SAR Test Report

Report No.	:	**SFBASM-WTW-P20120917**
Applicant	:	**Getac Technology Corporation.**
Address	:	**5F., Building A, No. 209, Sec.1, Nangang Rd.,Nangang Dist., Taipei City 11568, Taiwan, R.O.C.**
Product	:	**Wireless Modules**
FCC ID	:	**QYLEM7511K**
Brand	:	**Sierra Wireless, Inc.**
Model No.	:	**EM7511**
Standards	:	**FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013 KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 248227 D01 v02r02, KDB 447498 D01 v06, , KDB 616217 D04 v01r02, KDB 941225 D01 v03r01, KDB 941225 D05 v02r05, KDB 941225 D05A v01r02, KDB 941225 D06 v02r01**
Sample Received Date	:	**Dec. 29, 2020**
Date of Testing	:	**Jan. 04, 2021 ~ Mar. 15, 2021**
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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Gordon Lin / Manager

FCC Accredited No.: TW0003

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Release Control Record

Report No.	Reason for Change	Date Issued
SFBASM-WTW-P20120917	Initial release	Mar. 24, 2021

1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR_{1g} Body (W/kg)	
		Tablet Mode	Laptop Mode
PCB	WCDMA II	1.19	N/A
	WCDMA IV	1.03	N/A
	WCDMA V	0.63	N/A
	LTE 2	1.05	N/A
	LTE 4	1.05	N/A
	LTE 5	0.65	N/A
	LTE 7	0.87	N/A
	LTE 12	0.80	N/A
	LTE 13	0.72	N/A
	LTE 14	0.69	N/A
	LTE 26	0.68	N/A
	LTE 41	0.42	N/A
	LTE 66	1.13	N/A
DTS	2.4G WLAN	0.78	0
NII	5.2G WLAN	0.77	0
	5.6G WLAN	1.18	0
	5.8G WLAN	0.98	0
DSS	Bluetooth	0.36	0

Highest Simultaneous Transmission SAR	Highest SAR_{1g} Body (W/kg)	
	Tablet Mode	Laptop Mode
	1.57	0

Note:

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

2. Description of Equipment Under Test

EUT Type	Wireless Modules
FCC ID	QYLEM7511K
Brand Name	Sierra Wireless, Inc.
Model Name	EM7511
Tx Frequency Bands (Unit: MHz)	WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band IV : 1712.4 ~ 1752.6 WCDMA Band V : 826.4 ~ 846.6 LTE Band 2 : 1850.7 ~ 1909.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 12 : 699.7 ~ 715.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 13 : 779.5 ~ 784.5 (BW: 5M, 10M) LTE Band 14 : 790.5 ~ 795.5 (BW: 5M, 10M) LTE Band 26 : 814.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M, 15M) LTE Band 41 : 2502.5 ~ 2687.5 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5700,5745 ~ 5825 Bluetooth : 2402 ~ 2480
Uplink Modulations	WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM 802.11ax : OFDMA Bluetooth : GFSK, π/4-DQPSK, 8-DPSK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
Antenna Type	PIFA Antenna (Peak Antenna Gain : 2.42 dBi for 2.4GHz, 3.08 dBi for 5GHz)
EUT Stage	Production Unit

Note:

1. The EUT is authorized for use in specific End-product. Please refer to below for more details.

Product	Brand	Model	Description
Tablet	Getac	K120	For marketing purpose
		K120G2	
		K120Y (Y= 10 characters, Y can be 0-9, a-z, A-Z, "-", "_" or blank for marketing purpose and no impact safety related critical components and constructions.)	

2. The WLAN/BT module (Brand: Intel® Wi-Fi 6 AX201, Model: AX201NGW) was installed in the EUT.
3. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

List of End-product Accessory:

Battery	**Brand Name**	Getac
	Model Name	BP3S1P2100S-01
	Power Rating	11.1Vdc 2040mAh, 23Wh
	Typical Capacity	2100mAh, 24Wh
	Type	Li-ion

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (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.

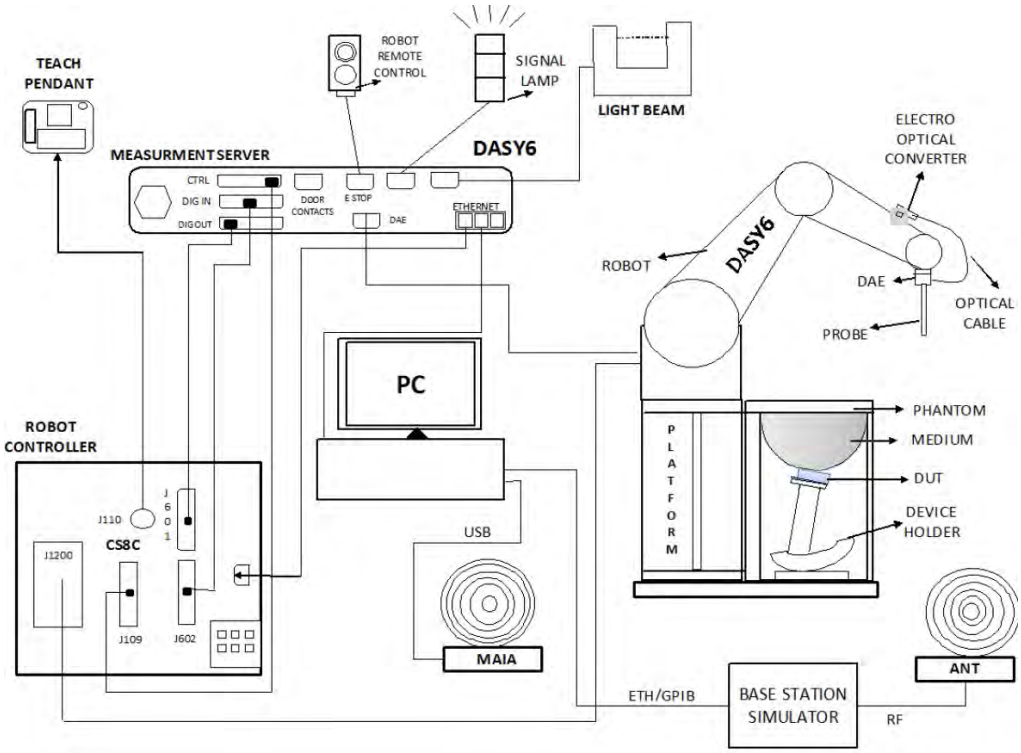


Fig-3.1 SPEAG DASY6 System Setup

3.2.1 Robot

The DASY6 system uses 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.

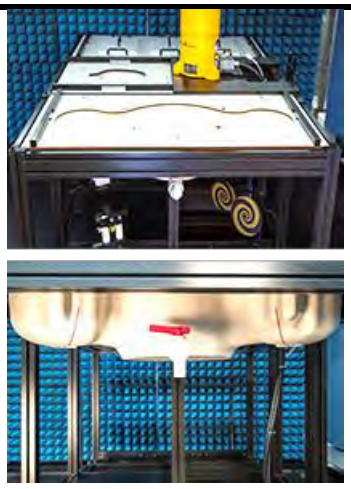
Model	EX3DV4
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).
Frequency	4 MHz to 10 GHz Linearity: ± 0.2 dB
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation 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)

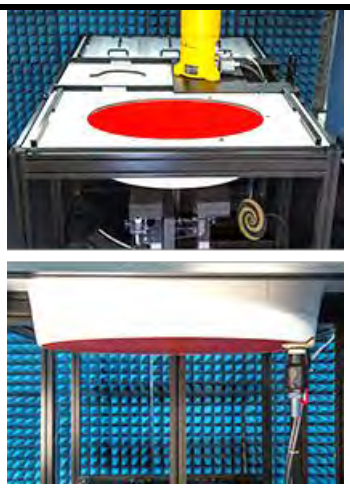
Model	DAE3, DAE4
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.
Measurement Range	-100 to +300 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.

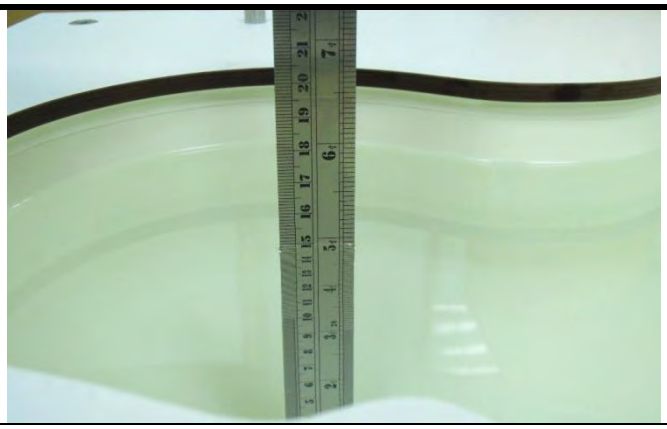


Photo of Liquid Height for Head Position

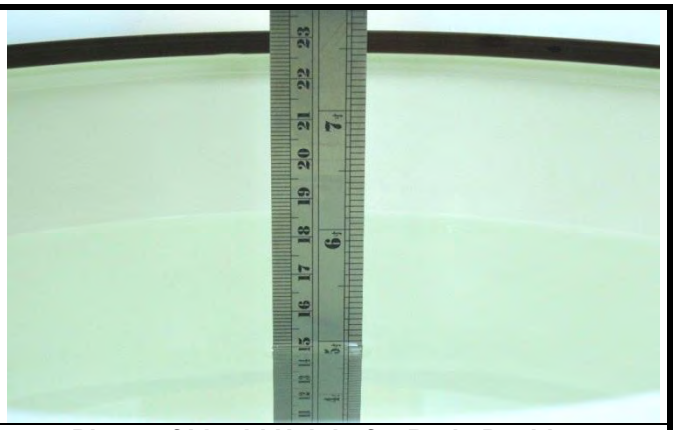


Photo of Liquid Height for Body Position

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.

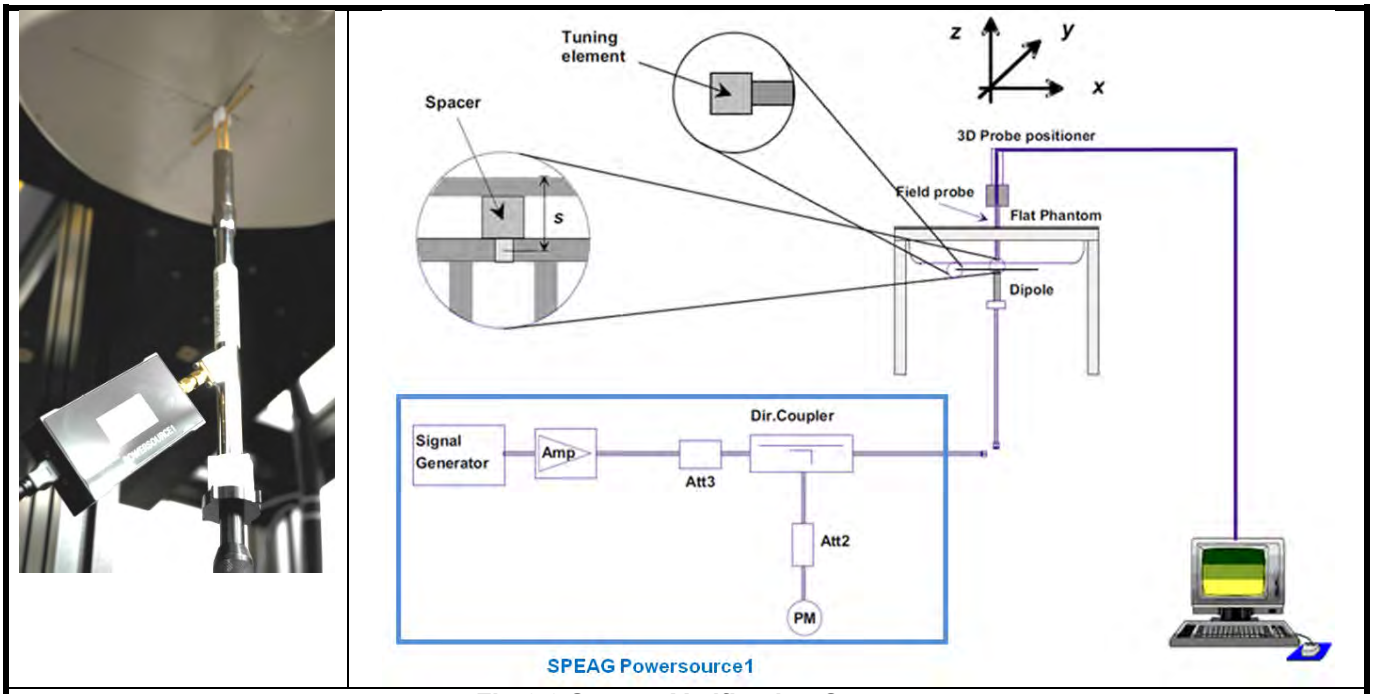


Fig-3.3 System Verification Setup

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	$\delta \ln(2)/2$ ±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

<Considerations Related to Proximity Sensor>

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

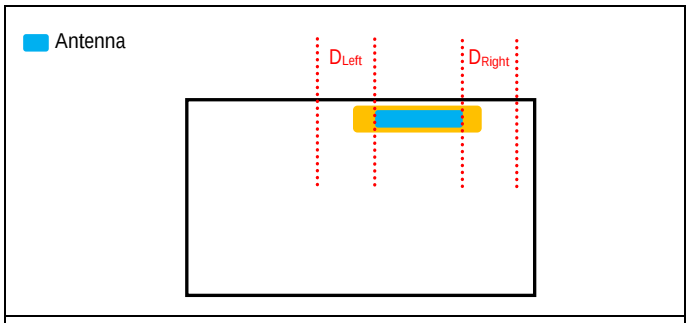
Proximity Sensor Triggering Distances (KDB 616217 D04 §6.2)

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

Output Power Verification in dBm for EUT Top Edge											
Distance (mm)	10	11	12	13	14	15	16	17	18	19	20
WCDMA II	19.6	19.9	19.7	19.6	19.9	19.5	22.4	22.2	22.2	22.1	22.1
WCDMA IV	20.8	21.1	21.1	20.7	20.8	21.0	23.8	23.8	23.7	23.6	23.4
LTE 2	19.5	19.5	19.5	19.2	19.7	19.7	22.4	22.2	22.1	22.3	22.3
LTE 4	20.9	21.1	20.7	20.7	20.9	20.7	23.9	23.4	23.5	23.9	23.7
LTE 7	20.4	20.4	20.3	20.5	20.8	20.3	22.4	22.4	22.2	22.3	22.7
LTE 12	21.6	21.7	21.8	21.5	21.8	21.9	23.5	23.4	23.5	23.4	23.5
LTE 66	21.0	21.0	20.7	21.1	21.2	20.9	23.8	23.9	23.6	23.7	23.6

Proximity Sensor Coverage (KDB 616217 D04 §6.3)

The proximity sensor coverage was determined per KDB 616217 for rear face and applicable edge. Summary for proximity sensor active region is illustrated in below.

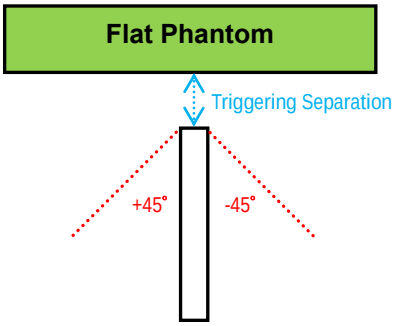


P-sensor Coverage for Top Edge:

D_{Left} is 2 mm, D_{Right} is -5 mm

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

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



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

Summary for Proximity Sensor Triggering Test

According to the procedures noticed in KDB 616217 D04, the proximity sensor triggering distance is 15 mm for Top Side. The separation distance of 10 mm determined by the smallest triggering distance on Top Side is used to access the tilt angle influence and the sensor does not release during ±45 degree. Therefore, the smallest separation distance for tilt angle influence is 10 mm for the Top Side. The conservation triggering distances based on the separation distance for the sensor trigger / not triggered as EUT with power reduction at 0 mm, and EUT without power reduction at 9 mm for Top Side were used to test SAR.

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

<Connections between EUT and System Simulator>

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

<Considerations Related to WCDMA for Setup and Testing>

Handsets with Release 5 HSDPA

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

<Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and 16QAM 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 16QAM modulation. The results please refer to section 4.6 of this report.

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

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

Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3
256QAM	>= 1						5

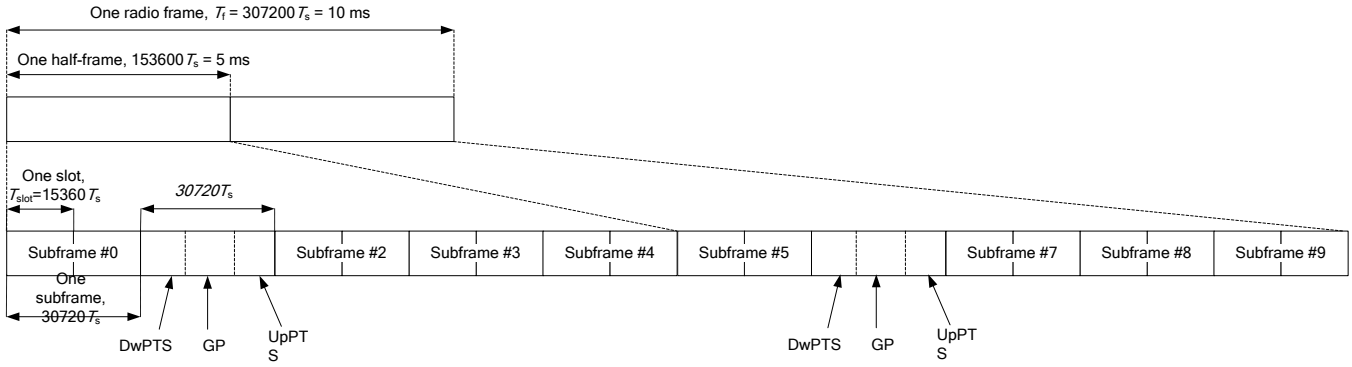
Note: MPR is according to the standard and implemented in the circuit (mandatory).

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%

<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 = (6.828-3.803)/(7.556-3.803) = 80.60 %

4.2 EUT Testing Position

4.2.1 Body Exposure Conditions

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

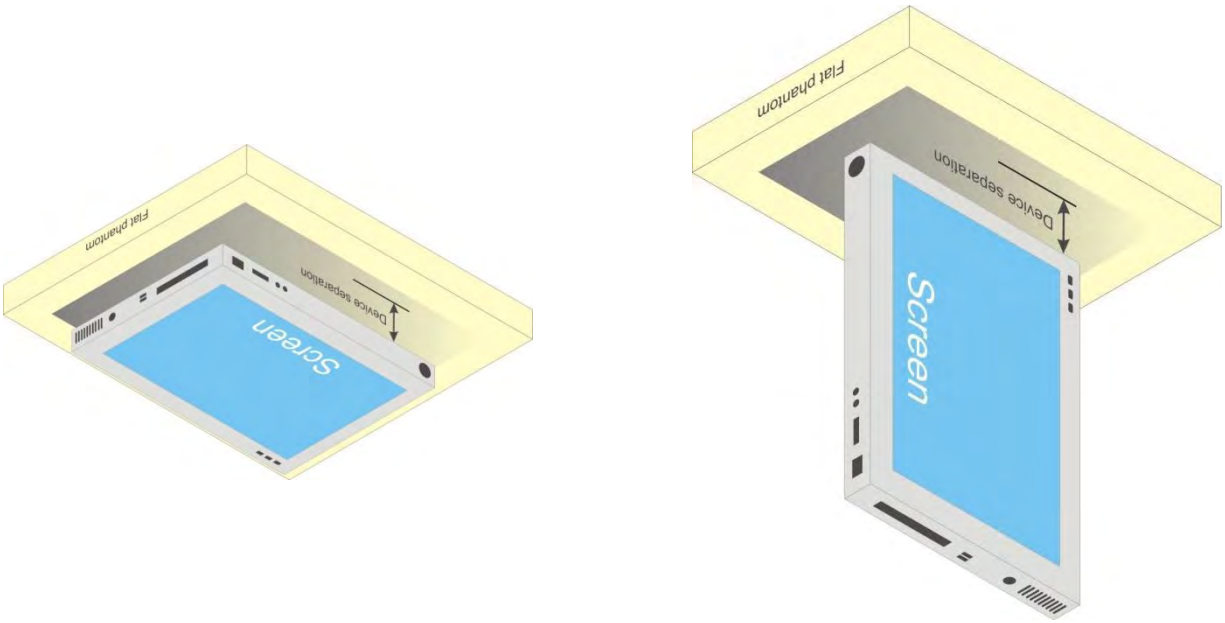


Fig-4.1 Illustration for Tablet Setup

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

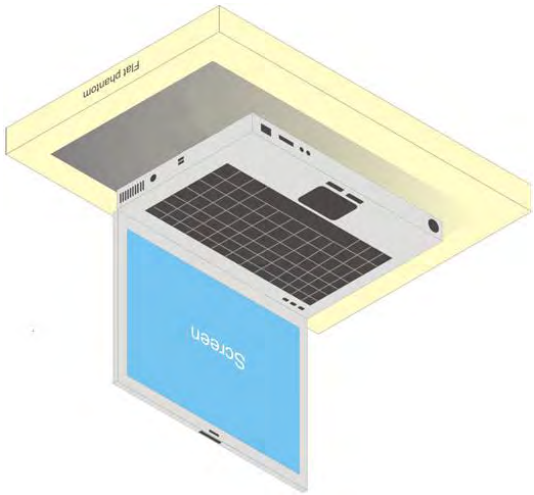


Fig-4.2 Illustration for Laptop Setup

4.3 Tissue Verification

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

Plot	Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)	Test Date
S01	1900	23	1.461	39.14	1.4	40	4.36	-2.15	Jan. 11, 2021
S02	1750	23.6	1.325	38.803	1.37	40.1	-3.28	-3.23	Mar. 10, 2021
S03	835	23.1	0.927	41.963	0.9	41.5	3.00	1.12	Jan. 04, 2021
S04	1900	23.6	1.461	38.169	1.4	40	4.36	-4.58	Mar. 10, 2021
S05	1750	23.3	1.328	40.494	1.37	40.1	-3.07	0.98	Mar. 03, 2021
S06	835	23.1	0.927	41.963	0.9	41.5	3.00	1.12	Jan. 04, 2021
S07	2600	23	2.01	37.965	1.96	39	2.55	-2.65	Jan. 11, 2021
S08	750	23.3	0.891	42.846	0.89	41.9	0.11	2.26	Jan. 06, 2021
S09	750	23.1	0.891	41.003	0.89	41.9	0.11	-2.14	Jan. 04, 2021
S10	750	23.1	0.891	41.003	0.89	41.9	0.11	-2.14	Jan. 04, 2021
S11	835	23.1	0.927	41.963	0.9	41.5	3.00	1.12	Jan. 04, 2021
S12	2600	23.1	1.975	38.417	1.96	39	0.77	-1.49	Jan. 04, 2021
S13	1750	23.3	1.328	40.494	1.37	40.1	-3.07	0.98	Mar. 03, 2021
S14	2450	23.6	1.869	39.083	1.8	39.2	3.83	-0.30	Feb. 20, 2021
S15	5250	23.6	4.614	36.442	4.71	35.9	-2.04	1.51	Feb. 20, 2021
S16	5600	23.4	4.851	36.514	5.07	35.5	-4.32	2.86	Mar. 15, 2021
S17	5750	23.4	5.003	36.301	5.22	35.4	-4.16	2.55	Mar. 15, 2021
S18	2450	23.6	1.869	39.083	1.8	39.2	3.83	-0.30	Feb. 20, 2021
S19	1900	23.3	1.461	39.14	1.4	40	4.36	-2.15	Mar. 11, 2021
S20	1750	23.3	1.332	39.648	1.37	40.1	-2.77	-1.13	Mar. 11, 2021
S21	835	23.3	0.921	42.338	0.9	41.5	2.33	2.02	Mar. 10, 2021
S22	1900	23.3	1.461	39.14	1.4	40	4.36	-2.15	Mar. 11, 2021
S23	1750	23.3	1.332	39.648	1.37	40.1	-2.77	-1.13	Mar. 11, 2021
S24	835	23.3	0.921	42.338	0.9	41.5	2.33	2.02	Mar. 10, 2021
S25	2600	23.3	2.036	37.736	1.96	39	3.88	-3.24	Mar. 10, 2021
S26	750	23.3	0.893	43.414	0.89	41.9	0.34	3.61	Mar. 11, 2021
S27	750	23.3	0.893	43.414	0.89	41.9	0.34	3.61	Mar. 11, 2021
S28	750	23.3	0.893	43.414	0.89	41.9	0.34	3.61	Mar. 11, 2021
S29	835	23.3	0.921	42.338	0.9	41.5	2.33	2.02	Mar. 10, 2021
S30	2600	23.3	2.001	38.282	1.96	39	2.09	-1.84	Mar. 11, 2021
S31	1750	23.3	1.332	39.648	1.37	40.1	-2.77	-1.13	Mar. 11, 2021
S32	2450	23.3	1.864	38.07	1.8	39.2	3.56	-2.88	Mar. 11, 2021
S33	5250	23.2	4.76	35.003	4.71	35.9	1.06	-2.50	Mar. 12, 2021
S34	5600	23.4	4.913	36.164	5.07	35.5	-3.10	1.87	Mar. 16, 2021
S35	5750	23.4	5.061	35.952	5.22	35.4	-3.05	1.56	Mar. 16, 2021
S36	2450	23.3	1.864	38.07	1.8	39.2	3.56	-2.88	Mar. 11, 2021
S37	2450	23.2	1.824	38.456	1.8	39.2	1.33	-1.90	Mar. 12, 2021
S38	5250	23.3	4.76	35.003	4.71	35.9	1.06	-2.50	Mar. 12, 2021
S39	5600	23.3	5.128	34.518	5.07	35.5	1.14	-2.77	Mar. 12, 2021
S40	5750	23.3	5.275	34.361	5.22	35.4	1.05	-2.94	Mar. 12, 2021
S41	2450	23.2	1.824	38.456	1.8	39.2	1.33	-1.90	Mar. 12, 2021

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.

Plot	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
S01	Jan. 11, 2021	3887	1900	1.461	39.14	Pass	Pass	Pass	N/A	N/A	N/A
S02	Mar. 10, 2021	7554	1750	1.325	38.803	Pass	Pass	Pass	N/A	N/A	N/A
S03	Jan. 04, 2021	3887	835	0.927	41.963	Pass	Pass	Pass	N/A	N/A	N/A
S04	Mar. 10, 2021	7554	1900	1.461	38.169	Pass	Pass	Pass	N/A	N/A	N/A
S05	Mar. 03, 2021	3971	1750	1.328	40.494	Pass	Pass	Pass	N/A	N/A	N/A
S06	Jan. 04, 2021	3887	835	0.927	41.963	Pass	Pass	Pass	N/A	N/A	N/A
S07	Jan. 11, 2021	3887	2600	2.01	37.965	Pass	Pass	Pass	N/A	N/A	N/A
S08	Jan. 06, 2021	3971	750	0.891	42.846	Pass	Pass	Pass	N/A	N/A	N/A
S09	Jan. 04, 2021	3887	750	0.891	41.003	Pass	Pass	Pass	N/A	N/A	N/A
S10	Jan. 04, 2021	3887	750	0.891	41.003	Pass	Pass	Pass	N/A	N/A	N/A
S11	Jan. 04, 2021	3887	835	0.927	41.963	Pass	Pass	Pass	N/A	N/A	N/A
S12	Jan. 04, 2021	3887	2600	1.975	38.417	Pass	Pass	Pass	N/A	N/A	N/A
S13	Mar. 03, 2021	3971	1750	1.328	40.494	Pass	Pass	Pass	N/A	N/A	N/A
S14	Feb. 20, 2021	7554	2450	1.869	39.083	Pass	Pass	Pass	OFDM	N/A	Pass
S15	Feb. 20, 2021	7554	5250	4.614	36.442	Pass	Pass	Pass	OFDM	N/A	Pass
S16	Mar. 15, 2021	3971	5600	4.851	36.514	Pass	Pass	Pass	OFDM	N/A	Pass
S16	Mar. 16, 2021	3971	5600	5.003	36.301	Pass	Pass	Pass	OFDM	N/A	Pass
S17	Mar. 15, 2021	3971	5750	1.869	39.083	Pass	Pass	Pass	OFDM	N/A	Pass
S18	Feb. 20, 2021	7554	2450	1.461	39.14	Pass	Pass	Pass	OFDM	N/A	Pass
S19	Mar. 11, 2021	7554	1900	1.332	39.648	Pass	Pass	Pass	N/A	N/A	N/A
S20	Mar. 11, 2021	7554	1750	0.921	42.338	Pass	Pass	Pass	N/A	N/A	N/A
S21	Mar. 10, 2021	3650	835	1.461	39.14	Pass	Pass	Pass	N/A	N/A	N/A
S22	Mar. 11, 2021	7554	1900	1.332	39.648	Pass	Pass	Pass	N/A	N/A	N/A
S23	Mar. 11, 2021	7554	1750	0.921	42.338	Pass	Pass	Pass	N/A	N/A	N/A
S24	Mar. 10, 2021	3650	835	2.036	37.736	Pass	Pass	Pass	N/A	N/A	N/A
S25	Mar. 10, 2021	3650	2600	1.325	38.803	Pass	Pass	Pass	N/A	N/A	N/A
S26	Mar. 11, 2021	7554	750	0.893	43.414	Pass	Pass	Pass	N/A	N/A	N/A
S27	Mar. 11, 2021	7554	750	0.893	43.414	Pass	Pass	Pass	N/A	N/A	N/A
S28	Mar. 11, 2021	7554	750	0.893	43.414	Pass	Pass	Pass	N/A	N/A	N/A
S29	Mar. 11, 2021	7554	835	0.921	42.338	Pass	Pass	Pass	N/A	N/A	N/A
S30	Mar. 11, 2021	7554	2600	2.001	38.282	Pass	Pass	Pass	N/A	N/A	N/A
S31	Mar. 11, 2021	7554	1750	1.332	39.648	Pass	Pass	Pass	N/A	N/A	N/A
S32	Mar. 11, 2021	7554	2450	1.864	38.07	Pass	Pass	Pass	OFDM	N/A	Pass
S33	Mar. 12, 2021	7554	5250	4.76	35.003	Pass	Pass	Pass	OFDM	N/A	Pass
S34	Mar. 16, 2021	3971	5600	4.913	36.164	Pass	Pass	Pass	OFDM	N/A	Pass
S35	Mar. 16, 2021	3971	5750	5.061	35.952	Pass	Pass	Pass	OFDM	N/A	Pass
S36	Mar. 11, 2021	7554	2450	1.864	38.07	Pass	Pass	Pass	OFDM	N/A	Pass
S37	Mar. 12, 2021	7554	2450	1.824	38.456	Pass	Pass	Pass	OFDM	N/A	Pass
S38	Mar. 12, 2021	7554	5250	4.76	35.003	Pass	Pass	Pass	OFDM	N/A	Pass
S39	Mar. 12, 2021	7554	5600	5.128	34.518	Pass	Pass	Pass	OFDM	N/A	Pass
S40	Mar. 12, 2021	7554	5750	5.275	34.361	Pass	Pass	Pass	OFDM	N/A	Pass
S41	Mar. 12, 2021	7554	2450	1.824	38.456	Pass	Pass	Pass	OFDM	N/A	Pass

4.5 System Verification

The measuring result for system verification is tabulated as below.

Plot	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
S01	Jan. 11, 2021	1900	40.30	2.11	42.20	4.71	5d036	3887	1431
S02	Mar. 10, 2021	1750	36.00	1.79	35.80	-0.56	1055	7554	1590
S03	Jan. 04, 2021	835	9.52	0.449	8.98	-5.67	4d121	3887	1431
S04	Mar. 10, 2021	1900	40.30	2	40.00	-0.74	5d036	7554	1590
S05	Mar. 03, 2021	1750	36.00	1.74	34.80	-3.33	1055	3971	1277
S06	Jan. 04, 2021	835	9.52	0.449	8.98	-5.67	4d121	3887	1431
S07	Jan. 11, 2021	2600	55.50	2.88	57.60	3.78	1020	3887	1431
S08	Jan. 06, 2021	750	8.48	0.414	8.28	-2.36	1013	3971	905
S09	Jan. 04, 2021	750	8.48	0.403	8.06	-4.95	1013	3887	1431
S10	Jan. 04, 2021	750	8.48	0.403	8.06	-4.95	1013	3887	1431
S11	Jan. 04, 2021	835	9.52	0.449	8.98	-5.67	4d121	3887	1431
S12	Jan. 04, 2021	2600	55.50	2.92	58.40	5.23	1020	3887	1431
S13	Mar. 03, 2021	1750	36.00	1.74	34.80	-3.33	1055	3971	1277
S14	Feb. 20, 2021	2450	51.60	2.67	53.40	3.49	737	7554	1590
S15	Feb. 20, 2021	5250	79.70	4.09	81.80	2.63	1019	7554	1590
S16	Mar. 15, 2021	5600	83.80	3.96	79.20	-5.49	1019	3971	1277
S16	Mar. 16, 2021	5600	83.80	4.14	82.80	-1.19	1019	3971	1277
S17	Mar. 15, 2021	5750	80.40	4.35	87.00	8.21	1019	3971	1277
S18	Feb. 20, 2021	2450	51.60	2.67	53.40	3.49	737	7554	1590
S19	Mar. 11, 2021	1900	40.30	2.02	40.40	0.25	5d036	7554	1590
S20	Mar. 11, 2021	1750	36.00	1.8	36.00	0.00	1055	7554	1590
S21	Mar. 10, 2021	835	9.52	0.45	9.00	-5.46	4d121	3650	861
S22	Mar. 11, 2021	1900	40.30	2.02	40.40	0.25	5d036	7554	1590
S23	Mar. 11, 2021	1750	36.00	1.8	36.00	0.00	1055	7554	1590
S24	Mar. 10, 2021	835	9.52	0.45	9.00	-5.46	4d121	3650	861
S25	Mar. 10, 2021	2600	55.50	2.96	59.20	6.67	1020	3650	861
S26	Mar. 10, 2021	835	9.52	0.45	9.00	-5.46	4d121	3650	861
S27	Mar. 11, 2021	750	8.48	0.401	8.02	-5.42	1013	7554	1590
S28	Mar. 11, 2021	750	8.48	0.401	8.02	-5.42	1013	7554	1590
S29	Mar. 11, 2021	750	8.48	0.401	8.02	-5.42	1013	7554	1590
S30	Mar. 11, 2021	2600	55.50	2.97	59.40	7.03	1020	7554	1590
S31	Mar. 11, 2021	1750	36.00	1.8	36.00	0.00	1055	7554	1590
S32	Mar. 11, 2021	2450	51.60	2.72	54.40	5.43	737	7554	1590
S33	Mar. 12, 2021	5250	79.70	4.1	82.00	2.89	1019	7554	1590
S34	Mar. 16, 2021	5600	83.80	4.14	82.80	-1.19	1019	3971	1277
S35	Mar. 16, 2021	5750	80.40	3.64	72.80	-9.45	1019	3971	1277
S36	Mar. 11, 2021	2450	51.60	2.72	54.40	5.43	737	7554	1590
S37	Mar. 12, 2021	2450	51.60	2.66	53.20	3.10	737	7554	1590
S38	Mar. 12, 2021	5250	79.70	4.1	82.00	2.89	1019	7554	1590
S39	Mar. 12, 2021	5600	83.80	4.14	82.80	-1.19	1019	7554	1590
S40	Mar. 12, 2021	5750	80.40	4.29	85.80	6.72	1019	7554	1590
S41	Mar. 12, 2021	2450	51.60	2.66	53.20	3.10	737	7554	1590

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 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.

(2) 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.

(3) 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 Body Exposure Condition

Tablet Mode

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Tx Antenna	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WCDMA II	RMC12.2K	Rear Face	0	9262	Ant 0	w/o	22.50	22.42	1.02	-0.1	0.343	0.35
	WCDMA II	RMC12.2K	Left Side	0	9262	Ant 0	w/o	22.50	22.42	1.02	0	<0.001	0.00
	WCDMA II	RMC12.2K	Right Side	0	9262	Ant 0	w/o	22.50	22.42	1.02	0.13	0.053	0.05
1	WCDMA II	RMC12.2K	Top Side	9	9262	Ant 0	w/o	22.50	22.42	1.02	-0.02	1.17	**1.19**
	WCDMA II	RMC12.2K	Bottom Side	0	9262	Ant 0	w/o	22.50	22.42	1.02	0	<0.001	0.00
	WCDMA II	RMC12.2K	Top Side	0	9262	Ant 0	w/	20.00	19.96	1.01	-0.19	1.13	1.14
	WCDMA II	RMC12.2K	Top Side	9	9400	Ant 0	w/o	22.50	22.24	1.06	-0.14	1.06	1.12
	WCDMA II	RMC12.2K	Top Side	9	9538	Ant 0	w/o	22.50	22.31	1.04	0.12	1.06	1.10
	WCDMA II	RMC12.2K	Top Side	0	9400	Ant 0	w/	20.00	19.80	1.05	-0.05	1.04	1.09
	WCDMA II	RMC12.2K	Top Side	0	9538	Ant 0	w/	20.00	19.95	1.01	-0.15	0.991	1.00
	WCDMA II	RMC12.2K	Top Side	9	9262	Ant 0	w/o	22.50	22.42	1.02	0.17	1.14	1.16
	WCDMA IV	RMC12.2K	Rear Face	0	1413	Ant 0	w/o	24.00	23.81	1.04	-0.06	0.221	0.23
	WCDMA IV	RMC12.2K	Left Side	0	1413	Ant 0	w/o	24.00	23.81	1.04	0	<0.001	0.00
	WCDMA IV	RMC12.2K	Right Side	0	1413	Ant 0	w/o	24.00	23.81	1.04	-0.01	0.049	0.05
	WCDMA IV	RMC12.2K	Top Side	9	1413	Ant 0	w/o	24.00	23.81	1.04	-0.18	0.659	0.69
	WCDMA IV	RMC12.2K	Bottom Side	0	1413	Ant 0	w/o	24.00	23.81	1.04	0	<0.001	0.00
2	WCDMA IV	RMC12.2K	Top Side	0	1513	Ant 0	w/	21.50	21.20	1.07	-0.11	0.961	**1.03**
	WCDMA IV	RMC12.2K	Top Side	0	1312	Ant 0	w/	21.50	21.19	1.07	0.13	0.826	0.88
	WCDMA IV	RMC12.2K	Top Side	0	1413	Ant 0	w/	21.50	21.18	1.08	0.1	0.951	1.03
	WCDMA IV	RMC12.2K	Top Side	0	1513	Ant 0	w/	21.50	21.20	1.07	0.14	0.944	1.01
	WCDMA V	RMC12.2K	Rear Face	0	4182	Ant 0	w/o	24.00	23.99	1.00	-0.11	0.464	0.46
	WCDMA V	RMC12.2K	Left Side	0	4182	Ant 0	w/o	24.00	23.99	1.00	0.09	0.027	0.03
	WCDMA V	RMC12.2K	Right Side	0	4182	Ant 0	w/o	24.00	23.99	1.00	0.06	0.252	0.25
3	WCDMA V	RMC12.2K	Top Side	0	4182	Ant 0	w/o	24.00	23.99	1.00	-0.09	0.628	**0.63**
	WCDMA V	RMC12.2K	Bottom Side	0	4182	Ant 0	w/o	24.00	23.99	1.00	0.07	0.084	0.08
	WCDMA V	RMC12.2K	Top Side	0	4132	Ant 0	w/o	24.00	23.25	1.19	0.05	0.523	0.62
	WCDMA V	RMC12.2K	Top Side	0	4233	Ant 0	w/o	24.00	23.98	1.00	0.12	0.625	0.63

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	Tx Antenna	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK20M	Rear Face	0	19100	1	0	Ant 0	w/o	22.50	22.48	1.00	-0.08	0.25	0.25
	LTE 2	QPSK20M	Right Side	0	19100	1	0	Ant 0	w/o	22.50	22.48	1.00	-0.05	0.068	0.07
4	LTE 2	QPSK20M	Top Side	9	19100	1	0	Ant 0	w/o	22.50	22.48	1.00	-0.15	1.05	**1.05**
	LTE 2	QPSK20M	Rear Face	0	19100	50	0	Ant 0	w/o	21.50	21.02	1.12	-0.09	0.189	0.21
	LTE 2	QPSK20M	Right Side	0	19100	50	0	Ant 0	w/o	21.50	21.02	1.12	0.05	0.088	0.10
	LTE 2	QPSK20M	Top Side	9	19100	50	0	Ant 0	w/o	21.50	21.02	1.12	-0.16	0.651	0.73
	LTE 2	QPSK20M	Top Side	9	19100	100	0	Ant 0	w/o	21.50	20.97	1.13	0.12	0.727	0.82
	LTE 2	QPSK20M	Top Side	0	19100	1	0	Ant 0	w/	20.00	19.68	1.08	-0.04	0.95	1.03
	LTE 2	QPSK20M	Top Side	0	19100	50	0	Ant 0	w/	20.00	19.64	1.09	0.08	0.629	0.69
	LTE 2	QPSK20M	Top Side	0	19100	100	0	Ant 0	w/	20.00	19.65	1.08	-0.16	0.827	0.89
	LTE 2	QPSK20M	Top Side	9	18700	1	0	Ant 0	w/o	22.50	22.46	1.01	-0.16	0.637	0.64
	LTE 2	QPSK20M	Top Side	9	18900	1	0	Ant 0	w/o	22.50	22.24	1.06	-0.03	0.608	0.64
	LTE 2	QPSK20M	Top Side	0	18700	1	0	Ant 0	w/	20.00	19.57	1.10	0.15	0.835	0.92
	LTE 2	QPSK20M	Top Side	0	18900	1	0	Ant 0	w/	20.00	19.54	1.11	-0.05	0.805	0.89
	LTE 2	QPSK20M	Top Side	9	19100	1	0	Ant 0	w/o	22.50	22.48	1.00	0.09	1.03	1.03
	LTE 4	QPSK20M	Rear Face	0	20300	1	0	Ant 0	w/o	24.00	23.94	1.01	-0.17	0.236	0.24
	LTE 4	QPSK20M	Right Side	0	20300	1	0	Ant 0	w/o	24.00	23.94	1.01	-0.18	0.082	0.08
	LTE 4	QPSK20M	Top Side	9	20300	1	0	Ant 0	w/o	24.00	23.94	1.01	0.06	0.687	0.69
	LTE 4	QPSK20M	Rear Face	0	20300	50	0	Ant 0	w/o	23.00	22.87	1.03	-0.18	0.186	0.19
	LTE 4	QPSK20M	Right Side	0	20300	50	0	Ant 0	w/o	23.00	22.87	1.03	-0.07	0.073	0.08
	LTE 4	QPSK20M	Top Side	9	20300	50	0	Ant 0	w/o	23.00	22.87	1.03	-0.02	0.459	0.47
5	LTE 4	QPSK20M	Top Side	0	20300	1	0	Ant 0	w/	21.50	21.18	1.08	-0.06	0.97	**1.05**
	LTE 4	QPSK20M	Top Side	0	20300	50	0	Ant 0	w/	21.50	21.11	1.09	-0.08	0.788	0.86
	LTE 4	QPSK20M	Top Side	0	20050	1	0	Ant 0	w/	21.50	21.08	1.10	0.13	0.846	0.93
	LTE 4	QPSK20M	Top Side	0	20175	1	0	Ant 0	w/	21.50	21.16	1.08	0.01	0.942	1.02
	LTE 4	QPSK20M	Top Side	0	20300	100	0	Ant 0	w/	21.50	21.13	1.09	0.15	0.798	0.87
	LTE 4	QPSK20M	Top Side	0	20300	1	0	Ant 0	w/	21.50	21.18	1.08	-0.18	0.958	1.03
	LTE 5	QPSK10M	Rear Face	0	20450	1	0	Ant 0	w/o	24.00	23.53	1.11	0.07	0.44	0.49
	LTE 5	QPSK10M	Left Side	0	20450	1	0	Ant 0	w/o	24.00	23.53	1.11	0	<0.001	0.00
	LTE 5	QPSK10M	Right Side	0	20450	1	0	Ant 0	w/o	24.00	23.53	1.11	-0.1	0.222	0.25
6	LTE 5	QPSK10M	Top Side	0	20450	1	0	Ant 0	w/o	24.00	23.53	1.11	0.01	0.59	**0.65**
	LTE 5	QPSK10M	Bottom Side	0	20450	1	0	Ant 0	w/o	24.00	23.53	1.11	-0.12	0.07	0.08
	LTE 5	QPSK10M	Rear Face	0	20450	25	0	Ant 0	w/o	23.00	22.54	1.11	0.02	0.315	0.35
	LTE 5	QPSK10M	Left Side	0	20450	25	0	Ant 0	w/o	23.00	22.54	1.11	0	<0.001	0.00
	LTE 5	QPSK10M	Right Side	0	20450	25	0	Ant 0	w/o	23.00	22.54	1.11	-0.1	0.202	0.22
	LTE 5	QPSK10M	Top Side	9	20450	25	0	Ant 0	w/o	23.00	22.54	1.11	0.19	0.503	0.56
	LTE 5	QPSK10M	Bottom Side	0	20450	25	0	Ant 0	w/o	23.00	22.54	1.11	0.11	0.043	0.05
	LTE 5	QPSK10M	Top Side	0	20525	1	0	Ant 0	w/o	24.00	23.44	1.14	-0.01	0.553	0.63
	LTE 5	QPSK10M	Top Side	0	20600	1	0	Ant 0	w/o	24.00	23.48	1.13	-0.06	0.507	0.57

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	Tx Antenna	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 7	QPSK20M	Rear Face	0	21100	1	0	Ant 0	w/o	23.00	22.74	1.06	0.11	0.306	0.32
	LTE 7	QPSK20M	Left Side	0	21100	1	0	Ant 0	w/o	23.00	22.74	1.06	0	<0.001	0.00
	LTE 7	QPSK20M	Right Side	0	21100	1	0	Ant 0	w/o	23.00	22.74	1.06	-0.08	0.262	0.28
	LTE 7	QPSK20M	Top Side	9	21100	1	0	Ant 0	w/o	23.00	22.74	1.06	-0.14	0.562	0.60
	LTE 7	QPSK20M	Bottom Side	0	21100	1	0	Ant 0	w/o	23.00	22.74	1.06	0	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	0	21100	50	0	Ant 0	w/o	22.00	21.74	1.06	-0.17	0.229	0.24
	LTE 7	QPSK20M	Left Side	0	21100	50	0	Ant 0	w/o	22.00	21.74	1.06	0	<0.001	0.00
	LTE 7	QPSK20M	Right Side	0	21100	50	0	Ant 0	w/o	22.00	21.74	1.06	0.13	0.192	0.20
	LTE 7	QPSK20M	Top Side	9	21100	50	0	Ant 0	w/o	22.00	21.74	1.06	-0.06	0.408	0.43
	LTE 7	QPSK20M	Bottom Side	0	21100	50	0	Ant 0	w/o	22.00	21.74	1.06	0	<0.001	0.00
	LTE 7	QPSK20M	Top Side	0	21100	100	0	Ant 0	w/	21.00	20.65	1.08	0.03	0.609	0.66
	LTE 7	QPSK20M	Top Side	0	21100	1	0	Ant 0	w/	21.00	20.77	1.05	0.19	0.767	0.81
	LTE 7	QPSK20M	Top Side	0	21100	50	0	Ant 0	w/	21.00	20.71	1.07	0.11	0.614	0.66
7	LTE 7	QPSK20M	Top Side	0	20850	1	0	Ant 0	w/	21.00	20.71	1.07	0.08	0.816	**0.87**
	LTE 7	QPSK20M	Top Side	0	21350	1	0	Ant 0	w/	21.00	20.62	1.09	-0.08	0.743	0.81
	LTE 7	QPSK20M	Top Side	0	20850	1	0	Ant 0	w/	21.00	20.71	1.07	0.12	0.799	0.85
	LTE 7	QPSK20M	Top Side	0	20850	1	0	Ant 0	w/	21.00	20.71	1.07	0.03	0.775	0.83
	LTE 12	QPSK10M	Rear Face	0	23095	1	0	Ant 0	w/o	24.00	23.62	1.09	0.06	0.306	0.33
	LTE 12	QPSK10M	Left Side	0	23095	1	0	Ant 0	w/o	24.00	23.62	1.09	0	<0.001	0.00
	LTE 12	QPSK10M	Right Side	0	23095	1	0	Ant 0	w/o	24.00	23.62	1.09	-0.18	0.262	0.29
	LTE 12	QPSK10M	Top Side	9	23095	1	0	Ant 0	w/o	24.00	23.62	1.09	-0.16	0.562	0.61
	LTE 12	QPSK10M	Bottom Side	0	23095	1	0	Ant 0	w/o	24.00	23.62	1.09	0	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	0	23095	25	0	Ant 0	w/o	23.00	22.59	1.10	0.17	0.229	0.25
	LTE 12	QPSK10M	Left Side	0	23095	25	0	Ant 0	w/o	23.00	22.59	1.10	0	<0.001	0.00
	LTE 12	QPSK10M	Right Side	0	23095	25	0	Ant 0	w/o	23.00	22.59	1.10	0.05	0.192	0.21
	LTE 12	QPSK10M	Top Side	9	23095	25	0	Ant 0	w/o	23.00	22.59	1.10	-0.1	0.408	0.45
	LTE 12	QPSK10M	Bottom Side	0	23095	25	0	Ant 0	w/o	23.00	22.59	1.10	0	<0.001	0.00
	LTE 12	QPSK10M	Top Side	0	23095	1	0	Ant 0	w/	22.00	21.94	1.01	-0.17	0.767	0.77
	LTE 12	QPSK10M	Top Side	0	23095	25	0	Ant 0	w/	22.00	21.84	1.04	-0.16	0.614	0.64
	LTE 12	QPSK10M	Top Side	0	23095	50	0	Ant 0	w/	22.00	21.88	1.03	0.08	0.609	0.63
8	LTE 12	QPSK10M	Top Side	0	23060	1	0	Ant 0	w/	22.00	21.89	1.03	-0.11	0.775	**0.80**
	LTE 12	QPSK10M	Top Side	0	23130	1	0	Ant 0	w/	22.00	21.88	1.03	-0.02	0.743	0.77
	LTE 13	QPSK10M	Rear Face	0	23230	1	49	Ant 0	w/o	24.00	23.68	1.08	0.02	0.399	0.43
	LTE 13	QPSK10M	Left Side	0	23230	1	49	Ant 0	w/o	24.00	23.68	1.08	0	<0.001	0.00
	LTE 13	QPSK10M	Right Side	0	23230	1	49	Ant 0	w/o	24.00	23.68	1.08	-0.17	0.298	0.32
9	LTE 13	QPSK10M	Top Side	0	23230	1	49	Ant 0	w/o	24.00	23.68	1.08	-0.08	0.669	**0.72**
	LTE 13	QPSK10M	Bottom Side	0	23230	1	49	Ant 0	w/o	24.00	23.68	1.08	0.11	0.054	0.06
	LTE 13	QPSK10M	Rear Face	0	23230	25	25	Ant 0	w/o	23.00	22.57	1.10	0.13	0.341	0.38
	LTE 13	QPSK10M	Left Side	0	23230	25	25	Ant 0	w/o	23.00	22.57	1.10	0	<0.001	0.00
	LTE 13	QPSK10M	Right Side	0	23230	25	25	Ant 0	w/o	23.00	22.57	1.10	-0.09	0.264	0.29
	LTE 13	QPSK10M	Top Side	0	23230	25	25	Ant 0	w/o	23.00	22.57	1.10	-0.19	0.575	0.63
	LTE 13	QPSK10M	Bottom Side	0	23230	25	25	Ant 0	w/o	23.00	22.57	1.10	0.15	0.054	0.06

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	Tx Antenna	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 14	QPSK10M	Rear Face	0	23330	1	49	Ant 0	w/o	24.00	23.65	1.08	0.14	0.331	0.36
	LTE 14	QPSK10M	Left Side	0	23330	1	49	Ant 0	w/o	24.00	23.65	1.08	0	<0.001	0.00
	LTE 14	QPSK10M	Right Side	0	23330	1	49	Ant 0	w/o	24.00	23.65	1.08	-0.13	0.275	0.30
10	LTE 14	QPSK10M	Top Side	0	23330	1	49	Ant 0	w/o	24.00	23.65	1.08	-0.01	0.64	**0.69**
	LTE 14	QPSK10M	Bottom Side	0	23330	1	49	Ant 0	w/o	24.00	23.65	1.08	-0.02	0.074	0.08
	LTE 14	QPSK10M	Rear Face	0	23330	25	25	Ant 0	w/o	23.00	22.54	1.11	-0.12	0.281	0.31
	LTE 14	QPSK10M	Left Side	0	23330	25	25	Ant 0	w/o	23.00	22.54	1.11	0	<0.001	0.00
	LTE 14	QPSK10M	Right Side	0	23330	25	25	Ant 0	w/o	23.00	22.54	1.11	-0.19	0.217	0.24
	LTE 14	QPSK10M	Top Side	0	23330	25	25	Ant 0	w/o	23.00	22.54	1.11	0.15	0.527	0.58
	LTE 14	QPSK10M	Bottom Side	0	23330	25	25	Ant 0	w/o	23.00	22.54	1.11	0.02	0.06	0.07
	LTE 26	QPSK15M	Rear Face	0	26965	1	0	Ant 0	w/o	24.00	23.63	1.00	-0.07	0.342	0.37
	LTE 26	QPSK15M	Right Side	0	26965	1	0	Ant 0	w/o	24.00	23.63	1.00	0.12	0.235	0.26
	LTE 26	QPSK15M	Top Side	0	26965	1	0	Ant 0	w/o	24.00	23.63	1.00	0.08	0.548	0.60
	LTE 26	QPSK15M	Rear Face	0	26965	36	0	Ant 0	w/o	23.00	22.62	1.00	0.03	0.241	0.26
	LTE 26	QPSK15M	Right Side	0	26965	36	0	Ant 0	w/o	23.00	22.62	1.00	-0.08	0.166	0.18
	LTE 26	QPSK15M	Top Side	0	26965	36	0	Ant 0	w/o	23.00	22.62	1.00	0.16	0.422	0.46
11	LTE 26	QPSK15M	Top Side	0	26765	1	0	Ant 0	w/o	24.00	23.51	1.00	-0.04	0.61	0.68
	LTE 26	QPSK15M	Top Side	0	26865	1	0	Ant 0	w/o	24.00	23.55	1.00	-0.13	0.568	0.63
	LTE 41	QPSK20M	Rear Face	0	41490	1	0	Ant 0	w/o	23.00	22.98	1.00	-0.11	0.262	0.26
	LTE 41	QPSK20M	Left Side	0	41490	1	0	Ant 0	w/o	23.00	22.98	1.00	0	<0.001	0.00
	LTE 41	QPSK20M	Right Side	0	41490	1	0	Ant 0	w/o	23.00	22.98	1.00	-0.18	0.218	0.22
12	LTE 41	QPSK20M	Top Side	0	41490	1	0	Ant 0	w/o	23.00	22.98	1.00	0.09	0.416	**0.42**
	LTE 41	QPSK20M	Bottom Side	0	41490	1	0	Ant 0	w/o	23.00	22.98	1.00	0	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	41490	50	0	Ant 0	w/o	22.00	21.57	1.10	0.17	0.145	0.16
	LTE 41	QPSK20M	Left Side	0	41490	50	0	Ant 0	w/o	22.00	21.57	1.10	0	<0.001	0.00
	LTE 41	QPSK20M	Right Side	0	41490	50	0	Ant 0	w/o	22.00	21.57	1.10	0.05	0.12	0.13
	LTE 41	QPSK20M	Top Side	0	41490	50	0	Ant 0	w/o	22.00	21.57	1.10	0.15	0.208	0.23
	LTE 41	QPSK20M	Bottom Side	0	41490	50	0	Ant 0	w/o	22.00	21.57	1.10	0	<0.001	0.00
	LTE 41	QPSK20M	Top Side	0	39750	1	0	Ant 0	w/o	23.00	22.49	1.12	-0.17	0.364	0.41
	LTE 41	QPSK20M	Top Side	0	40185	1	0	Ant 0	w/o	23.00	22.32	1.17	-0.07	0.354	0.41
	LTE 41	QPSK20M	Top Side	0	40620	1	0	Ant 0	w/o	23.00	22.21	1.20	0.09	0.344	0.41
	LTE 41	QPSK20M	Top Side	0	41055	1	0	Ant 0	w/o	23.00	22.24	1.19	0.15	0.325	0.39
	LTE 66	QPSK20M	Rear Face	0	132072	1	0	Ant 0	w/o	24.00	23.93	1.02	-0.19	0.191	0.19
	LTE 66	QPSK20M	Left Side	0	132072	1	0	Ant 0	w/o	24.00	23.93	1.02	0	<0.001	0.00
	LTE 66	QPSK20M	Right Side	0	132072	1	0	Ant 0	w/o	24.00	23.93	1.02	0.13	0.073	0.07
	LTE 66	QPSK20M	Top Side	9	132072	1	0	Ant 0	w/o	24.00	23.93	1.02	-0.11	0.643	0.66
	LTE 66	QPSK20M	Bottom Side	0	132072	1	0	Ant 0	w/o	24.00	23.93	1.02	0	<0.001	0.00
	LTE 66	QPSK20M	Rear Face	0	132072	50	0	Ant 0	w/o	23.00	22.92	1.02	-0.15	0.168	0.17
	LTE 66	QPSK20M	Left Side	0	132072	50	0	Ant 0	w/o	23.00	22.92	1.02	0	<0.001	0.00
	LTE 66	QPSK20M	Right Side	0	132072	50	0	Ant 0	w/o	23.00	22.92	1.02	0.15	0.064	0.07
	LTE 66	QPSK20M	Top Side	9	132072	50	0	Ant 0	w/o	23.00	22.92	1.02	-0.16	0.443	0.45
	LTE 66	QPSK20M	Bottom Side	0	132072	50	0	Ant 0	w/o	23.00	22.92	1.02	0	<0.001	0.00
	LTE 66	QPSK20M	Top Side	0	132072	1	0	Ant 0	w/	21.50	21.23	1.06	0.11	0.884	0.94
	LTE 66	QPSK20M	Top Side	0	132072	50	0	Ant 0	w/	21.50	21.04	1.11	0.03	0.708	0.79
	LTE 66	QPSK20M	Top Side	0	132322	1	0	Ant 0	w/	21.50	21.21	1.07	-0.18	1.01	1.08
13	LTE 66	QPSK20M	Top Side	0	132572	1	0	Ant 0	w/	21.50	21.22	1.07	-0.02	1.06	**1.13**
	LTE 66	QPSK20M	Top Side	0	132072	100	0	Ant 0	w/	21.50	21.03	1.11	-0.07	0.744	0.83
	LTE 66	QPSK20M	Top Side	0	132572	1	0	Ant 0	w/	21.50	21.22	1.07	-0.17	1.04	1.11

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Tx Antenna	P-Sensor	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
14	WLAN2.4G	802.11b	Left Side	0	1	Ant 0	w/o	0.00	1.00	17.50	17.08	1.10	0.11	0.709	**0.78**
15	WLAN5.3G	802.11ax HE40	Left Side	0	54	Ant 0	w/o	0.00	1.00	18.50	18.05	1.11	-0.16	0.695	**0.77**
	WLAN5.6G	802.11ac VHT160	Front Face	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	-0.1	0.042	0.04
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	0.18	0.193	0.20
	WLAN5.6G	802.11ac VHT160	Left Side	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	-0.12	0.31	0.33
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 0	w/o	98.30	1.02	14.00	13.81	1.04	0.02	0.043	0.05
	WLAN5.6G	802.11ac VHT160	Front Face	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	-0.06	0.319	0.38
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	-0.14	0.051	0.06
	WLAN5.6G	802.11ac VHT160	Left Side	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	0	<0.001	0.00
16	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	-0.1	1	1.18
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	-0.07	0.07	0.08
	WLAN5.6G	802.11ac VHT160	Front Face	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	0.17	0.16	0.16
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	-0.18	0.053	0.05
	WLAN5.6G	802.11ac VHT160	Left Side	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	-0.13	0.102	0.11
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	-0.1	0.46	0.47
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 0+1	w/o	98.30	1.02	12.50	12.44	1.01	0.17	0.039	0.04
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 1	w/o	98.30	1.02	11.00	10.34	1.16	0.06	0.98	1.16

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

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Tx Antenna	P-Sensor	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN5.8G	802.11ac VHT80	Front Face	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	-0.07	0.074	0.08
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	0.17	0.21	0.22
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	0.08	0.449	0.46
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	-0.01	0.449	0.46
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom Side	0	155	Ant 0	w/o	98.80	1.01	15.50	15.40	1.02	0.03	0.089	0.09
	WLAN5.8G	802.11ac VHT80	Front Face	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	-0.03	0.325	0.35
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	-0.15	0.064	0.07
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	0	<0.001	0.00
17	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	0.02	0.911	**0.98**
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom Side	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	0.08	0.052	0.06
	WLAN5.8G	802.11ac VHT80	Front Face	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	-0.14	0.328	0.33
	WLAN5.8G	802.11ac VHT80	Rear Face	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	-0.01	0.065	0.07
	WLAN5.8G	802.11ac VHT80	Left Side	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	0.16	0.169	0.17
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	0.14	0.734	0.74
	WLAN5.8G	802.11ac VHT80	Top Side	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom Side	0	155	Ant 0+1	w/o	98.80	1.01	14.00	13.99	1.00	-0.09	0.055	0.06
	WLAN5.8G	802.11ac VHT80	Right Side	0	155	Ant 1	w/o	98.80	1.01	11.50	11.23	1.06	0.03	0.904	0.97
	BT	BDR	Front Face	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	-0.14	0.112	0.15
	BT	BDR	Rear Face	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	0	<0.001	0.00
	BT	BDR	Left Side	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	0	<0.001	0.00
18	BT	BDR	Right Side	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	-0.16	0.263	**0.36**
	BT	BDR	Top Side	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	0	<0.001	0.00
	BT	BDR	Bottom Side	0	78	Ant 1	w/o	76.80	1.30	10.00	9.79	1.05	0	<0.001	0.00
	BT	BDR	Right Side	0	0	Ant 1	w/o	76.80	1.30	10.00	8.77	1.33	0.01	0.209	0.36
	BT	BDR	Right Side	0	39	Ant 1	w/o	76.80	1.30	10.00	9.71	1.07	0.03	0.18	0.25

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

Laptop Mode

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Tx Antenna	P-Sensor	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Bottom	0	1	Ant 0	w/o	0.00	1.00	17.50	17.08	1.10	0	<0.001	0.00
	WLAN5.3G	802.11ax HE40	Bottom	0	54	Ant 0	w/o	0.00	1.00	18.50	18.05	1.11	0	<0.001	0.00
	WLAN5.6G	802.11a	Bottom	0	132	Ant 0	w/o	0.00	1.00	18.00	17.71	1.07	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom	0	155	Ant 0	w/o	98.80	1.01	17.00	16.64	1.09	0	<0.001	0.00
	BT	BDR	Bottom	0	39	Ant 1	w/o	76.80	1.30	10.00	9.71	1.07	0	<0.001	0.00

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

4.7.3 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 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
WLAN 5.6G	802.11ac VHT80	Right Side	106	1.06	1.01	1.05	N/A	N/A	N/A	N/A
WLAN 5.8G	802.11ac VHT80	Right Side	155	0.911	0.904	1.01	N/A	N/A	N/A	N/A
WLAN 5.6G	802.11ac VHT160	Right Side	114	1	0.98	1.02	N/A	N/A	N/A	N/A

4.7.4 Simultaneous Multi-band Transmission Evaluation

<Possibilities of Simultaneous Transmission>

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

Simultaneous TX Combination	Capable Transmit Configurations	Body Exposure Condition
1	WWAN + WLAN 2.4G_Ant0	Yes
2	WWAN + WLAN 2.4G_Ant1	Yes
3	WWAN + WLAN 5G_Ant0	Yes
4	WWAN + WLAN 5G_Ant1	Yes
5	WWAN + BT_Ant1	Yes
6	WWAN + WLAN 2.4G_ANT0 + BT_Ant1	Yes
7	WWAN + WLAN 5G_ANT0 + BT_Ant1	Yes
8	WWAN + WLAN 2.4G_ANT0+1	Yes
9	WWAN + WLAN 5G_ANT0+1	Yes
10	WWAN + WLAN 5G_ANT0+1 + BT_Ant1	Yes

Note:

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.
2. Plot 1 is covered by plat6
3. Plot 3 is covered by plat7
4. Plot 5 is covered by plat10
5. Plot 9 is covered by plat10

<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 for SAR Summation Analysis.

Test Engineer：Zeke Wang, and Peter Hsu

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1013	Aug. 13, 2020	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 13, 2020	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Aug. 14, 2020	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Jan. 21, 2020	1 Year
				Jan. 22, 2021	1 Year
System Validation Dipole	SPEAG	D2450V2	737	Aug. 13, 2020	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 13, 2020	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 13, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3650	Mar. 25, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3887	Oct. 22, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Jan. 27, 2020	1 Year
				Jan. 27, 2021	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7554	Sep. 28, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May 27, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE3	905	Jun. 22, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1277	Jan. 24, 2020	1 Year
				Jan. 19, 2021	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 18, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1590	Sep. 15, 2020	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 26, 2020	1 Year
Universal Wireless Test Set	Anritsu	MT8870A/MU8 87000A	6201699387	Sep. 28, 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_160 BA	4010	Aug. 13, 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.

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

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Email: service.adt@tw.bureauveritas.com
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.

S01 System Check_H1900_210111

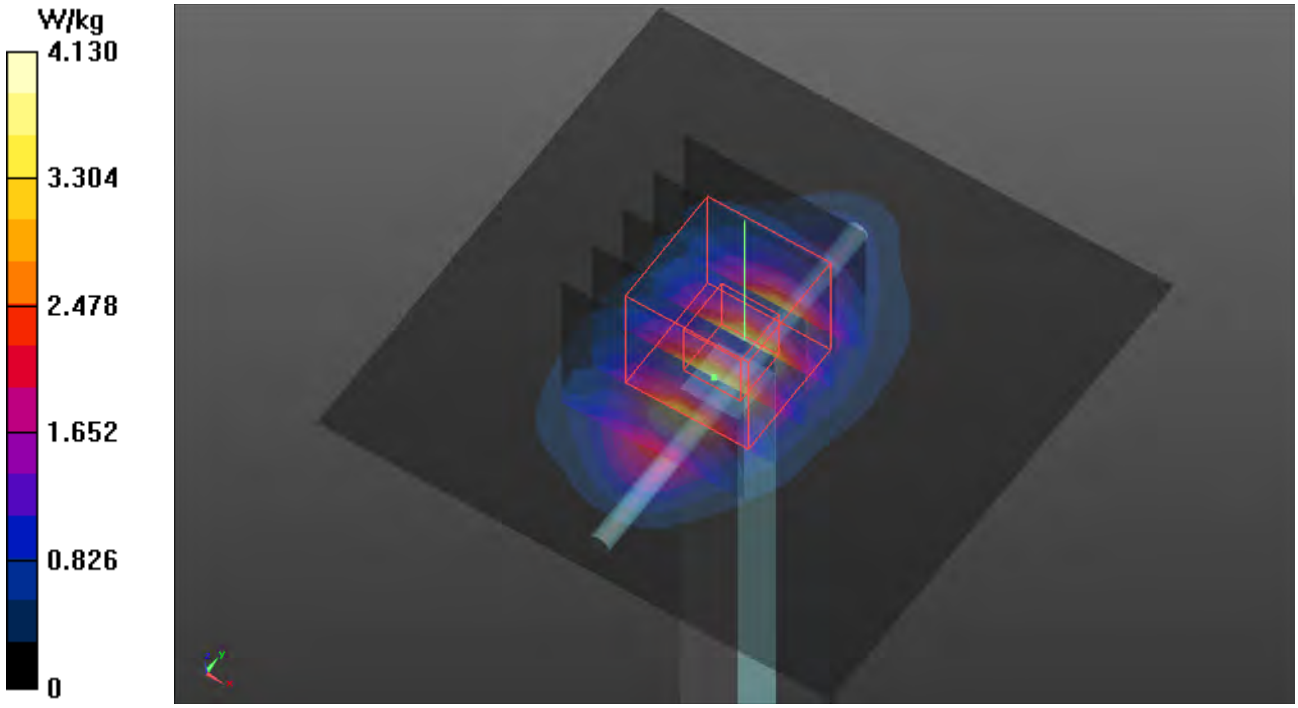
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: H16T20N3_0111 Medium parameters used: f = 1900 MHz; σ = 1.461 S/m; ε_r = 39.14; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.98, 7.98, 7.98) @ 1900 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 4.13 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.04 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 4.88 W/kg
SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.2 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.13 W/kg



S02 System Check_H1750_210310

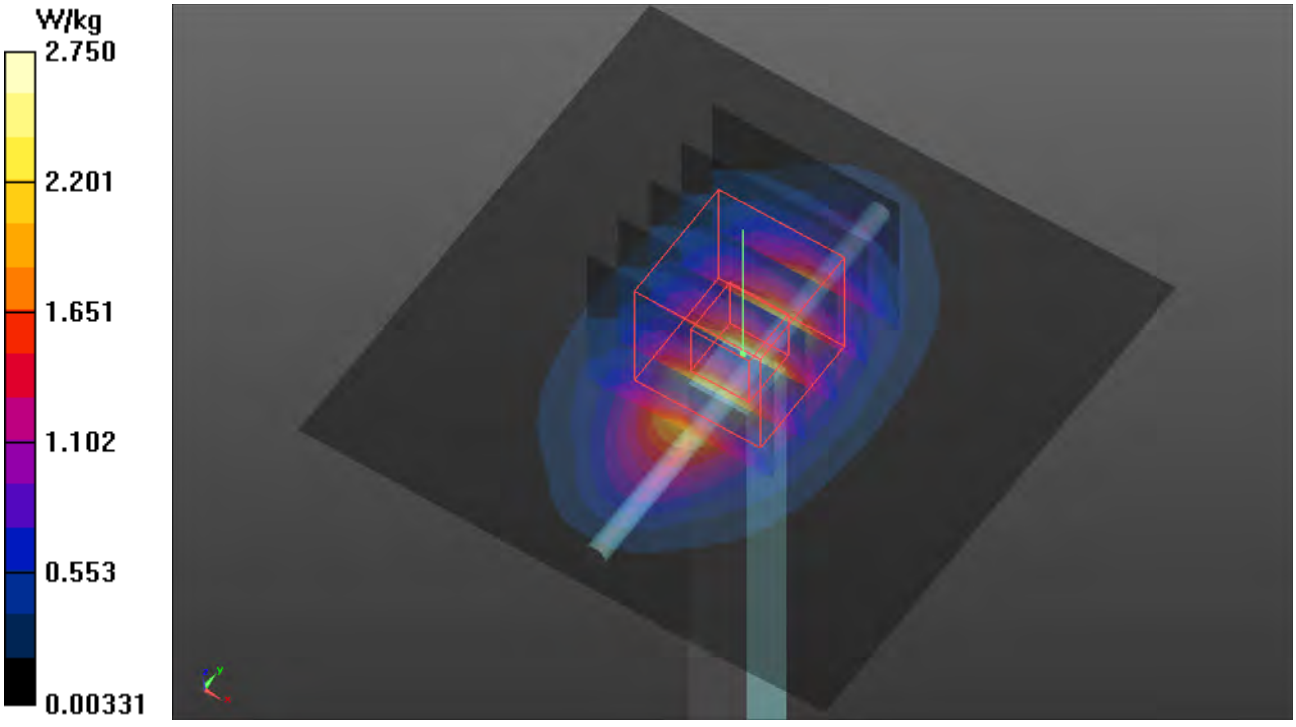
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N3_0310 Medium parameters used: f = 1750 MHz; σ = 1.325 S/m; ε_r = 38.803; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.58, 8.58, 8.58) @ 1750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 2.75 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.06 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 3.31 W/kg
SAR(1 g) = 1.79 W/kg; SAR(10 g) = 0.943 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.77 W/kg



S03 System Check_H835_210104

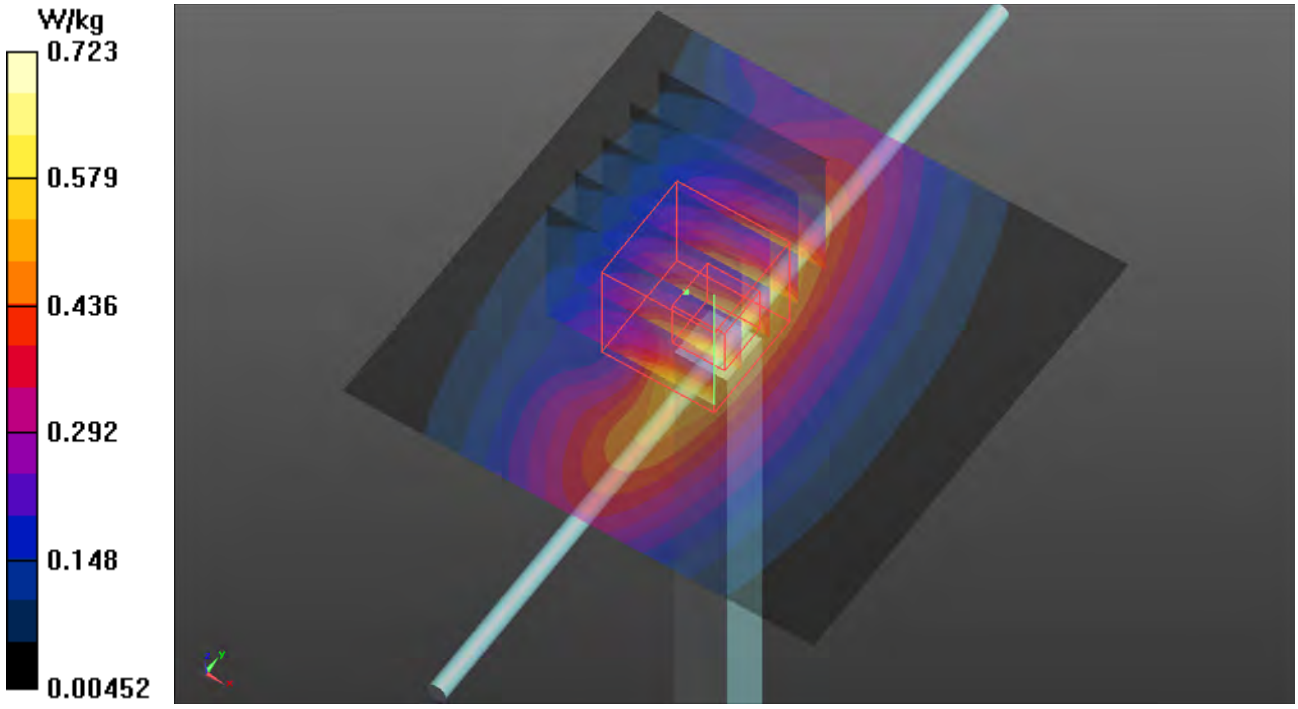
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0104 Medium parameters used: f = 835 MHz; σ = 0.927 S/m; ε_r = 41.963; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 835 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 0.723 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.72 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.812 W/kg
SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.691 W/kg



S04 System Check_H1900_210310

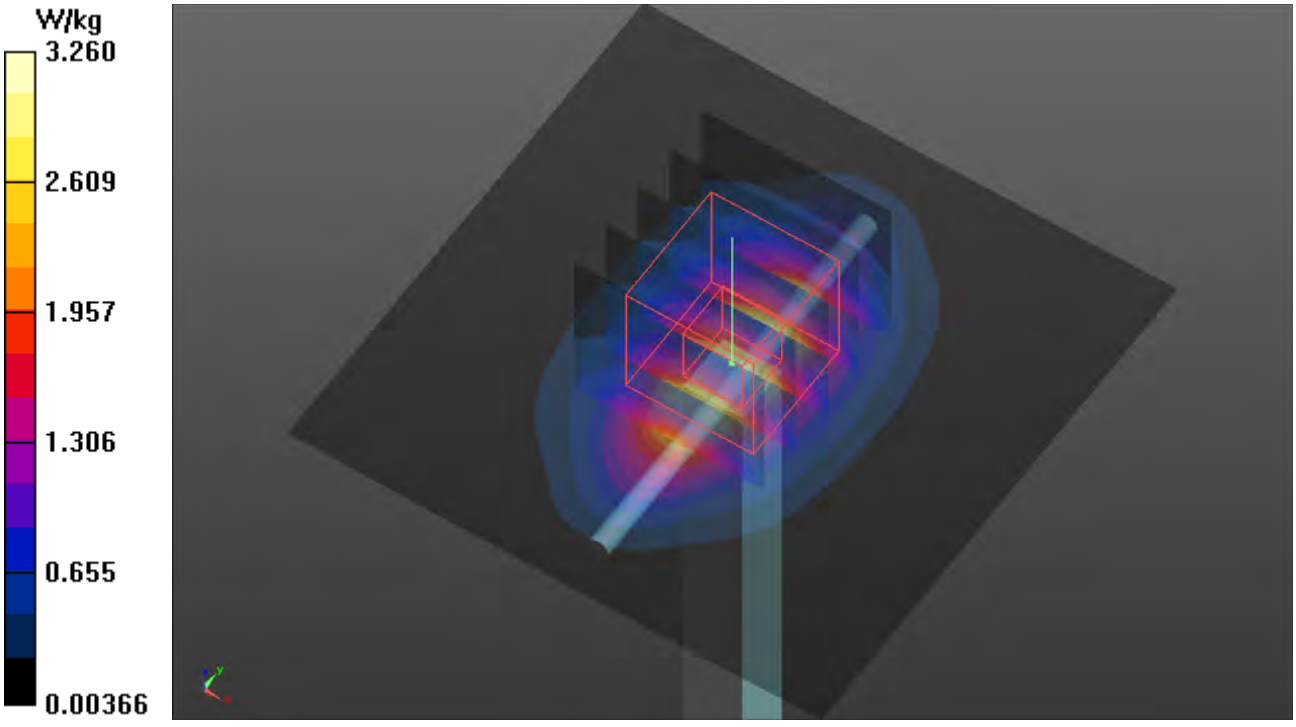
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: H16T20N3_0310 Medium parameters used: f = 1900 MHz; σ = 1.461 S/m; ε_r = 38.169; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 3.26 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.00 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 3.93 W/kg
SAR(1 g) = 2 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.27 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/03

S05 System Check_H1750_210303

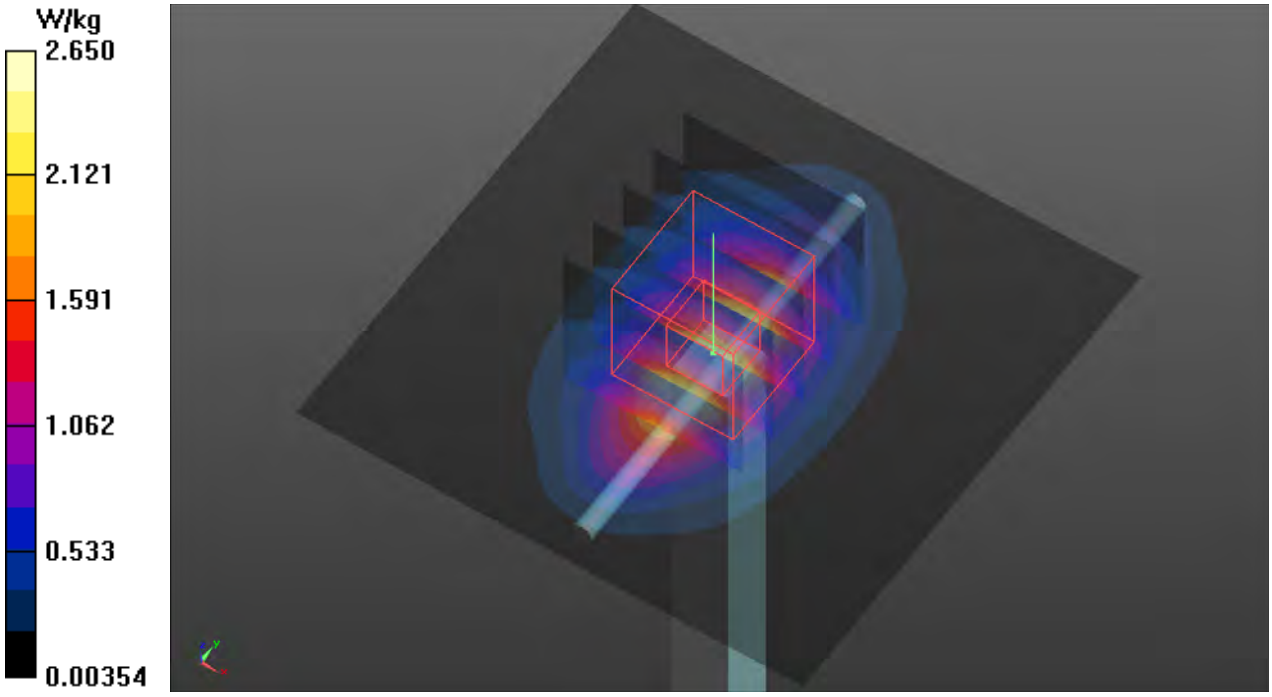
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N3_0303 Medium parameters used: f = 1750 MHz; σ = 1.328 S/m; ε_r = 40.494; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ; Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.64, 8.64, 8.64) @ 1750 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 2.65 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.15 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.10 W/kg
SAR(1 g) = 1.74 W/kg; SAR(10 g) = 0.922 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.62 W/kg



S06 System Check_H835_210104

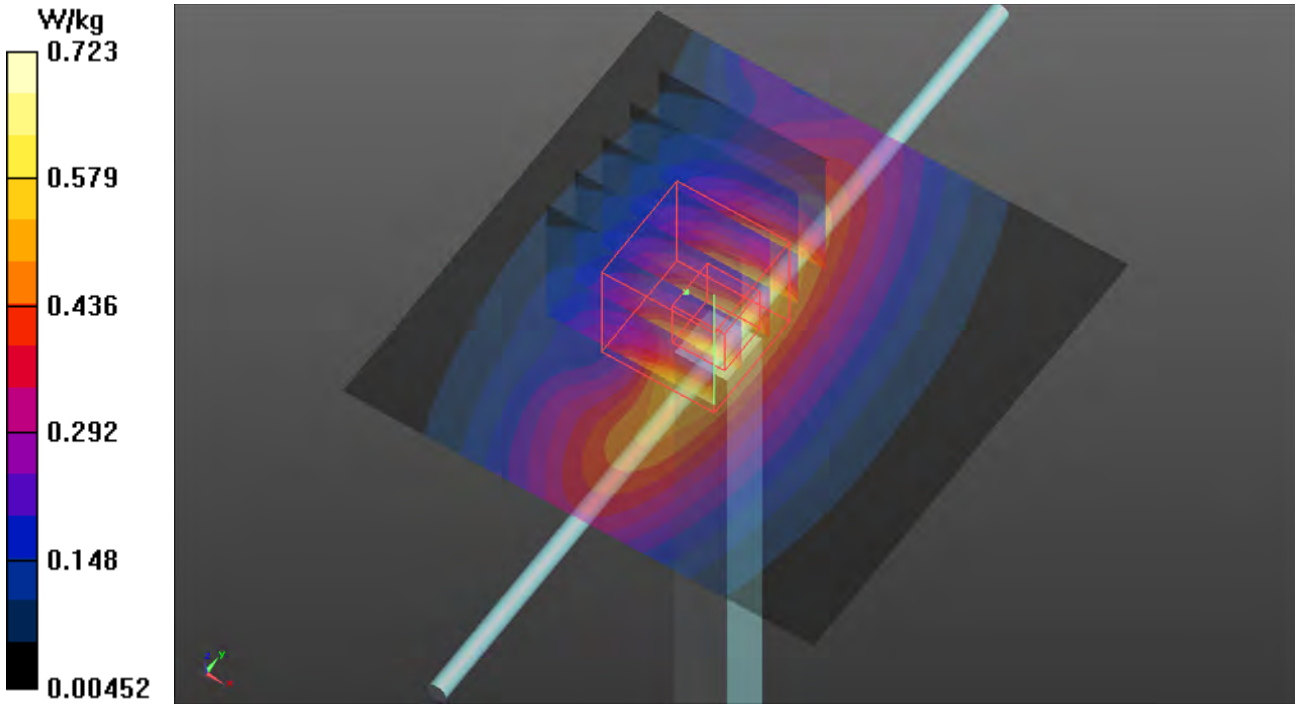
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0104 Medium parameters used: f = 835 MHz; σ = 0.927 S/m; ε_r = 41.963; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 835 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 0.723 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.72 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.812 W/kg
SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.691 W/kg



S07 System Check_H2600_210111

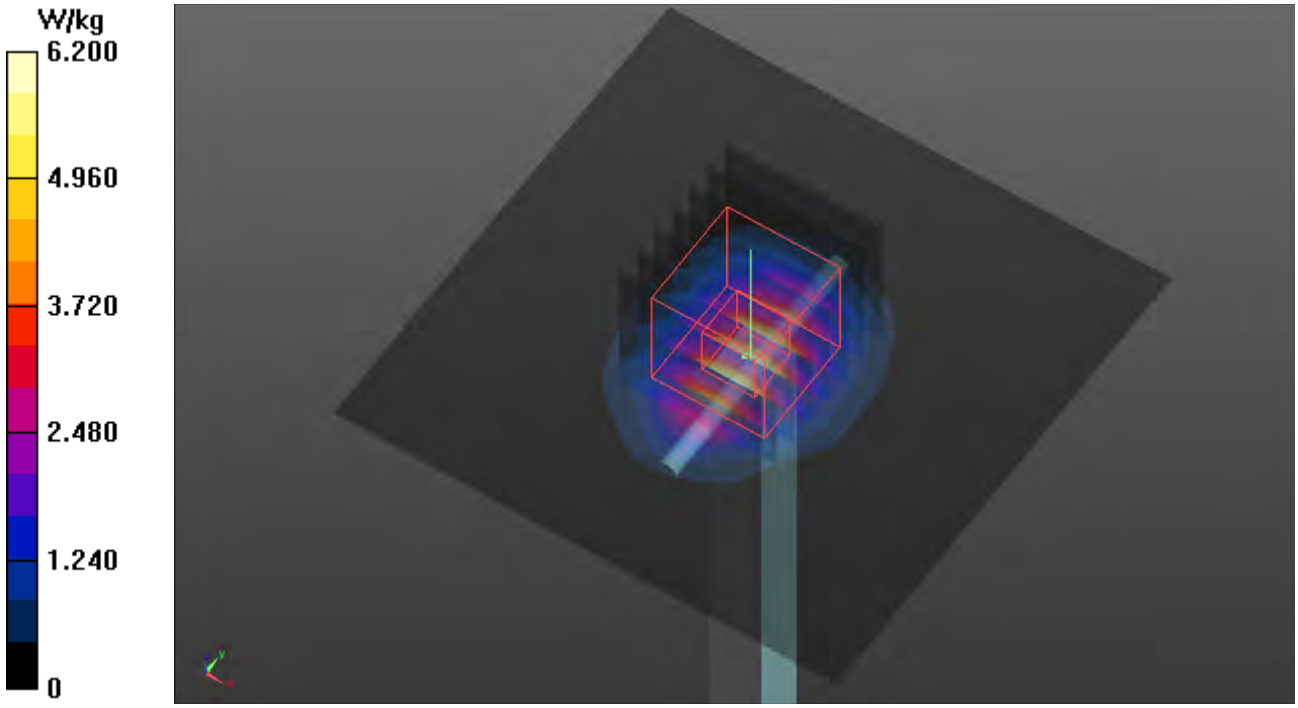
DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: H19T27N3_0111 Medium parameters used: f = 2600 MHz; σ = 2.01 S/m; ε_r = 37.965; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.21, 7.21, 7.21) @ 2600 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 6.20 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.33 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 7.63 W/kg
SAR(1 g) = 2.88 W/kg; SAR(10 g) = 1.24 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 6.16 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/01/06

S08 System Check_H750_210106

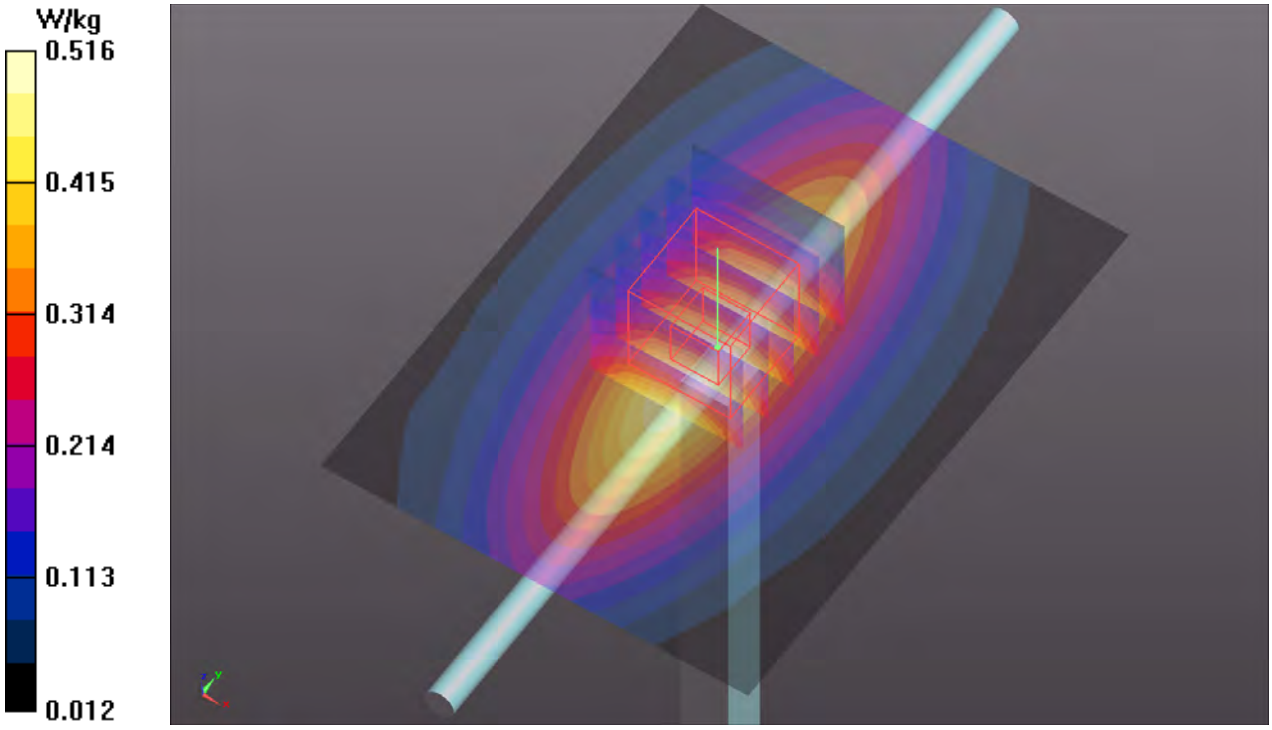
DUT: Dipole 750 MHz; Type: D750V3; SN: 1013

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0106 Medium parameters used: f = 750 MHz; σ = 0.891 S/m; ε_r = 42.846; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(10.6, 10.6, 10.6) @ 750 MHz; Calibrated: 2020/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2020/06/22
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- 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) = 0.516 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.50 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.570 W/kg
SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.287 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.523 W/kg



S09 System Check_H750_210104

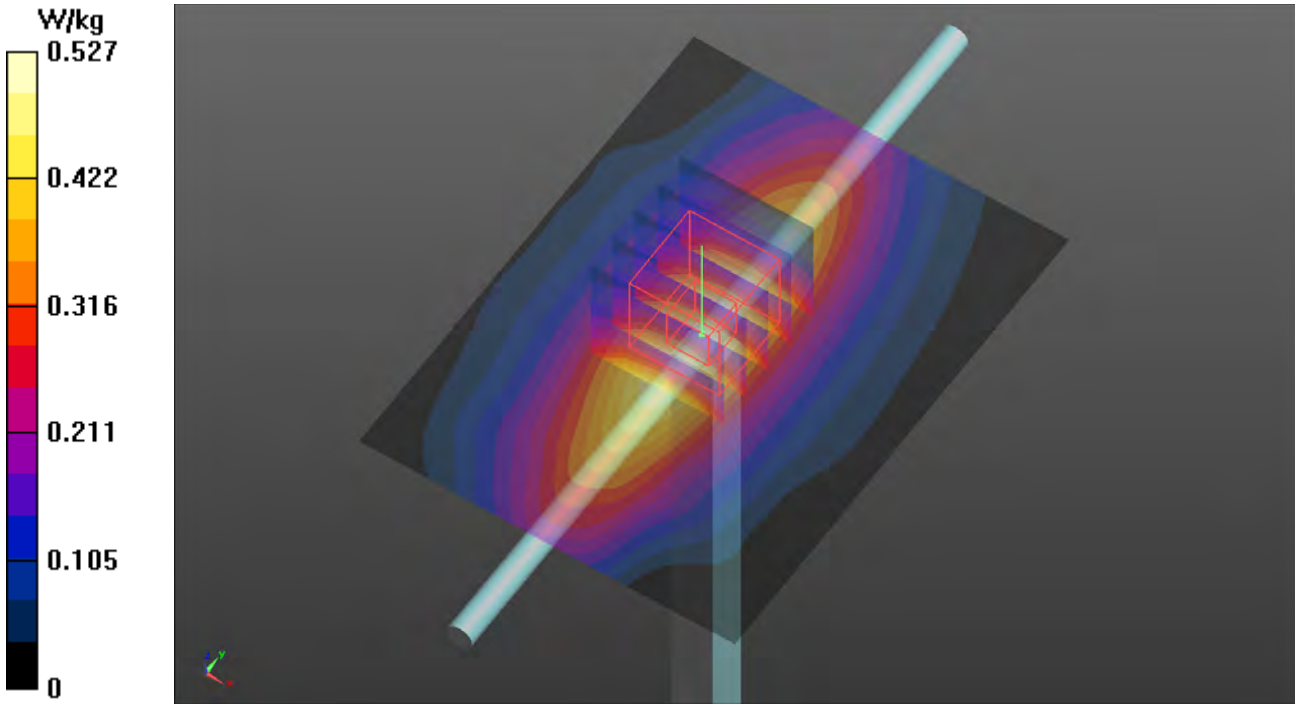
DUT: Dipole 750 MHz; Type: D750V3; SN: 1013

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0104 Medium parameters used: f = 750 MHz; σ = 0.891 S/m; ε_r = 41.003; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.49, 9.49, 9.49) @ 750 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 0.527 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.53 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.589 W/kg
SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.268 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.532 W/kg



S10 System Check_H750_210104

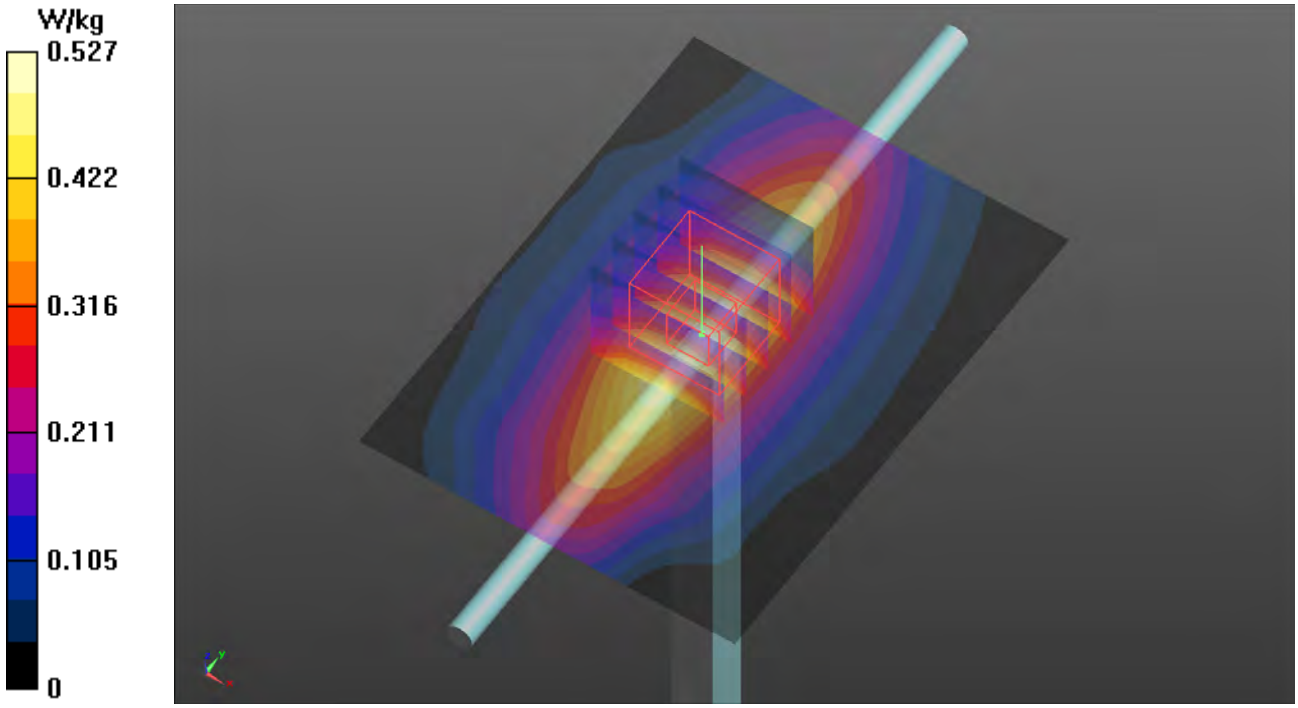
DUT: Dipole 750 MHz; Type: D750V3; SN: 1013

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0104 Medium parameters used: f = 750 MHz; σ = 0.891 S/m; ε_r = 41.003; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.49, 9.49, 9.49) @ 750 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 0.527 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.53 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.589 W/kg
SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.268 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.532 W/kg



S11 System Check_H835_210104

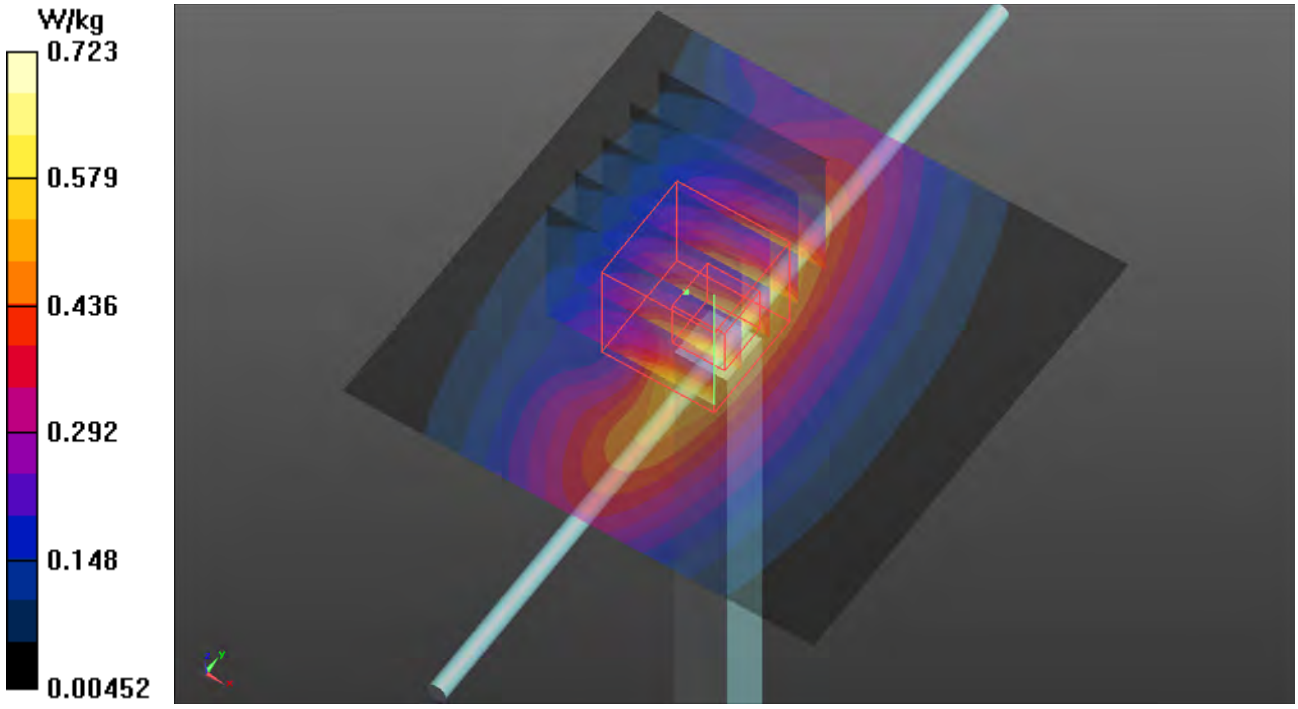
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0104 Medium parameters used: f = 835 MHz; σ = 0.927 S/m; ε_r = 41.963; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 835 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 0.723 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.72 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.812 W/kg
SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.691 W/kg



S12 System Check_H2600_210104

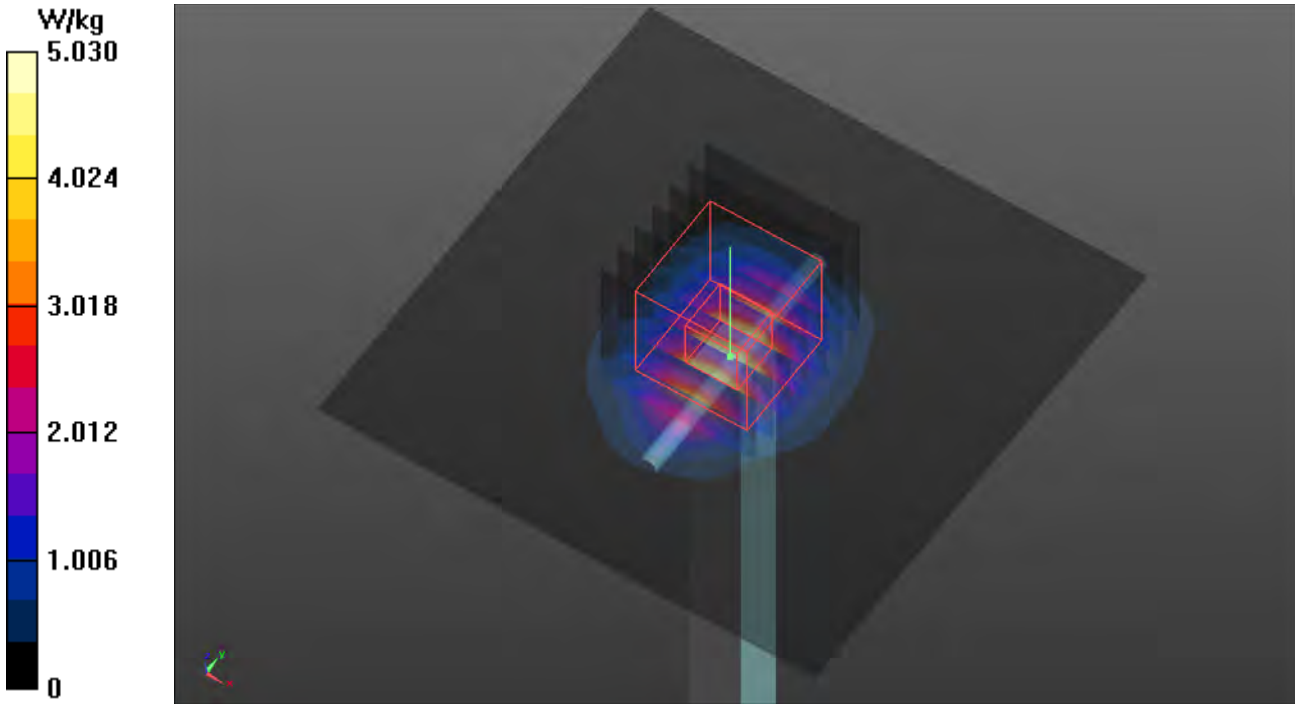
DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: H19T27N3_0104 Medium parameters used: f = 2600 MHz; σ = 1.975 S/m; ε_r = 38.417; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.21, 7.21, 7.21) @ 2600 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- 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) = 5.03 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.85 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 6.23 W/kg
SAR(1 g) = 2.92 W/kg; SAR(10 g) = 1.32 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.00 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/03

S13 System Check_H1750_210303

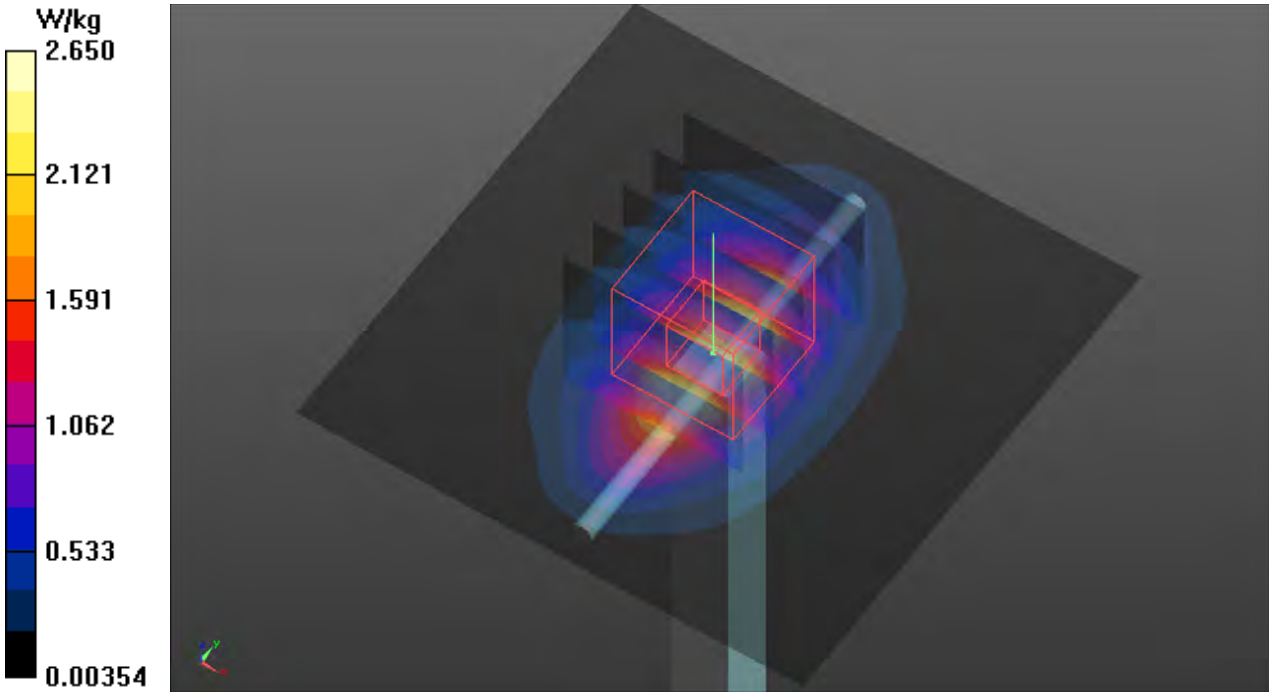
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N3_0303 Medium parameters used: f = 1750 MHz; σ = 1.328 S/m; ε_r = 40.494; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ; Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.64, 8.64, 8.64) @ 1750 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 2.65 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.15 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.10 W/kg
SAR(1 g) = 1.74 W/kg; SAR(10 g) = 0.922 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.62 W/kg



S14 System Check_H2450_210220

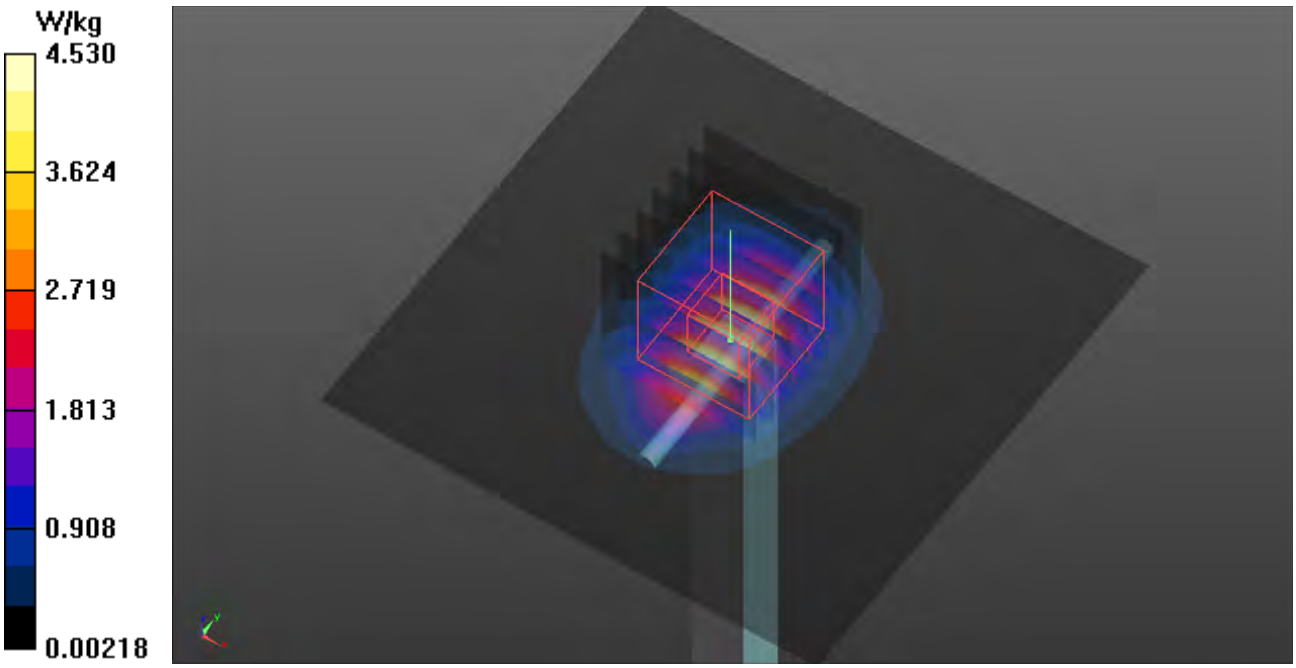
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0220 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.869 S/m; ε_r = 39.083; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 4.53 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.42 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 5.71 W/kg
SAR(1 g) = 2.67 W/kg; SAR(10 g) = 1.26 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.59 W/kg



S15 System Check_H5250_210220

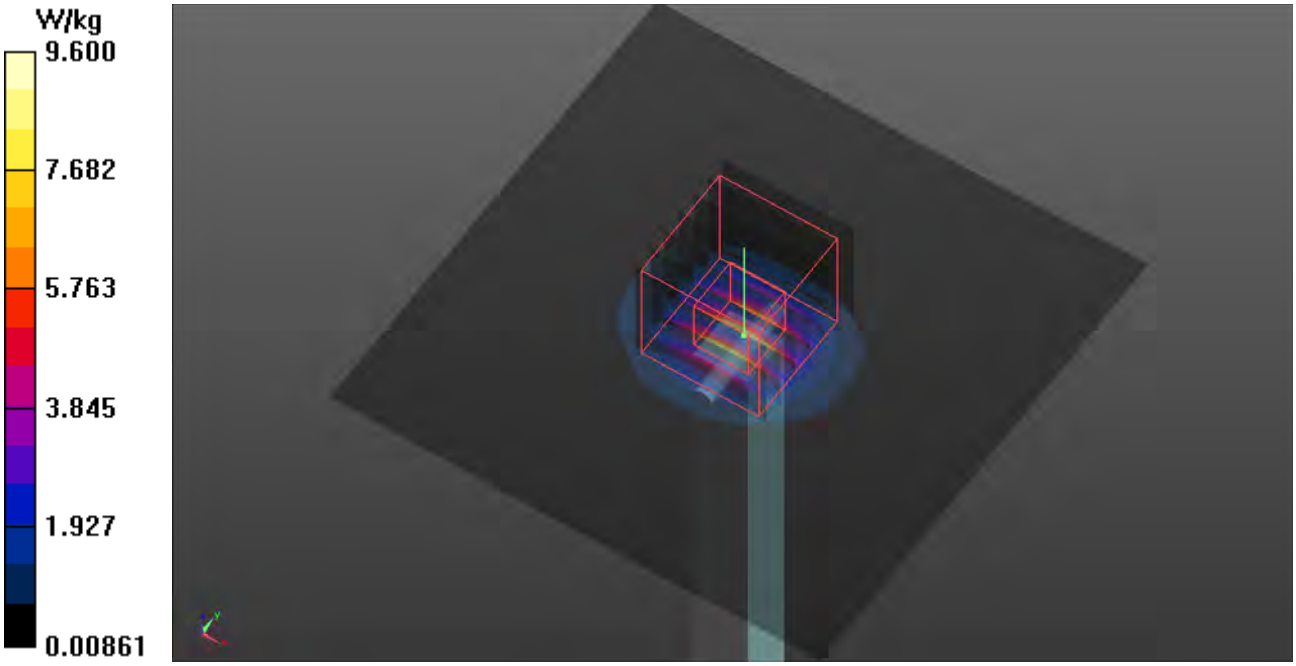
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0220 Medium parameters used: f = 5250 MHz; σ = 4.614 S/m; ε_r = 36.442; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(5.12, 5.12, 5.12) @ 5250 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 9.60 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.97 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(1 g) = 4.09 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.2 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/15

S16 System Check_H5600_210315

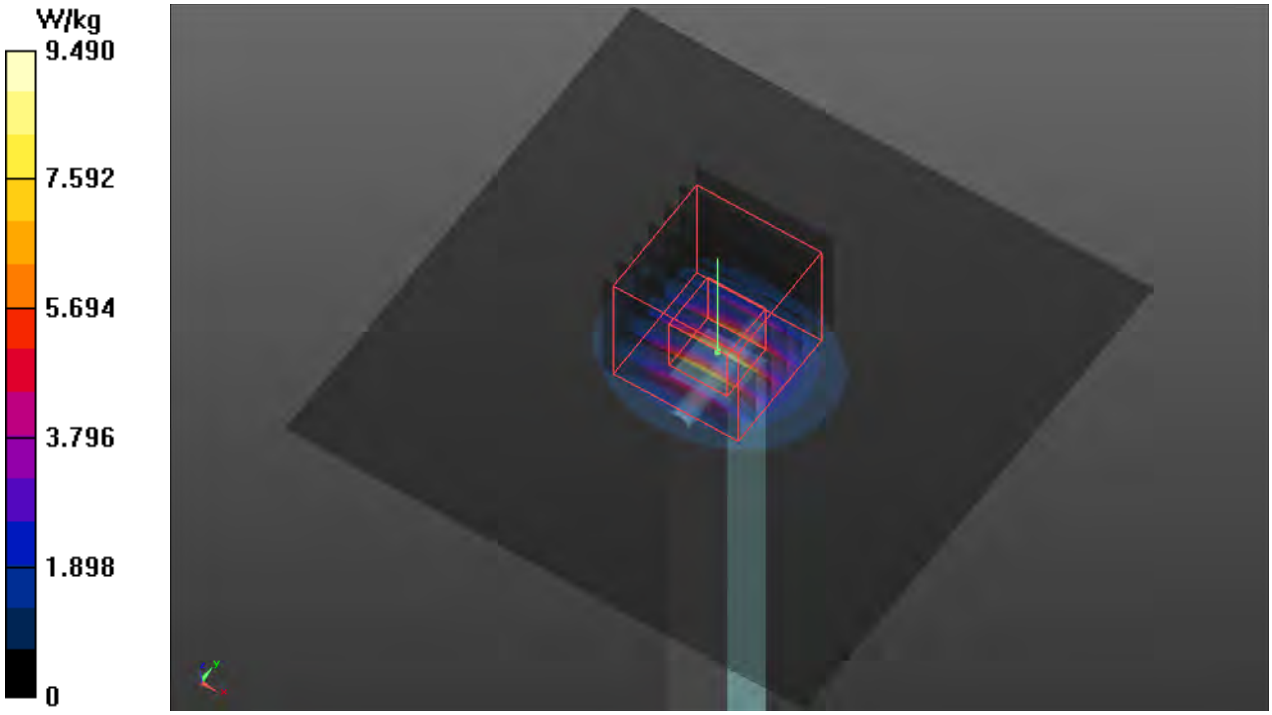
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0315 Medium parameters used: f = 5600 MHz; σ = 4.851 S/m; ε_r = 36.514; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(4.9, 4.9, 4.9) @ 5600 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 9.49 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.43 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 17.1 W/kg
SAR(1 g) = 3.96 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.2 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/15

S17 System Check_H5750_210315

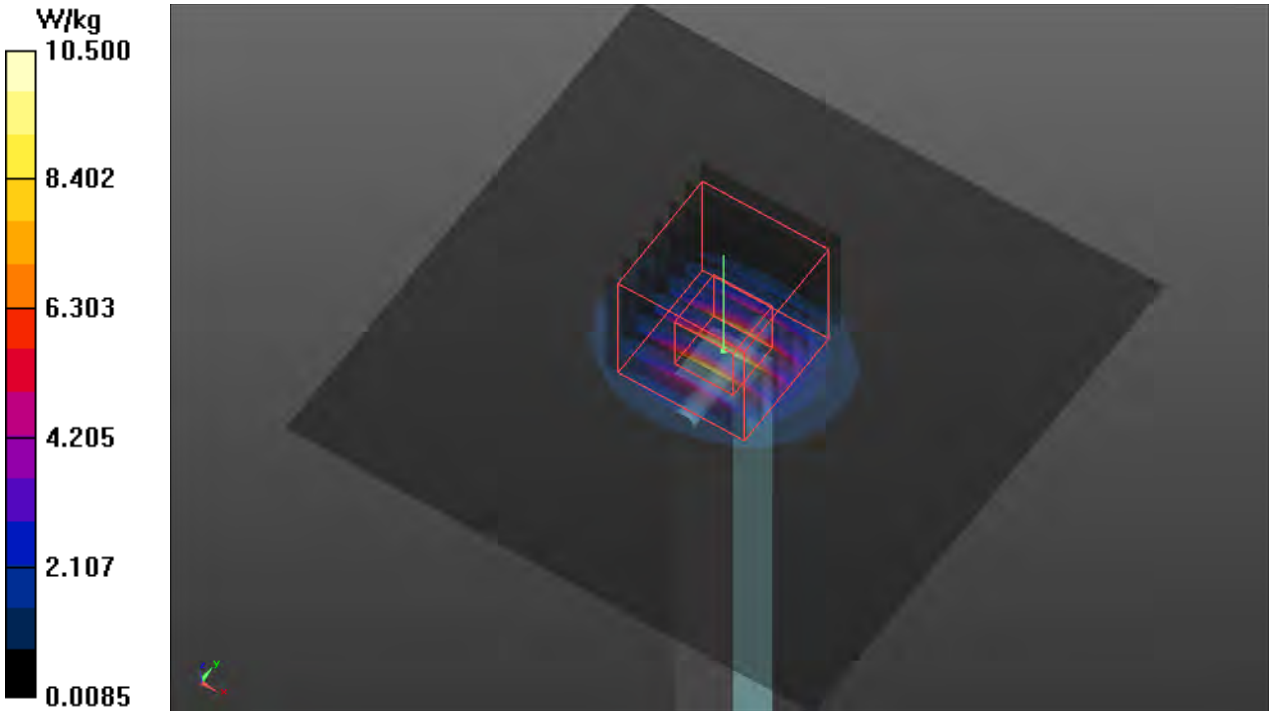
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0315 Medium parameters used: f = 5750 MHz; σ = 5.003 S/m; ε_r = 36.301; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(4.95, 4.95, 4.95) @ 5750 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- 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) = 10.5 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.57 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 4.35 W/kg; SAR(10 g) = 1.24 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 11.3 W/kg



S18 System Check_H2450_210220

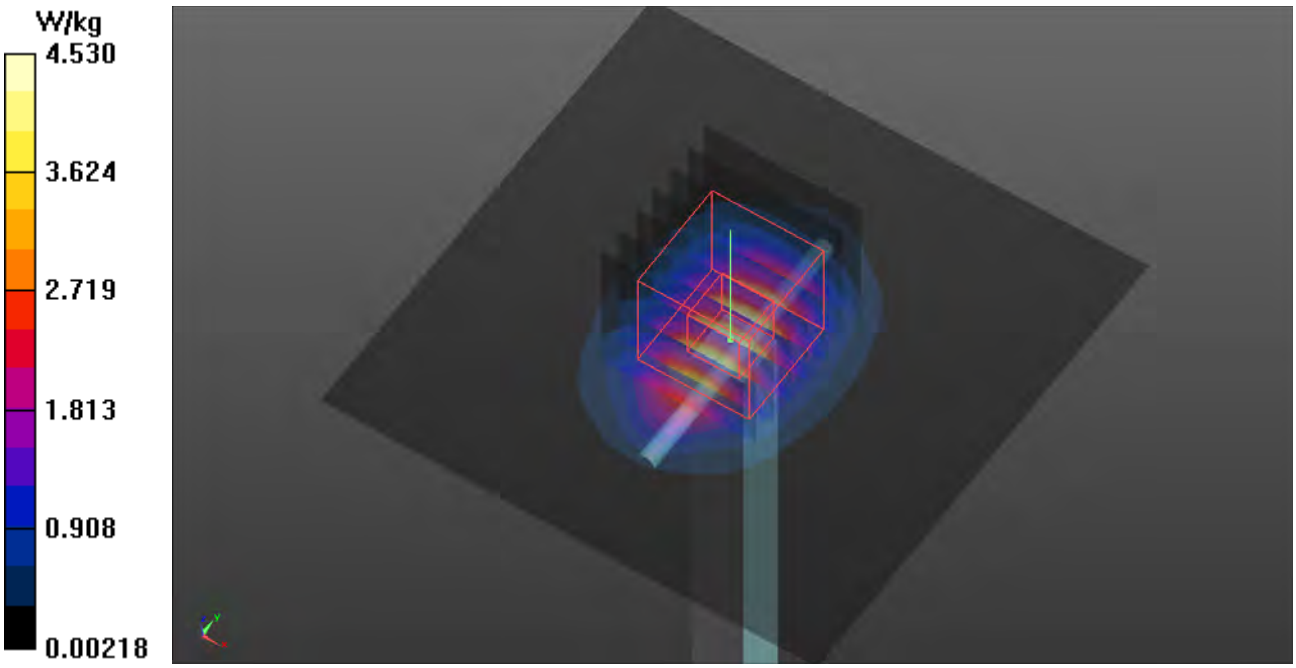
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0220 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.869 S/m; ε_r = 39.083; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 4.53 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.42 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 5.71 W/kg
SAR(1 g) = 2.67 W/kg; SAR(10 g) = 1.26 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.59 W/kg



S19 System Check_H1900_210311

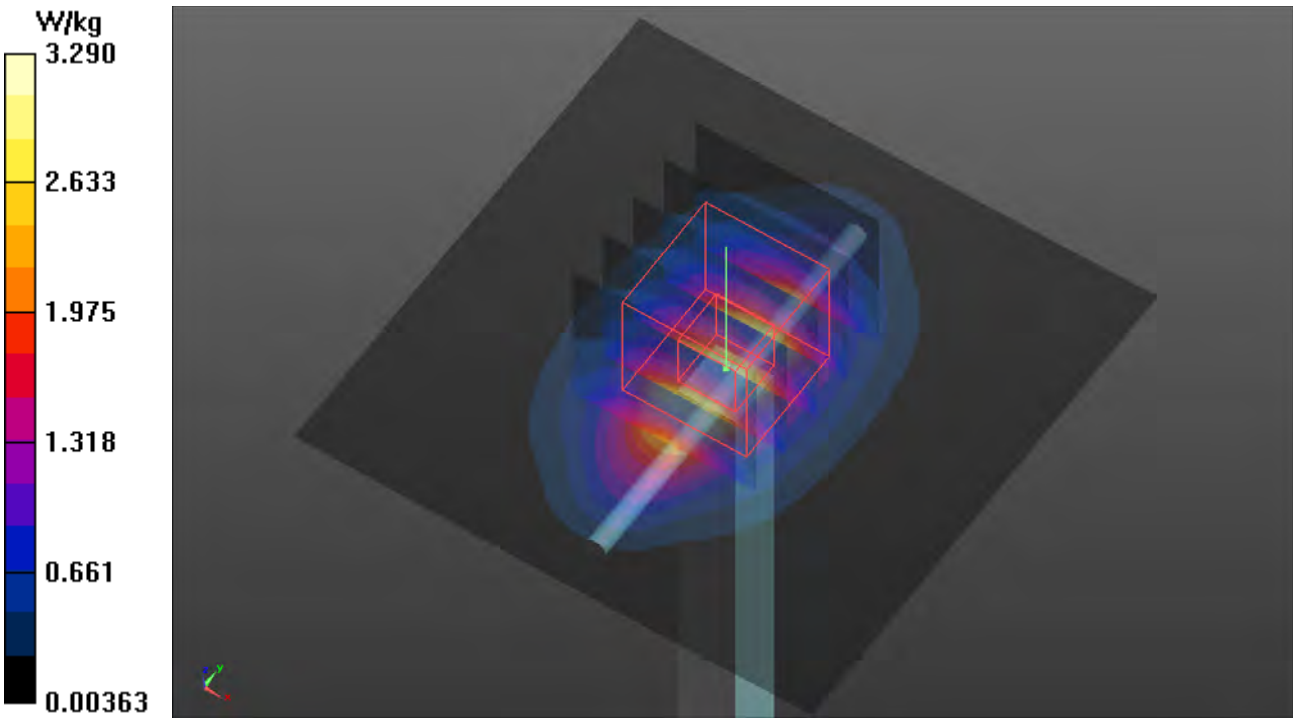
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0311 Medium parameters used: f = 1900 MHz; σ = 1.461 S/m; ε_r = 39.14; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 3.29 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.07 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.95 W/kg
SAR(1 g) = 2.02 W/kg; SAR(10 g) = 1.06 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.28 W/kg



S20 System Check_H1750_210311

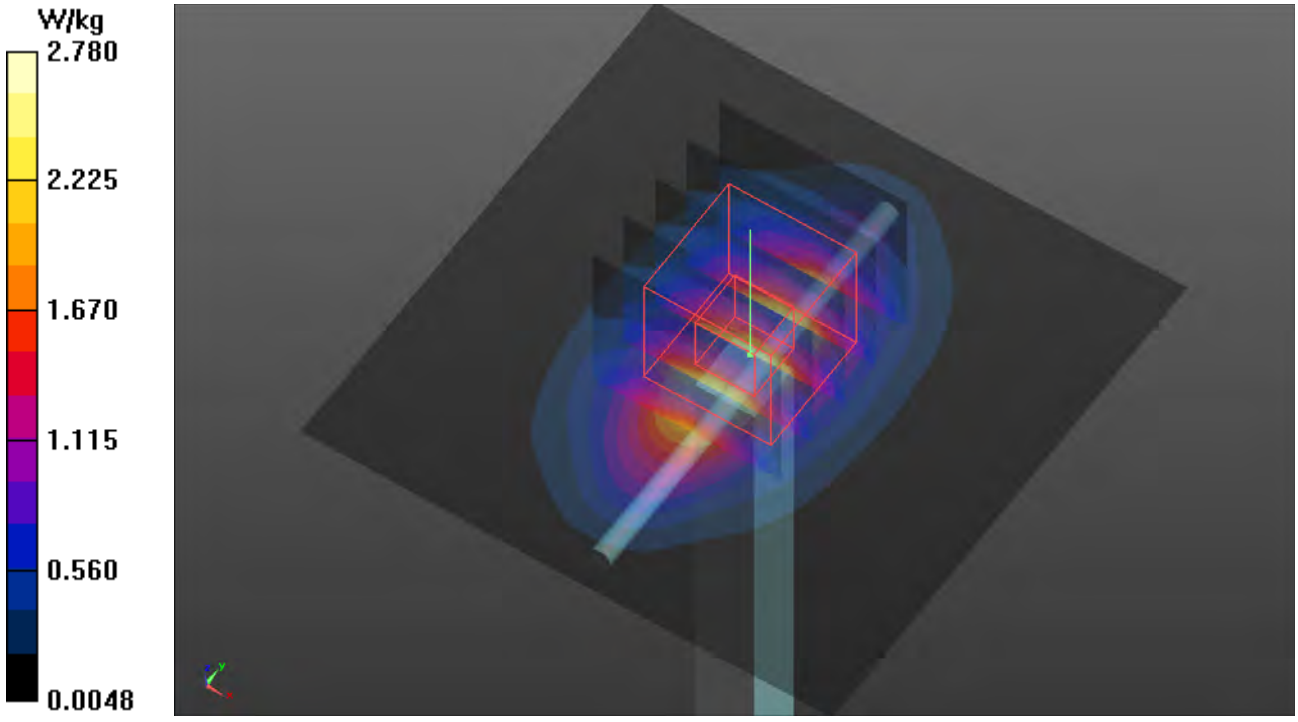
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0311 Medium parameters used: f = 1750 MHz; σ = 1.332 S/m; ε_r = 39.648; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.58, 8.58, 8.58) @ 1750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 2.78 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.15 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.31 W/kg
SAR(1 g) = 1.8 W/kg; SAR(10 g) = 0.949 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.77 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/10

S21 System Check_H835_210310

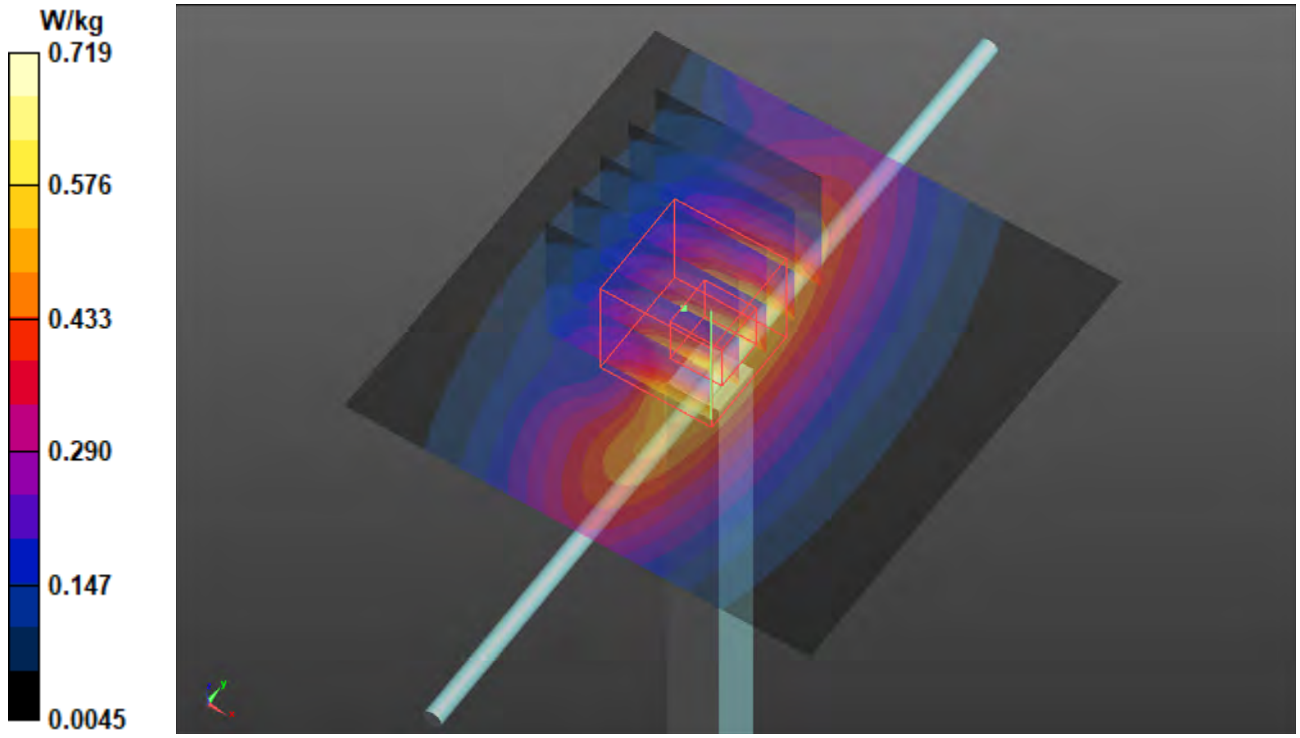
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0310 Medium parameters used: f = 835 MHz; σ = 0.921 S/m; ε_r = 42.338; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 2020/03/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2020/05/27
- Phantom: ELI Phantom_2105; Type: QD OVA 004 Ax;
- 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) = 0.719 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.74 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.807 W/kg
SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.687 W/kg



S22 System Check_H1900_210311

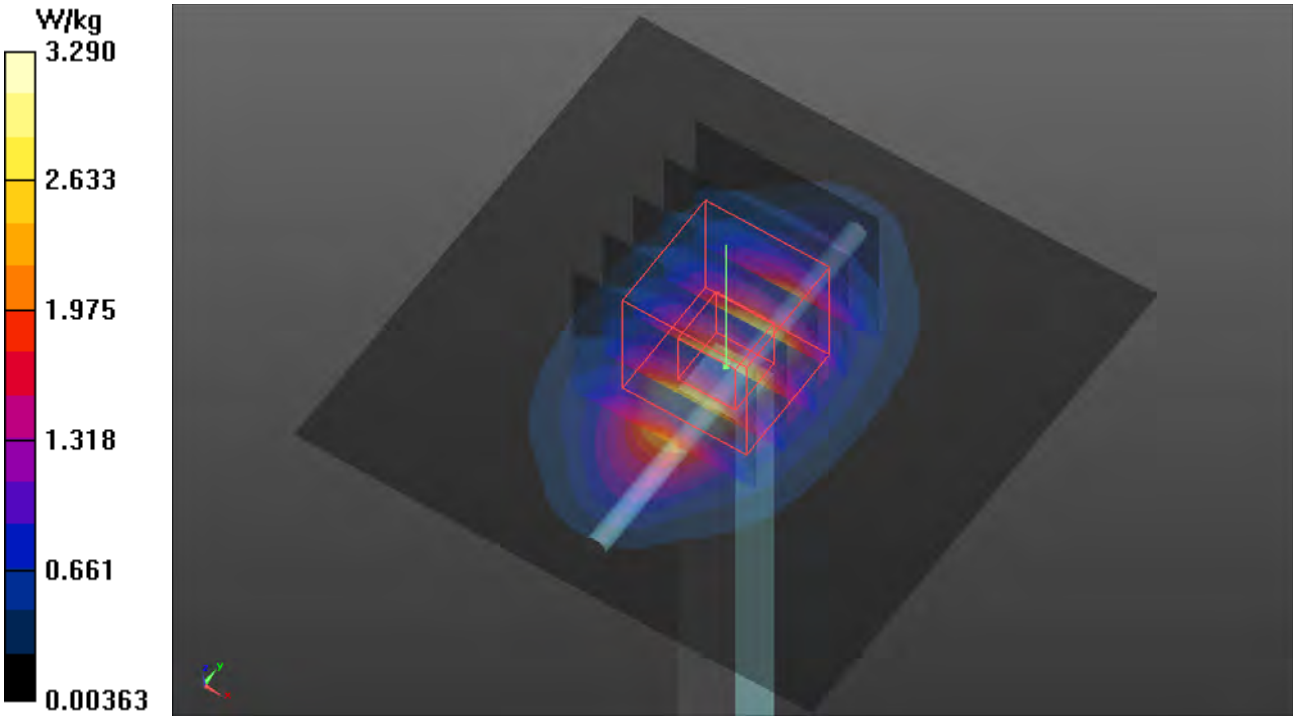
DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0311 Medium parameters used: f = 1900 MHz; σ = 1.461 S/m; ε_r = 39.14; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 3.29 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.07 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.95 W/kg
SAR(1 g) = 2.02 W/kg; SAR(10 g) = 1.06 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.28 W/kg



S23 System Check_H1750_210311

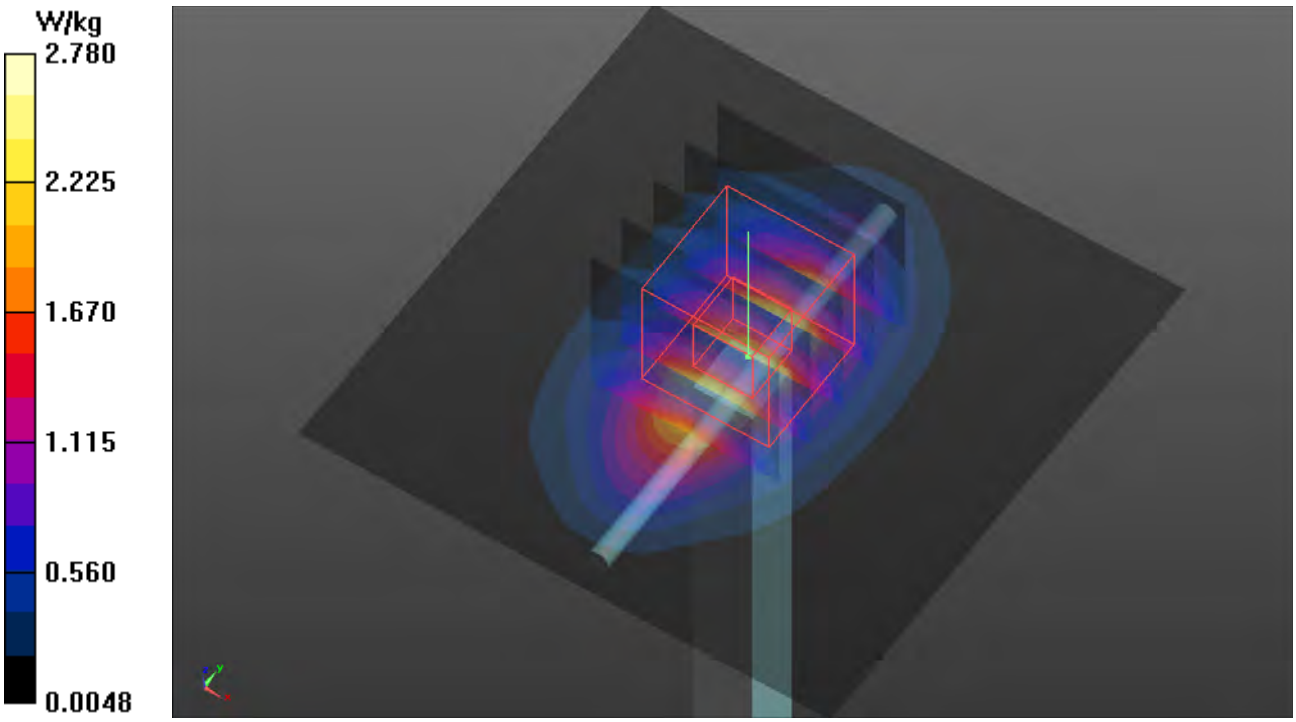
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0311 Medium parameters used: f = 1750 MHz; σ = 1.332 S/m; ε_r = 39.648; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.58, 8.58, 8.58) @ 1750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 2.78 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.15 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.31 W/kg
SAR(1 g) = 1.8 W/kg; SAR(10 g) = 0.949 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.77 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/10

S24 System Check_H835_210310

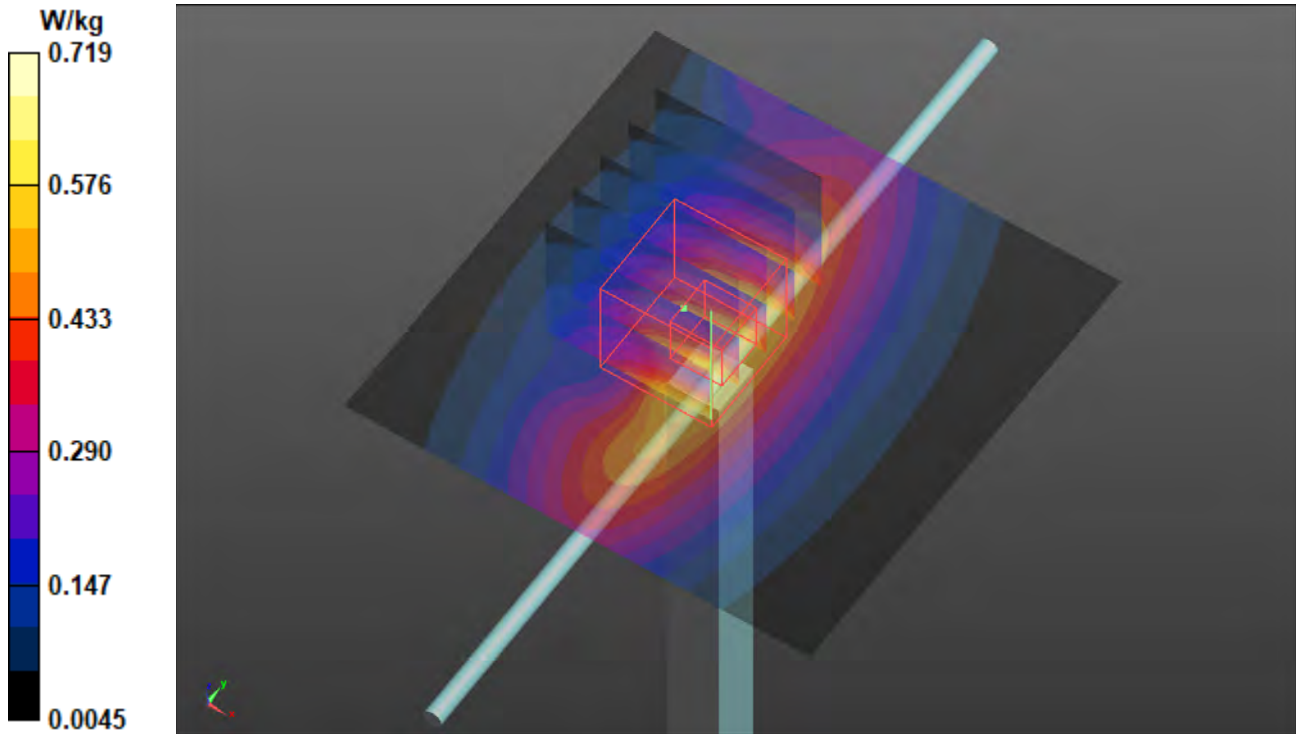
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0310 Medium parameters used: f = 835 MHz; σ = 0.921 S/m; ε_r = 42.338; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 2020/03/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2020/05/27
- Phantom: ELI Phantom_2105; Type: QD OVA 004 Ax;
- 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) = 0.719 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.74 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.807 W/kg
SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.687 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/10

S25 System Check_H2600_210310

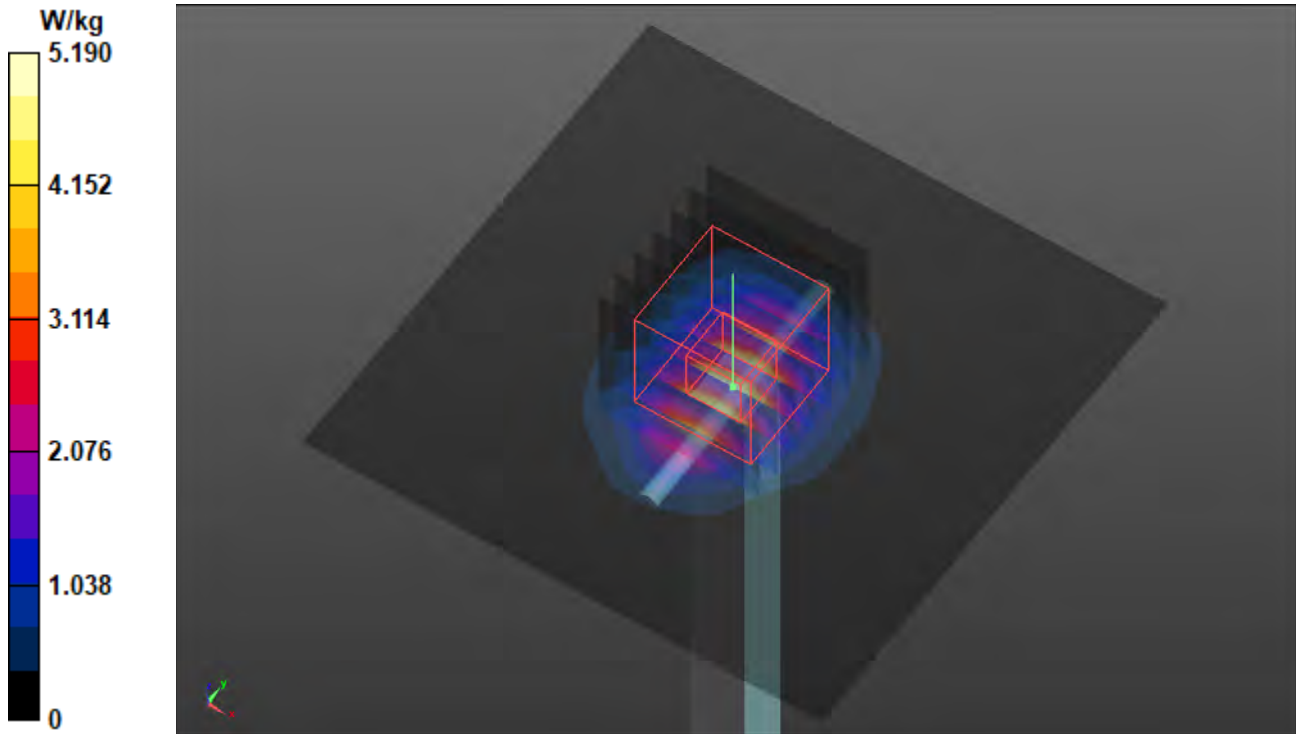
DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0310 Medium parameters used: f = 2600 MHz; σ = 2.036 S/m; ε_r = 37.736; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(7.56, 7.56, 7.56) @ 2600 MHz; Calibrated: 2020/03/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2020/05/27
- Phantom: ELI Phantom_2105; Type: QD OVA 004 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) = 5.19 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.88 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 6.43 W/kg
SAR(1 g) = 2.96 W/kg; SAR(10 g) = 1.35 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.16 W/kg



S26 System Check_H750_210311

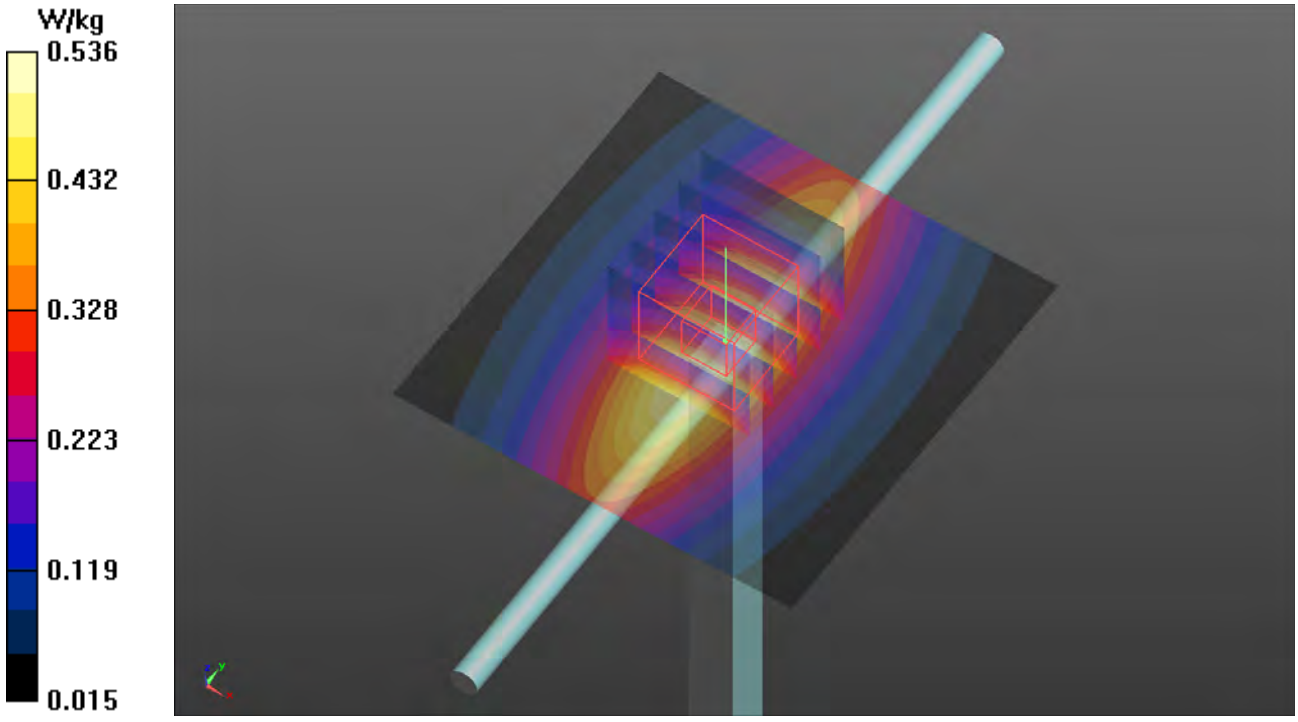
DUT: Dipole 750 MHz D750V3

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0311 Medium parameters used: f = 750 MHz; σ = 0.893 S/m; ε_r = 43.414; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(10.39, 10.39, 10.39) @ 750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 0.536 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.82 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.611 W/kg
SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.264 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.540 W/kg



S27 System Check_H750_210311

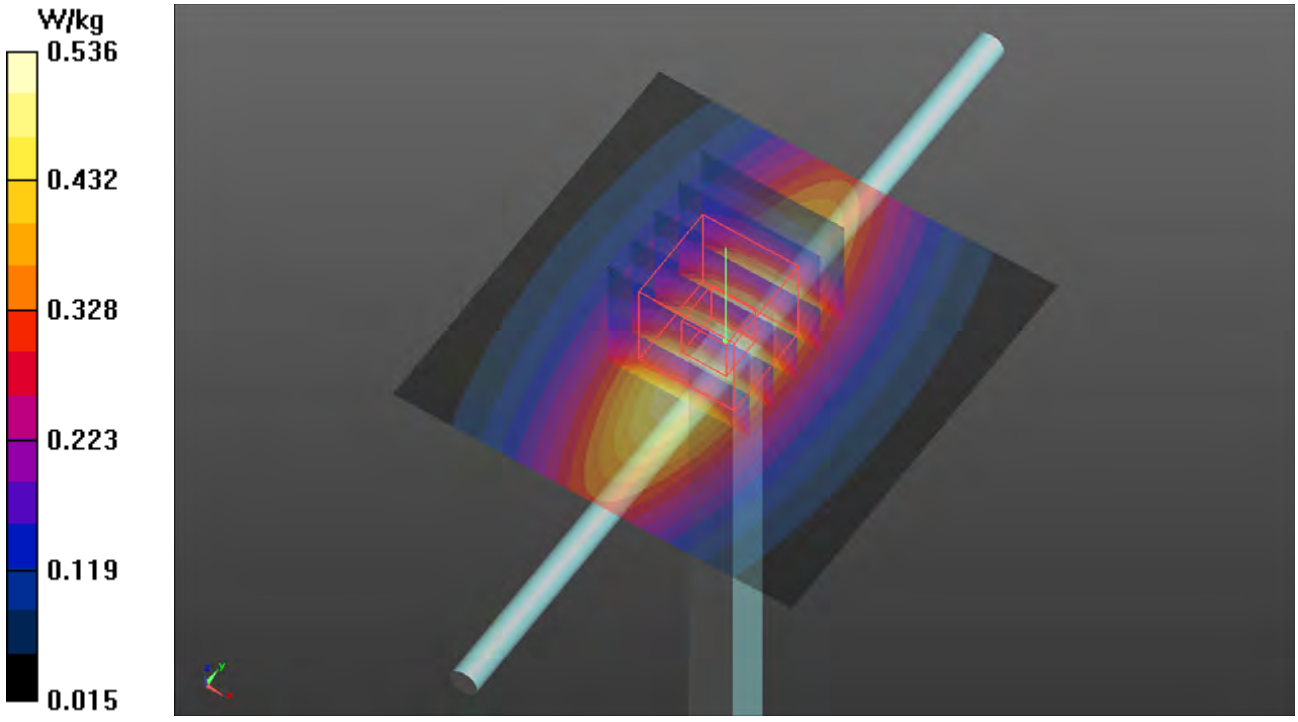
DUT: Dipole 750 MHz D750V3

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0311 Medium parameters used: f = 750 MHz; σ = 0.893 S/m; ε_r = 43.414; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(10.39, 10.39, 10.39) @ 750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 0.536 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.82 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.611 W/kg
SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.264 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.540 W/kg



S28 System Check_H750_210311

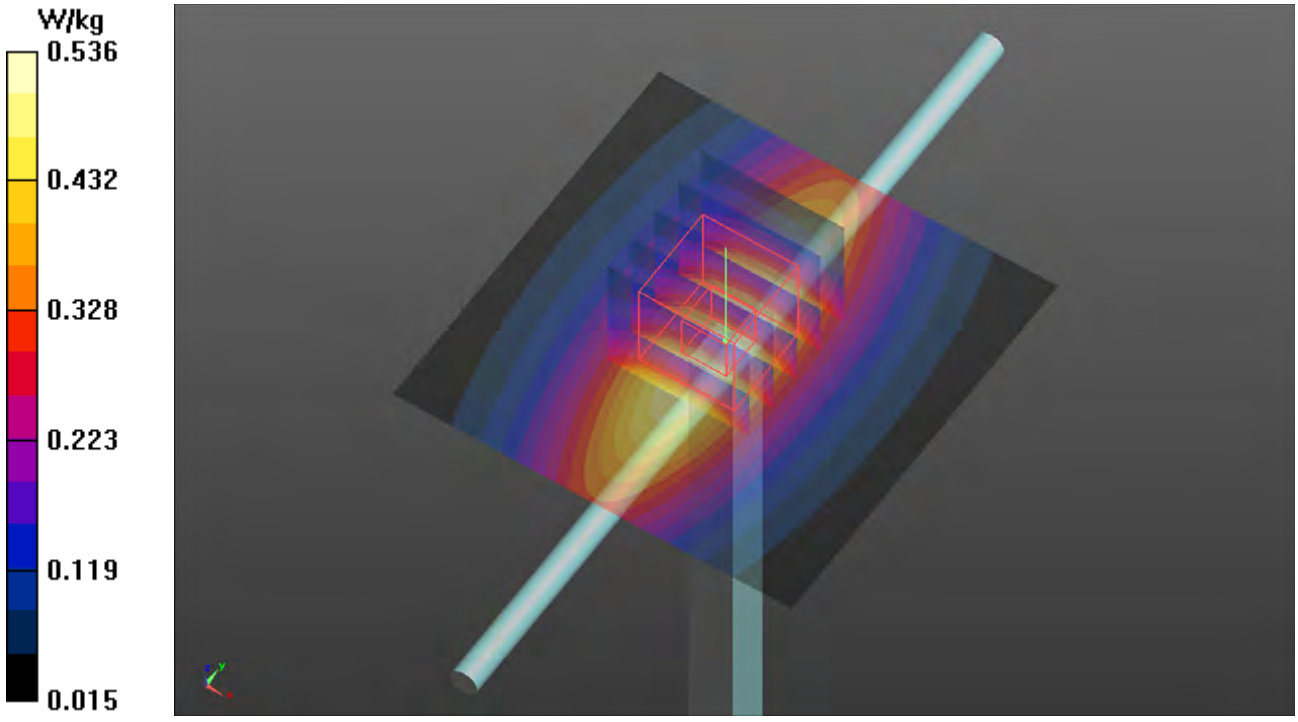
DUT: Dipole 750 MHz D750V3

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: H06T09N1_0311 Medium parameters used: f = 750 MHz; σ = 0.893 S/m; ε_r = 43.414; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(10.39, 10.39, 10.39) @ 750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 0.536 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.82 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.611 W/kg
SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.264 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.540 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/10

S29 System Check_H835_210310

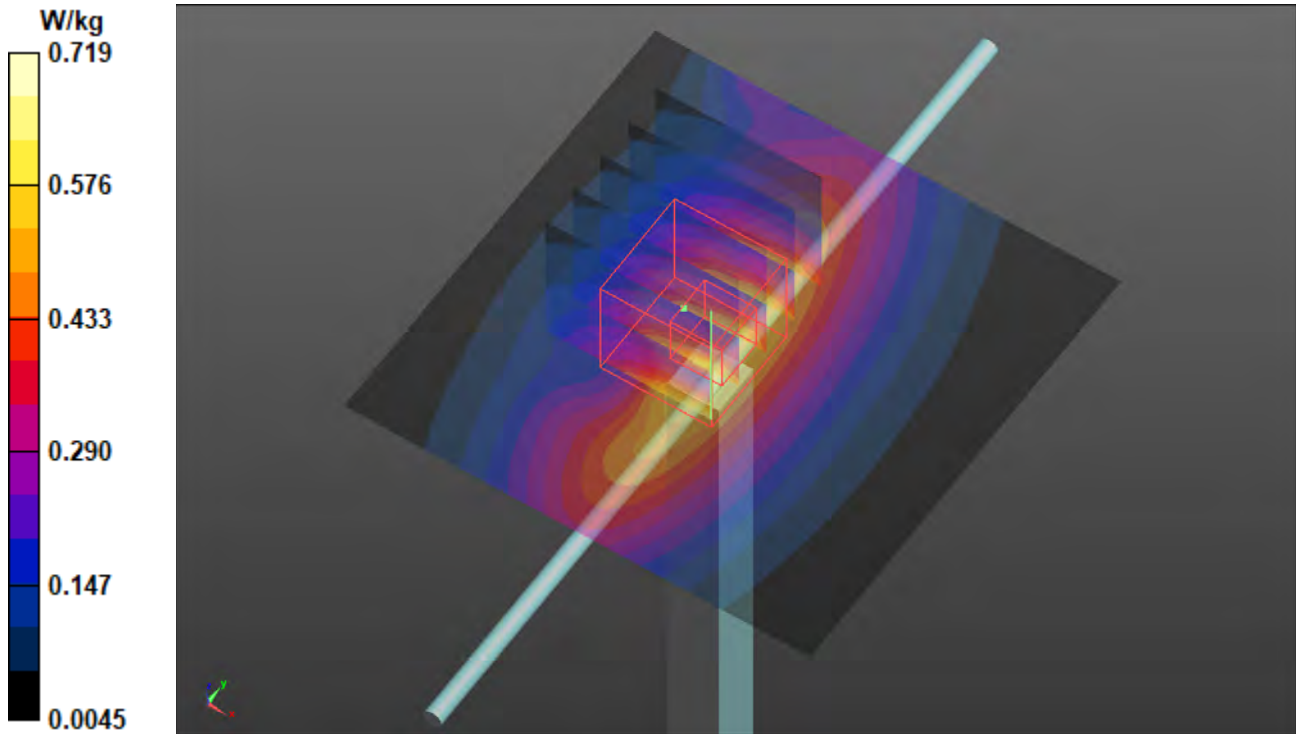
DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: H07T10N1_0310 Medium parameters used: f = 835 MHz; σ = 0.921 S/m; ε_r = 42.338; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3650; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 2020/03/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2020/05/27
- Phantom: ELI Phantom_2105; Type: QD OVA 004 Ax;
- 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) = 0.719 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.74 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.807 W/kg
SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.687 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/11

S30 System Check_H2600_210311

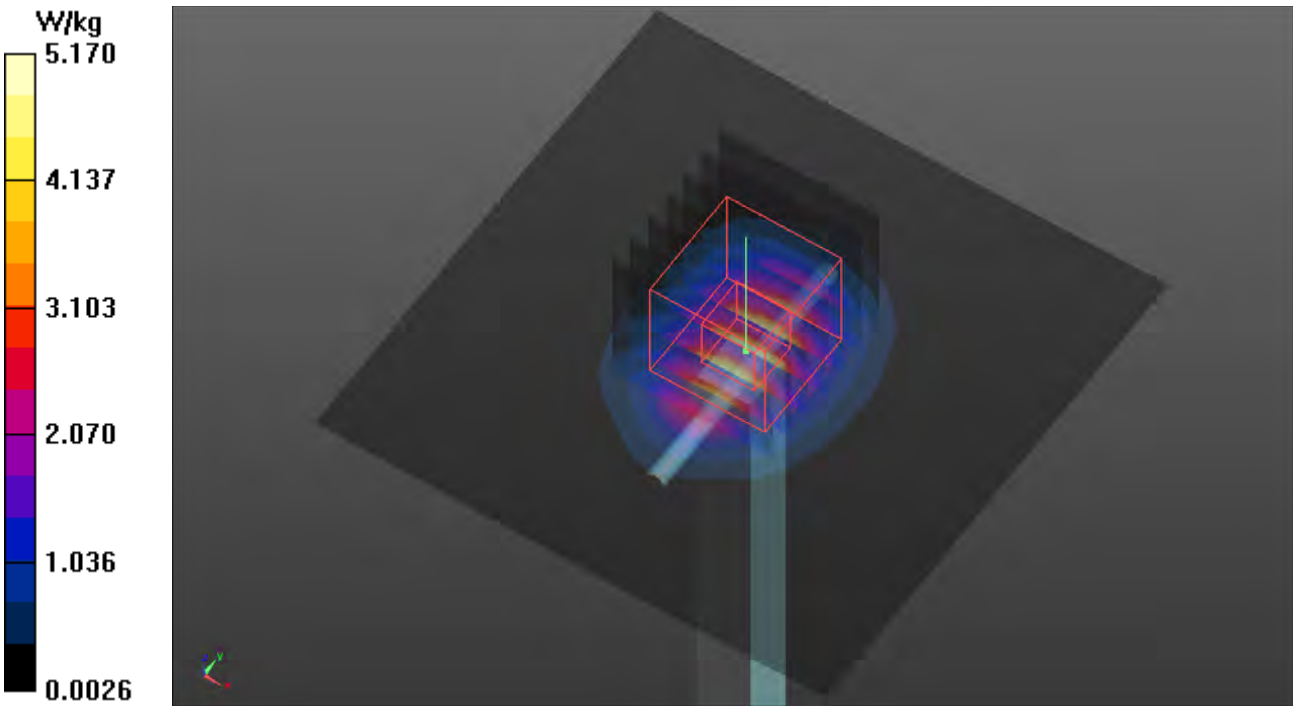
DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0311 Medium parameters used: f = 2600 MHz; σ = 2.001 S/m; ε_r = 38.282; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.28, 7.28, 7.28) @ 2600 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 5.17 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.05 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 6.37 W/kg
SAR(1 g) = 2.97 W/kg; SAR(10 g) = 1.34 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.15 W/kg



S31 System Check_H1750_210311

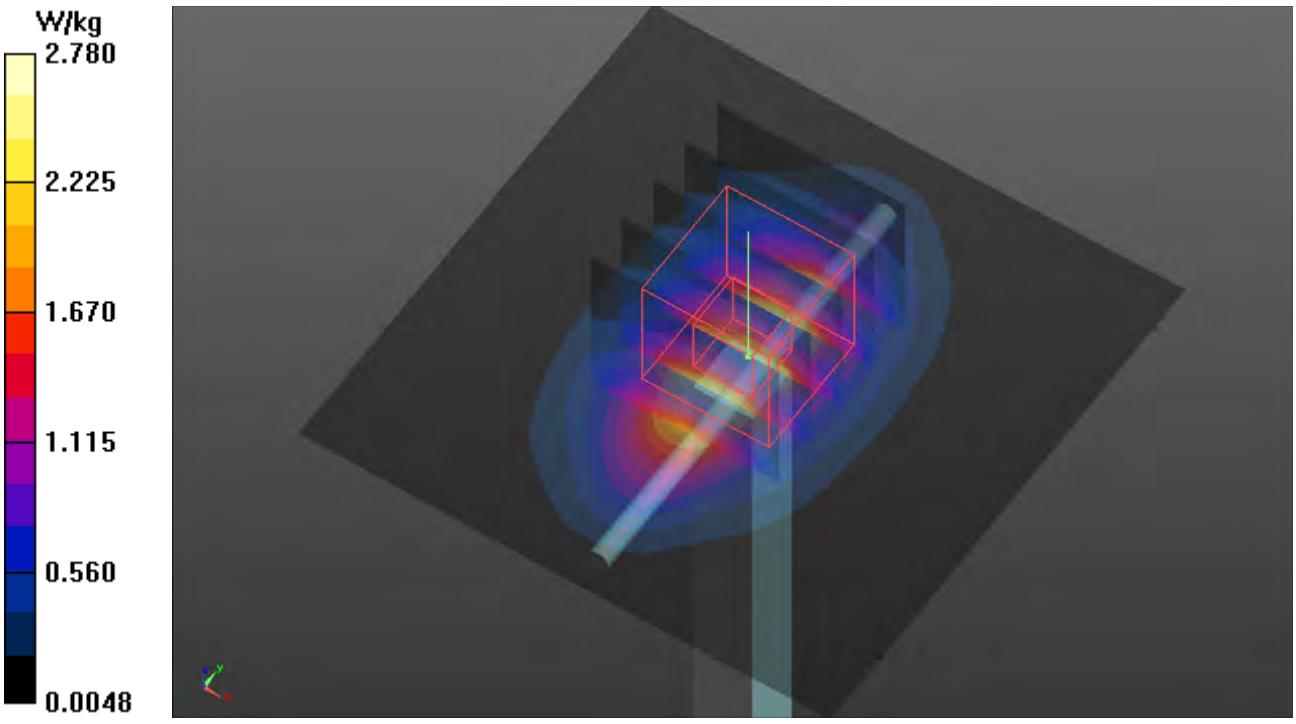
DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: H16T20N1_0311 Medium parameters used: f = 1750 MHz; σ = 1.332 S/m; ε_r = 39.648; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.58, 8.58, 8.58) @ 1750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- 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) = 2.78 W/kg

Pin=50mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.15 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.31 W/kg
SAR(1 g) = 1.8 W/kg; SAR(10 g) = 0.949 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.77 W/kg



S32 System Check_H2450_210311

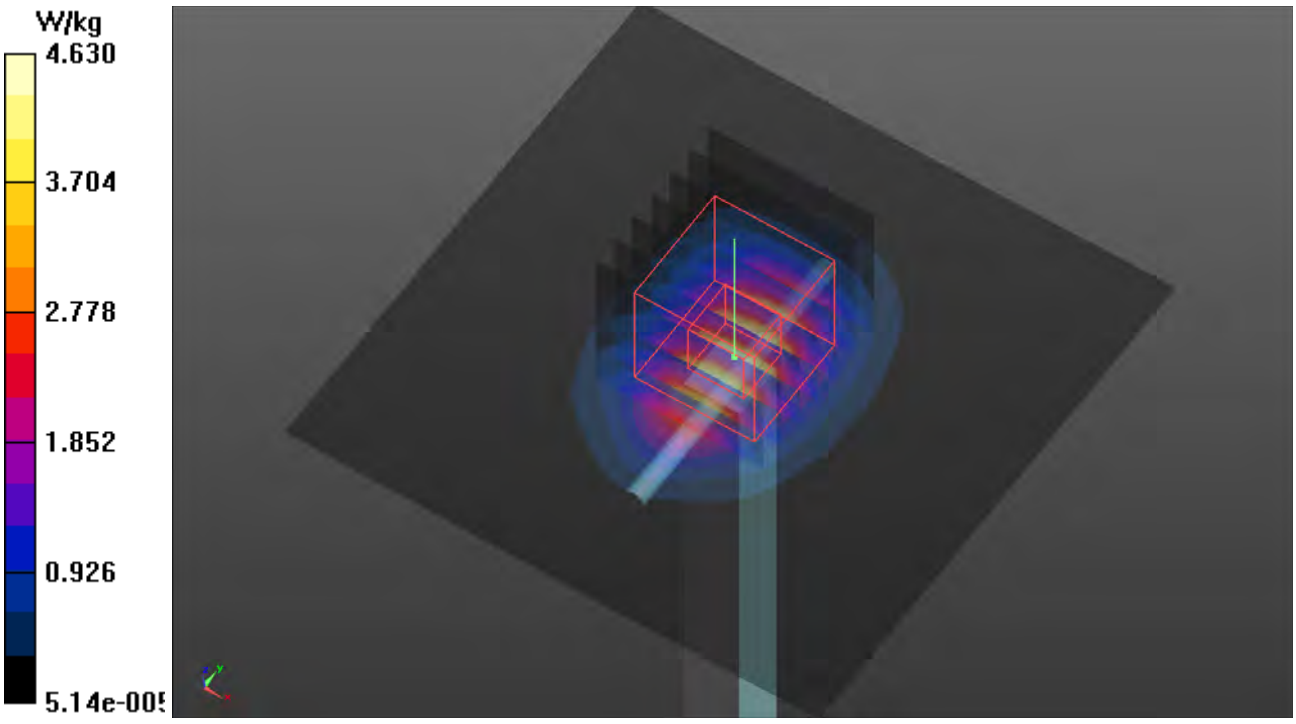
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0311 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.864 S/m; ε_r = 38.07; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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 = 51.95 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 5.74 W/kg
SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.29 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.65 W/kg



S33 System Check_H5250_210312

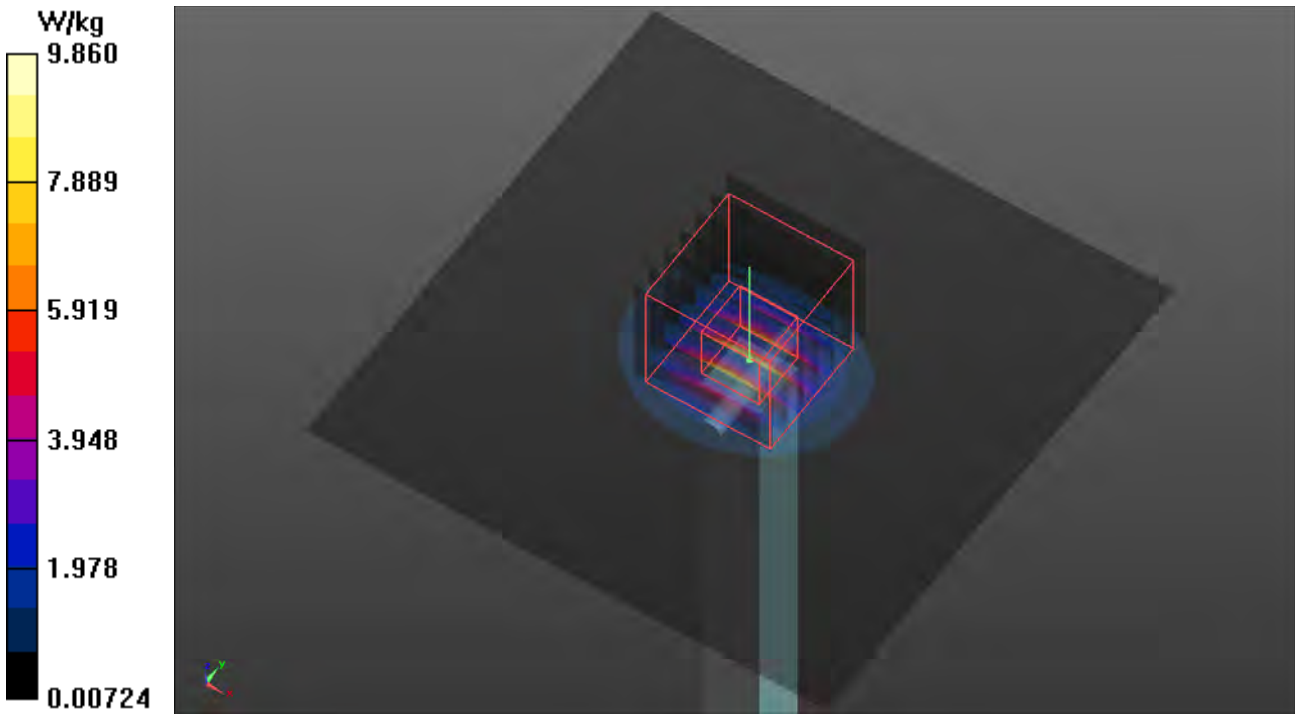
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0312 Medium parameters used (interpolated): f = 5250 MHz; σ = 4.76 S/m; ε_r = 35.003; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(5.12, 5.12, 5.12) @ 5250 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 9.86 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.53 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(1 g) = 4.1 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.2 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/16

S34 System Check_H5600_210316

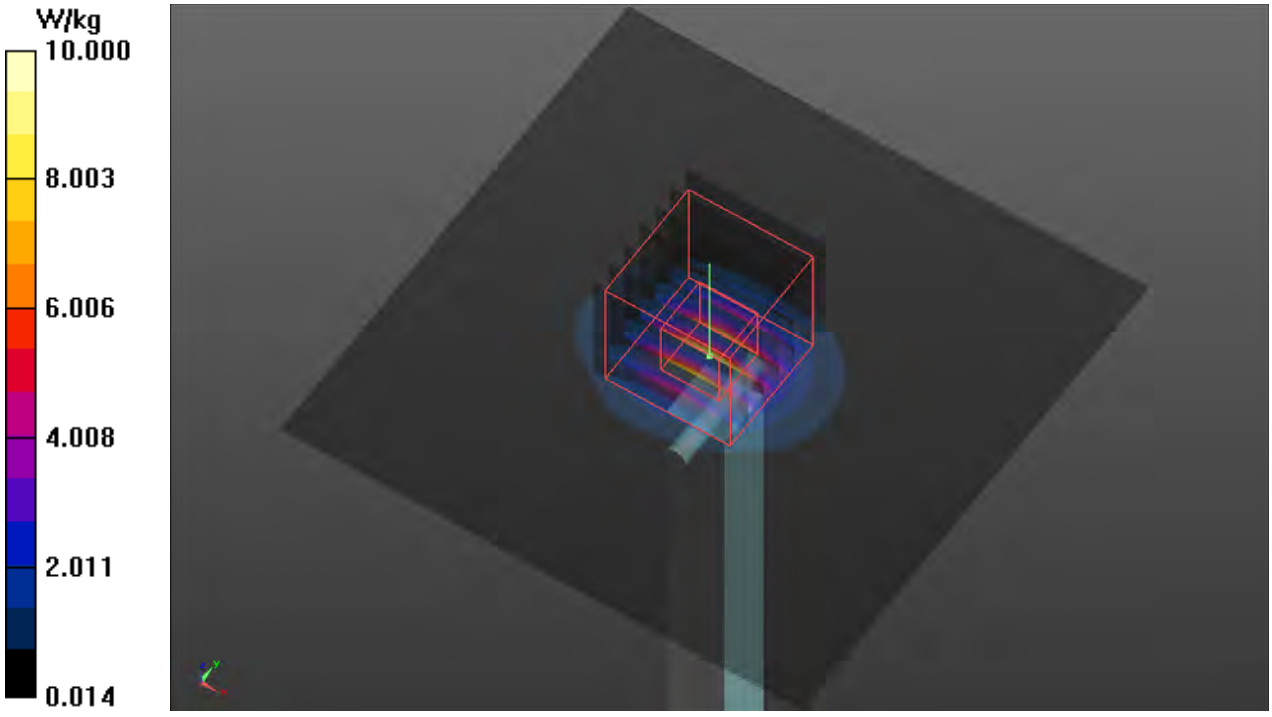
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0316 Medium parameters used: f = 5600 MHz; σ = 4.913 S/m; ε_r = 36.164; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(4.9, 4.9, 4.9) @ 5600 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA
- 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) = 10.0 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.95 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 16.8 W/kg
SAR(1 g) = 4.14 W/kg; SAR(10 g) = 1.22 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.5 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/16

S35 System Check_H5750_200316

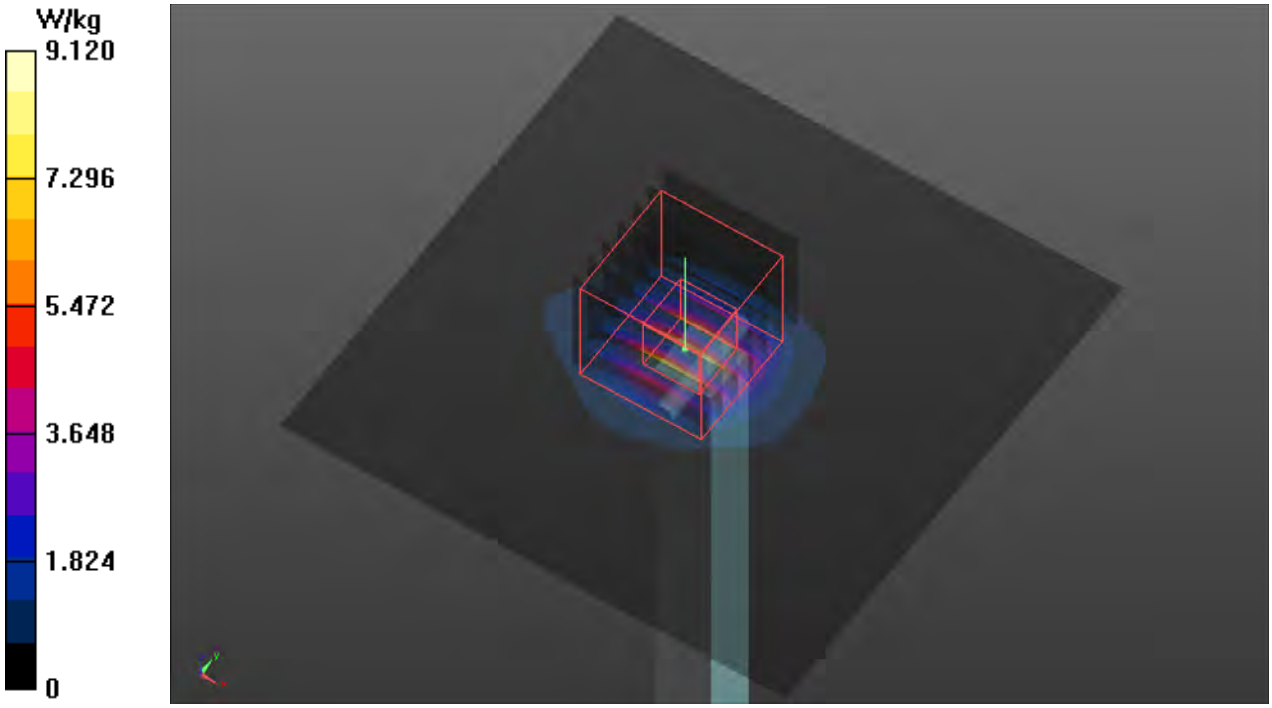
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0316 Medium parameters used: f = 5750 MHz; σ = 5.061 S/m; ε_r = 35.952; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(5.05, 5.05, 5.05) @ 5750 MHz; Calibrated: 2020/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA
- 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) = 9.12 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.73 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 36.0 W/kg
SAR(1 g) = 3.64 W/kg; SAR(10 g) = 0.998 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 9.38 W/kg



S36 System Check_H2450_210311

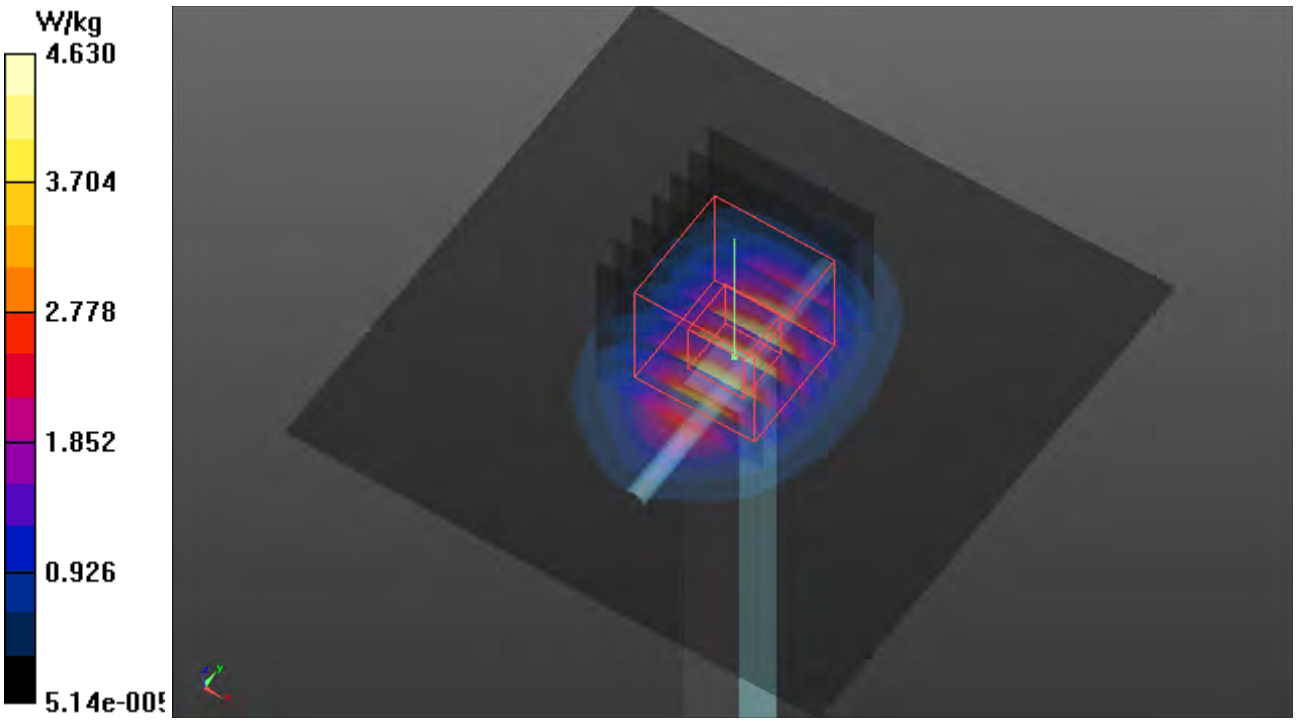
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0311 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.864 S/m; ε_r = 38.07; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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 = 51.95 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 5.74 W/kg
SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.29 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.65 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/12

S37 System Check_H2450_210312

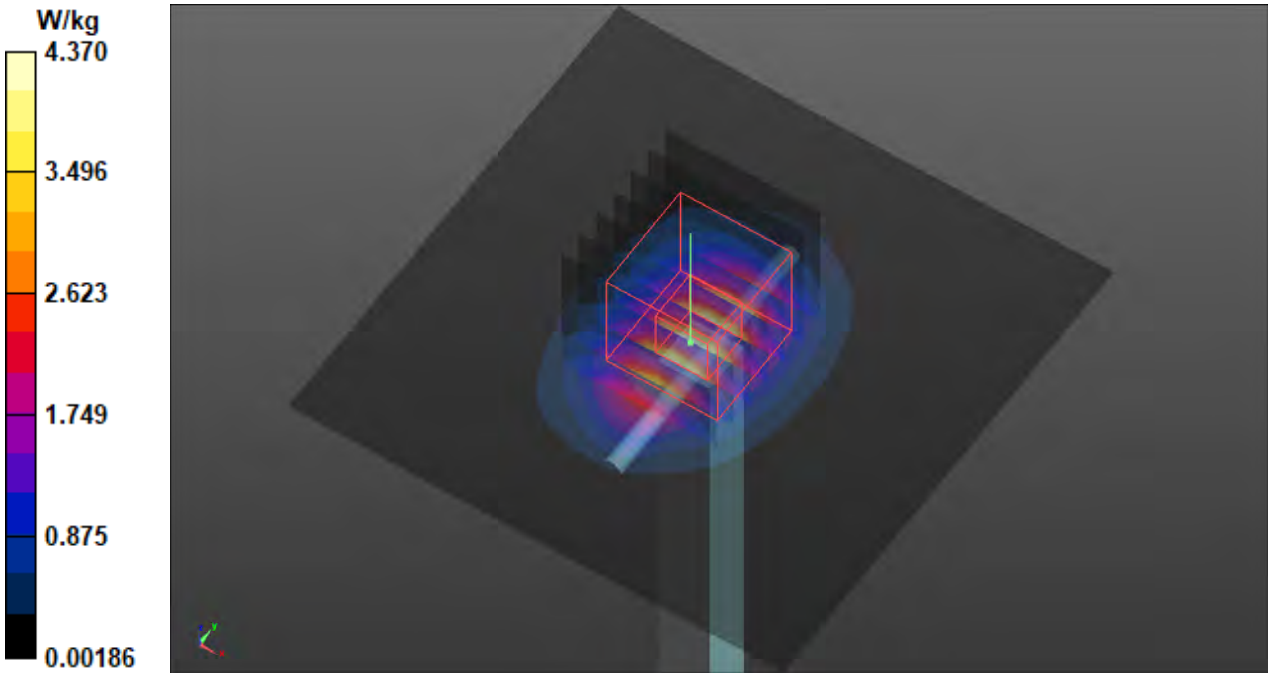
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0312 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.824 S/m; ε_r = 38.456; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃; Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 4.37 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.07 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 5.51 W/kg
SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.22 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.45 W/kg



S38 System Check_H5250_210312

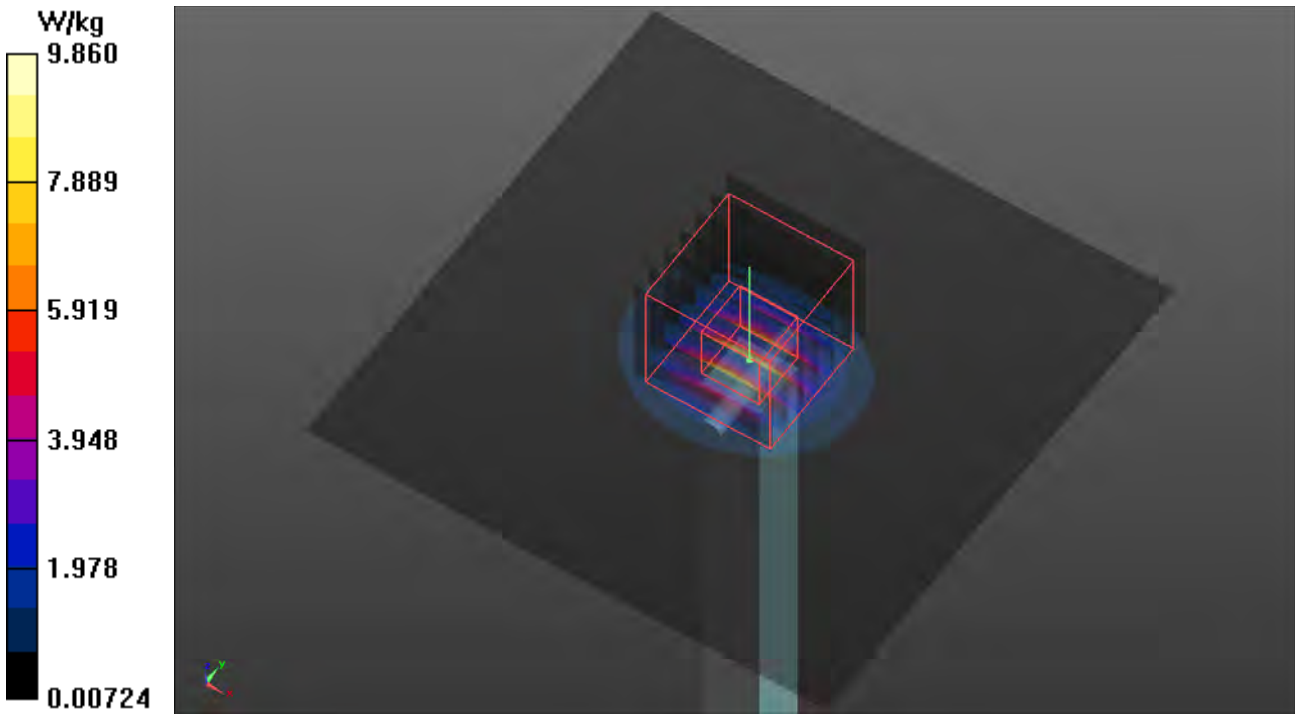
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0312 Medium parameters used (interpolated): f = 5250 MHz; σ = 4.76 S/m; ε_r = 35.003; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(5.12, 5.12, 5.12) @ 5250 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 9.86 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.53 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(1 g) = 4.1 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.2 W/kg



S39 System Check_H5600_210312

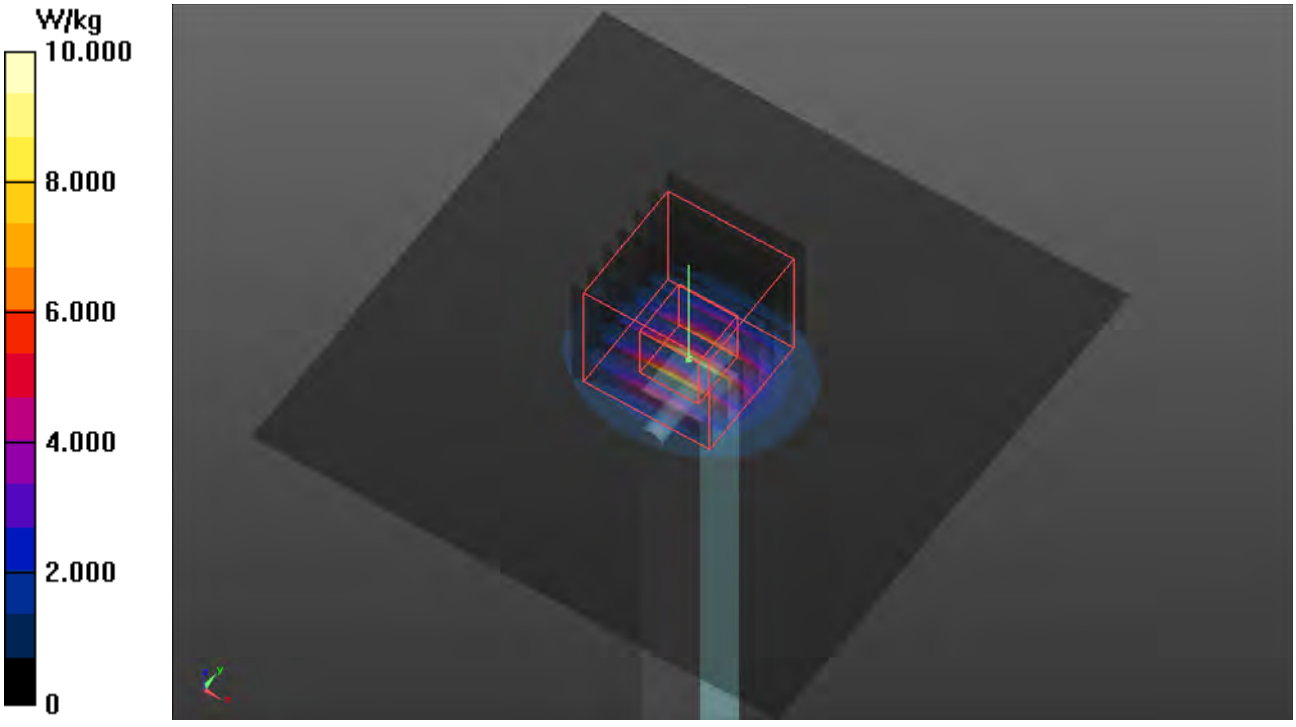
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0312 Medium parameters used: f = 5600 MHz; σ = 5.128 S/m; ε_r = 34.518; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(4.65, 4.65, 4.65) @ 5600 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 10.0 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.40 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 4.14 W/kg; SAR(10 g) = 1.17 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 10.8 W/kg



S40 System Check_H5750_210312

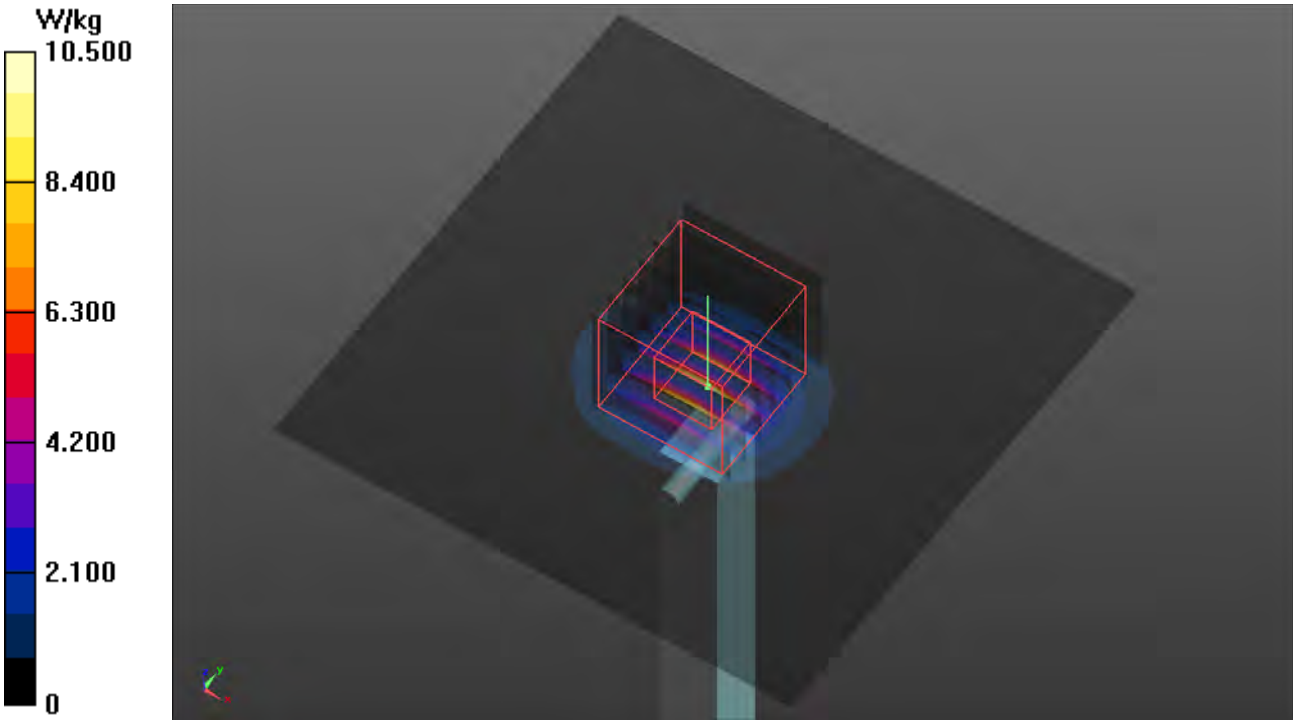
DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: H34T60N1_0312 Medium parameters used: f = 5750 MHz; σ = 5.275 S/m; ε_r = 34.361; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(4.8, 4.8, 4.8) @ 5750 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 10.5 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 45.38 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 19.5 W/kg
SAR(1 g) = 4.29 W/kg; SAR(10 g) = 1.22 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 11.2 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/12

S41 System Check_H2450_210312

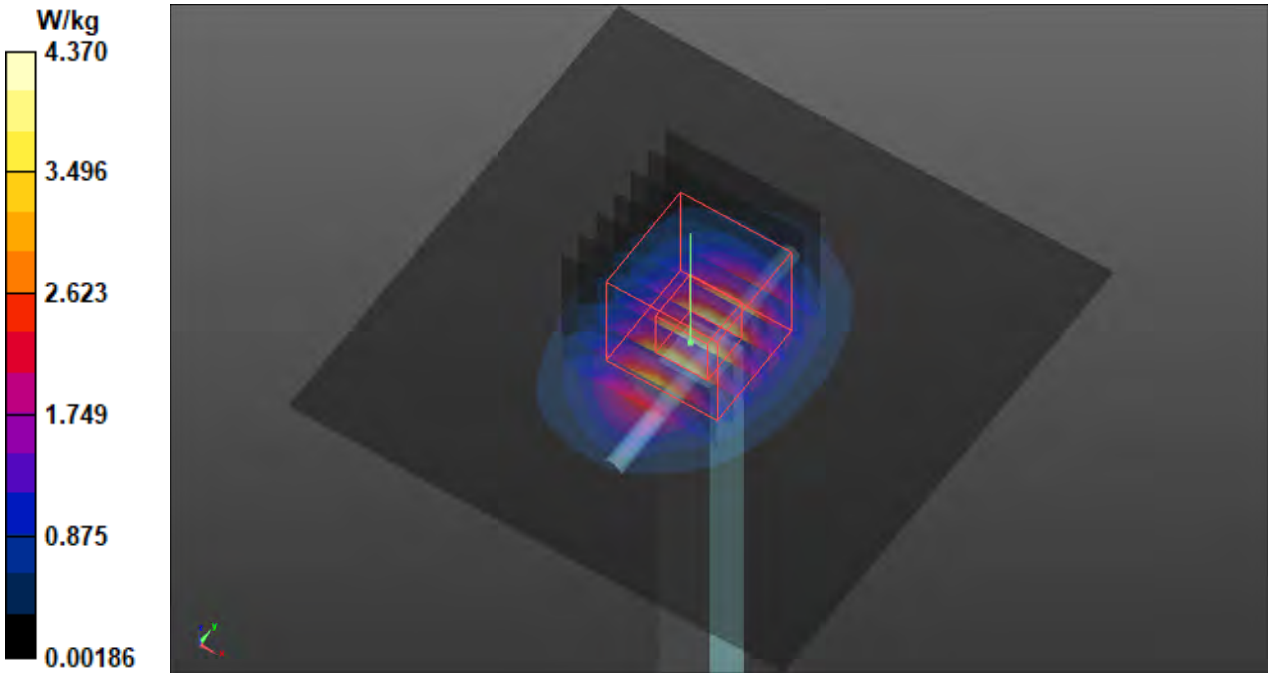
DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: H19T27N1_0312 Medium parameters used (interpolated): f = 2450 MHz; σ = 1.824 S/m; ε_r = 38.456; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃; Liquid Temperature：23.2 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2450 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 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) = 4.37 W/kg

Pin=50mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.07 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 5.51 W/kg
SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.22 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.45 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: 2021/01/11

P01 WCDMA II_RMC12.2K_Top Side_9mm_Ch9262_P-Sensor_w_o

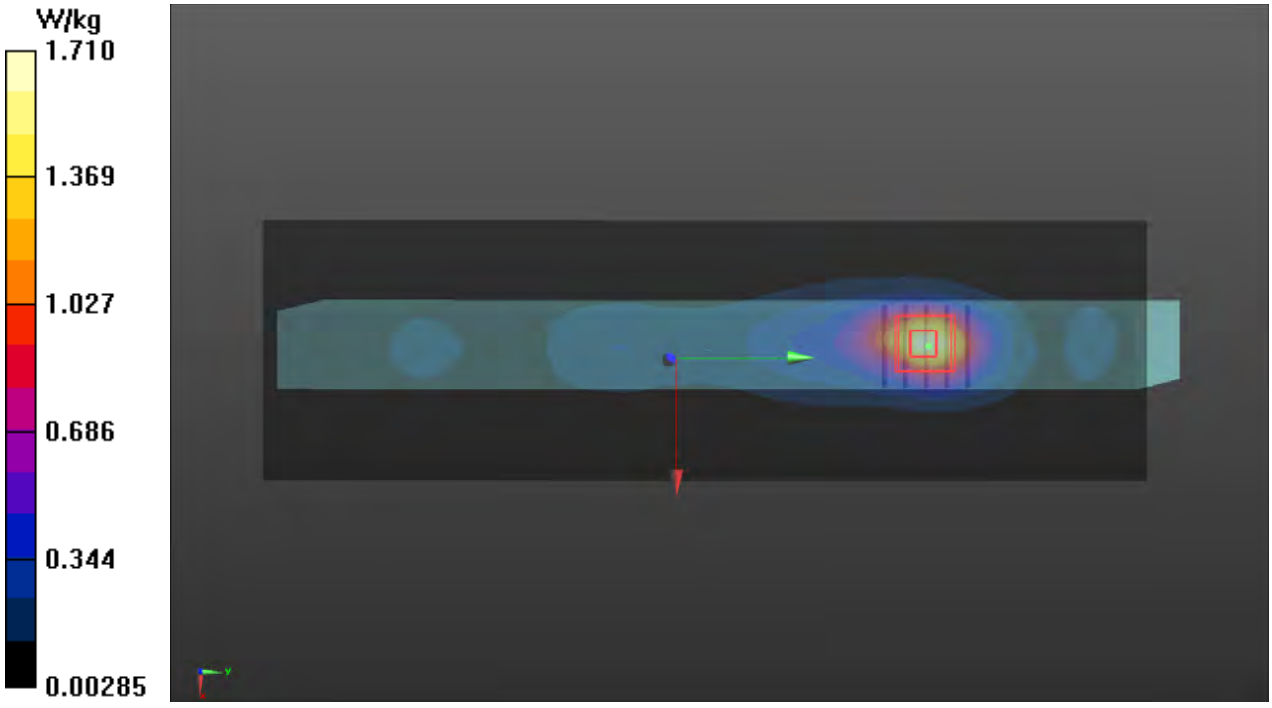
DUT: BASM-WTW-P20120917

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1852.4 MHz;Duty Cycle: 1:1.95
Medium: H16T20N3_0111 Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.424 S/m; ε_r = 39.292; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ； Liquid Temperature：23 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.98, 7.98, 7.98) @ 1852.4 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.71 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.61 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.08 W/kg
SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.638 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 11.2 mm
Ratio of SAR at M2 to SAR at M1 = 58.5%
Maximum value of SAR (measured) = 1.75 W/kg



P02 WCDMA IV_RMC12.2K_Top Side_0mm_Ch1513_P-Sensor_w

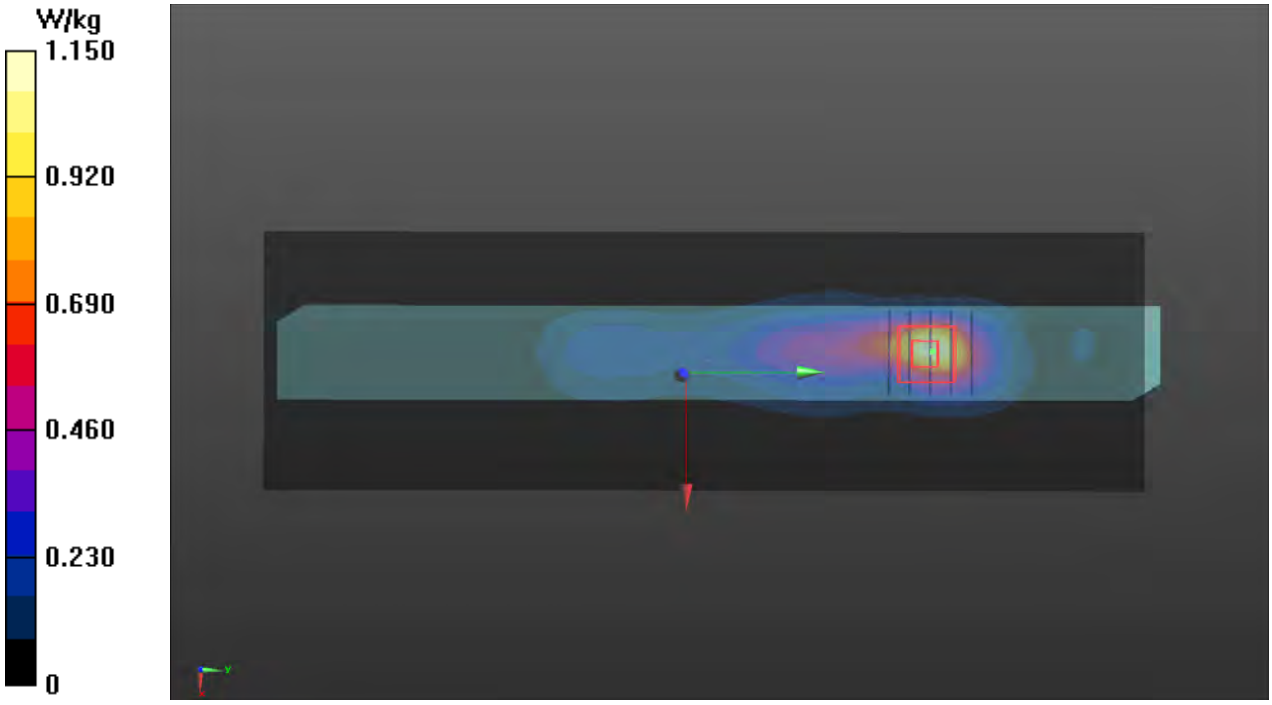
DUT: BASM-WTW-P20120917

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1752.6 MHz;Duty Cycle: 1:1.95
Medium: H16T20N3_0310 Medium parameters used: f = 1753 MHz; σ = 1.328 S/m; ε_r = 38.791; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.58, 8.58, 8.58) @ 1752.6 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.10 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 0.961 W/kg; SAR(10 g) = 0.479 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.6 mm
Ratio of SAR at M2 to SAR at M1 = 56%
Maximum value of SAR (measured) = 1.44 W/kg



P03 WCDMA V_RMC12.2K_Top Side_0mm_Ch4182_P-Sensor_w_o

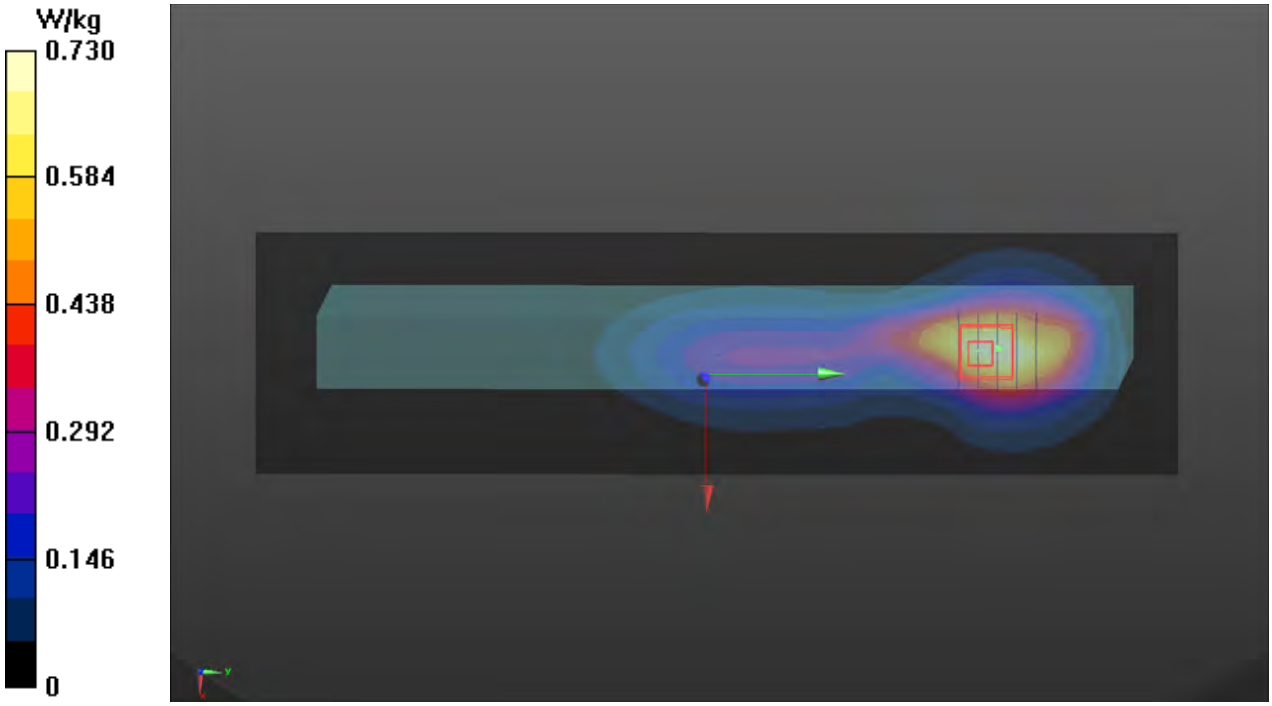
DUT: BASM-WTW-P20120917

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 846.6 MHz;Duty Cycle: 1:1.95
Medium: H07T10N1_0104 Medium parameters used: f = 847 MHz; σ = 0.938 S/m; ε_r = 41.814; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ； Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 846.6 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.730 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.46 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.628 W/kg; SAR(10 g) = 0.342 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.2 mm
Ratio of SAR at M2 to SAR at M1 = 49.1%
Maximum value of SAR (measured) = 0.985 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/10

P04 LTE 2_QPSK20M_Top Side_9mm_Ch19100_1RB_OS0_P-Sensor_w_o

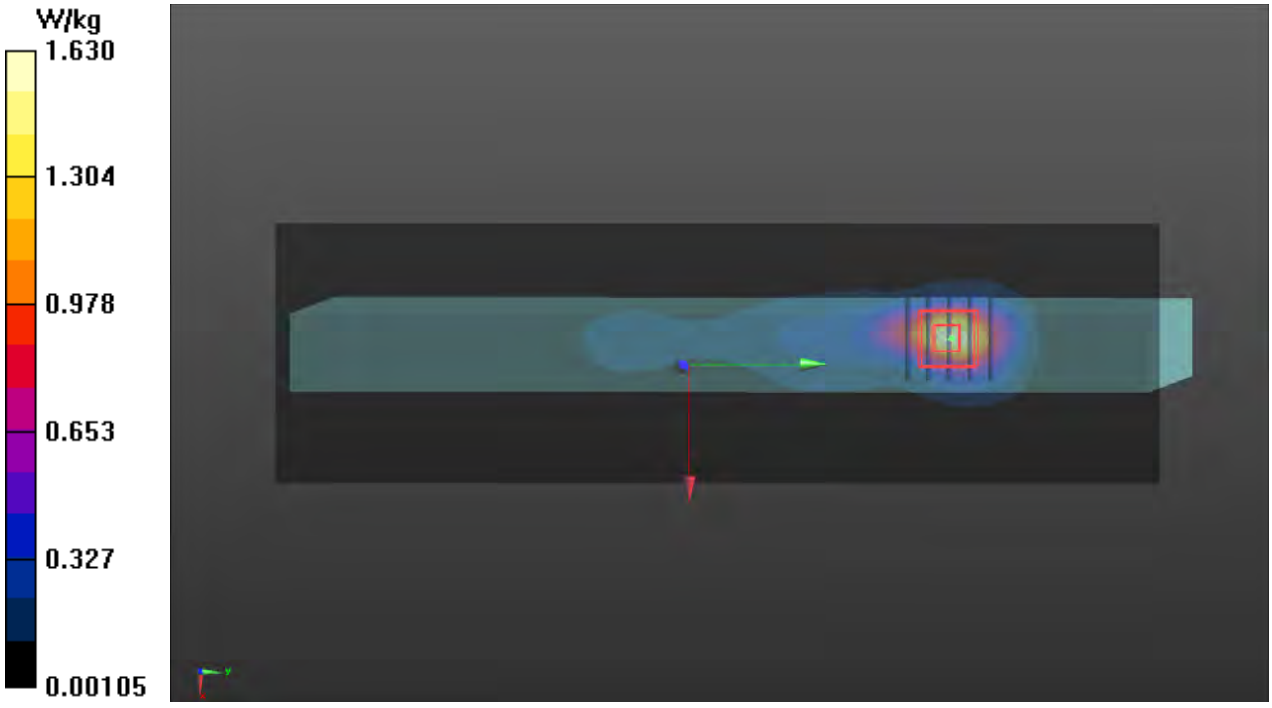
DUT: BASM-WTW-P20120917

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1900 MHz;Duty Cycle: 1:3.74
Medium: H16T20N3_0310 Medium parameters used: f = 1900 MHz; σ = 1.461 S/m; ε_r = 38.169; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃； Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x231x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.63 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.28 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.557 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 10.7 mm
Ratio of SAR at M2 to SAR at M1 = 56.6%
Maximum value of SAR (measured) = 1.64 W/kg



P05 LTE 4_QPSK20M_Top Side_0mm_Ch20300_1RB_OS0_P-Sensor_w

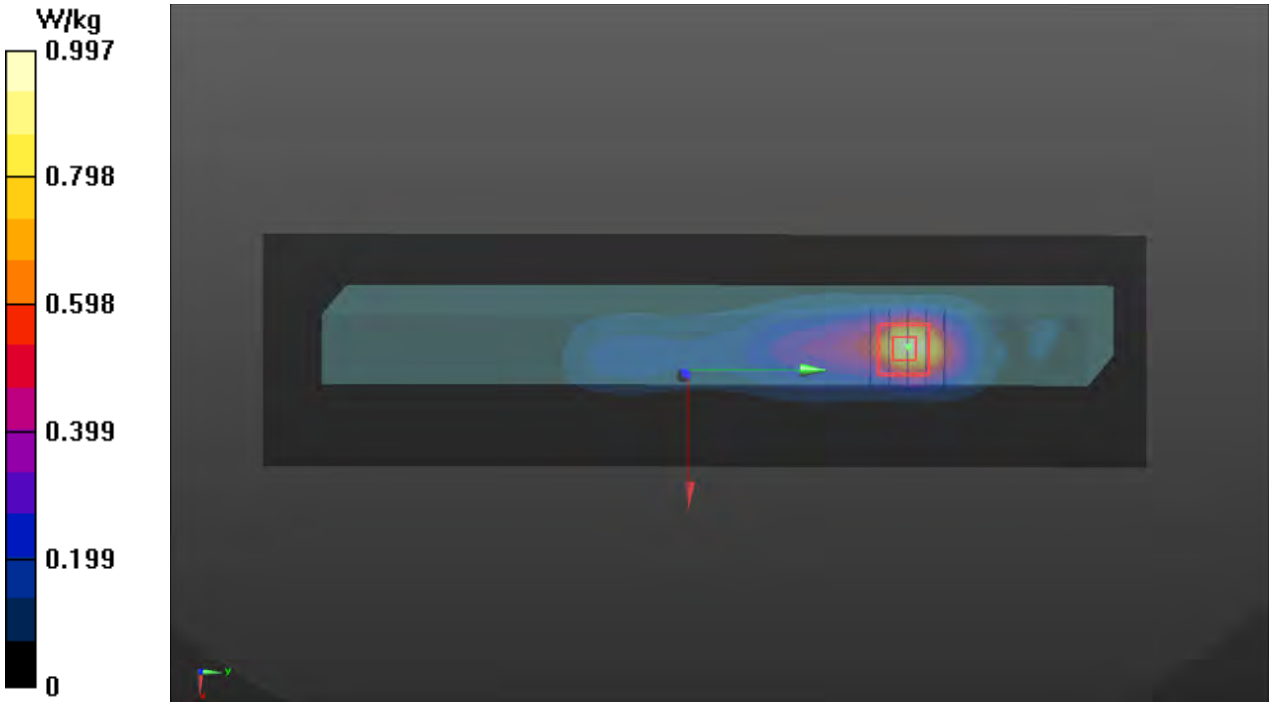
DUT: BASM-WTW-P20120917

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1745 MHz;Duty Cycle: 1:3.74
Medium: H16T20N1_0303 Medium parameters used (interpolated): f = 1745 MHz; σ = 1.324 S/m;
ε_r = 40.518; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ； Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.64, 8.64, 8.64) @ 1745 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.997 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.19 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.970 W/kg; SAR(10 g) = 0.492 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.1 mm
Ratio of SAR at M2 to SAR at M1 = 59.7%
Maximum value of SAR (measured) = 1.40 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/01/04

P06 LTE 5_QPSK10M_Top Side_0mm_Ch20450_1RB_OS0_P-Sensor_w_o

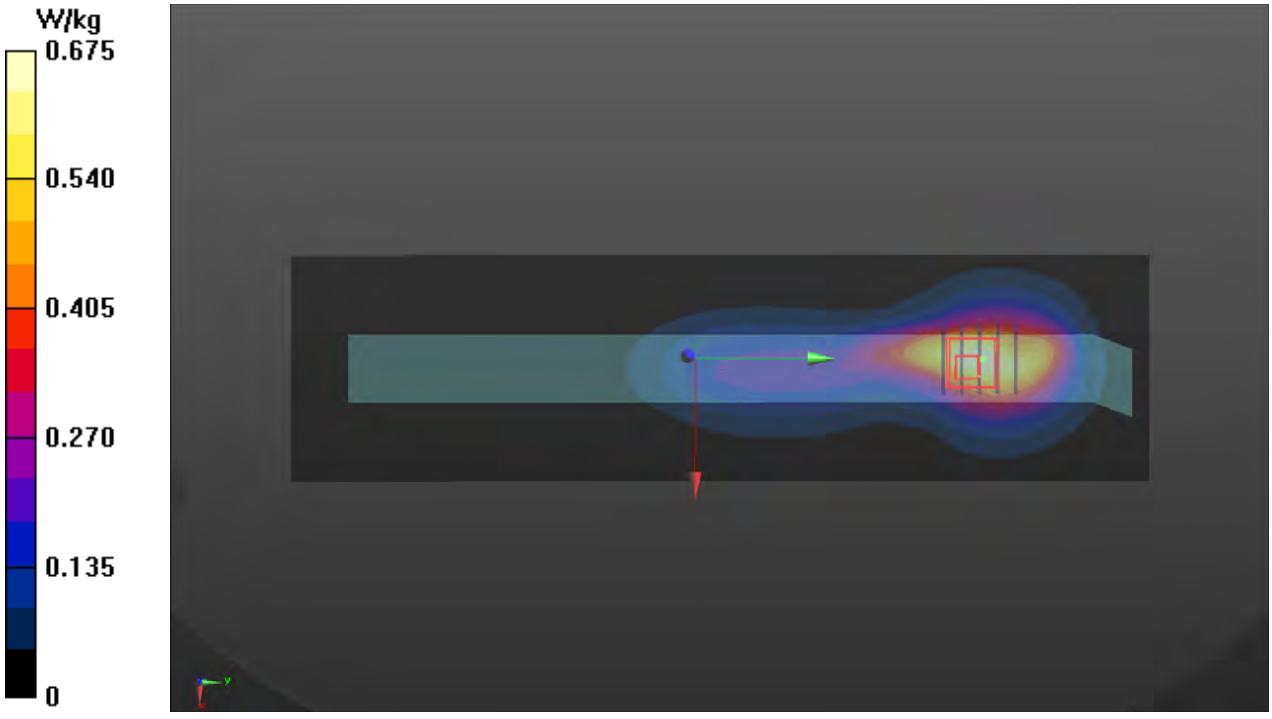
DUT: BASM-WTW-P20120917

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 829 MHz;Duty Cycle: 1:3.74
Medium: H07T10N1_0104 Medium parameters used: f = 829 MHz; σ = 0.922 S/m; ε_r = 42.026; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 829 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.675 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.59 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.590 W/kg; SAR(10 g) = 0.321 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 44.1%
Maximum value of SAR (measured) = 0.898 W/kg



P07 LTE 7_QPSK20M_Top Side_0mm_Ch20850_1RB_OS0_P-Sensor_w

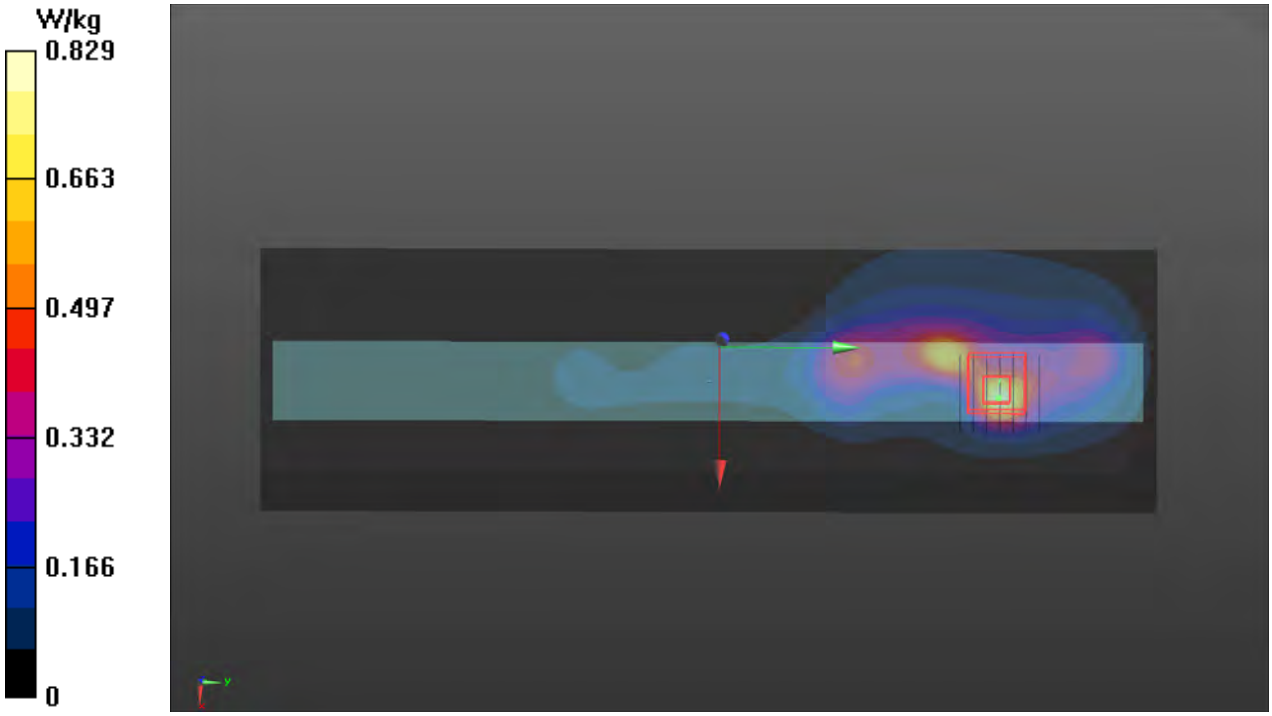
DUT: BASM-WTW-P20120917

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2510 MHz;Duty Cycle: 1:3.74
Medium: H19T27N3_0111 Medium parameters used: f = 2510 MHz; σ = 1.918 S/m; ε_r = 38.268; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃ ; Liquid Temperature：23 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.21, 7.21, 7.21) @ 2510 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.829 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.56 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 0.816 W/kg; SAR(10 g) = 0.338 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6 mm
Ratio of SAR at M2 to SAR at M1 = 41.5%
Maximum value of SAR (measured) = 1.46 W/kg



P08 LTE 12_QPSK10M_Top Side_0mm_Ch23060_1RB_OS0_P-Sensor_w

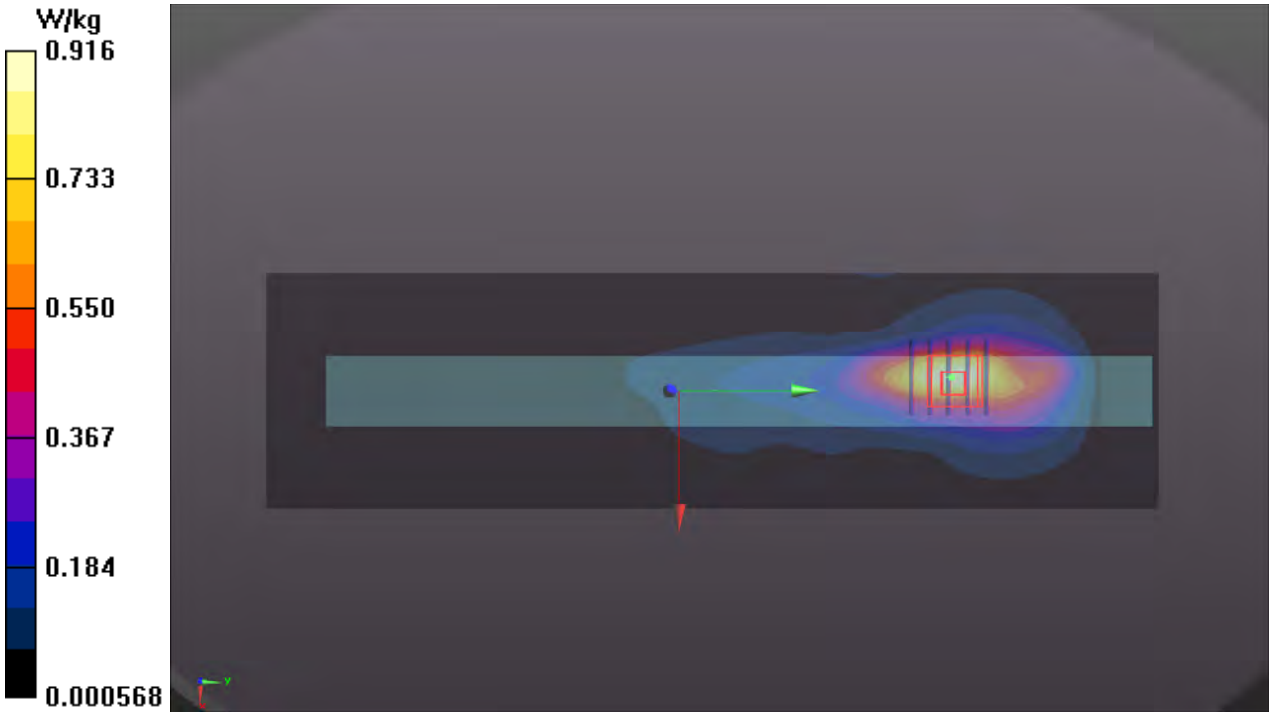
DUT: BASM-WTW-P20120917

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 704 MHz;Duty Cycle: 1:3.74
Medium: H06T09N1_0106 Medium parameters used: f = 704 MHz; σ = 0.849 S/m; ε_r = 43.458; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ; Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(10.6, 10.6, 10.6) @ 704 MHz; Calibrated: 2020/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2020/06/22
- Phantom: ELI Phantom_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.916 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.97 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.775 W/kg; SAR(10 g) = 0.424 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 51.8%
Maximum value of SAR (measured) = 1.10 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/01/04

P09 LTE 13_QPSK10M_Top Side_0mm_Ch23230_1RB_OS49_P-Sensor_w_o

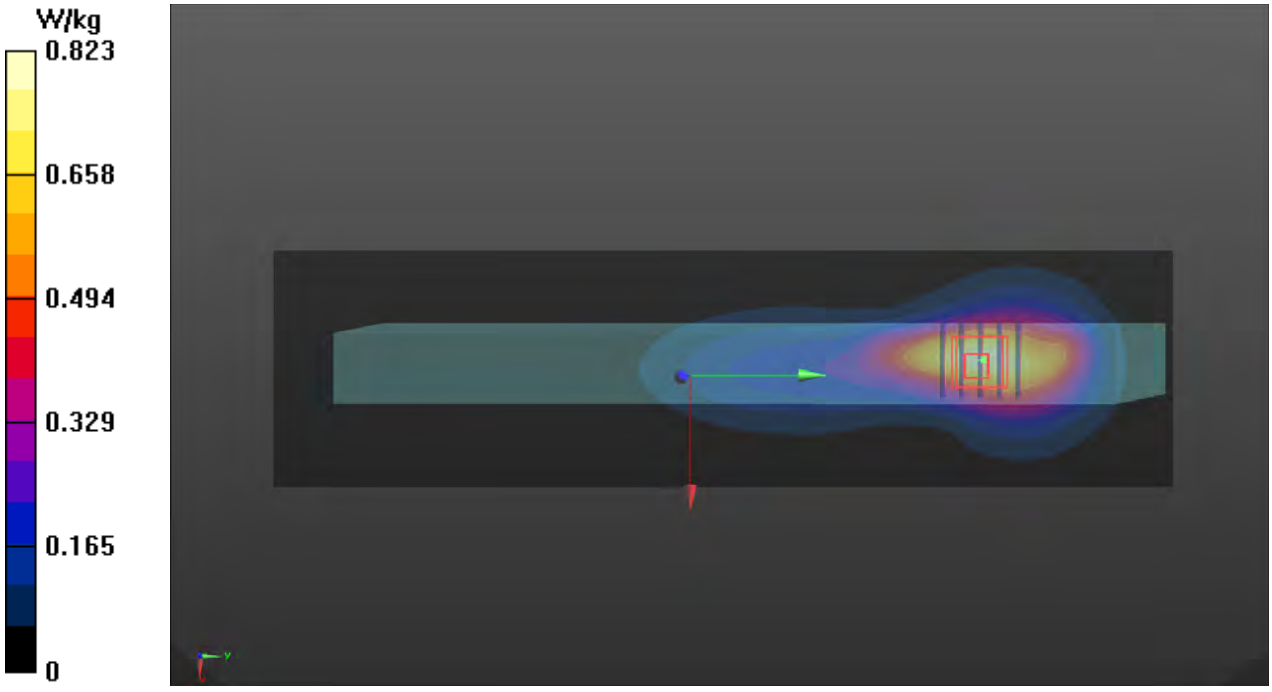
DUT: BASM-WTW-P20120917

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 782 MHz;Duty Cycle: 1:3.74
Medium: H06T09N1_0104 Medium parameters used: f = 782 MHz; σ = 0.921 S/m; ε_r = 40.574; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.49, 9.49, 9.49) @ 782 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.823 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.47 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.52 W/kg
SAR(1 g) = 0.669 W/kg; SAR(10 g) = 0.366 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 = 51.7%
Maximum value of SAR (measured) = 1.00 W/kg



P10 LTE 14_QPSK10M_Top Side_0mm_Ch23330_1RB_OS49_P-Sensor_w_o

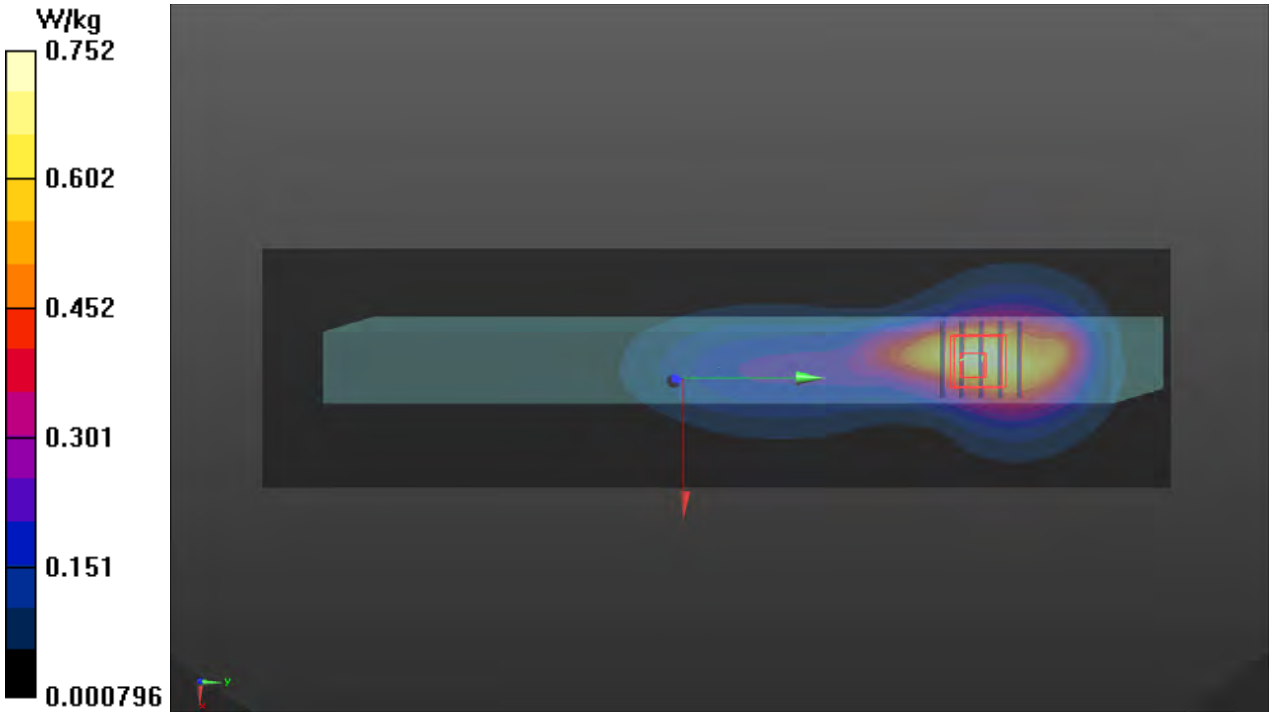
DUT: BASM-WTW-P20120917

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK);
Frequency: 793 MHz;Duty Cycle: 1:3.74
Medium: H06T09N1_0104 Medium parameters used: f = 793 MHz; σ = 0.931 S/m; ε_r = 40.43; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.49, 9.49, 9.49) @ 793 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.752 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.23 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.640 W/kg; SAR(10 g) = 0.352 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.6 mm
Ratio of SAR at M2 to SAR at M1 = 51.3%
Maximum value of SAR (measured) = 0.976 W/kg



P11 LTE 26_QPSK15M_Top Side_0mm_Ch26765_1RB_OS0_P-Sensor_w_o

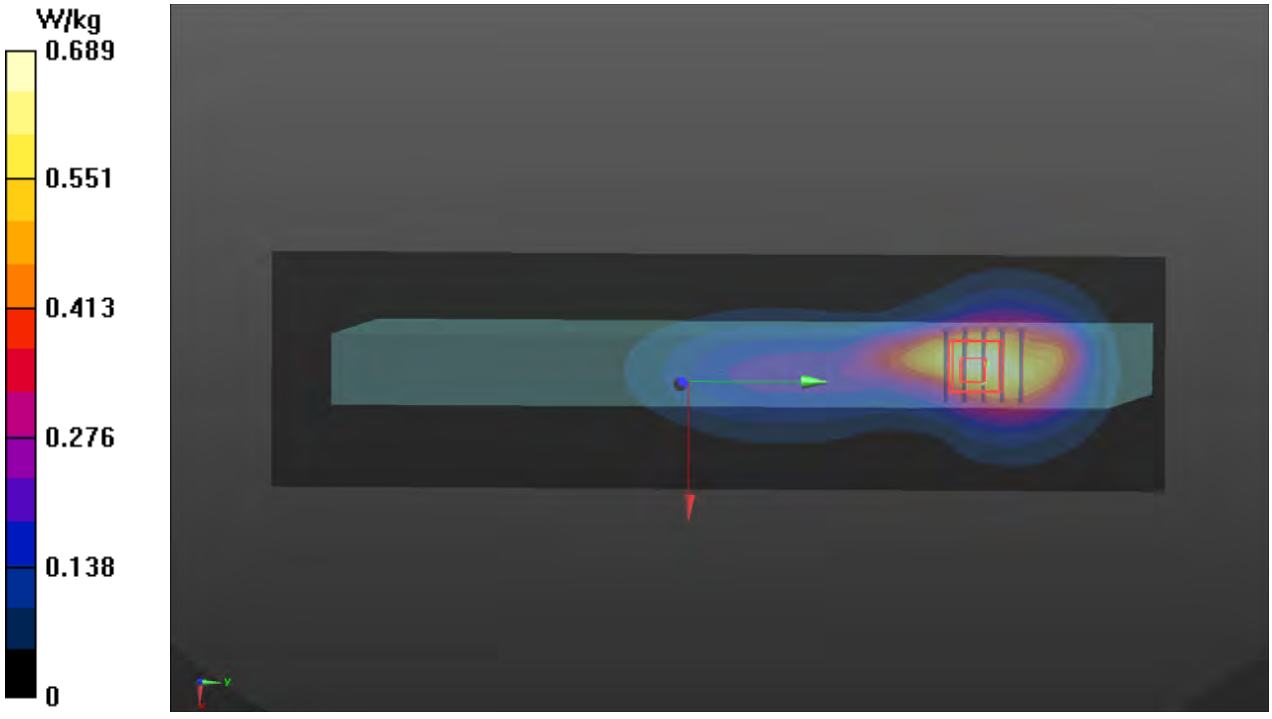
DUT: BASM-WTW-P20120917

Communication System: UID 10181 - CAE, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK);
Frequency: 821.5 MHz;Duty Cycle: 1:3.74
Medium: H07T10N1_0104 Medium parameters used (interpolated): f = 821.5 MHz; σ = 0.915 S/m;
ε_r = 42.137; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.2, 9.2, 9.2) @ 821.5 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.689 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.37 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.610 W/kg; SAR(10 g) = 0.332 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 44.7%
Maximum value of SAR (measured) = 0.907 W/kg



P12 LTE 41_QPSK20M_Top Side_0mm_Ch41490_1RB_OS0_P-Sensor_w_o

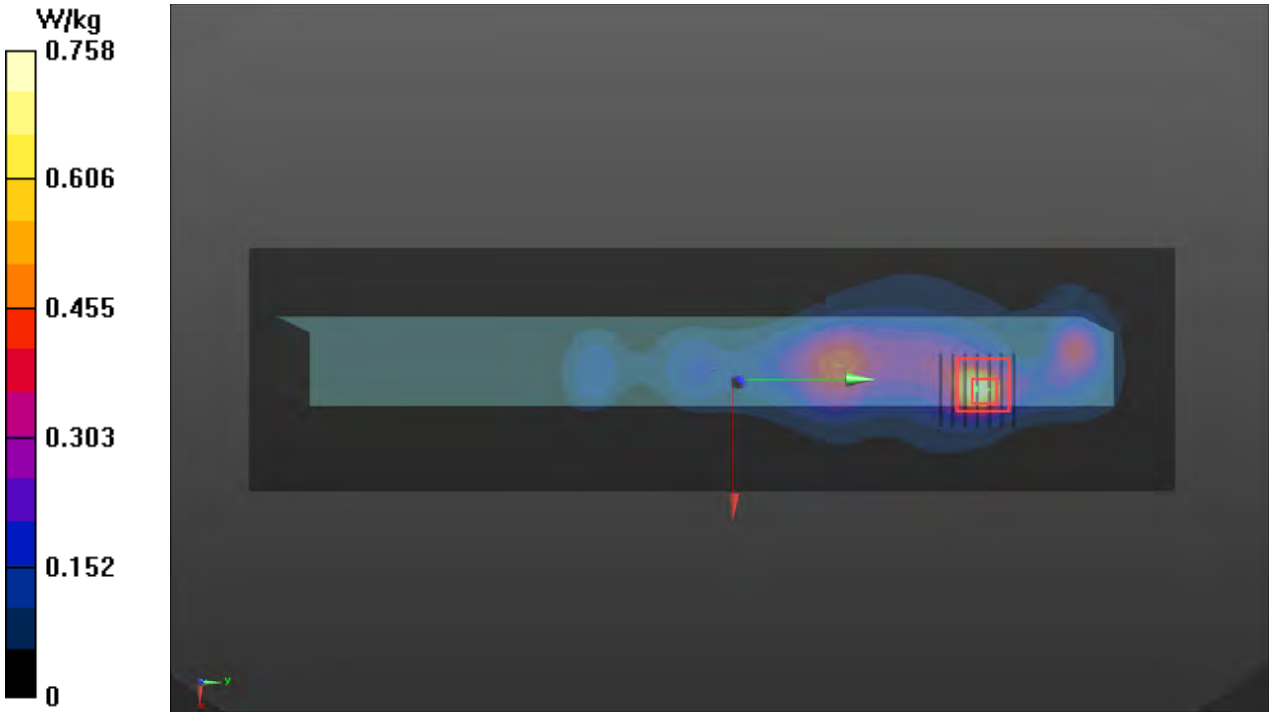
DUT: BASM-WTW-P20120917

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2680 MHz;Duty Cycle: 1:8.33
Medium: H19T27N3_0104 Medium parameters used: f = 2680 MHz; σ = 2.058 S/m; ε_r = 38.155; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.1 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.21, 7.21, 7.21) @ 2680 MHz; Calibrated: 2020/10/22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2020/03/18
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax; Serial: 1043
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x321x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.758 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.55 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.175 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 41.1%
Maximum value of SAR (measured) = 0.805 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/03/03

P13 LTE 66_QPSK20M_Top Side_0mm_Ch132572_1RB_OS0_P-Sensor_w

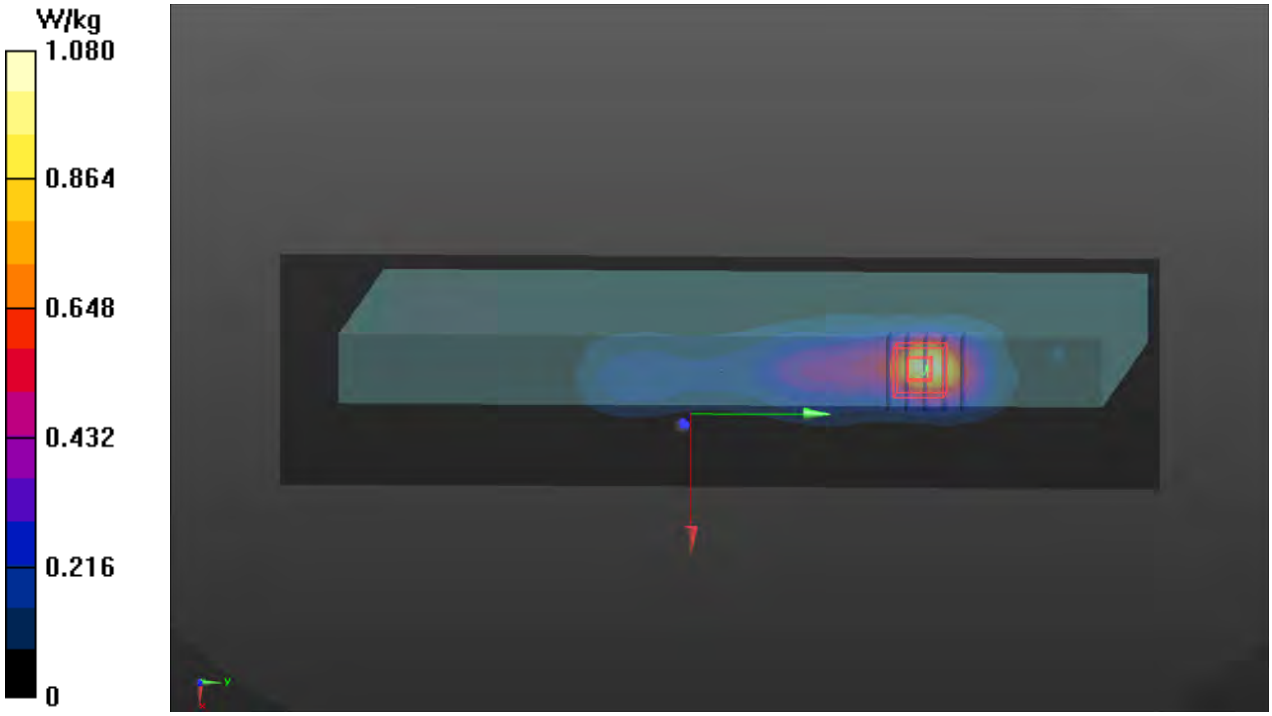
DUT: BASM-WTW-P20120917

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 1770 MHz;Duty Cycle: 1:3.74
Medium: H16T20N3_0303 Medium parameters used: f = 1770 MHz; σ = 1.344 S/m; ε_r = 40.378; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃ ; Liquid Temperature：23.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(8.64, 8.64, 8.64) @ 1770 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x261x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.49 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.533 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.2 mm
Ratio of SAR at M2 to SAR at M1 = 59.1%
Maximum value of SAR (measured) = 1.54 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/02/20

P14 WLAN2.4G_802.11b_Left Side_0mm_Ch1_Ant0

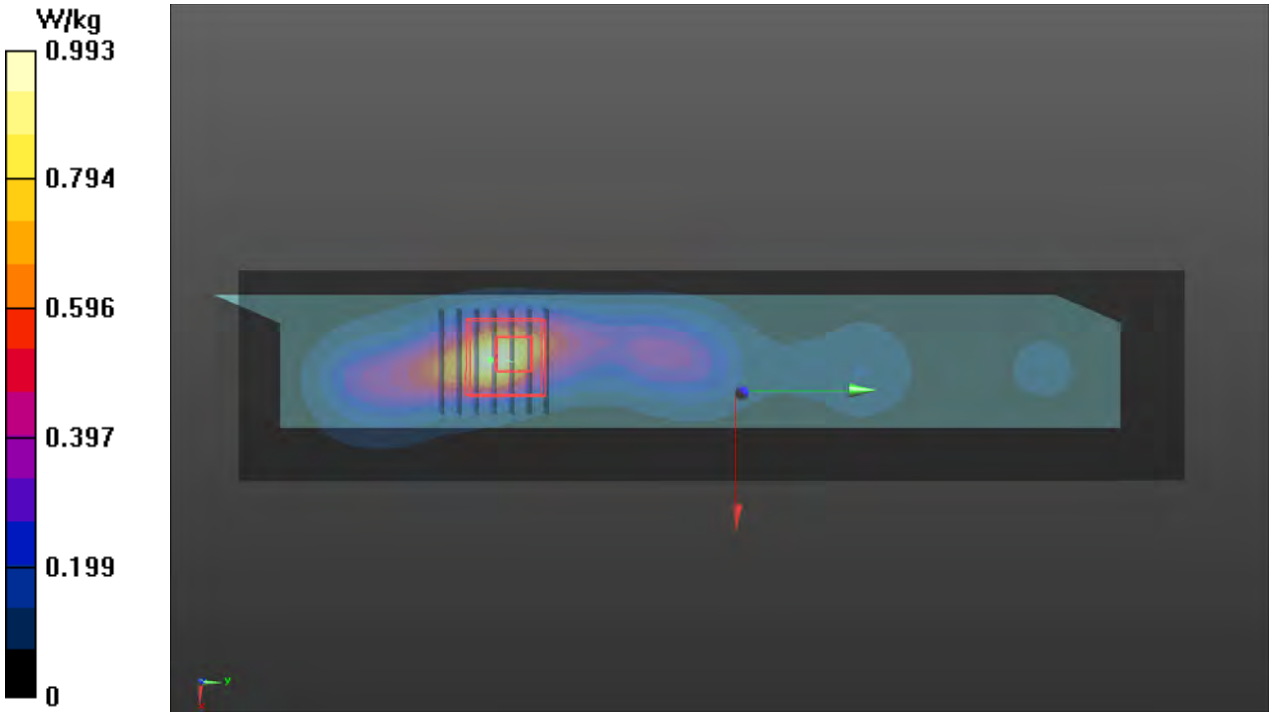
DUT: BASM-WTW-P20120917

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps);
Frequency: 2412 MHz;Duty Cycle: 1:1.01
Medium: H19T27N1_0220 Medium parameters used: f = 2412 MHz; σ = 1.827 S/m; ε_r = 39.24; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ; Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2412 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x231x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.993 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.57 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.709 W/kg; SAR(10 g) = 0.315 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 6.7 mm
Ratio of SAR at M2 to SAR at M1 = 49.1%
Maximum value of SAR (measured) = 1.18 W/kg



P15 WLAN5.2G_802.11ac VHT80_Left Side_0mm_Ch42_Ant0

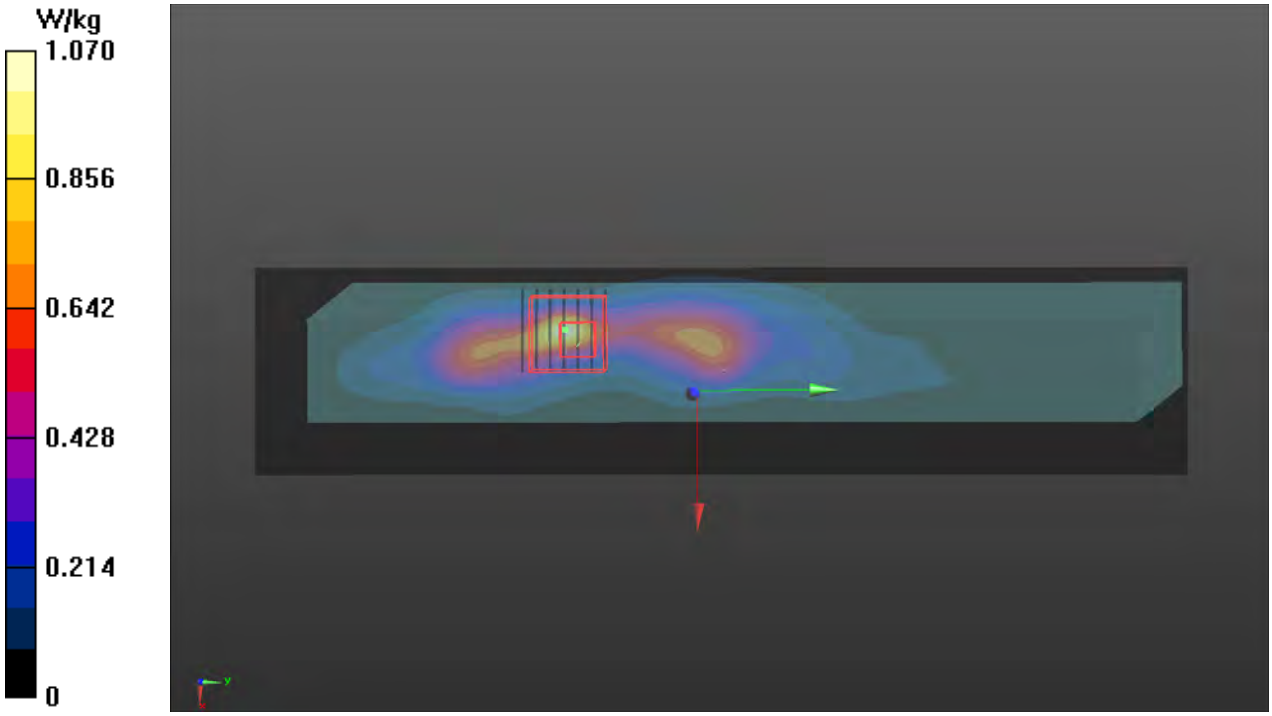
DUT: BASM-WTW-P20120917

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5210 MHz;Duty Cycle: 1:1.01
Medium: H34T60N1_0220 Medium parameters used: f = 5210 MHz; σ = 4.519 S/m; ε_r = 36.429; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ; Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(5.12, 5.12, 5.12) @ 5210 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (61x271x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.07 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.73 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.14 W/kg
SAR(1 g) = 0.695 W/kg; SAR(10 g) = 0.181 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 63.4%
Maximum value of SAR (measured) = 1.70 W/kg



P16 WLAN5.6G_802.11ac VHT160_Right Side_0mm_Ch114_Ant1

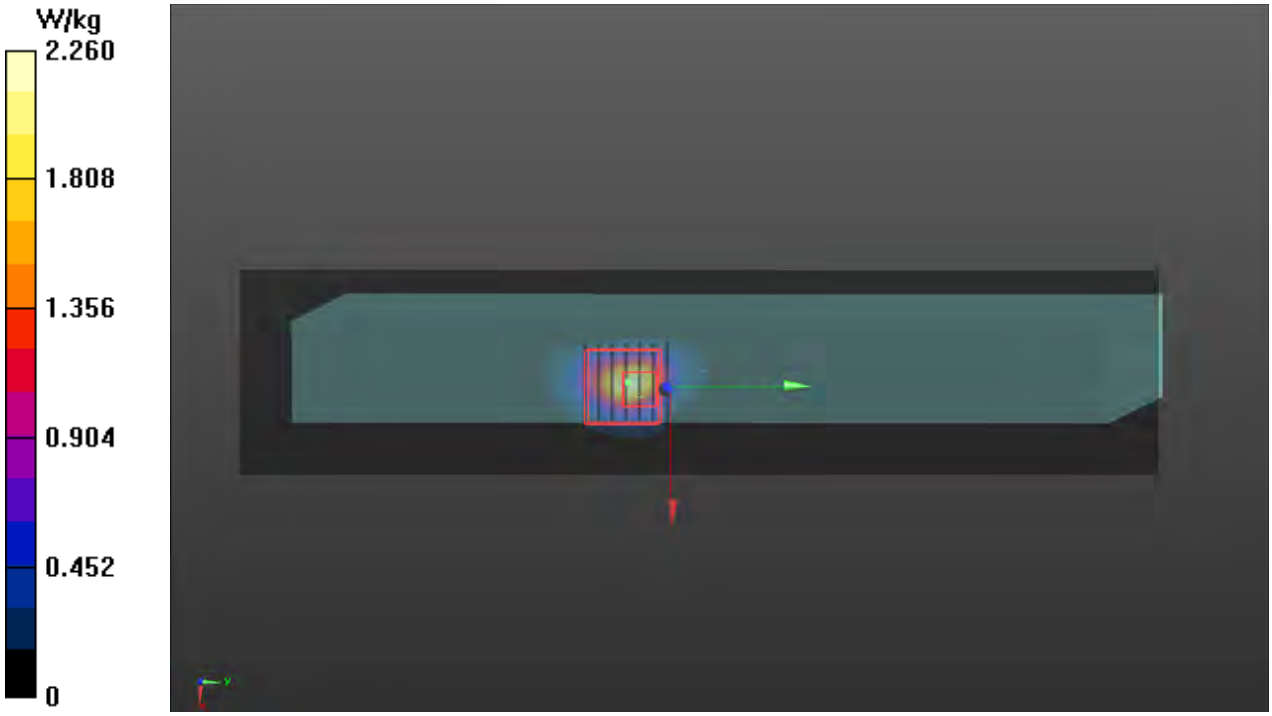
DUT: BASM-WTW-P20120917

Communication System: UID 10554 - AAD, IEEE 802.11ac WiFi (160MHz, MCS0); Frequency: 5570 MHz;Duty Cycle: 1:1.02
Medium: H34T60N1_0316 Medium parameters used (interpolated): f = 5570 MHz; σ = 4.881 S/m; ε_r = 36.199; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(4.9, 4.9, 4.9) @ 5570 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (61x271x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.26 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.62 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 5.09 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.210 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 64.3%
Maximum value of SAR (measured) = 2.74 W/kg



P17 WLAN5.8G_802.11ac VHT80_Right Side_0mm_Ch155_Ant1

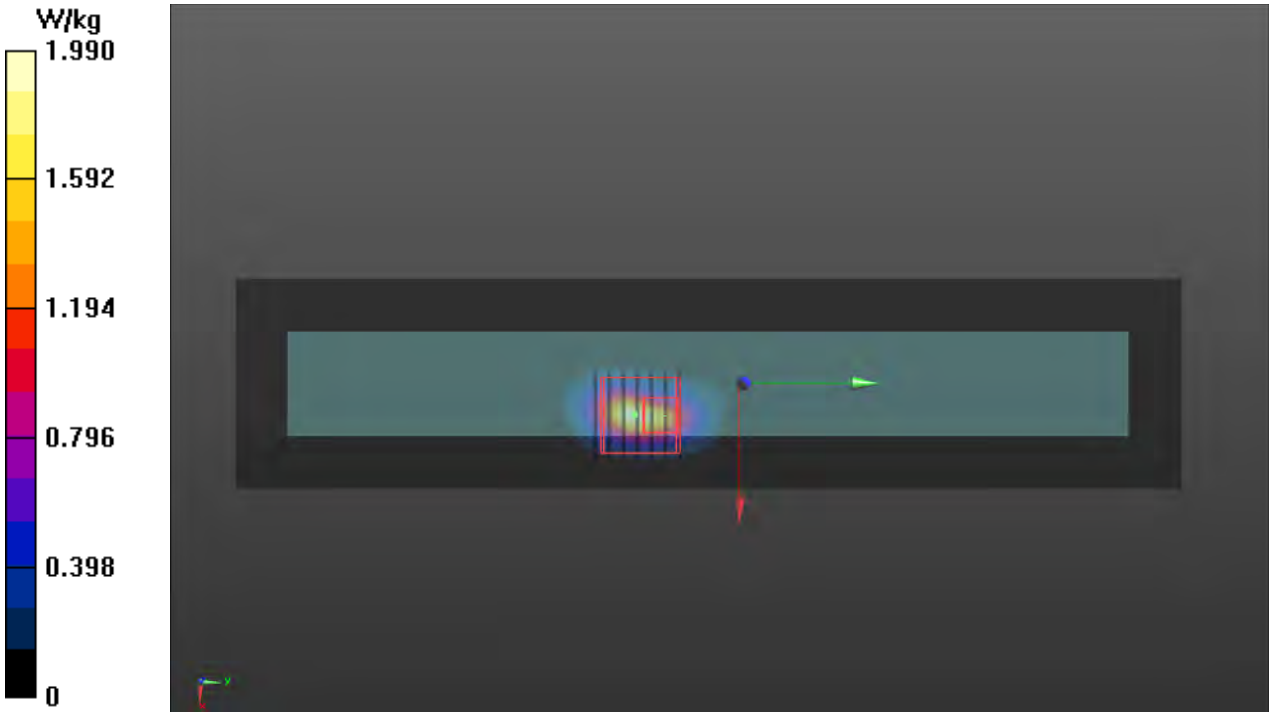
DUT: BASM-WTW-P20120917

Communication System: UID 10544 - AAC, IEEE 802.11ac WiFi (80MHz, MCS0); Frequency: 5775 MHz;Duty Cycle: 1:1.01
Medium: H34T60N1_0315 Medium parameters used: f = 5775 MHz; σ = 5.026 S/m; ε_r = 36.278; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃ ; Liquid Temperature：23.4 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3971; ConvF(4.95, 4.95, 4.95) @ 5775 MHz; Calibrated: 2021/01/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2021/01/19
- Phantom: ELI Phantom_1245; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (61x271x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.99 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.53 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 4.65 W/kg
SAR(1 g) = 0.911 W/kg; SAR(10 g) = 0.216 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 62%
Maximum value of SAR (measured) = 2.74 W/kg



Test Laboratory: Bureau Veritas ADT SAR/HAC Testing Lab Date: 2021/02/20

P18 BT_BDR_Right Side_0mm_Ch78_Ant1

DUT: BASM-WTW-P20120917

Communication System: UID 10032 - CAA, IEEE 802.15.1 Bluetooth (GFSK, DH5); Frequency: 2480 MHz;Duty Cycle: 1:1.3
Medium: H19T27N1_0220 Medium parameters used: f = 2480 MHz; σ = 1.901 S/m; ε_r = 39.017; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃ ; Liquid Temperature：23.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN7554; ConvF(7.41, 7.41, 7.41) @ 2480 MHz; Calibrated: 2020/09/28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1590; Calibrated: 2020/09/15
- Phantom: ELI Phantom_1043_P1aP2a; Type: QD OVA 002 Ax;
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x271x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.203 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.32 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.978 W/kg
SAR(1 g) = 0.263 W/kg; SAR(10 g) = 0.117 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 5.8 mm
Ratio of SAR at M2 to SAR at M1 = 41.1%
Maximum value of SAR (measured) = 0.728 W/kg