SAR Test Report

Report No.	:	**SF200605C24**
Applicant	:	**Kyocera Corporation ℅ Kyocera International, Inc.**
Address	:	**8611 Balboa Avenue, San Diego, CA 92123**
Product	:	**Smart Phone**
FCC ID	:	**V65E7110**
Brand	:	**Kyocera**
Model No.	:	**E7110**
Standards	:	**FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013 KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 248227 D01 v02r02 KDB 447498 D01 v06, KDB 648474 D04 v01r03, KDB 941225 D01 v03r01 KDB 941225 D05 v02r05, KDB 941225 D05A v01r02, KDB 941225 D06 v02r01**
Sample Received Date	:	**Jun. 29, 2020**
Date of Testing	:	**Jul. 29, 2020 ~ Oct. 12, 2020**
Lab Address	:	**No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan**
Test Location	:	**No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City, Taiwan**

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

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FCC Accredited No.: TW0003

Table of Contents

Release Control Record **3**
1. Summary of Maximum SAR Value **4**
2. Description of Equipment Under Test **5**
3. SAR Measurement System **6**
3.1 Definition of Specific Absorption Rate (SAR) 6
3.2 SPEAG DASY6 System 6
3.2.1 Robot 7
3.2.2 Probes 8
3.2.3 Data Acquisition Electronics (DAE) 8
3.2.4 Phantoms 8
3.2.5 Device Holder 9
3.2.6 System Validation Dipoles 10
3.2.7 Power Source 10
3.2.8 Tissue Simulating Liquids 11
3.3 SAR System Verification 13
3.4 SAR Measurement Procedure 14
3.4.1 Area Scan and Zoom Scan Procedure 14
3.4.2 Volume Scan Procedure 15
3.4.3 Power Drift Monitoring 16
3.4.4 Spatial Peak SAR Evaluation 16
3.4.5 SAR Averaged Methods 16
4. SAR Measurement Evaluation **17**
4.1 EUT Configuration and Setting 17
4.2 EUT Testing Position 27
4.2.1 Head Exposure Conditions 27
4.2.2 Body-worn Accessory Exposure Conditions 29
4.2.3 Hotspot Mode Exposure Conditions 30
4.2.4 Product Specific (Phablet) Exposure Conditions 31
4.3 Tissue Verification 32
4.4 System Validation 33
4.5 System Verification 35
4.6 Maximum Output Power 37
4.6.1 Maximum Target Conducted Power 37
4.6.2 Measured Conducted Power Result 37
4.7 SAR Testing Results 38
4.7.1 SAR Test Reduction Considerations 38
4.7.2 SAR Results for Head Exposure Condition 41
4.7.3 SAR Results for Body Exposure Condition (Test Separation Distance is 15 mm) 47
4.7.4 SAR Results for Hotspot Exposure Condition (Test Separation Distance is 10 mm) 52
4.7.5 SAR Results for Product Specific Exposure Condition (Test Separation Distance is 0 mm) 61
4.7.6 SAR Measurement Variability 62
4.7.7 Simultaneous Multi-band Transmission Evaluation 63
5. Calibration of Test Equipment **64**
6. Measurement Uncertainty **65**
7. Information of the Testing Laboratories **66**

Appendix A. SAR Plots of System Verification
Appendix B. SAR Plots of SAR Measurement
Appendix C. Calibration Certificate for Probe and Dipole
Appendix D. Photographs of EUT and Setup
Appendix E. Maximum Target Conducted Power
Appendix F. Measured Conducted Power Result
Appendix G. Analysis of Simultaneous Transmission SAR

Release Control Record

Report No.	Reason for Change	Date Issued
SF200605C24	Initial release	Nov. 20, 2020

1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body Tested at 15 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
PCE	GSM850	0.629	0.478	0.694	N/A
	GSM1900	0.239	0.155	0.298	N/A
	WCDMA II	0.641	0.326	0.588	N/A
	WCDMA V	0.486	0.377	0.626	N/A
	LTE 2	0.547	0.435	0.639	N/A
	LTE 4	0.769	0.567	0.761	N/A
	LTE 5	0.464	0.404	0.560	N/A
	LTE 7	0.608	0.445	0.764	N/A
	LTE 12	0.272	0.287	0.306	N/A
	LTE 13	0.292	0.292	0.324	N/A
	LTE 48	0.084	0.800	0.972	N/A
	LTE 66	0.779	0.537	0.783	N/A
	5G NR n2	0.507	0.509	0.795	N/A
	5G NR n5	0.383	0.275	0.380	N/A
	5G NR n66	0.647	0.587	0.795	N/A
DTS	2.4G WLAN	0.310	0.144	0.291	N/A
NII	5.2G WLAN	N/A	N/A	0.345	N/A
	5.3G WLAN	0.487	0.086	N/A	0.368
	5.6G WLAN	0.276	0.143	N/A	0.435
	5.8G WLAN	0.379	0.233	0.441	N/A
DSS	Bluetooth	0.141	0.013	0.037	0.435
DXX	NFC	N/A	N/A	N/A	N/A

Highest Simultaneous Transmission SAR	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body Tested at 15 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
	1.450	1.046	1.35	N/A

Note:

1. The SAR criteria **(Head & Body: SAR-1g1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg)**for general population/uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

2. Description of Equipment Under Test

EUT Type	Smart Phone
FCC ID	V65E7110
Brand Name	Kyocera
Model Name	E7110
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 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 12 : 699.7 ~ 715.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 13 : 779.5 ~ 784.5 (BW: 5M, 10M) LTE Band 48 : 3550 ~ 3700 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) NR Band 2 : 1850.7 ~ 1909.3 (BW: 5M, 10M, 15M, 20M) NR Band 5 : 824.7 ~ 848.3 (BW: 5M, 10M, 15M, 20M) NR Band 66 : 1710.7 ~ 1779.3 (BW: 5M, 10M, 15M, 20M, 40M) WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720,5745 ~ 5825 Bluetooth : 2402 ~ 2480 NFC : 13.56
Uplink Modulations	GSM & GPRS : GMSK EDGE : 8PSK WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 5G NR : BPSK, DFT-s-/ CP OFDMA, QPSK, 16QAM, 64QAM, 256QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM Bluetooth : GFSK, π/4-DQPSK, 8-DPSK NFC : ASK
EN-DC Combination	LTE2 + n5, LTE5 + n2, LTE5 + n66, LTE 13 + n2, LTE13 + n66, LTE66 + n5
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
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 Accessory:

USB Cable	**Brand Name**	Kyocera
	Model Name	SCP-27SDC

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 DASY6 System

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

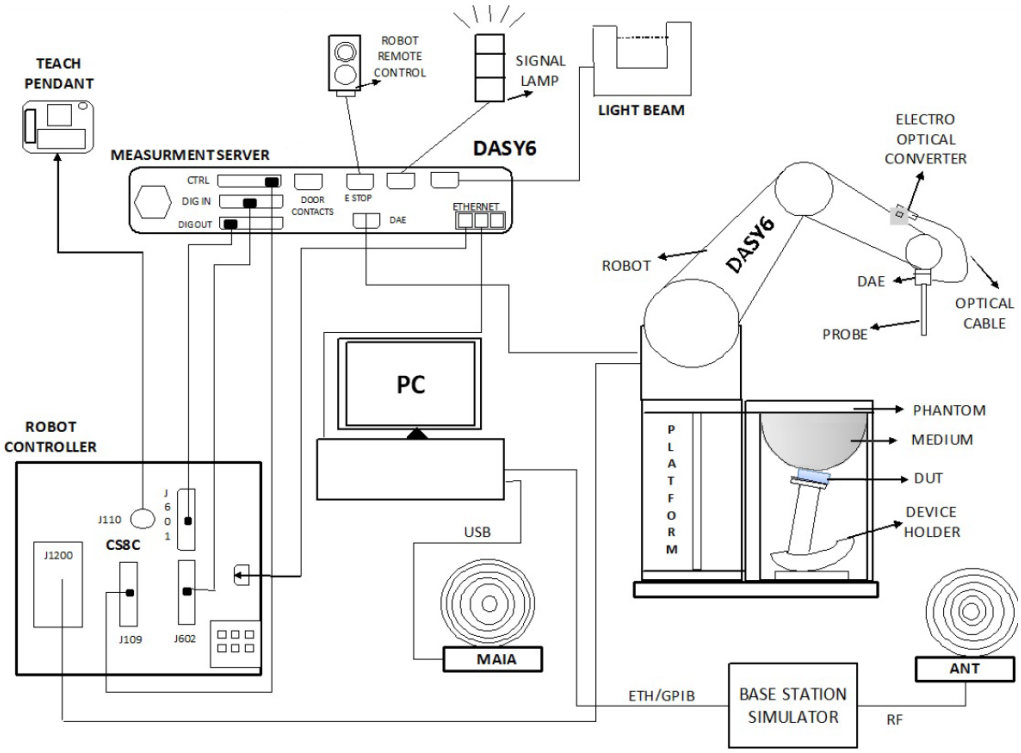


Fig-3.1 SPEAG DASY6 System Setup

3.2.1 Robot

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

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

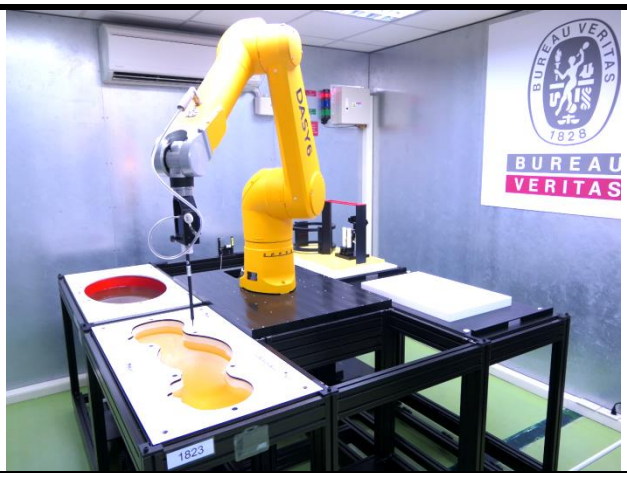


Fig-3.2 SPEAG DASY6 System

3.2.2 Probes

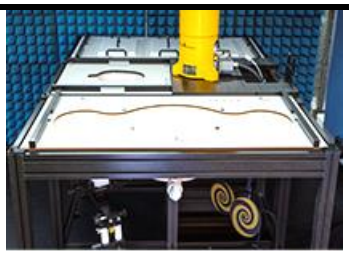
The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

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	4 MHz to 10 GHz Linearity: ± 0.2 dB	
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (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	

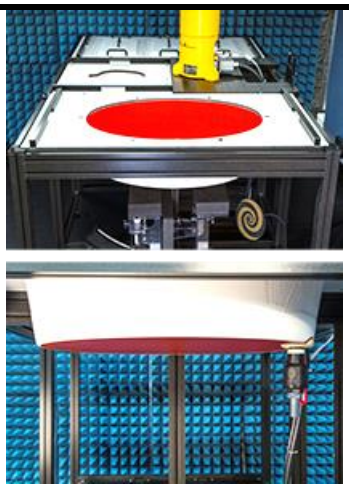
3.2.3 Data Acquisition Electronics (DAE)

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

3.2.4 Phantoms

Model	SAM-Twin Phantom	 
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE Std 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, fiberglass 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	The ELI phantom is used for compliance testing of handheld and body-mounted wireless devices. 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, fiberglass 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	MD4HHTV5 - Mounting Device for Hand-Held Transmitters
Construction	In combination with the Twin SAM or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).
Material	Polyoxymethylene (POM)

Model	MDA4WTV5 - Mounting Device Adaptor for Ultra Wide Transmitters
Construction	An upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.
Material	Polyoxymethylene (POM)

Model	MDA4SPV6 - Mounting Device Adaptor for Smart Phones
Construction	The solid low-density MDA4SPV6 adaptor assuring no impact on the DUT radiation performance and is conform with any DUT design and shape.
Material	ROHACELL

Model	MD4LAPV5 - Mounting Device for Laptops and other Body-Worn Transmitters	
Construction	In combination with the Twin SAM or ELI phantoms, the Mounting Device (Body-Worn) enables testing of transmitter devices according to IEC 62209-2 specifications. The device holder can be locked for positioning at a flat phantom section.	
Material	Polyoxymethylene (POM), PET-G, 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 Power Source

Model	Powersource1	
Signal Type	Continuous Wave	
Operating Frequencies	600 MHz to 5850 MHz	
Output Power	-5.0 dBm to +17.0 dBm	
Power Supply	5V DC, via USB jack	
Power Consumption	<3 W	
Applications	System performance check and validation with a CW signal.	

3.2.8 Tissue Simulating Liquids

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

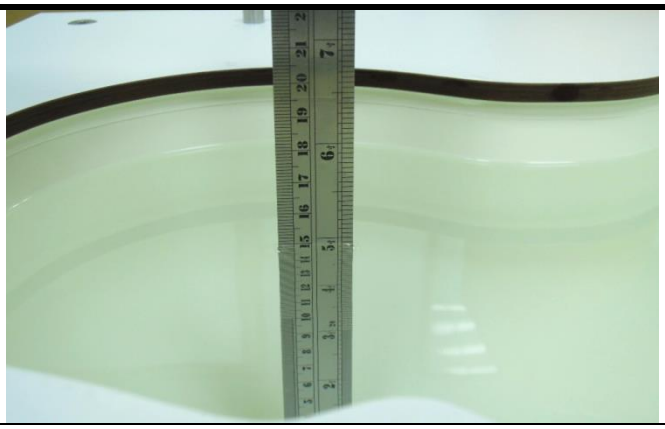


Photo of Liquid Height for Head Position

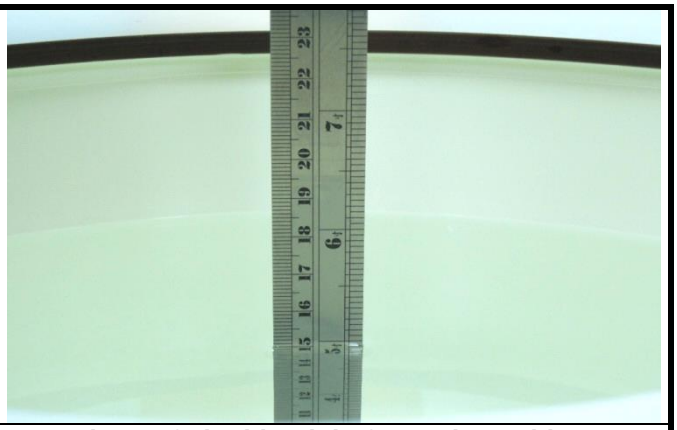


Photo of Liquid Height for Body Position

Table-3.1 Targets of Tissue Simulating Liquid

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

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

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

The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

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

3.3 SAR System Verification

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

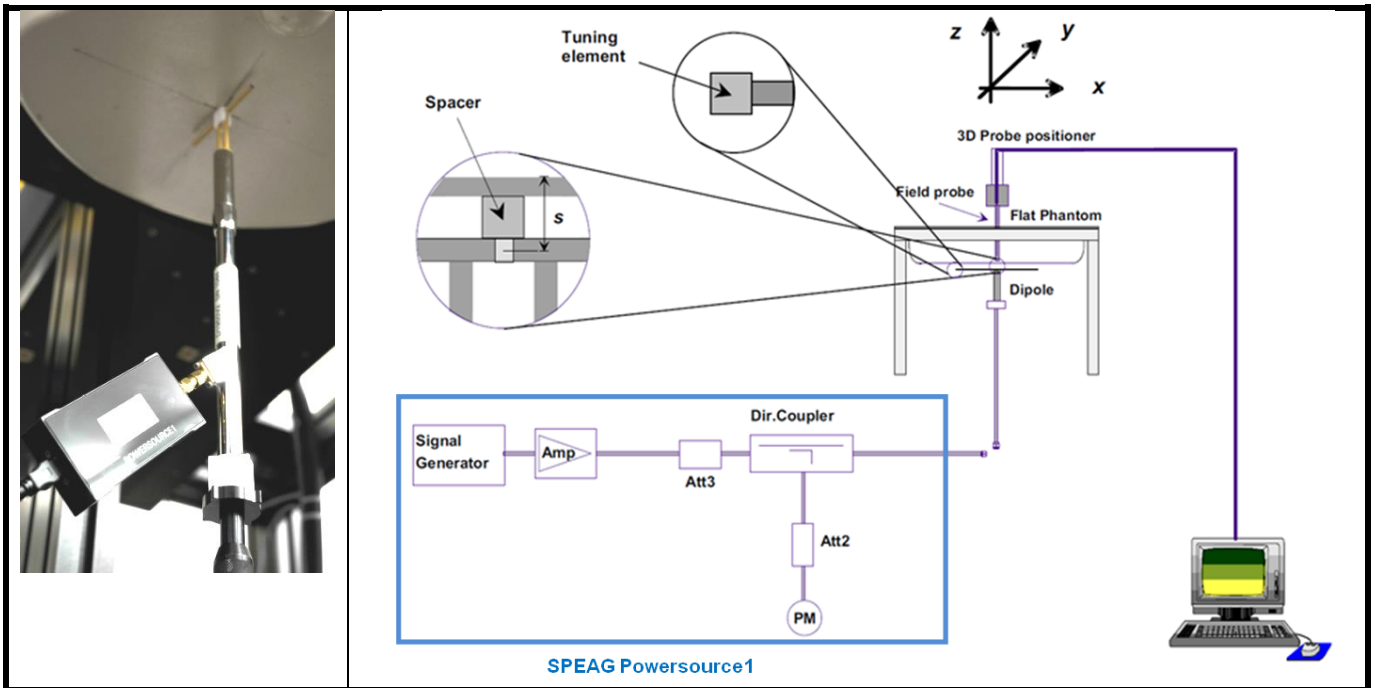


Fig-3.3 System Verification Setup

The SPEAG Powersource1 is a portable and very stable RF source providing a continuous wave (CW) signal. It is designed for conducting SAR system checks and SAR system validation of DASY and is compatible with IEC 62209-1, IEC 62209-2 and IEEE Std 1528 standards. The Powersource1 has been calibrated by SPEAG's ISO/IEC 17025-accredited calibration center. When using Powersource1, the setup can be simplified, as shown in Fig-3.3. The signal purity is warranted by design. Since the Powersource1 is calibrated, no additional equipment is needed and the Powersource1 can directly be connected to the SMA connector of the dipole without a cable as all separate components (signal generator, amplifier, coupler and power meter) are built into the unit.

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 Powersource1 is adjusted for the desired forward power of 17 dBm at the dipole connector and the RF output power would be turned on. 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 Scan and 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.

Measure the local SAR at a test point at 1.4 mm of the inner surface of the phantom recommended by SEPAG. The area scan (two-dimensional SAR distribution) is performed cover at least an area larger than the projection of the EUT or antenna. The measurement resolution and spatial resolution for interpolation shall be chosen to allow identification of the local peak locations to within one-half of the linear dimension of the corresponding side of the zoom scan volume. Following table provides the measurement parameters required for the area scan.

Parameter	$f \leqq$ 3 GHz	3 GHz < $f \leqq$ 6 GHz
Maximum distance from closest measurement point to phantom surface	5 ± 1	δ ln(2)/2 ±0.5
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ±1°	20° ±1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≦2 GHz: ≦15 mm 2 – 3 GHz: ≦12 mm	3 – 4 GHz: ≦12 mm 4 – 6 GHz: ≦10 mm

From the scanned SAR distribution, identify the position of the maximum SAR value, in addition identify the positions of any local maxima with SAR values within 2 dB of the maximum value that will not be within the zoom scan of other peaks. Additional peaks shall be measured only when the primary peak is within 2 dB of the SAR compliance limit (e.g. 1 W/kg for 1.6 W/kg, 1 g limit; or 1.26 W/kg for 2 W/kg, 10 g limit).

The zoom scan (three-dimensional SAR distribution) is performed at the local maxima locations identified in previous area scan procedure. The zoom scan volume must be larger than the required minimum dimensions. When graded grids are used, which only applies in the direction normal to the phantom surface, the initial grid separation closest to the phantom surface and subsequent graded grid increment ratios must satisfy the required protocols. The 1-g SAR averaging volume must be fully contained within the zoom scan measurement volume boundaries; otherwise, the measurement must be repeated by shifting or expanding the zoom scan volume. The similar requirements also apply to 10-g SAR measurements. Following table provides the measurement parameters required for the zoom scan.

Parameter		$f \leqq 3$ GHz	3 GHz < $f \leqq 6$ GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}		≦2 GHz: ≦8 mm 2 – 3 GHz: ≦5 mm	3 – 4 GHz: ≦5 mm 4 – 6 GHz: ≦4 mm
Maximum zoom scan spatial resolution, normal to phantom surface	*uniform grid:* $\Delta z_{Zoom}(n)$	≦5 mm	3 – 4 GHz: ≦4 mm 4 – 5 GHz: ≦3 mm 5 – 6 GHz: ≦2 mm
	graded grids: $\Delta z_{Zoom}(1)$	≦4 mm	3 – 4 GHz: ≦3.0 mm 4 – 5 GHz: ≦2.5 mm 5 – 6 GHz: ≦2.0 mm
	$\Delta z_{Zoom}(n>1)$	≦1.5·$\Delta z_{Zoom}(n-1)$ mm	
Minimum zoom scan volume (x, y, z)		≥30 mm	3 – 4 GHz: ≥28 mm 4 – 5 GHz: ≥25 mm 5 – 6 GHz: ≥22 mm

Per IEC 62209-2 AMD1, the successively higher resolution zoom scan is required if the zoom scan measured as defined above complies with both of the following criteria, or if the peak spatial-average SAR is below 0.1 W/kg, no additional measurements are needed:

(1) The smallest horizontal distance from the local SAR peaks to all points 3 dB below the SAR peak shall be larger than the horizontal grid steps in both x and y directions (Δx, Δy). This shall be checked for the measured zoom scan plane conformal to the phantom at the distance zM1.

(2) The ratio of the SAR at the second measured point (M2) to the SAR at the closest measured point (M1) at the x-y location of the measured maximum SAR value shall be at least 30 %.

If one or both of the above criteria are not met, the zoom scan measurement shall be repeated using a finer resolution. New horizontal and vertical grid steps shall be determined from the measured SAR distribution so that the above criteria are met. Compliance with the above two criteria shall be demonstrated for the new measured zoom scan.

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

<Connections between EUT and System Simulator>

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

<Considerations Related to GSM / GPRS / EDGE for Setup and Testing>

The maximum multi-slot capability supported by this device is as below.

1. This EUT is class B device
2. This EUT supports GPRS multi-slot class 12 (max. uplink: 4, max. downlink: 4, total timeslots: 5)
3. This EUT supports EDGE multi-slot class 12 (max. uplink: 4, max. downlink: 4, total timeslots: 5)

For GSM850 frequency band, the power control level is set to 5 for GSM mode and GPRS (GMSK: CS1), and set to 8 for EDGE (GMSK: MCS1, 8PSK: MCS9). For GSM1900 frequency band, the power control level is set to 0 for GSM mode and GPRS (GMSK: CS1), and set to 2 for EDGE (GMSK: MCS1, 8PSK: MCS9).

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

<Considerations Related to WCDMA for Setup and Testing>

WCDMA Handsets Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode.

WCDMA Handsets Body-worn SAR

SAR for body-worn configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode.

Handsets with Release 5 HSDPA

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

Handsets with Release 6 HSUPA

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

Release 5 HSDPA Data Devices

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS}(1)(2)	CM(3) (dB)	MPR (3) (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15(4)	15/15(4)	64	12/15(4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

Release 6 HSUPA Data Devices

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS}[1]	β_{ec}	β_{ed}[4][5]	β_{ed} (SF)	β_{ed} (Codes)	CM[2] (dB)	MPR[2][6] (dB)	AG[5] Index	E-TFCI
1	11/15[3]	15/15[3]	64	11/15[3]	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed}1: 47/15 β_{ed}2: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1:For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 withβ_{HS} =30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 withβ_{HS} =5/15*β_c.
Note 2:CM = 1 forβ_c/β_d =12/15,β_{HS}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3:For subtest 1 theβ_c/β_dratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) toβ_c = 10/15 andβ_d = 15/15.
Note 4:In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.
Note 5:β_{ed}can not be set directly; it is set by Absolute Grant Value.
Note 6:For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

HSPA+ SAR Guidance

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

Sub-test	β_c[3]	β_d	β_{HS}[1]	β_{ec}	β_{ed}[4] (2xSF2)	β_{ed}[4] (2xSF4)	CM[2] (dB)	MPR[2] (dB)	AG[4] Index	E-TFCI [5]	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

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

<Considerations Related to LTE for Setup and Testing>

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

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	**BW 1.4 MHz**	**BW 3 MHz**	**BW 5 MHz**	**BW 10 MHz**	**BW 15 MHz**	**BW 20 MHz**
2	**V**	**V**	**V**	**V**	**V**	**V**
4	**V**	**V**	**V**	**V**	**V**	**V**
5	**V**	**V**	**V**	**V**		
7			**V**	**V**	**V**	**V**
12	**V**	**V**	**V**	**V**		
13			**V**	**V**		
48			**V**	**V**	**V**	**V**
66	**V**	**V**	**V**	**V**	**V**	**V**

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

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

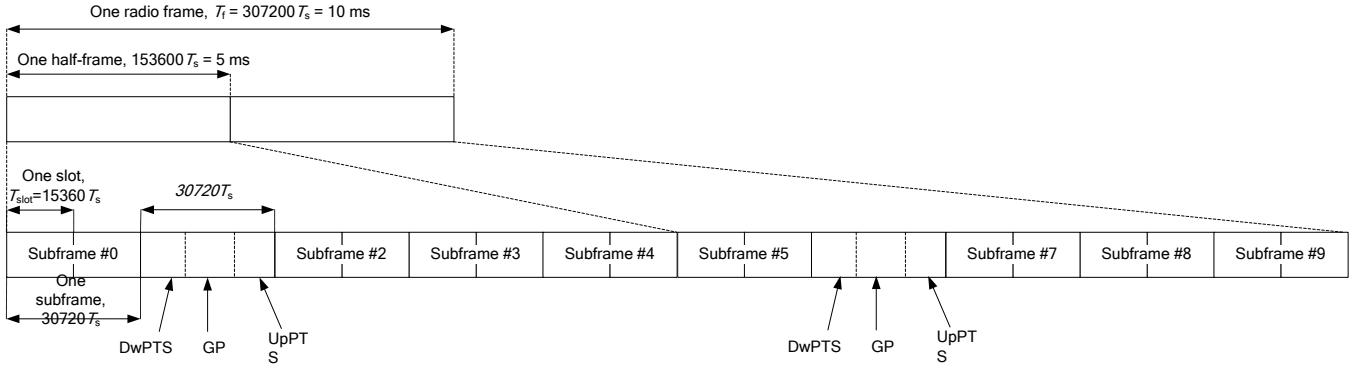
Note: MPR is according to the standard and implemented in the circuit (mandatory).

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

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

TDD-LTE Setup Configurations

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



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

Special Subframe Configuration	Normal Cyclic Prefix in Downlink			Extended Cyclic Prefix in Downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink
0	6592 • Ts	2192 • Ts	2560 • Ts	7680 • Ts	2192 • Ts	2560 • Ts
1	19760 • Ts			20480 • Ts		
2	21952 • Ts			23040 • Ts		
3	24144 • Ts			25600 • Ts		
4	26336 • Ts			7680 • Ts	4384 • Ts	5120 • Ts
5	6592 • Ts	4384 • Ts	5120 • Ts	20480 • Ts		

6	19760 • Ts			23040 • Ts		
7	21952 • Ts			12800 • Ts		
8	24144 • Ts			-	-	-
9	13168 • Ts			-	-	-

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

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-Point Periodicity	Subframe Number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

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

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

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

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

LTE Downlink Carrier Aggregation(CA)Setup Configurations

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

The combinations of downlink carrier aggregation supported by this device are referred to **Appendix F**

Intra Band					Inter Band												
Contiguous	2CC Non-Contiguous	3CC Non-Contiguous	4CC Non-Contiguous	5CC Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	2 Bands / 4CC	2 Bands / 5CC	3 Bands / 3CC	3 Bands / 4CC	3 Bands / 5CC	3 Bands / 6CC	3 Bands / 7CC	4 Bands / 4CC	4 Bands / 5CC	4 Bands / 6CC	4 Bands / 7CC
48D					2A_66A						2A-48D-66A						
					2A-48A				2A-48A-66A	2A-48A-48A-66A						2A-46D-48A-66A	
					48A-66A												
48C						48C-66A				2A-48C-66A							
					2A_5A	2A-48C			2A-5A-66A	2A-5A-48C							
										5A-48C-66A							
					13A_2A	13A-48C			2A-13A-66A	2A-13A-48C							
					13A_66A					13A-48C-66A							
					5A-48A	5A-48A-48A			2A-5A-48A	2A-5A-48A-48A				2A-5A-48A-48A			
					5A_66A				5A-48A-66A	5A-48A-48A-66A				2A-5A-48A-66A			
									48A-48A-66A								
					13A-48A	13A-48A-48A			2A-13A-48A	2A-13A-48A-48A				2A-13A-48A-66A			
									13A-48A-66A	13A-48A-48A-66A							
			48E					2A-48E									
						2A-66A-66A											
								48E-66A									
							2A-48D										
							5A-48D										
							13A-48D										
						5A-48C	2A-48A-48C										
							5A-48A-48C										
							13A-48A-48C										
							48A-48C-66A										
							48D-66A										
66B						13A-66B	48C-66B										
66C						13A-66C	48C-66C										
5B					2A_4A	2A-5B											
						4A-5B				2A-4A-5B							
						2A-66B											
						5A-66B				2A-5A-66B							
						2A-66C											
						5A-66C				2A-5A-66C							
						5B-66A				2A-5B-66A							
										2A-13A-66B							
										2A-13A-66C							
	2A_2A				4A_5A	2A-2A-4A			2A-4A-5A	2A-2A-4A-5A							
						2A-2A-5A											
					13A_4A	2A-2A-13A			2A-4A-13A	2A-2A-4A-13A							
						2A-2A-66A				2A-2A-5A-66A							
										2A-2A-13A-66A							
	66A-66A					5A-66A-66A				2A-5A-66A-66A							
						13A-66A-66A				2A-13A-66A-66A							
	5A_5A									5A-5A-66B							
						48A-66B				13A-48A-66B							
						48A-66C				13A-48A-66C							
		66A-66A-66A															
							2A-2A-66B										
							2A-2A-66C										
	4A_4A					2A-4A-4A	2A-2A-4A-4A										
							2A-2A-66A-66A										
							2A-66A-66A-66A										
							4A-48D										
							4A-4A-5B										
							5B-66B										
							5B-66C										
							5A-5A-66B										
							5A-5A-66C										
							5B-66A-66A										
						5A-5A-66A	5A-5A-66A-66A										
							13A-66A-66A-66A										
							48A-48A-66B										
							48A-48A-66C										
							48C-66A-66A				67	65	65	65	65	65	
							48A-48A-66A-66A										
							48A-66A-66A-66A										
						4A-48C											
						4A-4A-5A											
						4A-4A-13A											
						66A-66C											
					4A-48A												

Intra Band			Inter Band				
Contiguous	2CC Non-Contiguous	3CC Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	2 Bands / 4CC	3 Bands / 3CC	3 Bands / 4CC
	4A(4x4)-4A(4x4)		2A(4x4)-5A	2A-4A(4x4)-4A(4x4)			
			2A(4x4)-4A(4x4)				
48C(4x4)				2A-48C(4x4)			
66B(4x4)							
	66A(4x4)-66A(4x4)		5A_66A(4x4)	2A-66A(4x4)-66A(4x4)			
				5A-66A(4x4)-66A(4x4)			
66C(4x4)				5A-66C(4x4)			
				5B-66A(4x4)			
				13A-66B(4x4)			
				13A-66C(4x4)			
			13A_66A(4x4)	13A-66A(4x4)-66A(4x4)			
				48C(4x4)-66A			
				48C-66A(4x4)			
	2A(4x4)-2A(4x4)			2A(4x4)-2A(4x4)-4A			
				2A(4x4)-2A(4x4)-5A			
				2A(4x4)-5B			
				4A(4x4)-5B			
				5A-48C(4x4)			
48A(4x4)							
				48A(4x4)-66C			
						2A-5A-48A(4x4)	
			13A-48A(4x4)			2A-13A-48A(4x4)	
			48A-66A(4x4)			2A-48A-66A(4x4)	
			48A(4x4)-66A			2A-48A(4x4)-66A	
			48A(4x4)-66A(4x4)			2A-48A(4x4)-66A(4x4)	
			4A(4x4)-5A				
			2A(4x4)-48A(4x4)				
			2A(4x4)-66A(4x4)				
						5A-48A(4x4)-66A	
						5A-48A-66A(4x4)	
						5A-48A(4x4)-66A(4x4)	
						13A-48A-66A(4x4)	
						13A-48A(4x4)-66A(4x4)	
						13A-48A(4x4)-66A	
				2A(4x4)-2A(4x4)-66A			
				2A(4x4)-2A-66A(4x4)			
				2A(4x4)-66B(4x4)			
				2A(4x4)-66C(4x4)			
				13A-48C(4x4)			
		66A(4x4)-66A(4x4)-66A		2A(4x4)-66A(4x4)-66A			
			13A_2A(4x4)				
				2A(4x4)-2A-4A(4x4)			
				2A(4x4)-4A(4x4)-4A			
				5A-5A-66A(4x4)			
				5A-66B(4x4)			
				48A(4x4)-48A(4x4)-66A			
				48A(4x4)-48A-66A(4x4)			
				48A-66A(4x4)-66A(4x4)			
				48A(4x4)-48A-66A(4x4)			
				48A(4x4)-48A(4x4)-66A			
				48A(4x4)-66B(4x4)			
				48A-66C(4x4)			
				48A(4x4)-66C(4x4)			
				48C(4x4)-66A(4x4)			
				2A-48A(4x4)-48A(4x4)			
				4A-48C(4x4)			
			13A_4A(4x4)				
				5A-48A(4x4)-48A(4x4)			
				13A-48A(4x4)-48A(4x4)			
			4A-48A(4x4)				
		48D(4x4)					

<Considerations Related to WLAN for Setup and Testing>

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

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

Initial Test Configuration

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

Subsequent Test Configuration

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

SAR Test Configuration and Channel Selection

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

1) The channel closest to mid-band frequency is selected for SAR measurement.

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

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

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

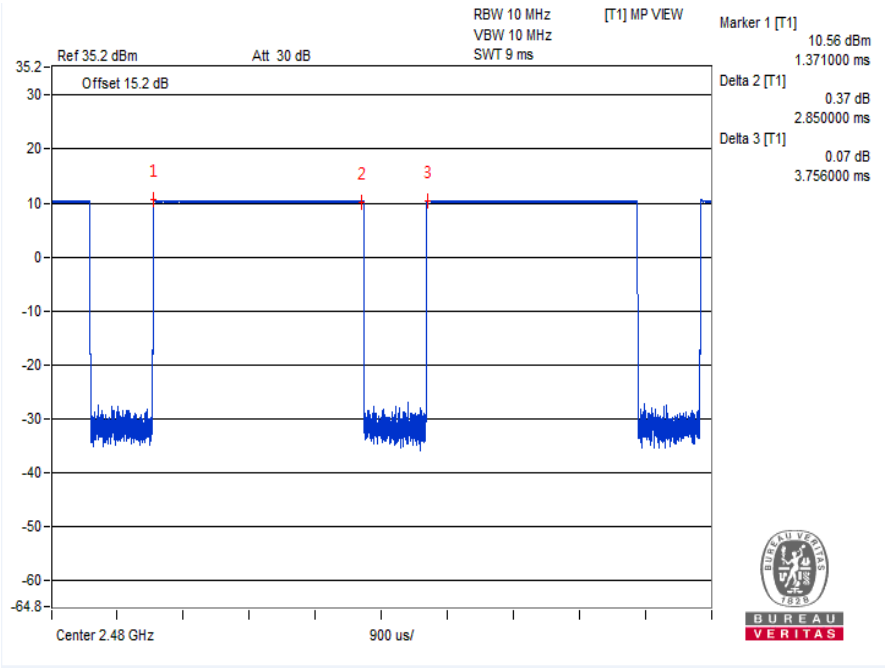
1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition).

2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

<Considerations Related to Bluetooth for Setup and Testing>

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

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



Time-domain plot for Bluetooth transmission signal

The duty factor of Bluetooth signal has been calculated as following.
Duty Factor = Pulse Width / Total Period = 2.85 / 3.756 = 75.88 %

4.2 EUT Testing Position

According to KDB 648474 D04, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

4.2.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2003 using the SAM phantom illustrated as below.

1. Define two imaginary lines on the handset

(a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.

(b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

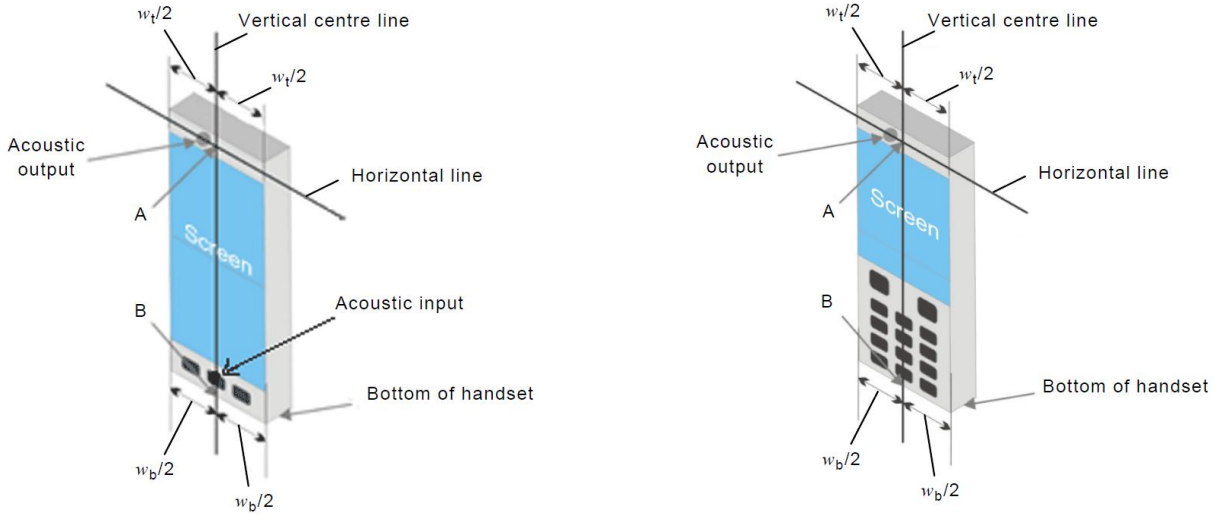


Fig-4.1 Illustration for Handset Vertical and Horizontal Reference Lines

2. Cheek Position

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig-4.2).

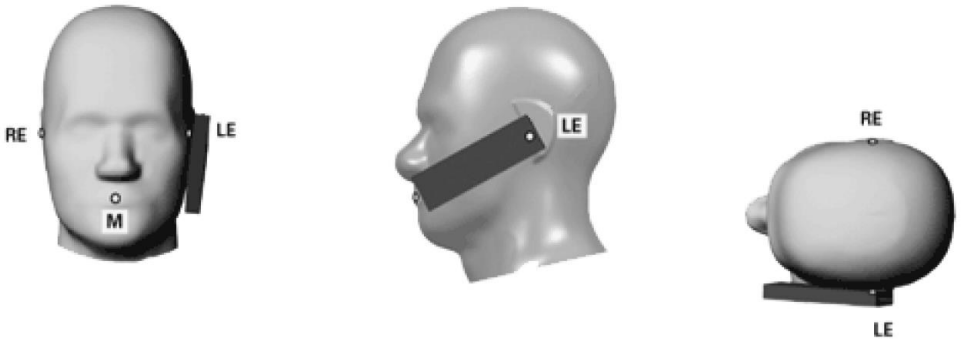


Fig-4.2 Illustration for Cheek Position

3. Tilted Position

(a) To position the device in the “cheek” position described above.

(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig-4.3).

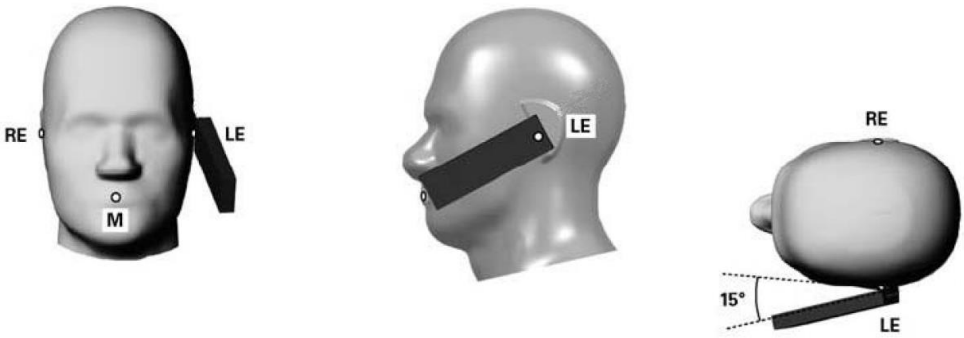


Fig-4.3 Illustration for Tilted Position

4.2.2 Body-worn Accessory Exposure Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 D01 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is> 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required.

A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance <= 5 mm to support compliance.

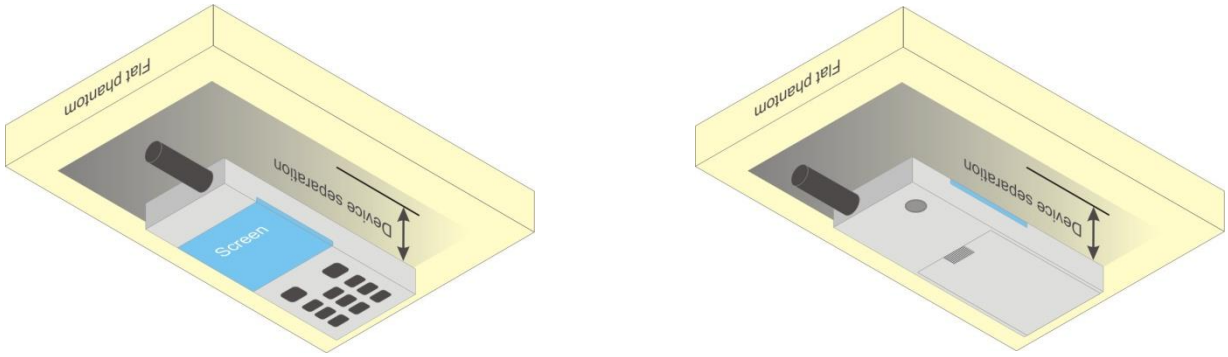
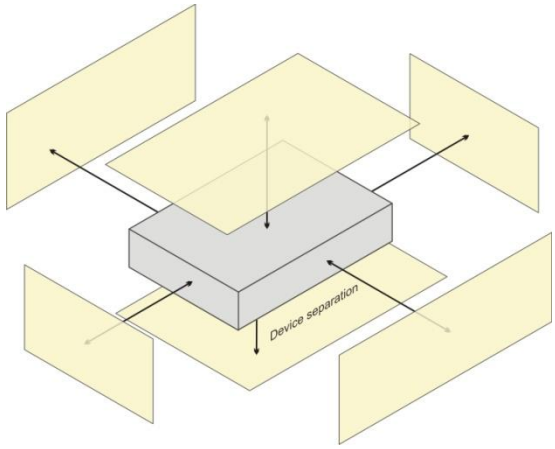


Fig-4.4 Illustration for Body Worn Position

4.2.3 Hotspot Mode Exposure Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225 D06. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



Based on the antenna location shown on appendix D of this report, the SAR testing required for hotspot mode is listed as below.

Antenna	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
WWAN Main Ant-0	V	V		V		V
WWAN Aux Ant-1	V	V	V			V
WLAN / BT Main Ant-0	V	V	V			
WLAN Aux Ant-1	V	V		V		

4.2.4 Product Specific (Phablet) Exposure Conditions

For smart phones with a display diagonal dimension > 15 cm or an overall diagonal dimension > 16 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the following Phablet procedures should be applied to evaluate SAR compliance for each applicable wireless mode and frequency band. Devices marketed as Phablets, regardless of form factors and operating characteristics must be tested as a Phablet to determine SAR compliance.

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at <= 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg. The normal tablet procedures in KDB 616217 are required when the over diagonal dimension of the device is > 20 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of large form factor full size tablets. The more conservative tablet SAR results can be used to support the 10-g extremity SAR for Phablet mode.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless mode and exposure conditions.

4.3 Tissue Verification

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

For Head / Body / Hotspot

Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)	Test Date
750	23.3	0.905	42.383	0.89	41.9	1.69	1.15	Jul. 30, 2020
750	23.2	0.885	42.46	0.89	41.9	-0.56	1.34	Aug. 01, 2020
750	23.4	0.886	43.472	0.89	41.9	-0.45	3.75	Aug. 07, 2020
835	23.3	0.928	42.022	0.9	41.5	3.11	1.26	Jul. 29, 2020
835	23.2	0.903	41.583	0.9	41.5	0.33	0.20	Aug. 01, 2020
835	23.4	0.921	42.338	0.9	41.5	2.33	2.02	Aug. 07, 2020
835	23.1	0.919	41.728	0.9	41.5	2.11	0.55	Aug. 26, 2020
835	23.2	0.914	42.277	0.9	41.5	1.56	1.87	Aug. 26, 2020
835	23.2	0.902	42.776	0.9	41.5	0.22	3.07	Aug. 27, 2020
835	23.3	0.918	42.336	0.9	41.5	2.00	2.01	Nov. 11, 2020
1750	23.3	1.323	38.792	1.37	40.1	-3.43	-3.26	Jul. 29, 2020
1750	23.2	1.323	39.8	1.37	40.1	-3.43	-0.75	Aug. 01, 2020
1750	23.4	1.32	39.741	1.37	40.1	-3.65	-0.90	Aug. 07, 2020
1750	23.2	1.325	39.061	1.37	40.1	-3.28	-2.59	Sep. 11, 2020
1750	23.3	1.326	38.855	1.37	40.1	-3.21	-3.10	Oct. 12, 2020
1750	23.4	1.314	38.994	1.37	40.1	-4.09	-2.76	Oct. 20, 2020
1750	23.3	1.312	39.012	1.37	40.1	-4.23	-2.71	Nov. 11, 2020
1900	23.3	1.461	38.219	1.4	40	4.36	-4.45	Jul. 29, 2020
1900	23.2	1.45	39.259	1.4	40	3.57	-1.85	Aug. 01, 2020
1900	23.4	1.447	39.229	1.4	40	3.36	-1.93	Aug. 07, 2020
1900	23.1	1.458	39.592	1.4	40	4.14	-1.02	Aug. 26, 2020
1900	23.2	1.459	38.582	1.4	40	4.21	-3.55	Aug. 26, 2020
1900	23.2	1.444	38.836	1.4	40	3.14	-2.91	Aug. 27, 2020
1900	23.2	1.456	38.583	1.4	40	4.00	-3.54	Sep. 11, 2020
2450	23.2	1.883	38.286	1.8	39.2	4.61	-2.33	Aug. 23, 2020
2450	23.2	1.869	38.087	1.8	39.2	3.83	-2.84	Aug. 28, 2020
2450	23.1	1.871	38.915	1.8	39.2	3.94	-0.73	Aug. 29, 2020
2600	23.3	2.025	37.423	1.96	39	3.32	-4.04	Jul. 30, 2020
2600	23.2	2.036	37.736	1.96	39	3.88	-3.24	Aug. 01, 2020
2600	23.4	2.056	37.803	1.96	39	4.90	-3.07	Aug. 07, 2020
3500	23.4	2.893	36.469	2.91	37.9	-0.58	-3.78	Aug. 07, 2020
3500	23.3	2.892	36.451	2.91	37.9	-0.62	-3.82	Aug. 08, 2020
3700	23.4	3.039	36.271	3.12	37.7	-2.60	-3.79	Aug. 07, 2020
3700	23.3	3.038	36.252	3.12	37.7	-2.63	-3.84	Aug. 08, 2020
3700	23.3	3.021	36.189	3.12	37.7	-3.17	-4.01	Nov. 11, 2020
5250	23.2	4.58	36.321	4.71	35.9	-2.76	1.17	Aug. 22, 2020
5250	23.2	4.607	34.846	4.71	35.9	-2.19	-2.94	Aug. 24, 2020
5250	23.1	4.746	36.983	4.71	35.9	0.76	3.02	Aug. 25, 2020
5250	23.2	4.601	35.761	4.71	35.9	-2.31	-0.39	Aug. 27, 2020
5600	23.2	4.998	34.41	5.07	35.5	-1.42	-3.07	Aug. 24, 2020
5600	23.1	4.996	34.856	5.07	35.5	-1.46	-1.81	Aug. 25, 2020
5750	23.2	5.018	36.122	5.22	35.4	-3.87	2.04	Aug. 22, 2020
5750	23.2	5.133	34.387	5.22	35.4	-1.67	-2.86	Aug. 24, 2020
5750	23.1	5.147	34.651	5.22	35.4	-1.40	-2.12	Aug. 25, 2020
5750	23.3	5.337	34.453	5.22	35.4	2.24	-2.68	Aug. 28, 2020

For Product Specific

Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)	Test Date
5250	23.2	4.607	34.846	4.71	35.9	-2.19	-2.94	Aug. 24, 2020
5250	23.2	4.601	35.761	4.71	35.9	-2.31	-0.39	Aug. 27, 2020
5600	23.2	4.998	34.41	5.07	35.5	-1.42	-3.07	Aug. 24, 2020

Note:

The dielectric properties of the tissue simulating liquid have been measured within 24 hours before the SAR testing and within ±10 % of the target values. Liquid temperature during the SAR testing has kept within ±2 ℃.

4.4 System Validation

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

For Head / Body / Hotspot

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
Jul. 30, 2020	7472	750	0.905	42.383	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 01, 2020	7350	750	0.885	42.46	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	750	0.886	43.472	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 29, 2020	7472	835	0.928	42.022	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 01, 2020	7350	835	0.903	41.583	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	835	0.921	42.338	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 26, 2020	7350	835	0.919	41.728	Pass	Pass	Pass	GMSK	Pass	N/A
Aug. 26, 2020	3820	835	0.914	42.277	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 27, 2020	3820	835	0.902	42.776	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 11, 2020	3971	835	0.918	42.336	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 29, 2020	7472	1750	1.323	38.792	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 01, 2020	7350	1750	1.323	39.8	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	1750	1.32	39.741	Pass	Pass	Pass	N/A	N/A	N/A
Sep. 11, 2020	3971	1750	1.325	39.061	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 12, 2020	7537	1750	1.326	38.855	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 20, 2020	7555	1750	1.314	38.994	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 11, 2020	3971	1750	1.312	39.012	Pass	Pass	Pass	N/A	N/A	N/A
Jul. 29, 2020	7472	1900	1.461	38.219	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 01, 2020	7350	1900	1.45	39.259	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	1900	1.447	39.229	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 26, 2020	7350	1900	1.458	39.592	Pass	Pass	Pass	GMSK	Pass	N/A
Aug. 26, 2020	3820	1900	1.459	38.582	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 27, 2020	3820	1900	1.444	38.836	Pass	Pass	Pass	N/A	N/A	N/A
Sep. 11, 2020	3971	1900	1.456	38.583	Pass	Pass	Pass	N/A	N/A	N/A

Aug. 23, 2020	3820	2450	1.883	38.286	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 28, 2020	3820	2450	1.869	38.087	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 29, 2020	7350	2450	1.871	38.915	Pass	Pass	Pass	OFDM	N/A	Pass
Jul. 30, 2020	7472	2600	2.025	37.423	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 01, 2020	7350	2600	2.036	37.736	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	2600	2.056	37.803	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	3500	2.893	36.469	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 08, 2020	3820	3500	2.892	36.451	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 07, 2020	7537	3700	3.039	36.271	Pass	Pass	Pass	N/A	N/A	N/A
Aug. 08, 2020	3820	3700	3.038	36.252	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 11, 2020	3971	3700	3.021	36.189	Pass	Pass	Pass	N/A	N/A	N/A

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
Aug. 22, 2020	3820	5250	4.58	36.321	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 24, 2020	3820	5250	4.607	34.846	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 25, 2020	7350	5250	4.746	36.983	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 27, 2020	3820	5250	4.601	35.761	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 24, 2020	3820	5600	4.998	34.41	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 25, 2020	7350	5600	4.996	34.856	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 22, 2020	3820	5750	5.018	36.122	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 24, 2020	3820	5750	5.133	34.387	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 25, 2020	7350	5750	5.147	34.651	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 28, 2020	3650	5750	5.337	34.453	Pass	Pass	Pass	OFDM	N/A	Pass

For Product Specific

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
Aug. 24, 2020	3820	5250	4.607	34.846	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 27, 2020	3820	5250	4.601	35.761	Pass	Pass	Pass	OFDM	N/A	Pass
Aug. 24, 2020	3820	5600	4.998	34.41	Pass	Pass	Pass	OFDM	N/A	Pass

4.5 System Verification

The measuring result for system verification is tabulated as below.

For Head / Body / Hotspot

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jul. 30, 2020	750	8.49	0.388	7.76	-8.60	1106	7472	579
Aug. 01, 2020	750	8.49	0.398	7.96	-6.24	1106	7350	917
Aug. 07, 2020	750	8.49	0.395	7.90	-6.95	1106	7537	1585
Jul. 29, 2020	835	9.44	0.487	9.74	3.18	4d166	7472	579
Aug. 01, 2020	835	9.44	0.477	9.54	1.06	4d166	7350	917
Aug. 07, 2020	835	9.44	0.482	9.64	2.12	4d166	7537	1585
Aug. 26, 2020	835	9.44	0.475	9.50	0.64	4d166	7350	1431
Aug. 26, 2020	835	9.44	0.481	9.62	1.91	4d166	3820	393
Aug. 27, 2020	835	9.44	0.485	9.70	2.75	4d166	3820	393
Nov. 11, 2020	835	9.44	0.485	9.70	2.75	4d166	3971	917
Jul. 29, 2020	1750	35.50	1.78	35.60	0.28	1111	7472	579
Aug. 01, 2020	1750	35.50	1.74	34.80	-1.97	1111	7350	917
Aug. 07, 2020	1750	35.50	1.77	35.40	-0.28	1111	7537	1585
Sep. 11, 2020	1750	35.50	1.7	34.00	-4.23	1111	3971	917
Oct. 12, 2020	1750	35.50	1.81	36.20	1.97	1111	7537	1585

Oct. 20, 2020	1750	35.50	1.71	34.20	-3.66	1111	7555	1589
Nov. 11, 2020	1750	35.50	1.78	35.60	0.28	1111	3971	917
Jul. 29, 2020	1900	40.30	1.97	39.40	-2.23	5d036	7472	579
Aug. 01, 2020	1900	40.30	1.91	38.20	-5.21	5d036	7350	917
Aug. 07, 2020	1900	40.30	2.06	41.20	2.23	5d036	7537	1585
Aug. 26, 2020	1900	40.30	2.07	41.40	2.73	5d036	7350	1431
Aug. 26, 2020	1900	40.30	2.04	40.80	1.24	5d036	3820	393
Aug. 27, 2020	1900	40.30	2.04	40.80	1.24	5d036	3820	393
Sep. 11, 2020	1900	40.30	1.92	38.40	-4.71	5d036	3971	917

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Aug. 23, 2020	2450	51.10	2.77	55.40	8.41	903	3820	393
Aug. 28, 2020	2450	51.10	2.58	51.60	0.98	903	3820	393
Aug. 29, 2020	2450	51.10	2.65	53.00	3.72	903	7350	1431
Jul. 30, 2020	2600	55.90	2.69	53.80	-3.76	1077	7472	579
Aug. 01, 2020	2600	55.90	2.64	52.80	-5.55	1077	7350	917
Aug. 07, 2020	2600	55.90	2.82	56.40	0.89	1077	7537	1585
Aug. 07, 2020	3500	67.40	3.45	69.00	2.37	1007	7537	1585
Aug. 08, 2020	3500	67.40	3.43	68.60	1.78	1007	3820	393
Aug. 07, 2020	3700	67.20	3.59	71.80	6.85	1017	7537	1585
Aug. 08, 2020	3700	67.20	3.55	71.00	5.65	1017	3820	393
Nov. 11, 2020	3700	66.50	3.41	68.20	2.56	1074	3971	917
Aug. 22, 2020	5250	79.70	4.29	85.80	7.65	1019	3820	393
Aug. 24, 2020	5250	79.70	3.61	72.20	-9.41	1019	3820	393
Aug. 25, 2020	5250	79.70	3.81	76.20	-4.39	1019	7350	1431
Aug. 27, 2020	5250	79.70	3.79	75.80	-4.89	1019	3820	393
Aug. 24, 2020	5600	83.80	3.78	75.60	-9.79	1019	3820	393
Aug. 25, 2020	5600	83.80	4.47	89.40	6.68	1019	7350	1431
Aug. 22, 2020	5750	80.40	4.25	85.00	5.72	1019	3820	393
Aug. 24, 2020	5750	80.40	4.31	86.20	7.21	1019	3820	393
Aug. 25, 2020	5750	80.40	3.97	79.40	-1.24	1019	7350	1431
Aug. 28, 2020	5750	80.40	4.24	84.80	5.47	1019	3650	861

For Product Specific

Test Date	Frequency (MHz)	1W Target SAR-10g (W/kg)	Measured SAR-10g (W/kg)	Normalized to 1W SAR-10g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Aug. 24, 2020	5250	22.80	1.12	22.40	-1.75	1019	3820	393
Aug. 27, 2020	5250	22.80	1.11	22.20	-2.63	1019	3820	393
Aug. 24, 2020	5600	23.70	1.18	23.60	-0.42	1019	3820	393

Note:

Comparing to the reference SAR value provided by SPEAG in dipole calibration certificate, the deviation of system check results is within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots please refer to Appendix A of this report.

4.6 Maximum Output Power

4.6.1 Maximum Target Conducted Power

Refer to Appendix E.

4.6.2 Measured Conducted Power Result

Refer to Appendix F.

4.7 SAR Testing Results

4.7.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

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

(1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz

(2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz

(3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

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

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

<KDB 941225 D01, 3G SAR Measurement Procedures>

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

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

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

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

(2) QPSK with 100% RB allocation

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

(3) Higher order modulations

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

(4) Other channel bandwidth

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

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

(1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is <= 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is <= 0.8 W/kg or all test positions are measured.

(2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is <= 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is >1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n),SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2 W/kg.

(3) For WLAN 5GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is <=1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is <= 1.2 W/kg.

(4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

4.7.2 SAR Results for Head Exposure Condition

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS12	Right Cheek	189	Ant 0	27.90	26.33	1.44	-0.03	0.33	0.475
	GSM850	GPRS12	Right Tilted	189	Ant 0	27.90	26.33	1.44	0.05	0.156	0.225
	GSM850	GPRS12	Left Cheek	189	Ant 0	27.90	26.33	1.44	0.01	0.334	0.481
	GSM850	GPRS12	Left Tilted	189	Ant 0	27.90	26.33	1.44	-0.02	0.157	0.226
	GSM850	GPRS12	Left Cheek	128	Ant 0	27.90	25.98	1.56	0.02	0.218	0.340
01	GSM850	GPRS12	Left Cheek	251	Ant 0	27.90	26.21	1.48	0.01	0.425	**0.629**
	GSM1900	GPRS12	Right Cheek	512	Ant 0	24.90	23.42	1.41	-0.02	0.165	0.233
	GSM1900	GPRS12	Right Tilted	512	Ant 0	24.90	23.42	1.41	0.06	0.036	0.051
	GSM1900	GPRS12	Left Cheek	512	Ant 0	24.90	23.42	1.41	0.12	0.108	0.152
	GSM1900	GPRS12	Left Tilted	512	Ant 0	24.90	23.42	1.41	0.01	0.039	0.055
02	GSM1900	GPRS12	Right Cheek	661	Ant 0	24.90	23.37	1.42	0.17	0.168	**0.239**
	GSM1900	GPRS12	Right Cheek	810	Ant 0	24.90	23.02	1.54	-0.01	0.152	0.234
	WCDMA II	RMC12.2K	Right Cheek	9400	Ant 0	24.70	24.03	1.17	0.04	0.467	0.546
	WCDMA II	RMC12.2K	Right Tilted	9400	Ant 0	24.70	24.03	1.17	-0.03	0.096	0.112
	WCDMA II	RMC12.2K	Left Cheek	9400	Ant 0	24.70	24.03	1.17	-0.17	0.236	0.276
	WCDMA II	RMC12.2K	Left Tilted	9400	Ant 0	24.70	24.03	1.17	0.15	0.115	0.135
	WCDMA II	RMC12.2K	Right Cheek	9262	Ant 0	24.70	23.86	1.21	0.07	0.397	0.480
03	WCDMA II	RMC12.2K	Right Cheek	9538	Ant 0	24.70	23.52	1.31	0.12	0.489	**0.641**
	WCDMA V	RMC12.2K	Right Cheek	4233	Ant 0	24.70	23.65	1.27	-0.05	0.29	0.368
	WCDMA V	RMC12.2K	Right Tilted	4233	Ant 0	24.70	23.65	1.27	-0.16	0.203	0.258
	WCDMA V	RMC12.2K	Left Cheek	4233	Ant 0	24.70	23.65	1.27	0.04	0.356	0.452
	WCDMA V	RMC12.2K	Left Tilted	4233	Ant 0	24.70	23.65	1.27	-0.01	0.164	0.208
	WCDMA V	RMC12.2K	Left Cheek	4132	Ant 0	24.70	23.33	1.37	0.13	0.341	0.467
04	WCDMA V	RMC12.2K	Left Cheek	4182	Ant 0	24.70	23.51	1.32	-0.16	0.368	**0.486**

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK20M	Right Cheek	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.02	0.523	0.523
	LTE 2	QPSK20M	Right Tilted	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.07	0.104	0.104
	LTE 2	QPSK20M	Left Cheek	18700	1	0	Ant 0	-	25.20	25.19	1.00	0.1	0.318	0.318
	LTE 2	QPSK20M	Left Tilted	18700	1	0	Ant 0	-	25.20	25.19	1.00	0.16	0.13	0.130
	LTE 2	QPSK20M	Right Cheek	18700	50	0	Ant 0	-	24.20	24.19	1.00	0.09	0.365	0.365
	LTE 2	QPSK20M	Right Tilted	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.13	0.076	0.076
	LTE 2	QPSK20M	Left Cheek	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.19	0.224	0.224
	LTE 2	QPSK20M	Left Tilted	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.01	0.093	0.093
	LTE 2	QPSK20M	Right Cheek	18700	1	0	Ant 1	-	25.20	25.19	1.00	0.12	0.314	0.314
	LTE 2	QPSK20M	Right Tilted	18700	1	0	Ant 1	-	25.20	25.19	1.00	0.15	0.079	0.079
	LTE 2	QPSK20M	Left Cheek	18700	1	0	Ant 1	-	25.20	25.19	1.00	0.07	0.223	0.223
	LTE 2	QPSK20M	Left Tilted	18700	1	0	Ant 1	-	25.20	25.19	1.00	-0.03	0.083	0.083
	LTE 2	QPSK20M	Right Cheek	18700	50	0	Ant 1	-	24.20	24.19	1.00	-0.13	0.195	0.195
	LTE 2	QPSK20M	Right Tilted	18700	50	0	Ant 1	-	24.20	24.19	1.00	-0.16	0.055	0.055
	LTE 2	QPSK20M	Left Cheek	18700	50	0	Ant 1	-	24.20	24.19	1.00	0.11	0.151	0.151
	LTE 2	QPSK20M	Left Tilted	18700	50	0	Ant 1	-	24.20	24.19	1.00	0.12	0.059	0.059
05	LTE 2	QPSK20M	Right Cheek	18900	1	0	Ant 0	-	25.20	25.13	1.02	-0.11	0.536	**0.547**
	LTE 2	QPSK20M	Right Cheek	19100	1	0	Ant 0	-	25.20	24.94	1.06	0.12	0.49	0.519
For EN-DC and CA Inter Band														
	LTE 2	QPSK20M	Right Cheek	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.02	0.523	0.262
	LTE 2	QPSK20M	Right Tilted	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.07	0.104	0.052
	LTE 2	QPSK20M	Left Cheek	18700	1	0	Ant 0	w/	22.20	25.19	0.50	0.1	0.318	0.159
	LTE 2	QPSK20M	Left Tilted	18700	1	0	Ant 0	w/	22.20	25.19	0.50	0.16	0.13	0.065
	LTE 2	QPSK20M	Right Cheek	18700	50	0	Ant 0	w/	21.20	24.19	0.50	0.09	0.365	0.183
	LTE 2	QPSK20M	Right Tilted	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.13	0.076	0.038
	LTE 2	QPSK20M	Left Cheek	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.19	0.224	0.112
	LTE 2	QPSK20M	Left Tilted	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.01	0.093	0.047
	LTE 2	QPSK20M	Right Cheek	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0.12	0.314	0.157
	LTE 2	QPSK20M	Right Tilted	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0.15	0.079	0.040
	LTE 2	QPSK20M	Left Cheek	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0.07	0.223	0.112
	LTE 2	QPSK20M	Left Tilted	18700	1	0	Ant 1	w/	22.20	25.19	0.50	-0.03	0.083	0.042
	LTE 2	QPSK20M	Right Cheek	18700	50	0	Ant 1	w/	21.20	24.19	0.50	-0.13	0.195	0.098
	LTE 2	QPSK20M	Right Tilted	18700	50	0	Ant 1	w/	21.20	24.19	0.50	-0.16	0.055	0.028
	LTE 2	QPSK20M	Left Cheek	18700	50	0	Ant 1	w/	21.20	24.19	0.50	0.11	0.151	0.076
	LTE 2	QPSK20M	Left Tilted	18700	50	0	Ant 1	w/	21.20	24.19	0.50	0.12	0.059	0.030
	LTE 2	QPSK20M	Right Cheek	18900	1	0	Ant 0	w/	22.20	25.13	0.51	-0.11	0.536	**0.273**
	LTE 2	QPSK20M	Right Cheek	19100	1	0	Ant 0	w/	22.20	24.94	0.53	0.12	0.49	0.260

Note : The standalone of LTE 2 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 2 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 4	QPSK20M	Right Cheek	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.15	0.623	0.673
	LTE 4	QPSK20M	Right Tilted	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.14	0.236	0.255
	LTE 4	QPSK20M	Left Cheek	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.03	0.367	0.396
	LTE 4	QPSK20M	Left Tilted	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.02	0.189	0.204
	LTE 4	QPSK20M	Right Cheek	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.13	0.483	0.512
	LTE 4	QPSK20M	Right Tilted	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.02	0.186	0.197
	LTE 4	QPSK20M	Left Cheek	20175	50	0	Ant 0	-	24.20	23.96	1.06	-0.11	0.341	0.361
	LTE 4	QPSK20M	Left Tilted	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.02	0.159	0.169
	LTE 4	QPSK20M	Right Cheek	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.11	0.654	0.706
	LTE 4	QPSK20M	Right Tilted	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.06	0.605	0.653
	LTE 4	QPSK20M	Left Cheek	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.02	0.544	0.588
	LTE 4	QPSK20M	Left Tilted	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.02	0.432	0.467
	LTE 4	QPSK20M	Right Cheek	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.06	0.614	0.651
	LTE 4	QPSK20M	Right Tilted	20175	50	0	Ant 1	-	24.20	23.96	1.06	-0.13	0.286	0.303
	LTE 4	QPSK20M	Left Cheek	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.02	0.432	0.458
	LTE 4	QPSK20M	Left Tilted	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.11	0.257	0.272
06	LTE 4	QPSK20M	Right Cheek	20050	1	0	Ant 1	-	25.20	24.77	1.10	0.16	0.699	**0.769**
	LTE 4	QPSK20M	Right Cheek	20300	1	0	Ant 1	-	25.20	24.64	1.14	0.01	0.651	0.742
For CA Inter Band														
	LTE 4	QPSK20M	Right Cheek	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.15	0.623	0.336
	LTE 4	QPSK20M	Right Tilted	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.14	0.236	0.127
	LTE 4	QPSK20M	Left Cheek	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.03	0.367	0.198
	LTE 4	QPSK20M	Left Tilted	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.02	0.189	0.102
	LTE 4	QPSK20M	Right Cheek	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.13	0.483	0.256
	LTE 4	QPSK20M	Right Tilted	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.02	0.186	0.099
	LTE 4	QPSK20M	Left Cheek	20175	50	0	Ant 0	w/	21.20	23.96	0.53	-0.11	0.341	0.181
	LTE 4	QPSK20M	Left Tilted	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.02	0.159	0.084
	LTE 4	QPSK20M	Right Cheek	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.11	0.654	0.353
	LTE 4	QPSK20M	Right Tilted	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.06	0.605	0.327
	LTE 4	QPSK20M	Left Cheek	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.02	0.544	0.294
	LTE 4	QPSK20M	Left Tilted	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.02	0.432	0.233
	LTE 4	QPSK20M	Right Cheek	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.06	0.614	0.325
	LTE 4	QPSK20M	Right Tilted	20175	50	0	Ant 1	w/	21.20	23.96	0.53	-0.13	0.286	0.152
	LTE 4	QPSK20M	Left Cheek	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.02	0.432	0.229
	LTE 4	QPSK20M	Left Tilted	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.11	0.257	0.136
	LTE 4	QPSK20M	Right Cheek	20050	1	0	Ant 1	w/	22.20	24.77	0.55	0.16	0.699	**0.384**
	LTE 4	QPSK20M	Right Cheek	20300	1	0	Ant 1	w/	22.20	24.64	0.57	0.01	0.651	0.371

Note : The standalone of LTE 4 SAR had been tested and the results had been scaled to the UL CA Inter Band mode power level, the tune up of LTE 4 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 5	QPSK10M	Right Cheek	20600	1	0	Ant 0	-	25.20	25.01	1.04	-0.07	0.374	0.389
	LTE 5	QPSK10M	Right Tilted	20600	1	0	Ant 0	-	25.20	25.01	1.04	-0.17	0.259	0.269
	LTE 5	QPSK10M	Left Cheek	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.13	0.424	0.441
	LTE 5	QPSK10M	Left Tilted	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.16	0.228	0.237
	LTE 5	QPSK10M	Right Cheek	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.15	0.285	0.291
	LTE 5	QPSK10M	Right Tilted	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.04	0.21	0.214
	LTE 5	QPSK10M	Left Cheek	20600	25	0	Ant 0	-	24.20	24.12	1.02	-0.09	0.364	0.371
	LTE 5	QPSK10M	Left Tilted	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.01	0.189	0.193
	LTE 5	QPSK10M	Left Cheek	20450	1	0	Ant 0	-	25.20	24.80	1.10	0.1	0.385	0.424
07	LTE 5	QPSK10M	Left Cheek	20525	1	0	Ant 0	-	25.20	24.90	1.07	-0.11	0.434	**0.464**
	LTE 5	QPSK10M	Left Cheek	PCC:20450 SCC:20549	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	25.20	24.76	1.11	0.03	0.418	0.464
For EN-DC and CA Inter Band														
	LTE 5	QPSK10M	Right Cheek	20600	1	0	Ant 0	w/	22.20	25.01	0.52	-0.07	0.374	0.194
	LTE 5	QPSK10M	Right Tilted	20600	1	0	Ant 0	w/	22.20	25.01	0.52	-0.17	0.259	0.135
	LTE 5	QPSK10M	Left Cheek	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.13	0.424	0.220
	LTE 5	QPSK10M	Left Tilted	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.16	0.228	0.119
	LTE 5	QPSK10M	Right Cheek	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.15	0.285	0.145
	LTE 5	QPSK10M	Right Tilted	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.04	0.21	0.107
	LTE 5	QPSK10M	Left Cheek	20600	25	0	Ant 0	w/	21.20	24.12	0.51	-0.09	0.364	0.186
	LTE 5	QPSK10M	Left Tilted	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.01	0.189	0.096
	LTE 5	QPSK10M	Left Cheek	20450	1	0	Ant 0	w/	22.20	24.80	0.55	0.1	0.385	0.212
	LTE 5	QPSK10M	Left Cheek	20525	1	0	Ant 0	w/	22.20	24.90	0.54	-0.11	0.434	**0.234**

Note : The standalone of LTE 5 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 5 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
08	LTE 7	QPSK20M	Right Cheek	20850	1	0	Ant 0	-	24.20	24.19	1.00	-0.07	0.608	**0.608**
	LTE 7	QPSK20M	Right Tilted	20850	1	0	Ant 0	-	24.20	24.19	1.00	-0.07	0.113	0.113
	LTE 7	QPSK20M	Left Cheek	20850	1	0	Ant 0	-	24.20	24.19	1.00	-0.02	0.26	0.260
	LTE 7	QPSK20M	Left Tilted	20850	1	0	Ant 0	-	24.20	24.19	1.00	0.06	0.182	0.182
	LTE 7	QPSK20M	Right Cheek	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.14	0.48	0.480
	LTE 7	QPSK20M	Right Tilted	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.18	0.087	0.087
	LTE 7	QPSK20M	Left Cheek	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.13	0.288	0.288
	LTE 7	QPSK20M	Left Tilted	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.08	0.147	0.147
	LTE 7	QPSK20M	Right Cheek	21100	1	0	Ant 0	-	24.20	24.15	1.01	0.15	0.577	0.583
	LTE 7	QPSK20M	Right Cheek	21350	1	0	Ant 0	-	24.20	24.13	1.02	0.19	0.506	0.516
	LTE 12	QPSK10M	Right Cheek	23095	1	0	Ant 0	-	24.20	24.19	1.00	0.19	0.26	0.260
	LTE 12	QPSK10M	Right Tilted	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.12	0.187	0.187
	LTE 12	QPSK10M	Left Cheek	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.13	0.236	0.236
	LTE 12	QPSK10M	Left Tilted	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.1	0.146	0.146
	LTE 12	QPSK10M	Right Cheek	23095	25	0	Ant 0	-	23.20	23.16	1.01	0.18	0.204	0.206
	LTE 12	QPSK10M	Right Tilted	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.19	0.14	0.141
	LTE 12	QPSK10M	Left Cheek	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.02	0.189	0.191
	LTE 12	QPSK10M	Left Tilted	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.09	0.122	0.123
09	LTE 12	QPSK10M	Right Cheek	23060	1	0	Ant 0	-	24.20	24.06	1.03	-0.05	0.264	**0.272**
	LTE 12	QPSK10M	Right Cheek	23130	1	0	Ant 0	-	24.20	24.18	1.00	0.01	0.256	0.256

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 13	QPSK10M	Right Cheek	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.19	0.277	0.280
	LTE 13	QPSK10M	Right Tilted	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.01	0.187	0.189
10	LTE 13	QPSK10M	Left Cheek	23230	1	0	Ant 0	-	24.20	24.15	1.01	-0.08	0.289	**0.292**
	LTE 13	QPSK10M	Left Tilted	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.06	0.175	0.177
	LTE 13	QPSK10M	Right Cheek	23230	25	0	Ant 0	-	23.20	23.13	1.02	0.02	0.223	0.227
	LTE 13	QPSK10M	Right Tilted	23230	25	0	Ant 0	-	23.20	23.13	1.02	-0.15	0.157	0.160
	LTE 13	QPSK10M	Left Cheek	23230	25	0	Ant 0	-	23.20	23.13	1.02	0.12	0.238	0.243
	LTE 13	QPSK10M	Left Tilted	23230	25	0	Ant 0	-	23.20	23.13	1.02	-0.05	0.147	0.150
For EN-DC														
	LTE 13	QPSK10M	Right Cheek	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.19	0.277	0.141
	LTE 13	QPSK10M	Right Tilted	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.01	0.187	0.095
	LTE 13	QPSK10M	Left Cheek	23230	1	0	Ant 0	w/	21.20	24.15	0.51	-0.08	0.289	**0.147**
	LTE 13	QPSK10M	Left Tilted	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.06	0.175	0.089
	LTE 13	QPSK10M	Right Cheek	23230	25	0	Ant 0	w/	20.20	23.13	0.51	0.02	0.223	0.114
	LTE 13	QPSK10M	Right Tilted	23230	25	0	Ant 0	w/	20.20	23.13	0.51	-0.15	0.157	0.080
	LTE 13	QPSK10M	Left Cheek	23230	25	0	Ant 0	w/	20.20	23.13	0.51	0.12	0.238	0.121
	LTE 13	QPSK10M	Left Tilted	23230	25	0	Ant 0	w/	20.20	23.13	0.51	-0.05	0.147	0.075

Note : The standalone of LTE 13 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of LTE 13 is 21.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 48	QPSK20M	Right Cheek	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.17	0.028	0.033
	LTE 48	QPSK20M	Right Tilted	56640	1	0	Ant 1	-	25.20	24.48	1.18	0.02	0.00803	0.009
	LTE 48	QPSK20M	Left Cheek	56640	1	0	Ant 1	-	25.20	24.48	1.18	0.09	0.056	0.066
	LTE 48	QPSK20M	Left Tilted	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.02	0.034	0.040
	LTE 48	QPSK20M	Right Cheek	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.07	0.023	0.026
	LTE 48	QPSK20M	Right Tilted	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.07	<0.001	0.000
	LTE 48	QPSK20M	Left Cheek	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.19	0.044	0.050
	LTE 48	QPSK20M	Left Tilted	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.06	0.02	0.023
11	LTE 48	QPSK20M	Left Cheek	55340	1	0	Ant 1	-	25.20	24.46	1.19	0.05	0.071	**0.084**
	LTE 48	QPSK20M	Left Cheek	55780	1	0	Ant 1	-	25.20	24.27	1.24	-0.02	0.062	0.077
	LTE 48	QPSK20M	Left Cheek	56210	1	0	Ant 1	-	25.20	24.38	1.21	-0.15	0.058	0.070
	LTE 48	QPSK20M	Left Cheek	PCC:55340 SCC:55538	PCC:1 SCC:1	PCC:99 SCC:0	Ant 1	-	25.20	24.40	1.20	0.03	0.062	0.074

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

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 66	QPSK20M	Right Cheek	132322	1	99	Ant 0	-	25.20	24.83	1.09	0.07	0.404	0.440
	LTE 66	QPSK20M	Right Tilted	132322	1	99	Ant 0	-	25.20	24.83	1.09	0.04	0.183	0.199
	LTE 66	QPSK20M	Left Cheek	132322	1	99	Ant 0	-	25.20	24.83	1.09	-0.17	0.22	0.240
	LTE 66	QPSK20M	Left Tilted	132322	1	99	Ant 0	-	25.20	24.83	1.09	-0.09	0.126	0.137
	LTE 66	QPSK20M	Right Cheek	132322	50	50	Ant 0	-	24.20	23.90	1.07	0.18	0.438	0.469
	LTE 66	QPSK20M	Right Tilted	132322	50	50	Ant 0	-	24.20	23.90	1.07	0.07	0.134	0.143
	LTE 66	QPSK20M	Left Cheek	132322	50	50	Ant 0	-	24.20	23.90	1.07	0.16	0.206	0.220
	LTE 66	QPSK20M	Left Tilted	132322	50	50	Ant 0	-	24.20	23.90	1.07	-0.17	0.134	0.143
	LTE 66	QPSK20M	Right Cheek	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.17	0.638	0.695
	LTE 66	QPSK20M	Right Tilted	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.07	0.567	0.618
	LTE 66	QPSK20M	Left Cheek	132322	1	99	Ant 1	-	25.20	24.83	1.09	0.13	0.511	0.557
	LTE 66	QPSK20M	Left Tilted	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.07	0.398	0.434
	LTE 66	QPSK20M	Right Cheek	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.09	0.576	0.616
	LTE 66	QPSK20M	Right Tilted	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.06	0.268	0.287
	LTE 66	QPSK20M	Left Cheek	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.12	0.403	0.431
	LTE 66	QPSK20M	Left Tilted	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.19	0.241	0.258
12	LTE 66	QPSK20M	Right Cheek	132072	1	99	Ant 1	-	25.20	24.44	1.19	0.01	0.655	**0.779**
	LTE 66	QPSK20M	Right Cheek	132572	1	99	Ant 1	-	25.20	24.64	1.14	0.05	0.611	0.697
	LTE 66	QPSK10M	Right Cheek	PCC:132373 SCC:132472	PCC:1 SCC:1	PCC:49 SCC:0	Ant 1	-	25.20	24.53	1.17	0.05	0.621	0.727
	LTE 66	QPSK20M	Right Cheek	PCC:132323 SCC:132521	PCC:1 SCC:1	PCC:99 SCC:0	Ant 1	-	25.20	24.75	1.11	0.12	0.611	0.678
For EN-DC and CA Inter Band														
	LTE 66	QPSK20M	Right Cheek	132322	1	99	Ant 0	w/	22.20	24.83	0.55	0.07	0.404	0.222
	LTE 66	QPSK20M	Right Tilted	132322	1	99	Ant 0	w/	22.20	24.83	0.55	0.04	0.183	0.101
	LTE 66	QPSK20M	Left Cheek	132322	1	99	Ant 0	w/	22.20	24.83	0.55	-0.17	0.22	0.121
	LTE 66	QPSK20M	Left Tilted	132322	1	99	Ant 0	w/	22.20	24.83	0.55	-0.09	0.126	0.069
	LTE 66	QPSK20M	Right Cheek	132322	50	50	Ant 0	w/	21.20	23.90	0.54	0.18	0.438	0.237
	LTE 66	QPSK20M	Right Tilted	132322	50	50	Ant 0	w/	21.20	23.90	0.54	0.07	0.134	0.072
	LTE 66	QPSK20M	Left Cheek	132322	50	50	Ant 0	w/	21.20	23.90	0.54	0.16	0.206	0.111
	LTE 66	QPSK20M	Left Tilted	132322	50	50	Ant 0	w/	21.20	23.90	0.54	-0.17	0.134	0.072
	LTE 66	QPSK20M	Right Cheek	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.17	0.638	0.351
	LTE 66	QPSK20M	Right Tilted	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.07	0.567	0.312
	LTE 66	QPSK20M	Left Cheek	132322	1	99	Ant 1	w/	22.20	24.83	0.55	0.13	0.511	0.281
	LTE 66	QPSK20M	Left Tilted	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.07	0.398	0.219
	LTE 66	QPSK20M	Right Cheek	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.09	0.576	0.311
	LTE 66	QPSK20M	Right Tilted	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.06	0.268	0.145
	LTE 66	QPSK20M	Left Cheek	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.12	0.403	0.218
	LTE 66	QPSK20M	Left Tilted	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.19	0.241	0.130
	LTE 66	QPSK20M	Right Cheek	132072	1	99	Ant 1	w/	22.20	24.44	0.60	0.01	0.655	**0.393**
	LTE 66	QPSK20M	Right Cheek	132572	1	99	Ant 1	w/	22.20	24.64	0.57	0.05	0.611	0.348

Note : The standalone of LTE 66 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 66 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n2	DFT-S QPSK20M	Right Cheek	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.02	0.359	0.395
	5G NR n2	DFT-S QPSK20M	Right Tilted	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.13	0.173	0.190
13	5G NR n2	DFT-S QPSK20M	Left Cheek	376000	1	1	Ant 1	-	25.20	24.79	1.10	-0.07	0.461	**0.507**
	5G NR n2	DFT-S QPSK20M	Left Tilted	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.05	0.163	0.179
	5G NR n2	DFT-S QPSK20M	Right Cheek	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.02	0.319	0.354
	5G NR n2	DFT-S QPSK20M	Right Tilted	376000	50	25	Ant 1	-	25.20	24.73	1.11	-0.11	0.146	0.162
	5G NR n2	DFT-S QPSK20M	Left Cheek	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.02	0.438	0.486
	5G NR n2	DFT-S QPSK20M	Left Tilted	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.01	0.138	0.153
	5G NR n2	DFT-S QPSK20M	Left Cheek	372000	1	1	Ant 1	-	25.20	24.45	1.19	0.03	0.311	0.370
	5G NR n2	DFT-S QPSK20M	Left Cheek	380000	1	1	Ant 1	-	25.20	24.39	1.21	0.01	0.389	0.471
For EN-DC														
	5G NR n2	DFT-S QPSK20M	Right Cheek	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.02	0.359	0.197
	5G NR n2	DFT-S QPSK20M	Right Tilted	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.13	0.173	0.095
	5G NR n2	DFT-S QPSK20M	Left Cheek	376000	1	1	Ant 1	w/	22.20	24.79	0.55	-0.07	0.461	**0.254**
	5G NR n2	DFT-S QPSK20M	Left Tilted	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.05	0.163	0.090
	5G NR n2	DFT-S QPSK20M	Right Cheek	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.02	0.319	0.179
	5G NR n2	DFT-S QPSK20M	Right Tilted	376000	50	25	Ant 1	w/	22.20	24.73	0.56	-0.11	0.146	0.082
	5G NR n2	DFT-S QPSK20M	Left Cheek	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.02	0.438	0.245
	5G NR n2	DFT-S QPSK20M	Left Tilted	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.01	0.138	0.077
	5G NR n2	DFT-S QPSK20M	Left Cheek	372000	1	1	Ant 1	w/	22.20	24.45	0.60	0.03	0.311	0.187
	5G NR n2	DFT-S QPSK20M	Left Cheek	380000	1	1	Ant 1	w/	22.20	24.39	0.60	0.01	0.389	0.233

Note : The standalone of 5G NR n2 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n2 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n5	DFT-S QPSK20M	Right Cheek	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.02	0.303	0.321
	5G NR n5	DFT-S QPSK20M	Right Tilted	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.15	0.181	0.192
14	5G NR n5	DFT-S QPSK20M	Left Cheek	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.01	0.361	**0.383**
	5G NR n5	DFT-S QPSK20M	Left Tilted	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.02	0.16	0.170
	5G NR n5	DFT-S QPSK20M	Right Cheek	167300	50	25	Ant 0	-	25.20	24.83	1.09	0.06	0.284	0.310
	5G NR n5	DFT-S QPSK20M	Right Tilted	167300	50	25	Ant 0	-	25.20	24.83	1.09	-0.16	0.163	0.178
	5G NR n5	DFT-S QPSK20M	Left Cheek	167300	50	25	Ant 0	-	25.20	24.83	1.09	0.02	0.339	0.370
	5G NR n5	DFT-S QPSK20M	Left Tilted	167300	50	25	Ant 0	-	25.20	24.83	1.09	-0.11	0.146	0.159
	5G NR n5	DFT-S QPSK20M	Left Cheek	166800	1	1	Ant 0	-	25.20	24.92	1.07	0.02	0.341	0.365
	5G NR n5	DFT-S QPSK20M	Left Cheek	167800	1	1	Ant 0	-	25.20	24.90	1.07	0.06	0.333	0.356
For EN-DC														
	5G NR n5	DFT-S QPSK20M	Right Cheek	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.02	0.303	0.161
	5G NR n5	DFT-S QPSK20M	Right Tilted	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.15	0.181	0.096
	5G NR n5	DFT-S QPSK20M	Left Cheek	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.01	0.361	**0.191**
	5G NR n5	DFT-S QPSK20M	Left Tilted	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.02	0.16	0.085
	5G NR n5	DFT-S QPSK20M	Right Cheek	167300	50	25	Ant 0	w/	22.20	24.83	0.55	0.06	0.284	0.156
	5G NR n5	DFT-S QPSK20M	Right Tilted	167300	50	25	Ant 0	w/	22.20	24.83	0.55	-0.16	0.163	0.090
	5G NR n5	DFT-S QPSK20M	Left Cheek	167300	50	25	Ant 0	w/	22.20	24.83	0.55	0.02	0.339	0.186
	5G NR n5	DFT-S QPSK20M	Left Tilted	167300	50	25	Ant 0	w/	22.20	24.83	0.55	-0.11	0.146	0.080
	5G NR n5	DFT-S QPSK20M	Left Cheek	166800	1	1	Ant 0	w/	22.20	24.92	0.53	0.02	0.341	0.181
	5G NR n5	DFT-S QPSK20M	Left Cheek	167800	1	1	Ant 0	w/	22.20	24.90	0.54	0.06	0.333	0.180

Note : The standalone of 5G NR n5 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n5 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n66	DFT-S QPSK20M	Right Cheek	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.02	0.381	0.400
	5G NR n66	DFT-S QPSK20M	Right Tilted	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.13	0.259	0.272
	5G NR n66	DFT-S QPSK20M	Left Cheek	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.05	0.514	0.540
	5G NR n66	DFT-S QPSK20M	Left Tilted	354000	1	1	Ant 1	-	24.50	24.29	1.05	-0.14	0.282	0.296
	5G NR n66	DFT-S QPSK20M	Right Cheek	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.03	0.331	0.361
	5G NR n66	DFT-S QPSK20M	Right Tilted	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.02	0.205	0.223
	5G NR n66	DFT-S QPSK20M	Left Cheek	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.01	0.407	0.444
	5G NR n66	DFT-S QPSK20M	Left Tilted	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.13	0.218	0.238
15	5G NR n66	DFT-S QPSK20M	Left Cheek	344000	1	1	Ant 1	-	24.50	23.91	1.15	-0.07	0.563	**0.647**
	5G NR n66	DFT-S QPSK20M	Left Cheek	349000	1	1	Ant 1	-	24.50	24.28	1.05	0.11	0.56	0.588
For EN-DC														
	5G NR n66	DFT-S QPSK20M	Right Cheek	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.02	0.381	0.202
	5G NR n66	DFT-S QPSK20M	Right Tilted	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.13	0.259	0.137
	5G NR n66	DFT-S QPSK20M	Left Cheek	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.05	0.514	0.272
	5G NR n66	DFT-S QPSK20M	Left Tilted	354000	1	1	Ant 1	w/	21.50	24.29	0.53	-0.14	0.282	0.149
	5G NR n66	DFT-S QPSK20M	Right Cheek	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.03	0.331	0.182
	5G NR n66	DFT-S QPSK20M	Right Tilted	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.02	0.205	0.113
	5G NR n66	DFT-S QPSK20M	Left Cheek	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.01	0.407	0.224
	5G NR n66	DFT-S QPSK20M	Left Tilted	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.13	0.218	0.120
	5G NR n66	DFT-S QPSK20M	Left Cheek	344000	1	1	Ant 1	w/	21.50	23.91	0.57	-0.07	0.563	**0.321**
	5G NR n66	DFT-S QPSK20M	Left Cheek	349000	1	1	Ant 1	w/	21.50	24.28	0.53	0.11	0.56	0.297

Note : The standalone of 5G NR n66 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n66 is 21.5 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Right Cheek	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0.03	0.222	0.242
	WLAN2.4G	802.11b	Right Tilted	11	Ant 0	91.57	1.09	16.00	15.98	1.00	-0.05	0.056	0.061
	WLAN2.4G	802.11b	Left Cheek	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0.12	0.144	0.157
	WLAN2.4G	802.11b	Left Tilted	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0.09	0.049	0.053
	WLAN2.4G	802.11b	Right Cheek	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0.01	0.221	0.255
	WLAN2.4G	802.11b	Right Tilted	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0.07	0.063	0.073
	WLAN2.4G	802.11b	Left Cheek	6	Ant 1	91.57	1.09	16.00	15.74	1.06	-0.13	0.069	0.080
	WLAN2.4G	802.11b	Left Tilted	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0	<0.001	0.000
	WLAN2.4G	802.11b	Right Cheek	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.01	0.239	0.268
	WLAN2.4G	802.11b	Right Tilted	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	-0.08	0.058	0.065
	WLAN2.4G	802.11b	Left Cheek	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.03	0.179	0.201
	WLAN2.4G	802.11b	Left Tilted	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.01	0.091	0.102
16	WLAN2.4G	802.11b	Right Cheek	1	Ant 0+1	91.57	1.09	19.00	18.79	1.05	0.02	0.271	**0.310**
	WLAN2.4G	802.11b	Right Cheek	6	Ant 0+1	91.57	1.09	19.00	18.83	1.04	0.03	0.269	0.305
	WLAN5.3G	802.11a	Right Cheek	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0.01	0.097	0.101
	WLAN5.3G	802.11a	Right Tilted	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0	<0.001	0.000
	WLAN5.3G	802.11a	Left Cheek	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0.02	0.09	0.094
	WLAN5.3G	802.11a	Left Tilted	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0	<0.001	0.000
	WLAN5.3G	802.11a	Right Cheek	52	Ant 1	97.25	1.03	15.50	15.43	1.02	-0.04	0.408	0.429
	WLAN5.3G	802.11a	Right Tilted	52	Ant 1	97.25	1.03	15.50	15.43	1.02	0.02	0.336	0.353
	WLAN5.3G	802.11a	Left Cheek	52	Ant 1	97.25	1.03	15.50	15.43	1.02	-0.03	0.309	0.325
	WLAN5.3G	802.11a	Left Tilted	52	Ant 1	97.25	1.03	15.50	15.43	1.02	0.01	0.293	0.308
	WLAN5.3G	802.11a	Right Cheek	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.01	0.416	0.433
	WLAN5.3G	802.11a	Right Tilted	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	0.05	0.112	0.117
	WLAN5.3G	802.11a	Left Cheek	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.04	0.167	0.174
	WLAN5.3G	802.11a	Left Tilted	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	0.01	0.095	0.099
17	WLAN5.3G	802.11a	Right Cheek	56	Ant 0+1	97.25	1.03	18.50	18.21	1.07	-0.01	0.442	**0.487**
	WLAN5.3G	802.11a	Right Cheek	60	Ant 0+1	97.25	1.03	18.50	18.23	1.07	0.02	0.344	0.379
	WLAN5.3G	802.11a	Right Cheek	64	Ant 0+1	97.25	1.03	18.00	17.82	1.04	-0.03	0.327	0.350
	WLAN5.6G	802.11a	Right Cheek	116	Ant 0	97.25	1.03	13.70	13.54	1.04	0.01	0.097	0.104
	WLAN5.6G	802.11a	Right Tilted	116	Ant 0	97.25	1.03	13.70	13.54	1.04	0.02	0.06	0.064
	WLAN5.6G	802.11a	Left Cheek	116	Ant 0	97.25	1.03	13.70	13.54	1.04	-0.03	0.053	0.057
	WLAN5.6G	802.11a	Left Tilted	116	Ant 0	97.25	1.03	13.70	13.54	1.04	0.01	0.042	0.045
	WLAN5.6G	802.11a	Right Cheek	116	Ant 1	97.25	1.03	13.70	13.30	1.10	-0.01	0.154	0.174
	WLAN5.6G	802.11a	Right Tilted	116	Ant 1	97.25	1.03	13.70	13.30	1.10	0.06	0.054	0.061
	WLAN5.6G	802.11a	Left Cheek	116	Ant 1	97.25	1.03	13.70	13.30	1.10	-0.03	0.14	0.159
	WLAN5.6G	802.11a	Left Tilted	116	Ant 1	97.25	1.03	13.70	13.30	1.10	-0.01	0.048	0.054
	WLAN5.6G	802.11a	Right Cheek	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	0.03	0.168	0.183
	WLAN5.6G	802.11a	Right Tilted	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.01	0.067	0.073
	WLAN5.6G	802.11a	Left Cheek	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.01	0.121	0.132
	WLAN5.6G	802.11a	Left Tilted	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.03	0.062	0.068
	WLAN5.6G	802.11a	Right Cheek	100	Ant 0+1	97.25	1.03	16.00	15.82	1.04	0.01	0.138	0.148
	WLAN5.6G	802.11a	Right Cheek	120	Ant 0+1	97.25	1.03	16.70	16.40	1.07	-0.07	0.16	0.176
	WLAN5.6G	802.11a	Right Cheek	124	Ant 0+1	97.25	1.03	16.70	16.36	1.08	0.05	0.151	0.168
18	WLAN5.6G	802.11a	Right Cheek	132	Ant 0+1	97.25	1.03	16.70	16.38	1.08	-0.07	0.248	**0.276**
	WLAN5.6G	802.11a	Right Cheek	140	Ant 0+1	97.25	1.03	16.00	15.84	1.04	0.02	0.186	0.199
	WLAN5.6G	802.11a	Right Cheek	144	Ant 0+1	97.25	1.03	16.00	15.79	1.05	0.02	0.186	0.201
	WLAN5.8G	802.11a	Right Cheek	157	Ant 0	97.25	1.03	13.70	13.69	1.00	-0.01	0.081	0.083
	WLAN5.8G	802.11a	Right Tilted	157	Ant 0	97.25	1.03	13.70	13.69	1.00	0.02	0.062	0.064
	WLAN5.8G	802.11a	Left Cheek	157	Ant 0	97.25	1.03	13.70	13.69	1.00	0.05	0.069	0.071
	WLAN5.8G	802.11a	Left Tilted	157	Ant 0	97.25	1.03	13.70	13.69	1.00	-0.06	0.053	0.055
	WLAN5.8G	802.11a	Right Cheek	157	Ant 1	97.25	1.03	13.70	13.34	1.09	-0.01	0.306	0.344
	WLAN5.8G	802.11a	Right Tilted	157	Ant 1	97.25	1.03	13.70	13.34	1.09	0.01	0.153	0.172
	WLAN5.8G	802.11a	Left Cheek	157	Ant 1	97.25	1.03	13.70	13.34	1.09	-0.04	0.194	0.218
	WLAN5.8G	802.11a	Left Tilted	157	Ant 1	97.25	1.03	13.70	13.34	1.09	0.03	0.098	0.110
	WLAN5.8G	802.11a	Right Cheek	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.04	0.327	0.350
	WLAN5.8G	802.11a	Right Tilted	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.01	0.068	0.073
	WLAN5.8G	802.11a	Left Cheek	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.06	0.116	0.124
	WLAN5.8G	802.11a	Left Tilted	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.02	0.071	0.076
	WLAN5.8G	802.11a	Right Cheek	149	Ant 0+1	97.25	1.03	14.00	13.83	1.04	-0.04	0.109	0.117
	WLAN5.8G	802.11a	Right Cheek	153	Ant 0+1	97.25	1.03	16.70	16.45	1.06	0.01	0.2	0.218
19	WLAN5.8G	802.11a	Right Cheek	161	Ant 0+1	97.25	1.03	16.70	16.45	1.06	-0.07	0.347	**0.379**
	WLAN5.8G	802.11a	Right Cheek	165	Ant 0+1	97.25	1.03	16.70	16.49	1.05	0.06	0.204	0.221
20	BT	BDR	Right Cheek	39	Ant 0	75.88	1.32	12.30	11.20	1.29	-0.03	0.083	**0.141**
	BT	BDR	Right Tilted	39	Ant 0	75.88	1.32	12.30	11.20	1.29	0	<0.001	0.000
	BT	BDR	Left Cheek	39	Ant 0	75.88	1.32	12.30	11.20	1.29	0	<0.001	0.000
	BT	BDR	Left Tilted	39	Ant 0	75.88	1.32	12.30	11.20	1.29	0	<0.001	0.000
	BT	BDR	Right Cheek	0	Ant 0	75.88	1.32	12.30	10.31	1.58	0	<0.001	0.000
	BT	BDR	Right Cheek	78	Ant 0	75.88	1.32	12.30	11.18	1.29	0.01	0.045	0.077

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

4.7.3 SAR Results for Body Exposure Condition (Test Separation Distance is 15 mm)

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS12	Front Face	189	Ant 0	27.90	26.33	1.44	-0.03	0.294	0.423
	GSM850	GPRS12	Rear Face	189	Ant 0	27.90	26.33	1.44	0.09	0.288	0.415
	GSM850	GPRS12	Front Face	128	Ant 0	27.90	25.98	1.56	0.01	0.2	0.312
21	GSM850	GPRS12	Front Face	251	Ant 0	27.90	26.21	1.48	-0.08	0.323	**0.478**
22	GSM1900	GPRS12	Front Face	512	Ant 0	24.90	23.42	1.41	0.01	0.11	**0.155**
	GSM1900	GPRS12	Rear Face	512	Ant 0	24.90	23.42	1.41	-0.06	0.099	0.140
	GSM1900	GPRS12	Front Face	661	Ant 0	24.90	23.37	1.42	0.02	0.102	0.145
	GSM1900	GPRS12	Front Face	810	Ant 0	24.90	23.02	1.54	-0.01	0.084	0.129
	WCDMA II	RMC12.2K	Front Face	9400	Ant 0	24.70	24.03	1.17	-0.03	0.235	0.275
	WCDMA II	RMC12.2K	Rear Face	9400	Ant 0	24.70	24.03	1.17	0.08	0.243	0.284
	WCDMA II	RMC12.2K	Rear Face	9262	Ant 0	24.70	23.86	1.21	0.12	0.198	0.240
23	WCDMA II	RMC12.2K	Rear Face	9538	Ant 0	24.70	23.52	1.31	-0.04	0.249	**0.326**
	WCDMA V	RMC12.2K	Front Face	4233	Ant 0	24.70	23.65	1.27	0.11	0.248	0.315
24	WCDMA V	RMC12.2K	Rear Face	4233	Ant 0	24.70	23.65	1.27	-0.02	0.297	**0.377**
	WCDMA V	RMC12.2K	Rear Face	4132	Ant 0	24.70	23.33	1.37	0.08	0.258	0.353
	WCDMA V	RMC12.2K	Rear Face	4182	Ant 0	24.70	23.51	1.32	-0.03	0.279	0.368

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
25	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 0	-	25.20	25.19	1.00	0.03	0.435	**0.435**
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.12	0.353	0.353
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 0	-	24.20	24.19	1.00	0.05	0.316	0.316
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 0	-	24.20	24.19	1.00	0.03	0.274	0.274
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 1	-	25.20	25.19	1.00	-0.01	0.216	0.216
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 1	-	25.20	25.19	1.00	0.02	0.129	0.129
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 1	-	24.20	24.19	1.00	-0.15	0.137	0.137
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 1	-	24.20	24.19	1.00	-0.02	0.076	0.076
	LTE 2	QPSK20M	Front Face	18900	1	0	Ant 0	-	25.20	25.13	1.02	0.07	0.376	0.384
	LTE 2	QPSK20M	Front Face	19100	1	0	Ant 0	-	25.20	24.94	1.06	-0.09	0.351	0.372
For EN-DC and CA inter Band														
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 0	w/	22.20	25.19	0.50	0.03	0.435	**0.218**
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.12	0.353	0.177
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 0	w/	21.20	24.19	0.50	0.05	0.316	0.158
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 0	w/	21.20	24.19	0.50	0.03	0.274	0.137
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 1	w/	22.20	25.19	0.50	-0.01	0.216	0.108
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0.02	0.129	0.065
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 1	w/	21.20	24.19	0.50	-0.15	0.137	0.069
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 1	w/	21.20	24.19	0.50	-0.02	0.076	0.038
	LTE 2	QPSK20M	Front Face	18900	1	0	Ant 0	w/	22.20	25.13	0.51	0.07	0.376	0.192
	LTE 2	QPSK20M	Front Face	19100	1	0	Ant 0	w/	22.20	24.94	0.53	-0.09	0.351	0.186

Note : The standalone of LTE 2 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 2 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.03	0.393	0.424
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.05	0.35	0.378
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 0	-	24.20	23.96	1.06	-0.09	0.359	0.381
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.15	0.328	0.348
26	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 1	-	25.20	24.85	1.08	-0.08	0.525	**0.567**
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.15	0.415	0.448
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.12	0.421	0.446
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.03	0.324	0.343
	LTE 4	QPSK20M	Front Face	20050	1	0	Ant 1	-	25.20	24.77	1.10	0.11	0.475	0.523
	LTE 4	QPSK20M	Front Face	20300	1	0	Ant 1	-	25.20	24.64	1.14	0.17	0.413	0.471
For CA Inter Band														
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.03	0.393	0.212
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.05	0.35	0.189
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 0	w/	21.20	23.96	0.53	-0.09	0.359	0.190
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.15	0.328	0.174
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 1	w/	22.20	24.85	0.54	-0.08	0.525	**0.284**
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.15	0.415	0.224
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.12	0.421	0.223
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.03	0.324	0.172
	LTE 4	QPSK20M	Front Face	20050	1	0	Ant 1	w/	22.20	24.77	0.55	0.11	0.475	0.261
	LTE 4	QPSK20M	Front Face	20300	1	0	Ant 1	w/	22.20	24.64	0.57	0.17	0.413	0.235

Note : The standalone of LTE 4 SAR had been tested and the results had been scaled to the UL CA Inter Band mode power level, the tune up of LTE 4 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
27	LTE 5	QPSK10M	Front Face	20600	1	0	Ant 0	-	25.20	25.01	1.04	-0.05	0.388	**0.404**
	LTE 5	QPSK10M	Rear Face	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.03	0.369	0.384
	LTE 5	QPSK10M	Front Face	20600	25	0	Ant 0	-	24.20	24.12	1.02	-0.08	0.331	0.338
	LTE 5	QPSK10M	Rear Face	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.12	0.298	0.304
	LTE 5	QPSK10M	Front Face	20450	1	0	Ant 0	-	25.20	24.80	1.10	0.05	0.323	0.355
	LTE 5	QPSK10M	Front Face	20525	1	0	Ant 0	-	25.20	24.90	1.07	-0.09	0.362	0.387
	LTE 5	QPSK10M	Front Face	PCC:20450 SCC:20549	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	25.20	24.76	1.11	0.03	0.341	0.379
For EN-DC and CA Inter Band														
	LTE 5	QPSK10M	Front Face	20600	1	0	Ant 0	w/	22.20	25.01	0.52	-0.05	0.388	**0.202**
	LTE 5	QPSK10M	Rear Face	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.03	0.369	0.192
	LTE 5	QPSK10M	Front Face	20600	25	0	Ant 0	w/	21.20	24.12	0.51	-0.08	0.331	0.169
	LTE 5	QPSK10M	Rear Face	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.12	0.298	0.152
	LTE 5	QPSK10M	Front Face	20450	1	0	Ant 0	w/	22.20	24.80	0.55	0.05	0.323	0.178
	LTE 5	QPSK10M	Front Face	20525	1	0	Ant 0	w/	22.20	24.90	0.54	-0.09	0.362	0.195

Note : The standalone of LTE5 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 5 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 7	QPSK20M	Front Face	20850	1	0	Ant 0	-	24.20	24.19	1.00	0.15	0.385	0.385
28	LTE 7	QPSK20M	Rear Face	20850	1	0	Ant 0	-	24.20	24.19	1.00	0.01	0.445	**0.445**
	LTE 7	QPSK20M	Front Face	20850	50	0	Ant 0	-	23.20	23.20	1.00	-0.03	0.309	0.309
	LTE 7	QPSK20M	Rear Face	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.07	0.357	0.357
	LTE 7	QPSK20M	Rear Face	21100	1	0	Ant 0	-	24.20	24.15	1.01	-0.02	0.403	0.407
	LTE 7	QPSK20M	Rear Face	21350	1	0	Ant 0	-	24.20	24.13	1.02	0.09	0.391	0.399
	LTE 12	QPSK10M	Front Face	23095	1	0	Ant 0	-	24.20	24.19	1.00	0.03	0.276	0.276
	LTE 12	QPSK10M	Rear Face	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.01	0.262	0.262
	LTE 12	QPSK10M	Front Face	23095	25	0	Ant 0	-	23.20	23.16	1.01	0.02	0.228	0.230
	LTE 12	QPSK10M	Rear Face	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.09	0.222	0.224
29	LTE 12	QPSK10M	Front Face	23060	1	0	Ant 0	-	24.20	24.06	1.03	-0.03	0.279	**0.287**
	LTE 12	QPSK10M	Front Face	23130	1	0	Ant 0	-	24.20	24.18	1.00	0.14	0.275	0.275

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
30	LTE 13	QPSK10M	Front Face	23230	1	0	Ant 0	-	24.20	24.15	1.01	-0.02	0.289	**0.292**
	LTE 13	QPSK10M	Rear Face	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.08	0.258	0.261
	LTE 13	QPSK10M	Front Face	23230	25	0	Ant 0	-	23.20	23.13	1.02	-0.02	0.241	0.246
	LTE 13	QPSK10M	Rear Face	23230	25	0	Ant 0	-	23.20	23.13	1.02	0.13	0.217	0.221
For EN-DC														
	LTE 13	QPSK10M	Front Face	23230	1	0	Ant 0	w/	21.20	24.15	0.51	-0.02	0.289	**0.147**
	LTE 13	QPSK10M	Rear Face	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.08	0.258	0.132
	LTE 13	QPSK10M	Front Face	23230	25	0	Ant 0	w/	20.20	23.13	0.51	-0.02	0.241	0.123
	LTE 13	QPSK10M	Rear Face	23230	25	0	Ant 0	w/	20.20	23.13	0.51	0.13	0.217	0.111

Note : The standalone of LTE 13 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of LTE 13 is 21.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 48	QPSK20M	Front Face	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.05	0.224	0.264
	LTE 48	QPSK20M	Rear Face	56640	1	0	Ant 1	-	25.20	24.48	1.18	0.03	0.642	0.758
	LTE 48	QPSK20M	Front Face	56640	50	0	Ant 1	-	24.20	23.68	1.13	-0.12	0.186	0.210
	LTE 48	QPSK20M	Rear Face	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.07	0.527	0.596
	LTE 48	QPSK20M	Rear Face	56640	100	0	Ant 1	-	24.20	23.63	1.14	-0.03	0.519	0.592
	LTE 48	QPSK20M	Rear Face	55340	1	0	Ant 1	-	25.20	24.46	1.19	0.01	0.646	0.769
	LTE 48	QPSK20M	Rear Face	55780	1	0	Ant 1	-	25.20	24.27	1.24	-0.09	0.641	0.795
31	LTE 48	QPSK20M	Rear Face	56210	1	0	Ant 1	-	25.20	24.38	1.21	-0.03	0.661	**0.800**
	LTE 48	QPSK20M	Rear Face	PCC:55340 SCC:55538	PCC:1 SCC:1	PCC:99 SCC:0	Ant 1	-	25.20	24.40	1.20	0.03	0.638	0.766

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 0	-	25.20	24.83	1.09	-0.08	0.391	0.426
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 0	-	25.20	24.83	1.09	0.13	0.312	0.340
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 0	-	24.20	23.90	1.07	0.05	0.319	0.341
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 0	-	24.20	23.90	1.07	-0.07	0.291	0.311
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.16	0.385	0.420
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 1	-	25.20	24.83	1.09	0.08	0.305	0.332
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.01	0.311	0.333
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 1	-	24.20	23.90	1.07	-0.01	0.238	0.255
32	LTE 66	QPSK20M	Front Face	132072	1	99	Ant 0	-	25.20	24.44	1.19	-0.03	0.451	**0.537**
	LTE 66	QPSK20M	Front Face	132572	1	99	Ant 0	-	25.20	24.64	1.14	0.11	0.308	0.351
	LTE 66	QPSK10M	Front Face	PCC:132373 SCC:132472	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	25.20	24.53	1.17	0.05	0.421	0.493
	LTE 66	QPSK20M	Front Face	PCC:132323 SCC:132521	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	25.20	24.75	1.11	0.12	0.427	0.474
For EN-DC and CA Inter Band														
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 0	w/	22.20	24.83	0.55	-0.08	0.391	0.215
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 0	w/	22.20	24.83	0.55	0.13	0.312	0.172
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 0	w/	21.20	23.90	0.54	0.05	0.319	0.172
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 0	w/	21.20	23.90	0.54	-0.07	0.291	0.157
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.16	0.385	0.212
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 1	w/	22.20	24.83	0.55	0.08	0.305	0.168
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.01	0.311	0.168
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 1	w/	21.20	23.90	0.54	-0.01	0.238	0.129
	LTE 66	QPSK20M	Front Face	132072	1	99	Ant 0	w/	22.20	24.44	0.60	-0.03	0.451	**0.271**
	LTE 66	QPSK20M	Front Face	132572	1	99	Ant 0	w/	22.20	24.64	0.57	0.11	0.308	0.176

Note : The standalone of LTE 66 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 66 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n2	DFT-S QPSK20M	Front Face	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.12	0.38	0.418
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.02	0.341	0.375
	5G NR n2	DFT-S QPSK20M	Front Face	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.01	0.328	0.364
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.08	0.301	0.334
33	5G NR n2	DFT-S QPSK20M	Front Face	372000	1	1	Ant 1	-	25.20	24.45	1.19	0.15	0.428	**0.509**
	5G NR n2	DFT-S QPSK20M	Front Face	380000	1	1	Ant 1	-	25.20	24.39	1.21	0.13	0.339	0.410
For EN-DC														
	5G NR n2	DFT-S QPSK20M	Front Face	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.12	0.38	0.209
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.02	0.341	0.188
	5G NR n2	DFT-S QPSK20M	Front Face	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.01	0.328	0.184
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.08	0.301	0.169
	5G NR n2	DFT-S QPSK20M	Front Face	372000	1	1	Ant 1	w/	22.20	24.45	0.60	0.15	0.428	**0.257**
	5G NR n2	DFT-S QPSK20M	Front Face	380000	1	1	Ant 1	w/	22.20	24.39	0.60	0.13	0.339	0.203

Note : The standalone of 5G NR n2 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n2 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n5	DFT-S QPSK20M	Front Face	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.02	0.256	0.271
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.13	0.255	0.270
	5G NR n5	DFT-S QPSK20M	Front Face	167300	50	25	Ant 0	-	25.20	24.83	1.09	0.05	0.24	0.262
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	50	25	Ant 0	-	25.20	24.83	1.09	-0.14	0.213	0.232
34	5G NR n5	DFT-S QPSK20M	Front Face	166800	1	1	Ant 0	-	25.20	24.92	1.07	-0.01	0.257	**0.275**
	5G NR n5	DFT-S QPSK20M	Front Face	167800	1	1	Ant 0	-	25.20	24.90	1.07	0.01	0.25	0.268
For EN-DC														
	5G NR n5	DFT-S QPSK20M	Front Face	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.02	0.256	0.136
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.13	0.255	0.135
	5G NR n5	DFT-S QPSK20M	Front Face	167300	50	25	Ant 0	w/	22.20	24.83	0.55	0.05	0.24	0.132
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	50	25	Ant 0	w/	22.20	24.83	0.55	-0.14	0.213	0.117
	5G NR n5	DFT-S QPSK20M	Front Face	166800	1	1	Ant 0	w/	22.20	24.92	0.53	-0.01	0.257	**0.136**
	5G NR n5	DFT-S QPSK20M	Front Face	167800	1	1	Ant 0	w/	22.20	24.90	0.54	0.01	0.25	0.135

Note : The standalone of 5G NR n5 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n5 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n66	DFT-S QPSK20M	Front Face	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.16	0.516	0.542
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.19	0.456	0.479
	5G NR n66	DFT-S QPSK20M	Front Face	354000	50	25	Ant 1	-	24.50	24.13	1.09	-0.1	0.406	0.443
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.17	0.372	0.405
	5G NR n66	DFT-S QPSK20M	Front Face	344000	1	1	Ant 1	-	24.50	23.91	1.15	-0.02	0.507	0.583
35	5G NR n66	DFT-S QPSK20M	Front Face	349000	1	1	Ant 1	-	24.50	24.28	1.05	0.02	0.559	**0.587**
For EN-DC														
	5G NR n66	DFT-S QPSK20M	Front Face	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.16	0.516	0.273
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.19	0.456	0.242
	5G NR n66	DFT-S QPSK20M	Front Face	354000	50	25	Ant 1	w/	21.50	24.13	0.55	-0.1	0.406	0.223
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.17	0.372	0.205
	5G NR n66	DFT-S QPSK20M	Front Face	344000	1	1	Ant 1	w/	21.50	23.91	0.57	-0.02	0.507	0.289
	5G NR n66	DFT-S QPSK20M	Front Face	349000	1	1	Ant 1	w/	21.50	24.28	0.53	0.02	0.559	**0.296**

Note : The standalone of 5G NR n66 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n66 is 21.5 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Front Face	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0.01	0.02	0.022
	WLAN2.4G	802.11b	Rear Face	11	Ant 0	91.57	1.09	16.00	15.98	1.00	-0.06	0.056	0.061
	WLAN2.4G	802.11b	Front Face	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0.02	0.014	0.016
	WLAN2.4G	802.11b	Rear Face	6	Ant 1	91.57	1.09	16.00	15.74	1.06	-0.01	0.085	0.098
	WLAN2.4G	802.11b	Front Face	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	-0.07	0.019	0.021
	WLAN2.4G	802.11b	Rear Face	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.01	0.097	0.109
36	WLAN2.4G	802.11b	Rear Face	1	Ant 0+1	91.57	1.09	19.00	18.79	1.05	-0.07	0.126	**0.144**
	WLAN2.4G	802.11b	Rear Face	6	Ant 0+1	91.57	1.09	19.00	18.83	1.04	0.01	0.098	0.111
	WLAN5.3G	802.11a	Front Face	52	Ant 0	97.25	1.03	15.50	15.45	1.01	-0.05	0.017	0.018
	WLAN5.3G	802.11a	Rear Face	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0.04	0.044	0.046
	WLAN5.3G	802.11a	Front Face	52	Ant 1	97.25	1.03	15.50	15.43	1.02	-0.01	0.043	0.045
	WLAN5.3G	802.11a	Rear Face	52	Ant 1	97.25	1.03	15.50	15.43	1.02	0.01	0.058	0.061
	WLAN5.3G	802.11a	Front Face	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.07	0.046	0.048
37	WLAN5.3G	802.11a	Rear Face	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.03	0.083	**0.086**
	WLAN5.3G	802.11a	Rear Face	56	Ant 0+1	97.25	1.03	18.50	18.21	1.07	0.01	0.07	0.077
	WLAN5.3G	802.11a	Rear Face	60	Ant 0+1	97.25	1.03	18.50	18.23	1.06	0.03	0.072	0.079
	WLAN5.3G	802.11a	Rear Face	64	Ant 0+1	97.25	1.03	18.00	17.82	1.04	-0.04	0.073	0.078
	WLAN5.6G	802.11a	Front Face	116	Ant 0	97.25	1.03	13.70	13.54	1.04	-0.01	0.024	0.026
	WLAN5.6G	802.11a	Rear Face	116	Ant 0	97.25	1.03	13.70	13.54	1.04	0.04	0.073	0.078
	WLAN5.6G	802.11a	Front Face	116	Ant 1	97.25	1.03	13.70	13.30	1.10	-0.02	0.043	0.049
	WLAN5.6G	802.11a	Rear Face	116	Ant 1	97.25	1.03	13.70	13.30	1.10	-0.01	0.107	0.121
	WLAN5.6G	802.11a	Front Face	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	0.02	0.045	0.049
38	WLAN5.6G	802.11a	Rear Face	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.13	0.131	**0.143**
	WLAN5.6G	802.11a	Rear Face	100	Ant 0+1	97.25	1.03	16.00	15.82	1.04	0.01	0.124	0.133
	WLAN5.6G	802.11a	Rear Face	120	Ant 0+1	97.25	1.03	16.70	16.40	1.07	0.02	0.125	0.138
	WLAN5.6G	802.11a	Rear Face	124	Ant 0+1	97.25	1.03	16.70	16.36	1.08	-0.06	0.121	0.135
	WLAN5.6G	802.11a	Rear Face	132	Ant 0+1	97.25	1.03	16.70	16.38	1.08	0.01	0.127	0.141
	WLAN5.6G	802.11a	Rear Face	140	Ant 0+1	97.25	1.03	16.00	15.84	1.04	0.04	0.109	0.117
	WLAN5.6G	802.11a	Rear Face	144	Ant 0+1	97.25	1.03	16.00	15.79	1.05	0.04	0.098	0.106
	WLAN5.8G	802.11a	Front Face	157	Ant 0	97.25	1.03	13.70	13.69	1.00	0.07	0.03	0.031
	WLAN5.8G	802.11a	Rear Face	157	Ant 0	97.25	1.03	13.70	13.69	1.00	-0.04	0.054	0.056
	WLAN5.8G	802.11a	Front Face	157	Ant 1	97.25	1.03	13.70	13.34	1.09	0.04	0.065	0.073
	WLAN5.8G	802.11a	Rear Face	157	Ant 1	97.25	1.03	13.70	13.34	1.09	-0.01	0.154	0.173
	WLAN5.8G	802.11a	Front Face	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.04	0.071	0.076
	WLAN5.8G	802.11a	Rear Face	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	-0.02	0.203	0.217
	WLAN5.8G	802.11a	Rear Face	149	Ant 0+1	97.25	1.03	14.00	13.83	1.04	-0.01	0.112	0.120
	WLAN5.8G	802.11a	Rear Face	153	Ant 0+1	97.25	1.03	16.70	16.45	1.06	0.02	0.189	0.206
	WLAN5.8G	802.11a	Rear Face	161	Ant 0+1	97.25	1.03	16.70	16.45	1.06	0.01	0.198	0.216
39	WLAN5.8G	802.11a	Rear Face	165	Ant 0+1	97.25	1.03	16.70	16.49	1.05	0.06	0.215	**0.233**

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	BT	BDR	Front Face	39	Ant 0	75.88	1.32	12.30	11.20	1.29	0.01	0.00209	0.004
	BT	BDR	Rear Face	39	Ant 0	75.88	1.32	12.30	11.20	1.29	-0.02	0.00544	0.009
40	BT	BDR	Rear Face	0	Ant 0	75.88	1.32	12.30	10.31	1.58	0.04	0.00614	**0.013**
	BT	BDR	Rear Face	78	Ant 0	75.88	1.32	12.30	11.18	1.29	-0.04	0.00559	0.010

4.7.4 SAR Results for Hotspot Exposure Condition (Test Separation Distance is 10 mm)

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
41	GSM850	GPRS12	Front Face	189	Ant 0	27.90	26.33	1.44	-0.01	0.482	**0.694**
	GSM850	GPRS12	Rear Face	189	Ant 0	27.90	26.33	1.44	-0.06	0.408	0.588
	GSM850	GPRS12	Right Side	189	Ant 0	27.90	26.33	1.44	0.16	0.165	0.238
	GSM850	GPRS12	Bottom Side	189	Ant 0	27.90	26.33	1.44	0.03	0.204	0.294
	GSM850	GPRS12	Rear Face	128	Ant 0	27.90	25.98	1.56	-0.06	0.33	0.515
	GSM850	GPRS12	Rear Face	251	Ant 0	27.90	26.21	1.48	0.02	0.425	0.629
	GSM1900	GPRS12	Front Face	512	Ant 0	24.90	23.42	1.41	-0.02	0.177	0.250
	GSM1900	GPRS12	Rear Face	512	Ant 0	24.90	23.42	1.41	0.07	0.172	0.243
	GSM1900	GPRS12	Right Side	512	Ant 0	24.90	23.42	1.41	-0.12	0.103	0.145
	GSM1900	GPRS12	Bottom Side	512	Ant 0	24.90	23.42	1.41	0.06	0.107	0.151
42	GSM1900	GPRS12	Front Face	661	Ant 0	24.90	23.37	1.42	-0.03	0.21	**0.298**
	GSM1900	GPRS12	Front Face	810	Ant 0	24.90	23.02	1.54	0.04	0.187	0.288
	WCDMA II	RMC12.2K	Front Face	9400	Ant 0	24.70	24.03	1.17	0.14	0.349	0.408
	WCDMA II	RMC12.2K	Rear Face	9400	Ant 0	24.70	24.03	1.17	0.02	0.44	0.515
	WCDMA II	RMC12.2K	Right Side	9400	Ant 0	24.70	24.03	1.17	-0.12	0.24	0.281
	WCDMA II	RMC12.2K	Bottom Side	9400	Ant 0	24.70	24.03	1.17	0.13	0.278	0.325
	WCDMA II	RMC12.2K	Rear Face	9262	Ant 0	24.70	23.86	1.21	-0.16	0.389	0.471
43	WCDMA II	RMC12.2K	Rear Face	9538	Ant 0	24.70	23.52	1.31	0.05	0.449	**0.588**
	WCDMA V	RMC12.2K	Front Face	4233	Ant 0	24.70	23.65	1.27	0.12	0.416	0.528
44	WCDMA V	RMC12.2K	Rear Face	4233	Ant 0	24.70	23.65	1.27	-0.01	0.493	**0.626**
	WCDMA V	RMC12.2K	Right Side	4233	Ant 0	24.70	23.65	1.27	0.04	0.157	0.199
	WCDMA V	RMC12.2K	Bottom Side	4233	Ant 0	24.70	23.65	1.27	-0.1	0.219	0.278
	WCDMA V	RMC12.2K	Rear Face	4132	Ant 0	24.70	23.33	1.37	-0.12	0.433	0.593
	WCDMA V	RMC12.2K	Rear Face	4182	Ant 0	24.70	23.51	1.32	0.02	0.445	0.587

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
45	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.01	0.639	**0.639**
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.06	0.629	0.629
	LTE 2	QPSK20M	Right Side	18700	1	0	Ant 0	-	25.20	25.19	1.00	-0.18	0.311	0.311
	LTE 2	QPSK20M	Bottom Side	18700	1	0	Ant 0	-	25.20	25.19	1.00	0.07	0.351	0.351
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.15	0.48	0.480
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 0	-	24.20	24.19	1.00	0.03	0.501	0.501
	LTE 2	QPSK20M	Right Side	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.18	0.277	0.277
	LTE 2	QPSK20M	Bottom Side	18700	50	0	Ant 0	-	24.20	24.19	1.00	-0.09	0.27	0.270
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 1	-	25.20	25.19	1.00	-0.05	0.349	0.349
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 1	-	25.20	25.19	1.00	0.18	0.323	0.323
	LTE 2	QPSK20M	Left Side	18700	1	0	Ant 1	-	25.20	25.19	1.00	0	<0.001	0.000
	LTE 2	QPSK20M	Bottom Side	18700	1	0	Ant 1	-	25.20	25.19	1.00	-0.01	0.091	0.091
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 1	-	24.20	24.19	1.00	0.13	0.229	0.229
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 1	-	24.20	24.19	1.00	-0.19	0.215	0.215
	LTE 2	QPSK20M	Left Side	18700	50	0	Ant 1	-	24.20	24.19	1.00	0	<0.001	0.000
	LTE 2	QPSK20M	Bottom Side	18700	50	0	Ant 1	-	24.20	24.19	1.00	0.01	0.019	0.019
	LTE 2	QPSK20M	Front Face	18900	1	0	Ant 0	-	25.20	25.13	1.02	0.15	0.558	0.569
	LTE 2	QPSK20M	Front Face	19100	1	0	Ant 0	-	25.20	24.94	1.06	0.15	0.52	0.551
For EN-DC and CA Inter Band														
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.01	0.639	**0.320**
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.06	0.629	0.315
	LTE 2	QPSK20M	Right Side	18700	1	0	Ant 0	w/	22.20	25.19	0.50	-0.18	0.311	0.156
	LTE 2	QPSK20M	Bottom Side	18700	1	0	Ant 0	w/	22.20	25.19	0.50	0.07	0.351	0.176
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.15	0.48	0.240
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 0	w/	21.20	24.19	0.50	0.03	0.501	0.251
	LTE 2	QPSK20M	Right Side	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.18	0.277	0.139
	LTE 2	QPSK20M	Bottom Side	18700	50	0	Ant 0	w/	21.20	24.19	0.50	-0.09	0.27	0.135
	LTE 2	QPSK20M	Front Face	18700	1	0	Ant 1	w/	22.20	25.19	0.50	-0.05	0.349	0.175
	LTE 2	QPSK20M	Rear Face	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0.18	0.323	0.162
	LTE 2	QPSK20M	Left Side	18700	1	0	Ant 1	w/	22.20	25.19	0.50	0	<0.001	0.000
	LTE 2	QPSK20M	Bottom Side	18700	1	0	Ant 1	w/	22.20	25.19	0.50	-0.01	0.091	0.046
	LTE 2	QPSK20M	Front Face	18700	50	0	Ant 1	w/	21.20	24.19	0.50	0.13	0.229	0.115
	LTE 2	QPSK20M	Rear Face	18700	50	0	Ant 1	w/	21.20	24.19	0.50	-0.19	0.215	0.108
	LTE 2	QPSK20M	Left Side	18700	50	0	Ant 1	w/	21.20	24.19	0.50	0	<0.001	0.000
	LTE 2	QPSK20M	Bottom Side	18700	50	0	Ant 1	w/	21.20	24.19	0.50	0.01	0.019	0.010
	LTE 2	QPSK20M	Front Face	18900	1	0	Ant 0	w/	22.20	25.13	0.51	0.15	0.558	0.285
	LTE 2	QPSK20M	Front Face	19100	1	0	Ant 0	w/	22.20	24.94	0.53	0.15	0.52	0.276

Note :

1. The standalone of LTE 2 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 2 is 22.2 dBm.
2. The “< 0.001” means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.09	0.593	0.640
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.02	0.519	0.561
	LTE 4	QPSK20M	Right Side	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.02	0.249	0.269
	LTE 4	QPSK20M	Bottom Side	20175	1	0	Ant 0	-	25.20	24.85	1.08	0.02	0.304	0.328
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.11	0.521	0.552
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 0	-	24.20	23.96	1.06	-0.16	0.481	0.510
	LTE 4	QPSK20M	Right Side	20175	50	0	Ant 0	-	24.20	23.96	1.06	-0.11	0.217	0.230
	LTE 4	QPSK20M	Bottom Side	20175	50	0	Ant 0	-	24.20	23.96	1.06	0.1	0.271	0.287
46	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 1	-	25.20	24.85	1.08	-0.1	0.705	**0.761**
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.02	0.583	0.630
	LTE 4	QPSK20M	Left Side	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.13	0.138	0.149
	LTE 4	QPSK20M	Bottom Side	20175	1	0	Ant 1	-	25.20	24.85	1.08	0.01	0.34	0.367
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 1	-	24.20	23.96	1.06	-0.03	0.564	0.598
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.05	0.472	0.500
	LTE 4	QPSK20M	Left Side	20175	50	0	Ant 1	-	24.20	23.96	1.06	-0.13	0.114	0.121
	LTE 4	QPSK20M	Bottom Side	20175	50	0	Ant 1	-	24.20	23.96	1.06	0.03	0.334	0.354
	LTE 4	QPSK20M	Front Face	20050	1	0	Ant 1	-	25.20	24.77	1.10	0.01	0.622	0.684
	LTE 4	QPSK20M	Front Face	20300	1	0	Ant 1	-	25.20	24.64	1.14	0.06	0.547	0.624
For CA Inter Band														
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.09	0.593	0.320
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.02	0.519	0.280
	LTE 4	QPSK20M	Right Side	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.02	0.249	0.134
	LTE 4	QPSK20M	Bottom Side	20175	1	0	Ant 0	w/	22.20	24.85	0.54	0.02	0.304	0.164
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.11	0.521	0.276
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 0	w/	21.20	23.96	0.53	-0.16	0.481	0.255
	LTE 4	QPSK20M	Right Side	20175	50	0	Ant 0	w/	21.20	23.96	0.53	-0.11	0.217	0.115
	LTE 4	QPSK20M	Bottom Side	20175	50	0	Ant 0	w/	21.20	23.96	0.53	0.1	0.271	0.144
	LTE 4	QPSK20M	Front Face	20175	1	0	Ant 1	w/	22.20	24.85	0.54	-0.1	0.705	**0.381**
	LTE 4	QPSK20M	Rear Face	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.02	0.583	0.315
	LTE 4	QPSK20M	Left Side	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.13	0.138	0.075
	LTE 4	QPSK20M	Bottom Side	20175	1	0	Ant 1	w/	22.20	24.85	0.54	0.01	0.34	0.184
	LTE 4	QPSK20M	Front Face	20175	50	0	Ant 1	w/	21.20	23.96	0.53	-0.03	0.564	0.299
	LTE 4	QPSK20M	Rear Face	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.05	0.472	0.250
	LTE 4	QPSK20M	Left Side	20175	50	0	Ant 1	w/	21.20	23.96	0.53	-0.13	0.114	0.060
	LTE 4	QPSK20M	Bottom Side	20175	50	0	Ant 1	w/	21.20	23.96	0.53	0.03	0.334	0.177
	LTE 4	QPSK20M	Front Face	20050	1	0	Ant 1	w/	22.20	24.77	0.55	0.01	0.622	0.342
	LTE 4	QPSK20M	Front Face	20300	1	0	Ant 1	w/	22.20	24.64	0.57	0.06	0.547	0.312

Note :

1. The standalone of LTE 4 SAR had been tested and the results had been scaled to the UL CA Inter Band mode power level, the tune up of LTE 4 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 5	QPSK10M	Front Face	20600	1	0	Ant 0	-	25.20	25.01	1.04	-0.1	0.452	0.470
	LTE 5	QPSK10M	Rear Face	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.19	0.519	0.540
	LTE 5	QPSK10M	Right Side	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.17	0.183	0.190
	LTE 5	QPSK10M	Bottom Side	20600	1	0	Ant 0	-	25.20	25.01	1.04	0.05	0.493	0.513
	LTE 5	QPSK10M	Front Face	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.15	0.379	0.387
	LTE 5	QPSK10M	Rear Face	20600	25	0	Ant 0	-	24.20	24.12	1.02	0.09	0.434	0.443
	LTE 5	QPSK10M	Right Side	20600	25	0	Ant 0	-	24.20	24.12	1.02	-0.12	0.13	0.133
	LTE 5	QPSK10M	Bottom Side	20600	25	0	Ant 0	-	24.20	24.12	1.02	-0.1	0.388	0.396
	LTE 5	QPSK10M	Rear Face	20450	1	0	Ant 0	-	25.20	24.80	1.10	0.14	0.496	0.546
47	LTE 5	QPSK10M	Rear Face	20525	1	0	Ant 0	-	25.20	24.90	1.07	-0.05	0.523	**0.560**
	LTE 5	QPSK10M	Rear Face	PCC:20450 SCC:20549	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	25.20	24.76	1.11	0.03	0.503	0.558
For EN-DC and CA Inter Band														
	LTE 5	QPSK10M	Front Face	20600	1	0	Ant 0	w/	22.20	25.01	0.52	-0.1	0.452	0.235
	LTE 5	QPSK10M	Rear Face	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.19	0.519	0.270
	LTE 5	QPSK10M	Right Side	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.17	0.183	0.095
	LTE 5	QPSK10M	Bottom Side	20600	1	0	Ant 0	w/	22.20	25.01	0.52	0.05	0.493	0.256
	LTE 5	QPSK10M	Front Face	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.15	0.379	0.193
	LTE 5	QPSK10M	Rear Face	20600	25	0	Ant 0	w/	21.20	24.12	0.51	0.09	0.434	0.221
	LTE 5	QPSK10M	Right Side	20600	25	0	Ant 0	w/	21.20	24.12	0.51	-0.12	0.13	0.066
	LTE 5	QPSK10M	Bottom Side	20600	25	0	Ant 0	w/	21.20	24.12	0.51	-0.1	0.388	0.198
	LTE 5	QPSK10M	Rear Face	20450	1	0	Ant 0	w/	22.20	24.80	0.55	0.14	0.496	0.273
	LTE 5	QPSK10M	Rear Face	20525	1	0	Ant 0	w/	22.20	24.90	0.54	-0.05	0.523	**0.282**

Note :

1. T The standalone of LTE 5 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 5 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 7	QPSK20M	Front Face	20850	1	0	Ant 0	-	24.20	24.19	1.00	-0.04	0.529	0.529
	LTE 7	QPSK20M	Rear Face	20850	1	0	Ant 0	-	24.20	24.19	1.00	0.18	0.628	0.628
	LTE 7	QPSK20M	Right Side	20850	1	0	Ant 0	-	24.20	24.19	1.00	-0.16	0.302	0.302
48	LTE 7	QPSK20M	Bottom Side	20850	1	0	Ant 0	-	24.20	24.19	1.00	0.02	0.764	**0.764**
	LTE 7	QPSK20M	Front Face	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.06	0.443	0.443
	LTE 7	QPSK20M	Rear Face	20850	50	0	Ant 0	-	23.20	23.20	1.00	-0.17	0.501	0.501
	LTE 7	QPSK20M	Right Side	20850	50	0	Ant 0	-	23.20	23.20	1.00	0.03	0.256	0.256
	LTE 7	QPSK20M	Bottom Side	20850	50	0	Ant 0	-	23.20	23.20	1.00	-0.05	0.636	0.636
	LTE 7	QPSK20M	Bottom Side	21100	1	0	Ant 0	-	24.20	24.15	1.01	-0.09	0.737	0.744
	LTE 7	QPSK20M	Bottom Side	21350	1	0	Ant 0	-	24.20	24.13	1.02	0.19	0.674	0.687
	LTE 12	QPSK10M	Front Face	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.05	0.27	0.270
	LTE 12	QPSK10M	Rear Face	23095	1	0	Ant 0	-	24.20	24.19	1.00	0.17	0.291	0.291
	LTE 12	QPSK10M	Right Side	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.13	0.218	0.218
	LTE 12	QPSK10M	Bottom Side	23095	1	0	Ant 0	-	24.20	24.19	1.00	-0.14	0.171	0.171
	LTE 12	QPSK10M	Front Face	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.09	0.22	0.222
	LTE 12	QPSK10M	Rear Face	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.03	0.233	0.235
	LTE 12	QPSK10M	Right Side	23095	25	0	Ant 0	-	23.20	23.16	1.01	0.08	0.131	0.132
	LTE 12	QPSK10M	Bottom Side	23095	25	0	Ant 0	-	23.20	23.16	1.01	-0.04	0.113	0.114
	LTE 12	QPSK10M	Rear Face	23060	1	0	Ant 0	-	24.20	24.06	1.03	-0.03	0.295	0.304
49	LTE 12	QPSK10M	Rear Face	23130	1	0	Ant 0	-	24.20	24.18	1.00	-0.06	0.306	**0.306**

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 13	QPSK10M	Front Face	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.07	0.299	0.302
50	LTE 13	QPSK10M	Rear Face	23230	1	0	Ant 0	-	24.20	24.15	1.01	-0.11	0.321	**0.324**
	LTE 13	QPSK10M	Right Side	23230	1	0	Ant 0	-	24.20	24.15	1.01	-0.15	0.146	0.147
	LTE 13	QPSK10M	Bottom Side	23230	1	0	Ant 0	-	24.20	24.15	1.01	0.01	0.257	0.260
	LTE 13	QPSK10M	Front Face	23230	25	0	Ant 0	-	23.20	23.13	1.02	-0.05	0.238	0.243
	LTE 13	QPSK10M	Rear Face	23230	25	0	Ant 0	-	23.20	23.13	1.02	-0.19	0.267	0.272
	LTE 13	QPSK10M	Right Side	23230	25	0	Ant 0	-	23.20	23.13	1.02	0.13	0.139	0.142
	LTE 13	QPSK10M	Bottom Side	23230	25	0	Ant 0	-	23.20	23.13	1.02	0.03	0.255	0.260
For EN-DC														
	LTE 13	QPSK10M	Front Face	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.07	0.299	0.152
	LTE 13	QPSK10M	Rear Face	23230	1	0	Ant 0	w/	21.20	24.15	0.51	-0.11	0.321	**0.164**
	LTE 13	QPSK10M	Right Side	23230	1	0	Ant 0	w/	21.20	24.15	0.51	-0.15	0.146	0.074
	LTE 13	QPSK10M	Bottom Side	23230	1	0	Ant 0	w/	21.20	24.15	0.51	0.01	0.257	0.131
	LTE 13	QPSK10M	Front Face	23230	25	0	Ant 0	w/	20.20	23.13	0.51	-0.05	0.238	0.121
	LTE 13	QPSK10M	Rear Face	23230	25	0	Ant 0	w/	20.20	23.13	0.51	-0.19	0.267	0.136
	LTE 13	QPSK10M	Right Side	23230	25	0	Ant 0	w/	20.20	23.13	0.51	0.13	0.139	0.071
	LTE 13	QPSK10M	Bottom Side	23230	25	0	Ant 0	w/	20.20	23.13	0.51	0.03	0.255	0.130

Note :

1. The standalone of LTE 13 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of LTE 13 is 21.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 48	QPSK20M	Front Face	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.08	0.271	0.320
51	LTE 48	QPSK20M	Rear Face	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.16	0.824	**0.972**
	LTE 48	QPSK20M	Left Side	56640	1	0	Ant 1	-	25.20	24.48	1.18	-0.13	0.295	0.348
	LTE 48	QPSK20M	Bottom Side	56640	1	0	Ant 1	-	25.20	24.48	1.18	0.03	0.334	0.394
	LTE 48	QPSK20M	Front Face	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.18	0.224	0.253
	LTE 48	QPSK20M	Rear Face	56640	50	0	Ant 1	-	24.20	23.68	1.13	0.14	0.644	0.728
	LTE 48	QPSK20M	Left Side	56640	50	0	Ant 1	-	24.20	23.68	1.13	-0.16	0.27	0.305
	LTE 48	QPSK20M	Bottom Side	56640	50	0	Ant 1	-	24.20	23.68	1.13	-0.08	0.256	0.289
	LTE 48	QPSK20M	Rear Face	55340	1	0	Ant 1	-	25.20	24.46	1.19	0.12	0.794	0.945
	LTE 48	QPSK20M	Rear Face	55780	1	0	Ant 1	-	25.20	24.27	1.24	-0.08	0.754	0.935
	LTE 48	QPSK20M	Rear Face	56210	1	0	Ant 1	-	25.20	24.38	1.21	-0.06	0.779	0.943
	LTE 48	QPSK20M	Rear Face	56640	1	0	Ant 1	-	25.20	24.48	1.18	0.05	0.806	0.951
	LTE 48	QPSK20M	Rear Face	PCC:55340 SCC:55538	PCC:1 SCC:1	PCC:99 SCC:0	Ant 1	-	25.20	24.40	1.20	0.07	0.798	0.958

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 0	-	25.20	24.83	1.09	0.19	0.631	0.688
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 0	-	25.20	24.83	1.09	-0.01	0.539	0.588
	LTE 66	QPSK20M	Right Side	132322	1	99	Ant 0	-	25.20	24.83	1.09	0.15	0.258	0.281
	LTE 66	QPSK20M	Bottom Side	132322	1	99	Ant 0	-	25.20	24.83	1.09	-0.06	0.316	0.344
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 0	-	24.20	23.90	1.07	0.07	0.541	0.579
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 0	-	24.20	23.90	1.07	-0.16	0.499	0.534
	LTE 66	QPSK20M	Right Side	132322	50	50	Ant 0	-	24.20	23.90	1.07	-0.05	0.225	0.241
	LTE 66	QPSK20M	Bottom Side	132322	50	50	Ant 0	-	24.20	23.90	1.07	-0.03	0.282	0.302
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.1	0.627	0.683
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.03	0.519	0.566
	LTE 66	QPSK20M	Left Side	132322	1	99	Ant 1	-	25.20	24.83	1.09	0.13	0.123	0.134
	LTE 66	QPSK20M	Bottom Side	132322	1	99	Ant 1	-	25.20	24.83	1.09	-0.13	0.303	0.330
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 1	-	24.20	23.90	1.07	-0.09	0.501	0.536
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.12	0.421	0.450
	LTE 66	QPSK20M	Left Side	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.08	0.043	0.046
	LTE 66	QPSK20M	Bottom Side	132322	50	50	Ant 1	-	24.20	23.90	1.07	0.01	0.297	0.318
52	LTE 66	QPSK20M	Front Face	132072	1	99	Ant 0	-	25.20	24.44	1.19	-0.03	0.658	**0.783**
	LTE 66	QPSK20M	Front Face	132572	1	99	Ant 0	-	25.20	24.64	1.14	0.15	0.528	0.602
	LTE 66	QPSK10M	Front Face	PCC:132373 SCC:132472	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	25.20	24.53	1.17	0.05	0.632	0.739
	LTE 66	QPSK20M	Front Face	PCC:132323 SCC:132521	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	25.20	24.75	1.11	-0.11	0.612	0.679
For EN-DC and CA Inter Band														
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 0	w/	22.20	24.83	0.55	0.19	0.631	0.347
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 0	w/	22.20	24.83	0.55	-0.01	0.539	0.296
	LTE 66	QPSK20M	Right Side	132322	1	99	Ant 0	w/	22.20	24.83	0.55	0.15	0.258	0.142
	LTE 66	QPSK20M	Bottom Side	132322	1	99	Ant 0	w/	22.20	24.83	0.55	-0.06	0.316	0.174
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 0	w/	21.20	23.90	0.54	0.07	0.541	0.292
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 0	w/	21.20	23.90	0.54	-0.16	0.499	0.269
	LTE 66	QPSK20M	Right Side	132322	50	50	Ant 0	w/	21.20	23.90	0.54	-0.05	0.225	0.122
	LTE 66	QPSK20M	Bottom Side	132322	50	50	Ant 0	w/	21.20	23.90	0.54	-0.03	0.282	0.152
	LTE 66	QPSK20M	Front Face	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.1	0.627	0.345
	LTE 66	QPSK20M	Rear Face	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.03	0.519	0.285
	LTE 66	QPSK20M	Left Side	132322	1	99	Ant 1	w/	22.20	24.83	0.55	0.13	0.123	0.068
	LTE 66	QPSK20M	Bottom Side	132322	1	99	Ant 1	w/	22.20	24.83	0.55	-0.13	0.303	0.167
	LTE 66	QPSK20M	Front Face	132322	50	50	Ant 1	w/	21.20	23.90	0.54	-0.09	0.501	0.271
	LTE 66	QPSK20M	Rear Face	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.12	0.421	0.227
	LTE 66	QPSK20M	Left Side	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.08	0.043	0.023
	LTE 66	QPSK20M	Bottom Side	132322	50	50	Ant 1	w/	21.20	23.90	0.54	0.01	0.297	0.160
	LTE 66	QPSK20M	Front Face	132072	1	99	Ant 0	w/	22.20	24.44	0.60	-0.03	0.658	**0.395**
	LTE 66	QPSK20M	Front Face	132572	1	99	Ant 0	w/	22.20	24.64	0.57	0.15	0.528	0.301

Note :

1. The standalone of LTE 66 SAR had been tested and the results had been scaled to the EN-DC and UL CA Inter Band mode power level, the tune up of LTE 66 is 22.2 dBm.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n2	DFT-S QPSK20M	Front Face	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.15	0.687	0.756
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	1	1	Ant 1	-	25.20	24.79	1.10	-0.14	0.589	0.648
	5G NR n2	DFT-S QPSK20M	Left Side	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.02	0.617	0.679
	5G NR n2	DFT-S QPSK20M	Bottom Side	376000	1	1	Ant 1	-	25.20	24.79	1.10	0.01	0.33	0.363
	5G NR n2	DFT-S QPSK20M	Front Face	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.02	0.499	0.554
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	50	25	Ant 1	-	25.20	24.73	1.11	-0.16	0.553	0.614
	5G NR n2	DFT-S QPSK20M	Left Side	376000	50	25	Ant 1	-	25.20	24.73	1.11	0.02	0.501	0.556
	5G NR n2	DFT-S QPSK20M	Bottom Side	376000	50	25	Ant 1	-	25.20	24.73	1.11	-0.16	0.274	0.304
53	5G NR n2	DFT-S QPSK20M	Front Face	372000	1	1	Ant 1	-	25.20	24.45	1.19	0.12	0.668	**0.795**
	5G NR n2	DFT-S QPSK20M	Front Face	380000	1	1	Ant 1	-	25.20	24.39	1.21	0.16	0.548	0.663
For EN-DC														
	5G NR n2	DFT-S QPSK20M	Front Face	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.15	0.687	0.378
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	1	1	Ant 1	w/	22.20	24.79	0.55	-0.14	0.589	0.324
	5G NR n2	DFT-S QPSK20M	Left Side	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.02	0.617	0.339
	5G NR n2	DFT-S QPSK20M	Bottom Side	376000	1	1	Ant 1	w/	22.20	24.79	0.55	0.01	0.33	0.182
	5G NR n2	DFT-S QPSK20M	Front Face	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.02	0.499	0.279
	5G NR n2	DFT-S QPSK20M	Rear Face	376000	50	25	Ant 1	w/	22.20	24.73	0.56	-0.16	0.553	0.310
	5G NR n2	DFT-S QPSK20M	Left Side	376000	50	25	Ant 1	w/	22.20	24.73	0.56	0.02	0.501	0.281
	5G NR n2	DFT-S QPSK20M	Bottom Side	376000	50	25	Ant 1	w/	22.20	24.73	0.56	-0.16	0.274	0.153
	5G NR n2	DFT-S QPSK20M	Front Face	372000	1	1	Ant 1	w/	22.20	24.45	0.60	0.12	0.668	**0.401**
	5G NR n2	DFT-S QPSK20M	Front Face	380000	1	1	Ant 1	w/	22.20	24.39	0.60	0.16	0.548	0.329

Note :

1. The standalone of 5G NR n2 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n2 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n5	DFT-S QPSK20M	Front Face	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.02	0.345	0.366
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.11	0.341	0.361
	5G NR n5	DFT-S QPSK20M	Right Side	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.03	0.11	0.117
	5G NR n5	DFT-S QPSK20M	Bottom Side	167300	1	1	Ant 0	-	25.20	24.96	1.06	0.02	0.245	0.260
	5G NR n5	DFT-S QPSK20M	Front Face	167300	50	25	Ant 0	-	25.20	24.83	1.09	-0.16	0.241	0.263
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	50	25	Ant 0	-	25.20	24.83	1.09	0.02	0.272	0.296
	5G NR n5	DFT-S QPSK20M	Right Side	167300	50	25	Ant 0	-	25.20	24.83	1.09	-0.16	0.073	0.080
	5G NR n5	DFT-S QPSK20M	Bottom Side	167300	50	25	Ant 0	-	25.20	24.83	1.09	0.02	0.168	0.183
54	5G NR n5	DFT-S QPSK20M	Front Face	166800	1	1	Ant 0	-	25.20	24.92	1.07	-0.03	0.355	**0.380**
	5G NR n5	DFT-S QPSK20M	Front Face	167800	1	1	Ant 0	-	25.20	24.90	1.07	-0.14	0.339	0.363
For EN-DC														
	5G NR n5	DFT-S QPSK20M	Front Face	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.02	0.345	0.183
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.11	0.341	0.181
	5G NR n5	DFT-S QPSK20M	Right Side	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.03	0.11	0.058
	5G NR n5	DFT-S QPSK20M	Bottom Side	167300	1	1	Ant 0	w/	22.20	24.96	0.53	0.02	0.245	0.130
	5G NR n5	DFT-S QPSK20M	Front Face	167300	50	25	Ant 0	w/	22.20	24.83	0.55	-0.16	0.241	0.133
	5G NR n5	DFT-S QPSK20M	Rear Face	167300	50	25	Ant 0	w/	22.20	24.83	0.55	0.02	0.272	0.150
	5G NR n5	DFT-S QPSK20M	Right Side	167300	50	25	Ant 0	w/	22.20	24.83	0.55	-0.16	0.073	0.040
	5G NR n5	DFT-S QPSK20M	Bottom Side	167300	50	25	Ant 0	w/	22.20	24.83	0.55	0.02	0.168	0.092
	5G NR n5	DFT-S QPSK20M	Front Face	166800	1	1	Ant 0	w/	22.20	24.92	0.53	-0.03	0.355	**0.188**
	5G NR n5	DFT-S QPSK20M	Front Face	167800	1	1	Ant 0	w/	22.20	24.90	0.54	-0.14	0.339	0.183

Note :

1. The standalone of 5G NR n5 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n5 is 22.2 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Ant Status	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	5G NR n66	DFT-S QPSK20M	Front Face	354000	1	1	Ant 1	-	24.50	24.29	1.05	-0.1	0.669	0.702
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	1	1	Ant 1	-	24.50	24.29	1.05	-0.12	0.611	0.642
	5G NR n66	DFT-S QPSK20M	Left Side	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.07	0.313	0.329
	5G NR n66	DFT-S QPSK20M	Bottom Side	354000	1	1	Ant 1	-	24.50	24.29	1.05	0.04	0.345	0.362
	5G NR n66	DFT-S QPSK20M	Front Face	354000	50	25	Ant 1	-	24.50	24.13	1.09	-0.08	0.54	0.589
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.12	0.493	0.537
	5G NR n66	DFT-S QPSK20M	Left Side	354000	50	25	Ant 1	-	24.50	24.13	1.09	0.05	0.247	0.269
	5G NR n66	DFT-S QPSK20M	Bottom Side	354000	50	25	Ant 1	-	24.50	24.13	1.09	-0.07	0.275	0.300
	5G NR n66	DFT-S QPSK20M	Front Face	344000	1	1	Ant 1	-	24.50	23.91	1.15	-0.05	0.547	0.629
55	5G NR n66	DFT-S QPSK20M	Front Face	349000	1	1	Ant 1	-	24.50	24.28	1.05	-0.14	0.757	**0.795**
For EN-DC														
	5G NR n66	DFT-S QPSK20M	Front Face	354000	1	1	Ant 1	w/	21.50	24.29	0.53	-0.1	0.669	0.355
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	1	1	Ant 1	w/	21.50	24.29	0.53	-0.12	0.611	0.324
	5G NR n66	DFT-S QPSK20M	Left Side	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.07	0.313	0.166
	5G NR n66	DFT-S QPSK20M	Bottom Side	354000	1	1	Ant 1	w/	21.50	24.29	0.53	0.04	0.345	0.183
	5G NR n66	DFT-S QPSK20M	Front Face	354000	50	25	Ant 1	w/	21.50	24.13	0.55	-0.08	0.54	0.297
	5G NR n66	DFT-S QPSK20M	Rear Face	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.12	0.493	0.271
	5G NR n66	DFT-S QPSK20M	Left Side	354000	50	25	Ant 1	w/	21.50	24.13	0.55	0.05	0.247	0.136
	5G NR n66	DFT-S QPSK20M	Bottom Side	354000	50	25	Ant 1	w/	21.50	24.13	0.55	-0.07	0.275	0.151
	5G NR n66	DFT-S QPSK20M	Front Face	344000	1	1	Ant 1	w/	21.50	23.91	0.57	-0.05	0.547	0.312
	5G NR n66	DFT-S QPSK20M	Front Face	349000	1	1	Ant 1	w/	21.50	24.28	0.53	-0.14	0.757	**0.401**

Note :

1. The standalone of 5G NR n66 SAR had been tested and the results had been scaled to the EN-DC mode power level, the tune up of 5G NR n66 is 21.5 dBm in NSA mode.

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Front Face	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0	<0.001	0.000
	WLAN2.4G	802.11b	Rear Face	11	Ant 0	91.57	1.09	16.00	15.98	1.00	-0.02	0.0868	0.095
	WLAN2.4G	802.11b	Left Side	11	Ant 0	91.57	1.09	16.00	15.98	1.00	0.02	0.065	0.071
	WLAN2.4G	802.11b	Front Face	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0	<0.001	0.000
	WLAN2.4G	802.11b	Rear Face	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0.03	0.154	0.178
	WLAN2.4G	802.11b	Right Side	6	Ant 1	91.57	1.09	16.00	15.74	1.06	0.07	0.138	0.159
	WLAN2.4G	802.11b	Front Face	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0	<0.001	0.000
	WLAN2.4G	802.11b	Rear Face	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.12	0.198	0.222
	WLAN2.4G	802.11b	Left Side	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	-0.08	0.061	0.068
	WLAN2.4G	802.11b	Right Side	11	Ant 0+1	91.57	1.09	19.00	18.86	1.03	0.03	0.164	0.184
56	WLAN2.4G	802.11b	Rear Face	1	Ant 0+1	91.57	1.09	19.00	18.79	1.05	-0.05	0.254	**0.291**
	WLAN2.4G	802.11b	Rear Face	6	Ant 0+1	91.57	1.09	19.00	18.83	1.04	0.02	0.207	0.235
	WLAN5.2G	802.11a	Front Face	40	Ant 0	97.25	1.03	15.50	15.43	1.02	0	<0.001	0.000
	WLAN5.2G	802.11a	Rear Face	40	Ant 0	97.25	1.03	15.50	15.43	1.02	0.12	0.108	0.113
	WLAN5.2G	802.11a	Left Side	40	Ant 0	97.25	1.03	15.50	15.43	1.02	0.06	0.141	0.148
	WLAN5.2G	802.11a	Front Face	40	Ant 1	97.25	1.03	15.50	15.40	1.02	0.03	0.104	0.109
	WLAN5.2G	802.11a	Rear Face	40	Ant 1	97.25	1.03	15.50	15.40	1.02	-0.01	0.165	0.173
	WLAN5.2G	802.11a	Right Side	40	Ant 1	97.25	1.03	15.50	15.40	1.02	0.12	0.316	0.332
	WLAN5.2G	802.11a	Front Face	40	Ant 0+1	97.25	1.03	18.50	18.43	1.02	0.08	0.118	0.124
	WLAN5.2G	802.11a	Rear Face	40	Ant 0+1	97.25	1.03	18.50	18.43	1.02	-0.13	0.177	0.186
	WLAN5.2G	802.11a	Left Side	40	Ant 0+1	97.25	1.03	18.50	18.43	1.02	0.05	0.129	0.136
57	WLAN5.2G	802.11a	Right Side	40	Ant 0+1	97.25	1.03	18.50	18.43	1.02	-0.01	0.328	**0.345**
	WLAN5.2G	802.11a	Right Side	36	Ant 0+1	97.25	1.03	18.00	17.88	1.03	-0.13	0.298	0.316
	WLAN5.2G	802.11a	Right Side	44	Ant 0+1	97.25	1.03	18.50	18.23	1.06	0.05	0.292	0.319
	WLAN5.2G	802.11a	Right Side	48	Ant 0+1	97.25	1.03	18.50	18.19	1.07	-0.08	0.294	0.324
	WLAN5.8G	802.11a	Front Face	157	Ant 0	97.25	1.03	13.70	13.69	1.00	0	<0.001	0.000
	WLAN5.8G	802.11a	Rear Face	157	Ant 0	97.25	1.03	13.70	13.69	1.00	-0.03	0.108	0.111
	WLAN5.8G	802.11a	Left Side	157	Ant 0	97.25	1.03	13.70	13.69	1.00	0.05	0.165	0.170
	WLAN5.8G	802.11a	Front Face	157	Ant 1	97.25	1.03	13.70	13.34	1.09	0.01	0.081	0.091
	WLAN5.8G	802.11a	Rear Face	157	Ant 1	97.25	1.03	13.70	13.34	1.09	0.09	0.252	0.283
	WLAN5.8G	802.11a	Right Side	157	Ant 1	97.25	1.03	13.70	13.34	1.09	-0.03	0.391	0.439
	WLAN5.8G	802.11a	Front Face	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	0.12	0.077	0.082
	WLAN5.8G	802.11a	Rear Face	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	-0.02	0.269	0.288
	WLAN5.8G	802.11a	Left Side	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	-0.11	0.167	0.179
58	WLAN5.8G	802.11a	Right Side	157	Ant 0+1	97.25	1.03	16.70	16.53	1.04	-0.16	0.412	**0.441**
	WLAN5.8G	802.11a	Right Side	149	Ant 0+1	97.25	1.03	14.00	13.83	1.04	0.01	0.197	0.211
	WLAN5.8G	802.11a	Right Side	153	Ant 0+1	97.25	1.03	16.70	16.45	1.06	-0.09	0.329	0.359
	WLAN5.8G	802.11a	Right Side	161	Ant 0+1	97.25	1.03	16.70	16.45	1.06	0.13	0.384	0.419
	WLAN5.8G	802.11a	Right Side	165	Ant 0+1	97.25	1.03	16.70	16.49	1.05	0.08	0.366	0.396
	BT	BDR	Front Face	39	Ant 0	75.88	1.32	12.30	11.20	1.29	0.07	0.00751	0.013
59	BT	BDR	Rear Face	39	Ant 0	75.88	1.32	12.30	11.20	1.29	-0.02	0.022	**0.037**
	BT	BDR	Left Side	39	Ant 0	75.88	1.32	12.30	11.20	1.29	-0.13	0.00983	0.017
	BT	BDR	Rear Face	0	Ant 0	75.88	1.32	12.30	10.31	1.58	0.05	0.017	0.035
	BT	BDR	Rear Face	78	Ant 0	75.88	1.32	12.30	11.18	1.29	0.09	0.019	0.032

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

4.7.5 SAR Results for Product Specific Exposure Condition (Test Separation Distance is 0 mm)

Plot No.	Band	Mode	Test Position	Ch.	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift	Measured SAR-10g (W/kg)	Scaled SAR-10g (W/kg)
	WLAN5.3G	802.11a	Front Face	52	Ant 0	97.25	1.03	15.50	15.45	1.01	-0.14	0.043	0.045
	WLAN5.3G	802.11a	Rear Face	52	Ant 0	97.25	1.03	15.50	15.45	1.01	-0.09	0.123	0.128
	WLAN5.3G	802.11a	Left Side	52	Ant 0	97.25	1.03	15.50	15.45	1.01	0.16	0.159	0.165
	WLAN5.3G	802.11a	Front Face	52	Ant 1	97.25	1.03	15.50	15.43	1.02	0.02	0.121	0.127
	WLAN5.3G	802.11a	Rear Face	52	Ant 1	97.25	1.03	15.50	15.43	1.02	0.01	0.195	0.205
	WLAN5.3G	802.11a	Right Side	52	Ant 1	97.25	1.03	15.50	15.43	1.02	-0.01	0.288	0.303
	WLAN5.3G	802.11a	Front Face	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	0.01	0.126	0.131
	WLAN5.3G	802.11a	Rear Face	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.07	0.198	0.206
	WLAN5.3G	802.11a	Left Side	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	-0.15	0.135	0.140
	WLAN5.3G	802.11a	Right Side	52	Ant 0+1	97.25	1.03	18.50	18.45	1.01	0.07	0.297	0.309
	WLAN5.3G	802.11a	Right Side	56	Ant 0+1	97.25	1.03	18.50	18.21	1.07	0.06	0.331	0.365
	WLAN5.3G	802.11a	Right Side	60	Ant 0+1	97.25	1.03	18.50	18.23	1.06	0.13	0.336	0.367
60	WLAN5.3G	802.11a	Right Side	64	Ant 0+1	97.25	1.03	18.00	17.82	1.04	0.07	0.344	**0.368**
	WLAN5.6G	802.11a	Front Face	116	Ant 0	97.25	1.03	13.70	13.54	1.04	-0.17	0.058	0.062
	WLAN5.6G	802.11a	Rear Face	116	Ant 0	97.25	1.03	13.70	13.54	1.04	-0.03	0.166	0.178
	WLAN5.6G	802.11a	Left Side	116	Ant 0	97.25	1.03	13.70	13.54	1.04	-0.02	0.149	0.160
	WLAN5.6G	802.11a	Front Face	116	Ant 1	97.25	1.03	13.70	13.30	1.10	0.01	0.099	0.112
	WLAN5.6G	802.11a	Rear Face	116	Ant 1	97.25	1.03	13.70	13.30	1.10	0.07	0.236	0.267
	WLAN5.6G	802.11a	Right Side	116	Ant 1	97.25	1.03	13.70	13.30	1.10	0.16	0.332	0.376
	WLAN5.6G	802.11a	Front Face	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.03	0.08	0.087
	WLAN5.6G	802.11a	Rear Face	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.15	0.196	0.214
	WLAN5.6G	802.11a	Left Side	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	-0.09	0.175	0.191
	WLAN5.6G	802.11a	Right Side	116	Ant 0+1	97.25	1.03	16.70	16.43	1.06	0.1	0.361	0.394
	WLAN5.6G	802.11a	Right Side	100	Ant 0+1	97.25	1.03	16.00	15.82	1.04	0.01	0.324	0.347
	WLAN5.6G	802.11a	Right Side	120	Ant 0+1	97.25	1.03	16.70	16.40	1.07	0.05	0.363	0.400
	WLAN5.6G	802.11a	Right Side	124	Ant 0+1	97.25	1.03	16.70	16.36	1.08	-0.06	0.359	0.399
61	WLAN5.6G	802.11a	Right Side	132	Ant 0+1	97.25	1.03	16.70	16.38	1.08	0.08	0.391	**0.435**
	WLAN5.6G	802.11a	Right Side	140	Ant 0+1	97.25	1.03	16.00	15.84	1.04	-0.1	0.352	0.377
	WLAN5.6G	802.11a	Right Side	144	Ant 0+1	97.25	1.03	16.00	15.79	1.05	-0.1	0.343	0.371

4.7.6 SAR Measurement Variability

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

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is >= 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	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
LTE 48	QPSK20M	Rear Face	56640	0.824	0.806	1.02	N/A	N/A	N/A	N/A

4.7.7 Simultaneous Multi-band Transmission Evaluation

<Possibilities of Simultaneous Transmission>

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

Simultaneous TX Combination	Capable Transmit Configurations	Head Exposure Condition	Body-worn Exposure Condition	Hotspot Exposure Condition
1	WWAN + WLAN(2.4G) Ant0 + WLAN(5G) Ant1	Yes	Yes	Yes
2	WWAN + WLAN(2.4G) Ant1 + WLAN(5G) Ant0	Yes	Yes	Yes
3	WWAN + WLAN(2.4G) MIMO	Yes	Yes	Yes
4	WWAN + WLAN(5G) Ant1 + BT Ant0	Yes	Yes	Yes
5	WWAN +WLAN(5G) MIMO + BT Ant0	Yes	Yes	Yes
6	EN-DC + WLAN(2.4G) Ant0 + WLAN(5G) Ant1	Yes	Yes	Yes
7	EN-DC + WLAN(2.4G) Ant1 + WLAN(5G) Ant0	Yes	Yes	Yes
8	EN-DC + WLAN(2.4G) MIMO	Yes	Yes	Yes
9	EN-DC + WLAN(5G) Ant1 + BT Ant0	Yes	Yes	Yes
10	EN-DC+WLAN(5G) MIMO + BT Ant0	Yes	Yes	Yes

<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.

Refer to Appendix G

Test Engineer：Tim Cheng, and Hance Chang

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1106	Apr. 30, 2020	1 Year
System Validation Dipole	SPEAG	D835V2	4d166	Apr. 29, 2020	1 Year
System Validation Dipole	SPEAG	D1750V2	1111	Apr. 29, 2020	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Jan. 21, 2020	1 Year
System Validation Dipole	SPEAG	D2450V2	903	Oct. 15, 2019	1 Year
System Validation Dipole	SPEAG	D2600V2	1077	Apr. 26, 2020	1 Year
System Validation Dipole	SPEAG	D3500V2	1007	Feb. 25, 2020	1 Year
System Validation Dipole	SPEAG	D3700V2	1017	Sep. 24, 2019	1 Year
System Validation Dipole	SPEAG	D3700V2	1074	May. 04, 2020	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 13, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Jan. 27, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3650	Mar. 25, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7555	Sep. 28, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Aug. 30, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7537	May. 29, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7350	Dec. 16, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3820	Jun. 25, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May. 27, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1589	Sep. 15, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE3	579	Aug. 27, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 18, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	917	Dec. 17, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1585	May. 28, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE3	393	Jun. 25, 2020	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201381727	Jun. 11, 2020	1 Year
Universal Wireless Test Set	Anritsu	MT8870A/MU887000A	6201671354	Apr. 28, 2020	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 26, 2020	1 Year
Thermometer	YFE	YF-160A	150601220	May. 25, 2020	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1092	May. 26, 2020	1 Year
Powersource1	SPEAG	SE_UMS_160BA	4230	Jun. 25, 2020	1 Year

6. Measurement Uncertainty

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

7. Information of the Testing Laboratories

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

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Web Site: https://ee.bureauveritas.com.tw/BVInternet/Default

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

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Appendix A. SAR Plots of System Verification

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

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/07/30

System Check_H750_200730

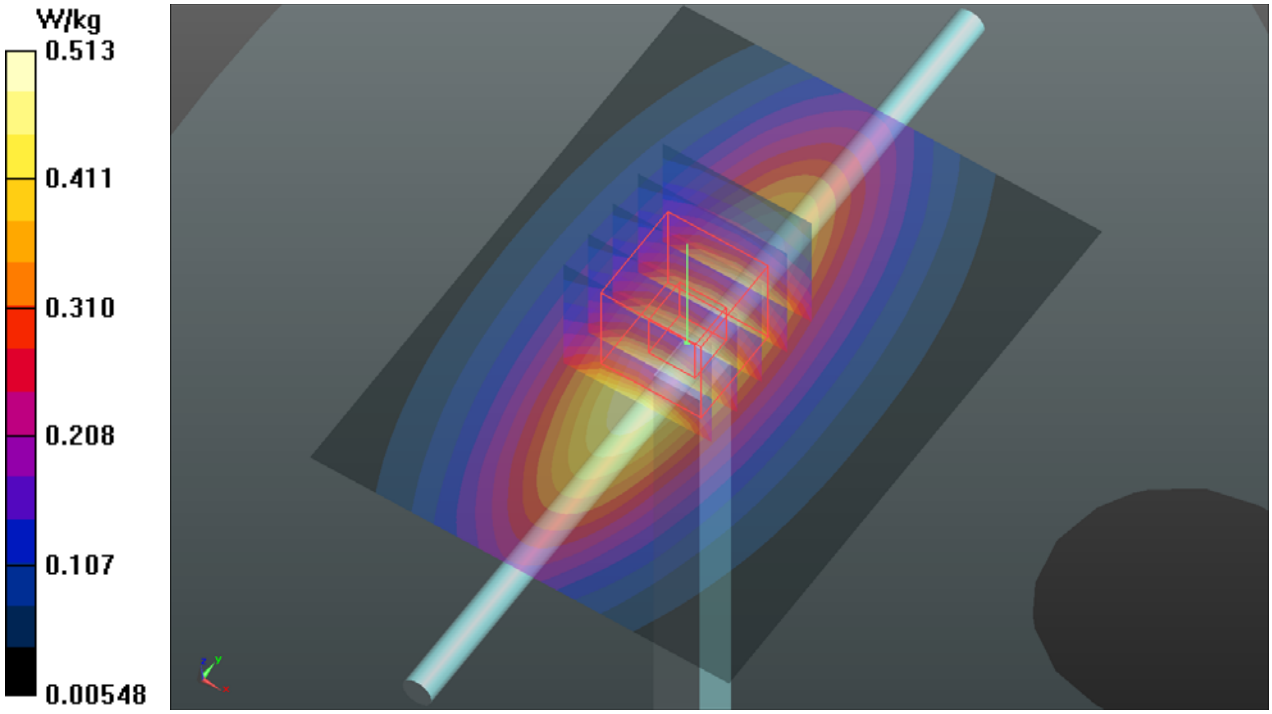
DUT: Dipole 750 MHz; Type: D750V3; SN: 1106

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0730 Medium parameters used: f = 750 MHz; σ = 0.905 S/m; ε_r = 42.383; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7472; ConvF(10.49, 10.49, 10.49) @ 750 MHz; Calibrated: 2019/08/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2019/08/27
- Phantom: Twin SAM Phantom_1653; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.513 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.24 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.564 W/kg
SAR(1 g) = 0.388 W/kg; SAR(10 g) = 0.263 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.509 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/07/29

System Check_H835_200729

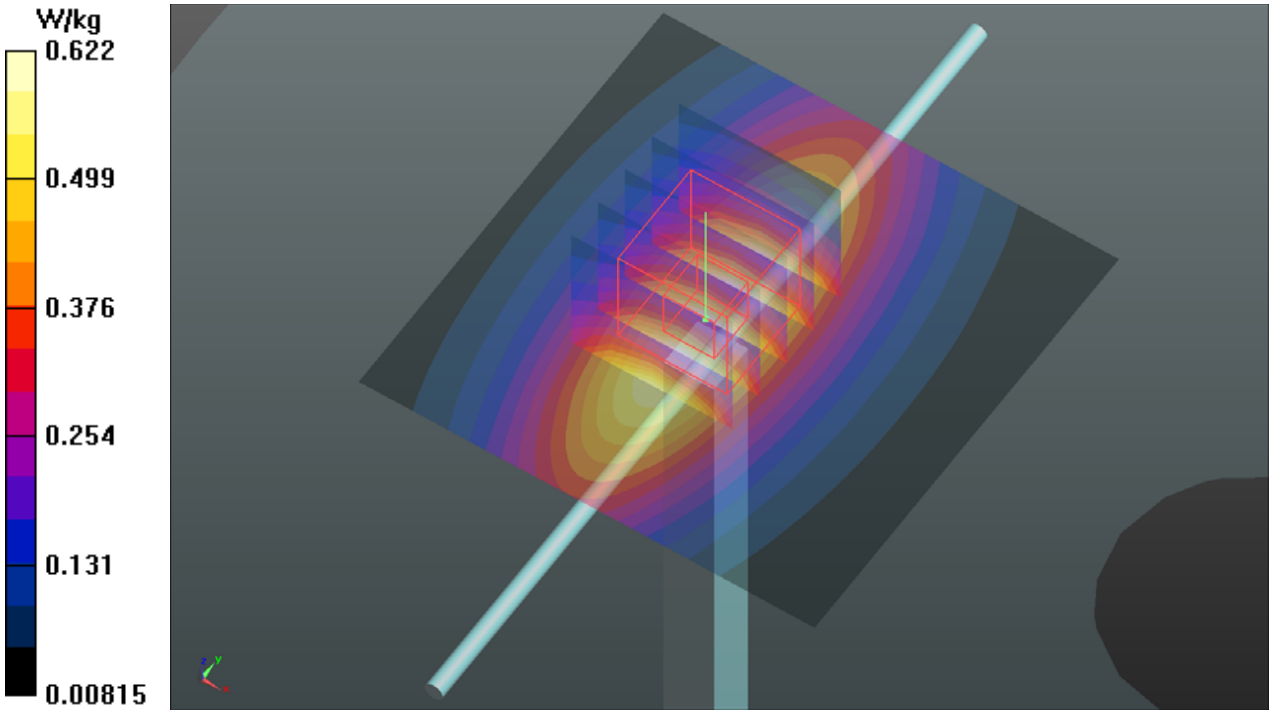
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d166

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0729 Medium parameters used: f = 835 MHz; σ = 0.928 S/m; ε_r = 42.022; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7472; ConvF(10.18, 10.18, 10.18) @ 835 MHz; Calibrated: 2019/08/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2019/08/27
- Phantom: Twin SAM Phantom_1653; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.622 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.94 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.713 W/kg
SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.329 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.644 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/09/11

System Check_H1750_200911

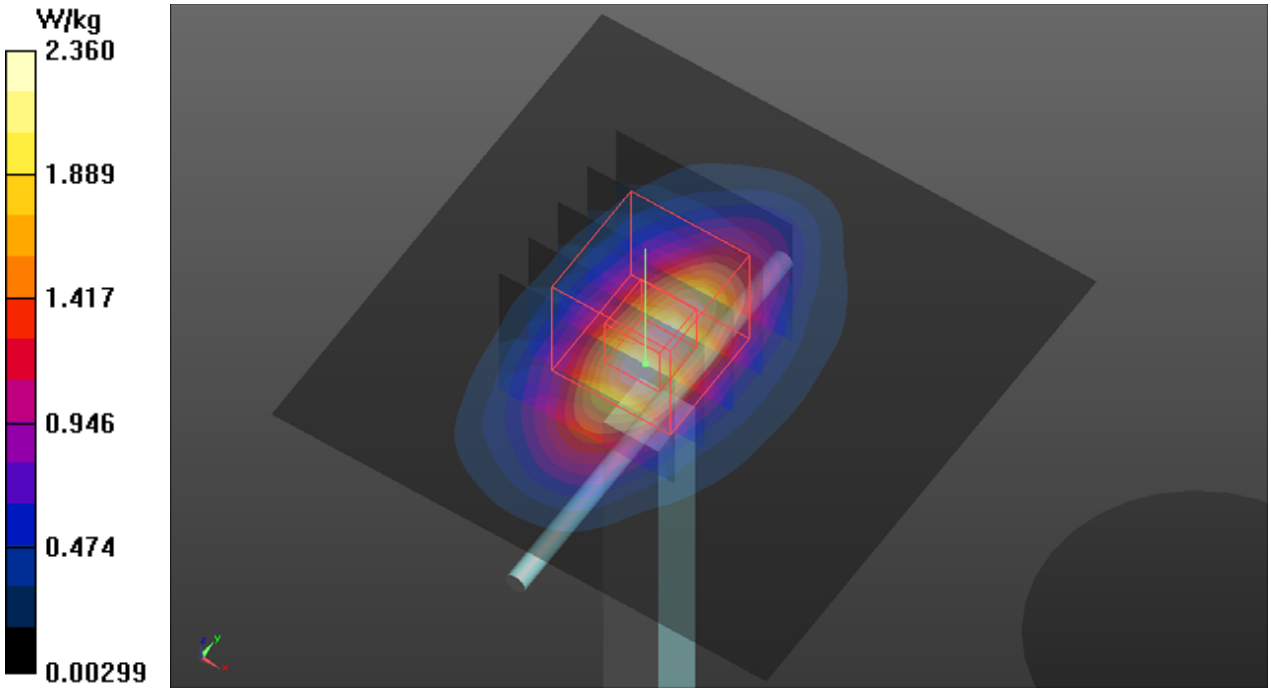
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1111

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0911 Medium parameters used: f = 1750 MHz; σ = 1.325 S/m; ε_r = 39.061; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.73, 8.73, 8.73) @ 1750 MHz; Calibrated: 2020/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1823; Type: QD 000 P40 CD;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.36 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.45 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 2.73 W/kg
SAR(1 g) = 1.7 W/kg; SAR(10 g) = 0.882 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.32 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/01

System Check_H1900_200801

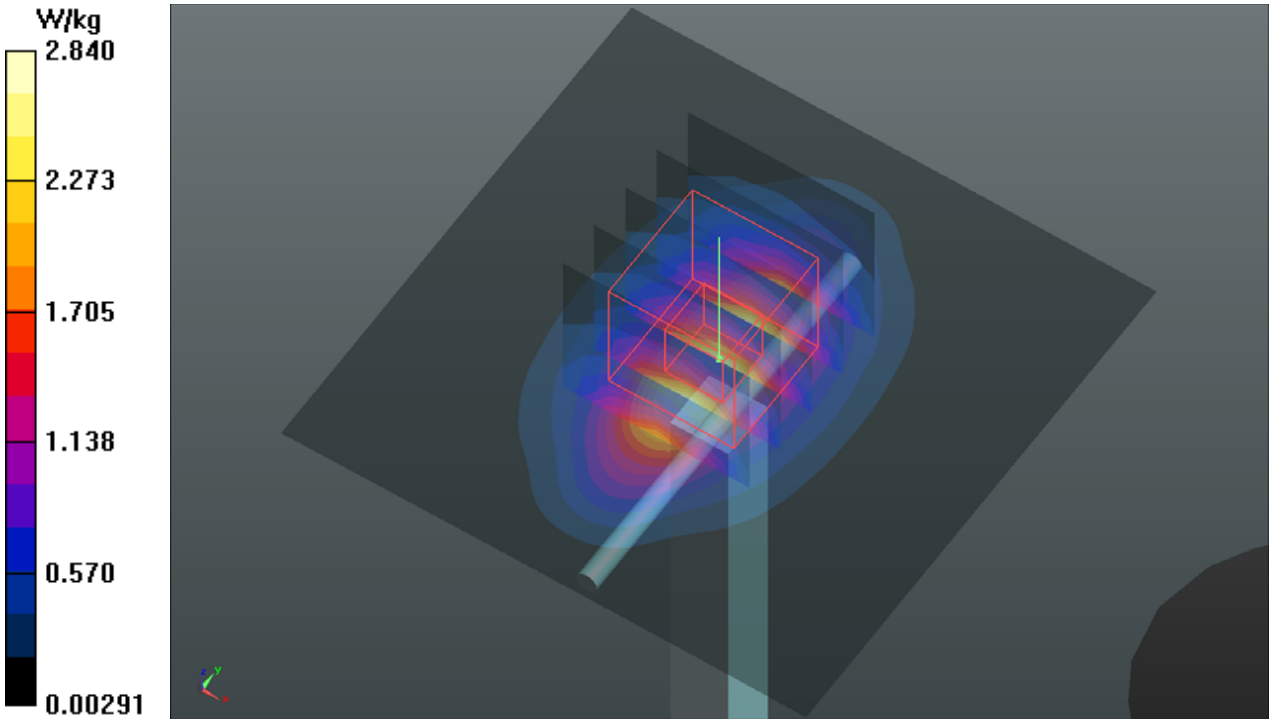
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0801 Medium parameters used: f = 1900 MHz; σ = 1.45 S/m; ε_r = 39.259; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(8.25, 8.25, 8.25) @ 1900 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.84 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 45.85 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 3.37 W/kg
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 0.994 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.85 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/23

System Check_H2450_200823

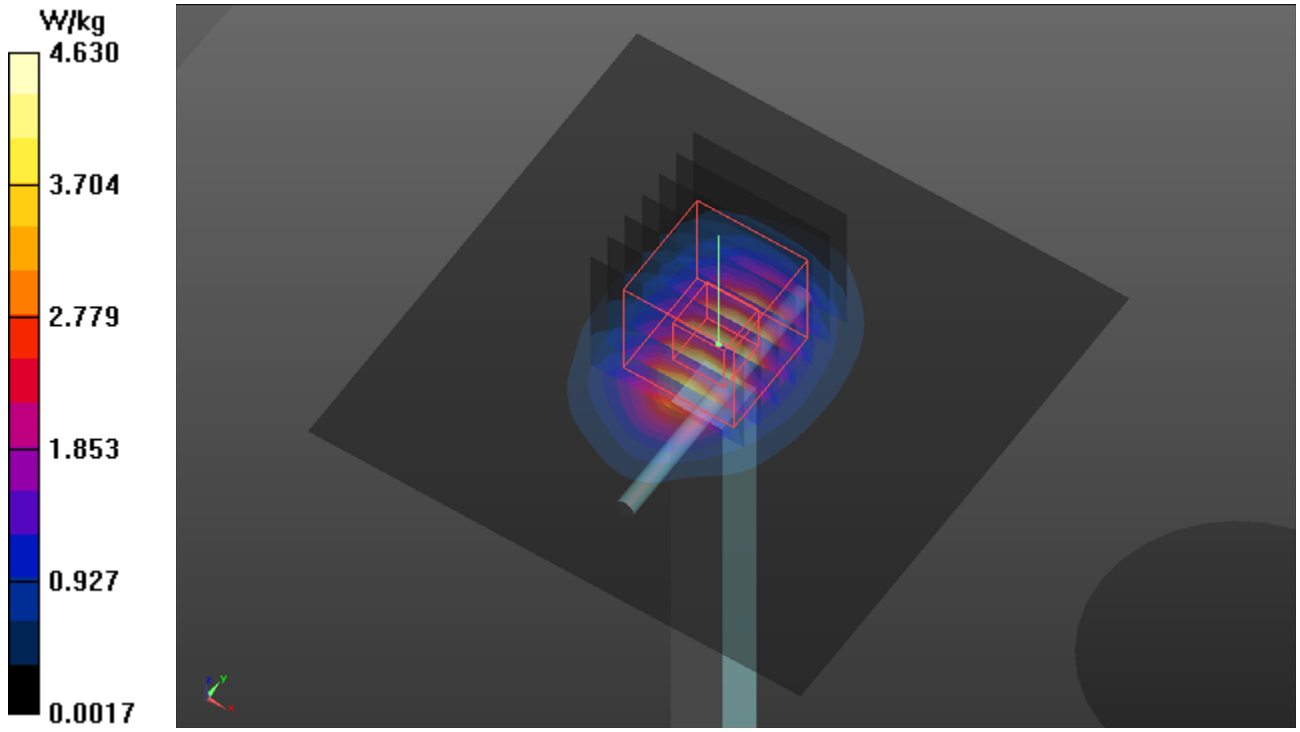
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 903

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0823 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.883 S/m; ε_r = 38.286; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(6.85, 6.85, 6.85) @ 2450 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.63 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.42 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 5.90 W/kg
SAR(1 g) = 2.77 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.75 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/01

System Check_H2600_200801

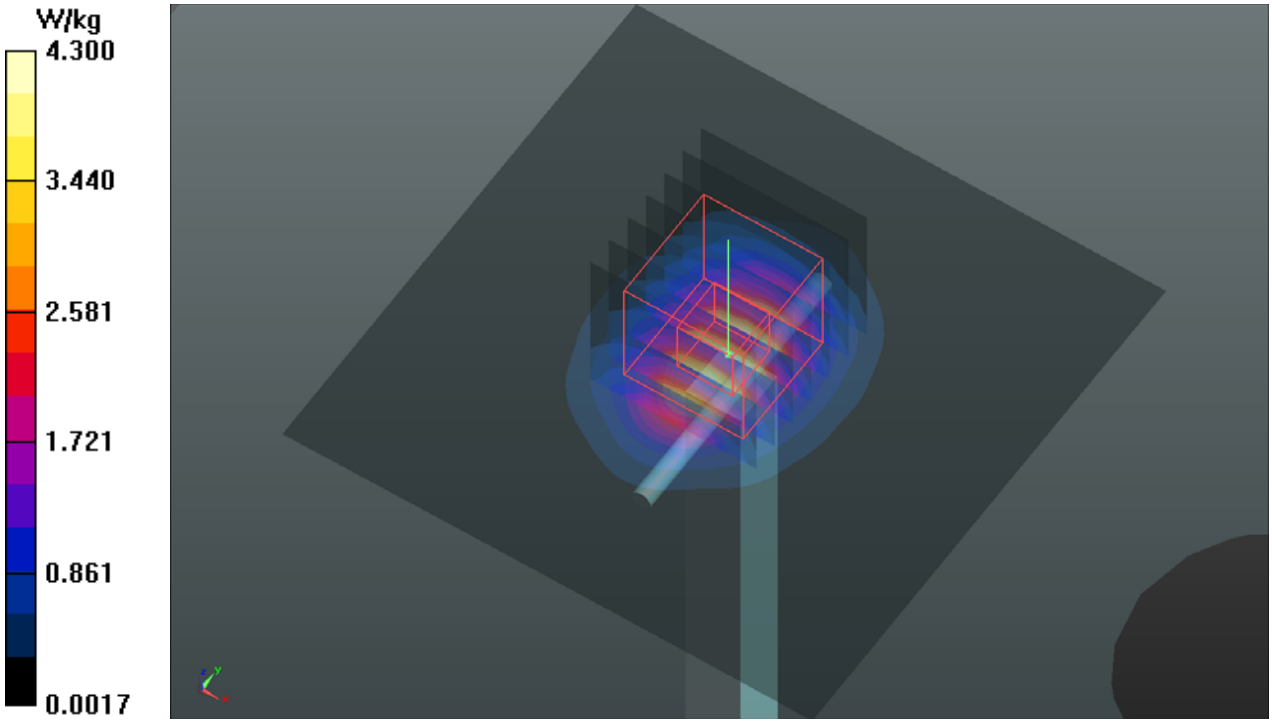
DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1077

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0801 Medium parameters used: f = 2600 MHz; σ = 2.036 S/m; ε_r = 37.736; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.48, 7.48, 7.48) @ 2600 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 4.30 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.02 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 5.33 W/kg
SAR(1 g) = 2.64 W/kg; SAR(10 g) = 1.29 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.33 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/07

System Check_H3500_200807

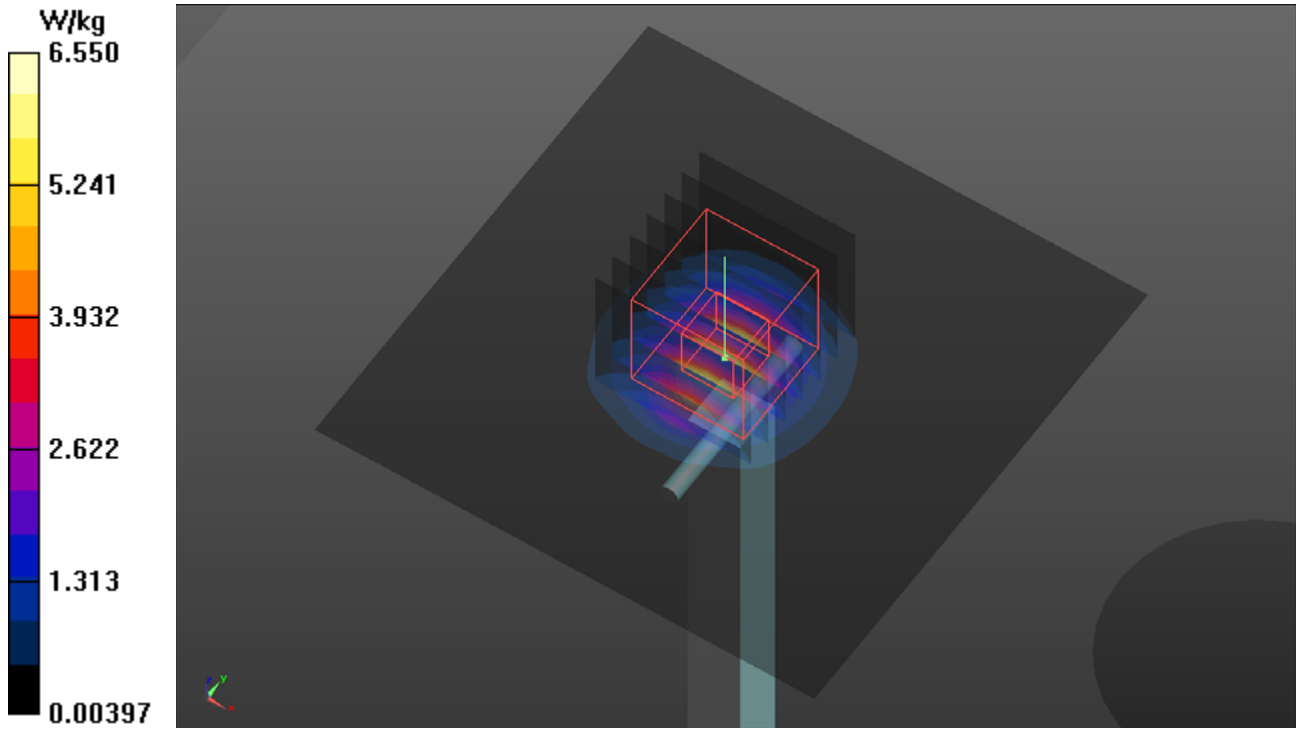
DUT: Dipole 3500 MHz; Type:D3500V2; SN: 1007

Communication System: UID 0, CW; Frequency: 3500 MHz;Duty Cycle: 1:1
Medium: H34T38N1_0807 Medium parameters used: f = 3500 MHz; σ = 2.893 S/m; ε_r = 36.469; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7537; ConvF(6.61, 6.61, 6.61) @ 3500 MHz; Calibrated: 2020/05/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1585; Calibrated: 2020/05/28
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 6.55 W/kg

Pin=50mW/Zoom Scan (7x7x6)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2.5mm
Reference Value = 50.28 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 8.66 W/kg
SAR(1 g) = 3.45 W/kg; SAR(10 g) = 1.34 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 6.59 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/07

System Check_H3700_200807

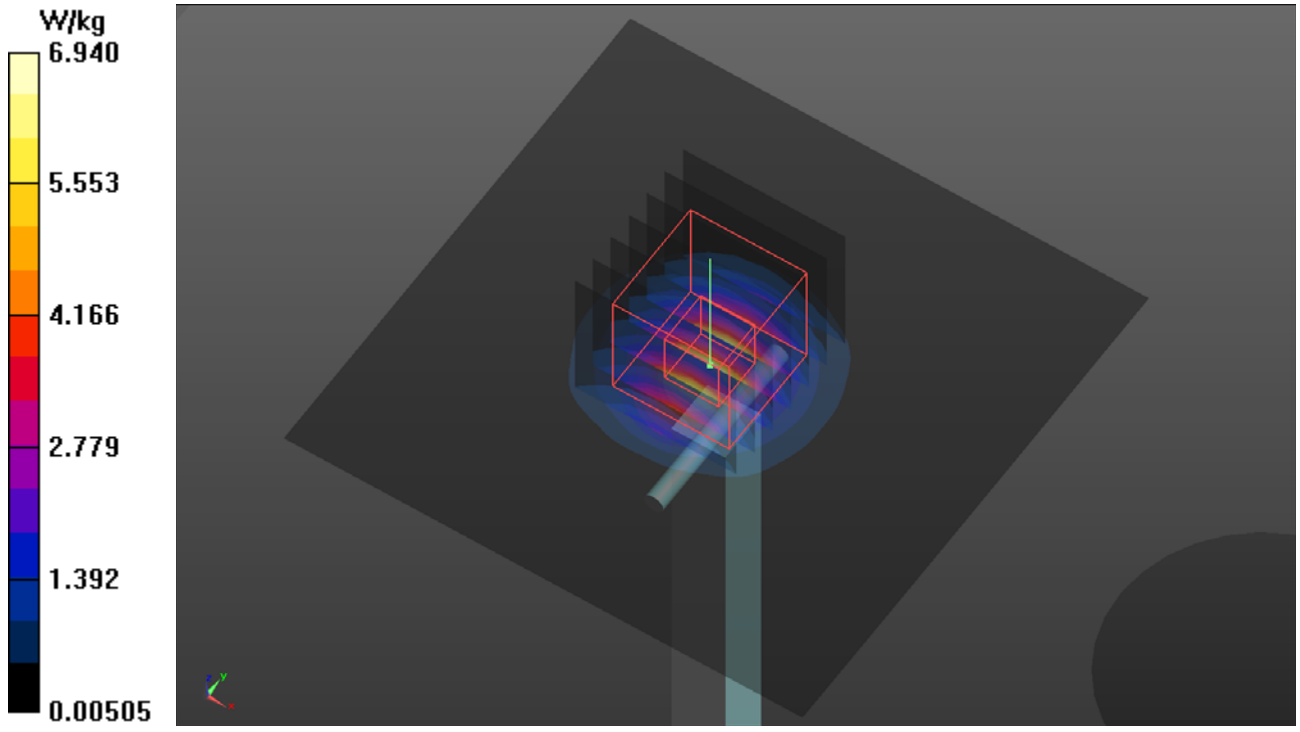
DUT: Dipole 3700 MHz D3700V2 ; SN: 1017

Communication System: UID 0, CW; Frequency: 3700 MHz;Duty Cycle: 1:1
Medium: H34T38N1_0807 Medium parameters used: f = 3700 MHz; σ = 3.039 S/m; ε_r = 36.271; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7537; ConvF(6.53, 6.53, 6.53) @ 3700 MHz; Calibrated: 2020/05/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1585; Calibrated: 2020/05/28
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 6.94 W/kg

Pin=50mW/Zoom Scan (7x7x6)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2.5mm
Reference Value = 50.91 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 9.40 W/kg
SAR(1 g) = 3.59 W/kg; SAR(10 g) = 1.36 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 7.03 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/24

System Check_H5250_200824

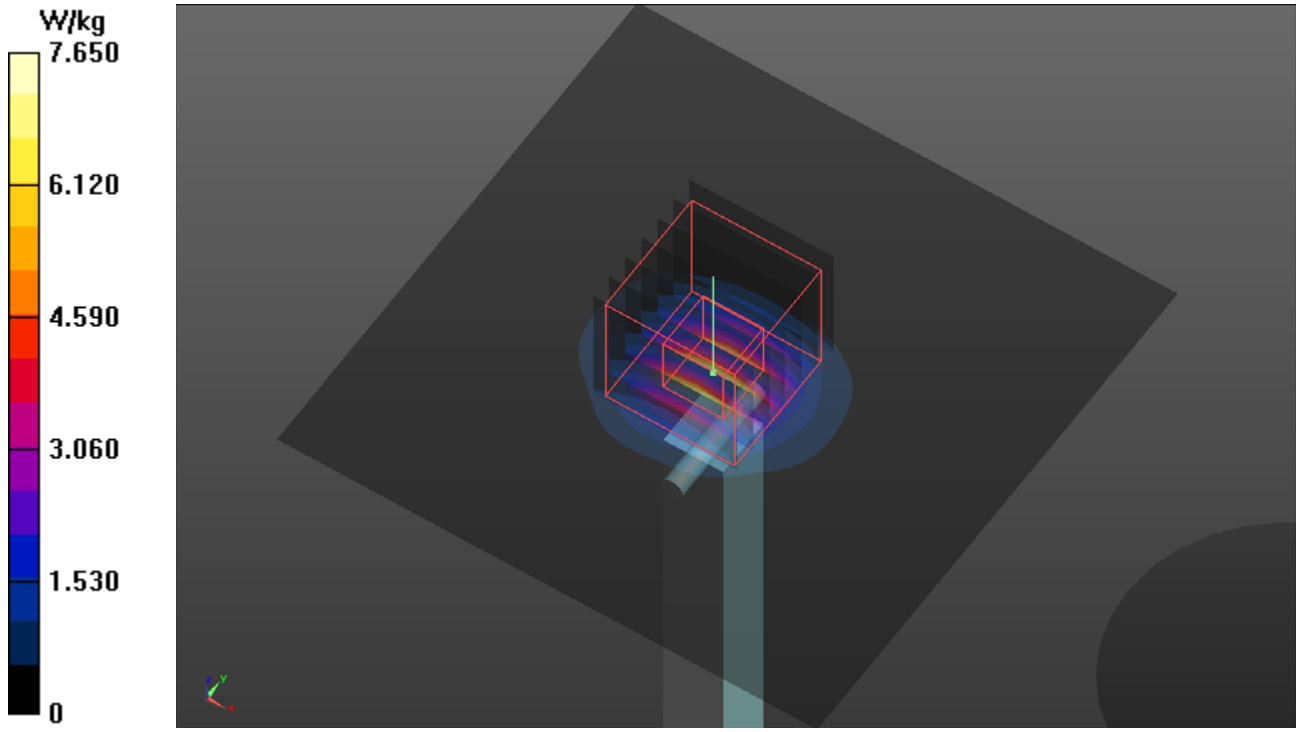
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0824 Medium parameters used: f = 5250 MHz; σ = 4.607 S/m; ε_r = 34.846; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(4.75, 4.75, 4.75) @ 5250 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 7.65 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.77 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 12.9 W/kg
SAR(1 g) = 3.61 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 8.50 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/24

System Check_H5600_200824

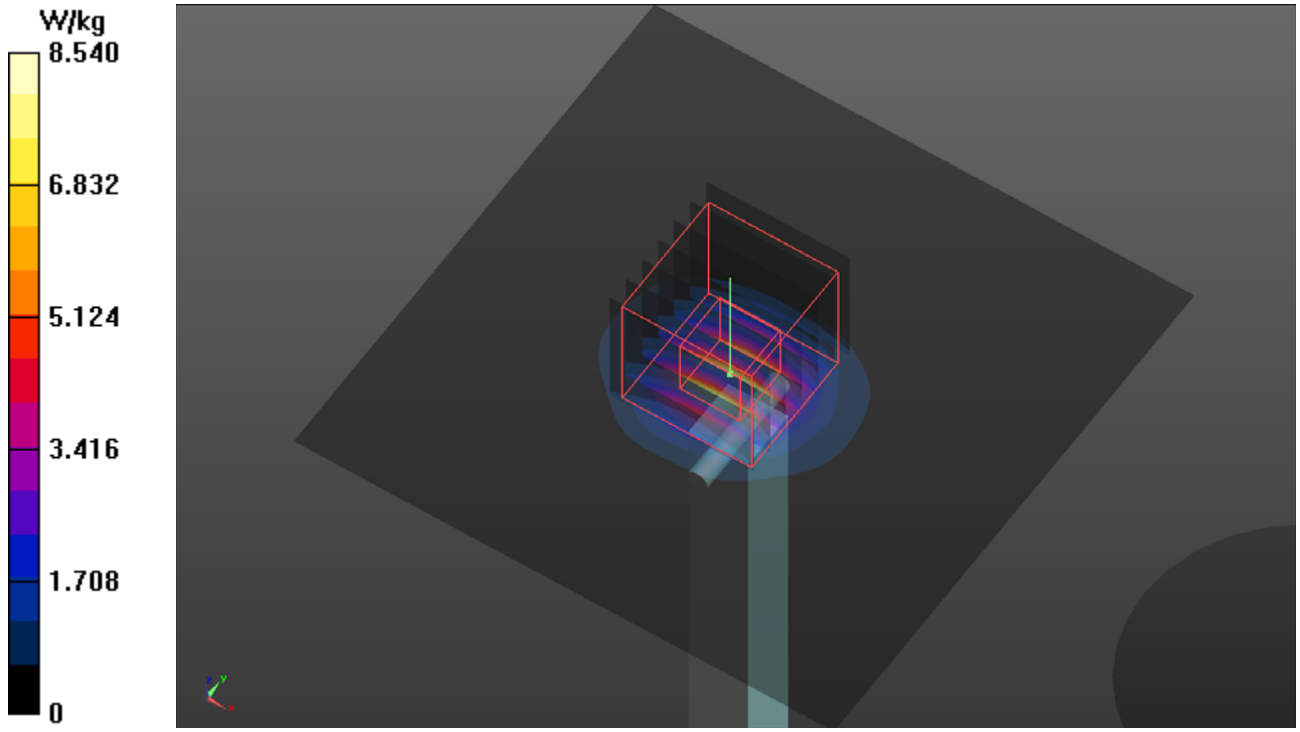
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0824 Medium parameters used: f = 5600 MHz; σ = 4.998 S/m; ε_r = 34.41; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(4.37, 4.37, 4.37) @ 5600 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.54 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.97 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 14.8 W/kg
SAR(1 g) = 3.78 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.23 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/24

System Check_H5750_200824

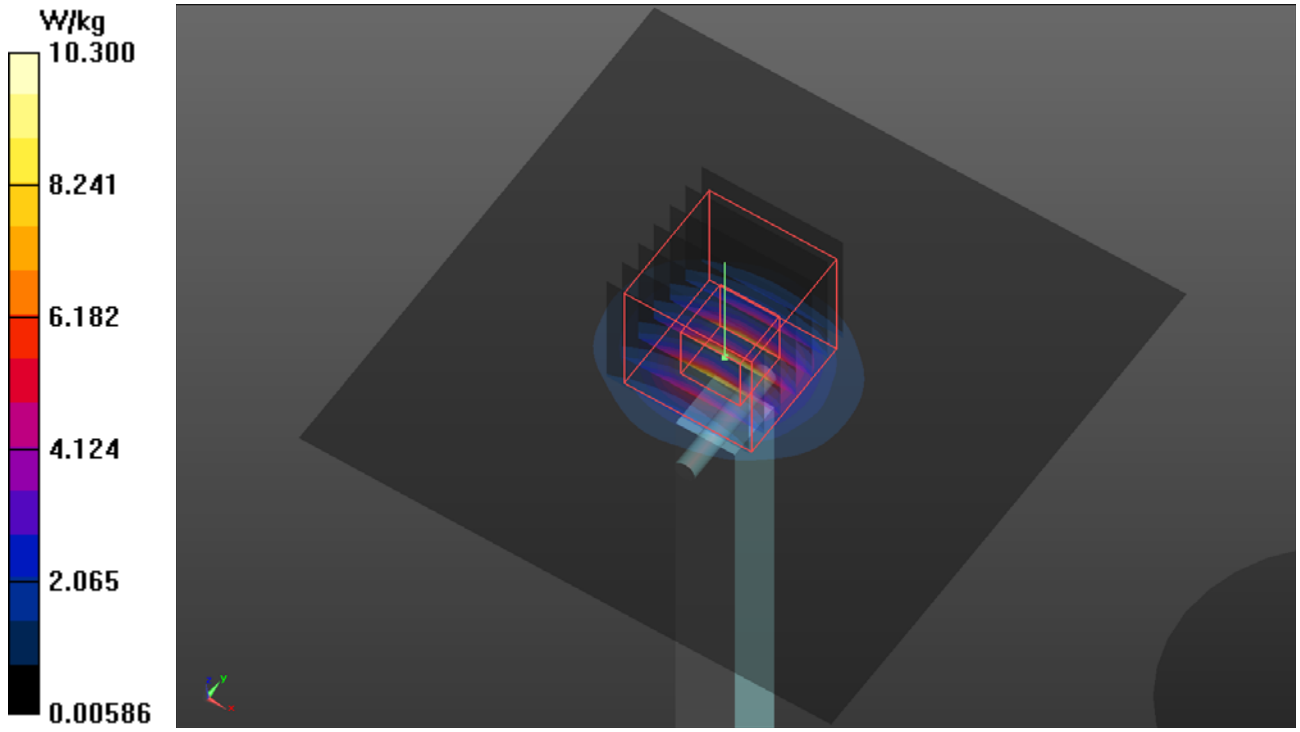
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0824 Medium parameters used: f = 5750 MHz; σ = 5.133 S/m; ε_r = 34.387; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(4.4, 4.4, 4.4) @ 5750 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 10.3 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 49.23 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 4.31 W/kg; SAR(10 g) = 1.26 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 11.0 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/27

System Check_H5250_200827

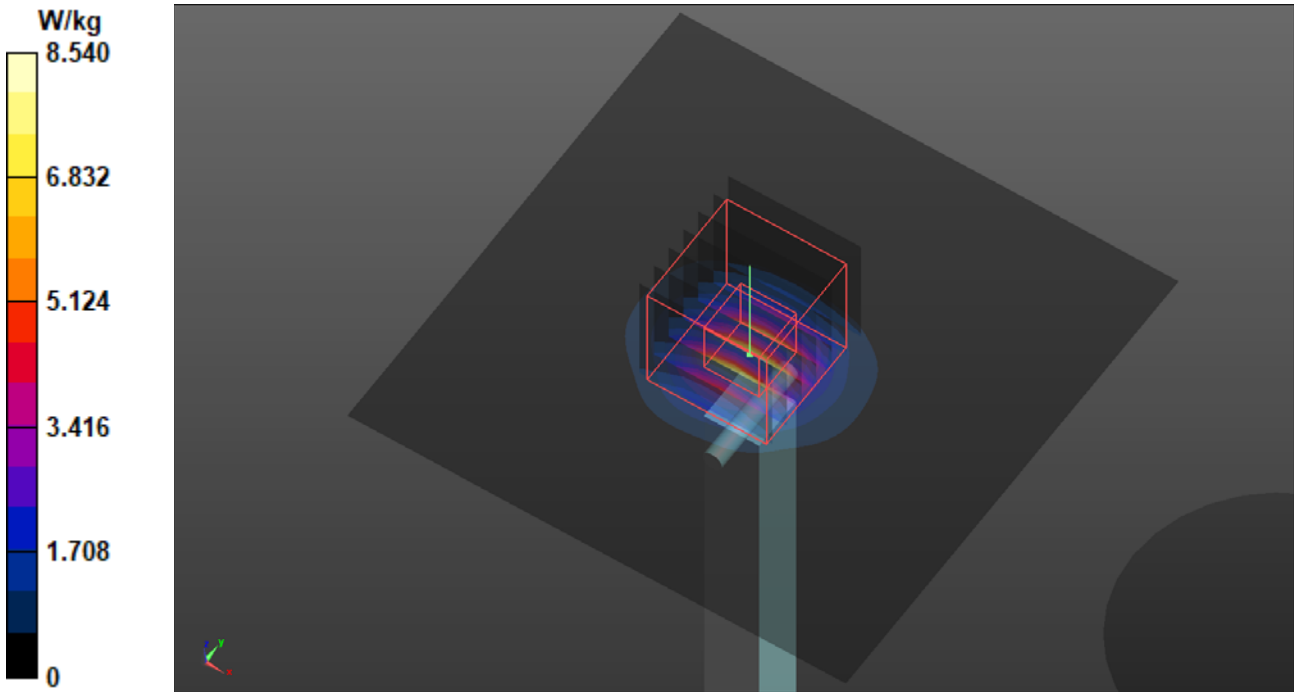
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0827 Medium parameters used (interpolated): f = 5250 MHz; σ = 4.601 S/m; ε_r = 35.761; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(4.75, 4.75, 4.75) @ 5250 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.54 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 48.19 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 14.4 W/kg
SAR(1 g) = 3.79 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.48 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/24

System Check_H5600_200824

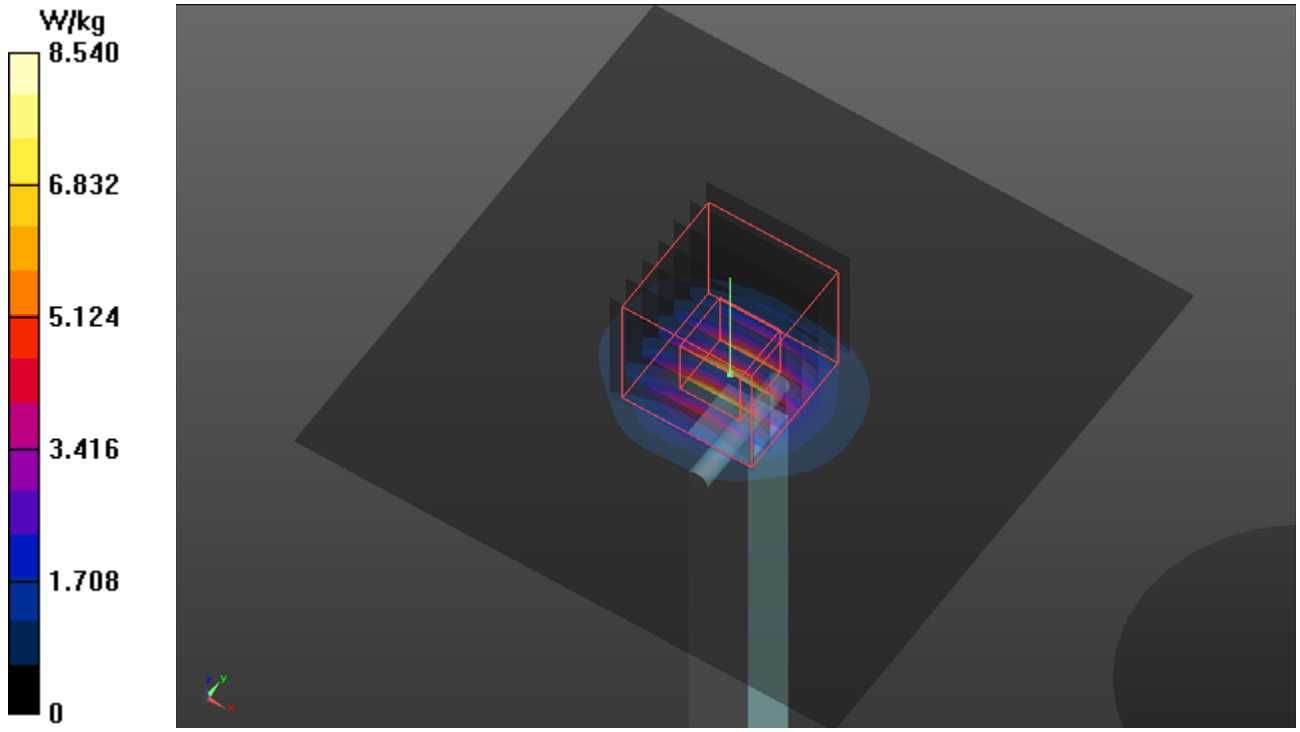
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0824 Medium parameters used: f = 5600 MHz; σ = 4.998 S/m; ε_r = 34.41; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(4.37, 4.37, 4.37) @ 5600 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: SAM Phantom_1982; Type: QD 000 P41 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.54 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.97 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 14.8 W/kg
SAR(1 g) = 3.78 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.23 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.

Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/26

P01 GSM850_GPRS12_Left Cheek_Ch251_Ant 0

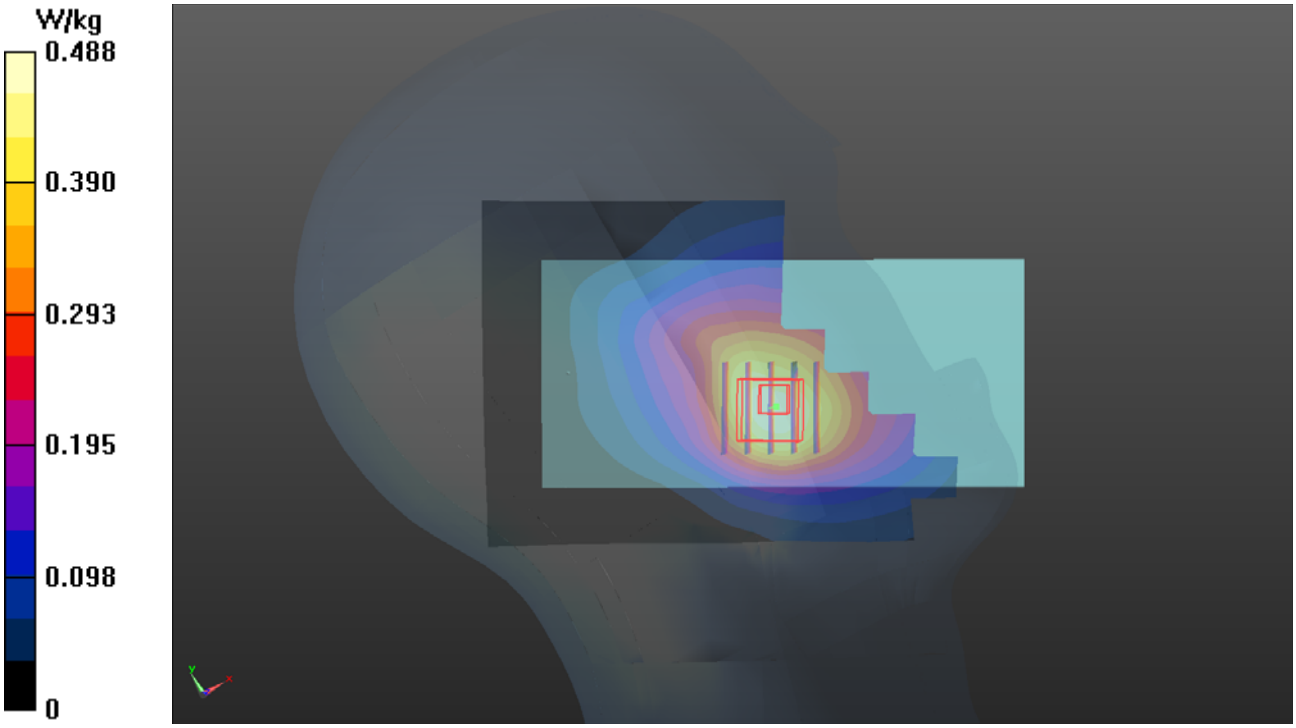
DUT: 200605C24

Communication System: UID 10028 - DAC, GPRS-FDD (TDMA, GMSK, TN 0-1-2-3); Frequency: 848.8 MHz;Duty Cycle: 1:2.27
Medium: H07T10N1_0826 Medium parameters used: f = 849 MHz; σ = 0.931 S/m; ε_r = 41.561; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(9.79, 9.79, 9.79) @ 848.8 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: Twin SAM Phantom_1496; Type: QD000P40CB;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.488 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.58 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.563 W/kg
SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.305 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.8 mm
Ratio of SAR at M2 to SAR at M1 = 80.9%
Maximum value of SAR (measured) = 0.469 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/08/26

P02 GSM1900_GPRS12_Right Cheek_Ch661_Ant 0

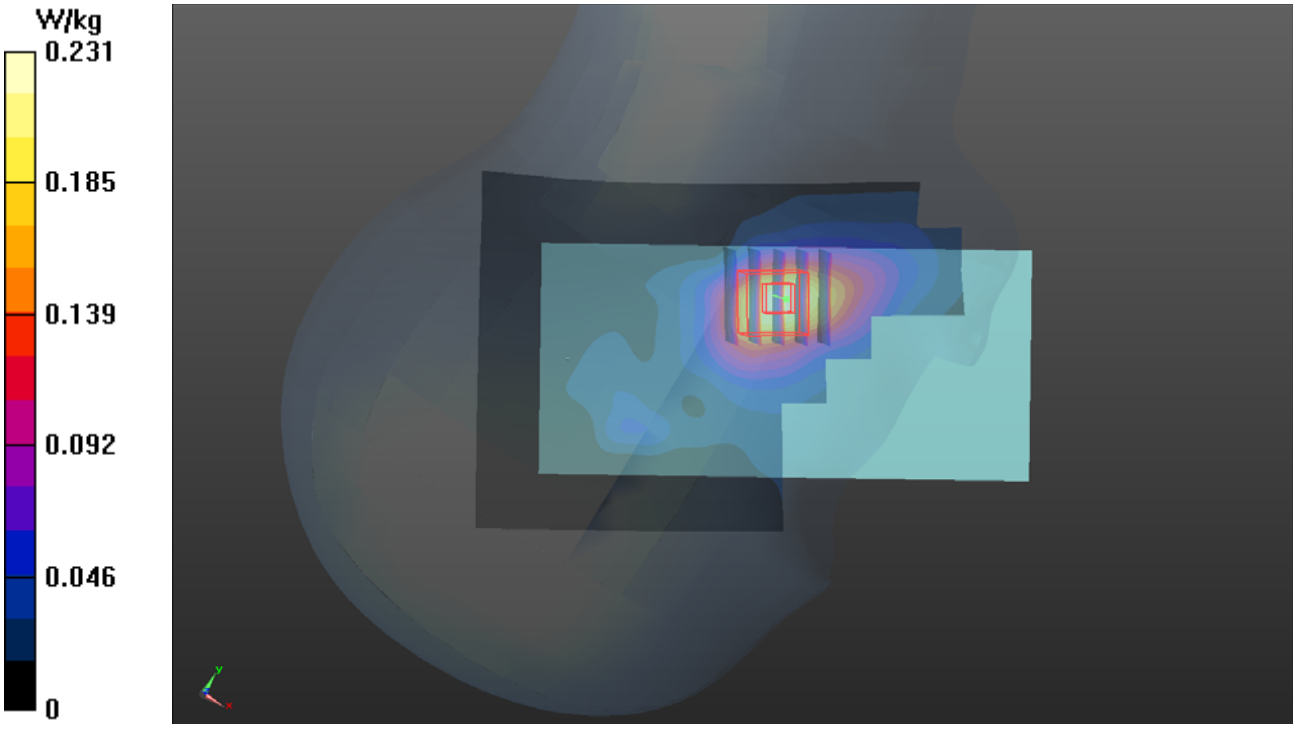
DUT: 200605C24

Communication System: UID 10028 - DAC, GPRS-FDD (TDMA, GMSK, TN 0-1-2-3); Frequency: 1880 MHz;Duty Cycle: 1:2.27
Medium: H16T20N1_0826 Medium parameters used: f = 1880 MHz; σ = 1.441 S/m; ε_r = 39.646; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(8.25, 8.25, 8.25) @ 1880 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: Twin SAM Phantom_1496; Type: QD000P40CB;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.231 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.44 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.283 W/kg
SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.101 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 12.6 mm
Ratio of SAR at M2 to SAR at M1 = 62.4%
Maximum value of SAR (measured) = 0.239 W/kg



P03 WCDMA II_RMC12.2K_Right Cheek_Ch9538_Ant 0

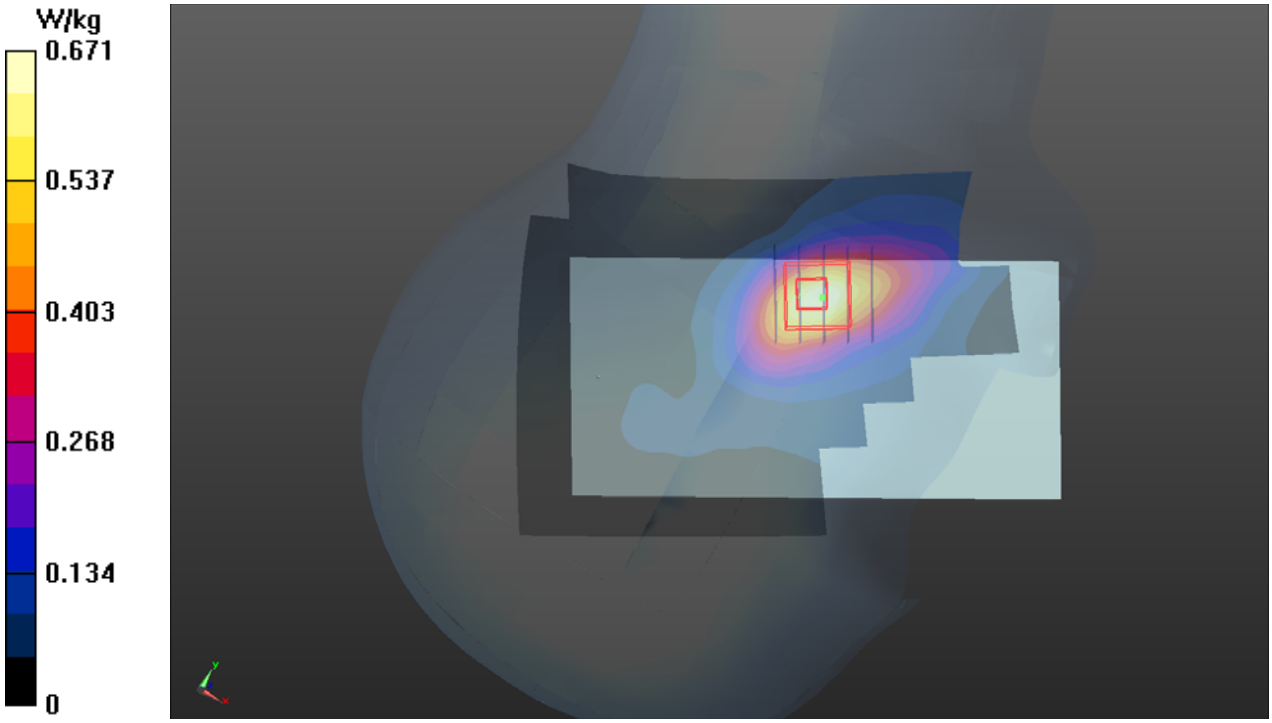
DUT: 200605C24

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1907.6 MHz;Duty Cycle: 1:1.95
Medium: H16T20N1_0801 Medium parameters used: f = 1908 MHz; σ = 1.458 S/m; ε_r = 39.249; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(8.25, 8.25, 8.25) @ 1907.6 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.671 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.37 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.816 W/kg
SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.296 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 11.6 mm
Ratio of SAR at M2 to SAR at M1 = 63.5%
Maximum value of SAR (measured) = 0.679 W/kg



P04 WCDMA V_RMC12.2K_Left Cheek_Ch4182_Ant 0

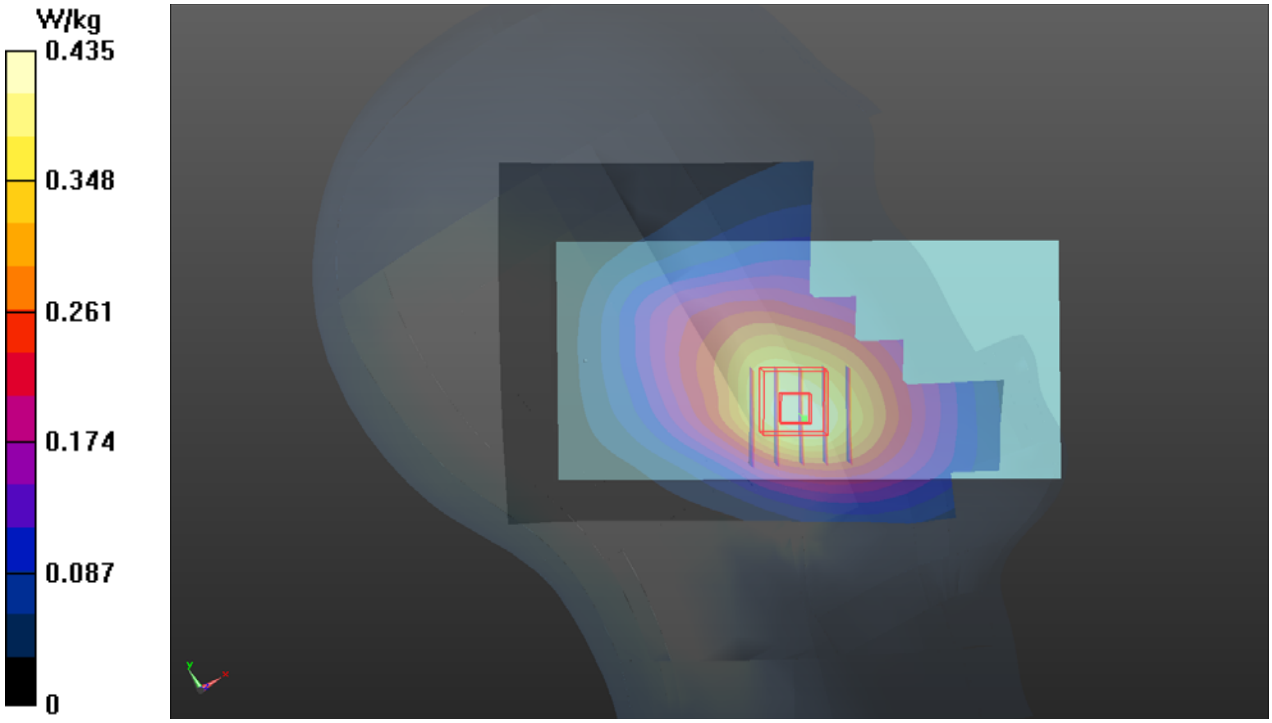
DUT: 200605C24

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.4 MHz;Duty Cycle: 1:1.95
Medium: H07T10N1_0801 Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.904 S/m; ε_r = 41.569; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(9.79, 9.79, 9.79) @ 836.4 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.435 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.30 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.459 W/kg
SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.281 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 19.3 mm
Ratio of SAR at M2 to SAR at M1 = 80.5%
Maximum value of SAR (measured) = 0.425 W/kg



P05 LTE 2_QPSK20M_Right Cheek_Ch18900_1RB_OS0_Ant 0

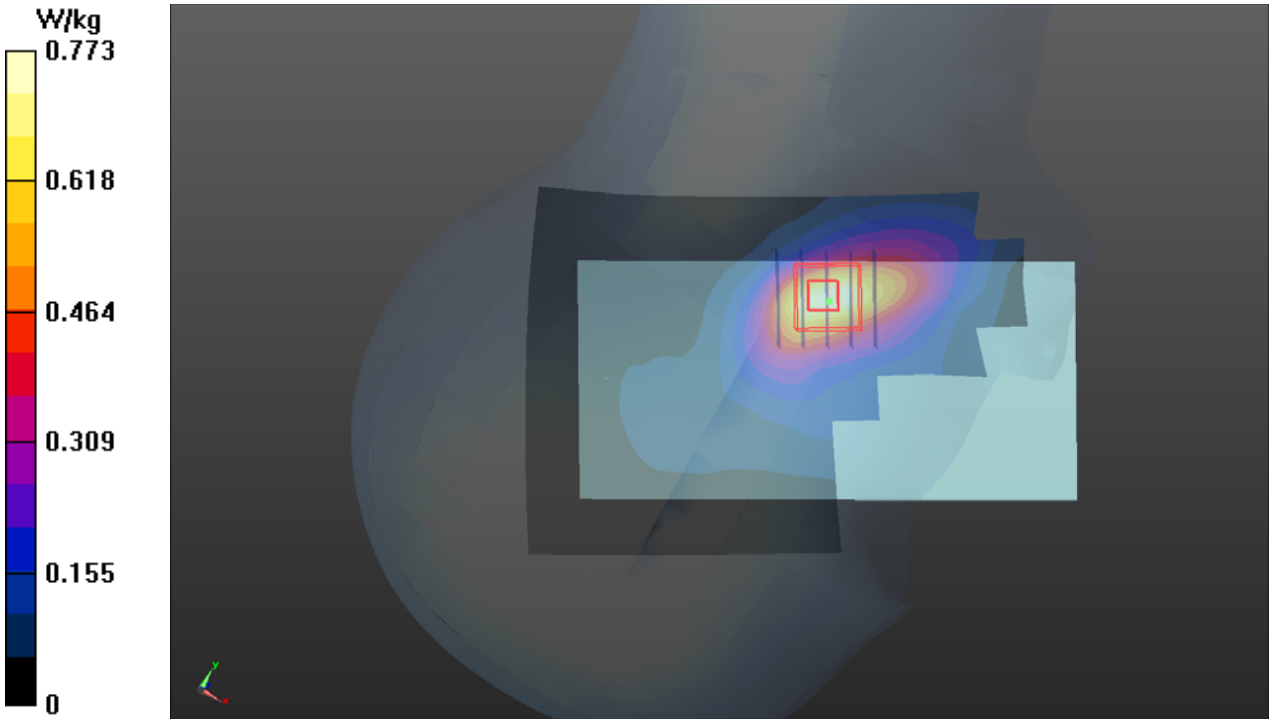
DUT: 200605C24

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1880 MHz;Duty Cycle: 1:3.74
Medium: H16T20N1_0801 Medium parameters used: f = 1880 MHz; σ = 1.432 S/m; ε_r = 39.318; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(8.25, 8.25, 8.25) @ 1880 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.773 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.55 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.862 W/kg
SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.329 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 11 mm
Ratio of SAR at M2 to SAR at M1 = 66.8%
Maximum value of SAR (measured) = 0.722 W/kg



P06 LTE 4_QPSK20M_Right Cheek_Ch20050_1RB_OS0_Ant 1

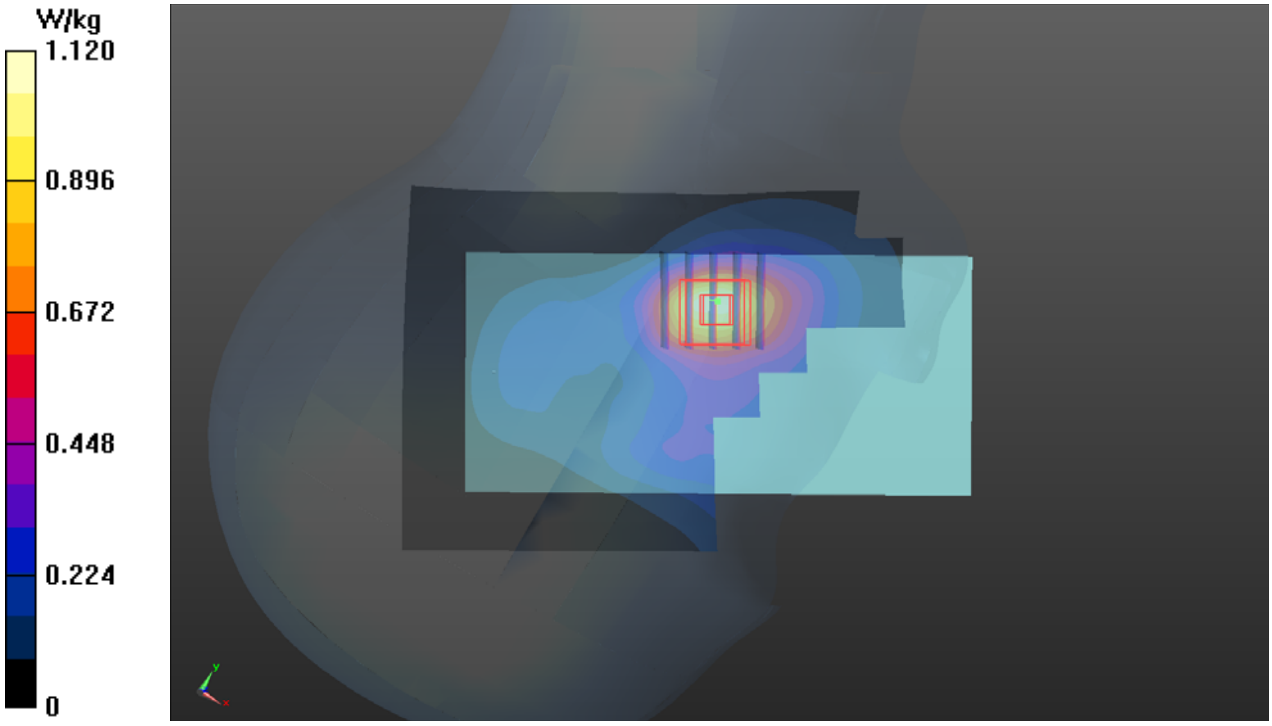
DUT: 200605C24

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1720 MHz;Duty Cycle: 1:3.74
Medium: H16T20N1_1020 Medium parameters used: f = 1720 MHz; σ = 1.297 S/m; ε_r = 39.117; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7555; ConvF(8.6, 8.6, 8.6) @ 1720 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1589; Calibrated: 2020/09/15
- Phantom: Twin SAM Phantom_1823; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.12 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.18 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.699 W/kg; SAR(10 g) = 0.487 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 12.8 mm
Ratio of SAR at M2 to SAR at M1 = 63.3%
Maximum value of SAR (measured) = 1.08 W/kg



P07 LTE 5_QPSK10M_Left Cheek_Ch20525_1RB_OS0_Ant 0

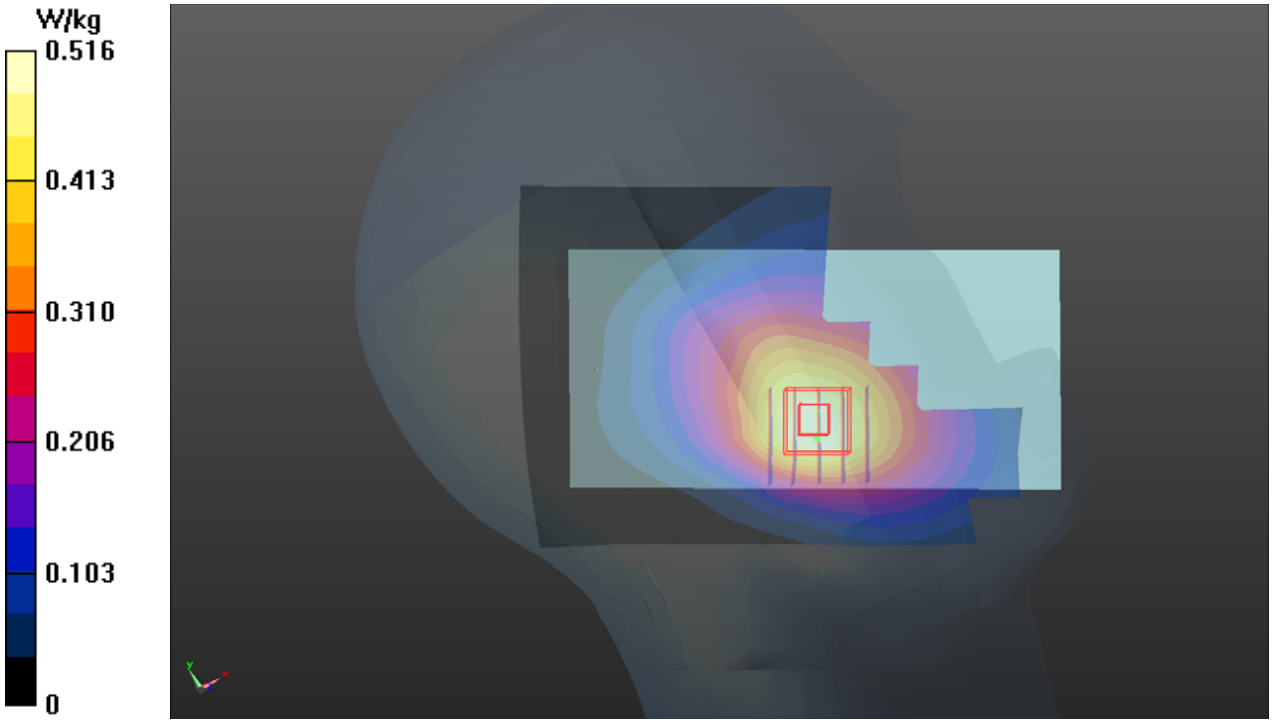
DUT: 200605C24

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 836.5 MHz;Duty Cycle: 1:3.74
Medium: H07T10N1_0801 Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.904 S/m;
ε_r = 41.569; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.516 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.70 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.530 W/kg
SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.329 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 19.4 mm
Ratio of SAR at M2 to SAR at M1 = 82.8%
Maximum value of SAR (measured) = 0.498 W/kg



P08 LTE 7_QPSK20M_Right Cheek_Ch20850_1RB_OS0_Ant 0

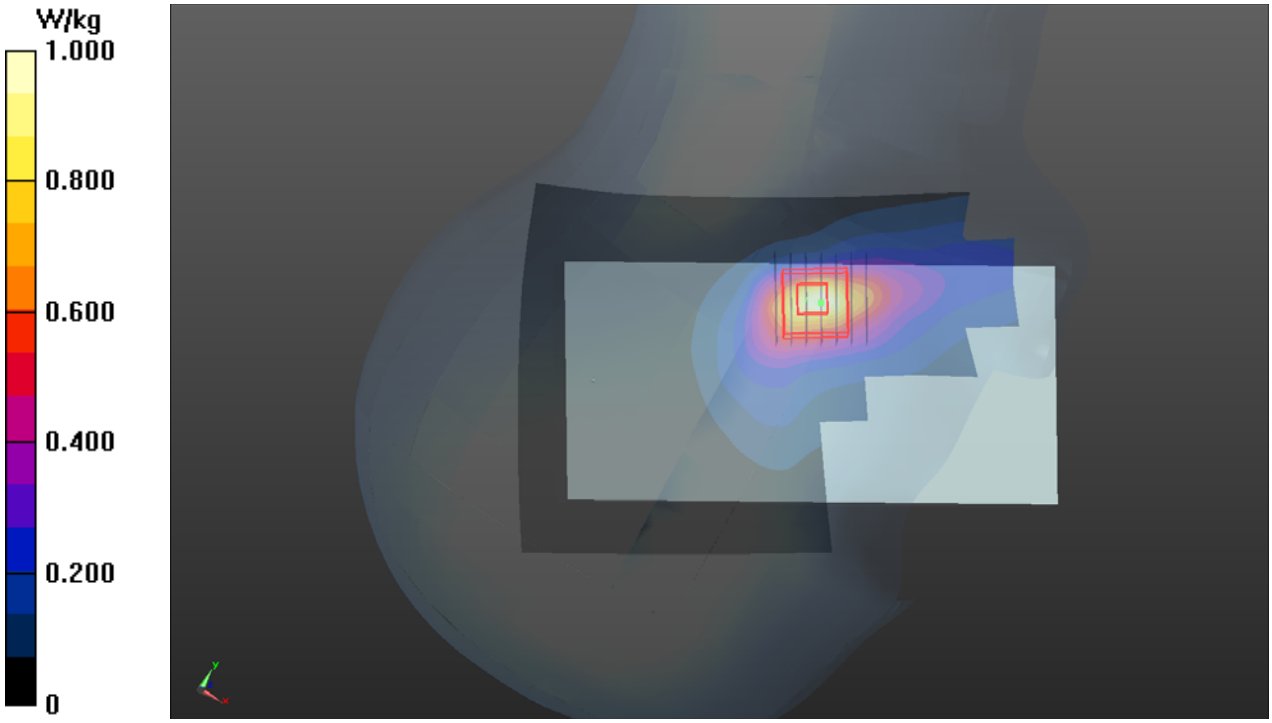
DUT: 200605C24

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2510 MHz;Duty Cycle: 1:3.74
Medium: H19T27N1_0801 Medium parameters used: f = 2510 MHz; σ = 1.949 S/m; ε_r = 38.037; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(7.48, 7.48, 7.48) @ 2510 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x181x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.00 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.44 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.608 W/kg; SAR(10 g) = 0.333 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.3 mm
Ratio of SAR at M2 to SAR at M1 = 61.3%
Maximum value of SAR (measured) = 0.891 W/kg



P09 LTE 12_QPSK10M_Right Cheek_Ch23060_1RB_OS0_Ant 0

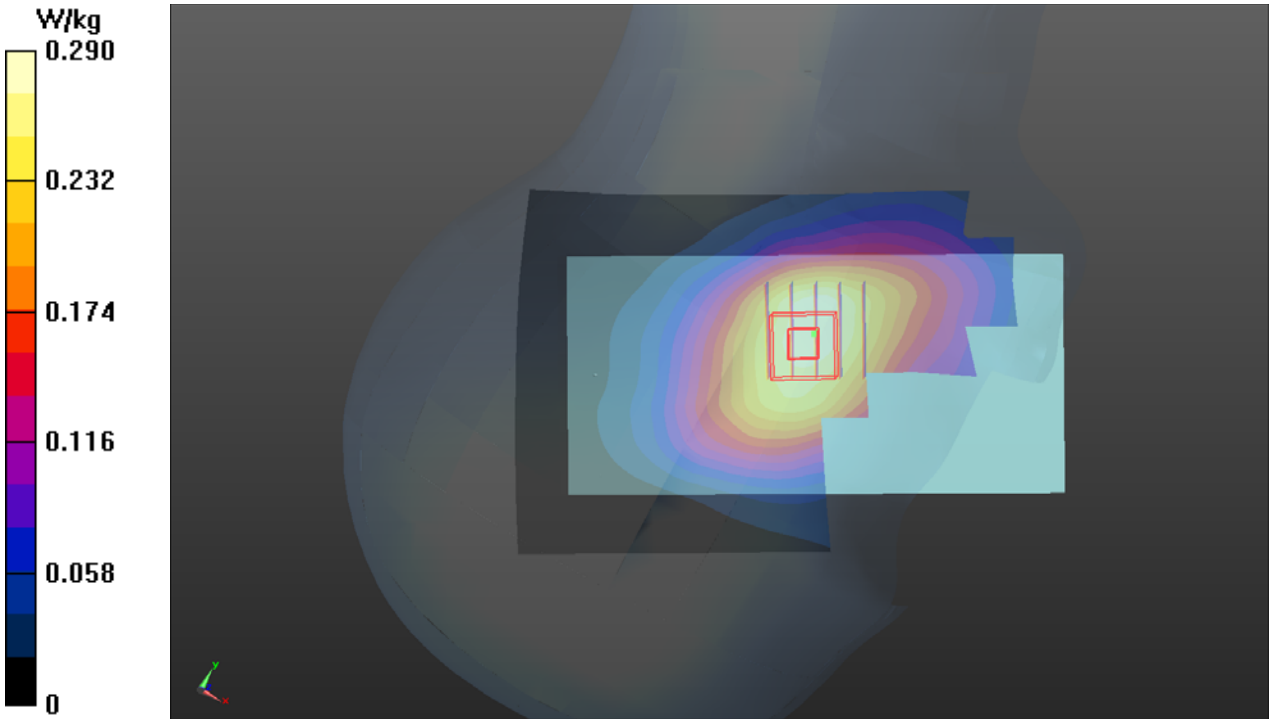
DUT: 200605C24

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 704 MHz;Duty Cycle: 1:3.74
Medium: H06T09N1_0801 Medium parameters used: f = 704 MHz; σ = 0.846 S/m; ε_r = 43.095; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(10, 10, 10) @ 704 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.290 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.63 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.299 W/kg
SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.209 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 84.1%
Maximum value of SAR (measured) = 0.287 W/kg



P10 LTE 13_QPSK10M_Left Cheek_Ch23230_1RB_OS0_Ant 0

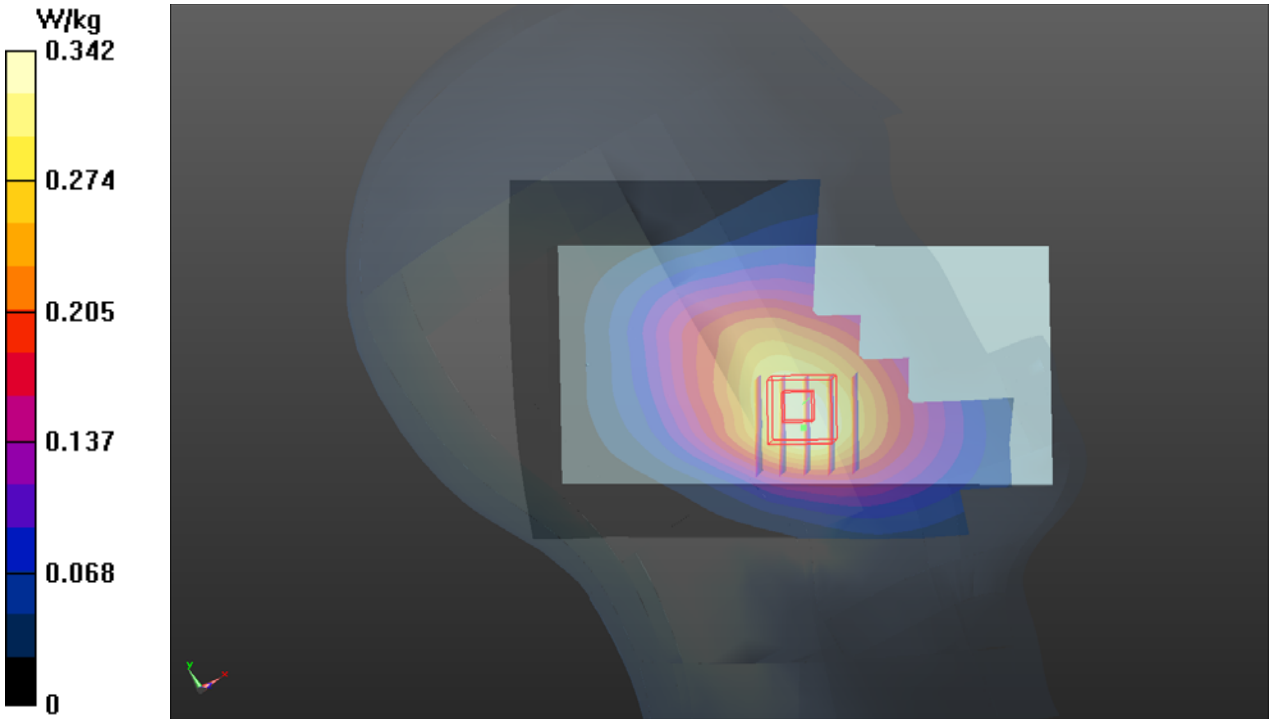
DUT: 200605C24

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 782 MHz;Duty Cycle: 1:3.74
Medium: H06T09N1_0801 Medium parameters used: f = 782 MHz; σ = 0.912 S/m; ε_r = 41.989; ρ = 1000 kg/m^3
Ambient Temperature：23.7℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7350; ConvF(10, 10, 10) @ 782 MHz; Calibrated: 2019/12/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.342 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.94 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.353 W/kg
SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.223 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 19.8 mm
Ratio of SAR at M2 to SAR at M1 = 84.5%
Maximum value of SAR (measured) = 0.333 W/kg



P11 LTE 48_QPSK20M_Left Cheek_Ch55340_1RB_OS0_Ant 1

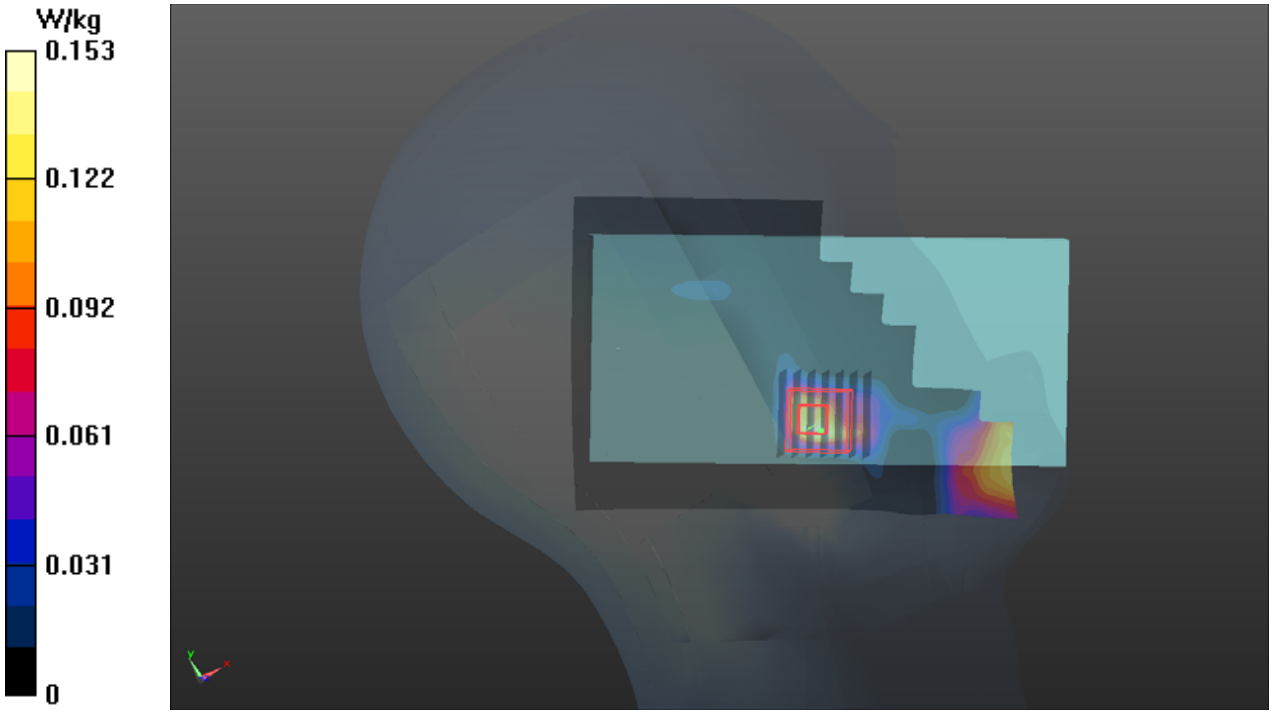
DUT: 200605C24

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 3560 MHz;Duty Cycle: 1:8.33
Medium: H34T38N1_0808 Medium parameters used: f = 3560 MHz; σ = 2.944 S/m; ε_r = 36.346; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3820; ConvF(6.53, 6.53, 6.53) @ 3560 MHz; Calibrated: 2020/06/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 2020/04/30
- Phantom: Twin SAM Phantom_1653; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.153 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=2.5mm
Reference Value = 6.954 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.148 W/kg
SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.029 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 68.9%
Maximum value of SAR (measured) = 0.120 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2020/09/11

P12 LTE 66_QPSK20M_Right Cheek_Ch132072_1RB_OS99_Ant 1

DUT: 200605C24

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1720 MHz;Duty Cycle: 1:3.74
Medium: H16T20N1_0911 Medium parameters used: f = 1720 MHz; σ = 1.299 S/m; ε_r = 39.141; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.73, 8.73, 8.73) @ 1720 MHz; Calibrated: 2020/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn917; Calibrated: 2019/12/17
- Phantom: Twin SAM Phantom_1823; Type: QD 000 P40 CD;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.858 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.29 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.974 W/kg
SAR(1 g) = 0.655 W/kg; SAR(10 g) = 0.410 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 12.9 mm
Ratio of SAR at M2 to SAR at M1 = 70.3%
Maximum value of SAR (measured) = 0.832 W/kg