4 (BW 1.4/3/5/10/15/20 MHz), Band 5 (BW 1.4/3/5/10 MHz), Band 17 (BW 5/10 MHz), supports QPSK / 16QAM modulations. Tested per 3GPP 36.521 maximum transmit procedures for both QPSK and 16QAM.

LTE Maximum Power Reduction in accordance with 3GPP 36.101: Power Reduction in accordance to 3GPP is active all times during LTE operation.

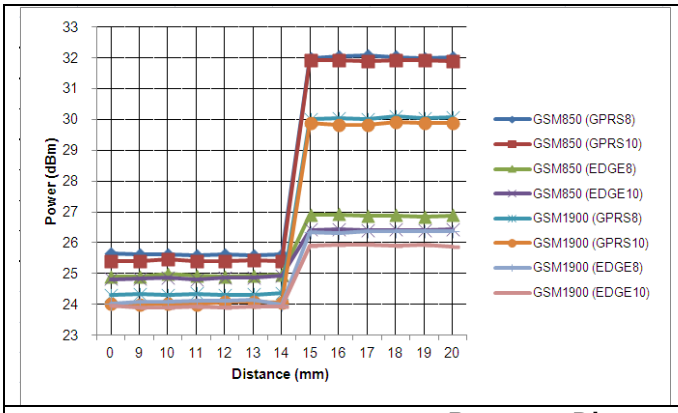
Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2

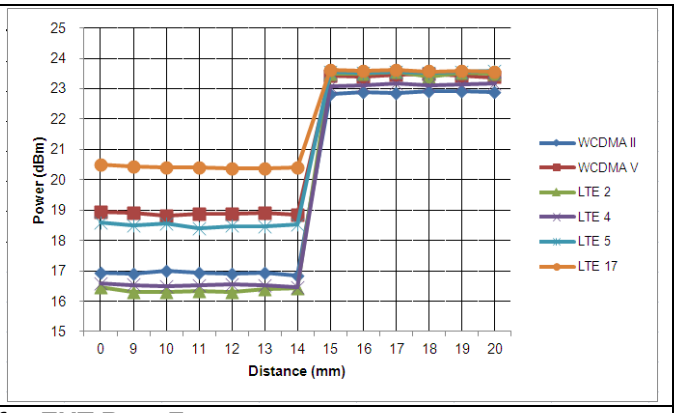
Note: MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with A-MPR requirements defined in 36.101 section 6.2.4 that may be required to meet 3GPP Adjacent Channel Leakage Ratio (“ACLR”) requirements. A-MPR was disabled for all FCC compliance testing.

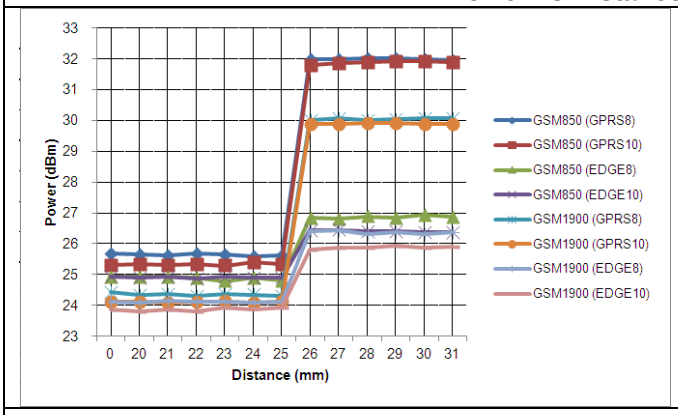
The device is tablet PC which supports WWAN, WLAN, Bluetooth and wireless hotspot capabilities. Because of the SAR issue, this device has designed with a proximity sensor which can trigger/not trigger power reduction for GPRS/EDGE, WCDMA and LTE on EUT Rear Face and Top Side orientations for SAR compliance. Others RF capabilities (WLAN and BT) have no power reduction. The power levels for all wireless technologies and the power reduction please refer to section 4.6.1 of this report.

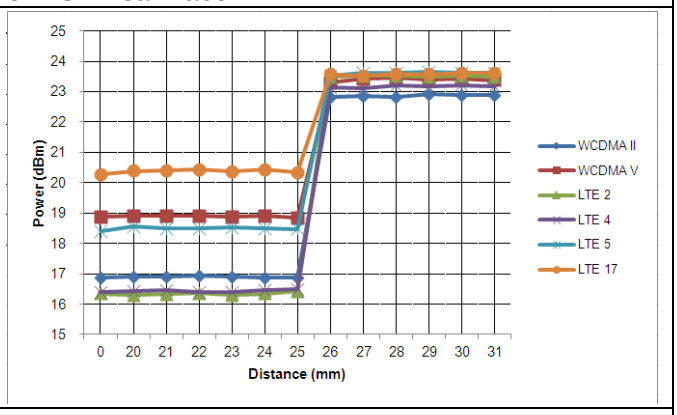
The power vs distance plots for EUT Rear Face and Top Side and power chart for tilt angle influence are shown as below.





Power vs Distance for EUT Rear Face





Power vs Distance for Top Side

According to the procedures noticed in KDB 616217 D04, the proximity sensor triggering distance is 14 mm for EUT Rear Face, and 25 mm for Top Side. The separation distance of 25 mm determined by the smallest triggering distance on Top Side is used to assess the tilt angle influence. However, the sensor will be release during ±45 degree until the separation distance be reduced to 18 mm. Therefore, the smallest separation distance for tilt angle influence on Top Side is 17 mm. Considering the production units may have 1 mm tolerance for proximity sensor triggering, the conservative triggering distance based on the separation distance for the sensor triggered / not triggered as EUT with power reduction at 0 mm, EUT without power reduction at 14 mm for EUT Rear Face, and EUT without power reduction at 17 mm for Top Side is used to test SAR.

The simultaneous transmission possibilities are listed as below.

Simultaneous Tx Combination	RF Configuration	Hotspot Mode	Body SAR Evaluated?
1	GSM850 (Data) + WLAN 2.4G (Data)	Yes	Yes
2	GSM1900 (Data) + WLAN 2.4G (Data)	Yes	Yes
3	WCDMA II (Data) + WLAN 2.4G (Data)	Yes	Yes
4	WCDMA V (Data) + WLAN 2.4G (Data)	Yes	Yes
5	LTE Band 2 (Data) + WLAN 2.4G (Data)	Yes	Yes
6	LTE Band 4 (Data) + WLAN 2.4G (Data)	Yes	Yes
7	LTE Band 5 (Data) + WLAN 2.4G (Data)	Yes	Yes
8	LTE Band 17 (Data) + WLAN 2.4G (Data)	Yes	Yes
9	GSM850 (Data) + WLAN 5G (Data)	No	Yes
10	GSM1900 (Data) + WLAN 5G (Data)	No	Yes
11	WCDMA II (Data) + WLAN 5G (Data)	No	Yes
12	WCDMA V (Data) + WLAN 5G (Data)	No	Yes
13	LTE Band 2 (Data) + WLAN 5G (Data)	No	Yes
14	LTE Band 4 (Data) + WLAN 5G (Data)	No	Yes
15	LTE Band 5 (Data) + WLAN 5G (Data)	No	Yes
16	LTE Band 17 (Data) + WLAN 5G (Data)	No	Yes
17	GSM850 (Data) + BT (Data)	No	Yes
18	GSM1900 (Data) + BT (Data)	No	Yes
19	WCDMA II (Data) + BT (Data)	No	Yes
20	WCDMA V (Data) + BT (Data)	No	Yes
21	LTE Band 2 (Data) + BT (Data)	No	Yes
22	LTE Band 4 (Data) + BT (Data)	No	Yes
23	LTE Band 5 (Data) + BT (Data)	No	Yes
24	LTE Band 17 (Data) + BT (Data)	No	Yes

Note :

1. This device does not support voice transmission capability.
2. The 2.4G WLAN and 5G WLAN cannot transmit simultaneously.
3. WLAN and BT cannot transmit at the same time.
4. The proximity sensor and power reduction do not affect the simultaneous transmission modes.
5. The power reduction due to P-sensor is also active for hotspot mode.
6. Since the body SAR test requirement for tablet is more conservative than the hotspot mode, hotspot SAR is not required.

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

For WWAN SAR testing, the EUT was linked and controlled by base station emulator (Agilent E5515C is used for GSM/WCDMA, and Anritsu MT8820C is used for LTE). 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.

For GSM850, the power control level is set to 5. For GPRS850 (GMSK, CS1), the power control level is set to 5. For EDGE850 (8PSK:MCS9), the power control level is set to 8. For GSM1900, the power control level is set to 0. For GPRS1900 (GMSK, CS1), the power control level is set to 0. For EDGE1900 (8PSK:MCS9), the power control level is set to 2.

For WCDMA, head and body SAR is tested under 12.2k RMC mode with power control set all up bits. SAR for AMR is not required since its power is less than 1/4 dB higher than RMC. SAR for HSDPA/HSUPA is not required since its power is less than 1/4 dB higher than RMC without HSDPA/HSUPA and SAR for 12.2 kbps RMC is less than 75% of the SAR limit (1.2 W/kg).

For LTE, set the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB in base station simulator. When the EUT has registered and communicated to base station simulator, set the simulator to make EUT transmitting the maximum radiated power. The steps for system simulator (Anritsu MT8820C) setup are as below.

1. Press the “Std” button to select “LTE 22.20S” function
2. Choose the “Screen Select” item to “Fundamental Measurement”
3. Enter the “Common” item
4. Set the Operating Band
5. Set the Channel Bandwidth
6. Set the UL Channel & Frequency
7. Set the Modulation
8. Set the RB number and RB shift
9. Press “Start Call” button when EUT register to the system simulator
10. Set the TX-1 Max. Power to make the EUT transmit maximum output power

For WLAN SAR testing, the EUT has installed WLAN engineering testing software which can provide continuous transmitting RF signal. According to KDB 248227 D01, WLAN SAR should tested at the lowest data rate, and testing at higher data rate is not required when the maximum average output power is less than 1/4 dB higher than those measured at the lowest data rate. Since the WLAN power at lowest data rate has highest output power, WLAN SAR for this device was performed at the lowest data rate as set in 1 Mbps for 802.11b, and 6 Mbps for 802.11a. This RF signal utilized in SAR measurement has almost 100% duty cycle and the duty factor is 1 for WLAN SAR testing.

4.2 EUT Testing Position

According to KDB 616217 D04v01, 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.

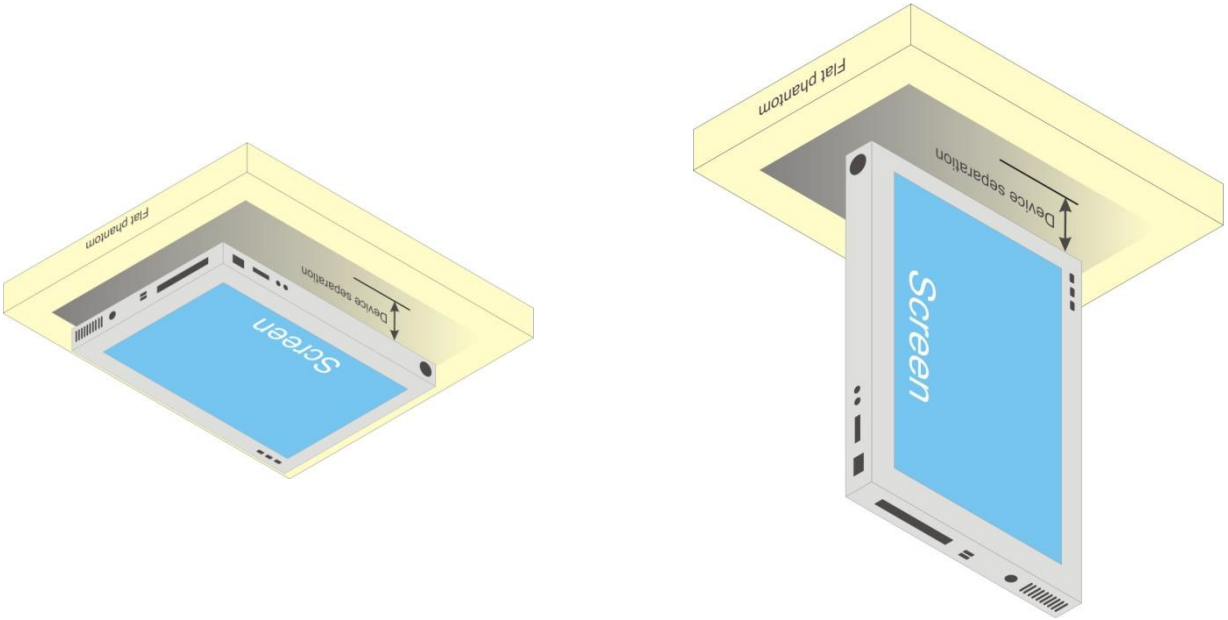


Fig-4.1 Illustration for Tablet Setup

According to KDB 447498 D01v05, 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

$$\frac{\text{Max. Tune up Power}_{(\text{mW})}}{\text{Min. Test Separation Distance}_{(\text{mm})}} \times \sqrt{f_{(\text{GHz})}} \leq 3.0$$

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

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

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

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

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

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)	Exclusion Threshold (mW)	Require SAR Testing?	Ant. to Surface (mm)	Exclusion Threshold (mW)	Require SAR Testing?	Ant. to Surface (mm)	Exclusion Threshold (mW)	Require SAR Testing?	Ant. to Surface (mm)	Exclusion Threshold (mW)	Require SAR Testing?	Ant. to Surface (mm)	Exclusion Threshold (mW)	Require SAR Testing?
GSM 850	26.0	398	5	16	Yes	165.7	818	No	19.8	64	Yes	2.45	16	Yes	165.05	814	No
GSM 1900	24.0	251	5	11	Yes	165.7	1266	No	19.8	43	Yes	2.45	11	Yes	165.05	1259	No
WCDMA II	23.0	200	5	11	Yes	165.7	1266	No	19.8	43	Yes	2.45	11	Yes	165.05	1259	No
WCDMA V	23.5	224	5	16	Yes	165.7	816	No	19.8	65	Yes	2.45	16	Yes	165.05	813	No
LTE 2	23.6	229	5	11	Yes	165.7	1266	No	19.8	43	Yes	2.45	11	Yes	165.05	1259	No
LTE 4	23.3	214	5	11	Yes	165.7	1270	No	19.8	45	Yes	2.45	11	Yes	165.05	1264	No
LTE 5	23.7	234	5	16	Yes	165.7	816	No	19.8	65	Yes	2.45	16	Yes	165.05	813	No
LTE 17	23.7	234	5	18	Yes	165.7	728	No	19.8	70	Yes	2.45	18	Yes	165.05	725	No
WLAN 2.4G	13.7	23	5	10	Yes	32.1	61	No	226.1	1857	No	6.15	12	Yes	173.14	1327	No
WLAN 5.2G	11.5	14	5	7	Yes	32.1	42	No	226.1	1827	No	6.15	8	Yes	173.14	1297	No
WLAN 5.8G	11.0	13	5	6	Yes	32.1	40	No	226.1	1823	No	6.15	8	Yes	173.14	1294	No
BT	6.5	4	5	10	No	32.1	61	No	226.1	1856	No	6.15	12	No	173.14	1327	No

4.3 Tissue Verification

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

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Apr. 13, 2013	Body	750	20.9	0.971	55.60	0.96	55.5	1.15	0.18
Apr. 04, 2013	Body	835	20.8	0.979	55.854	0.97	55.2	0.93	1.18
Apr. 12, 2013	Body	835	20.6	0.973	55.201	0.97	55.2	0.31	0.00
Apr. 16, 2013	Body	1750	20.4	1.468	53.825	1.49	53.4	-1.48	0.80
Apr. 02, 2013	Body	1900	20.1	1.551	52.998	1.52	53.3	2.04	-0.57
Apr. 07, 2013	Body	1900	20.5	1.551	52.983	1.52	53.3	2.04	-0.59
Apr. 14, 2013	Body	1900	20.2	1.55	52.906	1.52	53.3	1.97	-0.74
Apr. 18, 2013	Body	2450	20.9	1.966	54.662	1.95	52.7	0.82	3.72
Apr. 13, 2013	Body	5200	20.7	5.363	47.683	5.30	49.0	1.19	-2.69
Apr. 13, 2013	Body	5800	20.9	6.181	46.386	6.00	48.2	3.02	-3.76

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within ±5% of the target values. Liquid temperature during the SAR testing must be within ±2 ℃.

4.4 System Validation

The SAR measurement system was validated according to procedures in KDB 865664 D01v01. 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
Apr. 13, 2013	3590	Body	750	0.971	55.60	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 04, 2013	3864	Body	835	0.979	55.854	Pass	Pass	Pass	GMSK	Pass	N/A
Apr. 12, 2013	3661	Body	835	0.973	55.201	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 16, 2013	3590	Body	1750	1.468	53.825	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 02, 2013	3864	Body	1900	1.551	52.998	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 07, 2013	3661	Body	1900	1.551	52.983	Pass	Pass	Pass	GMSK	Pass	N/A
Apr. 14, 2013	3590	Body	1900	1.55	52.906	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 18, 2013	3661	Body	2450	1.966	54.662	Pass	Pass	Pass	OFDM	N/A	Pass
Apr. 13, 2013	3661	Body	5200	5.363	47.683	Pass	Pass	Pass	OFDM	N/A	Pass
Apr. 13, 2013	3590	Body	5800	6.181	46.386	Pass	Pass	Pass	OFDM	N/A	Pass

4.5 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Apr. 13, 2013	Body	750	8.80	2.27	9.08	3.18	1013	3590	861
Apr. 04, 2013	Body	835	9.60	2.49	9.96	3.75	4d021	3864	679
Apr. 12, 2013	Body	835	9.60	2.55	10.20	6.25	4d021	3661	579
Apr. 16, 2013	Body	1750	37.20	9.00	36.00	-3.23	1055	3590	861
Apr. 02, 2013	Body	1900	41.00	9.53	38.12	-7.02	5d036	3864	679
Apr. 07, 2013	Body	1900	41.00	10.5	42.00	2.44	5d036	3661	579
Apr. 14, 2013	Body	1900	41.00	9.91	39.64	-3.32	5d036	3590	861
Apr. 18, 2013	Body	2450	49.60	12.1	48.40	-2.42	737	3661	579
Apr. 13, 2013	Body	5200	73.00	7.73	77.30	5.89	1019	3661	579
Apr. 13, 2013	Body	5800	73.40	6.80	68.00	-7.36	1019	3590	861

Note:

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

4.6 Maximum Output Power

4.6.1 Maximum Conducted Power

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

Mode	GSM850 (without Power Reduction)	GSM850 (with Power Reduction)	Power Reduction (dB)
GPRS 8 (GMSK, 1 Uplink)	32.1	25.7	6.4
GPRS 10 (GMSK, 2 Uplink)	32.0	25.5	6.5
EDGE 8 (8PSK, 1 Uplink)	27.0	25.0	2.0
EDGE 10 (8PSK, 2 Uplink)	26.5	25.0	1.5

Mode	GSM1900 (without Power Reduction)	GSM1900 (with Power Reduction)	Power Reduction (dB)
GPRS 8 (GMSK, 1 Uplink)	30.2	24.5	5.7
GPRS 10 (GMSK, 2 Uplink)	30.0	24.2	5.8
EDGE 8 (8PSK, 1 Uplink)	26.5	24.2	2.3
EDGE 10 (8PSK, 2 Uplink)	26.0	24.0	2.0

Mode	WCDMA Band II (without Power Reduction)	WCDMA Band II (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	23.0	17.0	6.0

Mode	WCDMA Band V (without Power Reduction)	WCDMA Band V (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	23.5	19.0	4.5

Mode	LTE 2 (without Power Reduction)	LTE 2 (with Power Reduction)	Power Reduction (dB)
QPSK / 16QAM	23.6	16.5	7.1

Mode	LTE 4 (without Power Reduction)	LTE 4 (with Power Reduction)	Power Reduction (dB)
QPSK / 16QAM	23.3	16.6	6.7

Mode	LTE 5 (without Power Reduction)	LTE 5 (with Power Reduction)	Power Reduction (dB)
QPSK / 16QAM	23.7	18.6	5.1

Mode	LTE 17 (without Power Reduction)	LTE 17 (with Power Reduction)	Power Reduction (dB)
QPSK / 16QAM	23.7	20.5	3.2

Mode	2.4G WLAN	5.2G WLAN	5.8G WLAN
802.11b	13.5	N/A	N/A
802.11g	13.7	N/A	N/A
802.11a	N/A	11.5	11.0
802.11n HT20	13.0	11.5	11.0
802.11n HT40	N/A	10.5	11.0

Mode	Bluetooth
All	6.5

4.6.2 Measured Conducted Power Result

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

Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
EUT without Power Reduction (P-Sensor NOT Triggered)						
Maximum Burst-Averaged Output Power						
GPRS 8 (GMSK, 1 Uplink)	32.02	32.04	**32.09**	29.79	29.99	**30.19**
GPRS 10 (GMSK, 2 Uplink)	31.72	31.78	31.81	29.66	29.82	29.91
EDGE 8 (8PSK, 1 Uplink)	26.70	26.67	26.72	25.90	25.90	26.08
EDGE 10 (8PSK, 2 Uplink)	26.45	26.39	26.41	25.73	25.70	25.84
Maximum Frame-Averaged Output Power						
GPRS 8 (GMSK, 1 Uplink)	23.02	23.04	23.09	20.79	20.99	21.19
GPRS 10 (GMSK, 2 Uplink)	25.72	25.78	**25.81**	23.66	23.82	**23.91**
EDGE 8 (8PSK, 1 Uplink)	17.70	17.67	17.72	16.90	16.90	17.08
EDGE 10 (8PSK, 2 Uplink)	20.45	20.39	20.41	19.73	19.70	19.84
EUT with Power Reduction (P-Sensor Triggered)						
Maximum Burst-Averaged Output Power						
GPRS 8 (GMSK, 1 Uplink)	25.51	25.64	**25.65**	24.38	24.30	**24.39**
GPRS 10 (GMSK, 2 Uplink)	25.29	25.43	25.44	24.17	24.15	24.18
EDGE 8 (8PSK, 1 Uplink)	24.93	24.78	24.76	24.11	23.93	24.15
EDGE 10 (8PSK, 2 Uplink)	24.68	24.54	24.57	23.80	23.66	23.81
Maximum Frame-Averaged Output Power						
GPRS 8 (GMSK, 1 Uplink)	16.51	16.64	16.65	15.38	15.30	15.39
GPRS 10 (GMSK, 2 Uplink)	19.29	19.43	**19.44**	18.17	18.15	**18.18**
EDGE 8 (8PSK, 1 Uplink)	15.93	15.78	15.76	15.11	14.93	15.15
EDGE 10 (8PSK, 2 Uplink)	18.68	18.54	18.57	17.80	17.66	17.81

Note:

1. SAR testing was performed on the maximum frame-averaged power mode.
2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:
   Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8)

Band	WCDMA Band II			WCDMA Band V			3PGG MPR (dB)
Channel	9262	9400	9538	4132	4182	4233	
Frequency (MHz)	1852.4	1880.0	1907.6	826.4	836.4	846.6	
EUT without Power Reduction (P-Sensor NOT Triggered)							
RMC 12.2K	22.83	**22.97**	22.65	**23.41**	23.14	23.31	-
HSDPA Subtest-1	22.05	22.19	21.87	22.39	22.12	22.29	0
HSDPA Subtest-2	22.03	22.17	21.85	22.35	22.08	22.25	0
HSDPA Subtest-3	21.23	21.37	21.05	21.85	21.58	21.75	0.5
HSDPA Subtest-4	21.54	21.68	21.36	21.84	21.57	21.74	0.5
HSUPA Subtest-1	20.55	20.69	20.37	21.60	21.33	21.50	0
HSUPA Subtest-2	18.47	18.55	18.37	19.57	19.32	19.50	2
HSUPA Subtest-3	19.34	19.38	19.36	20.47	20.20	20.37	1
HSUPA Subtest-4	18.48	18.59	18.29	19.33	19.14	19.29	2
HSUPA Subtest-5	20.43	20.37	20.35	21.30	20.97	21.04	0
EUT with Power Reduction (P-Sensor Triggered)							
RMC 12.2K	16.65	**16.70**	16.64	18.79	**18.83**	18.76	-
HSDPA Subtest-1	15.57	15.77	15.54	17.44	18.02	17.92	-
HSDPA Subtest-2	15.58	15.84	15.68	17.37	17.18	17.26	-
HSDPA Subtest-3	14.92	15.17	15.52	16.89	16.78	16.87	-
HSDPA Subtest-4	15.11	15.21	15.48	17.53	16.80	17.45	-
HSUPA Subtest-1	14.95	14.94	15.22	17.63	17.80	17.76	-
HSUPA Subtest-2	14.45	14.91	15.35	16.75	16.86	16.64	-
HSUPA Subtest-3	14.19	14.22	14.66	16.13	16.07	16.08	-
HSUPA Subtest-4	15.00	15.12	15.45	17.19	17.27	17.25	-
HSUPA Subtest-5	15.21	15.82	15.55	17.79	17.78	17.73	-

Band / BW	Modulation	RB Size	RB Offset	Low CH 18607 Frequency 1850.7 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19193 Frequency 1909.3 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 1.4M	QPSK	1	0	22.91	23.17	23.20	0
		1	2	22.64	22.90	22.93	0
		1	5	23.12	23.38	**23.41**	0
		3	0	22.72	22.98	**23.01**	0
		3	1	22.70	22.96	22.99	0
		3	3	22.69	22.95	22.98	0
		6	0	21.87	22.13	22.16	1
	16QAM	1	0	21.91	22.13	22.19	1
		1	2	21.69	21.95	21.98	1
		1	5	22.35	22.51	22.54	1
		3	0	21.69	21.95	21.98	1
		3	1	22.50	21.96	21.99	1
		3	3	21.69	21.95	21.98	1
		6	0	20.67	20.93	20.96	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 1.4M	QPSK	1	0	15.73	15.52	**16.34**	0
		1	2	16.03	15.58	16.07	0
		1	5	15.98	15.54	16.09	0
		3	0	15.97	15.66	**16.33**	0
		3	1	16.14	15.93	16.25	0
		3	3	15.95	15.54	16.05	0
		6	0	14.97	14.93	15.14	1
	16QAM	1	0	15.27	15.02	**15.48**	1
		1	2	15.47	15.12	15.41	1
		1	5	15.42	15.08	15.43	1
		3	0	15.05	14.74	**15.41**	1
		3	1	15.22	15.01	15.33	1
		3	3	15.03	14.62	14.58	1
		6	0	14.41	14.47	14.48	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 18615 Frequency 1851.5 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19185 Frequency 1908.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 3M	QPSK	1	0	22.94	23.20	23.23	0
		1	7	22.67	22.93	22.96	0
		1	14	23.15	23.41	**23.44**	0
		8	0	21.65	21.91	**21.94**	1
		8	3	21.63	21.89	21.92	1
		8	7	21.62	21.88	21.91	1
		15	0	21.90	22.16	22.19	1
	16QAM	1	0	21.94	22.16	22.22	1
		1	7	21.62	21.88	21.91	1
		1	14	22.38	22.54	**22.57**	1
		8	0	20.62	20.88	20.91	2
		8	3	20.83	20.89	**20.92**	2
		8	7	20.62	20.88	20.91	2
		15	0	20.70	20.96	20.99	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 3M	QPSK	1	0	15.74	15.53	**16.35**	0
		1	7	16.04	15.59	16.08	0
		1	14	15.99	15.55	16.10	0
		8	0	14.97	14.66	**15.33**	1
		8	3	15.14	14.93	15.25	1
		8	7	14.95	14.54	15.05	1
		15	0	14.98	14.94	15.15	1
	16QAM	1	0	15.28	15.03	**15.49**	1
		1	7	15.48	15.13	15.42	1
		1	14	15.43	15.09	15.44	1
		8	0	14.41	14.20	14.47	2
		8	3	14.48	14.47	**14.49**	2
		8	7	14.49	14.08	14.49	2
		15	0	14.42	14.48	14.49	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 18625 Frequency 1852.5 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19175 Frequency 1907.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 5M	QPSK	1	0	22.97	23.23	23.26	0
		1	12	22.70	22.96	22.99	0
		1	24	23.18	23.44	**23.47**	0
		12	0	21.62	21.88	21.91	1
		12	6	21.91	21.87	21.90	1
		12	13	21.65	21.91	**21.94**	1
		25	0	21.93	22.19	22.22	1
	16QAM	1	0	21.97	22.19	22.25	1
		1	12	21.65	21.91	21.94	1
		1	24	22.41	**22.57**	22.50	1
		12	0	20.95	20.91	20.94	2
		12	6	20.91	**20.97**	20.90	2
		12	13	20.91	20.87	20.90	2
		25	0	20.73	20.99	21.02	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 5M	QPSK	1	0	15.76	15.51	**16.37**	0
		1	12	16.06	15.61	16.10	0
		1	24	16.01	15.57	16.12	0
		12	0	14.99	14.68	**15.35**	1
		12	6	15.16	14.95	15.27	1
		12	13	14.97	14.56	15.07	1
		25	0	15.00	14.96	15.17	1
	16QAM	1	0	15.30	15.05	15.41	1
		1	12	15.40	15.15	15.44	1
		1	24	15.45	15.11	**15.46**	1
		12	0	14.43	14.22	**14.49**	2
		12	6	14.40	14.49	14.41	2
		12	13	14.41	14.10	14.41	2
		25	0	14.44	14.40	14.41	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 18650 Frequency 1855.0 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19150 Frequency 1905.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 10M	QPSK	1	0	22.99	23.25	23.28	0
		1	24	22.72	22.98	23.01	0
		1	49	23.20	23.46	**23.49**	0
		25	0	21.64	21.90	21.93	1
		25	12	21.63	21.89	21.92	1
		25	25	21.67	21.93	**21.96**	1
		50	0	21.95	22.21	22.24	1
	16QAM	1	0	21.99	22.21	22.27	1
		1	24	21.67	21.93	21.96	1
		1	49	22.43	**22.59**	22.52	1
		25	0	20.67	20.93	**20.96**	2
		25	12	20.63	20.89	20.92	2
		25	25	20.63	20.89	20.92	2
		50	0	20.75	21.01	21.04	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 10M	QPSK	1	0	15.78	15.53	**16.39**	0
		1	24	16.08	15.63	16.12	0
		1	49	16.03	15.59	16.14	0
		25	0	15.01	14.70	**15.37**	1
		25	12	15.18	14.97	15.29	1
		25	25	14.99	14.58	15.09	1
		50	0	15.02	14.98	15.19	1
	16QAM	1	0	15.32	15.07	15.43	1
		1	24	15.42	15.17	15.46	1
		1	49	15.47	15.13	**15.48**	1
		25	0	**14.45**	14.24	14.41	2
		25	12	14.42	14.41	14.43	2
		25	25	14.43	14.12	14.43	2
		50	0	14.46	14.42	14.43	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 18675 Frequency 1857.5 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19125 Frequency 1902.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 15M	QPSK	1	0	23.05	23.31	23.34	0
		1	37	22.78	23.04	23.07	0
		1	74	23.26	23.52	**23.55**	0
		36	0	21.70	21.96	**21.99**	1
		36	19	21.69	21.95	21.98	1
		36	39	21.63	21.89	21.92	1
		75	0	22.01	22.27	22.30	1
	16QAM	1	0	22.05	22.27	22.33	1
		1	37	21.63	21.89	21.92	1
		1	74	22.49	22.55	**22.58**	1
		36	0	20.93	**20.99**	20.92	2
		36	19	20.99	20.95	20.98	2
		36	39	20.99	20.95	20.98	2
		75	0	20.91	21.07	21.10	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 15M	QPSK	1	0	15.80	15.55	**16.41**	0
		1	37	16.10	15.65	16.14	0
		1	74	16.05	15.61	16.16	0
		36	0	15.03	14.72	**15.39**	1
		36	19	15.20	14.99	15.31	1
		36	39	15.01	14.60	15.11	1
		75	0	15.04	15.00	15.21	1
	16QAM	1	0	15.34	15.09	15.45	1
		1	37	15.44	15.19	15.48	1
		1	74	**15.49**	15.15	15.40	1
		36	0	**14.47**	14.26	14.43	2
		36	19	14.44	14.43	14.45	2
		36	39	14.45	14.14	14.45	2
		75	0	14.48	14.44	14.45	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 18700 Frequency 1860.0 MHz	Mid CH 18900 Frequency 1880.0 MHz	High CH 19100 Frequency 1900.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
2 / 20M	QPSK	1	0	23.08	23.34	23.37	0
		1	50	22.81	23.07	23.10	0
		1	99	23.29	23.55	**23.58**	0
		50	0	21.73	21.99	**22.02**	1
		50	25	21.72	21.98	22.01	1
		50	50	21.66	21.92	21.95	1
		100	0	22.04	22.30	22.33	1
	16QAM	1	0	22.08	22.30	22.36	1
		1	50	21.66	21.92	21.95	1
		1	99	22.52	**22.58**	22.51	1
		50	0	20.96	20.92	20.95	2
		50	25	20.92	20.88	20.91	2
		50	50	20.92	**20.98**	20.91	2
		100	0	20.94	21.10	21.13	2
EUT with Power Reduction (P-Sensor Triggered)							
2 / 20M	QPSK	1	0	15.83	15.58	**16.44**	0
		1	50	16.13	15.68	16.17	0
		1	99	16.08	15.64	16.19	0
		50	0	15.06	14.75	**15.42**	1
		50	25	15.23	15.02	15.34	1
		50	50	15.04	14.63	15.14	1
		100	0	15.07	15.03	15.24	1
	16QAM	1	0	15.37	15.12	**15.48**	1
		1	50	15.47	15.22	15.41	1
		1	99	15.42	15.18	15.43	1
		50	0	14.40	14.29	14.46	2
		50	25	14.47	14.46	**14.48**	2
		50	50	14.48	14.17	14.48	2
		100	0	14.41	14.47	14.48	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 19957 Frequency 1710.7 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20393 Frequency 1754.3 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 1.4M	QPSK	1	0	22.63	22.76	22.85	0
		1	2	22.73	22.86	**22.95**	0
		1	5	22.63	22.76	22.85	0
		3	0	22.64	22.77	**22.86**	0
		3	1	22.64	22.77	22.86	0
		3	3	22.60	22.73	22.82	0
		6	0	22.17	22.20	22.29	1
	16QAM	1	0	22.07	22.20	22.21	1
		1	2	22.11	22.24	**22.25**	1
		1	5	22.06	22.19	22.20	1
		3	0	22.14	22.27	**22.28**	1
		3	1	22.13	22.26	22.27	1
		3	3	22.09	22.22	22.23	1
		6	0	21.14	21.27	21.28	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 1.4M	QPSK	1	0	15.69	16.13	16.21	0
		1	2	16.10	16.41	**16.50**	0
		1	5	15.61	15.65	15.70	0
		3	0	16.18	16.23	16.31	0
		3	1	15.90	16.36	**16.44**	0
		3	3	15.63	15.87	15.96	0
		6	0	14.85	14.99	15.18	1
	16QAM	1	0	14.71	15.24	15.32	1
		1	2	15.41	**15.52**	15.51	1
		1	5	14.71	14.75	14.80	1
		3	0	15.17	15.22	15.30	1
		3	1	14.89	15.35	**15.43**	1
		3	3	14.62	14.86	14.95	1
		6	0	14.01	14.15	14.34	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 19965 Frequency 1711.5 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20385 Frequency 1753.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 3M	QPSK	1	0	22.73	**23.02**	22.83	0
		1	7	22.72	23.01	22.82	0
		1	14	22.70	22.99	22.80	0
		8	0	21.83	**22.12**	21.93	1
		8	3	21.83	22.12	21.93	1
		8	7	21.79	22.08	21.89	1
		15	0	21.75	22.04	21.85	1
	16QAM	1	0	21.94	22.18	22.07	1
		1	7	22.01	**22.25**	22.14	1
		1	14	21.94	22.18	22.07	1
		8	0	20.84	21.08	20.97	2
		8	3	20.85	**21.09**	20.98	2
		8	7	20.81	21.05	20.94	2
		15	0	20.85	21.09	20.98	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 3M	QPSK	1	0	15.61	16.14	16.22	0
		1	7	16.12	16.43	**16.52**	0
		1	14	15.62	15.66	15.71	0
		8	0	15.29	15.34	15.42	1
		8	3	15.01	15.47	**15.55**	1
		8	7	14.74	14.98	15.07	1
		15	0	14.86	15.00	15.19	1
	16QAM	1	0	14.72	15.25	15.33	1
		1	7	15.42	**15.53**	15.52	1
		1	14	14.72	14.76	14.81	1
		8	0	14.45	14.50	**14.58**	2
		8	3	14.17	14.53	14.51	2
		8	7	13.90	14.14	14.23	2
		15	0	14.02	14.16	14.35	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 19975 Frequency 1712.5 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20375 Frequency 1752.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 5M	QPSK	1	0	22.83	**23.05**	22.94	0
		1	12	22.67	22.89	22.78	0
		1	24	22.82	23.04	22.93	0
		12	0	21.83	22.05	21.94	1
		12	6	21.83	22.05	21.94	1
		12	13	21.86	**22.08**	21.97	1
		25	0	21.73	21.95	21.84	1
	16QAM	1	0	21.90	22.20	**22.25**	1
		1	12	21.60	21.90	22.05	1
		1	24	21.72	22.02	22.17	1
		12	0	20.69	20.99	21.14	2
		12	6	20.62	20.92	21.07	2
		12	13	20.77	21.07	**21.22**	2
		25	0	20.67	20.97	21.12	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 5M	QPSK	1	0	15.62	16.15	16.23	0
		1	12	16.13	16.44	**16.53**	0
		1	24	15.61	15.65	15.70	0
		12	0	15.30	15.35	15.43	1
		12	6	15.02	15.48	**15.56**	1
		12	13	14.75	14.99	15.08	1
		25	0	14.87	15.01	15.20	1
	16QAM	1	0	14.73	15.26	15.34	1
		1	12	15.43	**15.54**	15.53	1
		1	24	14.73	14.77	14.82	1
		12	0	14.46	14.51	**14.59**	2
		12	6	14.18	14.54	14.52	2
		12	13	13.91	14.15	14.24	2
		25	0	14.03	14.17	14.36	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20000 Frequency 1715.0 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20350 Frequency 1750.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 10M	QPSK	1	0	22.86	23.03	**23.08**	0
		1	24	22.73	22.90	22.95	0
		1	49	22.79	22.96	23.01	0
		25	0	21.80	21.97	**22.02**	1
		25	12	21.65	21.82	21.87	1
		25	25	21.57	21.74	21.79	1
		50	0	21.71	21.88	21.93	1
	16QAM	1	0	21.82	22.02	**22.14**	1
		1	24	21.66	21.86	21.98	1
		1	49	21.74	21.94	22.06	1
		25	0	20.60	20.80	**20.92**	2
		25	12	20.57	20.77	20.89	2
		25	25	20.56	20.76	20.88	2
		50	0	20.64	20.84	20.96	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 10M	QPSK	1	0	15.63	16.16	16.24	0
		1	24	16.15	16.46	**16.55**	0
		1	49	15.62	15.66	15.71	0
		25	0	15.31	15.36	15.44	1
		25	12	15.03	15.49	**15.57**	1
		25	25	14.76	15.00	15.09	1
		50	0	14.88	15.02	15.21	1
	16QAM	1	0	14.74	15.27	15.35	1
		1	24	15.44	**15.55**	15.54	1
		1	49	14.74	14.78	14.83	1
		25	0	14.47	14.52	14.50	2
		25	12	14.19	**14.55**	14.53	2
		25	25	13.92	14.16	14.25	2
		50	0	14.04	14.18	14.37	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20025 Frequency 1717.5 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20325 Frequency 1747.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 15M	QPSK	1	0	22.93	23.10	**23.15**	0
		1	37	22.80	22.97	23.02	0
		1	74	22.86	23.03	23.08	0
		36	0	21.87	22.04	**22.09**	1
		36	19	21.72	21.89	21.94	1
		36	39	21.64	21.81	21.86	1
		75	0	21.78	21.95	22.00	1
	16QAM	1	0	21.89	22.09	**22.21**	1
		1	37	21.73	21.93	22.05	1
		1	74	21.81	22.01	22.13	1
		36	0	20.67	20.87	**20.99**	2
		36	19	20.64	20.84	20.96	2
		36	39	20.63	20.83	20.95	2
		75	0	20.71	20.91	21.03	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 15M	QPSK	1	0	15.81	16.14	16.22	0
		1	37	16.17	16.48	**16.57**	0
		1	74	15.75	15.75	15.70	0
		36	0	15.34	15.39	15.47	1
		36	19	15.06	**15.52**	15.51	1
		36	39	14.79	15.03	15.12	1
		75	0	14.91	15.05	15.24	1
	16QAM	1	0	14.77	15.30	15.38	1
		1	37	15.47	**15.58**	15.57	1
		1	74	14.77	14.81	14.86	1
		36	0	14.50	14.55	14.53	2
		36	19	14.22	**14.58**	14.56	2
		36	39	13.95	14.19	14.28	2
		75	0	14.07	14.21	14.40	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20050 Frequency 1720.0 MHz	Mid CH 20175 Frequency 1732.5 MHz	High CH 20300 Frequency 1745.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
4 / 20M	QPSK	1	0	22.99	23.16	**23.21**	0
		1	50	22.86	23.03	23.08	0
		1	99	22.92	23.09	23.14	0
		50	0	21.93	22.10	**22.15**	1
		50	25	21.78	21.95	22.00	1
		50	50	21.70	21.87	21.92	1
		100	0	21.84	22.01	22.06	1
	16QAM	1	0	21.95	22.15	**22.27**	1
		1	50	21.79	21.99	22.11	1
		1	99	21.87	22.07	22.19	1
		50	0	20.73	20.93	**21.05**	2
		50	25	20.70	20.90	21.02	2
		50	50	20.69	20.89	21.01	2
		100	0	20.77	20.97	21.09	2
EUT with Power Reduction (P-Sensor Triggered)							
4 / 20M	QPSK	1	0	15.63	16.16	16.24	0
		1	50	16.19	16.50	**16.59**	0
		1	99	15.63	15.67	15.72	0
		50	0	15.36	15.41	15.49	1
		50	25	15.08	15.54	**15.58**	1
		50	50	14.81	15.05	15.14	1
		100	0	14.93	15.07	15.26	1
	16QAM	1	0	14.79	15.32	15.40	1
		1	50	15.49	15.56	**15.59**	1
		1	99	14.79	14.83	14.88	1
		50	0	14.52	14.57	14.55	2
		50	25	14.24	14.57	**14.58**	2
		50	50	13.97	14.21	14.30	2
		100	0	14.09	14.23	14.42	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20407 Frequency 824.7 MHz	Mid CH 20525 Frequency 836.5 MHz	High CH 20643 Frequency 848.3 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
5 / 1.4M	QPSK	1	0	23.45	**23.48**	23.05	0
		1	2	23.41	23.44	23.01	0
		1	5	23.44	23.47	23.04	0
		3	0	23.52	**23.55**	23.12	0
		3	1	23.51	23.54	23.11	0
		3	3	23.50	23.53	23.10	0
		6	0	22.52	22.55	22.12	1
	16QAM	1	0	22.45	**22.56**	22.00	1
		1	2	22.41	22.44	22.01	1
		1	5	22.44	22.47	22.04	1
		3	0	22.52	22.55	22.12	1
		3	1	22.51	22.54	22.11	1
		3	3	22.60	**22.63**	22.50	1
		6	0	21.62	21.65	21.22	2
EUT with Power Reduction (P-Sensor Triggered)							
5 / 1.4M	QPSK	1	0	18.36	18.32	**18.38**	0
		1	2	18.36	18.32	18.38	0
		1	5	18.19	18.15	18.21	0
		3	0	**18.40**	18.37	18.31	0
		3	1	17.76	17.72	17.78	0
		3	3	17.68	17.64	17.70	0
		6	0	17.58	17.54	17.60	1
	16QAM	1	0	16.89	16.85	16.91	1
		1	2	17.51	**17.57**	17.53	1
		1	5	17.04	17.00	17.06	1
		3	0	**17.35**	16.91	17.03	1
		3	1	17.28	17.00	16.70	1
		3	3	16.71	16.67	16.73	1
		6	0	16.52	16.58	16.54	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20415 Frequency 825.5 MHz	Mid CH 20525 Frequency 836.5 MHz	High CH 20635 Frequency 847.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
5 / 3M	QPSK	1	0	23.45	**23.59**	23.49	0
		1	7	23.44	23.58	23.48	0
		1	14	23.34	23.48	23.38	0
		8	0	22.53	22.67	22.57	1
		8	3	22.43	22.57	22.47	1
		8	7	22.66	**22.69**	22.68	1
		15	0	22.50	22.64	22.54	1
	16QAM	1	0	**22.64**	22.48	22.44	1
		1	7	22.49	22.33	22.29	1
		1	14	22.50	22.34	22.30	1
		8	0	21.39	21.23	21.19	2
		8	3	21.40	21.24	21.20	2
		8	7	**21.61**	21.45	21.41	2
		15	0	21.48	21.32	21.28	2
EUT with Power Reduction (P-Sensor Triggered)							
5 / 3M	QPSK	1	0	18.40	18.38	18.31	0
		1	7	**18.45**	18.43	18.36	0
		1	14	18.38	18.36	18.29	0
		8	0	17.51	**17.59**	17.52	1
		8	3	17.51	17.59	17.52	1
		8	7	17.52	17.57	17.53	1
		15	0	17.59	17.57	17.57	1
	16QAM	1	0	17.21	17.19	17.12	1
		1	7	17.55	17.53	**17.56**	1
		1	14	17.53	17.51	17.44	1
		8	0	16.59	16.58	16.51	2
		8	3	16.57	16.55	16.58	2
		8	7	16.59	16.57	**16.60**	2
		15	0	16.51	16.59	16.52	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20425 Frequency 826.5 MHz	Mid CH 20525 Frequency 836.5 MHz	High CH 20625 Frequency 846.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
5 / 5M	QPSK	1	0	23.38	23.56	23.36	0
		1	12	23.35	23.53	23.33	0
		1	24	23.43	**23.61**	23.41	0
		12	0	21.88	22.06	21.86	1
		12	6	22.38	22.56	22.36	1
		12	13	22.58	**22.66**	22.56	1
		25	0	22.22	22.40	22.20	1
	16QAM	1	0	22.40	22.60	22.54	1
		1	12	22.23	22.53	22.37	1
		1	24	22.38	**22.68**	22.52	1
		12	0	21.33	21.63	21.47	2
		12	6	21.26	21.56	21.40	2
		12	13	21.38	**21.68**	21.52	2
		25	0	21.15	21.45	21.29	2
EUT with Power Reduction (P-Sensor Triggered)							
5 / 5M	QPSK	1	0	18.35	18.40	18.30	0
		1	12	18.45	**18.50**	18.40	0
		1	24	18.38	18.43	18.33	0
		12	0	17.53	17.58	17.58	1
		12	6	**17.58**	17.53	17.53	1
		12	13	17.57	17.52	17.52	1
		25	0	17.56	17.51	17.51	1
	16QAM	1	0	**17.60**	17.55	17.55	1
		1	12	17.52	17.57	17.57	1
		1	24	17.52	17.57	17.47	1
		12	0	16.55	**16.60**	16.50	2
		12	6	16.50	16.55	16.55	2
		12	13	16.43	16.48	16.38	2
		25	0	16.49	16.54	16.44	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 20450 Frequency 829.0 MHz	Mid CH 20525 Frequency 836.5 MHz	High CH 20600 Frequency 844.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
5 / 10M	QPSK	1	0	23.51	23.62	23.58	0
		1	24	23.52	**23.63**	23.59	0
		1	49	23.40	23.51	23.47	0
		25	0	22.30	22.41	22.37	1
		25	12	22.44	22.55	**22.61**	1
		25	25	22.36	22.47	22.43	1
		50	0	22.32	22.43	22.39	1
	16QAM	1	0	22.54	22.63	**22.67**	1
		1	24	22.38	22.47	22.51	1
		1	49	22.28	22.37	22.41	1
		25	0	21.34	21.43	**21.47**	2
		25	12	21.22	21.31	21.35	2
		25	25	21.20	21.29	21.33	2
		50	0	21.11	21.20	21.24	2
EUT with Power Reduction (P-Sensor Triggered)							
5 / 10M	QPSK	1	0	18.34	18.42	18.37	0
		1	24	18.48	**18.56**	18.51	0
		1	49	18.41	18.49	18.44	0
		25	0	17.42	17.48	17.45	1
		25	12	17.46	**17.54**	17.49	1
		25	25	17.42	17.50	17.45	1
		50	0	17.51	17.59	17.54	1
	16QAM	1	0	17.22	17.30	17.25	1
		1	24	17.38	**17.46**	17.41	1
		1	49	17.37	17.45	17.40	1
		25	0	16.07	16.15	16.10	2
		25	12	16.14	**16.22**	16.17	2
		25	25	16.12	16.20	16.15	2
		50	0	16.08	16.16	16.11	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 23755 Frequency 706.5 MHz	Mid CH 23790 Frequency 710.0 MHz	High CH 23825 Frequency 713.5 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
17 / 5M	QPSK	1	0	23.54	23.48	23.34	0
		1	12	23.20	23.14	23.00	0
		1	24	**23.58**	23.52	23.38	0
		12	0	22.26	22.20	22.06	1
		12	6	22.10	22.04	21.90	1
		12	13	**22.33**	22.27	22.13	1
		25	0	22.07	22.01	21.87	1
	16QAM	1	0	**22.65**	22.51	22.37	1
		1	12	22.28	22.14	22.00	1
		1	24	22.61	22.47	22.33	1
		12	0	21.21	21.07	20.93	2
		12	6	21.01	20.87	20.73	2
		12	13	**21.26**	21.12	20.98	2
		25	0	21.02	20.88	20.74	2
EUT with Power Reduction (P-Sensor Triggered)							
17 / 5M	QPSK	1	0	20.07	20.03	19.97	0
		1	12	19.96	19.92	19.86	0
		1	24	**20.16**	20.12	20.06	0
		12	0	19.06	19.02	18.96	1
		12	6	19.00	18.96	18.90	1
		12	13	**19.11**	19.07	19.01	1
		25	0	18.95	18.91	18.85	1
	16QAM	1	0	19.11	19.07	19.01	1
		1	12	19.07	19.03	18.97	1
		1	24	**19.22**	19.18	19.12	1
		12	0	17.59	17.54	17.51	2
		12	6	17.91	17.87	17.81	2
		12	13	**18.05**	18.01	17.95	2
		25	0	17.82	17.78	17.72	2

Band / BW	Modulation	RB Size	RB Offset	Low CH 23780 Frequency 709.0 MHz	Mid CH 23790 Frequency 710.0 MHz	High CH 23800 Frequency 711.0 MHz	3PGG MPR (dB)
EUT without Power Reduction (P-Sensor NOT Triggered)							
17 / 10M	QPSK	1	0	23.61	23.55	23.41	0
		1	24	23.27	23.21	23.07	0
		1	49	**23.65**	23.59	23.45	0
		25	0	22.33	22.27	22.13	1
		25	12	22.17	22.11	21.97	1
		25	25	**22.40**	22.34	22.20	1
		50	0	22.14	22.08	21.94	1
	16QAM	1	0	22.62	22.58	22.44	1
		1	24	22.35	22.21	22.07	1
		1	49	**22.68**	22.54	22.40	1
		25	0	21.28	21.14	21.00	2
		25	12	21.08	20.94	20.80	2
		25	25	**21.33**	21.19	21.05	2
		50	0	21.09	20.95	20.81	2
EUT with Power Reduction (P-Sensor Triggered)							
17 / 10M	QPSK	1	0	20.42	20.32	20.12	0
		1	24	**20.48**	20.38	20.18	0
		1	49	20.33	20.23	20.03	0
		25	0	19.40	19.30	19.10	1
		25	12	**19.46**	19.36	19.16	1
		25	25	19.38	19.28	19.08	1
		50	0	19.18	19.08	18.88	1
	16QAM	1	0	19.37	19.27	19.07	1
		1	24	**19.42**	19.32	19.12	1
		1	49	19.31	19.21	19.01	1
		25	0	17.60	17.56	17.52	2
		25	12	**18.49**	18.49	18.39	2
		25	25	17.82	17.72	17.52	2
		50	0	17.77	17.67	17.51	2

<WLAN 2.4G>

Mode	802.11b		
Channel / Frequency (MHz)	1 (2412)	6 (2437)	11 (2462)
Average Power	**13.35**	13.20	13.05
Mode	802.11g		
Channel / Frequency (MHz)	1 (2412)	6 (2437)	11 (2462)
Average Power	13.07	13.53	**13.68**
Mode	802.11n (HT20)		
Channel / Frequency (MHz)	1 (2412)	6 (2437)	11 (2462)
Average Power	**12.10**	11.86	11.96

<WLAN 5.2G>

Mode	802.11a			
Channel / Frequency (MHz)	36 (5180)	40 (5200)	44 (5220)	48 (5240)
Average Power	10.22	10.24	10.27	**10.32**
Mode	802.11n (HT20)			
Channel / Frequency (MHz)	36 (5180)	40 (5200)	44 (5220)	48 (5240)
Average Power	11.18	11.18	11.22	**11.36**
Mode	802.11n (HT40)			
Channel / Frequency (MHz)	38 (5190)		46 (5230)	
Average Power	**10.29**		10.16	

<WLAN 5.8G>

Mode	802.11a			
Channel / Frequency (MHz)	149 (5745)	153 (5765)	157 (5785)	161 (5805)
Average Power	9.98	**10.27**	10.24	10.12
Mode	802.11n (HT20)			
Channel / Frequency (MHz)	149 (5745)	153 (5765)	157 (5785)	161 (5805)
Average Power	10.97	**10.98**	10.85	10.81
Mode	802.11n (HT40)			
Channel / Frequency (MHz)	151 (5755)		159 (5795)	
Average Power	**10.28**		10.13	

4.7 SAR Testing Results

4.7.1 SAR Results for Body

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Rear Face	0	251	w/	25.5	25.44	1.01	0.09	0.791	0.80
	GSM850	GPRS10	Rear Face	14	251	w/o	32.0	31.81	1.04	-0.07	0.476	0.50
	GSM850	GPRS10	Right Side	0	251	w/o	32.0	31.81	1.04	-0.06	0.205	0.21
	GSM850	GPRS10	Top Side	0	251	w/	25.5	25.44	1.01	-0.06	0.471	0.48
	GSM850	GPRS10	Top Side	17	251	w/o	32.0	31.81	1.04	-0.04	0.352	0.37
01	GSM850	GPRS10	Rear Face	0	128	w/	25.5	25.29	1.05	0.05	0.928	**0.97**
	GSM850	GPRS10	Rear Face	0	189	w/	25.5	25.43	1.02	0.09	0.871	0.89
	GSM850	GPRS10	Rear Face	0	128	w/	25.5	25.29	1.05	0.12	0.889	0.93
	GSM1900	GPRS10	Rear Face	0	810	w/	24.2	24.18	1.00	0.01	0.985	0.99
	GSM1900	GPRS10	Rear Face	14	810	w/o	30.0	29.91	1.02	0.04	0.694	0.71
	GSM1900	GPRS10	Right Side	0	810	w/o	30.0	29.91	1.02	-0.01	0.056	0.06
	GSM1900	GPRS10	Top Side	0	810	w/	24.2	24.18	1.00	-0.09	0.806	0.81
	GSM1900	GPRS10	Top Side	17	810	w/o	30.0	29.91	1.02	-0.17	0.958	0.98
	GSM1900	GPRS10	Rear Face	0	512	w/	24.2	24.17	1.01	-0.04	1.15	1.16
	GSM1900	GPRS10	Rear Face	0	661	w/	24.2	24.15	1.01	0.05	1.03	1.04
02	GSM1900	GPRS10	Top Side	0	512	w/	24.2	24.17	1.01	-0.02	1.22	**1.23**
	GSM1900	GPRS10	Top Side	0	661	w/	24.2	24.15	1.01	0.01	0.967	0.98
	GSM1900	GPRS10	Top Side	17	512	w/o	30.0	29.66	1.08	-0.01	1.09	1.18
	GSM1900	GPRS10	Top Side	17	661	w/o	30.0	29.82	1.04	-0.08	1.12	1.17
	GSM1900	GPRS10	Top Side	0	512	w/	24.2	24.17	1.01	0.01	1.21	1.22
03	WCDMA II	RMC12.2K	Rear Face	0	9400	w/	17.0	16.70	1.07	0.08	1.21	**1.30**
	WCDMA II	RMC12.2K	Rear Face	14	9400	w/o	23.0	22.97	1.01	-0.08	0.975	0.98
	WCDMA II	RMC12.2K	Right Side	0	9400	w/o	23.0	22.97	1.01	-0.19	0.081	0.08
	WCDMA II	RMC12.2K	Top Side	0	9400	w/	17.0	16.70	1.07	0.06	0.876	0.94
	WCDMA II	RMC12.2K	Top Side	17	9400	w/o	23.0	22.97	1.01	-0.18	1.28	1.29
	WCDMA II	RMC12.2K	Rear Face	0	9262	w/	17.0	16.65	1.08	-0.06	1.06	1.15
	WCDMA II	RMC12.2K	Rear Face	0	9538	w/	17.0	16.64	1.09	-0.17	1.1	1.20
	WCDMA II	RMC12.2K	Rear Face	14	9262	w/o	23.0	22.83	1.04	-0.11	0.739	0.77
	WCDMA II	RMC12.2K	Rear Face	14	9538	w/o	23.0	22.65	1.08	-0.17	0.793	0.86
	WCDMA II	RMC12.2K	Top Side	0	9262	w/	17.0	16.65	1.08	-0.01	0.912	0.99
	WCDMA II	RMC12.2K	Top Side	0	9538	w/	17.0	16.64	1.09	0.02	0.676	0.73
	WCDMA II	RMC12.2K	Top Side	17	9262	w/o	23.0	22.83	1.04	0.04	0.818	0.85
	WCDMA II	RMC12.2K	Top Side	17	9538	w/o	23.0	22.65	1.08	-0.08	1.06	1.15
	WCDMA II	RMC12.2K	Top Side	17	9400	w/o	23.0	22.97	1.01	-0.07	1.24	1.25
04	WCDMA V	RMC12.2K	Rear Face	0	4182	w/	19.0	18.83	1.04	0.04	0.971	**1.01**
	WCDMA V	RMC12.2K	Rear Face	14	4132	w/o	23.5	23.41	1.02	-0.08	0.428	0.44
	WCDMA V	RMC12.2K	Right Side	0	4132	w/o	23.5	23.41	1.02	-0.03	0.218	0.22
	WCDMA V	RMC12.2K	Top Side	0	4182	w/	19.0	18.83	1.04	-0.11	0.638	0.66
	WCDMA V	RMC12.2K	Top Side	17	4132	w/o	23.5	23.41	1.02	-0.07	0.312	0.32
	WCDMA V	RMC12.2K	Rear Face	0	4132	w/	19.0	18.79	1.05	0.08	0.943	0.99
	WCDMA V	RMC12.2K	Rear Face	0	4233	w/	19.0	18.76	1.06	0.04	0.901	0.95
	WCDMA V	RMC12.2K	Rear Face	0	4182	w/	19.0	18.83	1.04	0.08	0.937	0.97

Note:

1. SAR is performed on the highest power channel. When the reported SAR value of highest power channel is <= 0.8 W/kg, SAR testing for optional channel is not required.

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK_20M	Rear Face	0	19100	1	0	w/	16.5	16.44	1.01	0.17	0.996	1.01
	LTE 2	QPSK_20M	Rear Face	14	19100	1	99	w/o	23.6	23.58	1.00	-0.03	0.817	0.82
	LTE 2	QPSK_20M	Right Side	0	19100	1	99	w/o	23.6	23.58	1.00	-0.13	0.06	0.06
	LTE 2	QPSK_20M	Top Side	0	19100	1	0	w/	16.5	16.44	1.01	-0.09	0.983	1.00
	LTE 2	QPSK_20M	Top Side	17	19100	1	99	w/o	23.6	23.58	1.00	-0.19	1.1	1.11
	LTE 2	QPSK_20M	Rear Face	0	18700	1	0	w/	16.5	15.83	1.17	0.07	0.724	0.84
	LTE 2	QPSK_20M	Rear Face	0	18900	1	0	w/	16.5	15.58	1.24	0.04	0.837	1.03
	LTE 2	QPSK_20M	Rear Face	14	18700	1	99	w/o	23.6	23.29	1.07	-0.15	0.895	0.96
	LTE 2	QPSK_20M	Rear Face	14	18900	1	99	w/o	23.6	23.55	1.01	-0.17	0.964	0.98
	LTE 2	QPSK_20M	Top Side	0	18700	1	0	w/	16.5	15.83	1.17	0.06	0.726	0.85
	LTE 2	QPSK_20M	Top Side	0	18900	1	0	w/	16.5	15.58	1.24	0.01	0.734	0.91
	LTE 2	QPSK_20M	Top Side	17	18700	1	99	w/o	23.6	23.29	1.07	-0.06	0.979	1.05
	LTE 2	QPSK_20M	Top Side	17	18900	1	99	w/o	23.6	23.55	1.01	-0.12	1.33	1.35
	LTE 2	QPSK_20M	Rear Face	0	19100	50	0	w/	15.5	15.42	1.02	0.13	0.841	0.86
	LTE 2	QPSK_20M	Rear Face	14	19100	50	0	w/o	22.6	22.02	1.14	-0.12	0.708	0.81
	LTE 2	QPSK_20M	Right Side	0	19100	50	0	w/o	22.6	22.02	1.14	0.08	0.046	0.05
	LTE 2	QPSK_20M	Top Side	0	19100	50	0	w/	15.5	15.42	1.02	0.06	0.73	0.74
	LTE 2	QPSK_20M	Top Side	17	19100	50	0	w/o	22.6	22.02	1.14	-0.17	0.854	0.98
	LTE 2	QPSK_20M	Rear Face	0	18700	50	0	w/	15.5	15.06	1.11	0.07	0.775	0.86
	LTE 2	QPSK_20M	Rear Face	0	18900	50	0	w/	15.5	14.75	1.19	0.15	0.81	0.96
	LTE 2	QPSK_20M	Rear Face	14	18700	50	0	w/o	22.6	21.73	1.22	0.14	0.565	0.69
	LTE 2	QPSK_20M	Rear Face	14	18900	50	0	w/o	22.6	21.99	1.15	0.18	0.723	0.83
	LTE 2	QPSK_20M	Top Side	17	18700	50	0	w/o	22.6	21.73	1.22	0.13	0.63	0.77
	LTE 2	QPSK_20M	Top Side	17	18900	50	0	w/o	22.6	21.99	1.15	0.02	0.931	1.07
05	LTE 2	QPSK_20M	Top Side	17	18900	1	99	w/o	23.6	23.55	1.01	0.15	1.34	**1.36**
	LTE 4	QPSK_20M	Rear Face	0	20300	1	50	w/	16.6	16.59	1.00	0.07	0.932	0.93
	LTE 4	QPSK_20M	Rear Face	14	20300	1	0	w/o	23.3	23.21	1.02	0.12	0.71	0.72
	LTE 4	QPSK_20M	Right Side	0	20300	1	0	w/o	23.3	23.21	1.02	-0.18	0.15	0.15
	LTE 4	QPSK_20M	Top Side	0	20300	1	50	w/	16.6	16.59	1.00	0.11	0.651	0.65
	LTE 4	QPSK_20M	Top Side	17	20300	1	0	w/o	23.3	23.21	1.02	0.03	0.552	0.56
	LTE 4	QPSK_20M	Rear Face	0	20050	1	50	w/	16.6	16.19	1.10	0.14	0.953	1.05
	LTE 4	QPSK_20M	Rear Face	0	20175	1	50	w/	16.6	16.50	1.02	0.06	0.841	0.86
	LTE 4	QPSK_20M	Rear Face	0	20300	50	25	w/	15.6	15.58	1.00	0.04	0.772	0.78
	LTE 4	QPSK_20M	Rear Face	14	20300	50	0	w/o	22.3	22.15	1.04	0.16	0.529	0.55
	LTE 4	QPSK_20M	Right Side	0	20300	50	0	w/o	22.3	22.15	1.04	0.12	0.104	0.11
	LTE 4	QPSK_20M	Top Side	0	20300	50	25	w/	15.6	15.58	1.00	0.10	0.54	0.54
	LTE 4	QPSK_20M	Top Side	17	20300	50	0	w/o	22.3	22.15	1.04	-0.10	0.431	0.45
06	LTE 4	QPSK_20M	Rear Face	0	20050	1	50	w/	16.6	16.19	1.10	0.16	0.955	**1.05**

Note:

1. According to KDB 941225, LTE SAR testing for remaining RB offset configurations and required test channels is not required when the reported SAR of highest power 1RB configuration is less than 0.8 W/kg.
2. According to KDB 941225, LTE SAR testing for remaining RB offset configurations and required test channels is not required when the reported SAR of highest power 50% RB configuration is less than 0.8 W/kg.
3. According to KDB 941225, LTE SAR testing for 100% RB is not required when the maximum power of 100% RB is less than the maximum power of 1RB and 50% RB, and the highest reported SAR for 1RB and 50% RB is less than 0.8 W/kg.
4. According to KDB 941225, LTE SAR testing for 16QAM is not required when the maximum power of 16QAM is less 1/2 dB higher than QPSK, and the highest reported SAR of QPSK is less than 1.45 W/kg.
5. According to KDB 941225, LTE SAR testing for smaller channel bandwidth is not required when the maximum power of smaller channel bandwidth is less 1/2 dB higher than largest channel bandwidth, and the highest reported SAR of largest channel bandwidth is less than 1.45 W/kg.

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
07	LTE 5	QPSK_10M	Rear Face	0	20525	1	24	w/	18.6	18.56	1.01	0.10	0.755	**0.76**
	LTE 5	QPSK_10M	Rear Face	14	20525	1	24	w/o	23.7	23.63	1.02	-0.18	0.463	0.47
	LTE 5	QPSK_10M	Right Side	0	20525	1	24	w/o	23.7	23.63	1.02	0.04	0.211	0.21
	LTE 5	QPSK_10M	Top Side	0	20525	1	24	w/	18.6	18.56	1.01	0.00	0.398	0.40
	LTE 5	QPSK_10M	Top Side	17	20525	1	24	w/o	23.7	23.63	1.02	0.07	0.228	0.23
	LTE 5	QPSK_10M	Rear Face	0	20525	25	12	w/	17.6	17.54	1.01	-0.10	0.615	0.62
	LTE 5	QPSK_10M	Rear Face	14	20600	25	12	w/o	22.7	22.61	1.02	0.06	0.341	0.35
	LTE 5	QPSK_10M	Right Side	0	20600	25	12	w/o	22.7	22.61	1.02	-0.05	0.139	0.14
	LTE 5	QPSK_10M	Top Side	0	20525	25	12	w/	17.6	17.54	1.01	0.06	0.426	0.43
	LTE 5	QPSK_10M	Top Side	17	20600	25	12	w/o	22.7	22.61	1.02	-0.04	0.163	0.17
	LTE 17	QPSK_10M	Rear Face	0	23780	1	24	w/	20.5	20.48	1.00	0.08	1.15	1.16
	LTE 17	QPSK_10M	Rear Face	14	23780	1	49	w/o	23.7	23.65	1.01	-0.01	0.334	0.34
	LTE 17	QPSK_10M	Right Side	0	23780	1	49	w/o	23.7	23.65	1.01	-0.06	0.198	0.20
	LTE 17	QPSK_10M	Top Side	0	23780	1	24	w/	20.5	20.48	1.00	0.02	0.449	0.45
	LTE 17	QPSK_10M	Top Side	17	23780	1	49	w/o	23.7	23.65	1.01	0.07	0.109	0.11
	LTE 17	QPSK_10M	Rear Face	0	23790	1	24	w/	20.5	20.38	1.03	0.02	1.16	1.19
08	LTE 17	QPSK_10M	Rear Face	0	23800	1	24	w/	20.5	20.18	1.08	0.09	1.16	**1.25**
	LTE 17	QPSK_10M	Rear Face	0	23780	25	12	w/	19.5	19.46	1.01	0.06	0.883	0.89
	LTE 17	QPSK_10M	Rear Face	14	23780	25	25	w/o	22.7	22.40	1.07	0.02	0.266	0.29
	LTE 17	QPSK_10M	Right Side	0	23780	25	25	w/o	22.7	22.40	1.07	0.03	0.164	0.18
	LTE 17	QPSK_10M	Top Side	0	23780	25	12	w/	19.5	19.46	1.01	0.03	0.348	0.35
	LTE 17	QPSK_10M	Top Side	17	23780	25	25	w/o	22.7	22.40	1.07	0.02	0.088	0.09
	LTE 17	QPSK_10M	Rear Face	0	23790	25	12	w/	19.5	19.36	1.03	0.06	0.964	1.00
	LTE 17	QPSK_10M	Rear Face	0	23800	25	12	w/	19.5	19.16	1.08	0.07	0.897	0.97
	LTE 17	QPSK_10M	Rear Face	0	23800	1	24	w/	20.5	20.18	1.08	0.13	1.14	1.23

Note:

1. According to KDB 941225, LTE SAR testing for remaining RB offset configurations and required test channels is not required when the reported SAR of highest power 1RB configuration is less than 0.8 W/kg.
2. According to KDB 941225, LTE SAR testing for remaining RB offset configurations and required test channels is not required when the reported SAR of highest power 50% RB configuration is less than 0.8 W/kg.
3. According to KDB 941225, LTE SAR testing for 100% RB is not required when the maximum power of 100% RB is less than the maximum power of 1RB and 50% RB, and the highest reported SAR for 1RB and 50% RB is less than 0.8 W/kg.
4. According to KDB 941225, LTE SAR testing for 16QAM is not required when the maximum power of 16QAM is less 1/2 dB higher than QPSK, and the highest reported SAR of QPSK is less than 1.45 W/kg.
5. According to KDB 941225, LTE SAR testing for smaller channel bandwidth is not required when the maximum power of smaller channel bandwidth is less 1/2 dB higher than largest channel bandwidth, and the highest reported SAR of largest channel bandwidth is less than 1.45 W/kg.

Plot No.	Band	Test Position	Separation Distance (mm)	Ch.	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	802.11b	Rear Face	0	1	13.5	13.35	1.04	0.00	0.782	0.81
	802.11b	Left Side	0	1	13.5	13.35	1.04	0.07	0.1	0.10
	802.11b	Top Side	0	1	13.5	13.35	1.04	-0.08	0.396	0.41
	802.11b	Rear Face	0	6	13.5	13.20	1.07	0.00	0.67	0.72
	802.11b	Rear Face	0	11	13.5	13.05	1.11	0.00	0.97	1.08
09	802.11b	Rear Face	0	11	13.5	13.05	1.11	0.00	1	**1.11**
10	802.11a	Rear Face	0	48	11.5	10.32	1.31	0.02	0.527	**0.69**
	802.11a	Left Side	0	48	11.5	10.32	1.31	-0.03	0.108	0.14
	802.11a	Top Side	0	48	11.5	10.32	1.31	0.17	0.358	0.47
	802.11a	Rear Face	0	153	11.0	10.27	1.18	0.14	0.842	1.00
	802.11a	Left Side	0	153	11.0	10.27	1.18	0.14	0.256	0.30
11	802.11a	Top Side	0	153	11.0	10.27	1.18	0.07	1.01	**1.19**
	802.11a	Rear Face	0	157	11.0	10.24	1.19	0.08	0.841	1.00
	802.11a	Top Side	0	157	11.0	10.24	1.19	0.12	0.989	1.18
	802.11a	Top Side	0	153	11.0	10.27	1.18	0.05	0.998	1.18

Note:

1. According to KDB 248227 D01, when the extrapolated maximum peak SAR for the maximum output power channel is <= 1.6 W/kg and the 1g averaged SAR is <= 0.8 W/kg, WLAN SAR testing for other channels is not required.
2. SAR testing for 802.11g/n is not required when its maximum power is less than 1/4 dB higher than 802.11b.
3. SAR testing for 802.11n is not required when its maximum power is less than 1/4 dB higher than 802.11a.

4.7.2 SAR Measurement Variability

According to KDB 865664 D01v01, 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:

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

Band	Mode	Test Position	Separation Distance (mm)	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
GSM850	GPRS10	Rear Face	0	128	0.928	0.889	1.04	N/A	N/A	N/A	N/A
GSM1900	GPRS10	Top Side	0	512	1.22	1.21	1.01	N/A	N/A	N/A	N/A
WCDMA II	RMC12.2K	Top Side	17	9400	1.28	1.24	1.03	N/A	N/A	N/A	N/A
WCDMA V	RMC12.2K	Rear Face	0	4182	0.971	0.937	1.04	N/A	N/A	N/A	N/A
LTE 2	QPSK_20M RB1, OS99	Top Side	17	18900	1.33	1.34	1.01	N/A	N/A	N/A	N/A
LTE 4	QPSK_20M RB1, OS50	Rear Face	0	20050	0.953	0.955	1.00	N/A	N/A	N/A	N/A
LTE 17	QPSK_10M RB1, OS24	Rear Face	0	23800	1.16	1.14	1.02	N/A	N/A	N/A	N/A
802.11b	-	Rear Face	0	11	0.97	1	1.03	N/A	N/A	N/A	N/A
802.11a	-	Top Side	0	153	1.01	0.998	1.01	N/A	N/A	N/A	N/A

4.7.3 Simultaneous Multi-band Transmission Evaluation

<Estimated SAR Calculation>

According to KDB 447498 D01v05, 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)
GSM850 (GPRS10)	0.835	26.0 (Max Frame-Averaged Power)	Left Side / Bottom Side	0	0.4
GSM850 (GPRS10)	1.909	24.0 (Max Frame-Averaged Power)	Left Side / Bottom Side	0	0.4
WCDMA II	1.907	23.0	Left Side / Bottom Side	0	0.4
WCDMA V	0.846	23.5	Left Side / Bottom Side	0	0.4
LTE 2	1.909	23.6	Left Side / Bottom Side	0	0.4
LTE 4	1.754	23.3	Left Side / Bottom Side	0	0.4
LTE 5	0.848	23.7	Left Side / Bottom Side	0	0.4
LTE 17	0.713	23.7	Left Side / Bottom Side	0	0.4
WLAN (DTS)	2.462	13.5	Right Side / Bottom Side	0	0.4
WLAN (DTS)	5.825	11.0	Right Side / Bottom Side	0	0.4
WLAN (NII)	5.7	11.5	Right Side / Bottom Side	0	0.4
BT (DSS)	2.48	6.5	Body	0	0.2

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.

<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.

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
1	GSM850 + WLAN (DTS)	Body	Rear Face	0	0.97	1.11	**2.08**	**Analyzed as below**
			Rear Face	14	0.50	1.11	**1.61**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.4 (Estimated SAR)	0.61	Σ SAR < 1.6, Not required
			Top Side	0	0.48	1.19	**1.67**	**Analyzed as below**
			Top Side	17	0.37	1.19	1.56	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
2	GSM850 + WLAN (NII)	Body	Rear Face	0	0.97	0.69	**1.66**	**Analyzed as below**
			Rear Face	14	0.50	0.69	1.19	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.4 (Estimated SAR)	0.61	Σ SAR < 1.6, Not required
			Top Side	0	0.48	0.47	0.95	Σ SAR < 1.6, Not required
			Top Side	17	0.37	0.47	0.84	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
3	GSM850 + BT (DSS)	Body	Rear Face	0	0.97	0.2 (Estimated SAR)	1.17	Σ SAR < 1.6, Not required
			Rear Face	14	0.50	0.2 (Estimated SAR)	0.70	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.2 (Estimated SAR)	0.41	Σ SAR < 1.6, Not required
			Top Side	0	0.48	0.2 (Estimated SAR)	0.68	Σ SAR < 1.6, Not required
			Top Side	17	0.37	0.2 (Estimated SAR)	0.57	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
4	GSM1900 + WLAN (DTS)	Body	Rear Face	0	1.16	1.11	**2.27**	**Analyzed as below**
			Rear Face	14	0.71	1.11	**1.82**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.4 (Estimated SAR)	0.46	Σ SAR < 1.6, Not required
			Top Side	0	1.23	1.19	**2.42**	**Analyzed as below**
			Top Side	17	1.18	1.19	**2.37**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
5	GSM1900 + WLAN (NII)	Body	Rear Face	0	1.16	0.69	**1.85**	**Analyzed as below**
			Rear Face	14	0.71	0.69	1.40	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.4 (Estimated SAR)	0.46	Σ SAR < 1.6, Not required
			Top Side	0	1.23	0.47	**1.70**	**Analyzed as below**
			Top Side	17	1.18	0.47	**1.65**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
6	GSM1900 + BT (DSS)	Body	Rear Face	0	1.16	0.2 (Estimated SAR)	1.36	Σ SAR < 1.6, Not required
			Rear Face	14	0.71	0.2 (Estimated SAR)	0.91	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.2 (Estimated SAR)	0.26	Σ SAR < 1.6, Not required
			Top Side	0	1.23	0.2 (Estimated SAR)	1.43	Σ SAR < 1.6, Not required
			Top Side	17	1.18	0.2 (Estimated SAR)	1.38	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
7	WCDMA II + WLAN (DTS)	Body	Rear Face	0	1.30	1.11	**2.41**	**Analyzed as below**
			Rear Face	14	0.98	1.11	**2.09**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.08	0.4 (Estimated SAR)	0.48	Σ SAR < 1.6, Not required
			Top Side	0	0.99	1.19	**2.18**	**Analyzed as below**
			Top Side	17	1.29	1.19	**2.48**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
8	WCDMA II + WLAN (NII)	Body	Rear Face	0	1.30	0.69	**1.99**	**Analyzed as below**
			Rear Face	14	0.98	0.69	**1.67**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.08	0.4 (Estimated SAR)	0.48	Σ SAR < 1.6, Not required
			Top Side	0	0.99	0.47	1.46	Σ SAR < 1.6, Not required
			Top Side	17	1.29	0.47	**1.76**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
9	WCDMA II + BT (DSS)	Body	Rear Face	0	1.30	0.2 (Estimated SAR)	1.50	Σ SAR < 1.6, Not required
			Rear Face	14	0.98	0.2 (Estimated SAR)	1.18	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.08	0.2 (Estimated SAR)	0.28	Σ SAR < 1.6, Not required
			Top Side	0	0.99	0.2 (Estimated SAR)	1.19	Σ SAR < 1.6, Not required
			Top Side	17	1.29	0.2 (Estimated SAR)	1.49	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
10	WCDMA V + WLAN (DTS)	Body	Rear Face	0	1.01	1.11	**2.12**	**Analyzed as below**
			Rear Face	14	0.44	1.11	1.55	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.22	0.4 (Estimated SAR)	0.62	Σ SAR < 1.6, Not required
			Top Side	0	0.66	1.19	**1.85**	**Analyzed as below**
			Top Side	17	0.32	1.19	1.51	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
11	WCDMA V + WLAN (NII)	Body	Rear Face	0	1.01	0.69	**1.70**	**Analyzed as below**
			Rear Face	14	0.44	0.69	1.13	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.22	0.4 (Estimated SAR)	0.62	Σ SAR < 1.6, Not required
			Top Side	0	0.66	0.47	1.13	Σ SAR < 1.6, Not required
			Top Side	17	0.32	0.47	0.79	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
12	WCDMA V + BT (DSS)	Body	Rear Face	0	1.01	0.2 (Estimated SAR)	1.21	Σ SAR < 1.6, Not required
			Rear Face	14	0.44	0.2 (Estimated SAR)	0.64	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.22	0.2 (Estimated SAR)	0.42	Σ SAR < 1.6, Not required
			Top Side	0	0.66	0.2 (Estimated SAR)	0.86	Σ SAR < 1.6, Not required
			Top Side	17	0.32	0.2 (Estimated SAR)	0.52	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
13	LTE 2 + WLAN (DTS)	Body	Rear Face	0	1.03	1.11	**2.14**	**Analyzed as below**
			Rear Face	14	0.98	1.11	**2.09**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.4 (Estimated SAR)	0.46	Σ SAR < 1.6, Not required
			Top Side	0	1.00	1.19	**2.19**	**Analyzed as below**
			Top Side	17	1.36	1.19	**2.55**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
14	LTE 2 + WLAN (NII)	Body	Rear Face	0	1.03	0.69	**1.72**	**Analyzed as below**
			Rear Face	14	0.98	0.69	**1.67**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.4 (Estimated SAR)	0.46	Σ SAR < 1.6, Not required
			Top Side	0	1.00	0.47	1.47	Σ SAR < 1.6, Not required
			Top Side	17	1.36	0.47	**1.83**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
15	LTE 2 + BT (DSS)	Body	Rear Face	0	1.03	0.2 (Estimated SAR)	1.23	Σ SAR < 1.6, Not required
			Rear Face	14	0.98	0.2 (Estimated SAR)	1.18	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.06	0.2 (Estimated SAR)	0.26	Σ SAR < 1.6, Not required
			Top Side	0	1.00	0.2 (Estimated SAR)	1.20	Σ SAR < 1.6, Not required
			Top Side	17	1.36	0.2 (Estimated SAR)	1.56	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
16	LTE 4 + WLAN (DTS)	Body	Rear Face	0	1.05	1.11	**2.16**	**Analyzed as below**
			Rear Face	14	0.72	1.11	**1.83**	**Analyzed as below**
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.15	0.4 (Estimated SAR)	0.55	Σ SAR < 1.6, Not required
			Top Side	0	0.65	1.19	**1.84**	**Analyzed as below**
			Top Side	17	0.56	1.19	**1.75**	**Analyzed as below**
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
17	LTE 4 + WLAN (NII)	Body	Rear Face	0	1.05	0.69	**1.74**	**Analyzed as below**
			Rear Face	14	0.72	0.69	1.41	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.15	0.4 (Estimated SAR)	0.55	Σ SAR < 1.6, Not required
			Top Side	0	0.65	0.47	1.12	Σ SAR < 1.6, Not required
			Top Side	17	0.56	0.47	1.03	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
18	LTE 4 + BT (DSS)	Body	Rear Face	0	1.05	0.2 (Estimated SAR)	1.25	Σ SAR < 1.6, Not required
			Rear Face	14	0.72	0.2 (Estimated SAR)	0.92	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.15	0.2 (Estimated SAR)	0.35	Σ SAR < 1.6, Not required
			Top Side	0	0.65	0.2 (Estimated SAR)	0.85	Σ SAR < 1.6, Not required
			Top Side	17	0.56	0.2 (Estimated SAR)	0.76	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
19	LTE 5 + WLAN (DTS)	Body	Rear Face	0	0.76	1.11	**1.87**	**Analyzed as below**
			Rear Face	14	0.47	1.11	1.58	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.4 (Estimated SAR)	0.61	Σ SAR < 1.6, Not required
			Top Side	0	0.43	1.19	**1.62**	**Analyzed as below**
			Top Side	17	0.23	1.19	1.42	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
20	LTE 5 + WLAN (NII)	Body	Rear Face	0	0.76	0.69	1.45	Σ SAR < 1.6, Not required
			Rear Face	14	0.47	0.69	1.16	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.4 (Estimated SAR)	0.61	Σ SAR < 1.6, Not required
			Top Side	0	0.43	0.47	0.90	Σ SAR < 1.6, Not required
			Top Side	17	0.23	0.47	0.70	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
21	LTE 5 + BT (DSS)	Body	Rear Face	0	0.76	0.2 (Estimated SAR)	0.96	Σ SAR < 1.6, Not required
			Rear Face	14	0.47	0.2 (Estimated SAR)	0.67	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.21	0.2 (Estimated SAR)	0.41	Σ SAR < 1.6, Not required
			Top Side	0	0.43	0.2 (Estimated SAR)	0.63	Σ SAR < 1.6, Not required
			Top Side	17	0.23	0.2 (Estimated SAR)	0.43	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

No.	Conditions (SAR1 + SAR2)	Exposure Condition	Test Position	Separation (mm)	Max. SAR1	Max. SAR2	SAR Summation	SPLSR Analysis
22	LTE 17 + WLAN (DTS)	Body	Rear Face	0	1.25	1.11	**2.36**	**Analyzed as below**
			Rear Face	14	0.34	1.11	1.45	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.30	0.70	Σ SAR < 1.6, Not required
			Right Side	0	0.20	0.4 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Top Side	0	0.45	1.19	**1.64**	**Analyzed as below**
			Top Side	17	0.11	1.19	1.30	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
23	LTE 17 + WLAN (NII)	Body	Rear Face	0	1.25	0.69	**1.94**	**Analyzed as below**
			Rear Face	14	0.34	0.69	1.03	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.14	0.54	Σ SAR < 1.6, Not required
			Right Side	0	0.20	0.4 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Top Side	0	0.45	0.47	0.92	Σ SAR < 1.6, Not required
			Top Side	17	0.11	0.47	0.58	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.4 (Estimated SAR)	0.80	Σ SAR < 1.6, Not required
24	LTE 17 + BT (DSS)	Body	Rear Face	0	1.25	0.2 (Estimated SAR)	1.45	Σ SAR < 1.6, Not required
			Rear Face	14	0.34	0.2 (Estimated SAR)	0.54	Σ SAR < 1.6, Not required
			Left Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required
			Right Side	0	0.20	0.2 (Estimated SAR)	0.40	Σ SAR < 1.6, Not required
			Top Side	0	0.45	0.2 (Estimated SAR)	0.65	Σ SAR < 1.6, Not required
			Top Side	17	0.11	0.2 (Estimated SAR)	0.31	Σ SAR < 1.6, Not required
			Bottom Side	0	0.4 (Estimated SAR)	0.2 (Estimated SAR)	0.60	Σ SAR < 1.6, Not required

<SAR to Peak Location Separation Ratio Analysis>

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

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

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

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

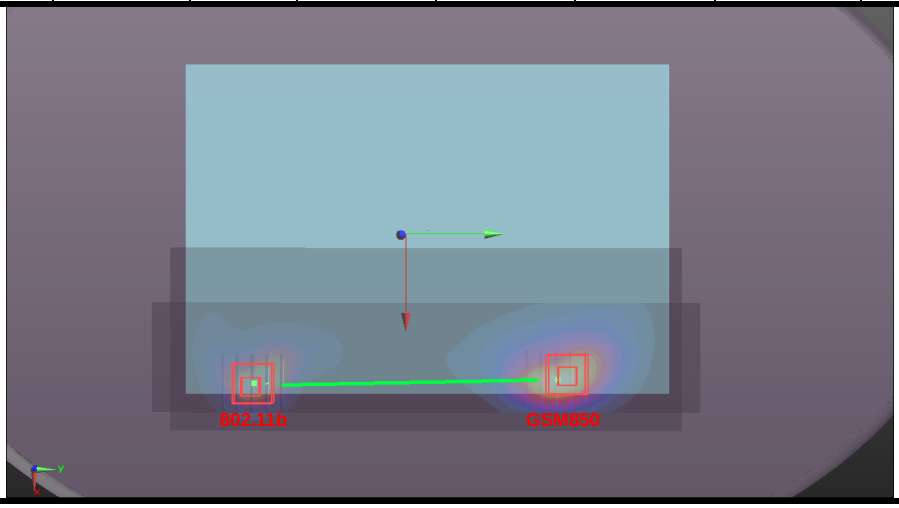
The SPLSR is determined by the following formula.

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

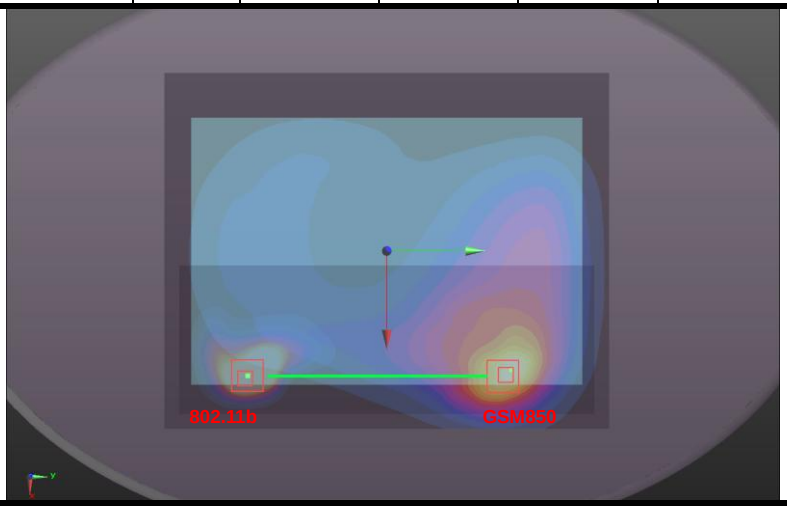
Where SAR_1 and SAR_2 are the highest reported or estimated SAR for each antenna in the pair, and R_i is the separation distance between the peak SAR locations for the antenna pair in mm.

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

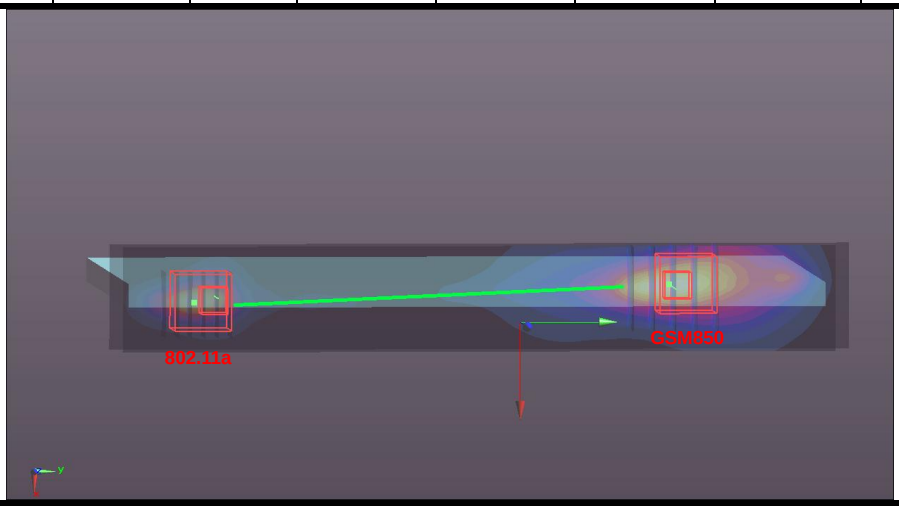
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM850 Ch128	Body	Rear Face	0.97	7.88	7.84	-17.79	166.1	0.018	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



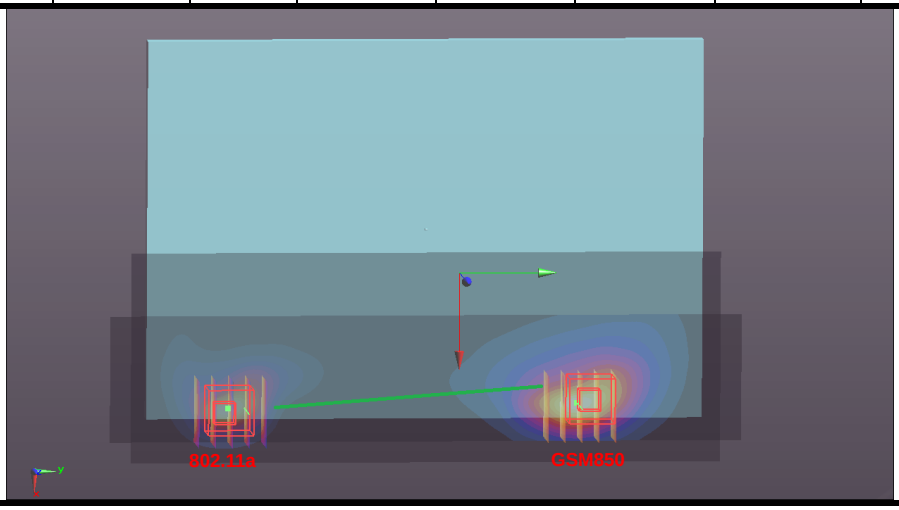
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM850 Ch251	Body	Rear Face	0.50	8.32	7.92	-17.93	166.8	0.012	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



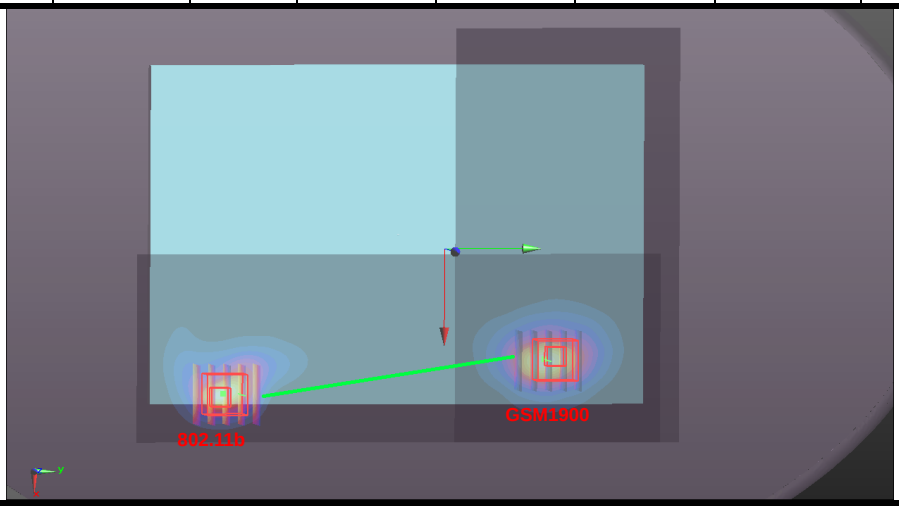
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM850 Ch251	Body	Top Side	0.48	-0.42	7.36	-17.99	175.2	0.012	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



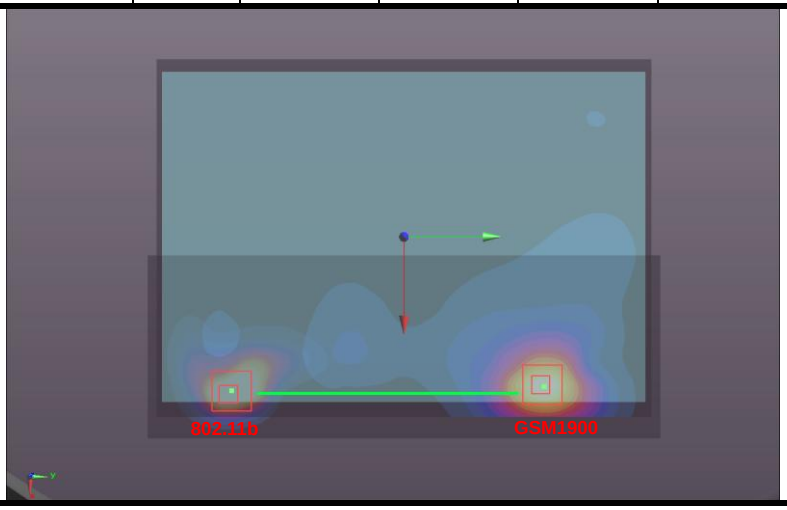
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM850 Ch128	Body	Rear Face	0.97	7.88	7.84	-17.79	179	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



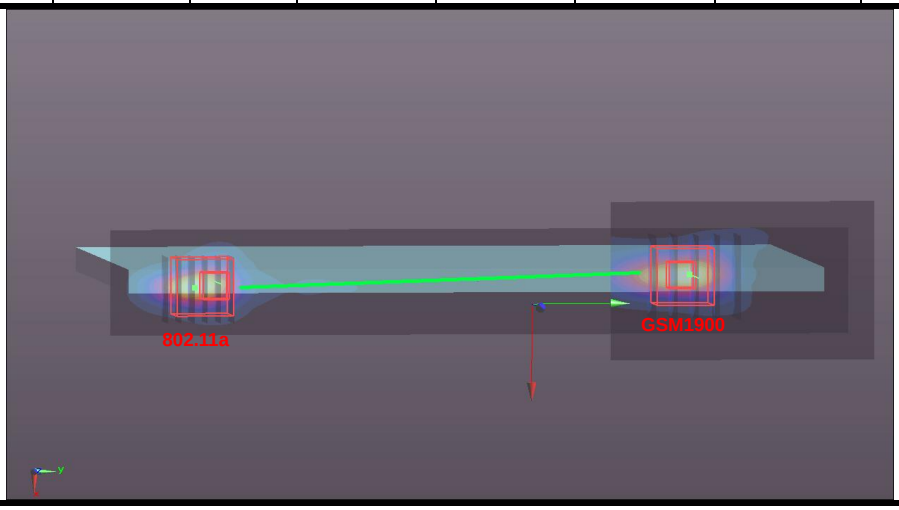
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Rear Face	1.16	6.6	7.8	-17.72	166.6	0.021	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



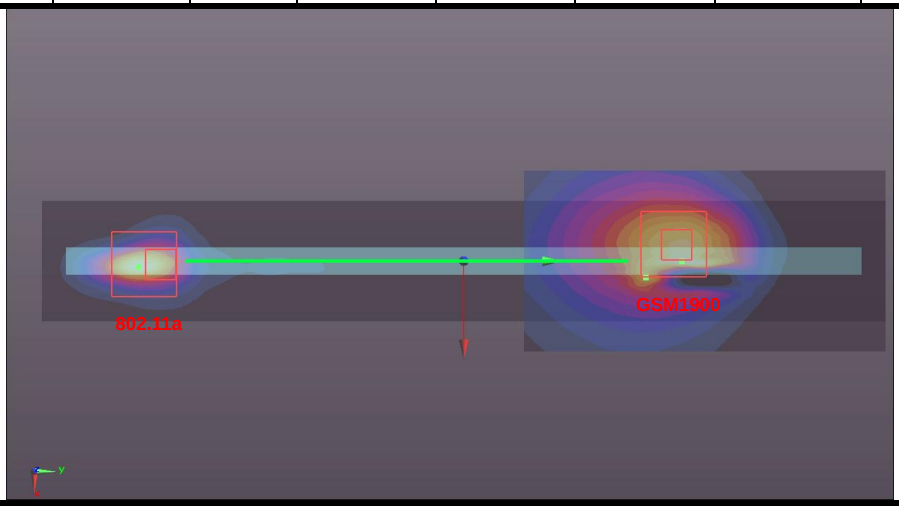
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch810	Body	Rear Face	0.71	8.15	7.49	-17.88	162.5	0.015	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



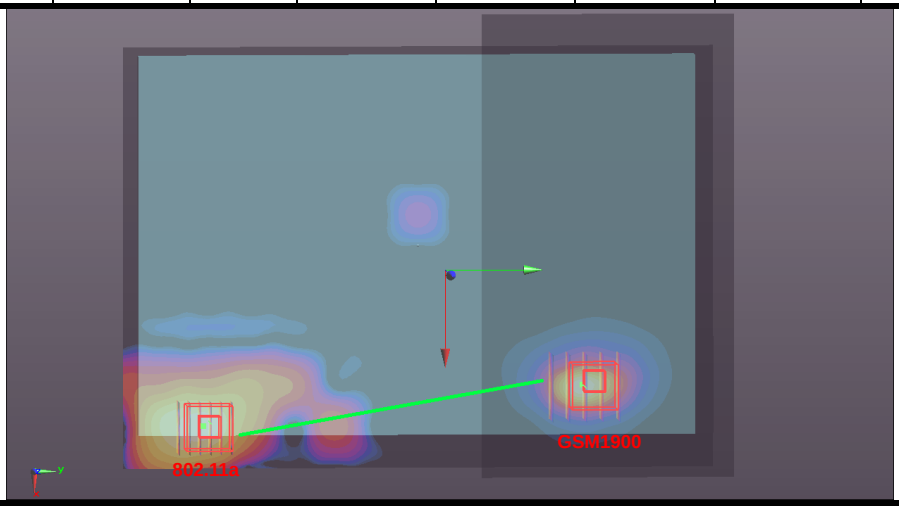
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Top Side	1.23	-0.24	8	-17.84	181.5	0.021	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



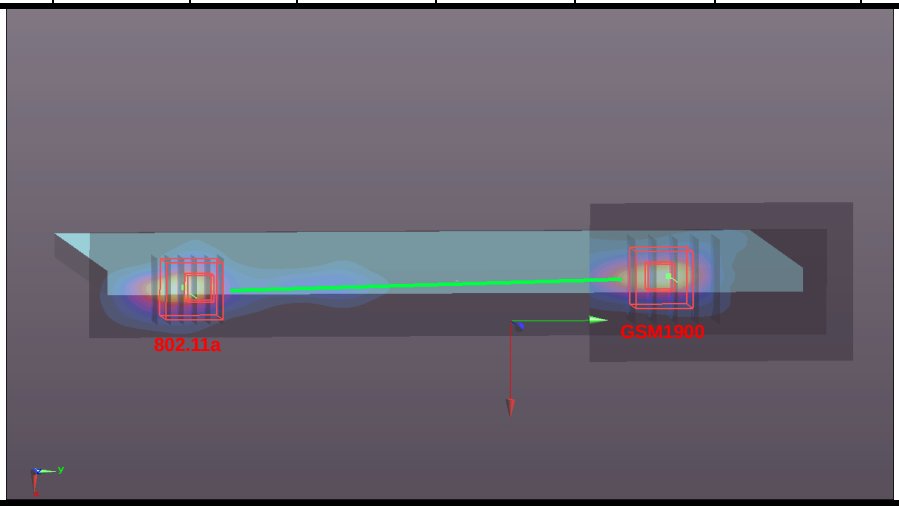
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Top Side	1.18	-0.48	7.09	-18.04	172.6	0.021	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



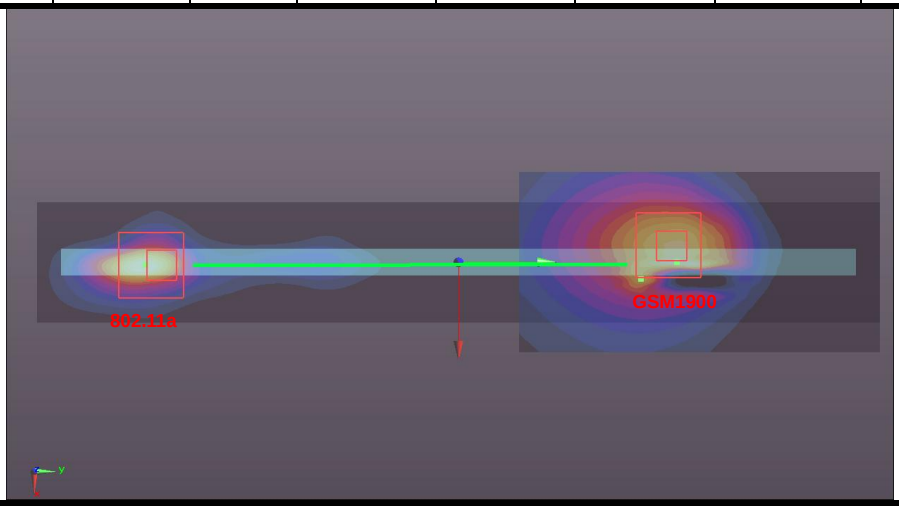
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Rear Face	1.16	6.6	7.8	-17.72	179.5	0.014	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



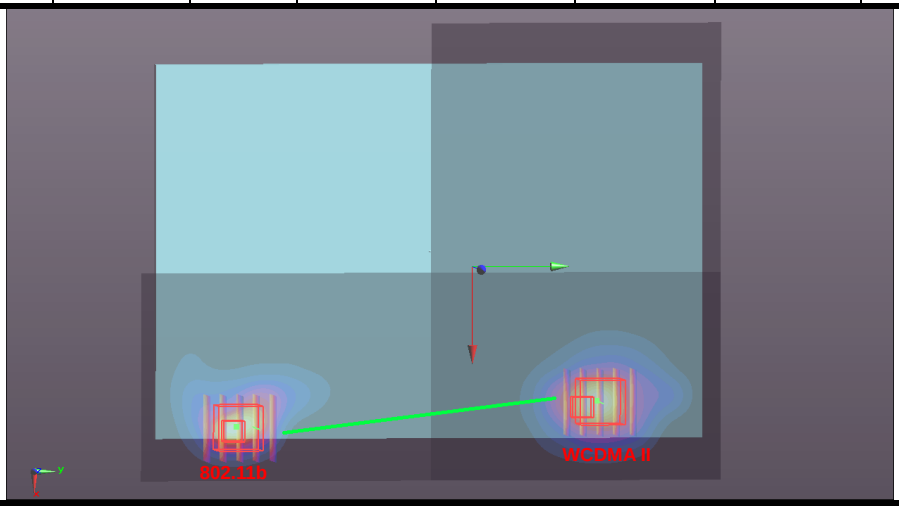
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Top Side	1.23	-0.24	8	-17.84	179.5	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.47	0.15	-9.95	-17.85			



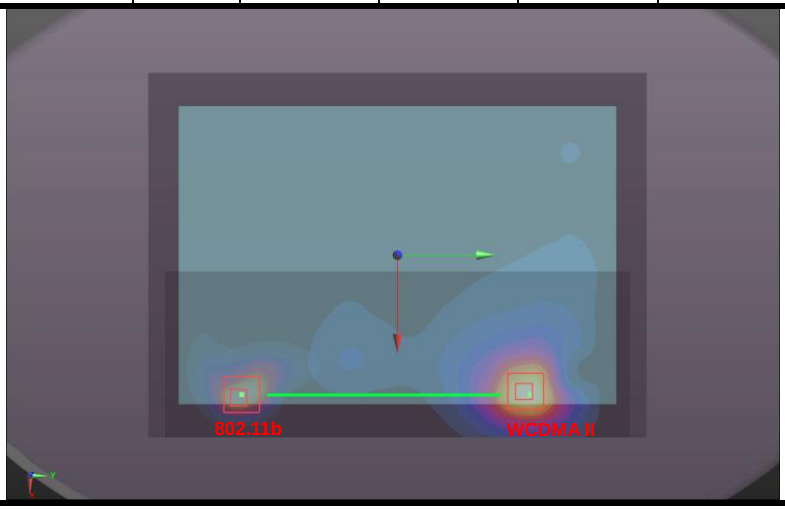
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
GSM1900 Ch512	Body	Top Side	1.18	-0.48	7.09	-18.04	170.5	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.47	0.15	-9.95	-17.85			



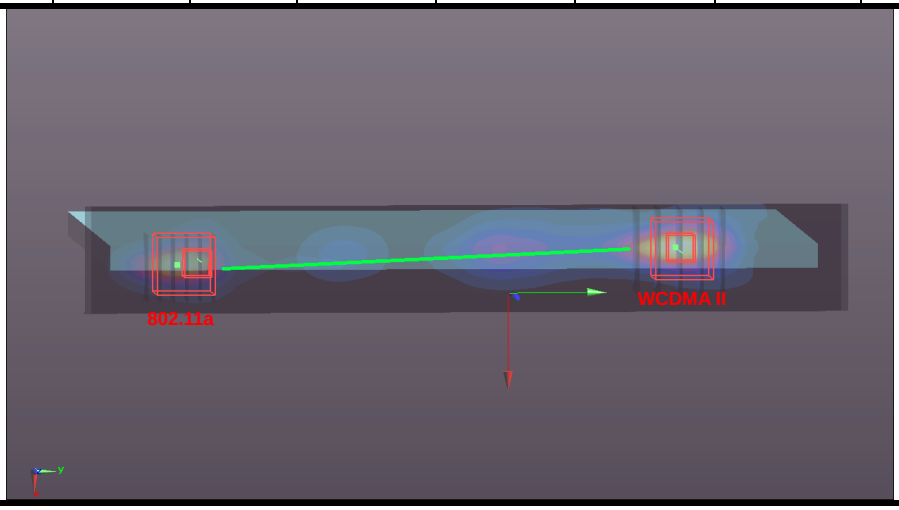
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Rear Face	1.30	7.36	7.52	-17.76	163.1	0.023	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



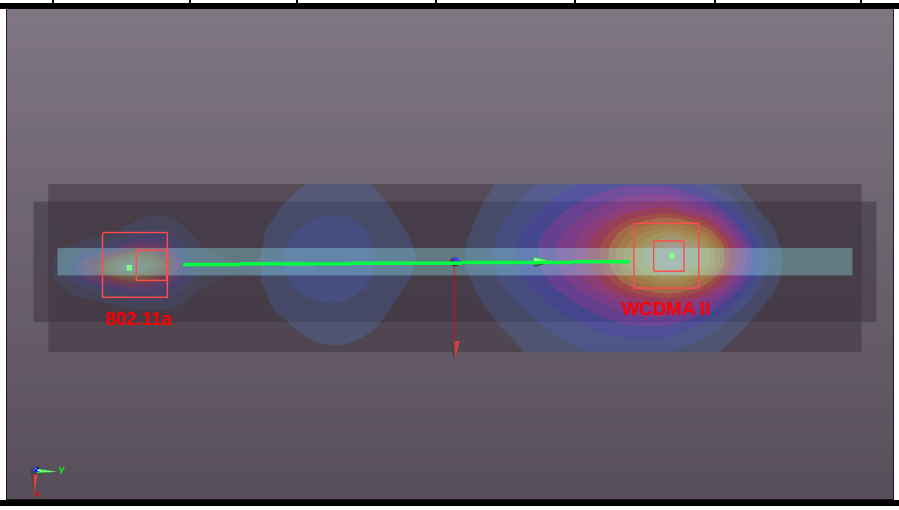
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Rear Face	0.98	8.24	7.52	-17.89	162.8	0.019	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



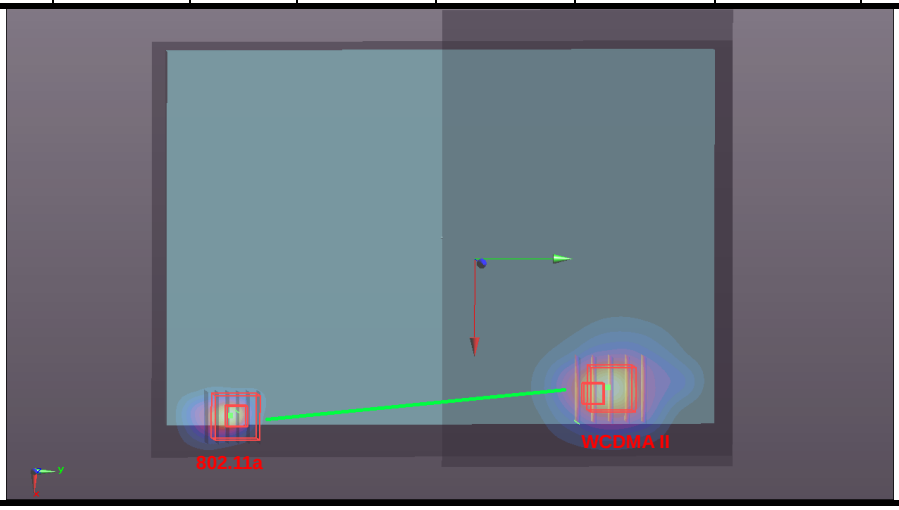
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9262	Body	Top Side	0.99	-0.4	7.96	-17.95	181.2	0.018	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



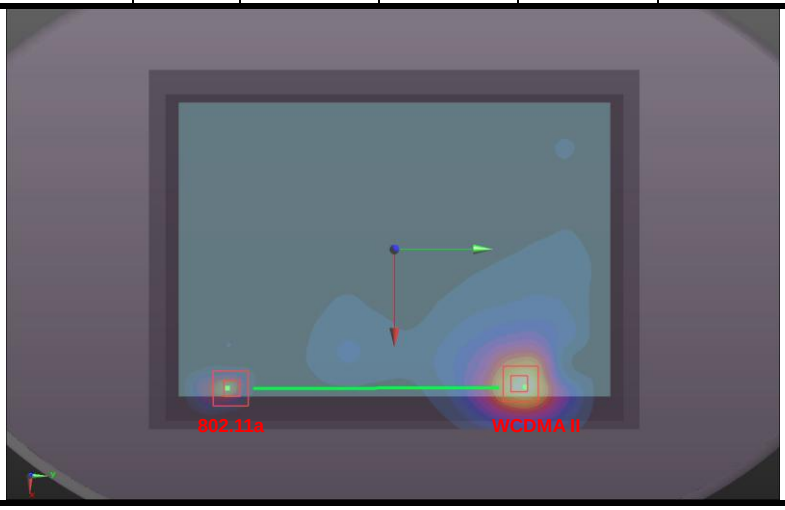
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Top Side	1.29	-0.2	7.2	-18.04	173.6	0.023	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



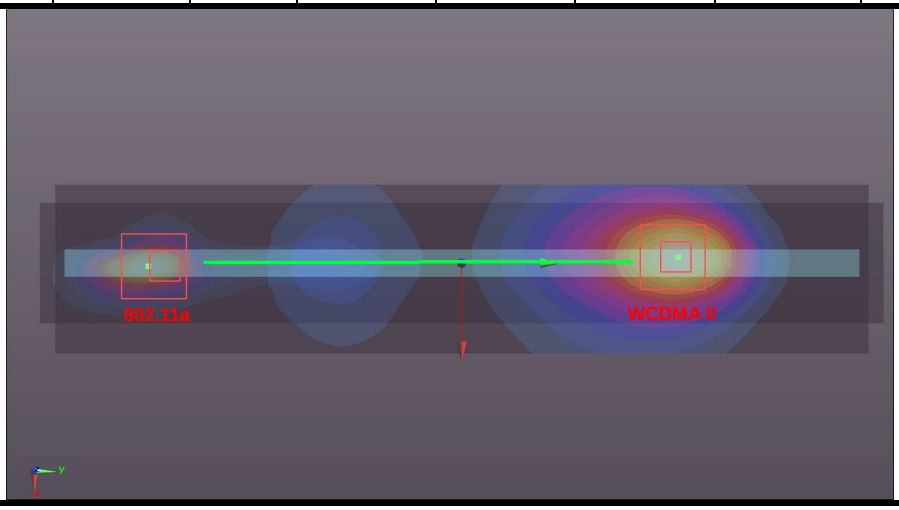
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Rear Face	1.30	7.36	7.52	-17.76	176	0.016	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



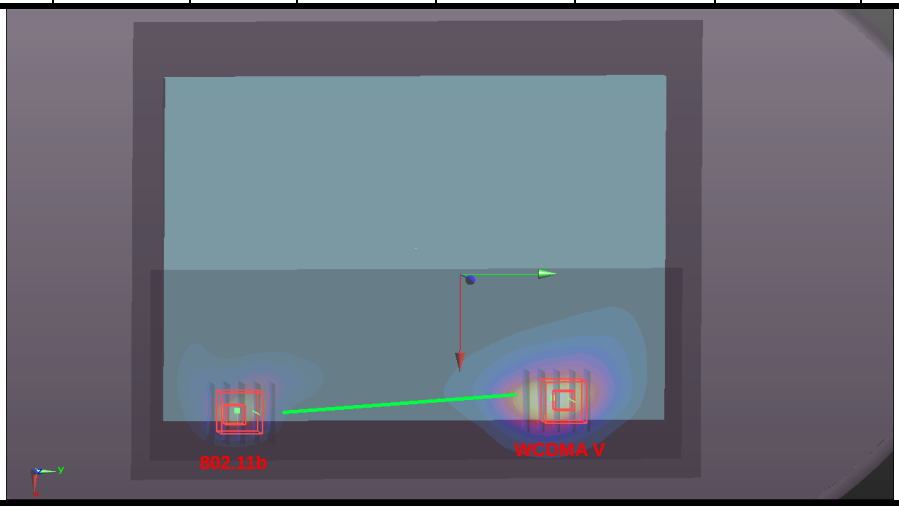
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Rear Face	0.98	8.24	7.52	-17.89	175.7	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



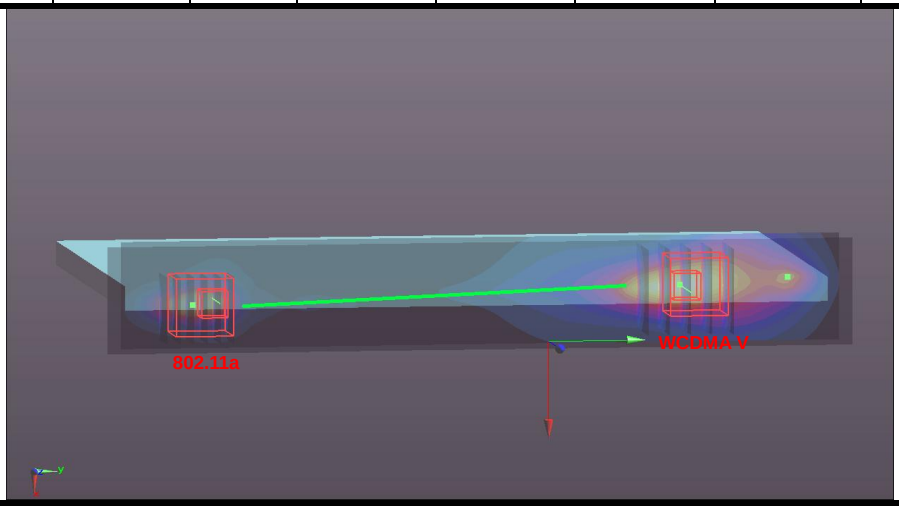
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA II Ch9400	Body	Top Side	1.29	-0.2	7.2	-18.04	171.5	0.014	SPLSR < 0.04, Not required
802.11a Ch48			0.47	0.15	-9.95	-17.85			



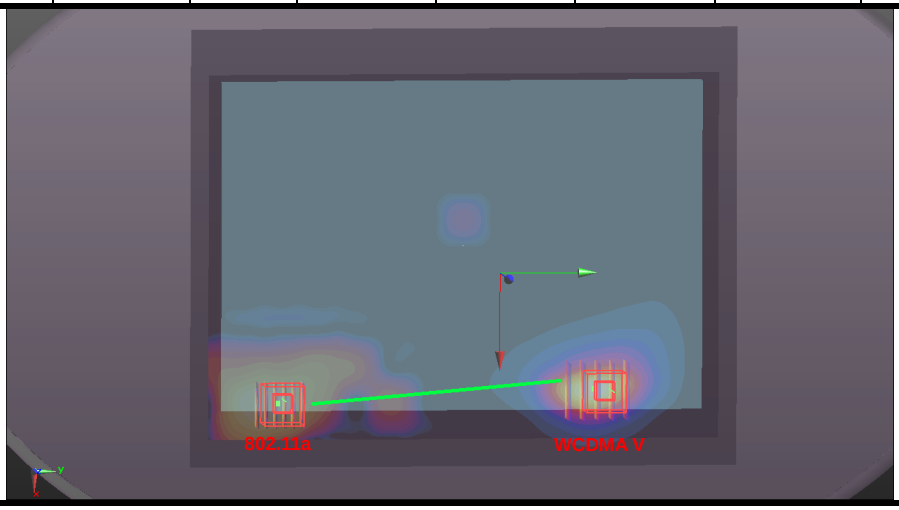
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA V Ch4182	Body	Rear Face	1.01	7.8	7.68	-17.74	164.5	0.019	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



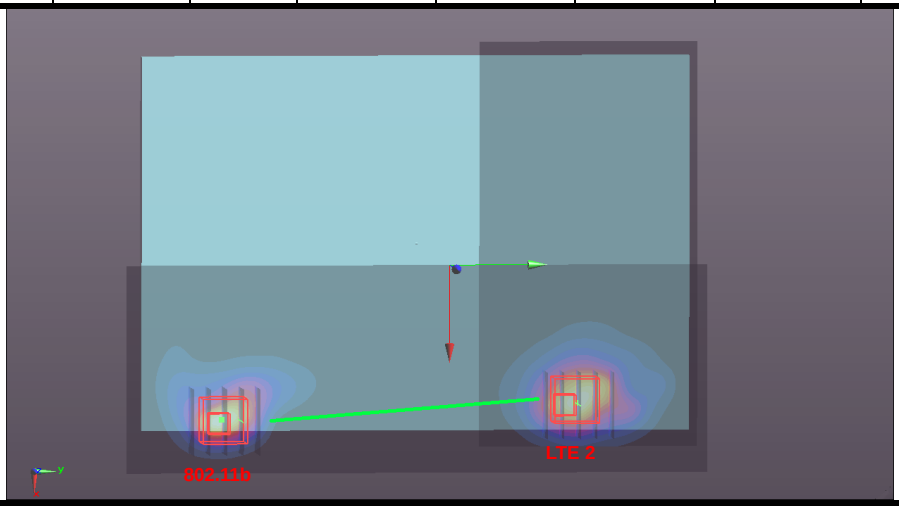
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA V Ch4182	Body	Top Side	0.66	-0.32	7.5	-17.95	176.6	0.014	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



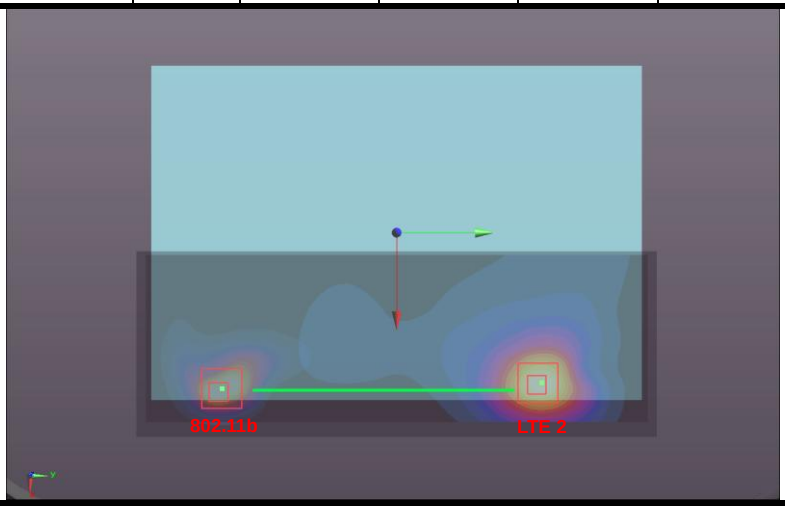
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
WCDMA V Ch4182	Body	Rear Face	1.01	7.8	7.68	-17.74	177.4	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



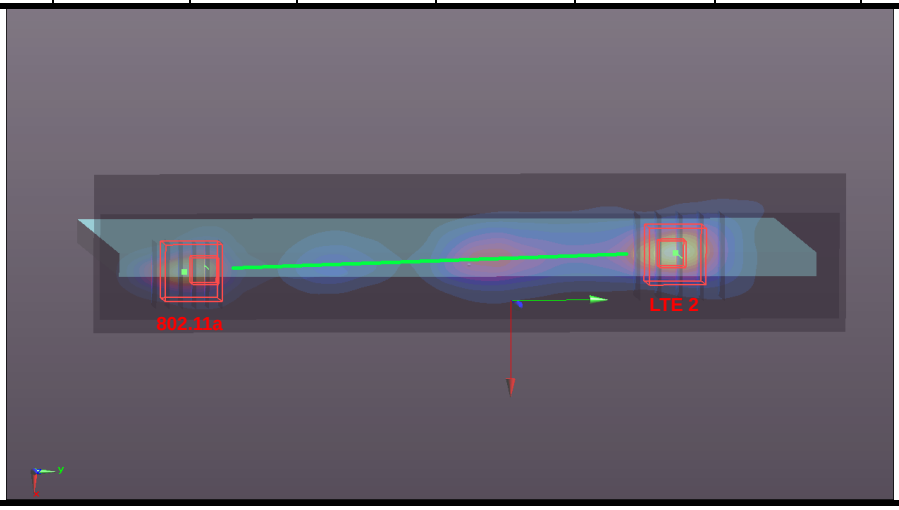
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Rear Face	1.03	7.65	7.33	-17.83	161.1	0.019	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



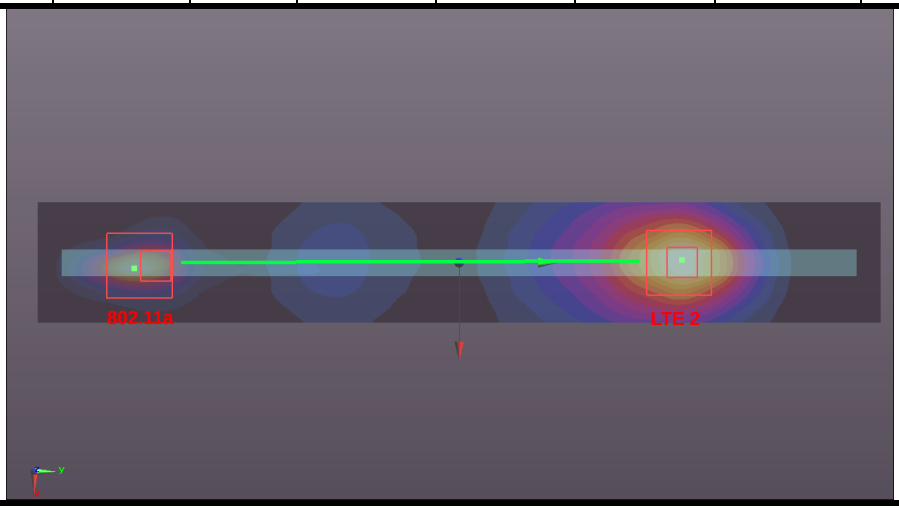
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Rear Face	0.98	8.1	7.32	-17.89	160.8	0.019	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



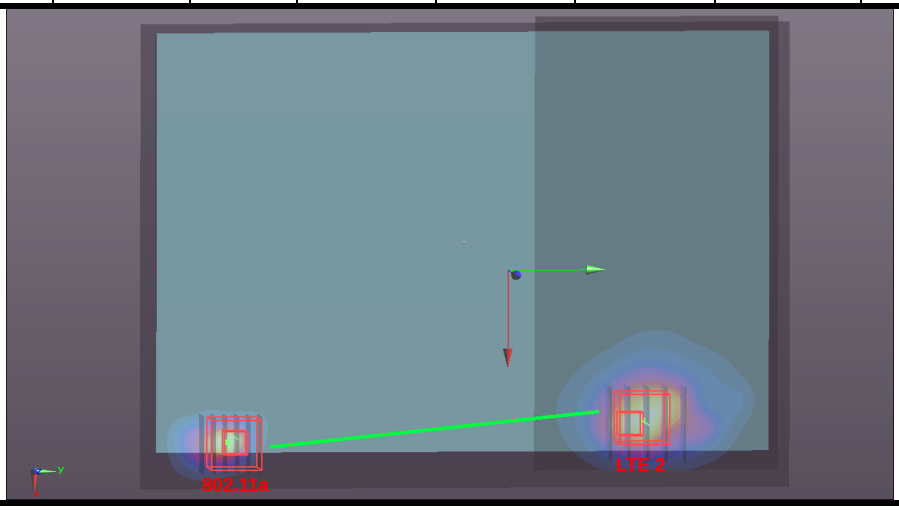
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch19100	Body	Top Side	1.00	-0.5	7.64	-17.99	178	0.018	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



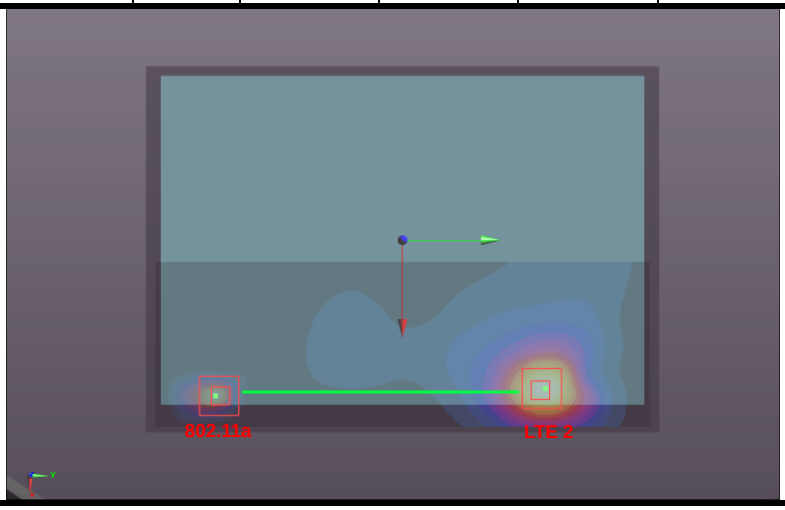
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Top Side	1.36	0.06	7.4	-18.03	175.5	0.023	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



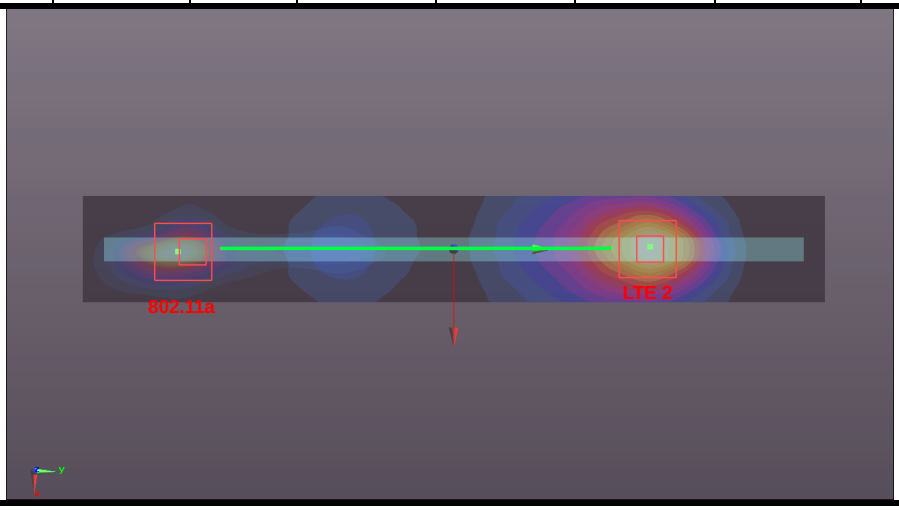
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Rear Face	1.03	7.65	7.33	-17.83	174	0.013	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



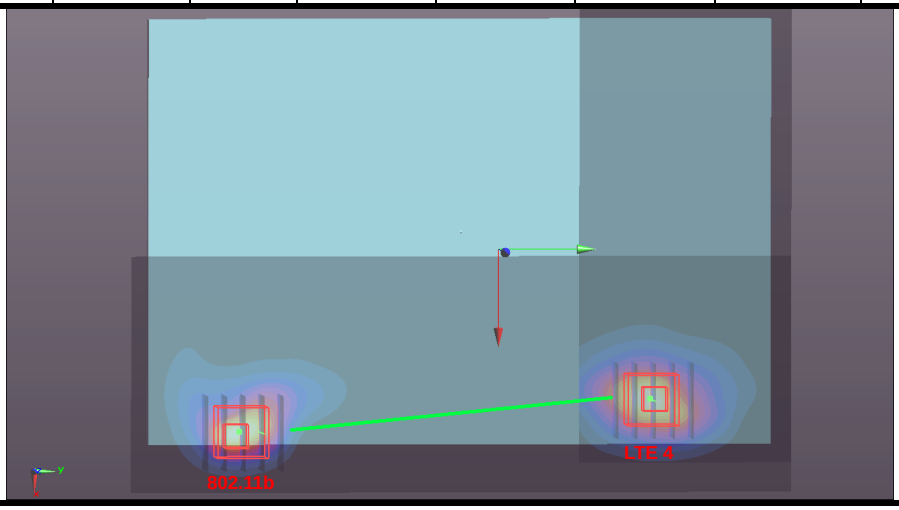
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Rear Face	0.98	8.1	7.32	-17.89	173.8	0.012	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



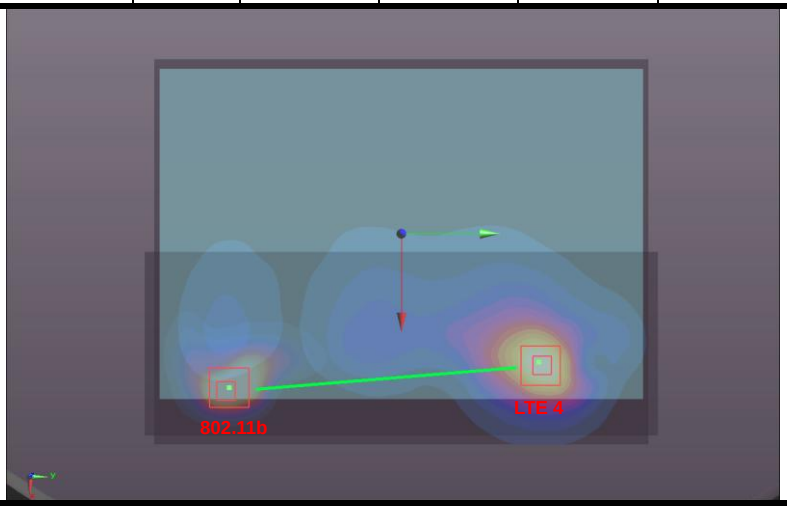
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 2 Ch18900	Body	Top Side	1.36	0.06	7.4	-18.03	173.5	0.014	SPLSR < 0.04, Not required
802.11a Ch48			0.47	0.15	-9.95	-17.85			



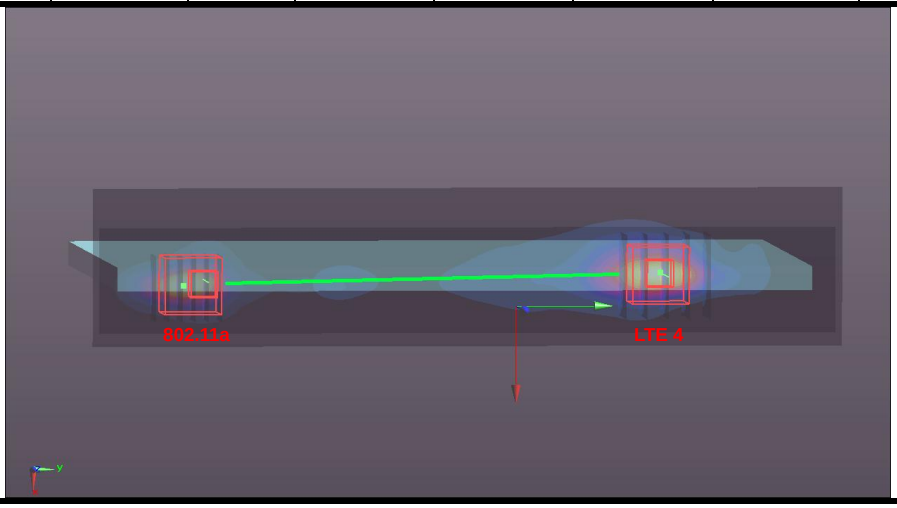
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 4 Ch20050	Body	Rear Face	1.05	7.05	7.83	-17.79	166.5	0.019	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



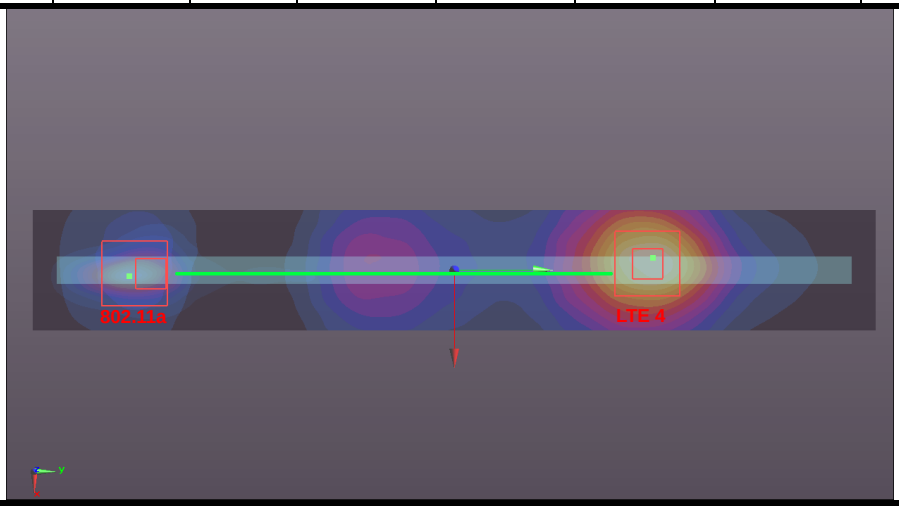
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 4 Ch20300	Body	Rear Face	0.72	7.16	7.82	-17.91	166.3	0.015	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



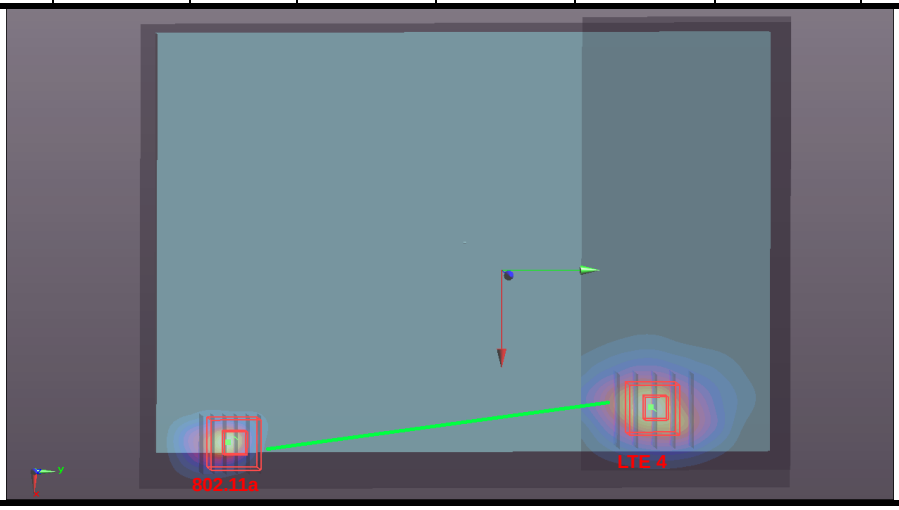
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 4 Ch20300	Body	Top Side	0.65	-0.26	7.35	-17.96	175.1	0.014	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



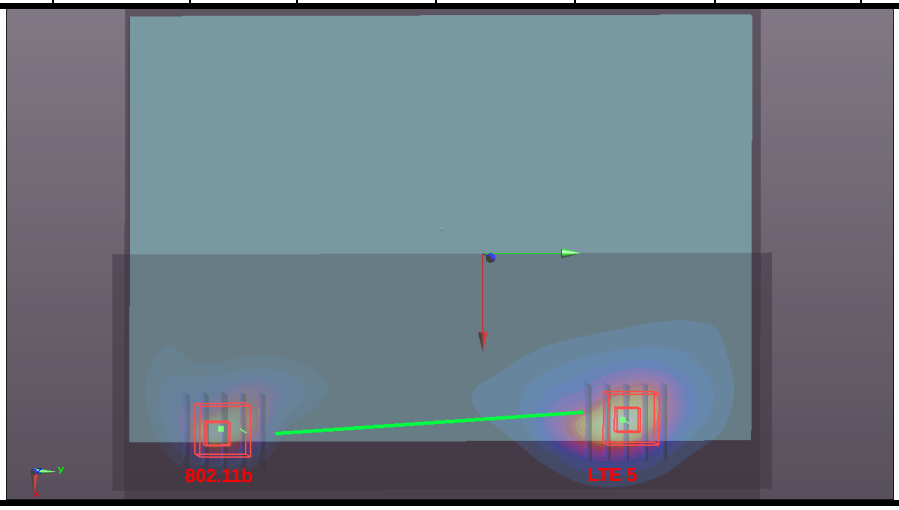
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 4 Ch20300	Body	Top Side	0.56	-0.24	6.28	-18.04	164.4	0.014	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



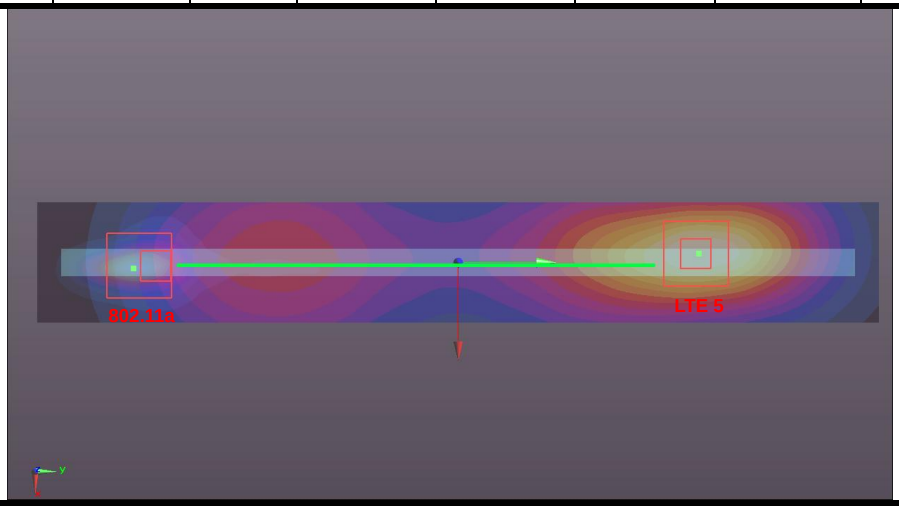
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 4 Ch20050	Body	Rear Face	1.05	7.05	7.83	-17.79	179.4	0.013	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



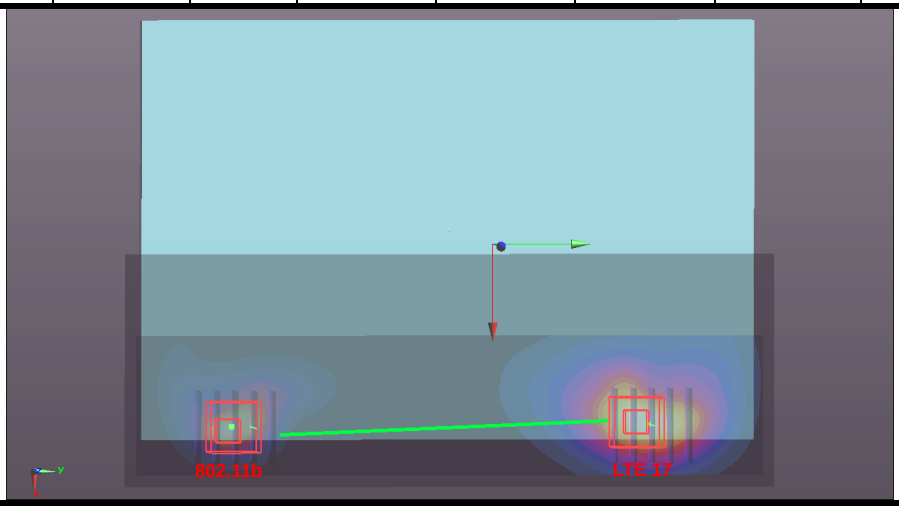
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 5 Ch20525	Body	Rear Face	0.76	8.05	7.81	-17.63	165.7	0.015	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



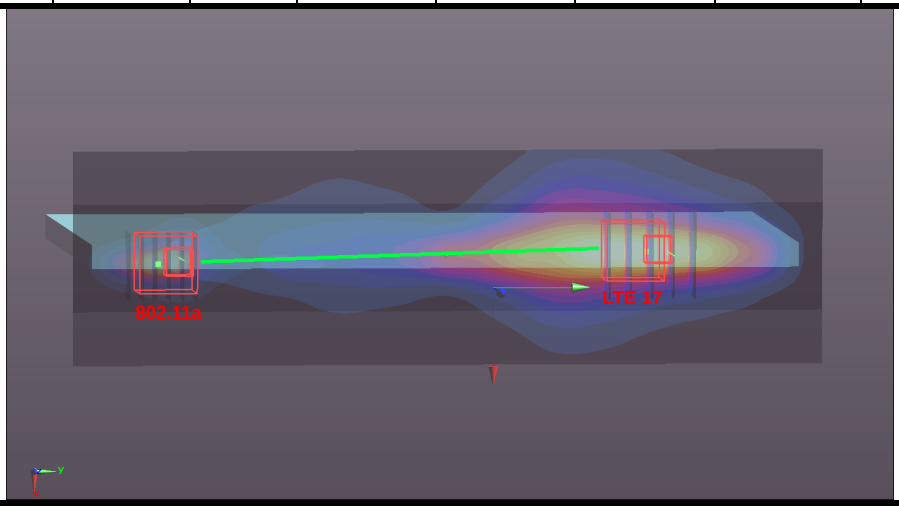
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 5 Ch20525	Body	Top Side	0.43	-0.26	7.84	-17.96	180	0.011	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



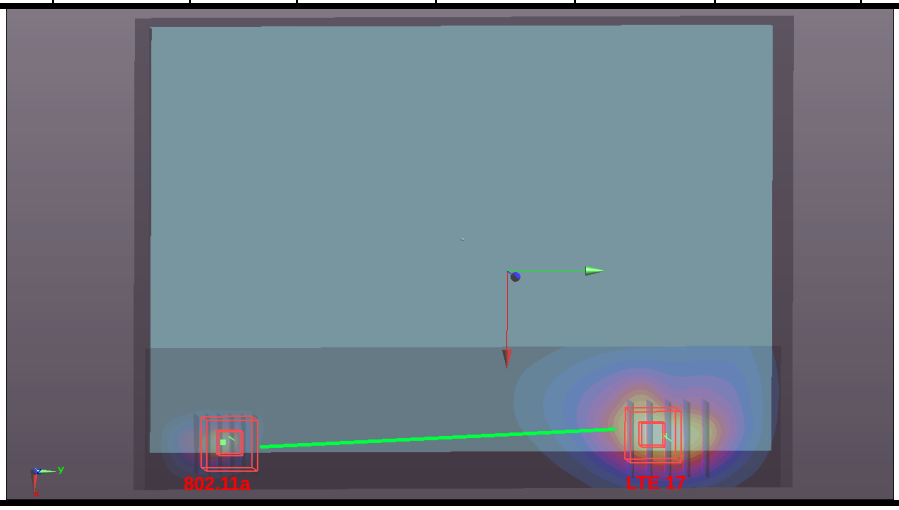
Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 17 Ch23800	Body	Rear Face	1.25	8.3	8.23	-17.72	169.9	0.021	SPLSR < 0.04, Not required
802.11b Ch11			1.11	8.4	-8.76	-17.66			



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 17 Ch23780	Body	Top Side	0.45	-0.2	8.2	-17.96	183.6	0.011	SPLSR < 0.04, Not required
802.11a Ch153			1.19	0.15	-10.15	-17.67			



Conditions	Exposure Condition	Test Position	SAR Value (W/kg)	Coordinates			Peak Location Separation Distance (R_i, mm)	SPLSR	Simultaneous Transmission SAR Test
				x	y	z			
LTE 17 Ch23800	Body	Rear Face	1.25	8.3	8.23	-17.72	182.8	0.015	SPLSR < 0.04, Not required
802.11a Ch48			0.69	8.45	-10.05	-17.65			



Test Engineer：Garen Chou, and Mars Chang

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Kit	SPEAG	D750V3	1013	Apr. 25, 2012	Annual
System Validation Kit	SPEAG	D835V2	4d021	Apr. 20, 2012	Annual
System Validation Kit	SPEAG	D1750V2	1055	Aug. 23, 2012	Annual
System Validation Kit	SPEAG	D1900V2	5d036	Jan. 21, 2013	Annual
System Validation Kit	SPEAG	D2450V2	737	Jan. 21, 2013	Annual
System Validation Kit	SPEAG	D5GHzV2	1019	Nov. 16, 2012	Annual
Dosimetric E-Field Probe	SPEAG	EX3DV4	3590	Feb. 20, 2013	Annual
Dosimetric E-Field Probe	SPEAG	EX3DV4	3661	Jan. 15, 2013	Annual
Dosimetric E-Field Probe	SPEAG	EX3DV4	3864	Jul. 19, 2012	Annual
Data Acquisition Electronics	SPEAG	DAE3	579	Apr. 27, 2012	Annual
Data Acquisition Electronics	SPEAG	DAE4	679	Jan. 16, 2013	Annual
Data Acquisition Electronics	SPEAG	DAE4	861	Mar. 19, 2013	Annual
ELI Phantom	SPEAG	QDOVA001B	TP-1039	N/A	N/A
ELI Phantom	SPEAG	QDOVA001B	TP-1043	N/A	N/A
Radio Communication Tester	Agilent	E5515C	MY50266628	Nov. 22, 2012	Biennial
Radio Communication Analyzer	Anritsu	MT8820C	6201010284	Aug. 18, 2012	Biennial
ENA Series Network Analyzer	Agilent	E5071C	MY46107999	Mar. 25, 2013	Annual
MXG Analog Signal Generator	Agilent	N5181A	MY49060347	Jul. 24, 2012	Annual
Power Meter	Anritsu	ML2495A	1232002	Aug. 10, 2012	Annual
Power Sensor	Anritsu	MA2411B	1207325	Aug. 15, 2012	Annual
EXA Spectrum Analyzer	Agilent	N9010A	MY52220207	Sep. 12, 2012	Annual
Dielectric Probe Kit	Agilent	85070D	E2-020018	May 14, 2012	Annual
Thermometer	YFE	YF-160A	110600361	Feb. 20, 2013	Annual
Directional Coupler	Woken	0110A05602O-10	11122702	Apr. 18, 2013	Annual
Power Amplifier	AR	5S1G4	0339656	Apr. 18, 2013	Annual
Power Amplifier	Mini-Circuit	ZVE-8G	001000422	Apr. 18, 2013	Annual
Attenuator	Woken	00800A1G01L-03	N/A	Apr. 18, 2013	Annual

6. Measurement Uncertainty

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)	Vi
Measurement System						
Probe Calibration	6.0	Normal	1	1	± 6.0 %	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %	∞
Boundary Effects	1.0	Rectangular	√3	1	± 0.6 %	∞
Linearity	4.7	Rectangular	√3	1	± 2.7 %	∞
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %	∞
Readout Electronics	0.6	Normal	1	1	± 0.6 %	∞
Response Time	0.0	Rectangular	√3	1	± 0.0 %	∞
Integration Time	1.7	Rectangular	√3	1	± 1.0 %	∞
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %	∞
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %	∞
Probe Positioner	0.5	Rectangular	√3	1	± 0.3 %	∞
Probe Positioning	2.9	Rectangular	√3	1	± 1.7 %	∞
Max. SAR Eval.	2.3	Rectangular	√3	1	± 1.3 %	∞
Test Sample Related						
Device Positioning	3.9	Normal	1	1	± 3.9 %	31
Device Holder	2.7	Normal	1	1	± 2.7 %	19
Power Drift	5.0	Rectangular	√3	1	± 2.9 %	∞
Phantom and Setup						
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %	∞
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %	∞
Liquid Conductivity (Meas.)	5.0	Normal	1	0.64	± 3.2 %	29
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %	∞
Liquid Permittivity (Meas.)	5.0	Normal	1	0.6	± 3.0 %	29
Combined Standard Uncertainty					± 11.7 %	
Expanded Uncertainty (K=2)					**± 23.4 %**	

Uncertainty budget for frequency range 300 MHz to 3 GHz

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Standard Uncertainty (1g)	Vi
Measurement System						
Probe Calibration	6.55	Normal	1	1	± 6.55 %	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	± 1.9 %	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	± 3.9 %	∞
Boundary Effects	2.0	Rectangular	√3	1	± 1.2 %	∞
Linearity	4.7	Rectangular	√3	1	± 2.7 %	∞
System Detection Limits	1.0	Rectangular	√3	1	± 0.6 %	∞
Readout Electronics	0.3	Normal	1	1	± 0.3 %	∞
Response Time	0.8	Rectangular	√3	1	± 0.5 %	∞
Integration Time	2.6	Rectangular	√3	1	± 1.5 %	∞
RF Ambient Noise	3.0	Rectangular	√3	1	± 1.7 %	∞
RF Ambient Reflections	3.0	Rectangular	√3	1	± 1.7 %	∞
Probe Positioner	0.8	Rectangular	√3	1	± 0.5 %	∞
Probe Positioning	9.9	Rectangular	√3	1	± 5.7 %	∞
Max. SAR Eval.	4.0	Rectangular	√3	1	± 2.3 %	∞
Test Sample Related						
Device Positioning	3.9	Normal	1	1	± 3.9 %	31
Device Holder	2.7	Normal	1	1	± 2.7 %	19
Power Drift	5.0	Rectangular	√3	1	± 2.9 %	∞
Phantom and Setup						
Phantom Uncertainty	4.0	Rectangular	√3	1	± 2.3 %	∞
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	± 1.8 %	∞
Liquid Conductivity (Meas.)	5.0	Normal	1	0.64	± 3.2 %	30
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	± 1.7 %	∞
Liquid Permittivity (Meas.)	5.0	Normal	1	0.6	± 3.0 %	30
Combined Standard Uncertainty					± 13.4 %	
Expanded Uncertainty (K=2)					**± 26.8 %**	

Uncertainty budget for frequency range 3 GHz to 6 GHz

7. Information on 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.
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Web Site: www.adt.com.tw

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

---END---

Appendix A. SAR Plots of System Verification

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

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/13

System Check_B750_130413

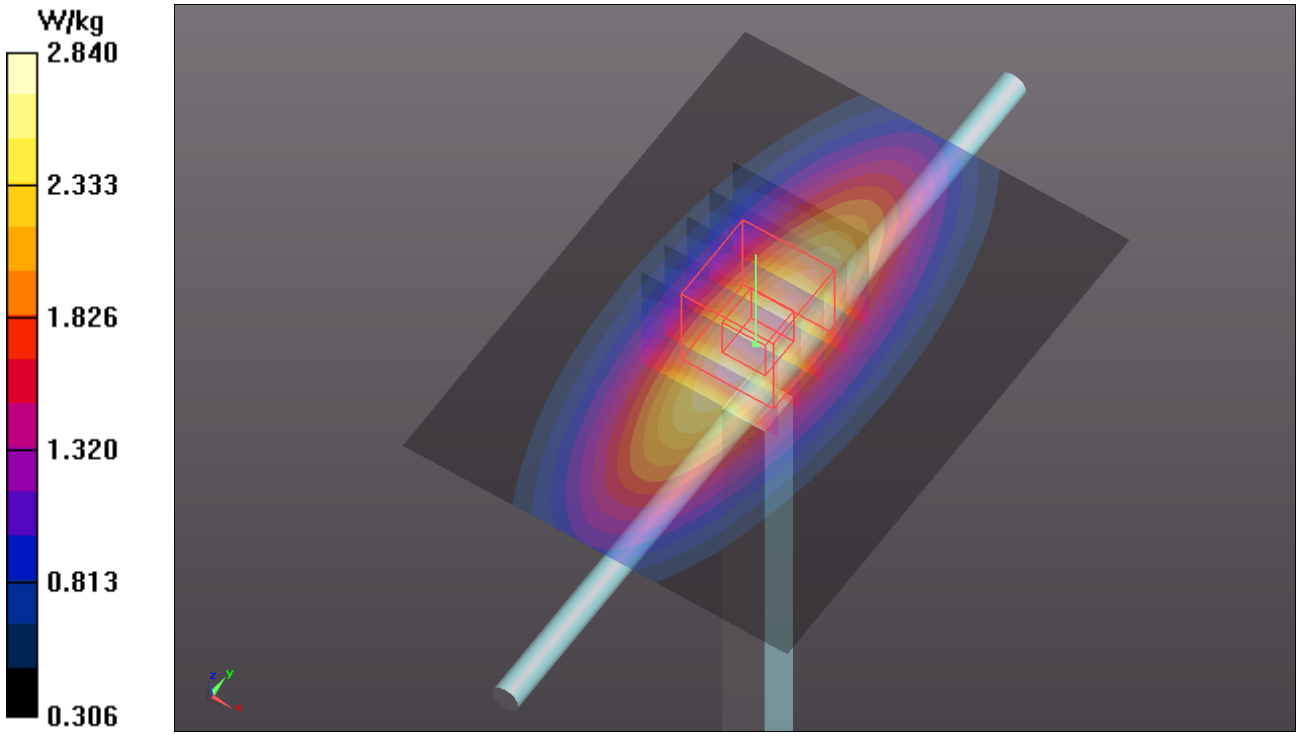
DUT: Dipole 750 MHz; Type: D750V3; SN: 1013

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: B750_0413 Medium parameters used: f = 750 MHz; σ = 0.971 S/m; ε_r = 55.6; ρ = 1000 kg/m^3
Ambient Temperature：21.7 ℃; Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.6, 10.6, 10.6); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.80 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.353 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 3.32 W/kg
SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.53 W/kg
Maximum value of SAR (measured) = 2.84 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/04

System Check_B835_130404

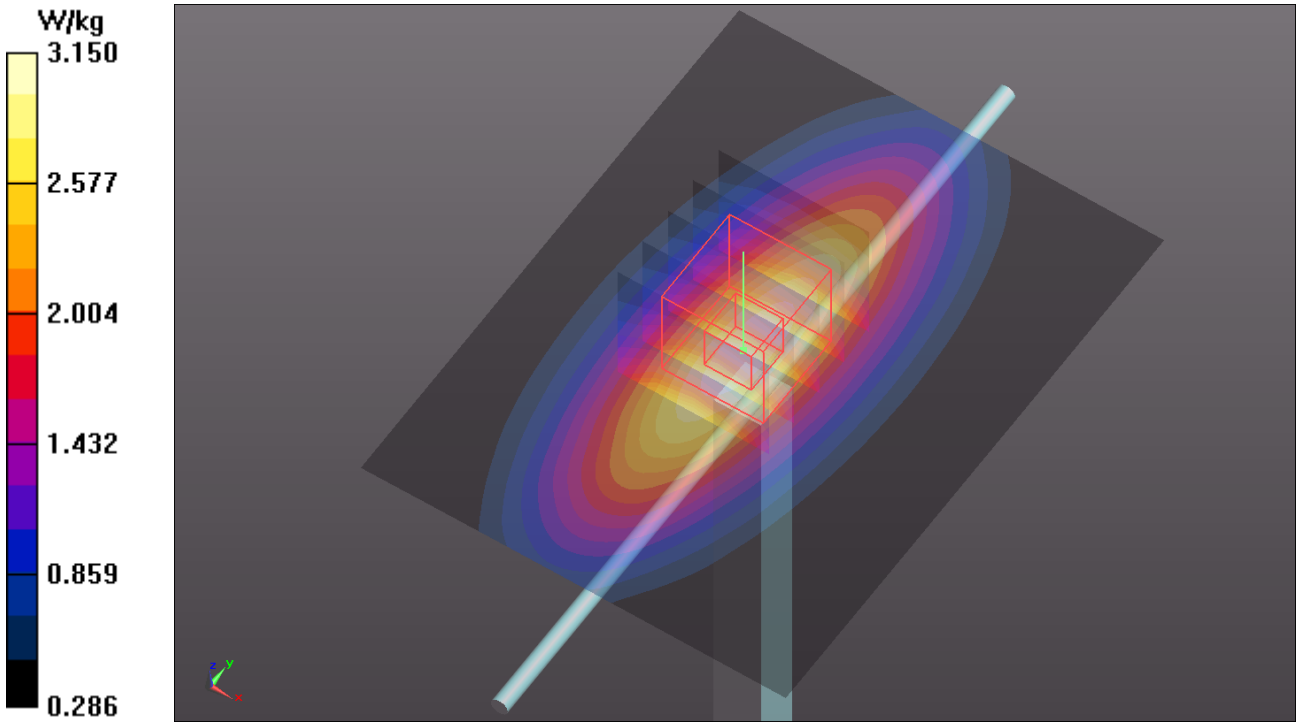
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d021

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: B835_0404 Medium parameters used: f = 835 MHz; σ = 0.979 S/m; ε_r = 55.854; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃； Liquid Temperature：20.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3864; ConvF(9.94, 9.94, 9.94); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2013/01/16
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.12 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.844 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 3.68 W/kg
SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.64 W/kg
Maximum value of SAR (measured) = 3.15 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/12

System Check_B835_130412

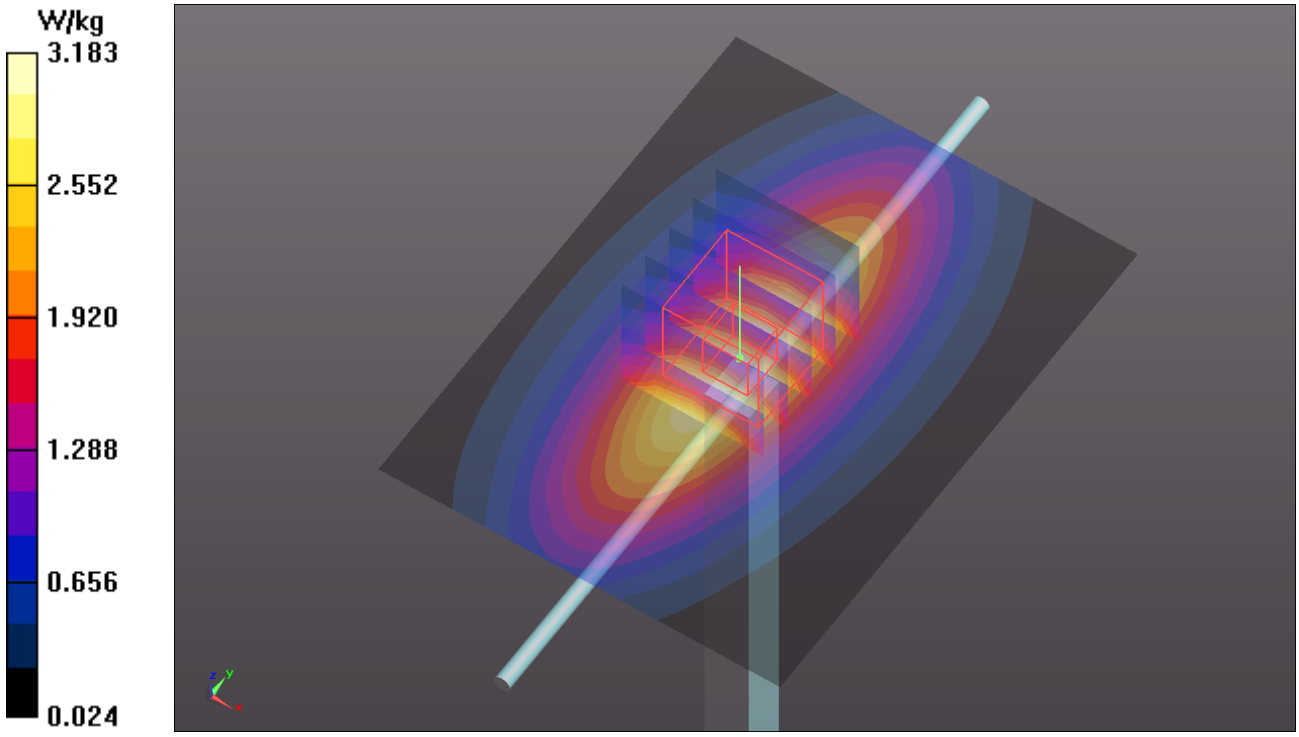
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d021

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: B835_0411 Medium parameters used: f = 835 MHz; σ = 0.973 S/m; ε_r = 55.201; ρ = 1000 kg/m^3
Ambient Temperature：21.3 ℃; Liquid Temperature：20.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(9.64, 9.64, 9.64); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.18 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.856 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 3.73 W/kg
SAR(1 g) = 2.55 W/kg; SAR(10 g) = 1.69 W/kg
Maximum value of SAR (measured) = 3.21 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/16

System Check_B1750_130416

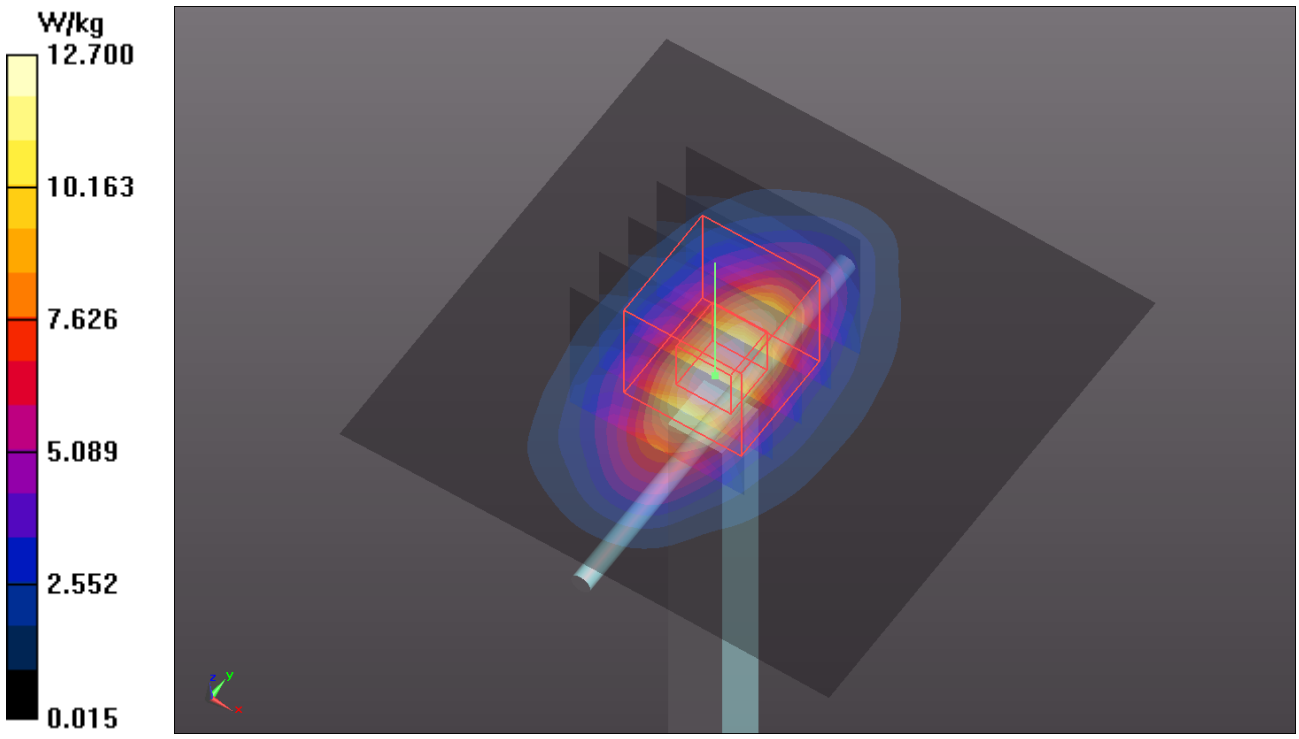
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: B1750_0416 Medium parameters used: f = 1750 MHz; σ = 1.468 S/m; ε_r = 53.825; ρ = 1000 kg/m^3
Ambient Temperature：21.8 ℃; Liquid Temperature：20.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.63, 8.63, 8.63); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 12.7 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 90.229 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 15.7 W/kg
SAR(1 g) = 9 W/kg; SAR(10 g) = 4.82 W/kg
Maximum value of SAR (measured) = 12.6 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/02

System Check_B1900_130402

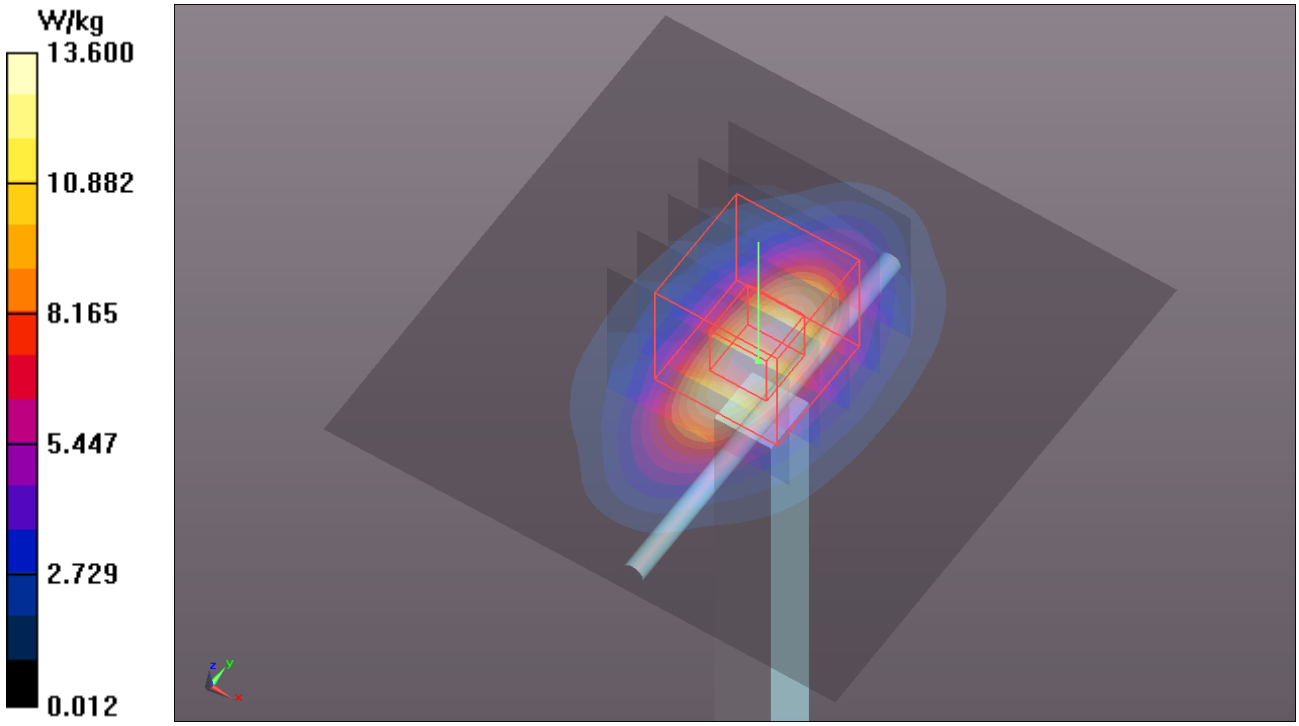
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: B1900_0402 Medium parameters used: f = 1900 MHz; σ = 1.551 S/m; ε_r = 52.998; ρ = 1000 kg/m^3
Ambient Temperature：21.1 ℃; Liquid Temperature：20.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3864; ConvF(7.88, 7.88, 7.88); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2013/01/16
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.6 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 95.472 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 17.1 W/kg
SAR(1 g) = 9.53 W/kg; SAR(10 g) = 4.93 W/kg
Maximum value of SAR (measured) = 13.6 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/07

System Check_B1900_130407

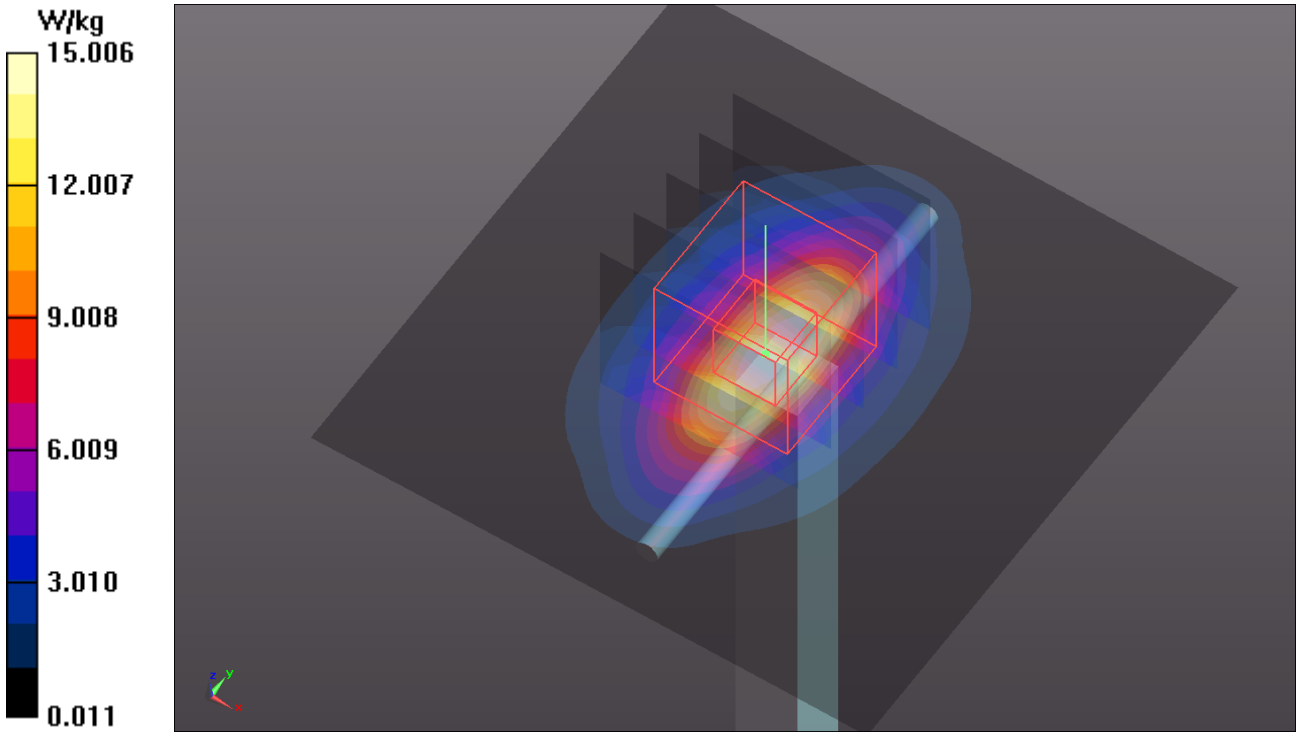
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: B1900_0407 Medium parameters used: f = 1900 MHz; σ = 1.551 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Ambient Temperature：21.7 ℃; Liquid Temperature：20.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(7.72, 7.72, 7.72); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 15.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 99.784 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.41 W/kg
Maximum value of SAR (measured) = 15.0 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2013/04/14

System Check_B1900_130414

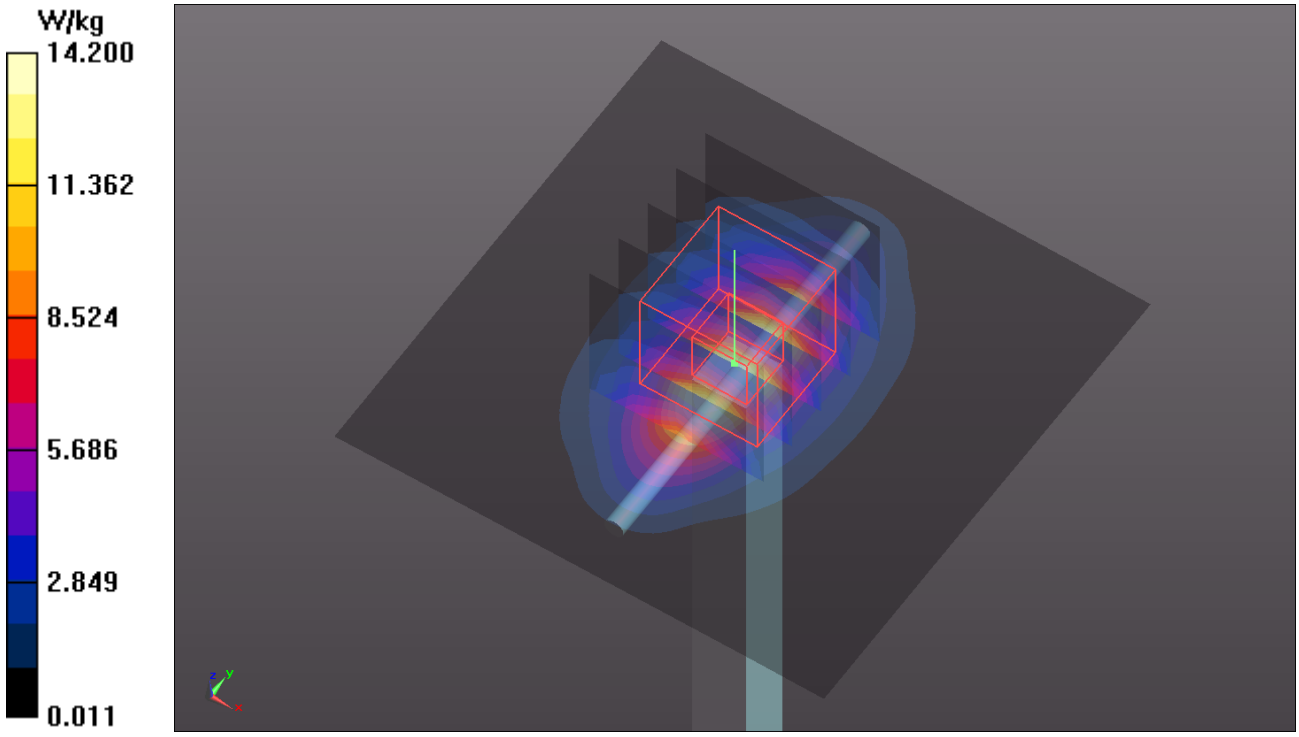
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: B1900_0414 Medium parameters used: f = 1900 MHz; σ = 1.55 S/m; ε_r = 52.906; ρ = 1000 kg/m^3
Ambient Temperature：21.3 ℃; Liquid Temperature：20.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.39, 8.39, 8.39); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.2 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 97.015 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 18.0 W/kg
SAR(1 g) = 9.91 W/kg; SAR(10 g) = 5.11 W/kg
Maximum value of SAR (measured) = 14.3 W/kg



System Check_B2450_130418

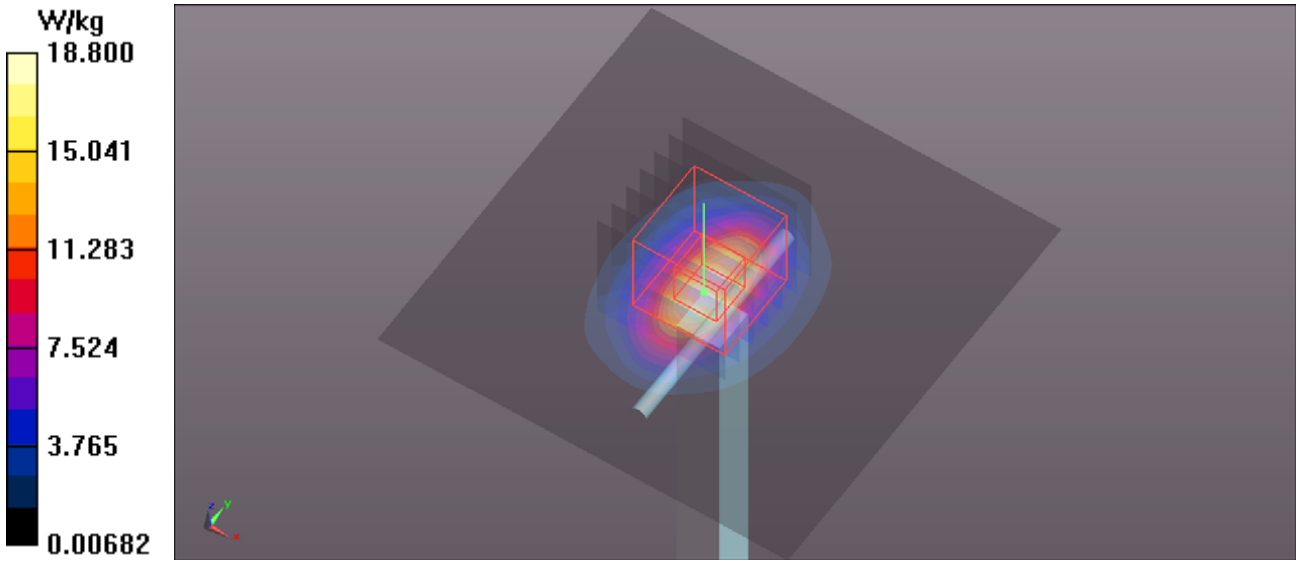
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: B2450_0418 Medium parameters used: f = 2450 MHz; σ = 1.966 S/m; ε_r = 54.662; ρ = 1000 kg/m^3
Ambient Temperature：21.9 ℃； Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(7.35, 7.35, 7.35); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 18.8 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 97.258 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 25.6 W/kg
SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.53 W/kg
Maximum value of SAR (measured) = 18.7 W/kg



System Check_B5200_130413

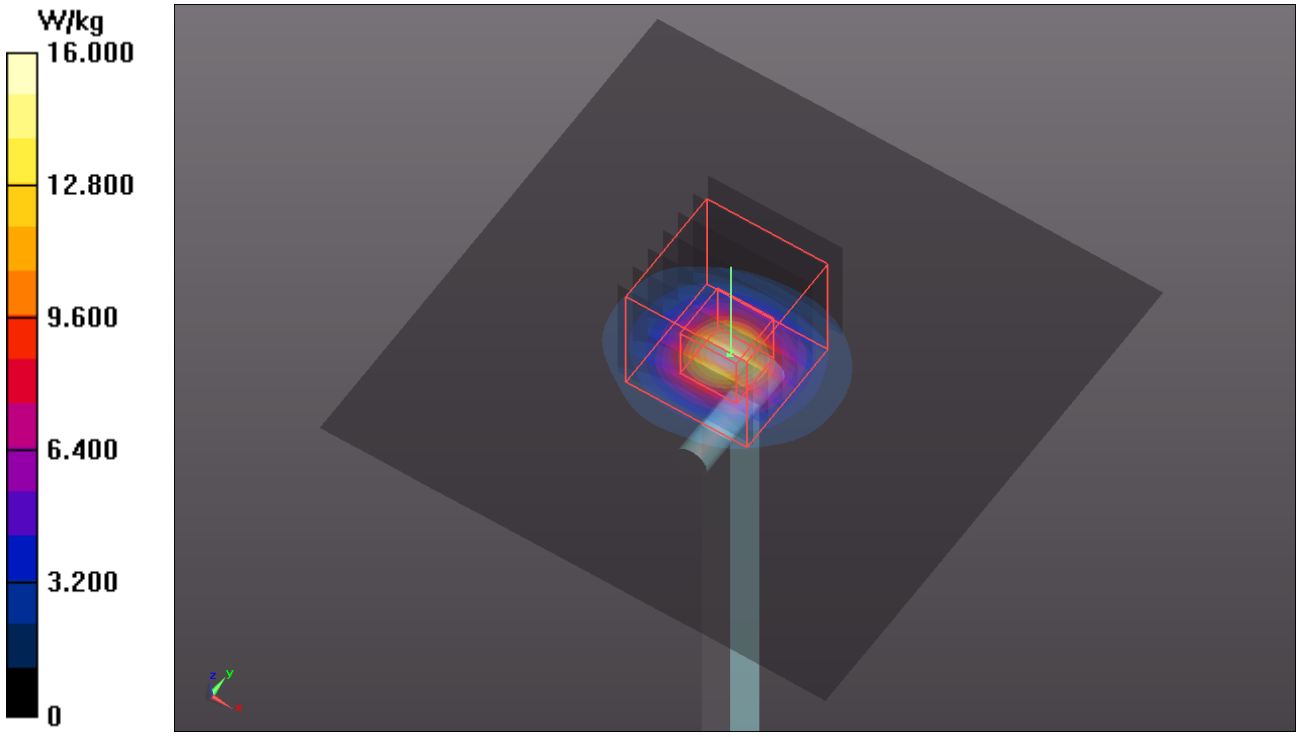
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium: B5G_0413 Medium parameters used: f = 5200 MHz; σ = 5.363 S/m; ε_r = 47.683; ρ = 1000 kg/m^3
Ambient Temperature：21.8 ℃; Liquid Temperature：20.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(4.46, 4.46, 4.46); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.0 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 57.994 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 30.0 W/kg
SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.2 W/kg
Maximum value of SAR (measured) = 16.2 W/kg



System Check_B5800_130413

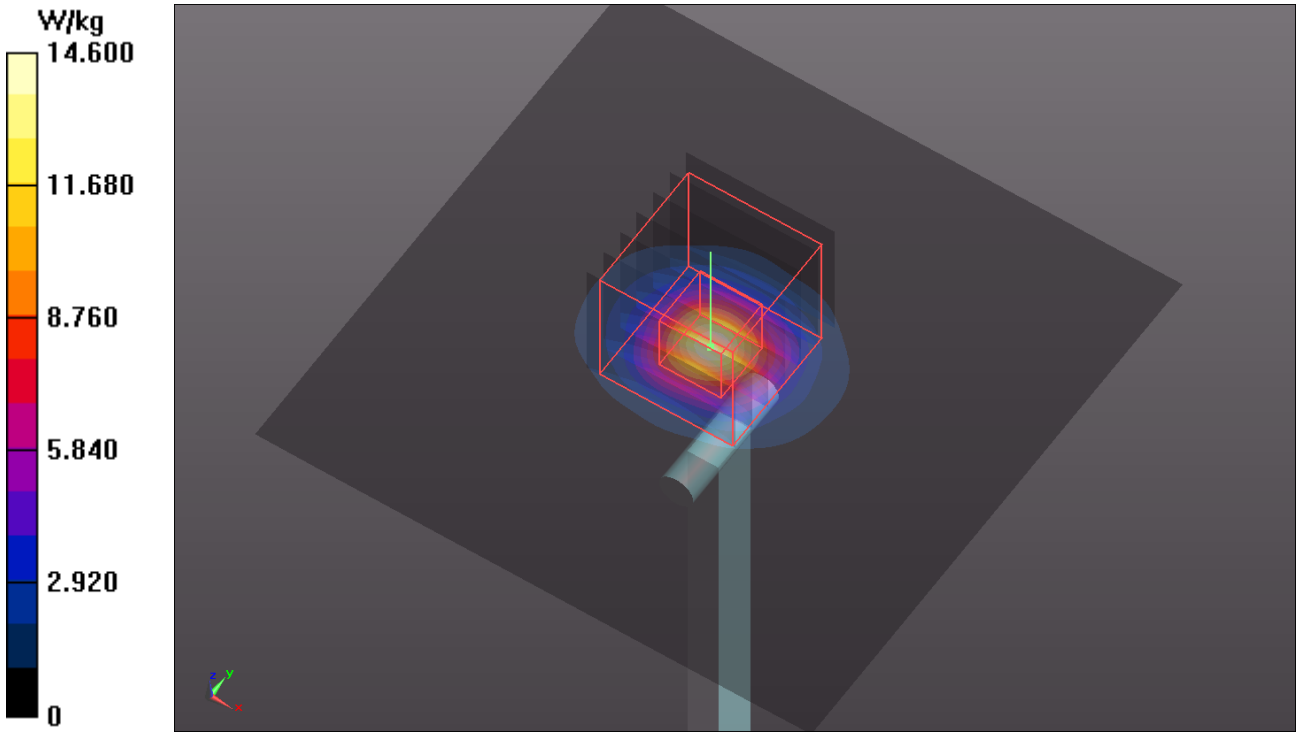
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium: B5G_0413 Medium parameters used: f = 5800 MHz; σ = 6.181 S/m; ε_r = 46.386; ρ = 1000 kg/m^3
Ambient Temperature：22.0 ℃; Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(4.72, 4.72, 4.72); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 13.8 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 51.576 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 6.8 W/kg; SAR(10 g) = 1.91 W/kg
Maximum value of SAR (measured) = 14.6 W/kg



Appendix B. SAR Plots of SAR Measurement

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

P01 GSM850_GPRS10_Rear Face_0cm_Ch128_w/ Power Reduction

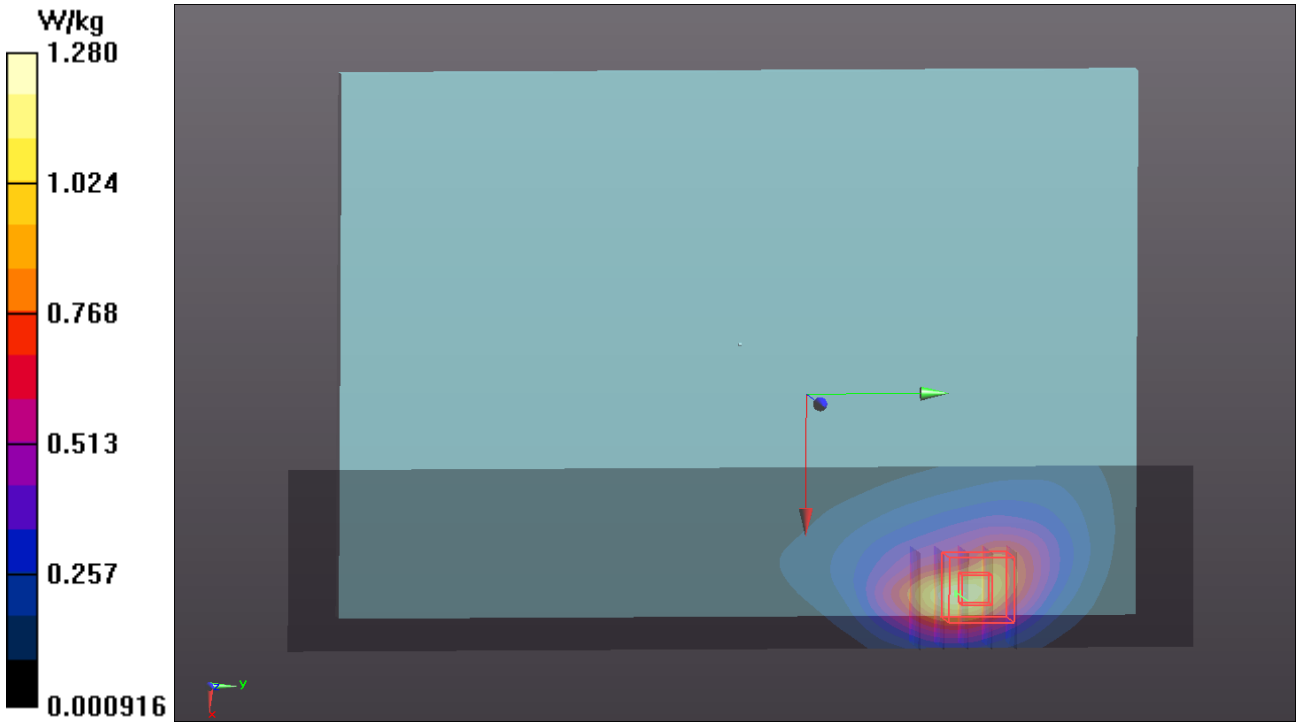
DUT: 130326C14

Communication System: GPRS10; Frequency: 824.2 MHz;Duty Cycle: 1:4
Medium: B835_0404 Medium parameters used: f = 824.2 MHz; σ = 0.969 S/m; ε_r = 55.956; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃； Liquid Temperature：20.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3864; ConvF(9.94, 9.94, 9.94); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2013/01/16
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch128/Area Scan (41x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.006 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.928 W/kg; SAR(10 g) = 0.524 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



P02 GSM1900_GPRS10_Top Side_0cm_Ch512_w/ Power Reduction

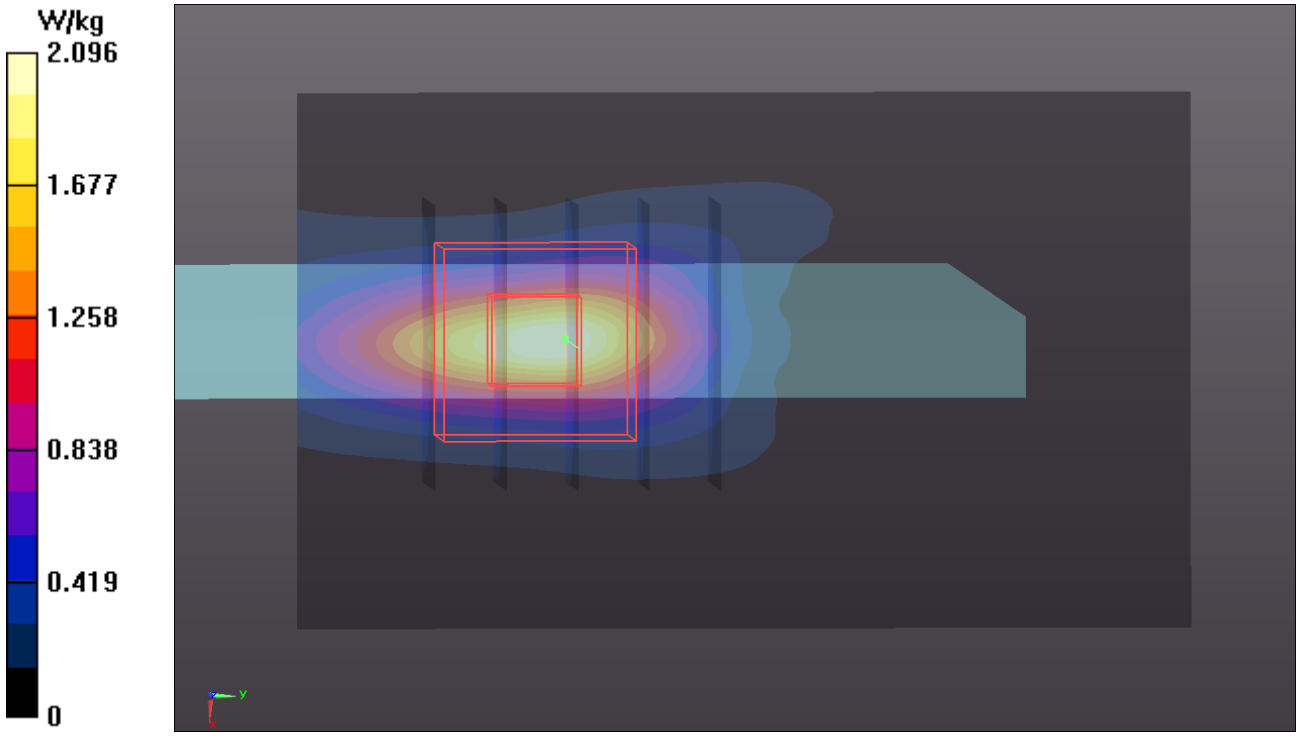
DUT: 130326C14

Communication System: GPRS10; Frequency: 1850.2 MHz;Duty Cycle: 1:4
Medium: B1900_0407 Medium parameters used: f = 1850.2 MHz; σ = 1.486 S/m; ε_r = 53.194; ρ = 1000 kg/m^3
Ambient Temperature：21.7 ℃; Liquid Temperature：20.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(7.72, 7.72, 7.72); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch512/Area Scan (151x71x1): Interpolated grid: dx=0.4000 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.10 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.378 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.69 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.544 W/kg
Maximum value of SAR (measured) = 1.95 W/kg



P03 WCDMA II_RMC12.2K_Rear Face_0cm_Ch9400_w/ Power Reduction

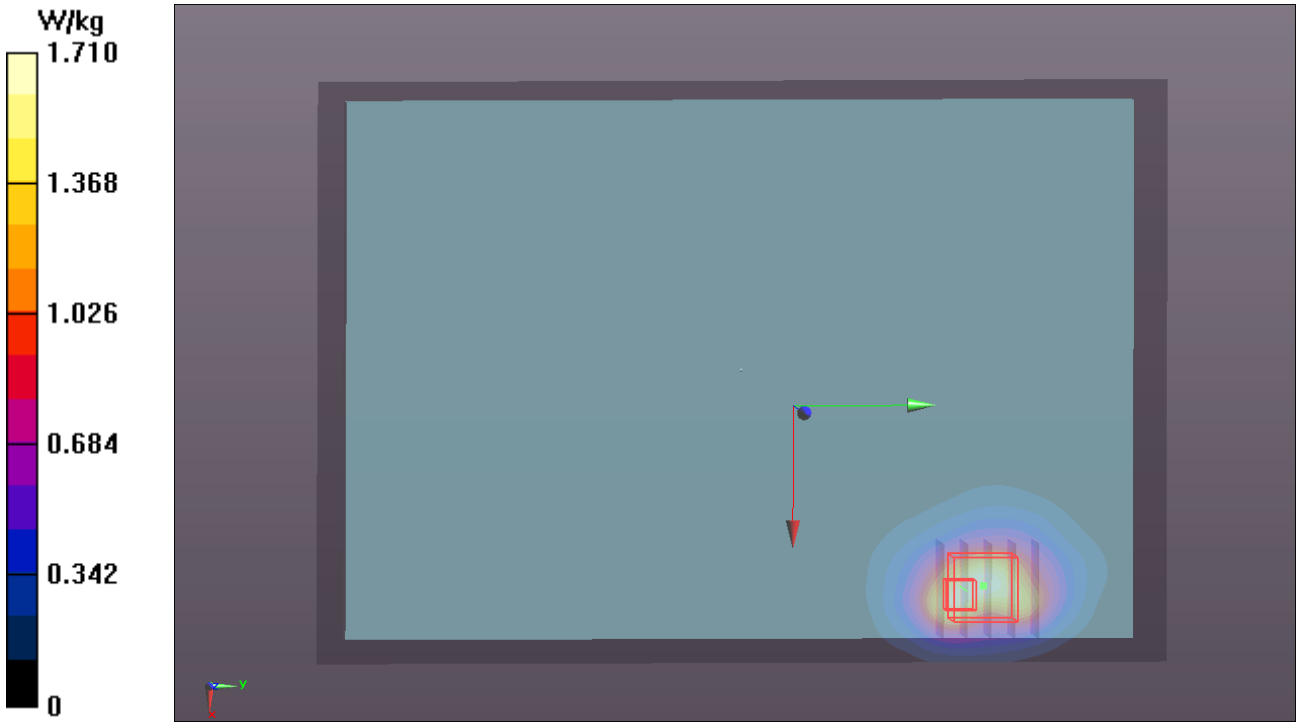
DUT: 130326C14

Communication System: WCDMA; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: B1900_0402 Medium parameters used: f = 1880 MHz; σ = 1.525 S/m; ε_r = 53.06; ρ = 1000 kg/m^3
Ambient Temperature：21.1 ℃; Liquid Temperature：20.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3864; ConvF(7.88, 7.88, 7.88); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2013/01/16
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch9400/Area Scan (131x191x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.71 W/kg

Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.324 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 2.36 W/kg
SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.651 W/kg
Maximum value of SAR (measured) = 1.71 W/kg



P04 WCDMA V_RMC12.2K_Rear Face_0cm_Ch4182_w/ Power Reduction

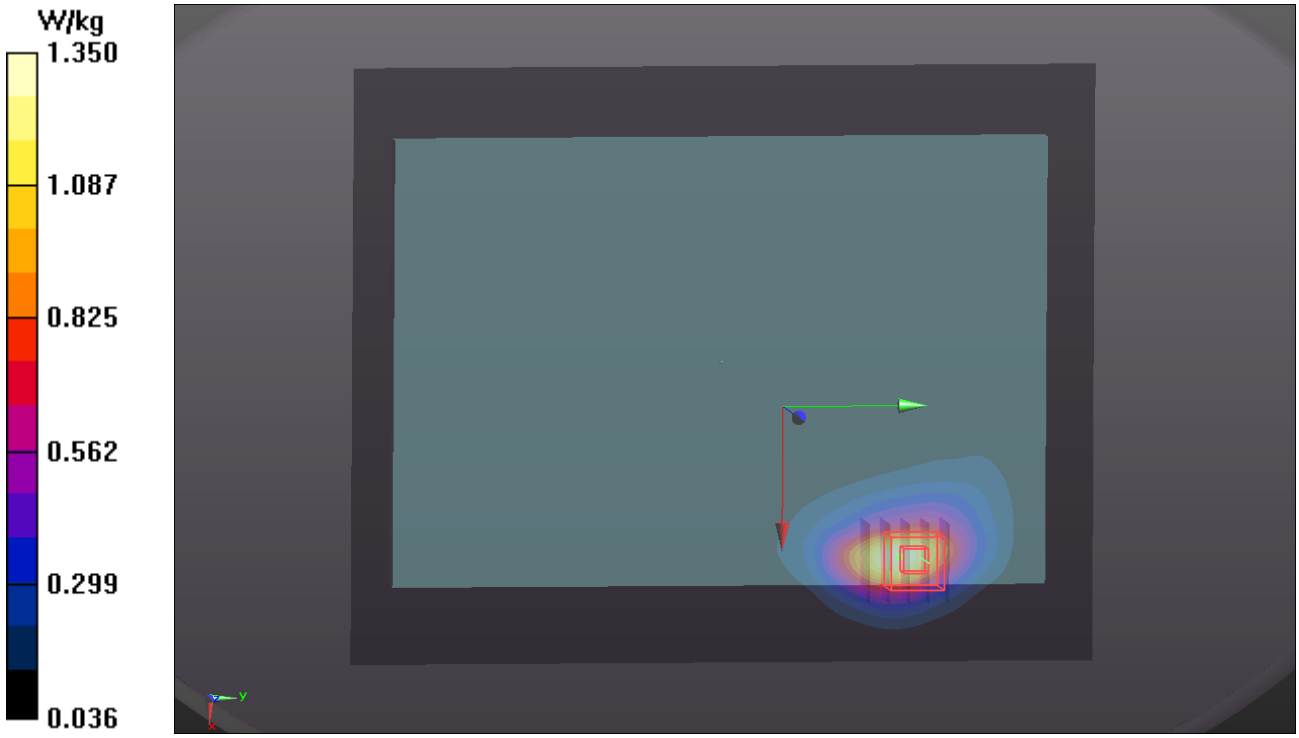
DUT: 130326C14

Communication System: WCDMA; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: B835_0404 Medium parameters used: f = 836.4 MHz; σ = 0.981 S/m; ε_r = 55.84; ρ = 1000 kg/m^3
Ambient Temperature：22.1 ℃; Liquid Temperature：20.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3864; ConvF(9.94, 9.94, 9.94); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2013/01/16
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch4182/Area Scan (161x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.34 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.315 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 0.971 W/kg; SAR(10 g) = 0.539 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



P05 LTE 2_QPSK_20M_Top Side_17mm_Ch18900_1RB_OS99_w/o Power Reduction

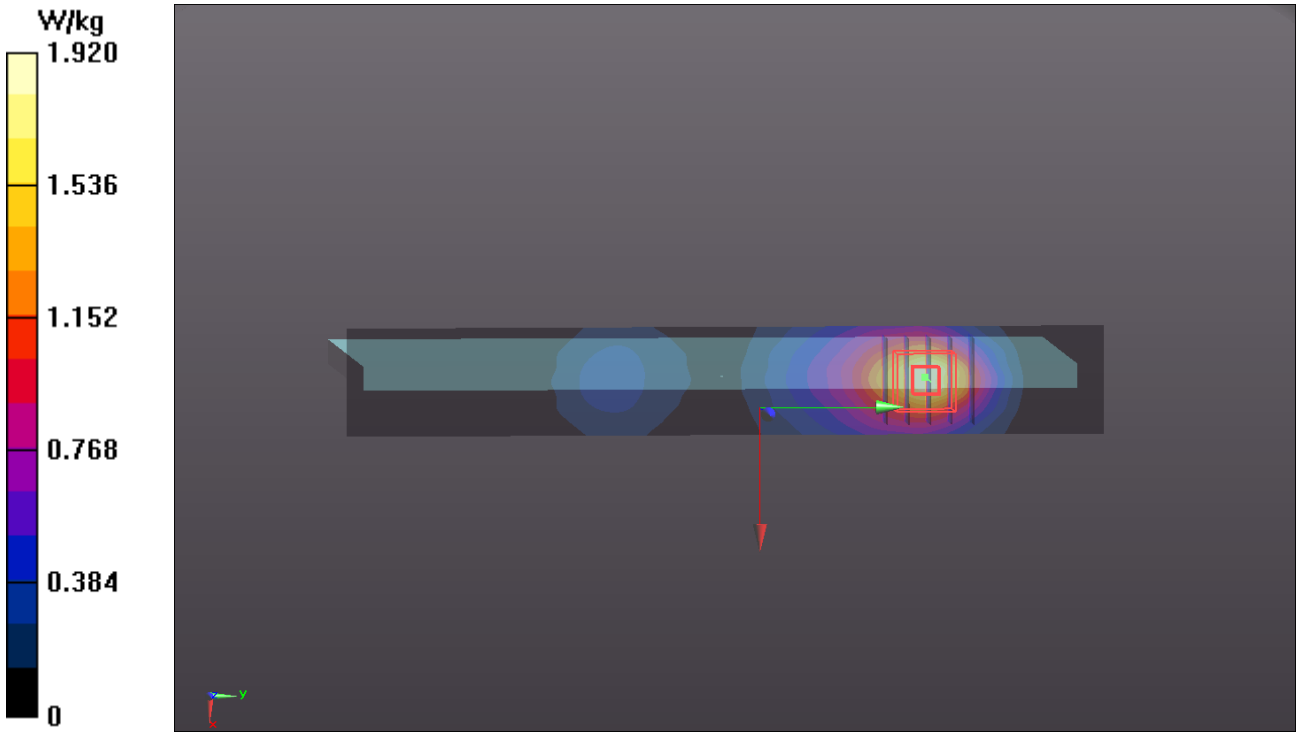
DUT: 130326C14

Communication System: LTE; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: B1900_0414 Medium parameters used: f = 1880 MHz; σ = 1.525 S/m; ε_r = 52.973; ρ = 1000 kg/m^3
Ambient Temperature：21.3 ℃; Liquid Temperature：20.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.39, 8.39, 8.39); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch18900/Area Scan (41x141x1): Interpolated grid: dx=1.000 mm, dy=2.000 mm
Maximum value of SAR (interpolated) = 1.92 W/kg

Ch18900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.627 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 2.16 W/kg
SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.782 W/kg
Maximum value of SAR (measured) = 1.78 W/kg



P06 LTE 4_QPSK_20M_Rear Face_0cm_Ch20050_1RB_OS50_w/ Power Reduction

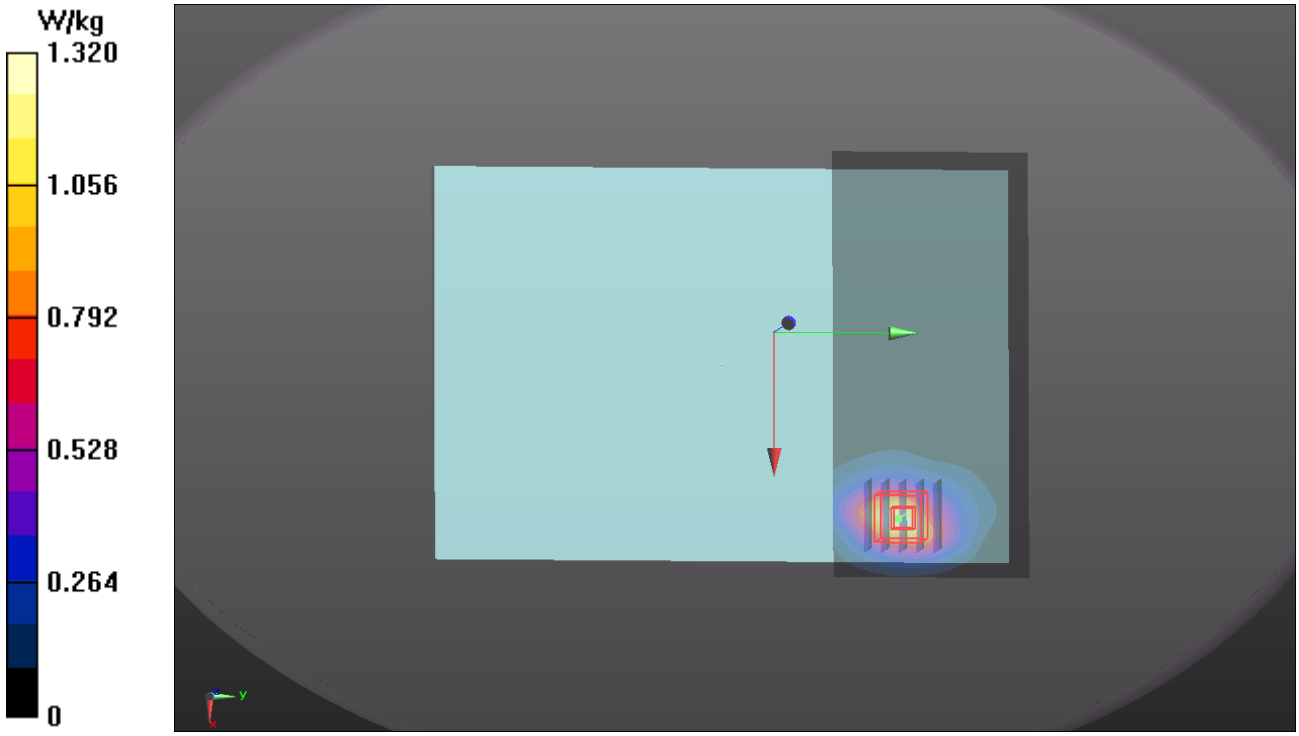
DUT: 130326C14

Communication System: LTE; Frequency: 1720 MHz;Duty Cycle: 1:1
Medium: B1750_0416 Medium parameters used: f = 1720 MHz; σ = 1.437 S/m; ε_r = 53.897; ρ = 1000 kg/m^3
Ambient Temperature：21.8 ℃； Liquid Temperature：20.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(8.63, 8.63, 8.63); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch20050/Area Scan (131x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.32 W/kg

Ch20050/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.269 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.74 W/kg
SAR(1 g) = 0.955 W/kg; SAR(10 g) = 0.539 W/kg
Maximum value of SAR (measured) = 1.34 W/kg



P07 LTE 5_QPSK_10M_Rear Face_0cm_Ch20525_1RB_OS24_w/ Power Reduction

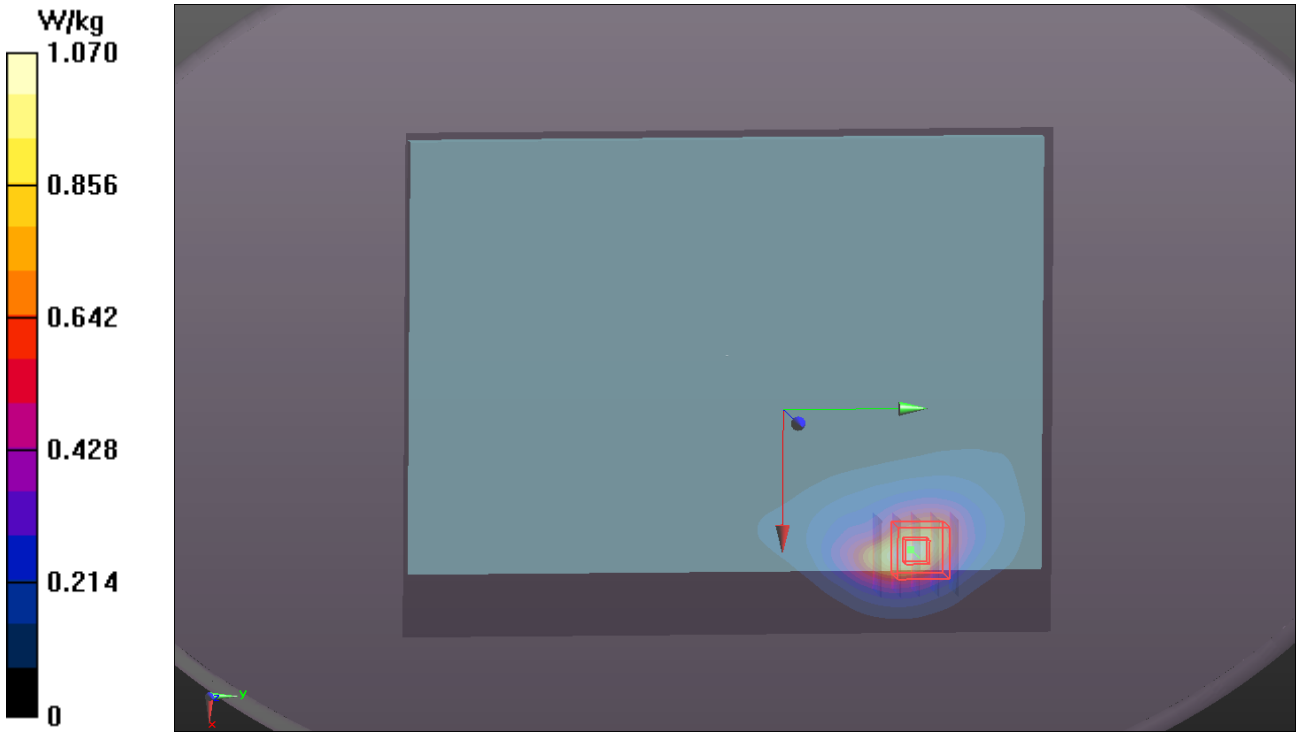
DUT: 130326C14

Communication System: LTE; Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: B835_0412 Medium parameters used: f = 836.5 MHz; σ = 0.982 S/m; ε_r = 55.817; ρ = 1000 kg/m^3
Ambient Temperature：21.3 ℃； Liquid Temperature：20.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(9.64, 9.64, 9.64); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch20525/Area Scan (141x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.07 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.755 W/kg; SAR(10 g) = 0.418 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



P08 LTE 17_QPSK_10M_Rear Face_0cm_Ch23800_1RB_OS24_w/ Power Reduction

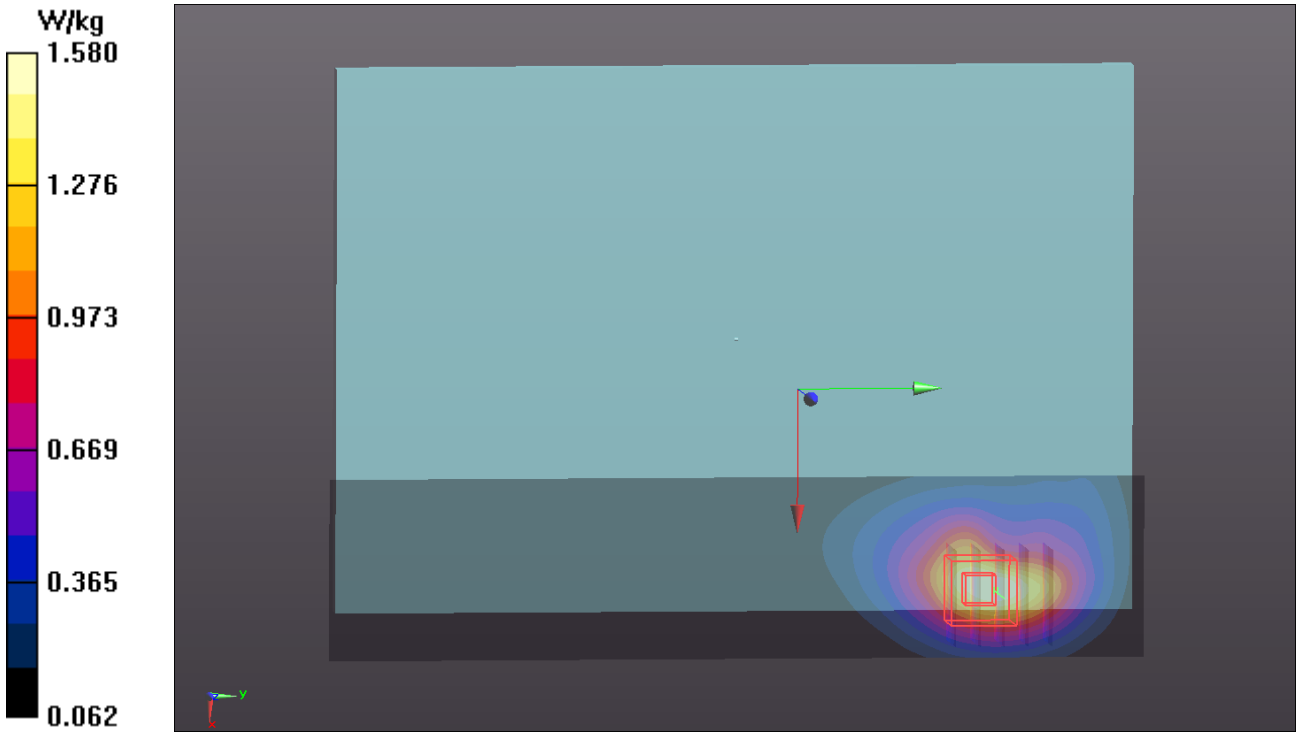
DUT: 130326C14

Communication System: LTE; Frequency: 711 MHz;Duty Cycle: 1:1
Medium: B750_0413 Medium parameters used: f = 711 MHz; σ = 0.937 S/m; ε_r = 55.913; ρ = 1000 kg/m^3
Ambient Temperature：21.7 ℃; Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(10.6, 10.6, 10.6); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch23800/Area Scan (41x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.60 W/kg

Ch23800/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.736 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 2.02 W/kg
SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.669 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



P09 802.11b_Rear Face_0cm_Ch11

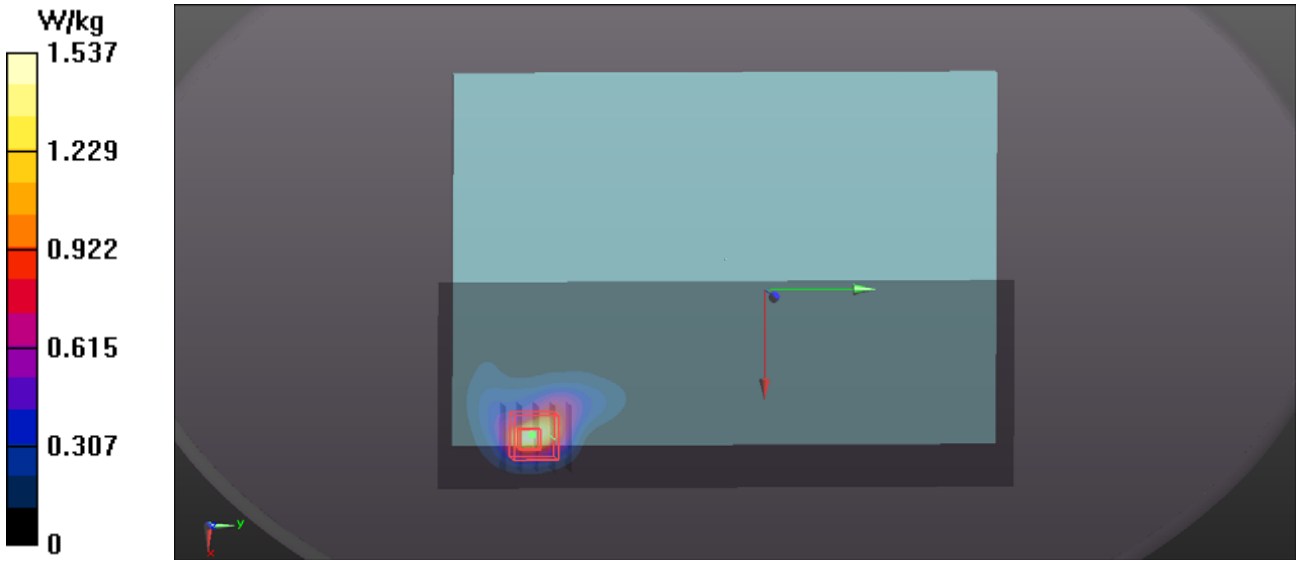
DUT: 130326C14

Communication System: WLAN_2.4G; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: B2450_0418 Medium parameters used: f = 2462 MHz; σ = 1.982 S/m; ε_r = 54.625; ρ = 1000 kg/m^3
Ambient Temperature：21.9 ℃; Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(7.35, 7.35, 7.35); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch11/Area Scan (81x231x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.54 W/kg

Ch11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 2.77 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.428 W/kg
Maximum value of SAR (measured) = 1.79 W/kg



P10 802.11a_Rear Face_0cm_Ch48

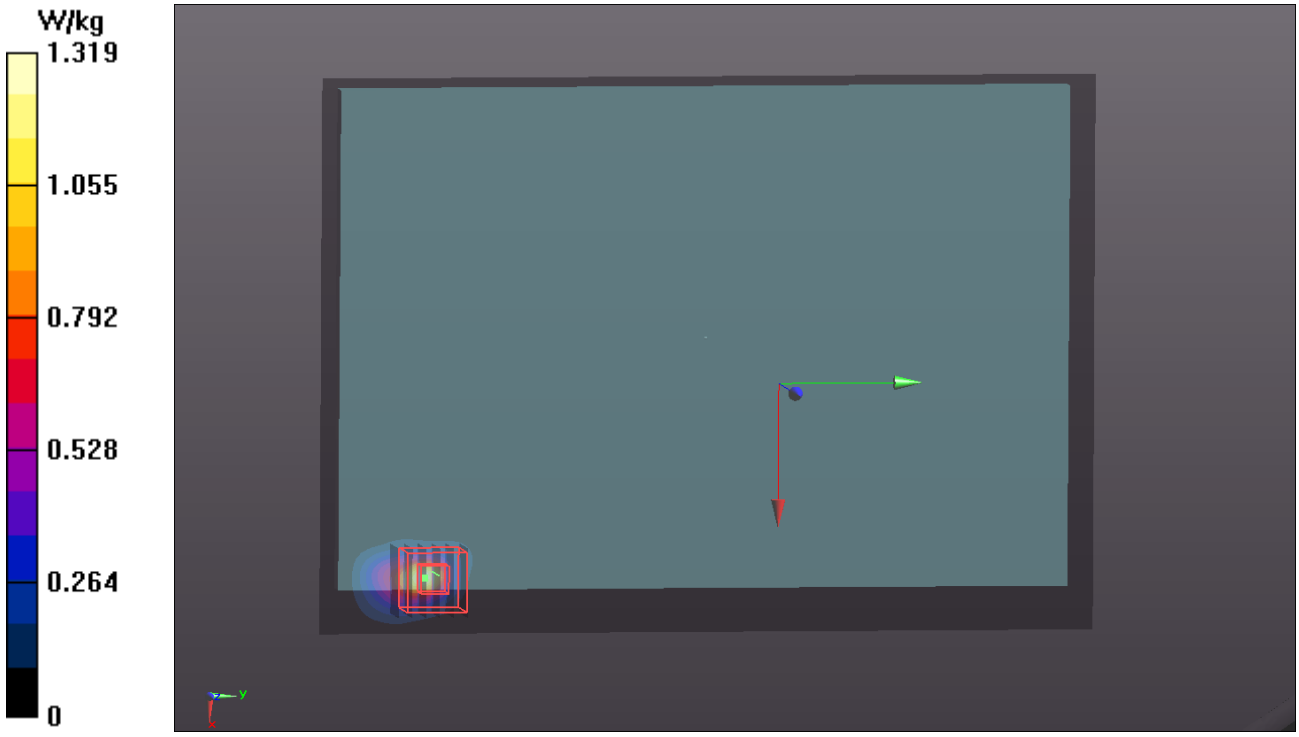
DUT: 130326C14

Communication System: WLAN_5G; Frequency: 5240 MHz;Duty Cycle: 1:1
Medium: B5G_0413 Medium parameters used: f = 5240 MHz; σ = 5.437 S/m; ε_r = 47.64; ρ = 1000 kg/m^3
Ambient Temperature：21.8 ℃； Liquid Temperature：20.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3661; ConvF(4.46, 4.46, 4.46); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch48/Area Scan (201x281x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.32 W/kg

Ch48/Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm
Reference Value = 0 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 2.61 W/kg
SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.128 W/kg
Maximum value of SAR (measured) = 1.13 W/kg



P11 802.11a_Top Side_0cm_Ch153

DUT: 130326C14

Communication System: WLAN_5G; Frequency: 5765 MHz;Duty Cycle: 1:1
Medium: B5G_0413 Medium parameters used: f = 5765 MHz; σ = 6.125 S/m; ε_r = 46.407; ρ = 1000 kg/m^3
Ambient Temperature：22.0 ℃; Liquid Temperature：20.9 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3590; ConvF(4.72, 4.72, 4.72); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Ch153/Area Scan (161x281x1): Interpolated grid: dx=0.250 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.23 W/kg

Ch153/Zoom Scan (6x6x12)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2mm
Reference Value = 3.305 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 5.02 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 1.94 W/kg