TEST REPORT

Applicant:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address:	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China
Equipment Type:	Mobile Phone
Model Name:	CPH2385
Brand Name:	OPPO
FCC ID:	R9C-AA341
Test Standard:	FCC 47 CFR Part 2.1093 (refer section 3.1)
Maximum SAR:	Head (1 g): 0.82 W/kg Body (1 g): 0.84 W/kg Hotspot (1 g): 1.09 W/kg Specific (10 g): 1.09 W/kg
Test Date:	Mar. 29, 2022 – May 06, 2022
Date of Issue:	May 13, 2022

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xu Rui **Checked by:** Zong Liyao **Approved by:** Wei Yanquan (Chief Engineer)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	May 13, 2022	Initial Issue

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
Description	All measurement facilities used to collect the measurement data are located at Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China

2.2 Manufacturer Information

Manufacturer	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China

2.3 Factory Information

Factory	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City, Guangdong, China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	CPH2385
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	11
Software Version	ColorOS V12.1
Dimensions (Approx.)	163.74x75.03x7.99mm
Weight (Approx.)	190g(with battery)
EUT ID	S03; S04; S05
IMEI Number	S03: 864471060025853
	S04: 864471060023015
	S05: 864471060023312
Note1: EUT ID is used to identify the test sample in the lab internally. Note2: It is performed to test SAR with the EUT S04&05 and conducted power with the EUT S03.	

2.5 Ancillary Equipment

Ancillary Equipment 1	Li-Polymer Battery 1	
	Brand Name	SUPERVOOC
	Model No.	BLP923
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
	Manufacturer	Dongguan NVT Technology Co., Ltd
Ancillary Equipment 2	Li-Polymer Battery 2	
	Brand Name	SUPERVOOC
	Model No.	BLP923
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87V
	Limited Voltage	4.45 V
	Manufacturer	Chongqing CosMX Battery Co., Ltd.
Ancillary Equipment 3	Li-Polymer Battery 3	
	Brand Name	SUPERVOOC
	Model No.	BLP923
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87V
	Limited Voltage	4.45 V
	Manufacturer	TWS Technology (Guangzhou) Limited
Ancillary Equipment 4	Li-Polymer Battery 4	
	Brand Name	SUPERVOOC
	Model No.	BLP923
	Serial No.	N/A
	Capacitance	Rated: 4880mAh/18.88Wh Typical: 5000mAh/19.35Wh
	Rated Voltage	3.87V
	Limited Voltage	4.45 V
	Manufacturer	PT. Battery Technology Indonesia
Ancillary Equipment 5	Headset	
	Model No.	MH156
	Length (Approx.)	1.2 m
Note: The EUT has four Batterys, they are same with electrical parameters, but only differ in Manufacturer and battery cell. By comparing the test data of four Batteries, battery 1 can produce a		

more conservative SAR values. The battery of the Manufacturer is Dongguan NVT Technology Co., Ltd as the main for test in this report.

2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 5 4G Network FDD LTE Band 5/7 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40) and VHT20/40 5G WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, GLONASS, BDS, Galileo, SBAS, NFC
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	802.11b/g /n(HT20/HT40)	2412 ~ 2462 MHz	
	802.11ac (VHT20/40)	2412 ~ 2462 MHz	
	802.11a/ /n(HT20/HT40) /ac(VHT20/VHT40 /VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2402 ~ 2480 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		
EUT Stage	Portable Device		
Product	Type		

	☒ Production unit	☐ Identical prototype
Note: 1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for held-to-ear exposure conditions. 2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for near to body exposure conditions. 3. The reduction power details please refer section 8.6.		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	FCC KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	FCC KDB 941225 D06 v02r01	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
8	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	KDB 248227 D01 v02r02	SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters

Note: Compared with the EUT of test report BL-SZ2230843-701, the changes of the EUT of this report as below:

1. Different model name.
2. Update camera specification is 50M+2M.
3. Add the battery cover with leather material.

Therefore, only added the worst case sport check test data in section 11.11&11.12. and ANNEX A/B/C., others test data please refer to report BL-SZ2230843-701, which was issued by Shenzhen BALUN Technology Co., Ltd. on May 12, 2022.

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ ControlledExposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

3.3 Test Result Summary

3.3.1 Highest SAR (1 g Value)

Band	Maximum Scaled SAR (W/kg)			Maximum Report SAR (W/kg)		
	Head	Body-worn Accessory	Hotspot	Head	Body-worn Accessory	Hotspot
GSM 850	0.28	0.10	0.17	0.82	0.84	1.09
GSM 1900	0.39	0.12	0.27			
WCDMA Band 5	0.38	0.13	0.16			
LTE Band 5	0.32	0.16	0.15			
LTE Band 7	0.42	0.10	0.30			
LTE Band 38	0.30	0.16	0.41			
LTE Band 41	0.30	0.22	0.38			
2.4G WLAN	**0.82**	0.10	0.23			
5.2G WLAN	/	/	**1.09**			
5.3G WLAN	0.71	**0.84**	/			
5.6G WLAN	0.79	0.71	/			
5.8G WLAN	0.69	/	0.30			
Bluetooth	0.35	0.03	0.08			
Limit (W/kg)	1.6			1.6		
Verdict	PASS					

3.3.2 Highest Specific SAR (10 g Value)

Band	Maximum Scaled SAR (W/kg)	Maximum Report SAR (W/kg)
	Specific 10g	
5.3G WLAN	1.09	1.09
5.6G WLAN	0.82	
Limit (W/kg)	4.0	4.0
Verdict	Pass	

3.3.3 Highest Simultaneous SAR

Note: The highest simultaneous SAR please refer section 12.

3.4 Test Uncertainty

According to KDB 865664 D01, When the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.09 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.
The maximum 10 g SAR for the EUT in this report is 1.09 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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:

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

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

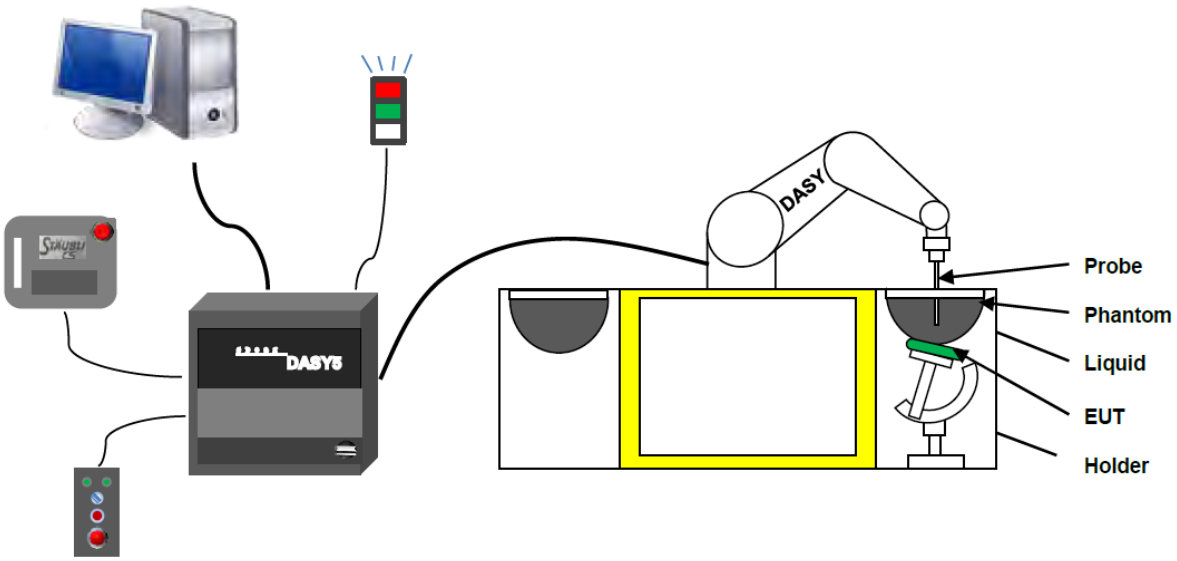
$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}\mathbf{E}^{2}}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:

- High precision
  (repeatability ±0.02 mm)
- High reliability
  (industrial design)
- Low maintenance costs
  (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
  (brush less synchron motors; no stepper motors)
- Low ELF interference
  (motor control _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7607 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection systemBuilt-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μW/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)

E-Field Probe Calibration Process

Probe calibration is realized, in compliance with CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1/2 annexe technique using reference guide at the five frequencies.

4.2.4 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:3717 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection systemBuilt-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μW/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
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E-Field Probe Calibration Process

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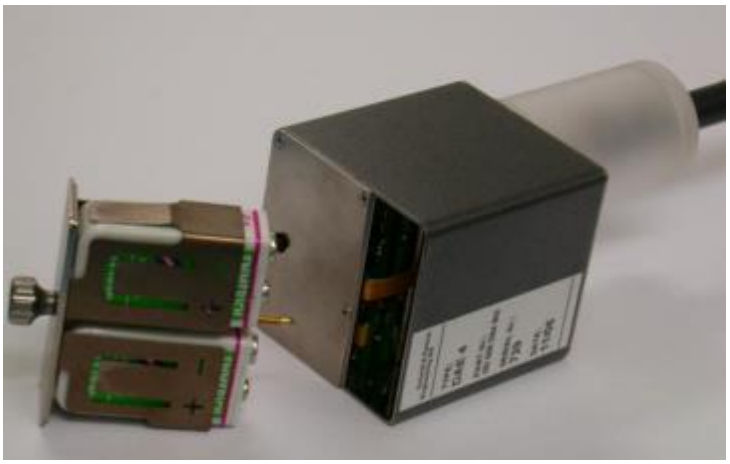
4.2.5 Data Acquisition Electronics

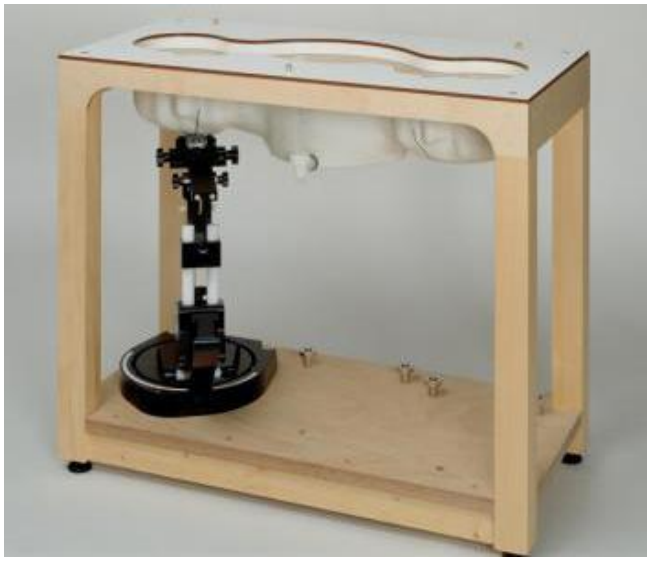
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200MOhm
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

4.2.6 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



- Left hand
- Right hand
- Flat phantom

Photo of Phantom SN1859

Serial Number	Material	Length	Height
SN 1859 SAM2	Vinylester, glass fiber reinforced	1000	500

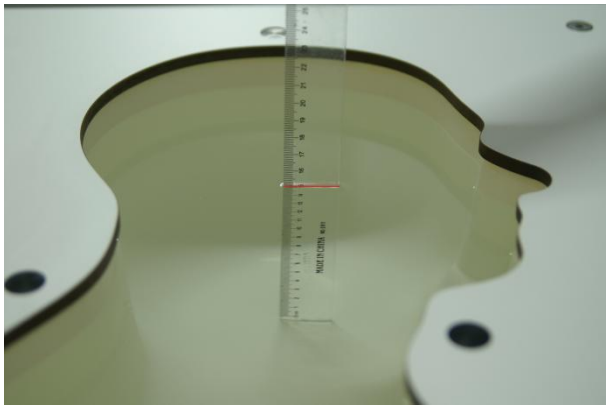
4.2.7 Device Holder

The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA"s only. If necessary an additional support of polystyrene material is used. Larger DUT"s (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1°.

4.2.8 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Head Liquid Depth	Body Liquid Depth
	

The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ε
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE			Salt		Conductivity	Permittivity

		(%)	(%)	σ (S/m)	ε
5200	78.60	21.40	/	5.54	47.86
5800	78.50	21.40	0.1	6.0	48.20

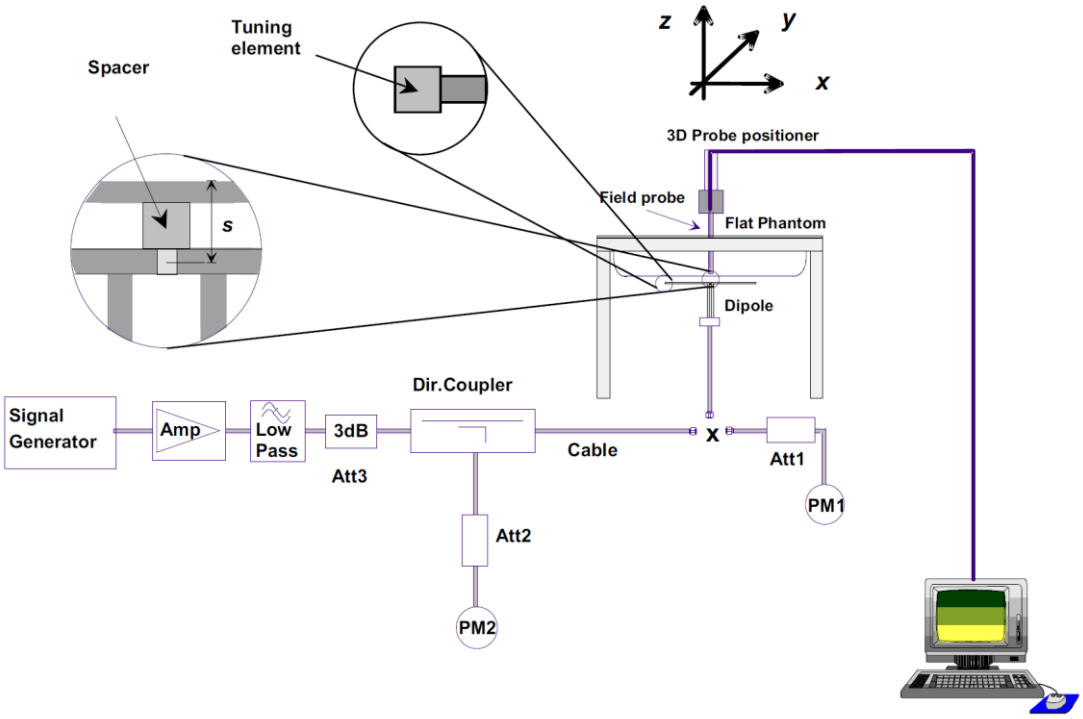
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source.This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

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

6.1 Head Exposure Conditions

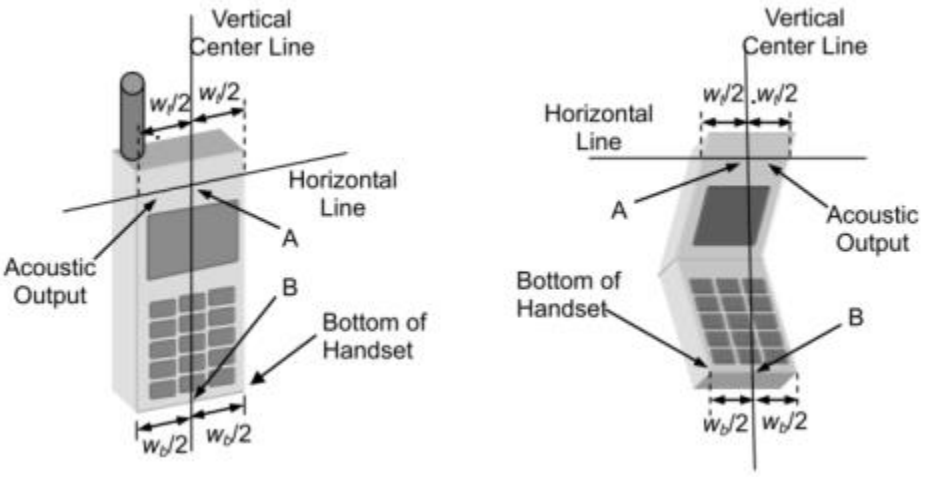
Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

6.1.1 Two Imaginary Lines on the Handset

(a) The vertical center line passes through two points on the front side of the handset - the midpoint of the width w t of the handset at the level of the acoustic output, and the midpoint of the width w b of the bottom of the handset.

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

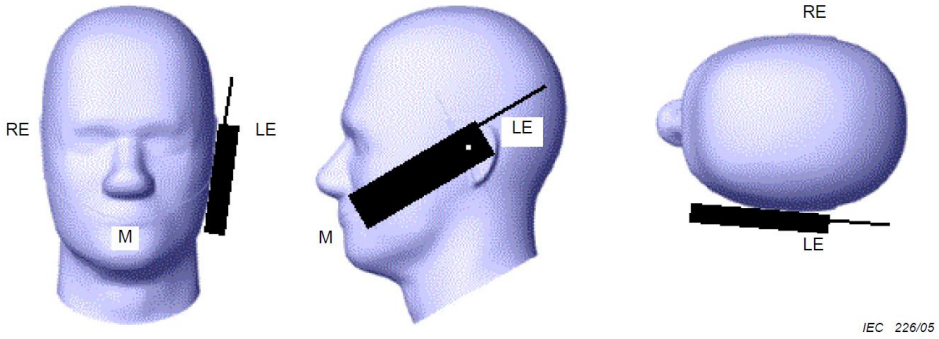
(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical center line is not necessarily parallel to the front face of the handset,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



6.1.2 Cheek Position

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

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



6.1.3 Tilted Position

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

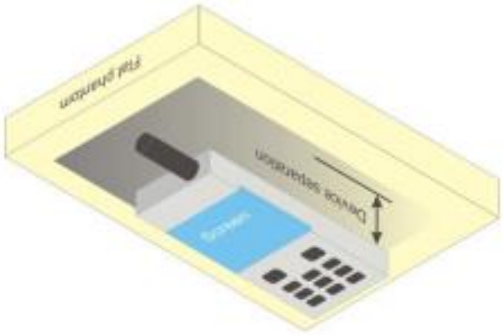
(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.

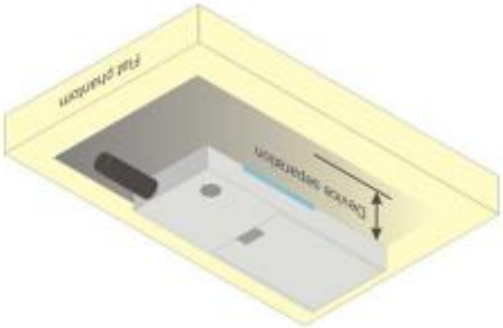
6.2 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

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

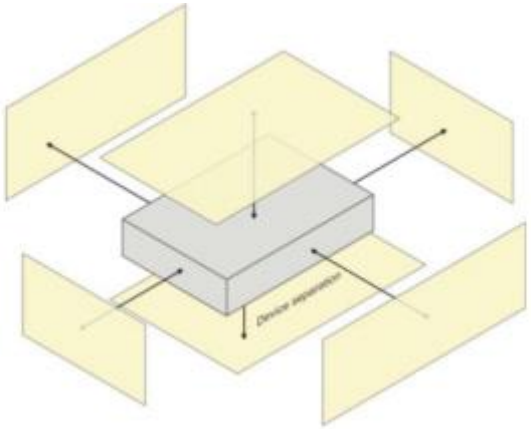
Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance <= 5 mm to support compliance.





6.3 Hotspot Mode Exposure Position Conditions

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



6.4 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

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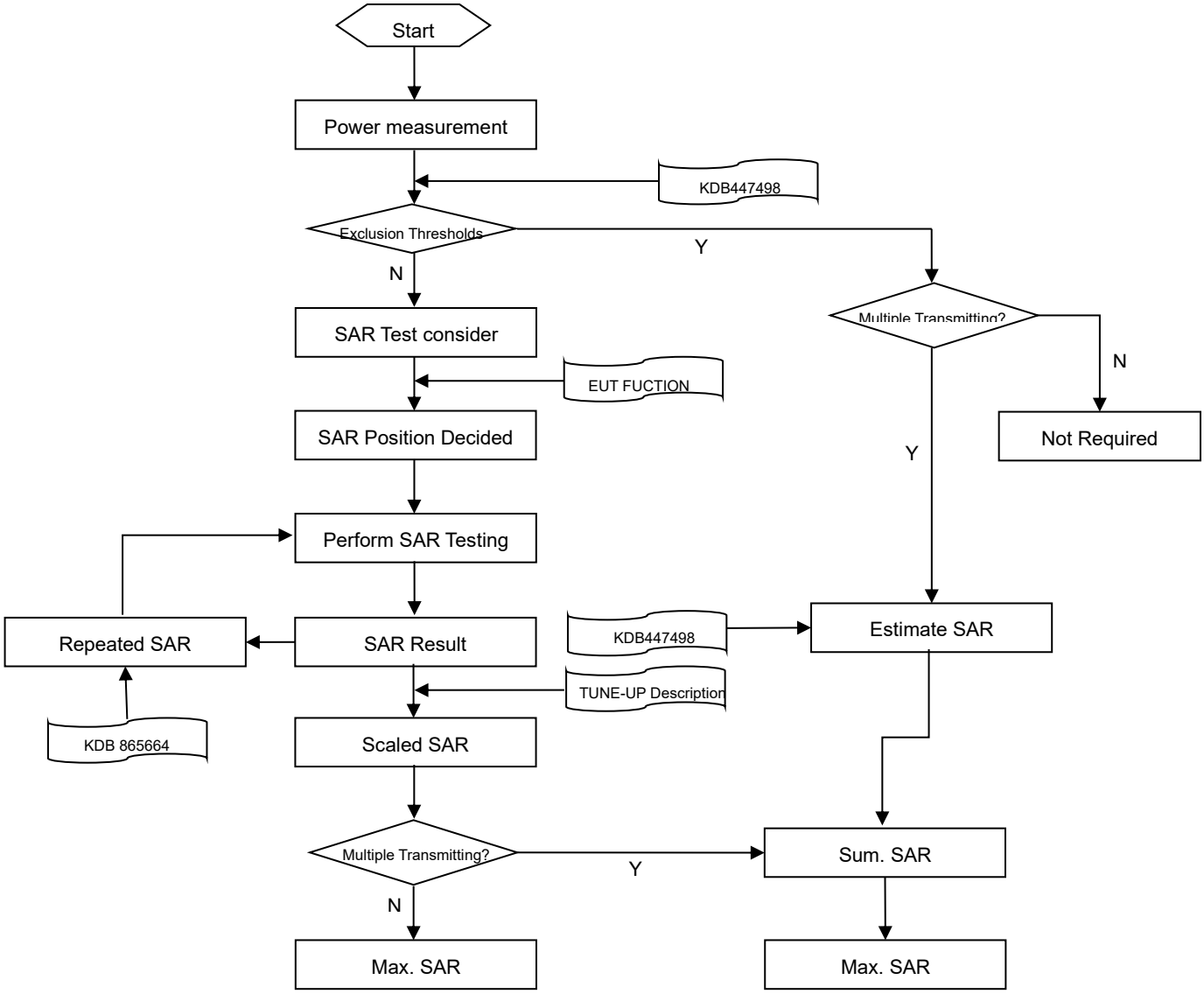
7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Boththe probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

<table>
<tr><th colspan="3"></th><th>≤3GHz</th><th>>3GHz</th></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5±1 mm</td><td>½·δ·ln(2)±0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30°±1°</td><td>20°±1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx Area , Δy Area</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3–4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom</td><td>≤ 2 GHz: ≤ 8 mm
2 –3 GHz: ≤ 5 mm*</td><td>3–4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="7">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2" rowspan="3">uniform grid: Δz Zoom (n)</td><td rowspan="3">≤ 5 mm</td><td>3–4 GHz: ≤ 4 mm</td></tr>
<tr><td>4–5 GHz: ≤ 3 mm</td></tr>
<tr><td>5–6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="4">graded grid</td><td rowspan="3">Δz Zoom (1): between 1st two points closest to phantom surface</td><td rowspan="3">≤ 4 mm</td><td>3–4 GHz: ≤ 3 mm</td></tr>
<tr><td>4–5 GHz: ≤ 2.5 mm</td></tr>
<tr><td>5–6 GHz: ≤ 2 mm</td></tr>
<tr><td>Δz Zoom (n>1): between subsequent points</td><td colspan="2">≤ 1.5·Δz Zoom (n-1)</td></tr>
<tr><td rowspan="3">Minimum zoom scan volume</td><td colspan="2" rowspan="3">x, y, z</td><td rowspan="3">≥30 mm</td><td>3–4 GHz: ≥ 28 mm</td></tr>
<tr><td>4–5 GHz: ≥ 25 mm</td></tr>
<tr><td>5–6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note:
1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

7.3 Measurement Procedure

The following steps are used for each test position

a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 *32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.
When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “Conducted RF Output Power List.pdf”.

8.2 WCDMA

Please refer the document “Conducted RF Output Power List.pdf”.

8.3 LTE

Please refer the document “Conducted RF Output Power List.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.23	16.00	No
		6	2437	**14.26**	16.00	Yes
		11	2462	14.12	16.00	No
	802.11g	1	2412	16.28	18.00	No
		6	2437	16.21	18.00	No
		11	2462	16.34	18.00	No
	802.11n(HT20)	1	2412	16.17	18.00	No
		6	2437	16.25	18.00	No
		11	2462	16.07	18.00	No
	802.11n(HT40)	3	2422	16.28	18.00	No
		6	2437	16.10	18.00	No
		9	2452	16.17	18.00	No
	802.11ac(VHT20)	1	2412	16.22	18.00	No
		6	2437	16.24	18.00	No
		11	2462	16.28	18.00	No
	802.11ac(VHT40)	3	2422	16.22	18.00	No
		6	2437	16.32	18.00	No
		9	2452	16.25	18.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (39.81mW/39.81mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 2.4G WIFI Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.23	16.00	Yes
		6	2437	**14.26**	16.00	Yes
		11	2462	14.12	16.00	Yes
	802.11g	1	2412	14.29	16.00	No
		6	2437	14.17	16.00	No
		11	2462	14.24	16.00	No
	802.11n(HT20)	1	2412	14.09	16.00	No
		6	2437	14.26	16.00	No
		11	2462	14.12	16.00	No
	802.11n(HT40)	3	2422	14.29	16.00	No
		6	2437	14.10	16.00	No
		9	2452	14.21	16.00	No
	802.11ac(VHT20)	1	2412	14.15	16.00	No
		6	2437	14.23	16.00	No
		11	2462	14.28	16.00	No
	802.11ac(VHT40)	3	2422	14.15	16.00	No
		6	2437	14.20	16.00	No
		9	2452	14.27	16.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (39.81mW/39.81mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.3 2.4G WIFI Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	10.13	12.00	No
		6	2437	**10.16**	12.00	Yes
		11	2462	10.09	12.00	No
	802.11g	1	2412	10.20	12.00	No
		6	2437	10.09	12.00	No
		11	2462	10.12	12.00	No
	802.11n(HT20)	1	2412	10.25	12.00	No
		6	2437	10.21	12.00	No
		11	2462	10.12	12.00	No
	802.11n(HT40)	3	2422	10.16	12.00	No
		6	2437	10.09	12.00	No
		9	2452	10.10	12.00	No
	802.11ac(VHT20)	1	2412	10.21	12.00	No
		6	2437	10.13	12.00	No
		11	2462	10.09	12.00	No
	802.11ac(VHT40)	3	2422	10.16	12.00	No
		6	2437	10.24	12.00	No
		9	2452	10.09	12.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (15.85mW/15.85mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.4 2.4G WIFI Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.23	16.00	No
		6	2437	**14.26**	16.00	Yes
		11	2462	14.12	16.00	No
	802.11g	1	2412	14.29	16.00	No
		6	2437	14.17	16.00	No
		11	2462	14.24	16.00	No
	802.11n(HT20)	1	2412	14.09	16.00	No
		6	2437	14.26	16.00	No
		11	2462	14.12	16.00	No
	802.11n(HT40)	3	2422	14.29	16.00	No
		6	2437	14.10	16.00	No
		9	2452	14.21	16.00	No
	802.11ac(VHT20)	1	2412	14.15	16.00	No
		6	2437	14.23	16.00	No
		11	2462	14.28	16.00	No
	802.11ac(VHT40)	3	2422	14.15	16.00	No
		6	2437	14.20	16.00	No
		9	2452	14.27	16.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (39.81mW/39.81mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.5 2.4G WIFI Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.23	16.00	No
		6	2437	**14.26**	16.00	Yes
		11	2462	14.12	16.00	No
	802.11g	1	2412	14.29	16.00	No
		6	2437	14.17	16.00	No
		11	2462	14.24	16.00	No
	802.11n(HT20)	1	2412	14.09	16.00	No
		6	2437	14.26	16.00	No
		11	2462	14.12	16.00	No
	802.11n(HT40)	3	2422	14.29	16.00	No
		6	2437	14.10	16.00	No
		9	2452	14.21	16.00	No
	802.11ac(VHT20)	1	2412	14.15	16.00	No
		6	2437	14.23	16.00	No
		11	2462	14.28	16.00	No
	802.11ac(VHT40)	3	2422	14.15	16.00	No
		6	2437	14.20	16.00	No
		9	2452	14.27	16.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (39.81mW/39.81mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.6 2.4G WIFI Level5

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.23	16.00	No
		6	2437	**14.26**	16.00	Yes
		11	2462	14.12	16.00	No
	802.11g	1	2412	14.29	16.00	No
		6	2437	14.17	16.00	No
		11	2462	14.24	16.00	No
	802.11n(HT20)	1	2412	14.09	16.00	No
		6	2437	14.26	16.00	No
		11	2462	14.12	16.00	No
	802.11n(HT40)	3	2422	14.29	16.00	No
		6	2437	14.10	16.00	No
		9	2452	14.21	16.00	No
	802.11ac(VHT20)	1	2412	14.15	16.00	No
		6	2437	14.23	16.00	No
		11	2462	14.28	16.00	No
	802.11ac(VHT40)	3	2422	14.15	16.00	No
		6	2437	14.20	16.00	No
		9	2452	14.27	16.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (39.81mW/39.81mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.7 2.4G WIFI Level6

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	12.14	14.00	No
		6	2437	**12.31**	14.00	Yes
		11	2462	12.16	14.00	No
	802.11g	1	2412	12.22	14.00	No
		6	2437	12.18	14.00	No
		11	2462	12.21	14.00	No
	802.11n(HT20)	1	2412	12.10	14.00	No
		6	2437	12.11	14.00	No
		11	2462	12.12	14.00	No
	802.11n(HT40)	3	2422	12.14	14.00	No
		6	2437	12.15	14.00	No
		9	2452	12.12	14.00	No
	802.11ac(VHT20)	1	2412	12.24	14.00	No
		6	2437	12.19	14.00	No
		11	2462	12.21	14.00	No
	802.11ac(VHT40)	3	2422	12.16	14.00	No
		6	2437	12.20	14.00	No
		9	2452	12.18	14.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n than 802.11ac.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.822* (25.12mW/25.12mW) = 0.822 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.8 5G WIFI Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	18.25	20.00	No
		44	5220	18.10	20.00	No
		48	5240	18.17	20.00	No
	802.11n(HT20)	36	5180	17.29	19.00	No
		44	5220	17.08	19.00	No
		48	5240	17.10	19.00	No
	802.11n(HT40)	38	5190	17.30	19.00	No
		46	5230	17.20	19.00	No
	802.11ac(VHT20)	36	5180	17.22	19.00	No
		44	5220	17.10	19.00	No
		48	5240	17.13	19.00	No
	802.11ac(VHT40)	38	5190	17.29	19.00	No
		46	5230	17.14	19.00	No
	802.11ac(VHT80)	42	5210	17.12	19.00	No
5.3 (5.25~5.35)	802.11a	52	5260	18.15	20.00	No
		60	5300	18.08	20.00	No
		64	5320	**18.23**	20.00	Yes
	802.11n(HT20)	52	5260	17.23	19.00	No
		60	5300	17.18	19.00	No
		64	5320	17.15	19.00	No
	802.11n(HT40)	54	5270	17.29	19.00	No
		62	5310	17.25	19.00	No
	802.11ac(VHT20)	52	5260	17.28	19.00	No
		60	5300	17.09	19.00	No
		64	5320	17.16	19.00	No
	802.11ac(VHT40)	54	5270	17.15	19.00	No
		62	5310	17.23	19.00	No
	802.11ac(VHT80)	58	5290	17.16	19.00	No
5.6 (5.47~5.725)	802.11a	100	5500	15.34	17.00	No
		116	5580	15.16	17.00	No
		140	5700	15.10	17.00	No
	802.11n(HT20)	100	5500	17.36	19.00	No
		116	5580	17.40	19.00	No
		140	5700	17.30	19.00	No
	802.11n(HT40)	102	5510	17.11	19.00	No
		118	5590	17.27	19.00	No

		134	5670	17.20	19.00	No
	802.11ac(VHT20)	100	5500	17.26	19.00	No
		116	5580	17.16	19.00	No
		140	5700	17.27	19.00	No
	802.11ac(VHT40)	102	5510	17.36	19.00	No
		118	5590	17.36	19.00	No
		134	5670	17.24	19.00	No
	802.11ac(VHT80)	106	5530	17.49	19.00	No
		122	5610	**17.68**	19.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	12.03	13.00	No
		157	5785	12.04	13.00	No
		165	5825	12.16	13.00	No
	802.11n(HT20)	149	5745	12.17	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.13	13.00	No
	802.11n(HT40)	151	5755	12.04	13.00	No
		159	5795	12.21	13.00	No
	802.11ac(VHT20)	149	5745	12.21	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.08	13.00	No
	802.11ac(VHT40)	151	5755	12.11	13.00	No
		159	5795	12.22	13.00	No
	802.11ac(VHT80)	155	5775	**12.18**	13.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.9 5G WIFI Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	12.20	14.00	No
		44	5220	12.13	14.00	No
		48	5240	12.09	14.00	No
	802.11n(HT20)	36	5180	12.14	14.00	No
		44	5220	12.16	14.00	No
		48	5240	12.11	14.00	No
	802.11n(HT40)	38	5190	12.17	14.00	No
		46	5230	12.15	14.00	No
	802.11ac(VHT20)	36	5180	12.15	14.00	No
		44	5220	12.09	14.00	No
		48	5240	12.16	14.00	No
	802.11ac(VHT40)	38	5190	12.21	14.00	No
		46	5230	12.18	14.00	No
	802.11ac(VHT80)	42	5210	12.38	14.00	No
5.3 (5.25~5.35)	802.11a	52	5260	12.14	14.00	No
		60	5300	12.18	14.00	No
		64	5320	12.20	14.00	No
	802.11n(HT20)	52	5260	12.23	14.00	No
		60	5300	12.16	14.00	No
		64	5320	12.18	14.00	No
	802.11n(HT40)	54	5270	12.21	14.00	No
		62	5310	12.22	14.00	No
	802.11ac(VHT20)	52	5260	12.17	14.00	No
		60	5300	12.11	14.00	No
		64	5320	12.25	14.00	No
	802.11ac(VHT40)	54	5270	12.19	14.00	No
		62	5310	12.23	14.00	No
	802.11ac(VHT80)	58	5290	**12.21**	14.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	12.10	14.00	No
		116	5580	12.17	14.00	No
		140	5700	12.21	14.00	No
	802.11n(HT20)	100	5500	12.23	14.00	No
		116	5580	12.10	14.00	No
		140	5700	12.12	14.00	No
	802.11n(HT40)	102	5510	12.22	14.00	No
		118	5590	12.15	14.00	No

		134	5670	12.16	14.00	No
	802.11ac(VHT20)	100	5500	12.24	14.00	No
		116	5580	12.10	14.00	No
		140	5700	12.09	14.00	No
	802.11ac(VHT40)	102	5510	12.17	14.00	No
		118	5590	12.23	14.00	No
		134	5670	12.13	14.00	No
	802.11ac(VHT80)	106	5530	**12.12**	14.00	Yes
		122	5610	12.10	14.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	12.11	13.00	No
		157	5785	12.12	13.00	No
		165	5825	12.19	13.00	No
	802.11n(HT20)	149	5745	12.21	13.00	No
		157	5785	12.13	13.00	No
		165	5825	12.22	13.00	No
	802.11n(HT40)	151	5755	12.04	13.00	No
		159	5795	12.23	13.00	No
	802.11ac(VHT20)	149	5745	12.25	13.00	No
		157	5785	12.09	13.00	No
		165	5825	12.12	13.00	No
	802.11ac(VHT40)	151	5755	12.12	13.00	No
		159	5795	12.23	13.00	No
	802.11ac(VHT80)	155	5775	**12.18**	13.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.10 5G WIFI Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	8.08	10.00	No
		44	5220	8.09	10.00	No
		48	5240	8.18	10.00	No
	802.11n(HT20)	36	5180	8.25	10.00	No
		44	5220	8.21	10.00	No
		48	5240	8.20	10.00	No
	802.11n(HT40)	38	5190	8.14	10.00	No
		46	5230	8.22	10.00	No
	802.11ac(VHT20)	36	5180	8.11	10.00	No
		44	5220	8.19	10.00	No
		48	5240	8.23	10.00	No
	802.11ac(VHT40)	38	5190	8.13	10.00	No
		46	5230	8.10	10.00	No
	802.11ac(VHT80)	42	5210	8.22	10.00	No
5.3 (5.25~5.35)	802.11a	52	5260	8.25	10.00	No
		60	5300	8.13	10.00	No
		64	5320	8.09	10.00	No
	802.11n(HT20)	52	5260	8.26	10.00	No
		60	5300	8.10	10.00	No
		64	5320	8.17	10.00	No
	802.11n(HT40)	54	5270	8.20	10.00	No
		62	5310	8.14	10.00	No
	802.11ac(VHT20)	52	5260	8.22	10.00	No
		60	5300	8.16	10.00	No
		64	5320	8.23	10.00	No
	802.11ac(VHT40)	54	5270	8.10	10.00	No
		62	5310	8.19	10.00	No
	802.11ac(VHT80)	58	5290	**8.24**	10.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	8.22	10.00	No
		116	5580	8.23	10.00	No
		140	5700	8.25	10.00	No
	802.11n(HT20)	100	5500	8.12	10.00	No
		116	5580	8.16	10.00	No
		140	5700	8.19	10.00	No
	802.11n(HT40)	102	5510	8.25	10.00	No
		118	5590	8.13	10.00	No

		134	5670	8.23	10.00	No
	802.11ac(VHT20)	100	5500	8.21	10.00	No
		116	5580	8.11	10.00	No
		140	5700	8.17	10.00	No
	802.11ac(VHT40)	102	5510	8.18	10.00	No
		118	5590	8.11	10.00	No
		134	5670	8.08	10.00	No
	802.11ac(VHT80)	106	5530	**8.21**	10.00	Yes
		122	5610	8.20	10.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	8.22	10.00	No
		157	5785	8.23	10.00	No
		165	5825	8.13	10.00	No
	802.11n(HT20)	149	5745	8.10	10.00	No
		157	5785	8.14	10.00	No
		165	5825	8.20	10.00	No
	802.11n(HT40)	151	5755	8.14	10.00	No
		159	5795	8.12	10.00	No
	802.11ac(VHT20)	149	5745	8.24	10.00	No
		157	5785	8.22	10.00	No
		165	5825	8.15	10.00	No
	802.11ac(VHT40)	151	5755	8.17	10.00	No
		159	5795	8.13	10.00	No
	802.11ac(VHT80)	155	5775	**8.13**	10.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.11 5G WIFI Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	18.25	20.00	No
		44	5220	18.10	20.00	No
		48	5240	18.17	20.00	No
	802.11n(HT20)	36	5180	17.29	19.00	No
		44	5220	17.08	19.00	No
		48	5240	17.10	19.00	No
	802.11n(HT40)	38	5190	17.30	19.00	No
		46	5230	17.20	19.00	No
	802.11ac(VHT20)	36	5180	17.22	19.00	No
		44	5220	17.10	19.00	No
		48	5240	17.13	19.00	No
	802.11ac(VHT40)	38	5190	17.29	19.00	No
		46	5230	17.14	19.00	No
	802.11ac(VHT80)	42	5210	17.12	19.00	No
5.3 (5.25~5.35)	802.11a	52	5260	**18.15**	20.00	Yes
		60	5300	**18.08**	20.00	Yes
		64	5320	**18.23**	20.00	Yes
	802.11n(HT20)	52	5260	17.23	19.00	No
		60	5300	17.18	19.00	No
		64	5320	17.15	19.00	No
	802.11n(HT40)	54	5270	17.29	19.00	No
		62	5310	17.25	19.00	No
	802.11ac(VHT20)	52	5260	17.28	19.00	No
		60	5300	17.09	19.00	No
		64	5320	17.16	19.00	No
	802.11ac(VHT40)	54	5270	17.15	19.00	No
		62	5310	17.23	19.00	No
	802.11ac(VHT80)	58	5290	17.16	19.00	No
5.6 (5.47~5.725)	802.11a	100	5500	15.34	17.00	No
		116	5580	15.16	17.00	No
		140	5700	15.10	17.00	No
	802.11n(HT20)	100	5500	15.32	17.00	No
		116	5580	15.32	17.00	No
		140	5700	15.21	17.00	No
	802.11n(HT40)	102	5510	15.16	17.00	No
		118	5590	15.20	17.00	No

		134	5670	15.19	17.00	No
	802.11ac(VHT20)	100	5500	15.18	17.00	No
		116	5580	15.20	17.00	No
		140	5700	15.30	17.00	No
	802.11ac(VHT40)	102	5510	15.27	17.00	No
		118	5590	15.29	17.00	No
		134	5670	15.29	17.00	No
	802.11ac(VHT80)	106	5530	15.37	17.00	No
		122	5610	**15.66**	17.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	12.03	13.00	No
		157	5785	12.04	13.00	No
		165	5825	12.16	13.00	No
	802.11n(HT20)	149	5745	12.17	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.13	13.00	No
	802.11n(HT40)	151	5755	12.04	13.00	No
		159	5795	12.21	13.00	No
	802.11ac(VHT20)	149	5745	12.21	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.08	13.00	No
	802.11ac(VHT40)	151	5755	12.11	13.00	No
		159	5795	12.22	13.00	No
	802.11ac(VHT80)	155	5775	**12.18**	13.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.12 5G WIFI Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.11	18.00	No
		44	5220	16.09	18.00	No
		48	5240	16.18	18.00	No
	802.11n(HT20)	36	5180	16.14	18.00	No
		44	5220	16.14	18.00	No
		48	5240	16.21	18.00	No
	802.11n(HT40)	38	5190	16.24	18.00	No
		46	5230	16.16	18.00	No
	802.11ac(VHT20)	36	5180	16.11	18.00	No
		44	5220	16.14	18.00	No
		48	5240	16.08	18.00	No
	802.11ac(VHT40)	38	5190	16.18	18.00	No
		46	5230	16.20	18.00	No
	802.11ac(VHT80)	42	5210	16.34	18.00	No
5.3 (5.25~5.35)	802.11a	52	5260	16.11	18.00	No
		60	5300	16.23	18.00	No
		64	5320	16.05	18.00	No
	802.11n(HT20)	52	5260	16.20	18.00	No
		60	5300	16.11	18.00	No
		64	5320	16.24	18.00	No
	802.11n(HT40)	54	5270	16.24	18.00	No
		62	5310	16.09	18.00	No
	802.11ac(VHT20)	52	5260	16.25	18.00	No
		60	5300	16.17	18.00	No
		64	5320	16.18	18.00	No
	802.11ac(VHT40)	54	5270	16.19	18.00	No
		62	5310	16.17	18.00	No
	802.11ac(VHT80)	58	5290	**16.29**	18.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	15.34	17.00	No
		116	5580	15.16	17.00	No
		140	5700	15.10	17.00	No
	802.11n(HT20)	100	5500	15.32	17.00	No
		116	5580	15.32	17.00	No
		140	5700	15.21	17.00	No
	802.11n(HT40)	102	5510	15.16	17.00	No
		118	5590	15.20	17.00	No

		134	5670	15.19	17.00	No
	802.11ac(VHT20)	100	5500	15.18	17.00	No
		116	5580	15.20	17.00	No
		140	5700	15.30	17.00	No
	802.11ac(VHT40)	102	5510	15.27	17.00	No
		118	5590	15.29	17.00	No
		134	5670	15.29	17.00	No
	802.11ac(VHT80)	106	5530	15.37	17.00	No
		122	5610	**15.66**	17.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	12.03	13.00	No
		157	5785	12.04	13.00	No
		165	5825	12.16	13.00	No
	802.11n(HT20)	149	5745	12.17	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.13	13.00	No
	802.11n(HT40)	151	5755	12.04	13.00	No
		159	5795	12.21	13.00	No
	802.11ac(VHT20)	149	5745	12.21	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.08	13.00	No
	802.11ac(VHT40)	151	5755	12.11	13.00	No
		159	5795	12.22	13.00	No
	802.11ac(VHT80)	155	5775	**12.18**	13.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.13 5G WIFI Level5

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	13.25	15.00	No
		44	5220	13.23	15.00	No
		48	5240	13.11	15.00	No
	802.11n(HT20)	36	5180	13.04	15.00	No
		44	5220	13.11	15.00	No
		48	5240	13.10	15.00	No
	802.11n(HT40)	38	5190	13.11	15.00	No
		46	5230	13.11	15.00	No
	802.11ac(VHT20)	36	5180	13.21	15.00	No
		44	5220	13.23	15.00	No
		48	5240	13.14	15.00	No
	802.11ac(VHT40)	38	5190	13.21	15.00	No
		46	5230	13.20	15.00	No
	802.11ac(VHT80)	42	5210	13.26	15.00	No
5.3 (5.25~5.35)	802.11a	52	5260	13.06	15.00	No
		60	5300	13.15	15.00	No
		64	5320	13.05	15.00	No
	802.11n(HT20)	52	5260	13.26	15.00	No
		60	5300	13.16	15.00	No
		64	5320	13.15	15.00	No
	802.11n(HT40)	54	5270	13.24	15.00	No
		62	5310	13.26	15.00	No
	802.11ac(VHT20)	52	5260	13.22	15.00	No
		60	5300	13.23	15.00	No
		64	5320	13.19	15.00	No
	802.11ac(VHT40)	54	5270	13.09	15.00	No
		62	5310	13.14	15.00	No
	802.11ac(VHT80)	58	5290	**13.25**	15.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	13.23	15.00	No
		116	5580	13.21	15.00	No
		140	5700	13.14	15.00	No
	802.11n(HT20)	100	5500	13.08	15.00	No
		116	5580	13.26	15.00	No
		140	5700	13.08	15.00	No
	802.11n(HT40)	102	5510	13.25	15.00	No
		118	5590	13.12	15.00	No

		134	5670	13.14	15.00	No
	802.11ac(VHT20)	100	5500	13.19	15.00	No
		116	5580	13.13	15.00	No
		140	5700	13.14	15.00	No
	802.11ac(VHT40)	102	5510	13.11	15.00	No
		118	5590	13.05	15.00	No
		134	5670	13.22	15.00	No
	802.11ac(VHT80)	106	5530	13.05	15.00	No
		122	5610	**13.08**	15.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	12.03	13.00	No
		157	5785	12.04	13.00	No
		165	5825	12.16	13.00	No
	802.11n(HT20)	149	5745	12.17	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.13	13.00	No
	802.11n(HT40)	151	5755	12.04	13.00	No
		159	5795	12.21	13.00	No
	802.11ac(VHT20)	149	5745	12.21	13.00	No
		157	5785	12.06	13.00	No
		165	5825	12.08	13.00	No
	802.11ac(VHT40)	151	5755	12.11	13.00	No
		159	5795	12.22	13.00	No
	802.11ac(VHT80)	155	5775	**12.18**	13.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

8.4.14 5G WIFI Level6

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	7.21	9.00	No
		44	5220	7.17	9.00	No
		48	5240	7.10	9.00	No
	802.11n(HT20)	36	5180	7.25	9.00	No
		44	5220	7.24	9.00	No
		48	5240	7.12	9.00	No
	802.11n(HT40)	38	5190	7.05	9.00	No
		46	5230	7.14	9.00	No
	802.11ac(VHT20)	36	5180	7.11	9.00	No
		44	5220	7.16	9.00	No
		48	5240	7.14	9.00	No
	802.11ac(VHT40)	38	5190	7.09	9.00	No
		46	5230	7.14	9.00	No
	802.11ac(VHT80)	42	5210	7.28	9.00	No
5.3 (5.25~5.35)	802.11a	52	5260	7.14	9.00	No
		60	5300	7.11	9.00	No
		64	5320	7.08	9.00	No
	802.11n(HT20)	52	5260	7.09	9.00	No
		60	5300	7.12	9.00	No
		64	5320	7.08	9.00	No
	802.11n(HT40)	54	5270	7.05	9.00	No
		62	5310	7.07	9.00	No
	802.11ac(VHT20)	52	5260	7.24	9.00	No
		60	5300	7.08	9.00	No
		64	5320	7.25	9.00	No
	802.11ac(VHT40)	54	5270	7.15	9.00	No
		62	5310	7.08	9.00	No
	802.11ac(VHT80)	58	5290	**7.14**	9.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	7.12	9.00	No
		116	5580	7.17	9.00	No
		140	5700	7.04	9.00	No
	802.11n(HT20)	100	5500	7.05	9.00	No
		116	5580	7.22	9.00	No
		140	5700	7.10	9.00	No
	802.11n(HT40)	102	5510	7.04	9.00	No
		118	5590	7.05	9.00	No

		134	5670	7.13	9.00	No
	802.11ac(VHT20)	100	5500	7.08	9.00	No
		116	5580	7.06	9.00	No
		140	5700	7.26	9.00	No
	802.11ac(VHT40)	102	5510	7.03	9.00	No
		118	5590	7.06	9.00	No
		134	5670	7.20	9.00	No
	802.11ac(VHT80)	106	5530	7.12	9.00	No
		122	5610	**7.22**	9.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	7.10	9.00	No
		157	5785	7.10	9.00	No
		165	5825	7.16	9.00	No
	802.11n(HT20)	149	5745	7.07	9.00	No
		157	5785	7.09	9.00	No
		165	5825	7.21	9.00	No
	802.11n(HT40)	151	5755	7.07	9.00	No
		159	5795	7.05	9.00	No
	802.11ac(VHT20)	149	5745	7.19	9.00	No
		157	5785	7.02	9.00	No
		165	5825	7.20	9.00	No
	802.11ac(VHT40)	151	5755	7.14	9.00	No
		159	5795	7.13	9.00	No
	802.11ac(VHT80)	155	5775	**7.24**	9.00	Yes
Note: 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); otherwise, each band is tested independently for SAR.						

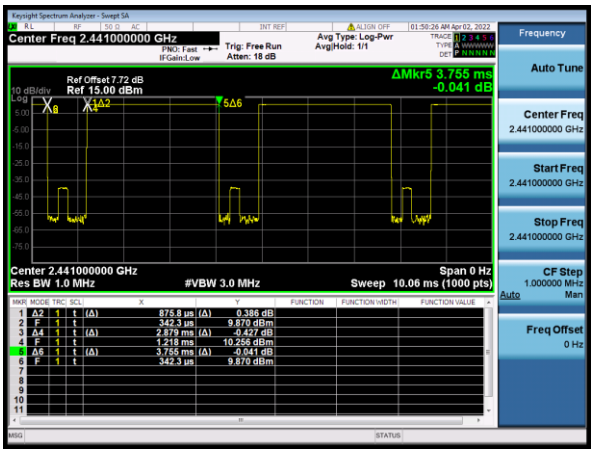
8.5 Bluetooth

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	10.02	11.58	10.25	9.58	10.54	9.62
Tune-Up Limit (dBm)	12.00	13.50	12.00	10.00	11.00	10.00
SAR Test Require	Yes	Yes	Yes	No	No	No
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	9.45	10.64	9.53	/	/	/
Tune-Up Limit (dBm)	10.00	11.00	10.00	/		
SAR Test Require	No	No	No	No	No	No
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	5.02	6.11	5.04	5.08	6.30	5.15
Tune-Up Limit (dBm)	7.00	8.00	7.00	7.00	8.00	7.00
SAR Test Require	No	No	No	No	No	No

The Bluetooth duty cycle is 76.68% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle Test plots

GFSK



8.6 Power Reduction List

1.This mobile phone device supports the receiver detection mechanism. This device uses the receiver to indicate whether the user is making a call in head.
2.When device is making call in head, the power reduction will applied for SAR compliance.
3.This device uses the P-sensor to detect Body-worn,Hotspot and Specific Level for Antenna0&1&2.

Reduced power level table

Reduced level	Receiver Level	Sensor Level	Transmitting conditions	Antenna	Position
Level1	On (head scenario)	/	WWAN Use Only	Ant.0 Ant.1 Ant.2	Left Cheek Left Tilt Right Cheek Right Tilt
Level2	On (head scenario)	/	WWAN+WLAN/BT	Ant.0 Ant.1 Ant.2	Left Cheek Left Tilt Right Cheek Right Tilt
Level3	Off (Body-Worn/Hotspot/Extremitscenario)	sensor off	WWAN Use Only	Ant.0	Front Side Back Side Left Edge Right Edge Top Edge Bottom Edge
				Ant.1	
				Ant.2	
Level4	Off (Body-Worn/Hotspot/Extremitscenario)	sensor off	WWAN+WLAN/BT	Ant.0	Front Side Back Side Left Edge Right Edge Top Edge Bottom Edge
				Ant.1	
				Ant.2	
Level5	Off (Body-Worn/Hotspot/Extremitscenario)	sensor on	WWAN Use Only	Ant.0	Front Side Back Side Right Edge Bottom Edge
				Ant.1	Front Side Back Side Right Edge Top Edge
				Ant.2	Front Side Back Side Left Edge Top Edge
Level6		sensor on	WWAN+WLAN/BT	Ant.0	Front Side Back Side

	Off (Body-Worn/Hotspot/Extremitscenario)				Right Edge Bottom Edge
				Ant.1	Front Side Back Side Right Edge Top Edge
				Ant.2	Front Side Back Side Left Edge Top Edge

WWAN Antenna Power table

Mode	Antenna	Full Power (dBm)	Receiver on		Receiver off					
			Head		Body-Worn&Extremit				Hotspot	
			Standalone	Simultaneous transmission WWAN+ WLAN/BT	Standalone		Simultaneous transmission WWAN+WLAN/BT		Simultaneous transmission WWAN+WLAN/BT	
			Level1	Level2	Level3	Level5	Level4	Level6	Level4	Level6
GSM 850	Ant1	33.20	27.20	27.20	31.20	31.20	31.20	31.20	31.20	31.20
GPRS850 1 Tx Slot	Ant1	33.20	27.20	27.20	31.20	31.20	31.20	31.20	31.20	31.20
GPRS850 2 Tx Slots	Ant1	30.70	24.70	24.70	28.70	28.70	28.70	28.70	28.70	28.70
GPRS850 3 Tx Slots	Ant1	28.70	22.70	22.70	26.70	26.70	26.70	26.70	26.70	26.70
GPRS850 4 Tx Slots	Ant1	27.70	21.70	21.70	25.70	25.70	25.70	25.70	25.70	25.70
EGPRS850 1 Tx Slot	Ant1	27.70	21.70	21.70	25.70	25.70	25.70	25.70	25.70	25.70
EGPRS850 2 Tx Slots	Ant1	25.70	19.70	19.70	23.70	23.70	23.70	23.70	23.70	23.70
EGPRS850 3 Tx Slots	Ant1	23.70	17.70	17.70	21.70	21.70	21.70	21.70	21.70	21.70
EGPRS850 4 Tx Slots	Ant1	23.20	17.20	17.20	21.20	21.20	21.20	21.20	21.20	21.20
GSM 850	Ant0	33.50	33.50	33.50	29.50	29.50	29.50	29.50	29.50	29.50
GPRS850 1 Tx Slot	Ant0	33.50	33.50	33.50	29.50	29.50	29.50	29.50	29.50	29.50
GPRS850 2 Tx Slots	Ant0	31.00	31.00	31.00	27.00	27.00	27.00	27.00	27.00	27.00
GPRS850 3 Tx Slots	Ant0	29.00	29.00	29.00	25.00	25.00	25.00	25.00	25.00	25.00
GPRS850 4 Tx Slots	Ant0	28.00	28.00	28.00	24.00	24.00	24.00	24.00	24.00	24.00
EGPRS850 1 Tx Slot	Ant0	28.00	28.00	28.00	24.00	24.00	24.00	24.00	24.00	24.00
EGPRS850 2 Tx Slots	Ant0	26.00	26.00	26.00	22.00	22.00	22.00	22.00	22.00	22.00
EGPRS850 3 Tx Slots	Ant0	24.00	24.00	24.00	20.00	20.00	20.00	20.00	20.00	20.00
EGPRS850 4 Tx Slots	Ant0	23.50	23.50	23.50	19.50	19.50	19.50	19.50	19.50	19.50

GSM 1900	Ant1	30.20	19.20	19.20	22.20	22.20	22.20	22.20	22.20	22.20
GPRS1900 1 Tx Slot	Ant1	30.20	19.20	19.20	22.20	22.20	22.20	22.20	22.20	22.20
GPRS1900 2 Tx Slots	Ant1	27.70	16.70	16.70	19.70	19.70	19.70	19.70	19.70	19.70
GPRS1900 3 Tx Slots	Ant1	25.70	14.70	14.70	17.70	17.70	17.70	17.70	17.70	17.70
GPRS1900 4 Tx Slots	Ant1	24.70	13.70	13.70	16.70	16.70	16.70	16.70	16.70	16.70
EGPRS1900 1 Tx Slot	Ant1	26.70	15.70	15.70	18.70	18.70	18.70	18.70	18.70	18.70
EGPRS1900 2 Tx Slots	Ant1	24.70	13.70	13.70	16.70	16.70	16.70	16.70	16.70	16.70
EGPRS1900 3 Tx Slots	Ant1	22.70	11.70	11.70	14.70	14.70	14.70	14.70	14.70	14.70
EGPRS1900 4 Tx Slots	Ant1	22.20	11.20	11.20	14.20	14.20	14.20	14.20	14.20	14.20
GSM 1900	Ant0	30.50	30.50	30.50	25.50	25.50	25.50	25.50	25.50	25.50
GPRS1900 1 Tx Slot	Ant0	30.50	30.50	30.50	25.50	25.50	25.50	25.50	25.50	25.50
GPRS1900 2 Tx Slots	Ant0	28.00	28.00	28.00	23.00	23.00	23.00	23.00	23.00	23.00
GPRS1900 3 Tx Slots	Ant0	26.00	26.00	26.00	21.00	21.00	21.00	21.00	21.00	21.00
GPRS1900 4 Tx Slots	Ant0	25.00	25.00	25.00	20.00	20.00	20.00	20.00	20.00	20.00
EGPRS1900 1 Tx Slot	Ant0	27.00	27.00	27.00	22.00	22.00	22.00	22.00	22.00	22.00
EGPRS1900 2 Tx Slots	Ant0	25.00	25.00	25.00	20.00	20.00	20.00	20.00	20.00	20.00
EGPRS1900 3 Tx Slots	Ant0	23.00	23.00	23.00	18.00	18.00	18.00	18.00	18.00	18.00
EGPRS1900 4 Tx Slots	Ant0	22.50	22.50	22.50	17.50	17.50	17.50	17.50	17.50	17.50
WCDMA Band5 RMC	Ant1	24.70	17.70	17.70	21.70	21.70	21.70	21.70	21.70	21.70
WCDMA Band5 AMR	Ant1	24.70	17.70	17.70	21.70	21.70	21.70	21.70	21.70	21.70
HSDPA Subtest-1	Ant1	23.50	16.50	16.50	20.50	20.50	20.50	20.50	20.50	20.50
HSDPA Subtest-2	Ant1	23.50	16.50	16.50	20.50	20.50	20.50	20.50	20.50	20.50
HSDPA Subtest-3	Ant1	22.90	15.90	15.90	19.90	19.90	19.90	19.90	19.90	19.90
HSDPA Subtest-4	Ant1	22.90	15.90	15.90	19.90	19.90	19.90	19.90	19.90	19.90
HSUPA Subtest-1	Ant1	23.20	16.20	16.20	20.20	20.20	20.20	20.20	20.20	20.20
HSUPA Subtest-2	Ant1	22.70	15.70	15.70	19.70	19.70	19.70	19.70	19.70	19.70
HSUPA Subtest-3	Ant1	23.70	16.70	16.70	20.70	20.70	20.70	20.70	20.70	20.70
HSUPA Subtest-4	Ant1	22.20	15.20	15.20	19.20	19.20	19.20	19.20	19.20	19.20
HSUPA Subtest-5	Ant1	23.70	16.70	16.70	20.70	20.70	20.70	20.70	20.70	20.70
WCDMA Band5 RMC	Ant0	24.80	24.80	24.80	19.80	19.80	19.80	19.80	19.80	19.80
WCDMA Band5 AMR	Ant2	24.80	24.80	24.80	19.80	19.80	19.80	19.80	19.80	19.80
HSDPA Subtest-1	Ant0	23.60	23.60	23.60	18.60	18.60	18.60	18.60	18.60	18.60
HSDPA Subtest-2	Ant0	23.60	23.60	23.60	18.60	18.60	18.60	18.60	18.60	18.60
HSDPA Subtest-3	Ant0	23.00	23.00	23.00	18.00	18.00	18.00	18.00	18.00	18.00

HSDPA Subtest-4	Ant0	23.00	23.00	23.00	18.00	18.00	18.00	18.00	18.00	18.00
HSUPA Subtest-1	Ant0	23.30	23.30	23.30	18.30	18.30	18.30	18.30	18.30	18.30
HSUPA Subtest-2	Ant0	22.80	22.80	22.80	17.80	17.80	17.80	17.80	17.80	17.80
HSUPA Subtest-3	Ant0	23.80	23.80	23.80	18.80	18.80	18.80	18.80	18.80	18.80
HSUPA Subtest-4	Ant0	22.30	22.30	22.30	17.30	17.30	17.30	17.30	17.30	17.30
HSUPA Subtest-5	Ant0	23.80	23.80	23.80	18.80	18.80	18.80	18.80	18.80	18.80
LTE Band5	Ant1	24.70	17.70	17.70	21.70	21.70	21.70	21.70	21.70	21.70
LTE Band5	Ant0	25.00	25.00	25.00	20.00	20.00	20.00	20.00	20.00	20.00
LTE Band7	Ant1	23.40	10.40	10.40	13.40	13.40	13.40	13.40	13.40	13.40
LTE Band7	Ant0	23.80	23.80	23.80	17.80	17.80	17.80	17.80	17.80	17.80
LTE Band38	Ant1	23.70	11.70	11.70	21.70	21.70	21.70	21.70	21.70	21.70
LTE Band38	Ant0	23.80	23.80	23.80	21.80	21.80	21.80	21.80	21.80	21.80
LTE Band41	Ant1	23.70	11.70	11.70	21.70	21.70	21.70	21.70	21.70	21.70
LTE Band41	Ant0	23.80	23.80	23.80	21.80	21.80	21.80	21.80	21.80	21.80

WLAN Reduced power level table

Mode	Full Power (dBm)	WLAN Antenna							
		Receiver on		Receiver off					
		Head		Body-Worn&Extremit				Hotspot	
		Standalone	Simultaneous transmission WWAN+ WLAN/BT	Standalone		Simultaneous transmission WWAN+WLAN/BT		Simultaneous transmission WWAN+WLAN/BT	
		Level1	Level2	Level3	Level5	Level4	Level6	Level4	Level6
2.4G WLAN 802.11b	16.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
2.4G WLAN 802.11g	18.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
2.4G WLAN 802.11n20	18.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
2.4G WLAN 802.11n40	18.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
2.4G WLAN 802.11ac20	18.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
2.4G WLAN 802.11ac40	18.00	16.00	12.00	16.00	16.00	16.00	14.00	16.00	14.00
5.2G WLAN 802.11a	20.00	14.00	10.00	20.00	15.00	18.00	9.00	18.00	9.00
5.2G WLAN 802.11n20	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.2G WLAN 802.11n40	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.2G WLAN 802.11ac20	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.2G WLAN 802.11ac40	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00

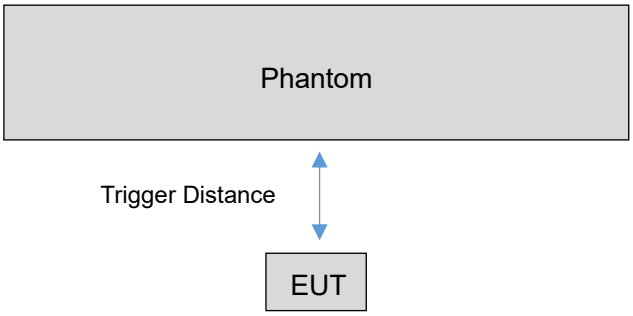
5.2G WLAN 802.11ac80	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11a	20.00	14.00	10.00	20.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11n20	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11n40	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11ac20	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11ac40	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.3G WLAN 802.11ac80	19.00	14.00	10.00	19.00	15.00	18.00	9.00	18.00	9.00
5.6G WLAN 802.11a	17.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.6G WLAN 802.11n20	19.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.6G WLAN 802.11n40	19.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.6G WLAN 802.11ac20	19.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.6G WLAN 802.11ac40	19.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.6G WLAN 802.11ac80	19.00	14.00	10.00	17.00	15.00	17.00	9.00	17.00	9.00
5.8G WLAN 802.11a	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
5.8G WLAN 802.11n20	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
5.8G WLAN 802.11n40	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
5.8G WLAN 802.11ac20	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
5.8G WLAN 802.11ac40	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
5.8G WLAN 802.11ac80	13.00	13.00	10.00	13.00	13.00	13.00	9.00	13.00	9.00
Bluetooth	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50

9 PROXIMITY SENSOR TRIGGERING TEST

9.1 Procedures for determining proximity sensor distance

Proximity sensor triggering distance testing was performed, EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment.

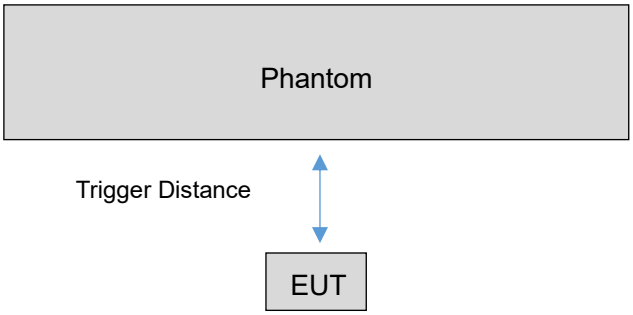
9.1.1 proximity sensor channel-0



Distance in mm	9	10	11	12	13	14	15	16	17
Front Side	On	On	On	On	Off	Off	Off	Off	Off
Right Edge	On	On	On	On	On	Off	Off	Off	Off

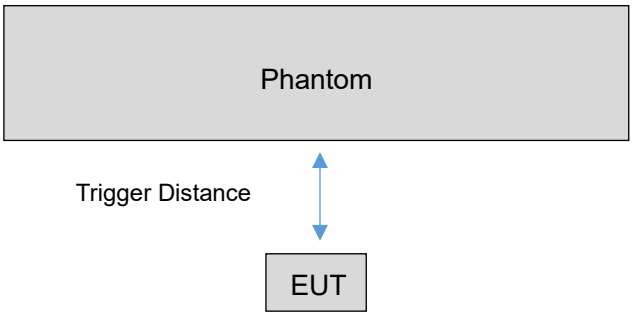
Distance in mm	20	21	22	23	24	25	26	27	28
Back Side	On	On	On	On	Off	Off	Off	Off	Off
Bottom Edge	On	On	On	On	On	On	Off	Off	Off
Note: Power reduction is only applicable for ANT0									

9.1.2 proximity sensor channel-1



Distance in mm	8	9	10	11	12	13	14	15	16	17	18
Front Side	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off
Back Side	On	On	On	On	On	Off	Off	Off	Off	Off	Off
Right Edge	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off
Top Edge	On	On	On	On	On	On	On	On	On	Off	Off
Note: Power reduction is only applicable for ANT1											

9.1.3 proximity sensor channel-2



Distance in mm	5	6	7	8	9	10	11	12	13
Front Side	On	On	On	Off	Off	Off	Off	Off	Off
Back Side	On	On	On	On	On	On	Off	Off	Off
Left Edge	On	On	On	On	On	On	On	On	Off
Top Edge	On	On	On	On	On	On	Off	Off	Off
Note: Power reduction is only applicable for ANT2									

For verification of compliance of power reduction scheme, additional SAR test with EUT transmitting at full RF power at a separation of "the triggering distance – 1 mm"

Ant0 of proximity sensor channel-0

EUT Sides	Additional SAR test Distance in mm
Front Side	11
Back Side	22
Right Edge	12
Bottom Edge	24

Ant1 of proximity sensor channel-1

EUT Sides	Additional SAR test Distance in mm
Front Side	8
Back Side	11
Right Edge	8
Top Edge	15

Ant2 of proximity sensor channel-2

EUT Sides	Additional SAR test Distance in mm
Front Side	6
Back Side	9
Left Edge	11
Top Edge	9

9.2 Procedures for determining EUT tilt angle influences to proximity sensor triggering

The influence of EUT tilt angles to proximity sensor channel-0 triggering was determined by positioning each EUT edge that contains a transmitting antenna 0, perpendicular to the flat phantom, at 12 mm separation for the front side, 23 mm separation for the back side, 13 mm separation for the right edge,and 25 mm separation for the bottom edge.

The influence of EUT tilt angles to proximity sensor channel-1 triggering was determined by positioning each EUT edge that contains a transmitting antenna 1, perpendicular to the flat phantom, at 9 mm separation for the front side, 12 mm separation for the back side, 9 mm separation for the right edge,and 16 mm separation for the bottom edge.

The influence of EUT tilt angles to proximity sensor channel-2 triggering was determined by positioning each EUT edge that contains a transmitting antenna 2, perpendicular to the flat phantom, at 8 mm separation for the front side, 10 mm separation for the back side, 12 mm separation for the left edge,and 10 mm separation for the right edge.

Rotating the tablet around the edge next to the phantom in $\leqslant 10^{\circ}$ increments until the tablet is $\pm 45^{\circ}$ from the vertical position at 0°, and the maximum output power remains in the reduced mode.

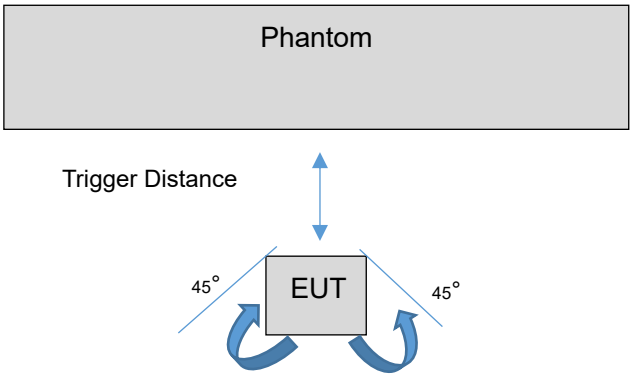


Table1: Summary of Phone Tilt Angle Influence to Proximity Sensor channel-1 Triggering(Top edge)

Antenna	Posltion	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
ANT0	Bottom Edge	24mm	on	on	on	on	on	on	on	on	on	on	on

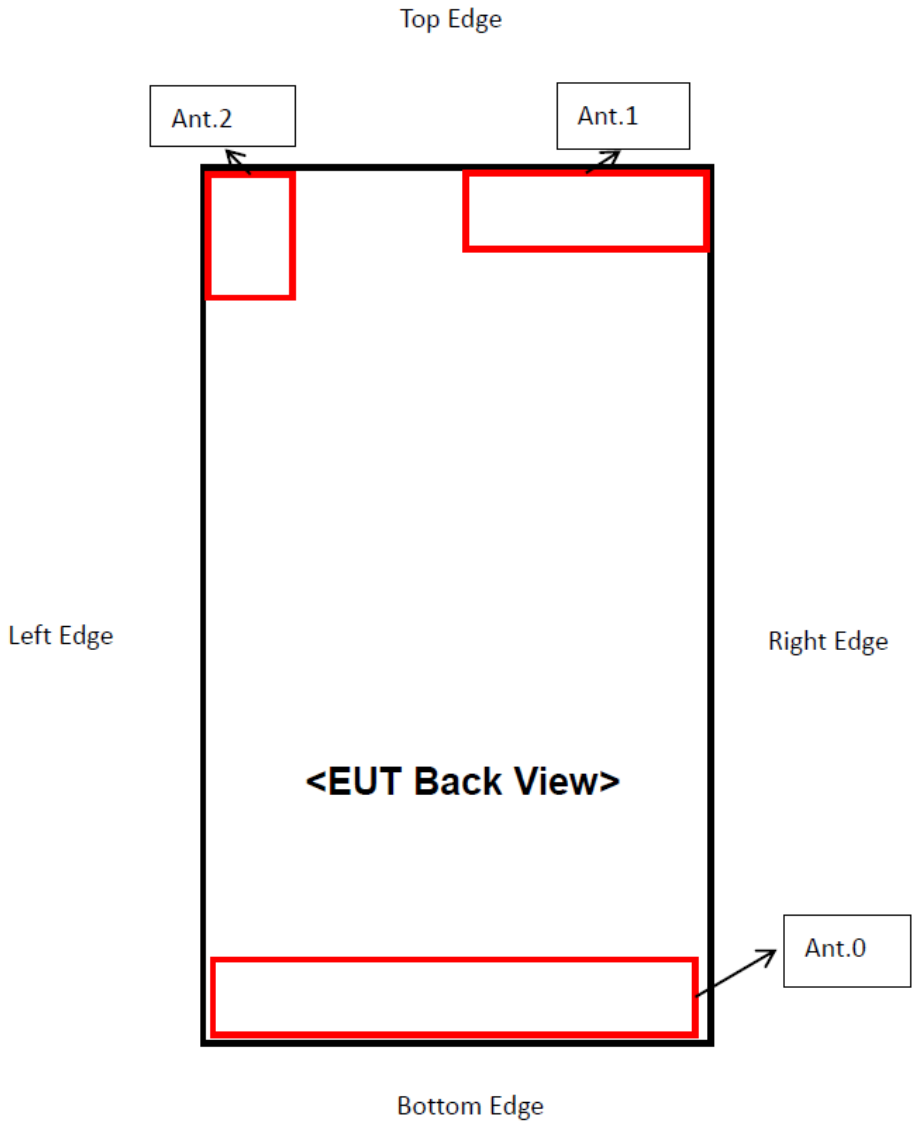
Table2: Summary of Phone Tilt Angle Influence to Proximity Sensor channel-1 Triggering(Bottom edge)

Antenna	Posltion	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
ANT1	Top Edge	15mm	on	on	on	on	on	on	on	on	on	on	on

Table3: Summary of Phone Tilt Angle Influence to Proximity Sensor channel-2 Triggering(Right edge)

Antenna	Posltion	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
ANT2	Top Edge	9mm	on	on	on	on	on	on	on	on	on	on	on

10 TEST EXCLUSION CONSIDERATION



Antenna	Description	Support Bands
Antenna 0	2/3/4G TX Antenna	GSM 850/1900 WCDMA Band5 LTE Band5/7/38/41
Antenna 1	2/3/4G TX Antenna	GSM 850/1900 WCDMA Band5 LTE Band5/7/38/41
Antenna 2	WLAN 2.4G TX Antenna WLAN 5G TX Antenna Bluetooth TX Antenna	2.4G WLAN 5G WLAN Bluetooth
Note1: WWAN TX antennas for certain frequency band can switch automatically, but only one antenna can transmit at same time.		

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.0	<25	<25	<25	<25	>25	<25
Ant.1	<25	<25	>25	<25	<25	>25
Ant.2	<25	<25	<25	>25	<25	>25

Note: 1.Per KDB 941225 DO6,When the overall length and width of a device is > 9 cm *5 cm, a test separation distance of 10 mm is required for hotspot mode SAR measurements and hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge.

10.1SAR Test Exclusion Consideration Table

According with FCC KDB 447498 D04, Appendix B, The SAR-based exemption formula applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW), this Device SAR test configurations consider as following :

ANT 0

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	Data	33.50	2238.72	Yes	Yes	Yes	Yes	No	Yes
GSM 1900	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	Data	30.50	1122.02	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	RMC	24.80	302.00	Yes	Yes	Yes	Yes	No	Yes
LTE Band 5	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	25.00	316.23	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 38	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes
LTE Band 41	Distance to User			<5mm	<5mm	<5mm	<5mm	>25mm	<5mm
	QPSK	23.80	239.88	Yes	Yes	Yes	Yes	No	Yes

ANT 1

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	Data	33.20	2089.30	Yes	Yes	No	Yes	Yes	No
GSM 1900	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	Data	30.20	1047.13	Yes	Yes	No	Yes	Yes	No
WCDMA Band 5	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	RMC	24.70	295.12	Yes	Yes	No	Yes	Yes	No
LTE Band 5	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	QPSK	24.70	295.12	Yes	Yes	No	Yes	Yes	No
LTE Band 7	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	QPSK	23.40	218.78	Yes	Yes	No	Yes	Yes	No
LTE Band 38	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	QPSK	23.70	234.42	Yes	Yes	No	Yes	Yes	No
LTE Band 41	Distance to User			<5mm	<5mm	>25mm	<5mm	>25mm	>25mm
	QPSK	23.70	234.42	Yes	Yes	No	Yes	Yes	No

ANT 2

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
WLAN 2.4 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11b	16.00	39.81	Yes	Yes	Yes	No	Yes	No
	802.11g	18.00	63.10	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	18.00	63.10	Yes	Yes	Yes	No	Yes	No
	802.11n(HT40)	18.00	63.10	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT20)	18.00	63.10	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT40)	18.00	63.10	Yes	Yes	Yes	No	Yes	No
WLAN 5.2 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11a	20.00	100.00	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11n(HT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT80)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
WLAN 5.3 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11a	20.00	100.00	Yes	Yes	Yes	No	Yes	No

	802.11n(HT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11n(HT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT80)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
WLAN 5.6 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11a	17.00	50.12	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11n(HT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT20)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT40)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT80)	19.00	79.43	Yes	Yes	Yes	No	Yes	No
WLAN 5.8 G	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	802.11a	13.00	19.95	Yes	Yes	Yes	No	Yes	No
	802.11n(HT20)	13.00	19.95	Yes	Yes	Yes	No	Yes	No
	802.11n(HT40)	13.00	19.95	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT20)	13.00	19.95	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT40)	13.00	19.95	Yes	Yes	Yes	No	Yes	No
	802.11ac(VHT80)	13.00	19.95	Yes	Yes	Yes	No	Yes	No
Bluetooth	Distance to User			<5mm	<5mm	<5mm	>25mm	<5mm	>25mm
	BT	13.50	22.39	Yes	Yes	Yes	No	Yes	No

Note:

1. Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
2. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold.
4. Per KDB 447498 D04, for separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive), the threshold Pth (mW) is given by Following:

$$P_{th}(mW) = \begin{cases} ERP_{20cm}(d/20cm)^x & d \le 20cm \\ ERP_{20cm} & 20cm < d \le 40cm \end{cases}$$

where

$$x = -log_{10}\left(\frac{60}{ERP_{20cm}\sqrt{f}}\right)$$

   a. f(GHz) is the RF channel transmit frequency in GHz
   b. d is the separation distance (cm), The result is rounded to one decimal place for comparison
   c. ERP_{20cm} are determined by:

$$ERP_{20cm}(mW) = f(x) = \begin{cases} 2040f & 0.3GHz \le f < 1.5GHz \\ 3060 & 1.5GHz \le f \le 6GHz \end{cases}$$

5. Per KDB 941225 D01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA /HSUPA /DC-HSDPA output power is < 0.25dB higher than RMC12.2Kbps, or reported SAR with RMC 12.2kbps setting is ≤ 1.2W/kg, HSDPA/HSUPA/DC-

HSDPA SAR evaluation can be excluded.

6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion.8. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4dB higher than those measured at the lowest data rate

7. Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
   a. When KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
   b. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

8. Per KDB 248227 D01 SAR is not required for the following U-NII-1 and U-NII-2A bands conditions.
   a. 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); otherwise, each band is tested independently for SAR.
   b. 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; otherwise, each band is tested independently for SAR.

11 TEST RESULT

11.1 GSM 850

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.1	Level1&2	GPRS 2 slots	Left Cheek	0	251	848.8	-0.18	0.162	24.13	24.70	1.140	0.185	/
Ant.1	Level1&2	GPRS 2 slots	Left Tilt	0	251	848.8	-0.09	0.144	24.13	24.70	1.140	0.164	/
Ant.1	Level1&2	GPRS 2 slots	Right Cheek	0	251	848.8	0.14	0.249	24.13	24.70	1.140	**0.284**	1#
Ant.1	Level1&2	GPRS 2 slots	Right Tilt	0	251	848.8	-0.12	0.199	24.13	24.70	1.140	0.227	/
Ant.0	Level1&2	GPRS 2 slots	Left Cheek	0	128	824.2	0.01	0.115	30.19	31.00	1.205	0.139	/
Ant.0	Level1&2	GPRS 2 slots	Left Tilt	0	128	824.2	0.12	0.057	30.19	31.00	1.205	0.069	/
Ant.0	Level1&2	GPRS 2 slots	Right Cheek	0	128	824.2	0.10	0.089	30.19	31.00	1.205	0.107	/
Ant.0	Level1&2	GPRS 2 slots	Right Tilt	0	128	824.2	0.10	0.047	30.19	31.00	1.205	0.057	/
Body-worn													
Ant.1	Level3&4	GPRS 2 slots	Front Side	15	251	848.8	-0.09	0.026	27.66	28.70	1.271	0.033	/
Ant.1	Level3&4	GPRS 2 slots	Back Side	15	251	848.8	0.13	0.031	27.66	28.70	1.271	0.039	/
Ant.0	Level3&4	GPRS 2 slots	Front Side	15	128	824.2	0.15	0.064	26.56	27.00	1.107	0.071	/
Ant.0	Level5&6	GPRS 2 slots	Back Side	15	128	824.2	-0.19	0.091	26.56	27.00	1.107	**0.101**	2#
Hotspot													
Ant.1	Level4	GPRS 2 slots	Front Side	10	251	848.8	0.10	0.095	27.66	28.70	1.271	0.121	/
Ant.1	Level6	GPRS 2 slots	Back Side	10	251	848.8	-0.07	0.116	27.66	28.70	1.271	0.147	/
Ant.1	Level4	GPRS 2 slots	Right Edge	10	251	848.8	-0.15	0.046	27.66	28.70	1.271	0.058	/
Ant.1	Level6	GPRS 2 slots	Top Edge	10	251	848.8	0.13	0.132	27.66	28.70	1.271	**0.168**	3#
Ant.0	Level6	GPRS 2 slots	Front Side	10	128	824.2	-0.15	0.039	26.56	27.00	1.107	0.043	/
Ant.0	Level6	GPRS 2 slots	Back Side	10	128	824.2	0.12	0.079	26.56	27.00	1.107	0.087	/
Ant.0	Level4	GPRS 2 slots	Left Edge	10	128	824.2	-0.18	0.029	26.56	27.00	1.107	0.032	/
Ant.0	Level6	GPRS 2 slots	Right Edge	10	128	824.2	-0.05	0.044	26.56	27.00	1.107	0.049	/
Ant.0	Level6	GPRS 2 slots	Bottom Edge	10	128	824.2	-0.07	0.069	26.56	27.00	1.107	0.076	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.2 GSM 1900

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.1	Level1&2	GPRS 2 slots	Left Cheek	0	661	1880.0	-0.15	0.200	16.15	16.70	1.135	0.227	/
Ant.1	Level1&2	GPRS 2 slots	Left Tilt	0	661	1880.0	0.08	0.222	16.15	16.70	1.135	0.252	/
Ant.1	Level1&2	GPRS 2 slots	Right Cheek	0	661	1880.0	-0.01	0.301	16.15	16.70	1.135	0.342	/
Ant.1	Level1&2	GPRS 2 slots	Right Tilt	0	661	1880.0	0.12	0.342	16.15	16.70	1.135	**0.388**	4#
Ant.0	Level1&2	GPRS 2 slots	Left Cheek	0	661	1880.0	0.09	0.041	27.31	28.00	1.172	0.048	/
Ant.0	Level1&2	GPRS 2 slots	Left Tilt	0	661	1880.0	0.00	0.045	27.31	28.00	1.172	0.053	/
Ant.0	Level1&2	GPRS 2 slots	Right Cheek	0	661	1880.0	0.17	0.060	27.31	28.00	1.172	0.070	/
Ant.0	Level1&2	GPRS 2 slots	Right Tilt	0	661	1880.0	-0.03	0.064	27.31	28.00	1.172	0.075	/
Body-worn													
Ant.1	Level3&4	GPRS 2 slots	Front Side	15	810	1909.8	-0.18	0.053	19.08	19.70	1.153	0.061	/
Ant.1	Level3&4	GPRS 2 slots	Back Side	15	810	1909.8	-0.03	0.070	19.08	19.70	1.153	0.080	/
Ant.0	Level3&4	GPRS 2 slots	Front Side	15	512	1850.2	0.09	0.047	22.30	23.00	1.175	0.055	/
Ant.0	Level5&6	GPRS 2 slots	Back Side	15	512	1850.2	0.16	0.099	22.30	23.00	1.175	**0.116**	5#
Hotspot													
Ant.1	Level4	GPRS 2 slots	Front Side	10	810	1909.8	-0.08	0.091	19.08	19.70	1.153	0.105	/
Ant.1	Level6	GPRS 2 slots	Back Side	10	810	1909.8	-0.07	0.118	19.08	19.70	1.153	0.136	/
Ant.1	Level4	GPRS 2 slots	Right Edge	10	810	1909.8	-0.04	0.020	19.08	19.70	1.153	0.023	/
Ant.1	Level6	GPRS 2 slots	Top Edge	10	810	1909.8	0.18	0.192	19.08	19.70	1.153	0.221	/
Ant.0	Level6	GPRS 2 slots	Front Side	10	512	1850.2	0.12	0.064	22.30	23.00	1.175	0.075	/
Ant.0	Level6	GPRS 2 slots	Back Side	10	512	1850.2	0.02	0.135	22.30	23.00	1.175	0.159	/
Ant.0	Level4	GPRS 2 slots	Left Edge	10	512	1850.2	-0.18	0.029	22.30	23.00	1.175	0.034	/
Ant.0	Level6	GPRS 2 slots	Right Edge	10	512	1850.2	0.17	0.014	22.30	23.00	1.175	0.016	/
Ant.0	Level6	GPRS 2 slots	Bottom Edge	10	512	1850.2	0.16	0.227	22.30	23.00	1.175	**0.267**	6#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.3WCDMA Band 5

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.1	Level1&2	RMC	Left Cheek	0	4132	826.4	0.09	0.187	17.38	17.70	1.076	0.201	/
Ant.1	Level1&2	RMC	Left Tilt	0	4132	826.4	0.03	0.173	17.38	17.70	1.076	0.186	/
Ant.1	Level1&2	RMC	Right Cheek	0	4132	826.4	0.17	0.348	17.38	17.70	1.076	**0.375**	7#
Ant.1	Level1&2	RMC	Right Tilt	0	4132	826.4	-0.18	0.286	17.38	17.70	1.076	0.308	/
Ant.0	Level1&2	RMC	Left Cheek	0	4233	846.6	0.06	0.133	23.90	24.80	1.230	0.164	/
Ant.0	Level1&2	RMC	Left Tilt	0	4233	846.6	-0.05	0.061	23.90	24.80	1.230	0.075	/
Ant.0	Level1&2	RMC	Right Cheek	0	4233	846.6	-0.08	0.136	23.90	24.80	1.230	0.167	/
Ant.0	Level1&2	RMC	Right Tilt	0	4233	846.6	0.01	0.073	23.90	24.80	1.230	0.090	/
Body-worn													
Ant.1	Level3&4	RMC	Front Side	15	4233	846.6	0.16	0.092	21.36	21.70	1.081	0.099	/
Ant.1	Level3&4	RMC	Back Side	15	4233	846.6	0.07	0.118	21.36	21.70	1.081	**0.128**	8#
Ant.0	Level3&4	RMC	Front Side	15	4233	846.6	-0.07	0.044	19.49	19.80	1.074	0.047	/
Ant.0	Level5&6	RMC	Back Side	15	4233	846.6	0.17	0.063	19.49	19.80	1.074	0.067	/
Hotspot													
Ant.1	Level4	RMC	Front Side	10	4233	846.6	0.04	0.097	21.36	21.70	1.081	0.105	/
Ant.1	Level6	RMC	Back Side	10	4233	846.6	-0.07	0.118	21.36	21.70	1.081	0.128	/
Ant.1	Level4	RMC	Right Edge	10	4233	846.6	-0.12	0.058	21.36	21.70	1.081	0.063	/
Ant.1	Level6	RMC	Top Edge	10	4233	846.6	0.17	0.149	21.36	21.70	1.081	**0.161**	9#
Ant.0	Level6	RMC	Front Side	10	4233	846.6	-0.02	0.057	19.49	19.80	1.074	0.061	/
Ant.0	Level6	RMC	Back Side	10	4233	846.6	-0.01	0.111	19.49	19.80	1.074	0.119	/
Ant.0	Level4	RMC	Left Edge	10	4233	846.6	0.07	0.045	19.49	19.80	1.074	0.048	/
Ant.0	Level6	RMC	Right Edge	10	4233	846.6	0.15	0.064	19.49	19.80	1.074	0.069	/
Ant.0	Level6	RMC	Bottom Edge	10	4233	846.6	0.16	0.065	19.49	19.80	1.074	0.070	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.4LTE Band 5 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.1	Level1&2	QPSK	Left Cheek	0	20525	836.5	1	Mid	-0.01	0.207	17.48	17.70	1.052	0.218	/
Ant.1	Level1&2	QPSK	Left Cheek	0	20525	836.5	25	Low	0.00	0.189	17.31	17.70	1.094	0.207	/
Ant.1	Level1&2	QPSK	Left Tilt	0	20525	836.5	1	Mid	0.17	0.177	17.48	17.70	1.052	0.186	/
Ant.1	Level1&2	QPSK	Left Tilt	0	20525	836.5	25	Low	-0.16	0.168	17.31	17.70	1.094	0.184	/
Ant.1	Level1&2	QPSK	Right Cheek	0	20525	836.5	1	Mid	-0.06	0.308	17.48	17.70	1.052	**0.324**	10#
Ant.1	Level1&2	QPSK	Right Cheek	0	20525	836.5	25	Low	-0.11	0.295	17.31	17.70	1.094	0.323	/
Ant.1	Level1&2	QPSK	Right Tilt	0	20525	836.5	1	Mid	0.16	0.290	17.48	17.70	1.052	0.305	/
Ant.1	Level1&2	QPSK	Right Tilt	0	20525	836.5	25	Low	-0.13	0.281	17.31	17.70	1.094	0.307	/
Ant.0	Level1&2	QPSK	Left Cheek	0	20525	836.5	1	Mid	0.07	0.125	23.90	25.00	1.288	0.161	/
Ant.0	Level1&2	QPSK	Left Cheek	0	20525	836.5	25	Low	-0.08	0.102	22.81	24.00	1.315	0.134	/
Ant.0	Level1&2	QPSK	Left Tilt	0	20525	836.5	1	Mid	-0.07	0.066	23.90	25.00	1.288	0.085	/
Ant.0	Level1&2	QPSK	Left Tilt	0	20525	836.5	25	Low	0.14	0.053	22.81	24.00	1.315	0.070	/
Ant.0	Level1&2	QPSK	Right Cheek	0	20525	836.5	1	Mid	-0.16	0.102	23.90	25.00	1.288	0.131	/
Ant.0	Level1&2	QPSK	Right Cheek	0	20525	836.5	25	Low	0.01	0.076	22.81	24.00	1.315	0.100	/
Ant.0	Level1&2	QPSK	Right Tilt	0	20525	836.5	1	Mid	0.13	0.055	23.90	25.00	1.288	0.071	/
Ant.0	Level1&2	QPSK	Right Tilt	0	20525	836.5	25	Low	0.12	0.046	22.81	24.00	1.315	0.061	/
Body-worn															
Ant.1	Leve3&l4	QPSK	Front Side	15	20525	836.5	1	Mid	-0.16	0.119	21.47	21.70	1.054	0.125	/
Ant.1	Leve3&l4	QPSK	Front Side	15	20525	836.5	25	Low	0.12	0.112	21.32	21.70	1.091	0.122	/
Ant.1	Leve3&l4	QPSK	Back Side	15	20525	836.5	1	Mid	-0.09	0.152	21.47	21.70	1.054	**0.160**	11#
Ant.1	Leve3&l4	QPSK	Back Side	15	20525	836.5	25	Low	-0.18	0.145	21.32	21.70	1.091	0.158	/
Ant.0	Leve3&l4	QPSK	Front Side	15	20525	836.5	1	Mid	-0.09	0.041	19.48	20.00	1.127	0.046	/
Ant.0	Leve3&l4	QPSK	Front Side	15	20525	836.5	25	Low	0.16	0.039	19.36	20.00	1.159	0.045	/
Ant.0	Level5&6	QPSK	Back Side	15	20525	836.5	1	Mid	-0.07	0.059	19.48	20.00	1.127	0.067	/
Ant.0	Level5&6	QPSK	Back Side	15	20525	836.5	25	Low	-0.03	0.053	19.36	20.00	1.159	0.061	/
Hotspot															
Ant.1	Level4	QPSK	Front Side	10	20525	836.5	1	Mid	-0.11	0.086	21.47	21.70	1.054	0.091	/
Ant.1	Level4	QPSK	Front Side	10	20525	836.5	25	Low	-0.14	0.083	21.32	21.70	1.091	0.091	/
Ant.1	Level6	QPSK	Back Side	10	20525	836.5	1	Mid	-0.10	0.106	21.47	21.70	1.054	0.112	/
Ant.1	Level6	QPSK	Back Side	10	20525	836.5	25	Low	0.07	0.101	21.32	21.70	1.091	0.110	/
Ant.1	Level4	QPSK	Right Edge	10	20525	836.5	1	Mid	-0.12	0.054	21.47	21.70	1.054	0.057	/
Ant.1	Level4	QPSK	Right Edge	10	20525	836.5	25	Low	0.15	0.049	21.32	21.70	1.091	0.053	/
Ant.1	Level6	QPSK	Top Edge	10	20525	836.5	1	Mid	0.10	0.143	21.47	21.70	1.054	**0.151**	12#
Ant.1	Level6	QPSK	Top Edge	10	20525	836.5	25	Low	0.18	0.138	21.32	21.70	1.091	0.151	/
Ant.0	Level6	QPSK	Front Side	10	20525	836.5	1	Mid	0.10	0.038	19.48	20.00	1.127	0.043	/
Ant.0	Level6	QPSK	Front Side	10	20525	836.5	25	Low	0.07	0.037	19.36	20.00	1.159	0.043	/
Ant.0	Level6	QPSK	Back Side	10	20525	836.5	1	Mid	0.14	0.071	19.48	20.00	1.127	0.080	/

Ant.0	Level6	QPSK	Back Side	10	20525	836.5	25	Low	0.06	0.069	19.36	20.00	1.159	0.080	/
Ant.0	Level4	QPSK	Left Edge	10	20525	836.5	1	Mid	-0.17	0.028	19.48	20.00	1.127	0.032	/
Ant.0	Level4	QPSK	Left Edge	10	20525	836.5	25	Low	0.05	0.025	19.36	20.00	1.159	0.029	/
Ant.0	Level6	QPSK	Right Edge	10	20525	836.5	1	Mid	-0.16	0.040	19.48	20.00	1.127	0.045	/
Ant.0	Level6	QPSK	Right Edge	10	20525	836.5	25	Low	0.17	0.039	19.36	20.00	1.159	0.045	/
Ant.0	Level6	QPSK	Bottom Edge	10	20525	836.5	1	Mid	0.17	0.042	19.48	20.00	1.127	0.047	/
Ant.0	Level6	QPSK	Bottom Edge	10	20525	836.5	25	Low	-0.19	0.040	19.36	20.00	1.159	0.046	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.5LTE Band 7 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.1	Level1&2	QPSK	Left Cheek	0	21100	2535	1	Mid	-0.03	0.121	10.12	10.40	1.067	0.129	/
Ant.1	Level1&2	QPSK	Left Cheek	0	21100	2535	50	High	-0.04	0.118	10.09	10.40	1.074	0.127	/
Ant.1	Level1&2	QPSK	Left Tilt	0	21100	2535	1	Mid	0.12	0.188	10.12	10.40	1.067	0.201	/
Ant.1	Level1&2	QPSK	Left Tilt	0	21100	2535	50	High	-0.01	0.184	10.09	10.40	1.074	0.198	/
Ant.1	Level1&2	QPSK	Right Cheek	0	21100	2535	1	Mid	0.14	0.342	10.12	10.40	1.067	0.365	/
Ant.1	Level1&2	QPSK	Right Cheek	0	21100	2535	50	High	-0.08	0.330	10.09	10.40	1.074	0.354	/
Ant.1	Level1&2	QPSK	Right Tilt	0	21100	2535	1	Mid	-0.14	0.389	10.12	10.40	1.067	**0.415**	13#
Ant.1	Level1&2	QPSK	Right Tilt	0	21100	2535	50	High	-0.16	0.367	10.09	10.40	1.074	0.394	/
Ant.0	Level1&2	QPSK	Left Cheek	0	20850	2510	1	Mid	0.10	0.128	23.13	23.80	1.167	0.149	/
Ant.0	Level1&2	QPSK	Left Cheek	0	20850	2510	50	High	0.15	0.093	22.08	22.80	1.180	0.110	/
Ant.0	Level1&2	QPSK	Left Tilt	0	20850	2510	1	Mid	-0.16	0.087	23.13	23.80	1.167	0.102	/
Ant.0	Level1&2	QPSK	Left Tilt	0	20850	2510	50	High	-0.19	0.081	22.08	22.80	1.180	0.096	/
Ant.0	Level1&2	QPSK	Right Cheek	0	20850	2510	1	Mid	-0.04	0.190	23.13	23.80	1.167	0.222	/
Ant.0	Level1&2	QPSK	Right Cheek	0	20850	2510	50	High	0.06	0.170	22.08	22.80	1.180	0.201	/
Ant.0	Level1&2	QPSK	Right Tilt	0	20850	2510	1	Mid	-0.09	0.103	23.13	23.80	1.167	0.120	/
Ant.0	Level1&2	QPSK	Right Tilt	0	20850	2510	50	High	0.18	0.093	22.08	22.80	1.180	0.110	/
Body-worn															
Ant.1	Level3&4	QPSK	Front Side	15	20850	2510	1	Mid	0.16	0.051	13.06	13.40	1.081	0.055	/
Ant.1	Level3&4	QPSK	Front Side	15	20850	2510	50	High	0.02	0.047	13.04	13.40	1.086	0.051	/
Ant.1	Level3&4	QPSK	Back Side	15	20850	2510	1	Mid	0.09	0.081	13.06	13.40	1.081	0.088	/
Ant.1	Level3&4	QPSK	Back Side	15	20850	2510	50	High	0.01	0.078	13.04	13.40	1.086	0.085	/
Ant.0	Level3&4	QPSK	Front Side	15	21100	2535	1	Mid	0.19	0.062	17.52	17.80	1.067	0.066	/
Ant.0	Level3&4	QPSK	Front Side	15	20850	2510	50	High	0.16	0.062	17.68	17.80	1.028	0.064	/
Ant.0	Level5&6	QPSK	Back Side	15	21100	2535	1	Mid	0.06	0.097	17.52	17.80	1.067	**0.104**	14#
Ant.0	Level5&6	QPSK	Back Side	15	20850	2510	50	High	0.06	0.089	17.68	17.80	1.028	0.091	/
Hotspot															
Ant.1	Level4	QPSK	Front Side	10	20850	2510	1	Mid	-0.05	0.092	13.06	13.40	1.081	0.099	/
Ant.1	Level4	QPSK	Front Side	10	20850	2510	50	High	-0.16	0.090	13.04	13.40	1.086	0.098	/
Ant.1	Level6	QPSK	Back Side	10	20850	2510	1	Mid	-0.10	0.153	13.06	13.40	1.081	0.165	/
Ant.1	Level6	QPSK	Back Side	10	20850	2510	50	High	0.01	0.148	13.04	13.40	1.086	0.161	/
Ant.1	Level4	QPSK	Right Edge	10	20850	2510	1	Mid	0.19	0.075	13.06	13.40	1.081	0.081	/
Ant.1	Level4	QPSK	Right Edge	10	20850	2510	50	High	0.00	0.071	13.04	13.40	1.086	0.077	/
Ant.1	Level6	QPSK	Top Edge	10	20850	2510	1	Mid	0.12	0.274	13.06	13.40	1.081	**0.296**	15#
Ant.1	Level6	QPSK	Top Edge	10	20850	2510	50	High	-0.19	0.260	13.04	13.40	1.086	0.282	/
Ant.0	Level6	QPSK	Front Side	10	21100	2535	1	Mid	-0.06	0.149	17.52	17.80	1.067	0.159	/
Ant.0	Level6	QPSK	Front Side	10	20850	2510	50	High	-0.15	0.145	17.68	17.80	1.028	0.149	/
Ant.0	Level6	QPSK	Back Side	10	21100	2535	1	Mid	0.17	0.232	17.52	17.80	1.067	0.247	/

Ant.0	Level6	QPSK	Back Side	10	20850	2510	50	High	0.15	0.244	17.68	17.80	1.028	0.251	/
Ant.0	Level4	QPSK	Left Edge	10	21100	2535	1	Mid	0.15	0.113	17.52	17.80	1.067	0.121	/
Ant.0	Level4	QPSK	Left Edge	10	20850	2510	50	High	-0.17	0.120	17.68	17.80	1.028	0.123	/
Ant.0	Level6	QPSK	Right Edge	10	21100	2535	1	Mid	-0.07	0.015	17.52	17.80	1.067	0.016	/
Ant.0	Level6	QPSK	Right Edge	10	20850	2510	50	High	-0.16	0.014	17.68	17.80	1.028	0.014	/
Ant.0	Level6	QPSK	Bottom Edge	10	21100	2535	1	Mid	0.10	0.116	17.52	17.80	1.067	0.124	/
Ant.0	Level6	QPSK	Bottom Edge	10	20850	2510	50	High	-0.14	0.125	17.68	17.80	1.028	0.129	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.6 LTE Band 38 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.1	Level1&2	QPSK	Left Cheek	0	37850	2580	1	Mid	0.09	0.079	11.38	11.70	1.076	0.085	/
Ant.1	Level1&2	QPSK	Left Cheek	0	38150	2610	50	High	0.00	0.081	11.44	11.70	1.062	0.086	/
Ant.1	Level1&2	QPSK	Left Tilt	0	37850	2580	1	Mid	-0.04	0.102	11.38	11.70	1.076	0.110	/
Ant.1	Level1&2	QPSK	Left Tilt	0	38150	2610	50	High	-0.11	0.100	11.44	11.70	1.062	0.106	/
Ant.1	Level1&2	QPSK	Right Cheek	0	37850	2580	1	Mid	0.12	0.238	11.38	11.70	1.076	0.256	/
Ant.1	Level1&2	QPSK	Right Cheek	0	38150	2610	50	High	-0.01	0.243	11.44	11.70	1.062	0.258	/
Ant.1	Level1&2	QPSK	Right Tilt	0	37850	2580	1	Mid	0.10	0.279	11.38	11.70	1.076	**0.300**	16#
Ant.1	Level1&2	QPSK	Right Tilt	0	38150	2610	50	High	0.12	0.272	11.44	11.70	1.062	0.289	/
Ant.0	Level1&2	QPSK	Left Cheek	0	38150	2610	1	Mid	0.06	0.090	23.69	23.80	1.026	0.092	/
Ant.0	Level1&2	QPSK	Left Cheek	0	38150	2610	50	High	0.06	0.071	21.94	22.80	1.219	0.087	/
Ant.0	Level1&2	QPSK	Left Tilt	0	38150	2610	1	Mid	0.15	0.088	23.69	23.80	1.026	0.090	/
Ant.0	Level1&2	QPSK	Left Tilt	0	38150	2610	50	High	-0.15	0.070	21.94	22.80	1.219	0.085	/
Ant.0	Level1&2	QPSK	Right Cheek	0	38150	2610	1	Mid	0.04	0.211	23.69	23.80	1.026	0.216	/
Ant.0	Level1&2	QPSK	Right Cheek	0	38150	2610	50	High	0.01	0.170	21.94	22.80	1.219	0.207	/
Ant.0	Level1&2	QPSK	Right Tilt	0	38150	2610	1	Mid	-0.13	0.131	23.69	23.80	1.026	0.134	/
Ant.0	Level1&2	QPSK	Right Tilt	0	38150	2610	50	High	0.06	0.100	21.94	22.80	1.219	0.122	/
Body-worn															
Ant.1	Level3&4	QPSK	Front Side	15	37850	2580	1	Mid	0.06	0.098	21.29	21.70	1.099	0.108	/
Ant.1	Level3&4	QPSK	Front Side	15	38150	2610	50	Mid	0.14	0.101	21.33	21.70	1.089	0.110	/
Ant.1	Level3&4	QPSK	Back Side	15	37850	2580	1	Mid	0.01	0.147	21.29	21.70	1.099	0.162	/
Ant.1	Level3&4	QPSK	Back Side	15	38150	2610	50	Mid	0.00	0.145	21.33	21.70	1.089	0.158	/
Ant.0	Level3&4	QPSK	Front Side	15	38150	2610	1	Mid	-0.02	0.103	21.55	21.80	1.059	0.109	/
Ant.0	Level3&4	QPSK	Front Side	15	38150	2610	50	High	-0.10	0.093	21.05	21.80	1.189	0.111	/
Ant.0	Level5&6	QPSK	Back Side	15	38150	2610	1	Mid	-0.04	0.148	21.55	21.80	1.059	0.157	/
Ant.0	Level5&6	QPSK	Back Side	15	38150	2610	50	High	0.03	0.138	21.05	21.80	1.189	**0.164**	17#
Hotspot															
Ant.1	Level4	QPSK	Front Side	10	37850	2580	1	Mid	0.11	0.117	21.29	21.70	1.099	0.129	/
Ant.1	Level4	QPSK	Front Side	10	38150	2610	50	Mid	-0.11	0.111	21.33	21.70	1.089	0.121	/
Ant.1	Level6	QPSK	Back Side	10	37850	2580	1	Mid	-0.18	0.217	21.29	21.70	1.099	0.238	/
Ant.1	Level6	QPSK	Back Side	10	38150	2610	50	Mid	0.04	0.220	21.33	21.70	1.089	0.240	/
Ant.1	Level4	QPSK	Right Edge	10	37850	2580	1	Mid	-0.10	0.100	21.29	21.70	1.099	0.110	/
Ant.1	Level4	QPSK	Right Edge	10	38150	2610	50	Mid	0.08	0.104	21.33	21.70	1.089	0.113	/
Ant.1	Level6	QPSK	Top Edge	10	37850	2580	1	Mid	0.05	0.371	21.29	21.70	1.099	**0.408**	18#
Ant.1	Level6	QPSK	Top Edge	10	38150	2610	50	Mid	0.13	0.368	21.33	21.70	1.089	0.401	/
Ant.0	Level6	QPSK	Front Side	10	38150	2610	1	Mid	0.04	0.186	21.55	21.80	1.059	0.197	/
Ant.0	Level6	QPSK	Front Side	10	38150	2610	50	High	0.00	0.174	21.05	21.80	1.189	0.207	/
Ant.0	Level6	QPSK	Back Side	10	38150	2610	1	Mid	0.19	0.312	21.55	21.80	1.059	0.330	/

Ant.0	Level6	QPSK	Back Side	10	38150	2610	50	High	0.03	0.292	21.05	21.80	1.189	0.347	/
Ant.0	Level4	QPSK	Left Edge	10	38150	2610	1	Mid	-0.06	0.126	21.55	21.80	1.059	0.133	/
Ant.0	Level4	QPSK	Left Edge	10	38150	2610	50	High	0.19	0.118	21.05	21.80	1.189	0.140	/
Ant.0	Level6	QPSK	Right Edge	10	38150	2610	1	Mid	-0.09	0.019	21.55	21.80	1.059	0.020	/
Ant.0	Level6	QPSK	Right Edge	10	38150	2610	50	High	0.05	0.016	21.05	21.80	1.189	0.019	/
Ant.0	Level6	QPSK	Bottom Edge	10	38150	2610	1	Mid	0.12	0.117	21.55	21.80	1.059	0.124	/
Ant.0	Level6	QPSK	Bottom Edge	10	38150	2610	50	High	-0.19	0.114	21.05	21.80	1.189	0.135	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.7 LTE Band 41 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.1	Level1&2	QPSK	Left Cheek	0	39750	2506	1	Mid	-0.19	0.072	11.54	11.70	1.038	0.075	/
Ant.1	Level1&2	QPSK	Left Cheek	0	39750	2506	50	High	-0.14	0.071	11.62	11.70	1.019	0.072	/
Ant.1	Level1&2	QPSK	Left Tilt	0	39750	2506	1	Mid	-0.18	0.091	11.54	11.70	1.038	0.094	/
Ant.1	Level1&2	QPSK	Left Tilt	0	39750	2506	50	High	-0.15	0.089	11.62	11.70	1.019	0.091	/
Ant.1	Level1&2	QPSK	Right Cheek	0	39750	2506	1	Mid	-0.02	0.215	11.54	11.70	1.038	0.223	/
Ant.1	Level1&2	QPSK	Right Cheek	0	39750	2506	50	High	0.09	0.212	11.62	11.70	1.019	0.216	/
Ant.1	Level1&2	QPSK	Right Tilt	0	39750	2506	1	Mid	0.03	0.284	11.54	11.70	1.038	**0.295**	19#
Ant.1	Level1&2	QPSK	Right Tilt	0	39750	2506	50	High	0.08	0.271	11.62	11.70	1.019	0.276	/
Ant.0	Level1&2	QPSK	Left Cheek	0	39750	2506	1	Mid	-0.15	0.156	23.76	23.80	1.009	0.157	/
Ant.0	Level1&2	QPSK	Left Cheek	0	39750	2506	50	High	0.19	0.120	22.02	22.80	1.197	0.144	/
Ant.0	Level1&2	QPSK	Left Tilt	0	39750	2506	1	Mid	0.08	0.122	23.76	23.80	1.009	0.123	/
Ant.0	Level1&2	QPSK	Left Tilt	0	39750	2506	50	High	0.08	0.099	22.02	22.80	1.197	0.118	/
Ant.0	Level1&2	QPSK	Right Cheek	0	39750	2506	1	Mid	0.19	0.290	23.76	23.80	1.009	0.293	/
Ant.0	Level1&2	QPSK	Right Cheek	0	39750	2506	50	High	-0.03	0.229	22.02	22.80	1.197	0.274	/
Ant.0	Level1&2	QPSK	Right Tilt	0	39750	2506	1	Mid	0.12	0.172	23.76	23.80	1.009	0.174	/
Ant.0	Level1&2	QPSK	Right Tilt	0	39750	2506	50	High	-0.01	0.140	22.02	22.80	1.197	0.168	/
Body-worn															
Ant.1	Level3&4	QPSK	Front Side	15	39750	2506	1	Mid	0.19	0.132	21.35	21.70	1.084	0.143	/
Ant.1	Level3&4	QPSK	Front Side	15	39750	2506	50	High	-0.08	0.118	20.98	21.70	1.180	0.139	/
Ant.1	Level3&4	QPSK	Back Side	15	39750	2506	1	Mid	0.13	0.195	21.35	21.70	1.084	0.211	/
Ant.1	Level3&4	QPSK	Back Side	15	39750	2506	50	High	0.17	0.175	20.98	21.70	1.180	0.207	/
Ant.0	Level3&4	QPSK	Front Side	15	39750	2506	1	Mid	-0.03	0.123	21.69	21.80	1.026	0.126	/
Ant.0	Level3&4	QPSK	Front Side	15	39750	2506	50	High	-0.01	0.104	21.04	21.80	1.191	0.124	/
Ant.0	Level5&6	QPSK	Back Side	15	39750	2506	1	Mid	0.03	0.198	21.69	21.80	1.026	0.203	/
Ant.0	Level5&6	QPSK	Back Side	15	39750	2506	50	High	0.05	0.181	21.04	21.80	1.191	**0.216**	20#
Hotspot															
Ant.1	Level4	QPSK	Front Side	10	39750	2506	1	Mid	-0.03	0.121	21.35	21.70	1.084	0.131	/
Ant.1	Level4	QPSK	Front Side	10	39750	2506	50	High	-0.06	0.109	20.98	21.70	1.180	0.129	/
Ant.1	Level6	QPSK	Back Side	10	39750	2506	1	Mid	0.02	0.196	21.35	21.70	1.084	0.212	/
Ant.1	Level6	QPSK	Back Side	10	39750	2506	50	High	0.10	0.191	20.98	21.70	1.180	0.225	/
Ant.1	Level4	QPSK	Right Edge	10	39750	2506	1	Mid	0.07	0.111	21.35	21.70	1.084	0.120	/
Ant.1	Level4	QPSK	Right Edge	10	39750	2506	50	High	-0.18	0.098	20.98	21.70	1.180	0.116	/
Ant.1	Level6	QPSK	Top Edge	10	39750	2506	1	Mid	-0.05	0.352	21.35	21.70	1.084	**0.382**	21#
Ant.1	Level6	QPSK	Top Edge	10	39750	2506	50	High	-0.16	0.319	20.98	21.70	1.180	0.377	/
Ant.0	Level6	QPSK	Front Side	10	39750	2506	1	Mid	0.05	0.226	21.69	21.80	1.026	0.232	/
Ant.0	Level6	QPSK	Front Side	10	39750	2506	50	High	-0.16	0.197	21.04	21.80	1.191	0.235	/
Ant.0	Level6	QPSK	Back Side	10	39750	2506	1	Mid	0.18	0.349	21.69	21.80	1.026	0.358	/

Ant.0	Level6	QPSK	Back Side	10	39750	2506	50	High	0.14	0.312	21.04	21.80	1.191	0.372	/
Ant.0	Level4	QPSK	Left Edge	10	39750	2506	1	Mid	-0.04	0.149	21.69	21.80	1.026	0.153	/
Ant.0	Level4	QPSK	Left Edge	10	39750	2506	50	High	0.04	0.125	21.04	21.80	1.191	0.149	/
Ant.0	Level6	QPSK	Right Edge	10	39750	2506	1	Mid	-0.19	0.014	21.69	21.80	1.026	0.014	/
Ant.0	Level6	QPSK	Right Edge	10	39750	2506	50	High	0.06	0.011	21.04	21.80	1.191	0.013	/
Ant.0	Level6	QPSK	Bottom Edge	10	39750	2506	1	Mid	0.11	0.163	21.69	21.80	1.026	0.167	/
Ant.0	Level6	QPSK	Bottom Edge	10	39750	2506	50	High	0.12	0.141	21.04	21.80	1.191	0.168	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.8WIFI 2.4GHz

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.2	Level1	802.11 b	Left Cheek	0	6	2437	0.17	0.547	14.26	16.00	1.493	99.32	1.007	**0.822**	22#
Ant.2	Level1	802.11 b	Left Cheek	0	1	2412	0.15	0.477	14.23	16.00	1.503	99.32	1.007	0.722	/
Ant.2	Level1	802.11 b	Left Cheek	0	11	2462	0.15	0.442	14.12	16.00	1.542	99.32	1.007	0.686	/
Ant.2	Level1	802.11 b	Left Tilt	0	6	2437	-0.10	0.508	14.26	16.00	1.493	99.32	1.007	0.764	/
Ant.2	Level1	802.11 b	Right Cheek	0	6	2437	0.17	0.324	14.26	16.00	1.493	99.32	1.007	0.487	/
Ant.2	Level1	802.11 b	Right Tilt	0	6	2437	0.01	0.338	14.26	16.00	1.493	99.32	1.007	0.508	/
Ant.2	Level2	802.11 b	Left Cheek	0	6	2437	0.07	0.204	10.16	12.00	1.528	99.32	1.007	0.314	/
Ant.2	Level2	802.11 b	Left Tilt	0	6	2437	-0.19	0.193	10.16	12.00	1.528	99.32	1.007	0.297	/
Ant.2	Level2	802.11 b	Right Cheek	0	6	2437	-0.13	0.125	10.16	12.00	1.528	99.32	1.007	0.192	/
Ant.2	Level2	802.11 b	Right Tilt	0	6	2437	-0.13	0.136	10.16	12.00	1.528	99.32	1.007	0.209	/
Body-Worn															
Ant.2	Level3&4	802.11 b	Front Side	15	6	2437	0.09	0.045	14.26	16.00	1.493	99.32	1.007	0.068	/
Ant.2	Level3&4	802.11 b	Back Side	15	6	2437	-0.18	0.066	14.26	16.00	1.493	99.32	1.007	**0.099**	23#
Hotspot															
Ant.2	Level4	802.11 b	Front Side	10	6	2437	0.04	0.103	14.26	16.00	1.493	99.32	1.007	0.155	/
Ant.2	Level4	802.11 b	Back Side	10	6	2437	0.00	0.150	14.26	16.00	1.493	99.32	1.007	**0.225**	24#
Ant.2	Level6	802.11 b	Left Edge	10	6	2437	-0.16	0.076	12.31	14.00	1.476	99.32	1.007	0.113	/
Ant.2	Level4	802.11 b	Top Edge	10	6	2437	0.02	0.095	14.26	16.00	1.493	99.32	1.007	0.143	/
Sensor n-1															
Ant.2	Level4	802.11 b	Left Edge	11	6	2437	-0.04	0.093	14.26	16.00	1.493	99.32	1.007	0.140	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.9WIFI 5GHz

Antenna	Power Reduction	Fre. Band	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head																
Ant.2	Level1	5.3G	802.11ac (VHT80)	Left Cheek	0	58	5290	0.03	0.412	12.21	14.00	1.510	87.81	1.139	**0.709**	25#
Ant.2	Level1	5.3G	802.11ac (VHT80)	Left Tilt	0	58	5290	0.04	0.390	12.21	14.00	1.510	87.81	1.139	0.671	/
Ant.2	Level1	5.3G	802.11ac (VHT80)	Right Cheek	0	58	5290	0.06	0.136	12.21	14.00	1.510	87.81	1.139	0.234	/
Ant.2	Level1	5.3G	802.11ac (VHT80)	Right Tilt	0	58	5290	0.09	0.183	12.21	14.00	1.510	87.81	1.139	0.315	/
Ant.2	Level2	5.3G	802.11ac (VHT80)	Left Cheek	0	58	5290	0.01	0.291	8.24	10.00	1.500	87.81	1.139	0.497	/
Ant.2	Level2	5.3G	802.11ac (VHT80)	Left Tilt	0	58	5290	0.12	0.268	8.24	10.00	1.500	87.81	1.139	0.458	/
Ant.2	Level2	5.3G	802.11ac (VHT80)	Right Cheek	0	58	5290	0.08	0.095	8.24	10.00	1.500	87.81	1.139	0.162	/
Ant.2	Level2	5.3G	802.11ac (VHT80)	Right Tilt	0	58	5290	-0.08	0.123	8.24	10.00	1.500	87.81	1.139	0.210	/
Ant.2	Level1	5.6G	802.11ac (VHT80)	Left Cheek	0	106	5530	-0.06	0.451	12.12	14.00	1.542	87.81	1.139	**0.792**	26#
Ant.2	Level1	5.6G	802.11ac (VHT80)	Left Tilt	0	106	5530	0.03	0.408	12.12	14.00	1.542	87.81	1.139	0.716	/
Ant.2	Level1	5.6G	802.11ac (VHT80)	Right Cheek	0	106	5530	0.00	0.201	12.12	14.00	1.542	87.81	1.139	0.353	/
Ant.2	Level1	5.6G	802.11ac (VHT80)	Right Tilt	0	106	5530	-0.15	0.236	12.12	14.00	1.542	87.81	1.139	0.414	/
Ant.2	Level2	5.6G	802.11ac (VHT80)	Left Cheek	0	106	5530	-0.16	0.189	8.21	10.00	1.510	87.81	1.139	0.325	/
Ant.2	Level2	5.6G	802.11ac (VHT80)	Left Tilt	0	106	5530	-0.05	0.168	8.21	10.00	1.510	87.81	1.139	0.289	/
Ant.2	Level2	5.6G	802.11ac (VHT80)	Right Cheek	0	106	5530	-0.02	0.085	8.21	10.00	1.510	87.81	1.139	0.146	/
Ant.2	Level2	5.6G	802.11ac (VHT80)	Right Tilt	0	106	5530	-0.14	0.100	8.21	10.00	1.510	87.81	1.139	0.172	/
Ant.2	Level1	5.8G	802.11ac (VHT80)	Left Cheek	0	155	5775	0.01	0.502	12.18	13.00	1.208	87.81	1.139	**0.690**	27#
Ant.2	Level1	5.8G	802.11ac (VHT80)	Left Tilt	0	155	5775	0.01	0.485	12.18	13.00	1.208	87.81	1.139	0.667	/

Ant.2	Level1	5.8G	802.11ac (VHT80)	Right Cheek	0	155	5775	-0.19	0.271	12.18	13.00	1.208	87.81	1.139	0.373	/
Ant.2	Level1	5.8G	802.11ac (VHT80)	Right Tilt	0	155	5775	0.10	0.308	12.18	13.00	1.208	87.81	1.139	0.424	/
Ant.2	Level2	5.8G	802.11ac (VHT80)	Left Cheek	0	155	5775	-0.03	0.211	8.13	10.00	1.538	87.81	1.139	0.370	/
Ant.2	Level2	5.8G	802.11ac (VHT80)	Left Tilt	0	155	5775	0.13	0.194	8.13	10.00	1.538	87.81	1.139	0.340	/
Ant.2	Level2	5.8G	802.11ac (VHT80)	Right Cheek	0	155	5775	-0.07	0.110	8.13	10.00	1.538	87.81	1.139	0.193	/
Ant.2	Level2	5.8G	802.11ac (VHT80)	Right Tilt	0	155	5775	-0.13	0.125	8.13	10.00	1.538	87.81	1.139	0.219	/
Body-Worn																
Ant.2	Level3	5.3G	802.11a	Front Side	15	64	5320	0.16	0.298	18.23	20.00	1.503	99.27	1.007	0.451	/
Ant.2	Level3	5.3G	802.11a	Back Side	15	64	5320	-0.09	0.550	18.23	20.00	1.503	99.27	1.007	0.833	/
Ant.2	Level3	5.3G	802.11a	Back Side	15	52	5260	0.01	0.546	18.15	20.00	1.531	99.27	1.007	**0.842**	28#
Ant.2	Level3	5.3G	802.11a	Back Side	15	60	5300	0.12	0.531	18.08	20.00	1.556	99.27	1.007	0.832	/
Ant.2	Level4	5.3G	802.11ac (VHT80)	Front Side	15	58	5290	-0.06	0.196	16.29	18.00	1.483	87.81	1.139	0.331	/
Ant.2	Level4	5.3G	802.11ac (VHT80)	Back Side	15	58	5290	-0.08	0.364	16.29	18.00	1.483	87.81	1.139	0.615	/
Ant.2	Level3&4	5.6G	802.11ac (VHT80)	Front Side	15	122	5610	0.03	0.299	15.66	17.00	1.361	87.81	1.139	0.464	/
Ant.2	Level3&4	5.6G	802.11ac (VHT80)	Back Side	15	122	5610	-0.13	0.459	15.66	17.00	1.361	87.81	1.139	**0.712**	29#
Ant.2	Level3&4	5.8G	802.11ac (VHT80)	Front Side	15	155	5775	-0.11	0.061	12.18	13.00	1.208	87.81	1.139	0.084	/
Ant.2	Level3&4	5.8G	802.11ac (VHT80)	Back Side	15	155	5775	0.00	0.128	12.18	13.00	1.208	87.81	1.139	0.176	/
Hotspot																
Ant.2	Level4	5.2G	802.11ac (VHT80)	Front Side	10	42	5210	0.04	0.298	16.34	18.00	1.466	87.81	1.139	0.497	/
Ant.2	Level4	5.2G	802.11ac (VHT80)	Back Side	10	42	5210	0.08	0.653	16.34	18.00	1.466	87.81	1.139	**1.090**	30#
Ant.2	Level6	5.2G	802.11ac (VHT80)	Left Edge	10	42	5210	-0.15	0.142	7.28	9.00	1.486	87.81	1.139	0.240	/
Ant.2	Level4	5.2G	802.11ac (VHT80)	Top Edge	10	42	5210	0.18	0.479	16.34	18.00	1.466	87.81	1.139	0.799	/
Ant.2	Level4	5.8G	802.11ac (VHT80)	Front Side	10	155	5775	0.11	0.098	12.18	13.00	1.208	87.81	1.139	0.135	/
Ant.2	Level4	5.8G	802.11ac (VHT80)	Back Side	10	155	5775	0.00	0.220	12.18	13.00	1.208	87.81	1.139	**0.303**	31#

Ant.2	Level6	5.8G	802.11ac (VHT80)	Left Edge	10	155	5775	0.05	0.060	7.24	9.00	1.500	87.81	1.139	0.102	/
Ant.2	Level4	5.8G	802.11ac (VHT80)	Top Edge	10	155	5775	-0.12	0.121	12.18	13.00	1.208	87.81	1.139	0.166	/
Sensor n-1																
Ant.2	Level4	5.2G	802.11ac (VHT80)	Left Edge	11	42	5210	0.14	0.688	16.34	18.00	1.466	87.81	1.139	1.148	/
Ant.2	Level4	5.8G	802.11ac (VHT80)	Left Edge	11	155	5775	0.02	0.258	12.18	13.00	1.208	87.81	1.139	0.355	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

Antenna	Power Reduction	Fre. Band	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific																
Ant.2	Level5	5.3G	802.11ac (VHT80)	Front Side	0	58	5290	0.00	0.404	13.25	15.00	1.496	87.81	1.139	0.688	/
	Level5			Back Side	0	58	5290	0.03	0.487	13.25	15.00	1.496	87.81	1.139	0.830	/
	Level5			Left Edge	0	58	5290	0.14	0.639	13.25	15.00	1.496	87.81	1.139	**1.089**	32#
	Level5			Top Edge	0	58	5290	-0.03	0.430	13.25	15.00	1.496	87.81	1.139	0.733	/
Ant.2	Level6	5.3G	802.11ac (VHT80)	Front Side	0	58	5290	-0.06	0.105	7.14	9.00	1.535	87.81	1.139	0.184	/
	Level6			Back Side	0	58	5290	0.00	0.131	7.14	9.00	1.535	87.81	1.139	0.229	/
	Level6			Left Edge	0	58	5290	-0.14	0.168	7.14	9.00	1.535	87.81	1.139	0.294	/
	Level6			Top Edge	0	58	5290	-0.19	0.110	7.14	9.00	1.535	87.81	1.139	0.192	/
Ant.2	Level5	5.6G	802.11ac (VHT80)	Front Side	0	122	5610	0.02	0.301	13.08	15.00	1.556	87.81	1.139	0.533	/
	Level5			Back Side	0	122	5610	0.19	0.358	13.08	15.00	1.556	87.81	1.139	0.634	/
	Level5			Left Edge	0	122	5610	-0.06	0.465	13.08	15.00	1.556	87.81	1.139	**0.824**	33#
	Level5			Top Edge	0	122	5610	0.06	0.350	13.08	15.00	1.556	87.81	1.139	0.620	/
Ant.2	Level6	5.6G	802.11ac (VHT80)	Front Side	0	122	5610	0.01	0.083	7.22	9.00	1.507	87.81	1.139	0.142	/
	Level6			Back Side	0	122	5610	-0.06	0.096	7.22	9.00	1.507	87.81	1.139	0.165	/
	Level6			Left Edge	0	122	5610	0.19	0.120	7.22	9.00	1.507	87.81	1.139	0.206	/
	Level6			Top Edge	0	122	5610	-0.07	0.093	7.22	9.00	1.507	87.81	1.139	0.160	/
Sensor n-1																
Ant.2	Level3	5.3G	802.11a	Front Side	6	64	5320	0.11	0.303	18.23	20.00	1.503	99.27	1.007	0.459	/
Ant.2	Level3	5.3G	802.11a	Back Side	9	64	5320	-0.06	0.359	18.23	20.00	1.503	99.27	1.007	0.544	/
Ant.2	Level3	5.3G	802.11a	Left Edge	11	64	5320	-0.02	0.364	18.23	20.00	1.503	99.27	1.007	0.551	/
Ant.2	Level3	5.3G	802.11a	Top Edge	9	64	5320	0.06	0.340	18.23	20.00	1.503	99.27	1.007	0.515	/
Ant.2	Level3	5.6G	802.11ac (VHT80)	Front Side	6	122	5610	-0.12	0.215	15.66	17.00	1.361	87.81	1.139	0.333	/
Ant.2	Level3	5.6G	802.11ac (VHT80)	Back Side	9	122	5610	-0.17	0.390	15.66	17.00	1.361	87.81	1.139	0.605	/
Ant.2	Level3	5.6G	802.11ac (VHT80)	Left Edge	11	122	5610	0.13	0.195	15.66	17.00	1.361	87.81	1.139	0.302	/

Ant.2	Level3	5.6G	802.11ac (VHT80)	Top Edge	9	122	5610	0.08	0.227	15.66	17.00	1.361	87.81	1.139	0.352	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

11.10 Bluetooth

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	Bluetooth	Left Cheek	0	39	2441	0.18	0.173	11.58	13.50	1.556	76.68	1.304	**0.351**	34#
		Left Tilt	0	39	2441	-0.19	0.137	11.58	13.50	1.556	76.68	1.304	0.278	/
		Right Cheek	0	39	2441	0.01	0.066	11.58	13.50	1.556	76.68	1.304	0.134	/
		Right Tilt	0	39	2441	0.19	0.079	11.58	13.50	1.556	76.68	1.304	0.160	/
Body														
Ant.2	Bluetooth	Front Side	15	39	2441	0.18	0.010	11.58	13.50	1.556	76.68	1.304	0.020	/
		Back Side	15	39	2441	-0.10	0.016	11.58	13.50	1.556	76.68	1.304	**0.032**	35#
Hotspot														
Ant.2	Bluetooth	Front Side	10	39	2441	-0.03	0.028	11.58	13.50	1.556	76.68	1.304	0.057	/
		Back Side	10	39	2441	0.05	0.039	11.58	13.50	1.556	76.68	1.304	**0.079**	36#
		Left Edge	10	39	2441	-0.16	0.025	11.58	13.50	1.556	76.68	1.304	0.051	/
		Top Edge	10	39	2441	0.10	0.028	11.58	13.50	1.556	76.68	1.304	0.057	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.11 Worst Case of WIFI 2.4GHz

Antenna	Power Reduction	Mode		Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head																
Ant.2	Level1	802.11 b	802.11 b	Left Cheek	0	6	2437	-0.15	0.405	14.26	16.00	1.493	99.32	1.007	**0.609**	37#

11.12 Worst Case of WIFI 5GHz

Antenna	Power Reduction	Fre. Band	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift(dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body-Worn																
Ant.2	Level3	5.3G	802.11a	Back Side	15	52	5260	0.13	0.513	18.15	20.00	1.531	99.27	1.007	**0.791**	38#
Hotspot																
Ant.2	Level4	5.2G	802.11ac (VHT80)	Back Side	10	42	5210	-0.03	0.635	16.34	18.00	1.466	87.81	1.139	**1.060**	39#

Specific																
Antenna	Power Reduction	Fre. Band	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift(dB)	10 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Ant.2	Level5	5.3G	802.11ac (VHT80)	Left Edge	0	58	5290	0.19	0.539	13.25	15.00	1.496	87.81	1.139	**0.918**	4#

12 SAR Measurement Variability

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

SAR repeated measurement procedure:

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.

Note: For product specific 10g SAR, the highest measured 10g SAR is 0.64 < 2.0 W/kg, repeated measurement is not required.

13 SIMULTANEOUS TRANSMISSION

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 SAR to Peak Location Ratio (SPLSR).

13.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot
1	GSM + WiFi 2.4G	Yes	Yes	Yes
2	WCDMA + WiFi 2.4G	Yes	Yes	Yes
3	LTE + WiFi 2.4G	Yes	Yes	Yes
4	GSM + 5G WIFI + Bluetooth	Yes	Yes	Yes
5	WCDMA + 5G WIFI + Bluetooth	Yes	Yes	Yes
6	LTE + 5G WIFI + Bluetooth	Yes	Yes	Yes

Note:

1. 2G&3G&4G share the same antenna and can't transmit simultaneously.
2. 2.4G WLAN can't transmit simultaneously with Bluetooth or 5G WLAN.
3. Two WWAN antennas can switch automatically, but up and down antenna can't transmit simultaneously.
4. The maximum SAR summation is calculated based on the same configuration and test position.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz WLAN/5.5GHz WLAN supports WiFi Direct (GC only)

13.2 Sum SAR of Simultaneous Transmission

13.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	1+2	1+3+4
			WWAN	2.4G WIFI	5GWIFI	Bluetooth	WWAN+2.4G	WWAN+5G
				Ant.2	Ant.2	Ant.2	WIFI	WIFI+BT
GSM850	Ant.1	Left Cheek	0.185	0.314	0.497	0.351	0.499	1.033
		Left Tilt	0.164	0.297	0.458	0.278	0.461	0.900
		Right Cheek	0.284	0.192	0.193	0.134	0.476	0.611
		Right Tilt	0.227	0.209	0.219	0.160	0.436	0.606
GSM850	Ant.0	Left Cheek	0.139	0.314	0.497	0.351	0.453	0.987
		Left Tilt	0.069	0.297	0.458	0.278	0.366	0.805
		Right Cheek	0.107	0.192	0.193	0.134	0.299	0.434
		Right Tilt	0.057	0.209	0.219	0.160	0.266	0.436
GSM 1900	Ant.1	Left Cheek	0.227	0.314	0.497	0.351	0.541	**1.075**
		Left Tilt	0.252	0.297	0.458	0.278	0.549	0.988
		Right Cheek	0.342	0.192	0.193	0.134	0.534	0.669
		Right Tilt	0.388	0.209	0.219	0.160	0.597	0.767
GSM 1900	Ant.0	Left Cheek	0.048	0.314	0.497	0.351	0.362	0.896
		Left Tilt	0.053	0.297	0.458	0.278	0.350	0.789
		Right Cheek	0.070	0.192	0.193	0.134	0.262	0.397
		Right Tilt	0.075	0.209	0.219	0.160	0.284	0.454
WCDMA B5	Ant.1	Left Cheek	0.201	0.314	0.497	0.351	0.515	1.049
		Left Tilt	0.186	0.297	0.458	0.278	0.483	0.922
		Right Cheek	0.375	0.192	0.193	0.134	0.567	0.702
		Right Tilt	0.308	0.209	0.219	0.160	0.517	0.687
WCDMA B5	Ant.0	Left Cheek	0.164	0.314	0.497	0.351	0.478	1.012
		Left Tilt	0.075	0.297	0.458	0.278	0.372	0.811
		Right Cheek	0.167	0.192	0.193	0.134	0.359	0.494
		Right Tilt	0.090	0.209	0.219	0.160	0.299	0.469
LTE B5	Ant.1	Left Cheek	0.218	0.314	0.497	0.351	0.532	1.066
		Left Tilt	0.186	0.297	0.458	0.278	0.483	0.922
		Right Cheek	0.324	0.192	0.193	0.134	0.516	0.651
		Right Tilt	0.307	0.209	0.219	0.160	0.516	0.686
LTE B5	Ant.0	Left Cheek	0.161	0.314	0.497	0.351	0.475	1.009
		Left Tilt	0.085	0.297	0.458	0.278	0.382	0.821
		Right Cheek	0.131	0.192	0.193	0.134	0.323	0.458
		Right Tilt	0.071	0.209	0.219	0.160	0.280	0.450
LTE B7	Ant.1	Left Cheek	0.129	0.314	0.497	0.351	0.443	0.977
		Left Tilt	0.201	0.297	0.458	0.278	0.498	0.937
		Right Cheek	0.365	0.192	0.193	0.134	0.557	0.692

		Right Tilt	0.415	0.209	0.219	0.160	0.624	0.794
LTE B7	Ant.0	Left Cheek	0.149	0.314	0.497	0.351	0.463	0.997
		Left Tilt	0.102	0.297	0.458	0.278	0.399	0.838
		Right Cheek	0.222	0.192	0.193	0.134	0.414	0.549
		Right Tilt	0.120	0.209	0.219	0.160	0.329	0.499
LTE B38	Ant.1	Left Cheek	0.086	0.314	0.497	0.351	0.400	0.934
		Left Tilt	0.110	0.297	0.458	0.278	0.407	0.846
		Right Cheek	0.258	0.192	0.193	0.134	0.450	0.585
		Right Tilt	0.300	0.209	0.219	0.160	0.509	0.679
LTE B38	Ant.0	Left Cheek	0.092	0.314	0.497	0.351	0.406	0.940
		Left Tilt	0.090	0.297	0.458	0.278	0.387	0.826
		Right Cheek	0.216	0.192	0.193	0.134	0.408	0.543
		Right Tilt	0.134	0.209	0.219	0.160	0.343	0.513
LTE B41	Ant.1	Left Cheek	0.075	0.314	0.497	0.351	0.389	0.923
		Left Tilt	0.094	0.297	0.458	0.278	0.391	0.830
		Right Cheek	0.223	0.192	0.193	0.134	0.415	0.550
		Right Tilt	0.295	0.209	0.219	0.160	0.504	0.674
LTE B41	Ant.0	Left Cheek	0.157	0.314	0.497	0.351	0.471	1.005
		Left Tilt	0.123	0.297	0.458	0.278	0.420	0.859
		Right Cheek	0.293	0.192	0.193	0.134	0.485	0.620
		Right Tilt	0.174	0.209	0.219	0.160	0.383	0.553

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.075 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.2 Body Worn Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Power Reduction	Position	Stand alone SAR				SUM SAR	
				1	2	3	4	1+2	1+3+4
				WWAN	2.4G WIFI	5G WIFI	Bluetooth	WWAN+2.4G	WWAN+5G
					Ant.2	Ant.2	Ant.2	WIFI	WIFI+BT
GSM850	Ant.1	Level5&6	Front Side 15mm	0.033	0.068	0.464	0.020	0.101	0.517
		Level5&6	Back Side 15mm	0.039	0.099	0.712	0.032	0.138	0.783
GSM850	Ant.0	Level5&6	Front Side 15mm	0.071	0.068	0.464	0.020	0.139	0.555
		Level5&6	Back Side 15mm	0.101	0.099	0.712	0.032	0.200	0.845
GSM1900	Ant.1	Level5&6	Front Side 15mm	0.061	0.068	0.464	0.020	0.129	0.545
		Level5&6	Back Side 15mm	0.080	0.099	0.712	0.032	0.179	0.824
GSM1900	Ant.0	Level5&6	Front Side 15mm	0.055	0.068	0.464	0.020	0.123	0.539
		Level5&6	Back Side 15mm	0.116	0.099	0.712	0.032	0.215	0.860
WCDMA B5	Ant.1	Level5&6	Front Side 15mm	0.099	0.068	0.464	0.020	0.167	0.583
		Level5&6	Back Side 15mm	0.128	0.099	0.712	0.032	0.227	0.872
WCDMA B5	Ant.0	Level5&6	Front Side 15mm	0.047	0.068	0.464	0.020	0.115	0.531
		Level5&6	Back Side 15mm	0.067	0.099	0.712	0.032	0.166	0.811
LTE B5	Ant.1	Level5&6	Front Side 15mm	0.125	0.068	0.464	0.020	0.193	0.609
		Level5&6	Back Side 15mm	0.160	0.099	0.712	0.032	0.259	0.904
LTE B5	Ant.0	Level5&6	Front Side 15mm	0.046	0.068	0.464	0.020	0.114	0.530
		Level5&6	Back Side 15mm	0.067	0.099	0.712	0.032	0.166	0.811
LTE B7	Ant.1	Level5&6	Front Side 15mm	0.055	0.068	0.464	0.020	0.123	0.539
		Level5&6	Back Side 15mm	0.088	0.099	0.712	0.032	0.187	0.832
LTE B7	Ant.0	Level5&6	Front Side 15mm	0.066	0.068	0.464	0.020	0.134	0.550
		Level5&6	Back Side 15mm	0.104	0.099	0.712	0.032	0.203	0.848
LTE B38	Ant.1	Level5&6	Front Side 15mm	0.110	0.068	0.464	0.020	0.178	0.594
		Level5&6	Back Side 15mm	0.162	0.099	0.712	0.032	0.261	0.906
LTE B38	Ant.0	Level5&6	Front Side 15mm	0.111	0.068	0.464	0.020	0.179	0.595
		Level5&6	Back Side 15mm	0.164	0.099	0.712	0.032	0.263	0.908
LTE B41	Ant.1	Level5&6	Front Side 15mm	0.143	0.068	0.464	0.020	0.211	0.627
		Level5&6	Back Side 15mm	0.211	0.099	0.712	0.032	0.310	0.955
LTE B41	Ant.0	Level5&6	Front Side 15mm	0.126	0.068	0.464	0.020	0.194	0.610
		Level5&6	Back Side 15mm	0.216	0.099	0.712	0.032	0.315	**0.960**

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 0.960 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.3 Hotspot Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	1+2	1+3+4
			WWAN	2.4G WIFI	5G WIFI	Bluetooth	WWAN+2.4G	WWAN+5G
				Ant.2	Ant.2	Ant.2	WIFI	WIF+BT
GSM850	Ant.1	Front Side 10mm	0.121	0.155	0.497	0.057	0.276	0.675
		Back Side 10mm	0.147	0.225	1.090	0.079	0.372	1.316
		Right Edge 10mm	0.058	/	/	/	/	/
		Top Edge 10mm	0.168	0.143	0.799	0.057	0.311	1.024
GSM850	Ant.0	Front Side 10mm	0.043	0.155	0.497	0.057	0.198	0.597
		Back Side 10mm	0.087	0.225	1.090	0.079	0.312	1.256
		Left Edge 10mm	0.032	0.113	0.240	0.051	0.145	0.323
		Right Edge 10mm	0.049	/	/	/	/	/
		Bottom Edge 10mm	0.076	/	/	/	/	/
GSM1900	Ant.1	Front Side 10mm	0.105	0.155	0.497	0.057	0.260	0.659
		Back Side 10mm	0.136	0.225	1.090	0.079	0.361	1.305
		Right Edge 10mm	0.023	/	/	/	/	/
		Top Edge 10mm	0.221	0.143	0.799	0.057	0.364	1.077
GSM1900	Ant.0	Front Side 10mm	0.075	0.155	0.497	0.057	0.230	0.629
		Back Side 10mm	0.159	0.225	1.090	0.079	0.384	1.328
		Left Edge 10mm	0.034	0.113	0.240	0.051	0.147	0.325
		Right Edge 10mm	0.016	/	/	/	/	/
		Bottom Edge 10mm	0.267	/	/	/	/	/
WCDMA B5	Ant.1	Front Side 10mm	0.105	0.155	0.497	0.057	0.260	0.659
		Back Side 10mm	0.128	0.225	1.090	0.079	0.353	1.297
		Right Edge 10mm	0.063	/	/	/	/	/
		Top Edge 10mm	0.161	0.143	0.799	0.057	0.304	1.017
WCDMA B5	Ant.0	Front Side 10mm	0.061	0.155	0.497	0.057	0.216	0.615
		Back Side 10mm	0.119	0.225	1.090	0.079	0.344	1.288
		Left Edge 10mm	0.048	0.113	0.240	0.051	0.161	0.339
		Right Edge 10mm	0.069	/	/	/	/	/
		Bottom Edge 10mm	0.070	/	/	/	/	/
LTE B5	Ant.1	Front Side 10mm	0.091	0.155	0.497	0.057	0.246	0.645
		Back Side 10mm	0.112	0.225	1.090	0.079	0.337	1.281
		Right Edge 10mm	0.057	/	/	/	/	/
		Top Edge 10mm	0.151	0.143	0.799	0.057	0.294	1.007
LTE B5	Ant.0	Front Side 10mm	0.043	0.155	0.497	0.057	0.198	0.597
		Back Side 10mm	0.080	0.225	1.090	0.079	0.305	1.249
		Left Edge 10mm	0.032	0.113	0.240	0.051	0.145	0.323
		Right Edge 10mm	0.045	/	/	/	/	/
		Bottom Edge 10mm	0.047	/	/	/	/	/

LTE B7	Ant.1	Front Side 10mm	0.099	0.155	0.497	0.057	0.254	0.653
		Back Side 10mm	0.165	0.225	1.090	0.079	0.390	1.334
		Right Edge 10mm	0.081	/	/	/	/	/
		Top Edge 10mm	0.296	0.143	0.799	0.057	0.439	1.152
LTE B7	Ant.0	Front Side 10mm	0.159	0.155	0.497	0.057	0.314	0.713
		Back Side 10mm	0.251	0.225	1.090	0.079	0.476	1.420
		Left Edge 10mm	0.123	0.113	0.240	0.051	0.236	0.414
		Right Edge 10mm	0.016	/	/	/	/	/
		Bottom Edge 10mm	0.129	/	/	/	/	/
LTE B38	Ant.1	Front Side 10mm	0.129	0.155	0.497	0.057	0.284	0.683
		Back Side 10mm	0.240	0.225	1.090	0.079	0.465	1.409
		Right Edge 10mm	0.113	/	/	/	/	/
		Top Edge 10mm	0.408	0.143	0.799	0.057	0.551	1.264
LTE B38	Ant.0	Front Side 10mm	0.207	0.155	0.497	0.057	0.362	0.761
		Back Side 10mm	0.347	0.225	1.090	0.079	0.572	1.516
		Left Edge 10mm	0.140	0.113	0.240	0.051	0.253	0.431
		Right Edge 10mm	0.020	/	/	/	/	/
		Bottom Edge 10mm	0.135	/	/	/	/	/
LTE B41	Ant.1	Front Side 10mm	0.131	0.155	0.497	0.057	0.286	0.685
		Back Side 10mm	0.225	0.225	1.090	0.079	0.450	1.394
		Right Edge 10mm	0.120	/	/	/	/	/
		Top Edge 10mm	0.382	0.143	0.799	0.057	0.525	1.238
LTE B41	Ant.0	Front Side 10mm	0.235	0.155	0.497	0.057	0.390	0.789
		Back Side 10mm	0.372	0.225	1.090	0.079	0.597	**1.541**
		Left Edge 10mm	0.153	0.113	0.240	0.051	0.266	0.444
		Right Edge 10mm	0.014	/	/	/	/	/
		Bottom Edge 10mm	0.168	/	/	/	/	/

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.541 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

14 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.8.8.1222	N/A	N/A
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2021/05/17	2024/05/16
1900MHz Validation Dipole	Speag	D1900V2	SN: 5d193	2021/05/20	2024/05/19
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2021/05/19	2024/05/18
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2021/05/19	2024/05/18
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2021/05/18	2024/05/17
E-Field Probe	Speag	EX3DV4	SN: 7607	2021/08/12	2022/08/11
E-Field Probe	Speag	EX3DV4	SN: 3717	2021/06/07	2022/06/06
Data Acquisition Electronics	Speag	DAE4	SN: 1454	2021/11/05	2022/11/04
Data Acquisition Electronics	Speag	DAE4	SN: 1226	2021/05/17	2022/05/16
Signal Generator	R&S	SMB100A	177746	2021/08/24	2022/08/23
Power Meter	R&S	NRVD-B2	7250BJ-0112/2011	2021/09/08	2022/09/07
Power Sensor	R&S	NRV-Z4	100381	2021/09/08	2022/09/07
Power Sensor	R&S	NRV-Z2	100211	2021/09/08	2022/09/07
Wireless Communication Test Set	Anritsu	MT8820C	6201502974	2021/01/04	2023/01/03
Wireless Communication Test Set	Anritsu	MT8820C	6201502991	2021/01/04	2023/01/03
Network Analyzer	Agilent	E5071C	MY46103472	2021/12/29	2022/12/28
Thermometer	Elitech	RC-4HC	EF720B004820	2021/12/01	2022/11/30
Thermometer	Elitech	RC-4HC	EF720B004807	2021/12/01	2022/11/30
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 25/13 OCPG56	N/A	N/A
Phantom1	Speag	SAM	SN: 1859	N/A	N/A
Phantom2	Speag	SAM	SN: 1857	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an SCLMP Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (℃)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ε)	Target Conductivity (σ) (S/m)	Target Permittivity (ε)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2022.03.29	Head	835	21.5	0.90	42.05	0.90	41.50	0.00	1.33
2022.03.30	Head	835	21.4	0.89	41.10	0.90	41.50	-1.11	-0.96
2022.03.31	Head	835	21.2	0.90	40.64	0.90	41.50	0.00	-2.07
2022.04.01	Head	835	21.6	0.88	41.96	0.90	41.50	-2.22	1.11
2022.04.02	Head	835	21.6	0.87	41.86	0.90	41.50	-3.33	0.87
2022.04.03	Head	835	21.5	0.92	41.12	0.90	41.50	2.22	-0.92
2022.04.04	Head	1900	21.8	1.40	40.24	1.40	40.00	0.00	0.60
2022.04.05	Head	1900	21.2	1.40	40.67	1.40	40.00	0.00	1.68
2022.04.12	Head	2450	21.4	1.81	39.43	1.80	39.20	0.56	0.59
2022.04.06	Head	2600	21.1	2.02	39.47	1.96	39.01	3.06	1.18
2022.04.07	Head	2600	21.8	2.00	38.93	1.96	39.01	2.04	-0.21
2022.04.08	Head	2600	21.5	1.93	39.53	1.96	39.01	-1.53	1.33
2022.04.09	Head	2600	21.3	1.98	39.54	1.96	39.01	1.02	1.36
2022.04.10	Head	2600	21.8	1.91	39.42	1.96	39.01	-2.55	1.05
2022.04.11	Head	2600	21.2	1.96	39.31	1.96	39.01	0.00	0.77
2022.04.13	Head	5250	21.2	4.80	36.30	4.66	35.99	3.00	0.86
2022.04.14	Head	5600	21.9	5.05	35.95	5.07	35.53	-0.39	1.18
2022.04.15	Head	5750	21.7	5.13	35.05	5.27	35.30	-2.66	-0.71
2022.05.06	Head	2450	21.4	1.80	39.58	1.80	39.20	0.00	0.97
2022.05.06	Head	5250	21.7	4.70	35.75	4.66	35.99	0.86	-0.67
Note: The tolerance limit of Conductivity and Permittivity is± 5%.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within itsspecification of 10 %(for 1 g).

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2022.03.29	Head	835	100	0.962	9.62	9.76	-1.43
2022.03.30	Head	835	100	0.951	9.51	9.76	-2.56
2022.03.31	Head	835	100	0.978	9.78	9.76	0.20
2022.04.01	Head	835	100	0.966	9.66	9.76	-1.02
2022.04.02	Head	835	100	0.988	9.88	9.76	1.23
2022.04.03	Head	835	100	0.991	9.91	9.76	1.54
2022.04.04	Head	1900	100	4.120	41.20	40.30	2.23
2022.04.05	Head	1900	100	4.090	40.90	40.30	1.49
2022.04.12	Head	2450	100	5.500	55.00	53.00	3.77
2022.04.06	Head	2600	100	5.880	58.80	56.80	3.52
2022.04.07	Head	2600	100	5.720	57.20	56.80	0.70
2022.04.08	Head	2600	100	5.580	55.80	56.80	-1.76
2022.04.09	Head	2600	100	5.490	54.90	56.80	-3.35
2022.04.10	Head	2600	100	5.810	58.10	56.80	2.29
2022.04.11	Head	2600	100	5.550	55.50	56.80	-2.29
2022.04.13	Head	5250	100	7.960	79.60	77.80	2.31
2022.04.14	Head	5600	100	8.220	82.20	81.20	1.23
2022.04.15	Head	5750	100	7.850	78.50	77.20	1.68
2022.05.06	Head	2450	100	5.020	50.20	53.00	-5.28
2022.05.06	Head	5250	100	7.810	78.10	77.80	0.39
Note: The tolerance limit of System validation ±10%.							

Head liquid 10g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2022.04.13	5250	100	2.290	22.90	22.10	3.62
2022.04.14	5600	100	2.370	23.70	23.10	2.60
2022.05.06	5250	100	2.230	22.30	22.10	0.90
Note: The tolerance limit of System validation ±10%.						

System Performance Check Data (835MHz Head)

Date: 2022.03.29

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.898 S/m; ε_r = 42.051; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.982 W/kg

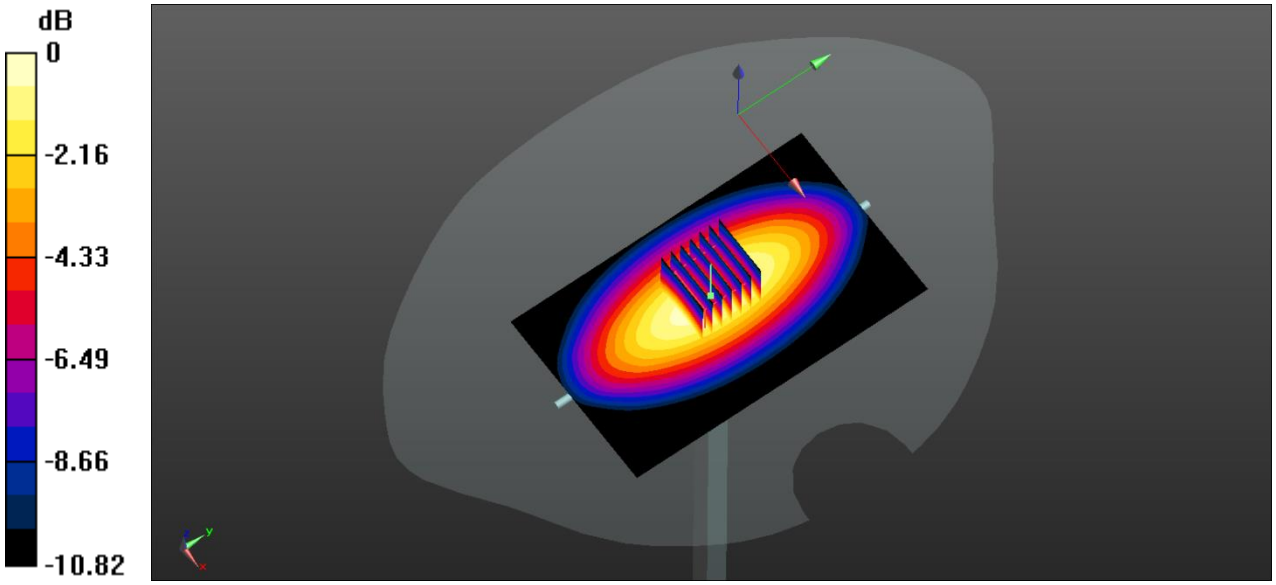
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.88 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.962 W/kg; SAR(10 g) = 0.628 W/kg

Maximum value of SAR (measured) = 0.999 W/kg



0 dB = 0.999 W/kg

System Performance Check Data (835MHz Head)

Date: 2022.03.30

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.885 S/m; ε_r = 41.101; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.985 W/kg

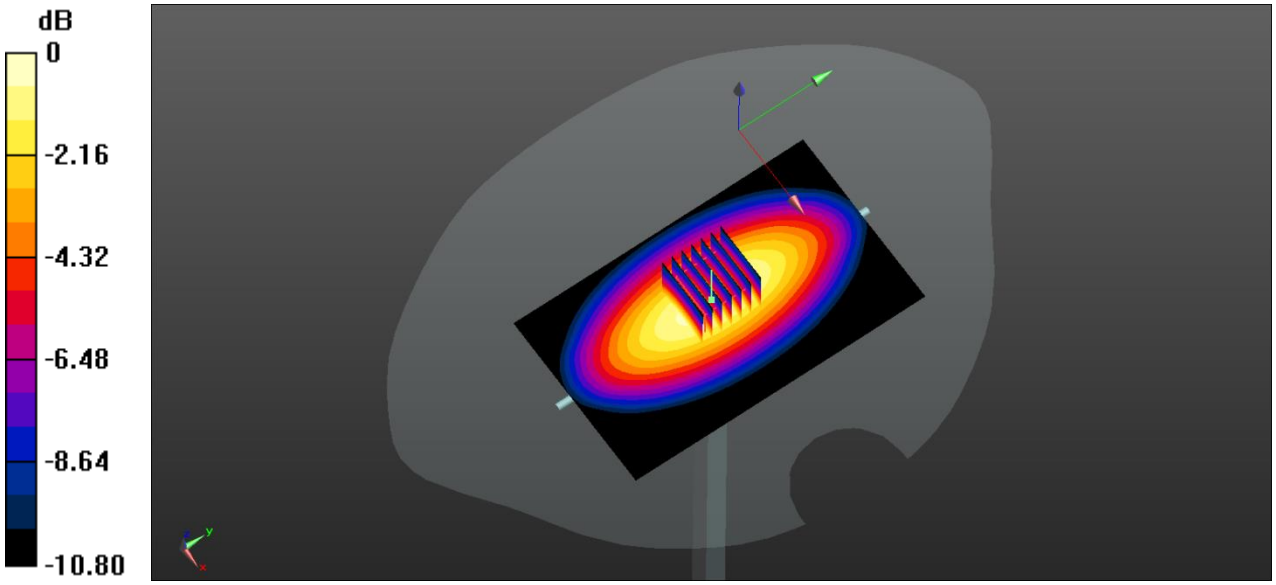
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.51 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.951 W/kg; SAR(10 g) = 0.612 W/kg

Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg

System Performance Check Data (835MHz Head)

Date: 2022.03.31

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.9 S/m; ε_r = 40.635; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.4 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.988 W/kg

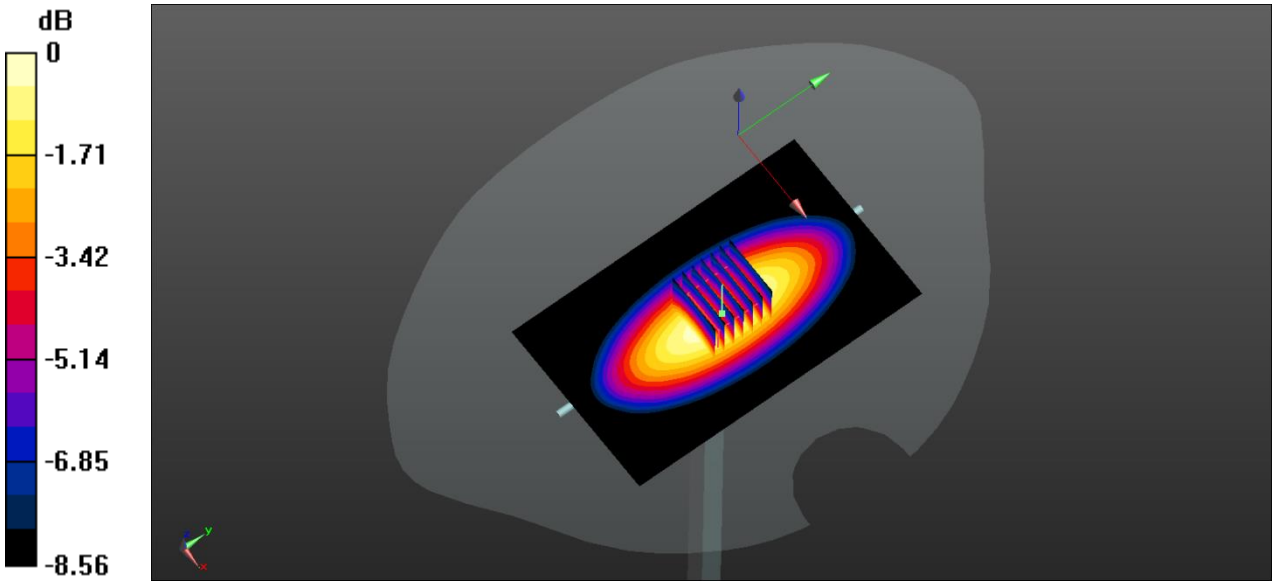
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.12 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.978 W/kg; SAR(10 g) = 0.639 W/kg

Maximum value of SAR (measured) = 0.982 W/kg



0 dB = 0.982 W/kg

System Performance Check Data (835MHz Head)

Date: 2022.04.01

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.882 S/m; ε_r = 41.959; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.2 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.999 W/kg

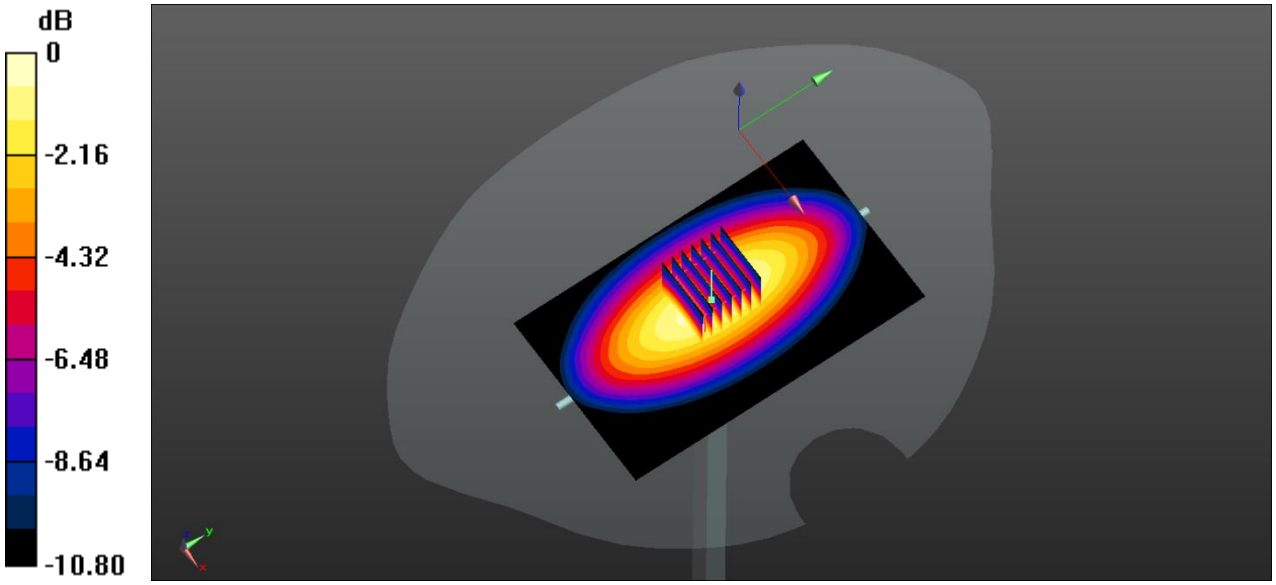
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.52 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.966 W/kg; SAR(10 g) = 0.627 W/kg

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



0 dB = 1.02 W/kg

System Performance Check Data (835MHz Head)

Date: 2022.04.02

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.874 S/m; ε_r = 41.862; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.982 W/kg

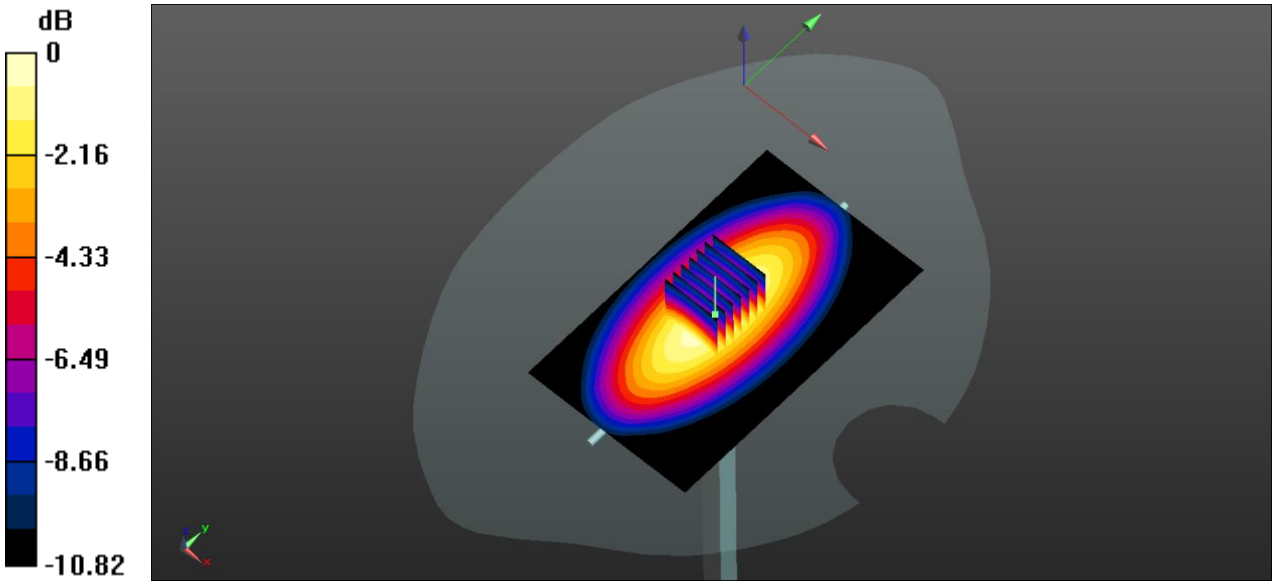
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.85 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.988 W/kg; SAR(10 g) = 0.642 W/kg

Maximum value of SAR (measured) = 0.999 W/kg



0 dB = 0.999 W/kg

System Performance Check Data (835MHz Head)

Date: 2022.04.03

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.915 S/m; ε_r = 41.116; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835 100mW/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.982 W/kg

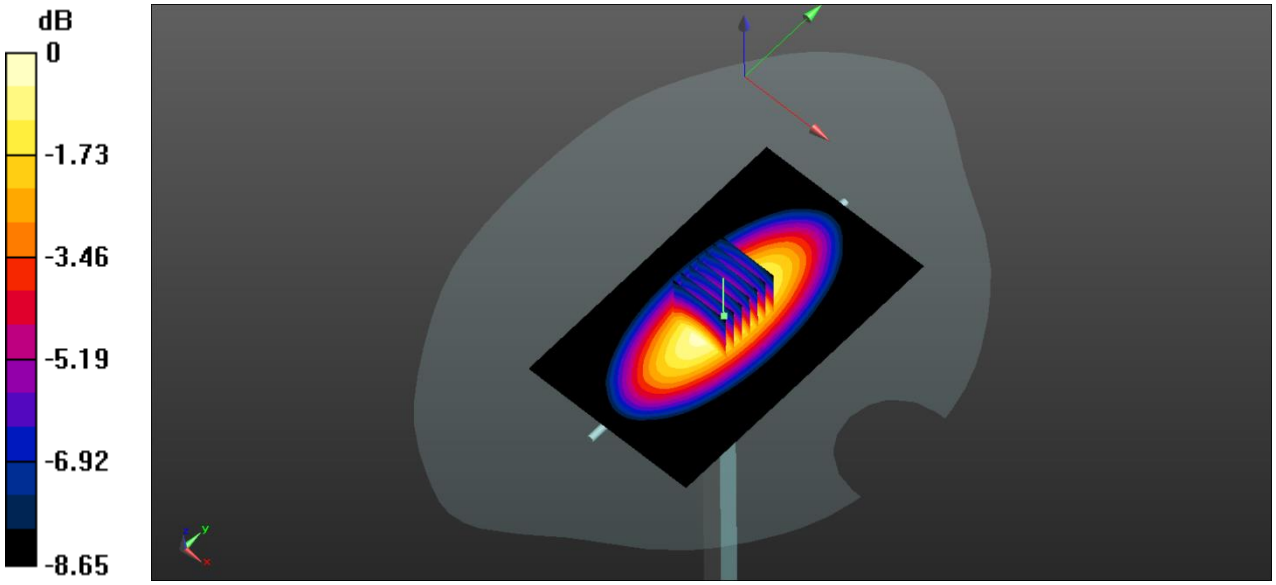
CW 835 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.2 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.991 W/kg; SAR(10 g) = 0.658 W/kg

Maximum value of SAR (measured) = 0.986 W/kg



0 dB = 0.986 W/kg

System Performance Check Data (1900MHz Head)

Date: 2022.04.04

Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1900 MHz; σ = 1.4 S/m; ε_r = 40.235; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.31, 8.31, 8.31); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 1900 100mw/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.42 W/kg

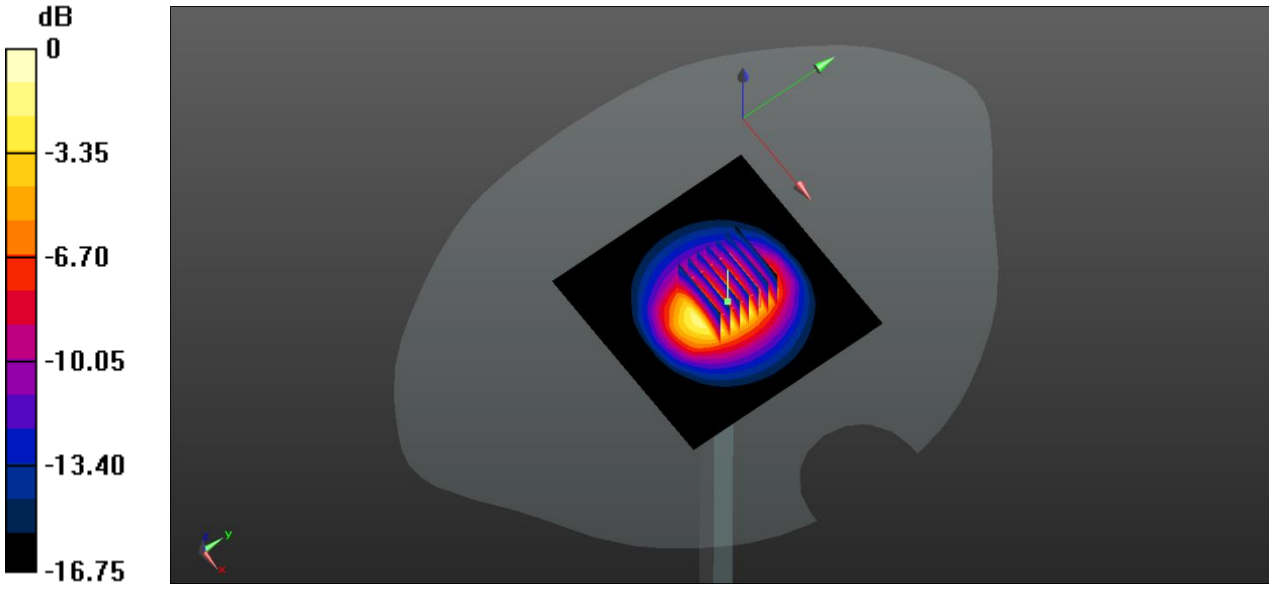
CW 1900 100mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.58 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 7.31 W/kg

SAR(1 g) = 4.12 W/kg; SAR(10 g) = 2.11 W/kg

Maximum value of SAR (measured) = 4.39 W/kg



0 dB = 4.39 W/kg

System Performance Check Data (1900MHz Head)

Date: 2022.04.05

Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1900 MHz; σ = 1.398 S/m; ε_r = 40.672; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.31, 8.31, 8.31); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 1900 100mw/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.78 W/kg

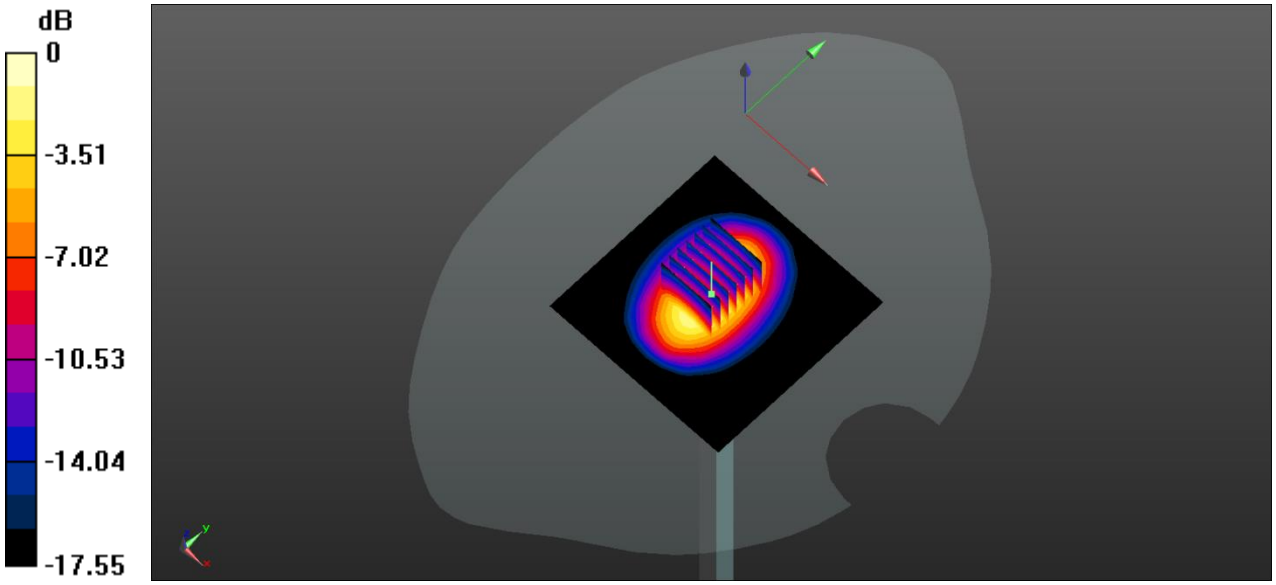
CW 1900 100mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.18 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 8.18 W/kg

SAR(1 g) = 4.09 W/kg; SAR(10 g) = 2.06 W/kg

Maximum value of SAR (measured) = 4.61 W/kg



0 dB = 4.61 W/kg

System Performance Check Data (2450MHz Head)

Date: 2022.04.12

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.808 S/m; ε_r = 39.433; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2450 100mw/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.31 W/kg

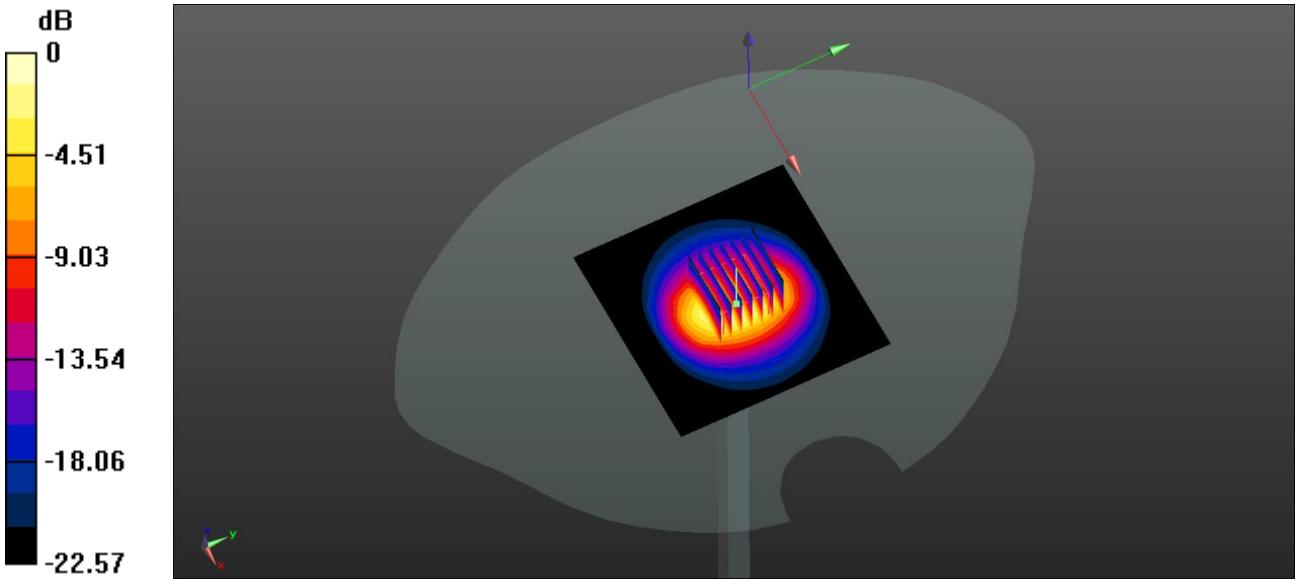
CW 2450 100mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.31 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 12.6 W/kg

SAR(1 g) = 5.5 W/kg; SAR(10 g) = 2.48 W/kg

Maximum value of SAR (measured) = 6.31 W/kg



0 dB = 6.31 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.06

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used (extrapolated): f = 2600 MHz; σ = 2.019 S/m; ε_r = 39.47; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.1

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mw/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.19 W/kg

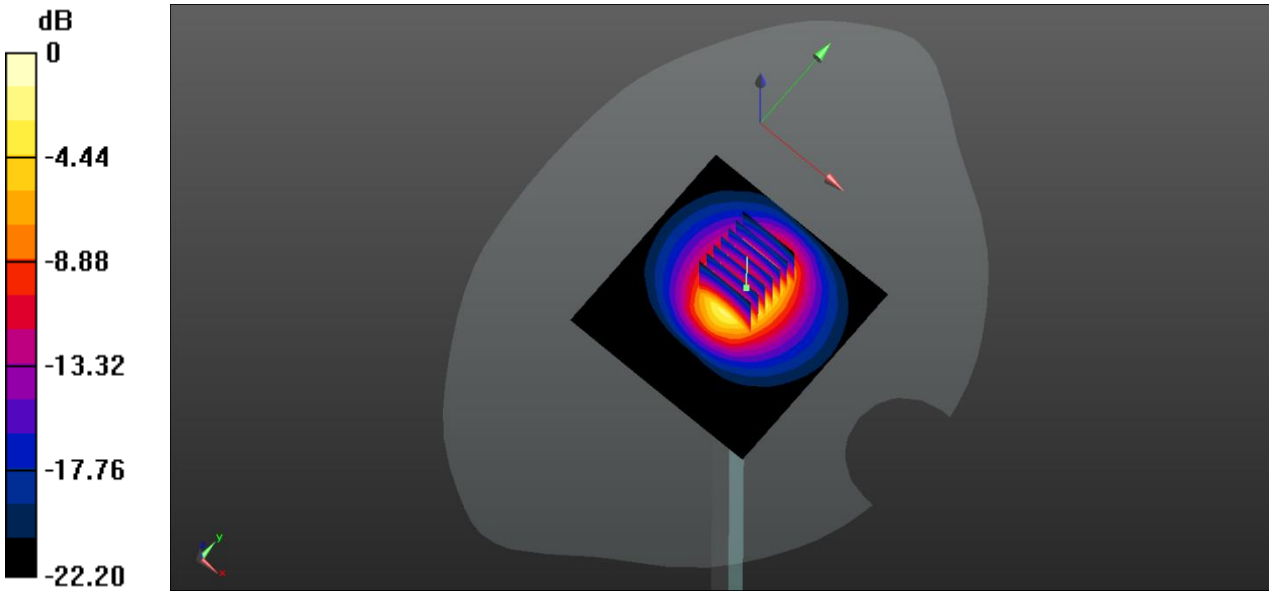
CW 2600 100mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.71 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 14.3 W/kg

SAR(1 g) = 5.88 W/kg; SAR(10 g) = 2.56 W/kg

Maximum value of SAR (measured) = 6.12 W/kg



0 dB = 6.12 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.07

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used (extrapolated): f = 2600 MHz; σ = 1.997 S/m; ε_r = 38.927; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mW/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.41 W/kg

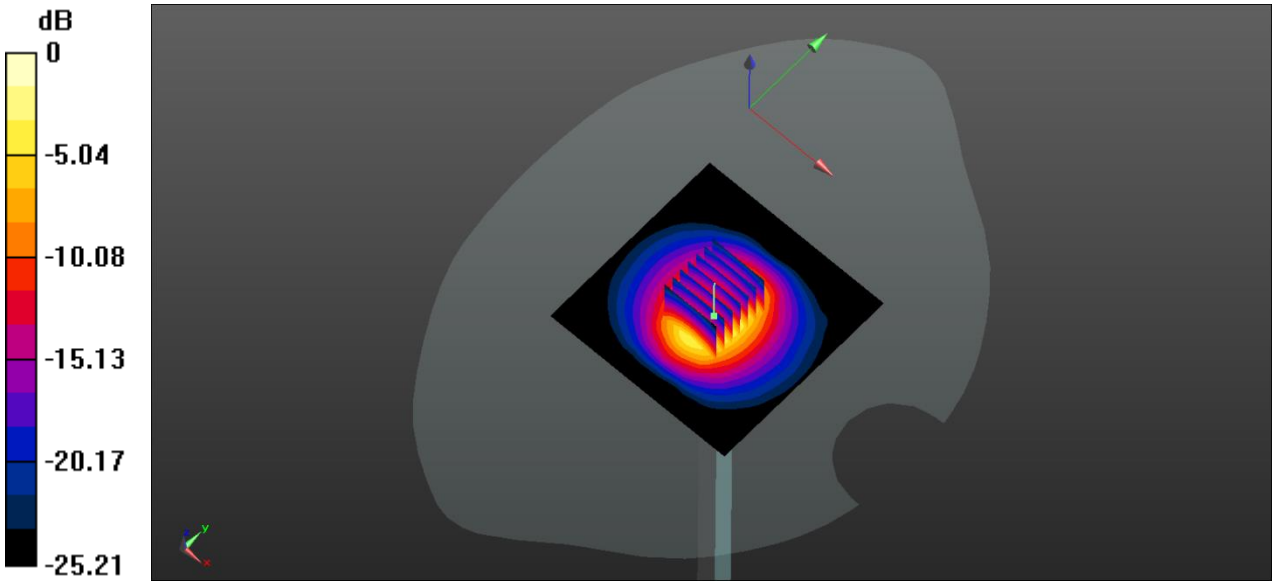
CW 2600 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.59 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 12.2 W/kg

SAR(1 g) = 5.72 W/kg; SAR(10 g) = 2.51 W/kg

Maximum value of SAR (measured) = 6.41 W/kg



0 dB = 6.41 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.08

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2600 MHz; σ = 1.934 S/m; ε_r = 39.533; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mW/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.52 W/kg

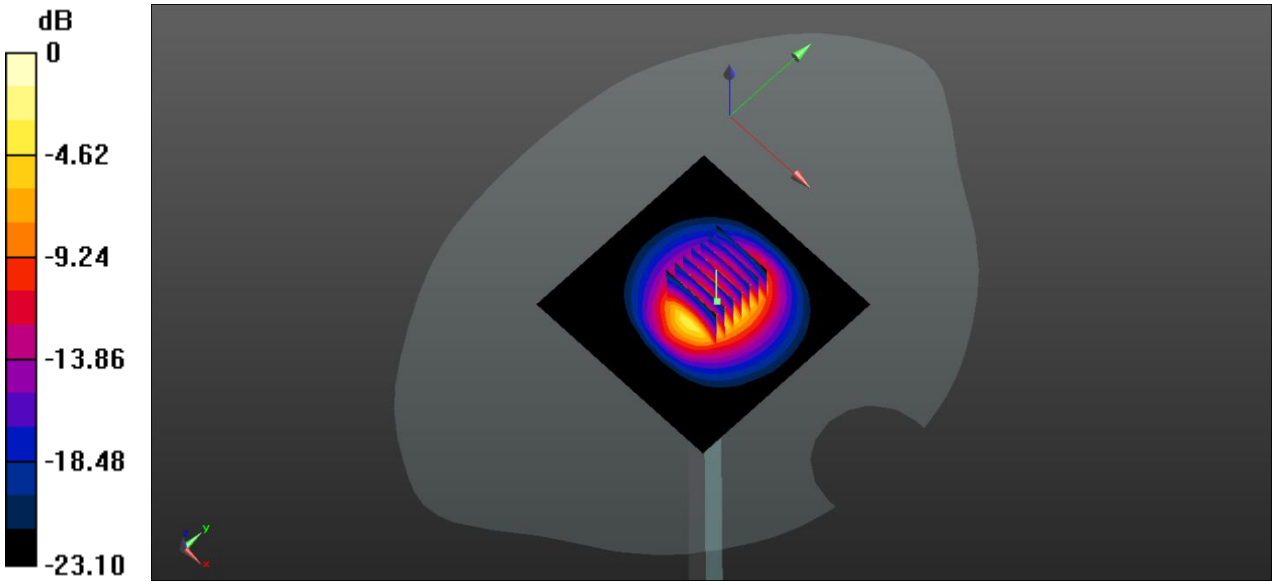
CW 2600 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.49 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 11.8 W/kg

SAR(1 g) = 5.58 W/kg; SAR(10 g) = 2.39 W/kg

Maximum value of SAR (measured) = 6.31 W/kg



0 dB = 6.31 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.09

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2600 MHz; σ = 1.976 S/m; ε_r = 39.535; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mW /Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.68 W/kg

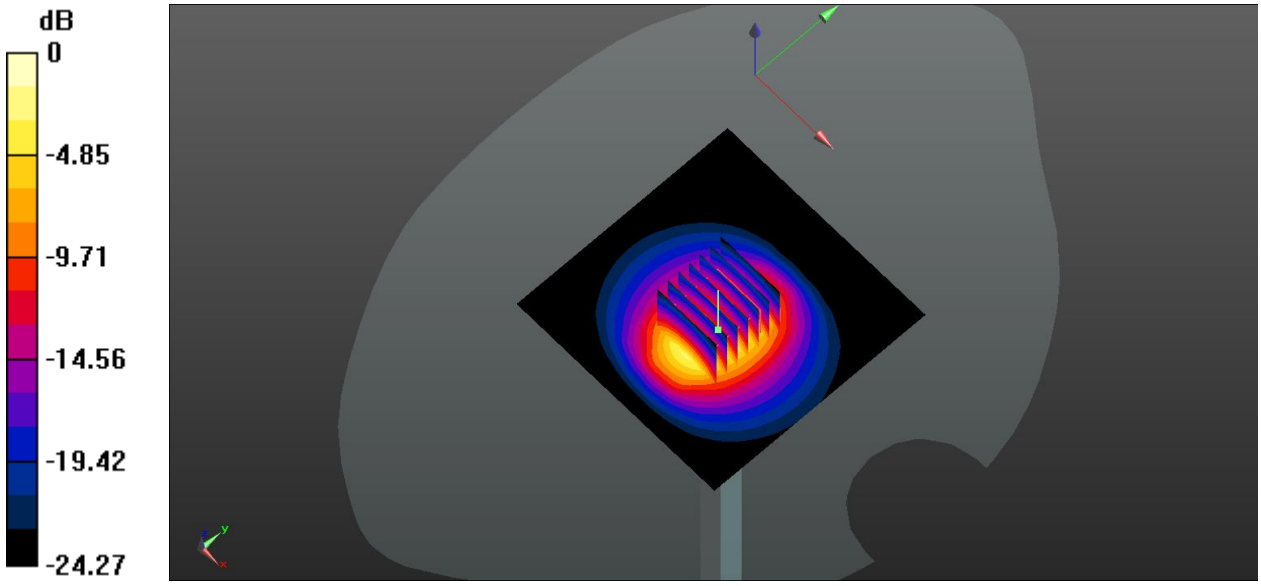
CW 2600 100mW /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 45.78 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 12.3 W/kg

SAR(1 g) = 5.49 W/kg; SAR(10 g) = 2.41 W/kg

Maximum value of SAR (measured) = 6.38 W/kg



0 dB = 6.38 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.10

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2600 MHz; σ = 1.906 S/m; ε_r = 39.424; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mW /Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.59 W/kg

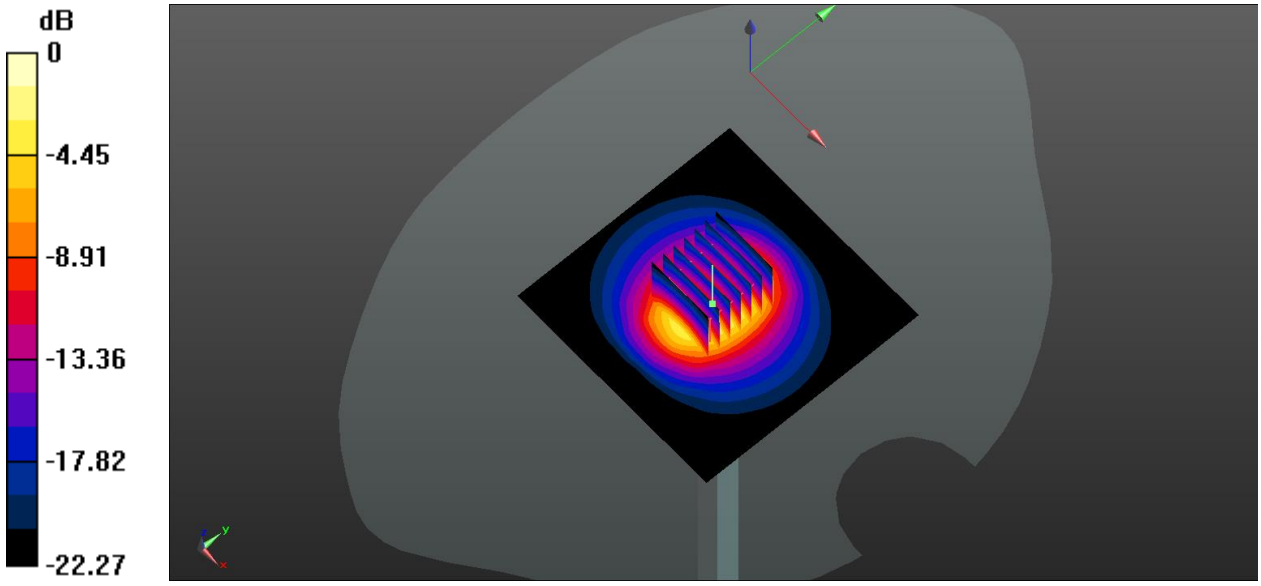
CW 2600 100mW /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.51 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 13.6 W/kg

SAR(1 g) = 5.81 W/kg; SAR(10 g) = 2.53 W/kg

Maximum value of SAR (measured) = 6.58 W/kg



0 dB = 6.58 W/kg

System Performance Check Data (2600MHz Head)

Date: 2022.04.11

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used (extrapolated): f = 2600 MHz; σ = 1.955 S/m; ε_r = 39.309; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600 100mW/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.19 W/kg

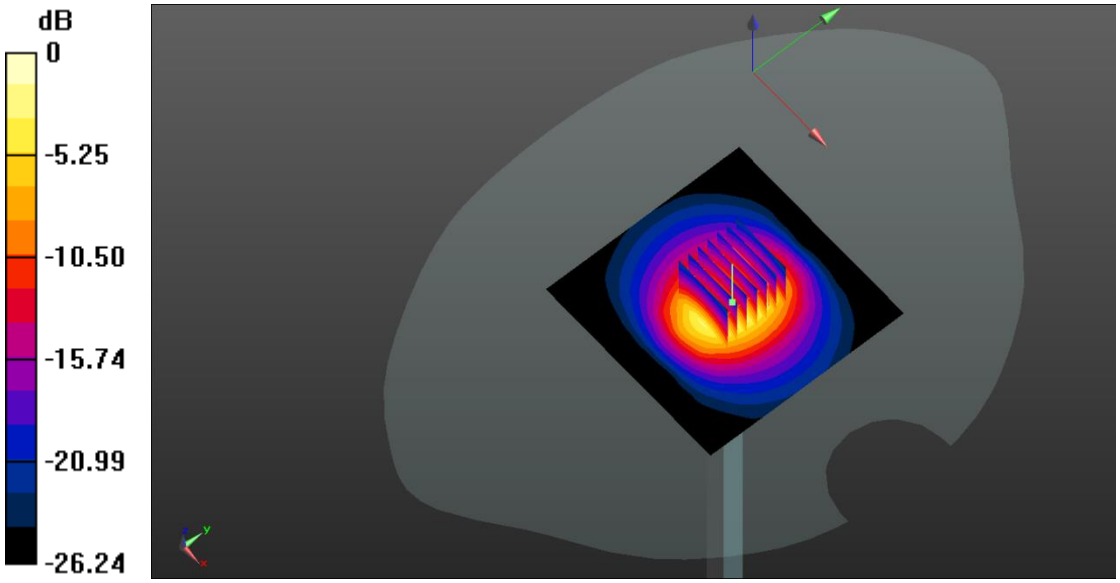
CW 2600 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.38 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 11.2 W/kg

SAR(1 g) = 5.55 W/kg; SAR(10 g) = 2.44 W/kg

Maximum value of SAR (measured) = 6.19 W/kg



0 dB = 6.19 W/kg

System Performance Check Data (5250MHz Head)

Date: 2022.04.13

Communication System Band: D5GHz 5000.0 - 6000.0 MHz); Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5250 MHz; σ = 4.795 S/m; ε_r = 36.296; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5250 100mW/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 7.88 W/kg

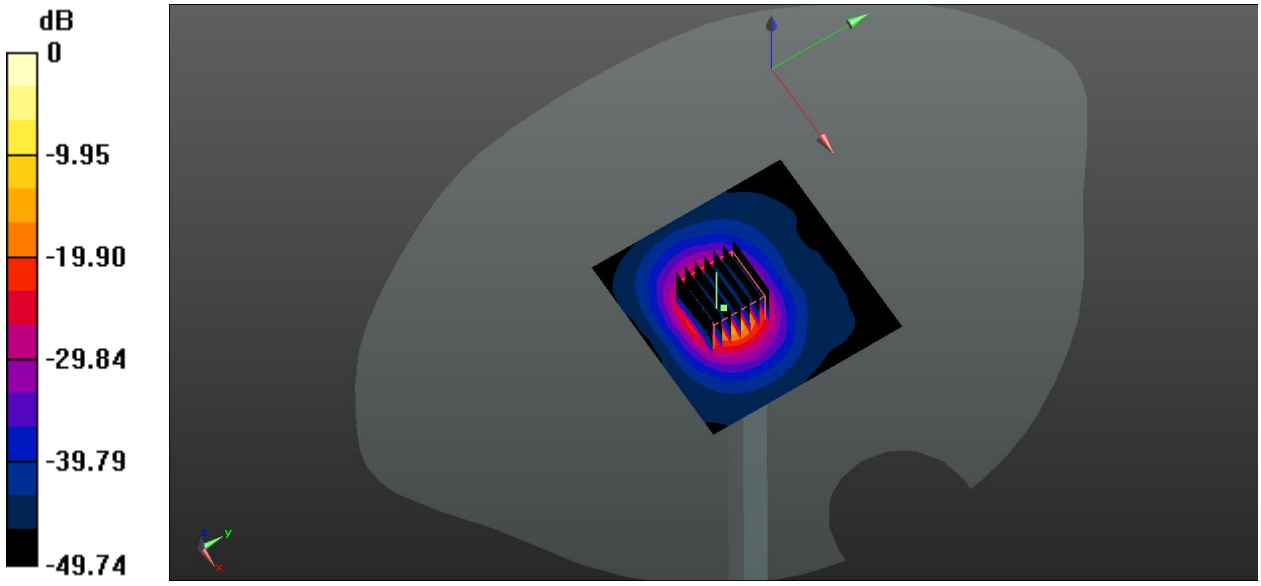
CW 5250 100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 36.27 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 31.8 W/kg

SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.29 W/kg

Maximum value of SAR (measured) = 15.7 W/kg



0 dB = 15.7 W/kg

System Performance Check Data (5600MHz Head)

Date: 2022.04.14

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5600 MHz; σ = 5.045 S/m; ε_r = 35.953; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.88, 4.88, 4.88); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW5600 100mW/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.69 W/kg

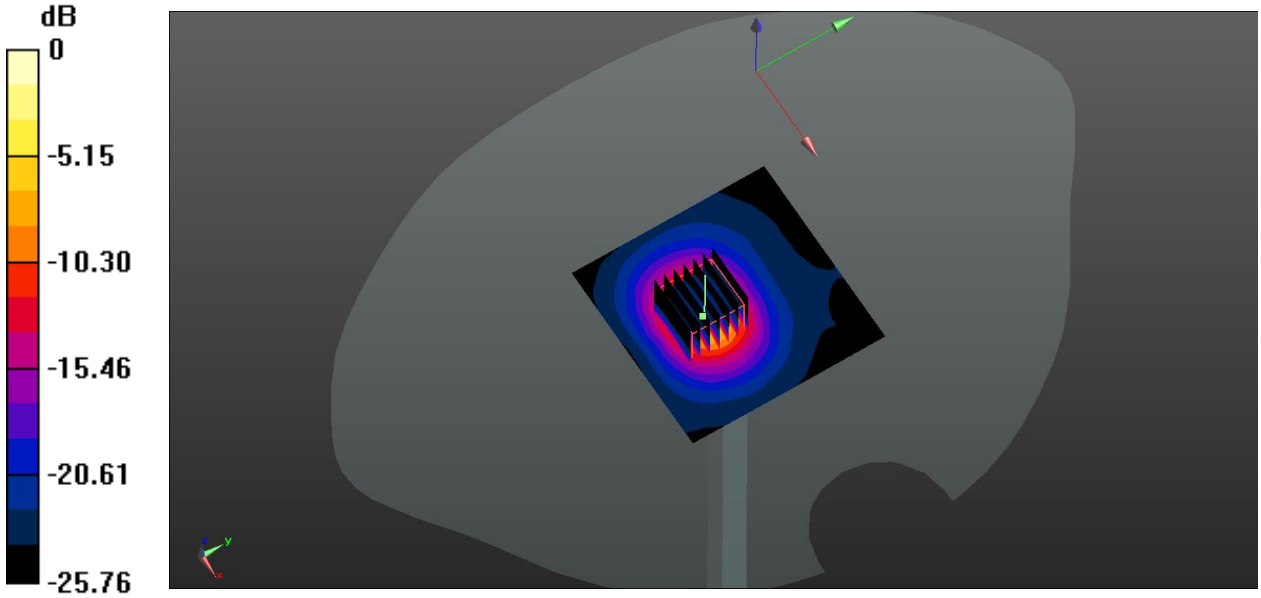
CW5600 100mW/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 35.28 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 35.9 W/kg

SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.37 W/kg

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



0 dB = 21.6 W/kg

System Performance Check Data (5750MHz Head)

Date: 2022.04.15

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5750 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5750 MHz; σ = 5.134 S/m; ε_r = 35.048; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.92, 4.92, 4.92); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW5750 100mw/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.18 W/kg

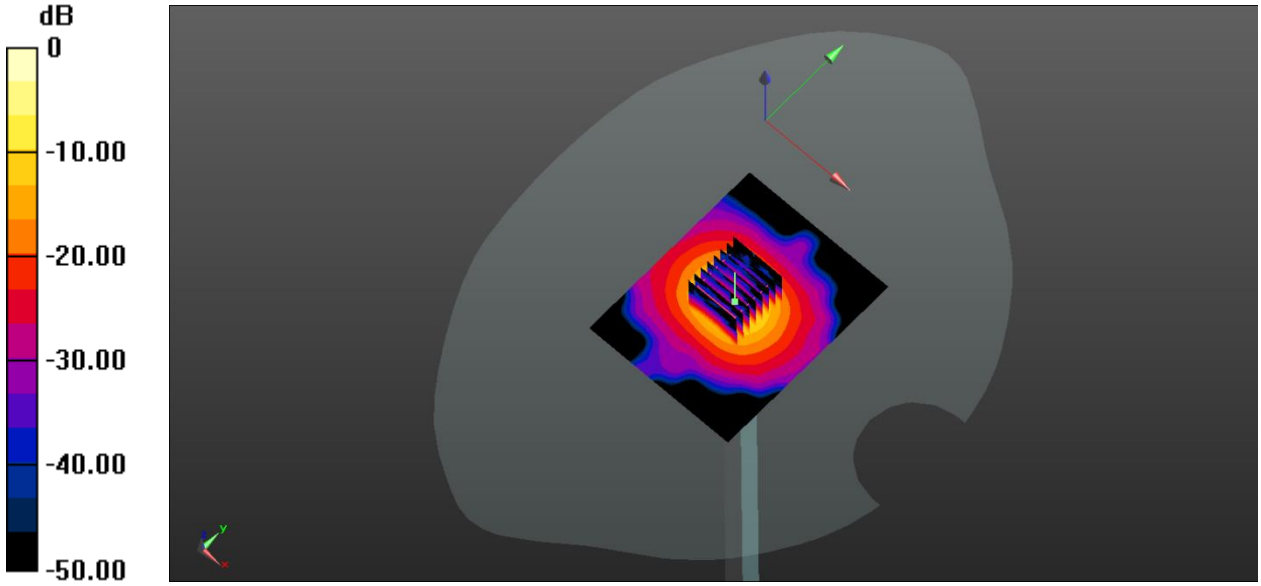
CW5750 100mw/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 35.38 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 35.1 W/kg

SAR(1 g) = 7.85 W/kg; SAR(10 g) = 2.21 W/kg

Maximum value of SAR (measured) = 15.8 W/kg



0 dB = 15.8 W/kg

System Performance Check Data (2450MHz Head)

Date: 2022.05.06

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.8 S/m; ε_r = 39.578; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN3717 ConvF(7.15, 7.15, 7.15); Calibrated: 2021.06.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2450/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.77 W/kg

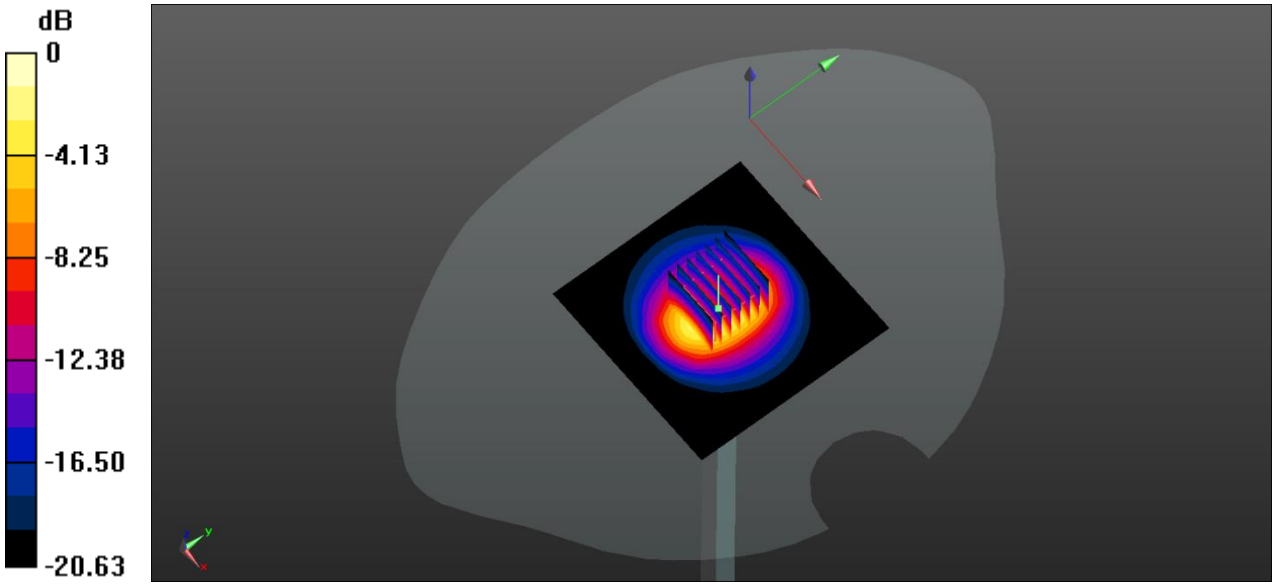
CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.82 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 11.2 W/kg

SAR(1 g) = 5.02 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 5.71 W/kg



0 dB = 5.71 W/kg

System Performance Check Data (5250MHz Head)

Date: 2022.05.06

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5250 MHz; σ = 4.702 S/m; ε_r = 35.745; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN3717; ConvF(5.17, 5.17, 5.17); Calibrated: 2021.06.07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5250 100mW/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.11 W/kg

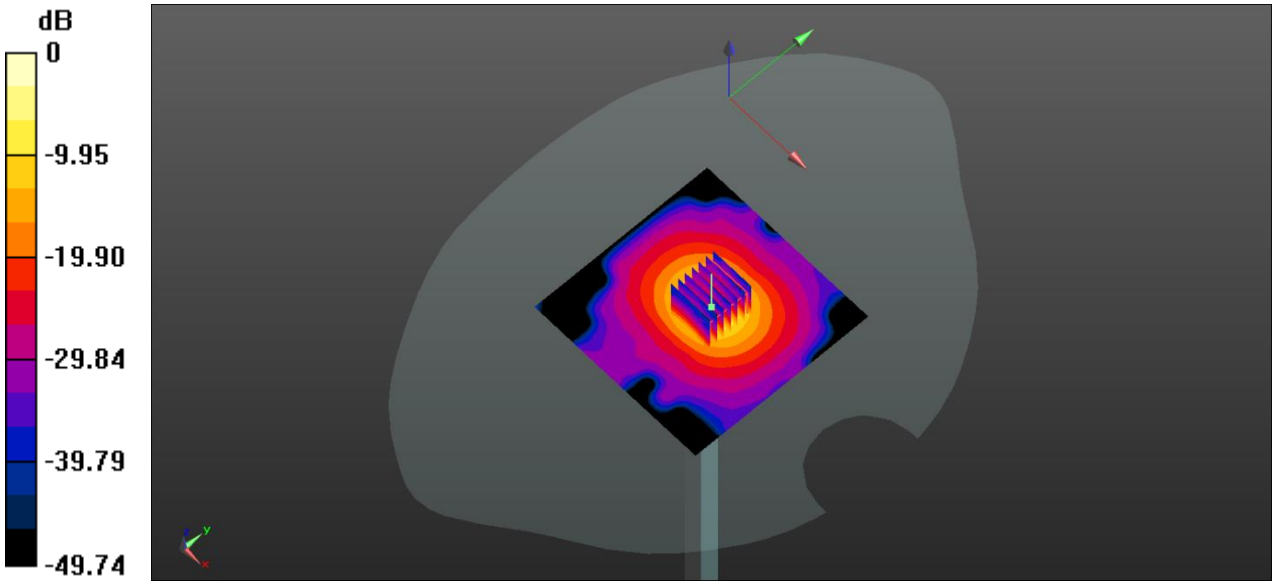
CW 5250 100mW/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.45 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 31.8 W/kg

SAR(1 g) = 7.81 W/kg; SAR(10 g) = 2.23 W/kg

Maximum value of SAR (measured) = 19.7 W/kg



0 dB = 19.7 W/kg

ANNEX C TEST DATA

Meas.1 Right Head with Cheek on High Channel in GPRS850 2Slots mode with Antenna1

Date: 2022.03.29

Communication System Band: GPRS 850; Frequency: 848.8 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.915 S/m; ε_r = 41.632; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch251/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.282 W/kg

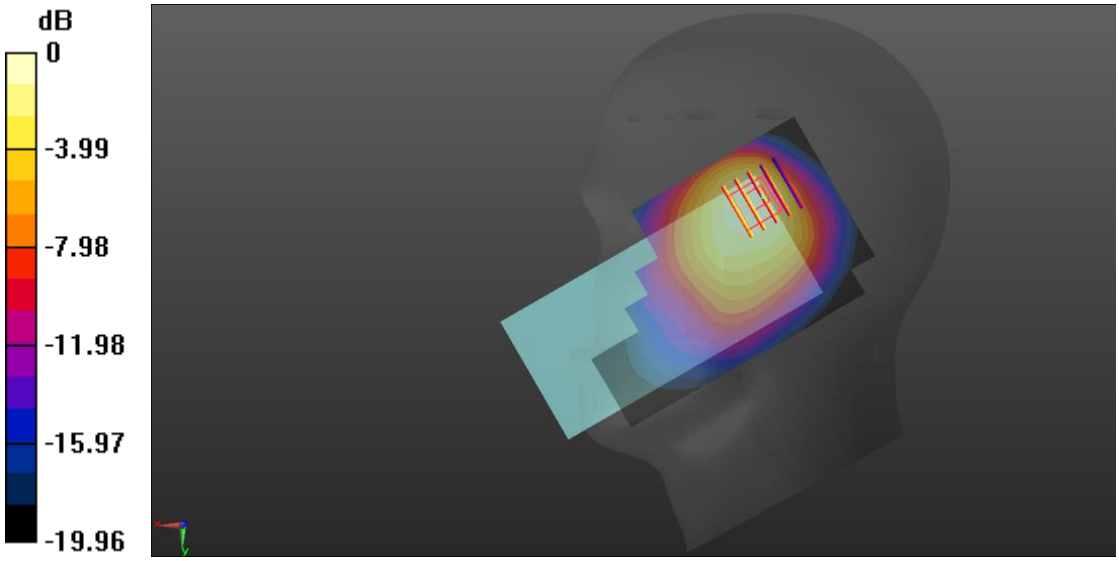
Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.92 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.149 W/kg

Maximum value of SAR (measured) = 0.258 W/kg



0 dB = 0.258 W/kg

Meas.2 Body Plane with Back 15mm on Low Channel in GPRS850 2Slots mode with Antenna0

Date: 2022.03.30

Communication System Band: GPRS850; Frequency: 824.2 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.882 S/m; ε_r = 41.349; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch128/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0953 W/kg

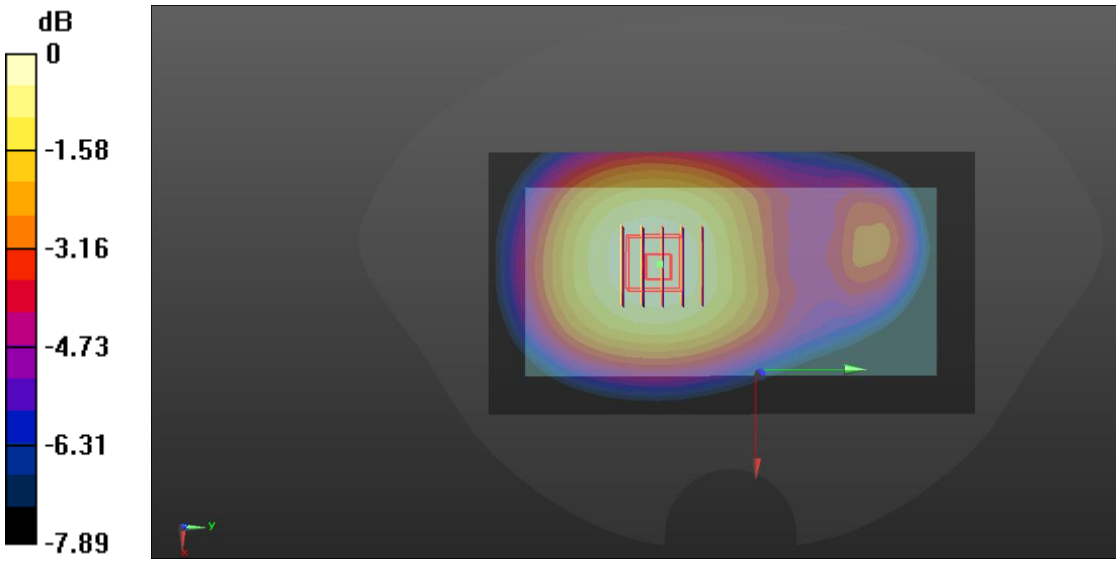
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.835 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.114 W/kg

SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.070 W/kg

Maximum value of SAR (measured) = 0.0961 W/kg



0 dB = 0.0961 W/kg

Meas.3 Body Plane with Top 10 mm on High Channel in GPRS850 2Slots mode with Antenna1

Date: 2022.03.30

Communication System Band: GPRS850; Frequency: 848.8 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.902 S/m; ε_r = 40.691; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch251/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.142 W/kg

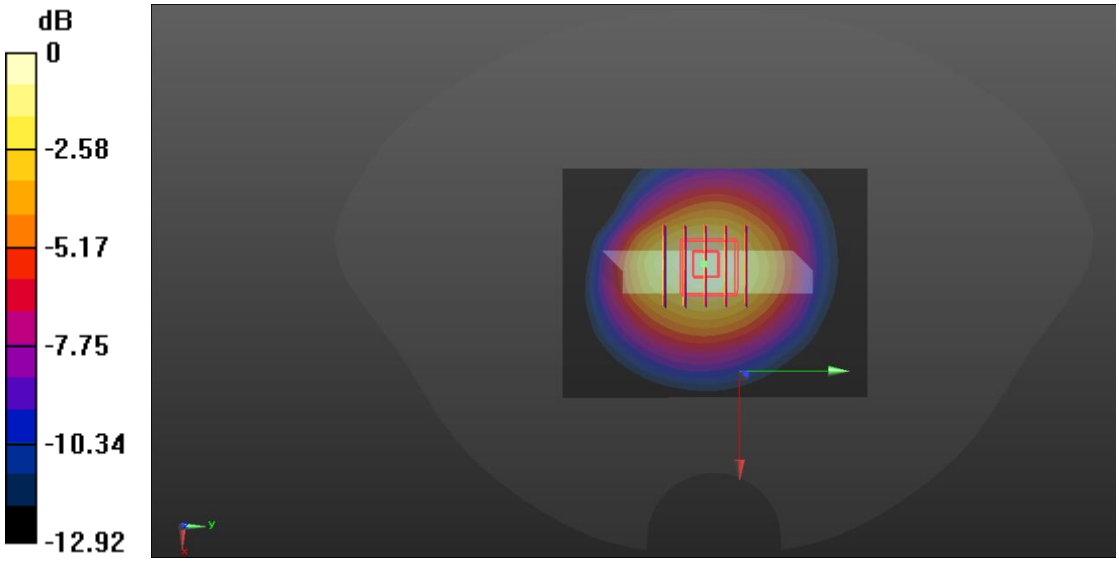
Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.53 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.202 W/kg

SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.083 W/kg

Maximum value of SAR (measured) = 0.143 W/kg



0 dB = 0.143 W/kg

Meas.4 Right Head with Tilt on High Channel in GPRS1900 2Slots mode with Antenna1

Date: 2022.04.04

Communication System Band: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 1880 MHz; σ = 1.399 S/m; ε_r = 40.356; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.3 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.31, 8.31, 8.31); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.416 W/kg

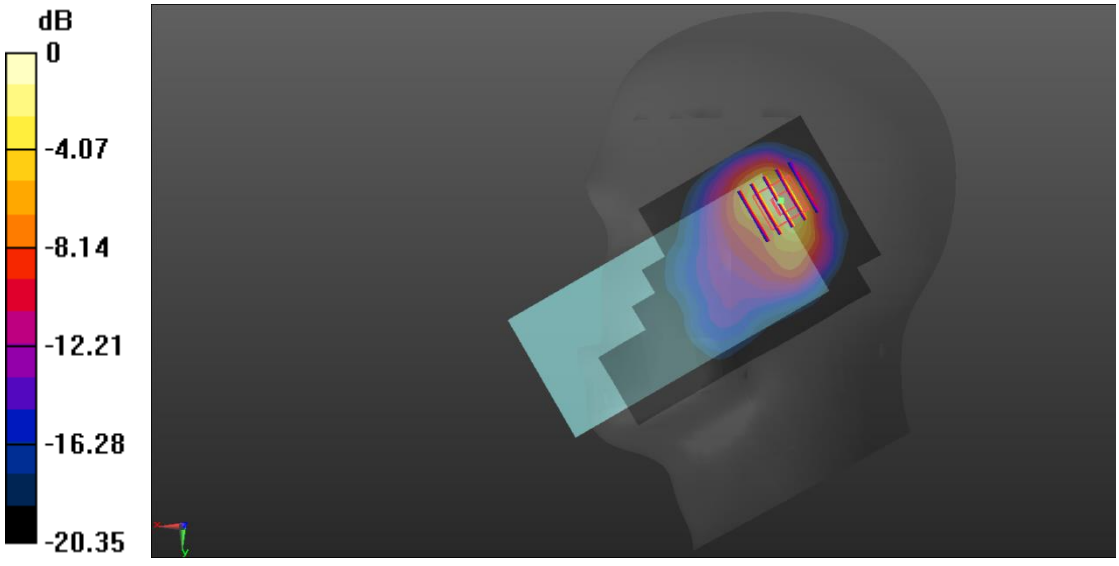
Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.18 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.719 W/kg

SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.153 W/kg

Maximum value of SAR (measured) = 0.407 W/kg



0 dB = 0.407 W/kg

Meas.5 Body Plane with Back 15mm on Low Channel in GPRS1900 2Slots mode with Antenna0

Date: 2022.04.05

Communication System Band: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.392 S/m; ε_r = 41.04; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.31, 8.31, 8.31); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch512/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.107 W/kg

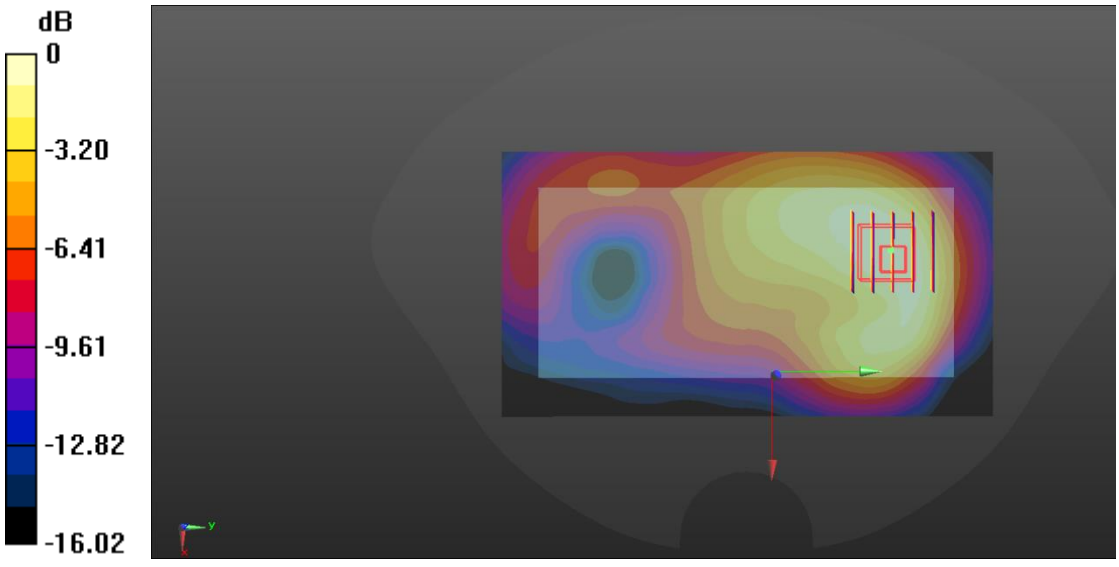
Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.112 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.099 W/kg; SAR(10 g) = 0.062 W/kg

Maximum value of SAR (measured) = 0.105 W/kg



0 dB = 0.105 W/kg

Meas.6 Body Plane with Bottom 10 mm on Low Channel in GPRS1900 2Slots mode with Antenna0

Date: 2022.04.05

Communication System Band: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.1

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.392 S/m; ε_r = 41.04; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.6 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.31, 8.31, 8.31); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch512/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

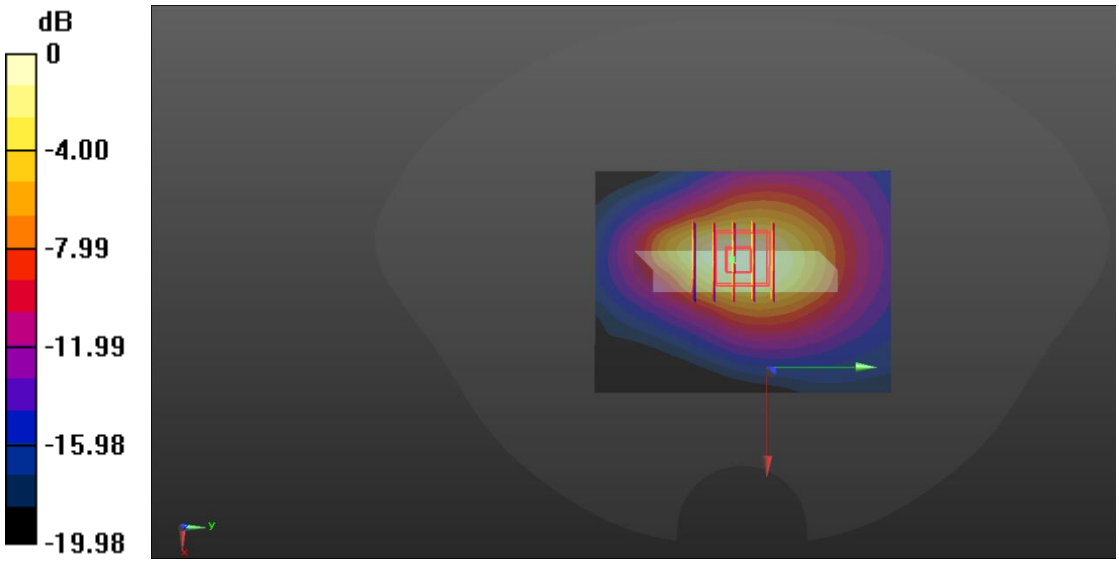
Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.94 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.126 W/kg

Maximum value of SAR (measured) = 0.250 W/kg



0 dB = 0.250 W/kg

Meas.7 Right Head with Cheek on Low Channel in WCDMA Band5 mode with Antenna1

Date: 2022.03.31

Communication System Band: V; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.897 S/m; ε_r = 40.798; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.4 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4132/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.371 W/kg

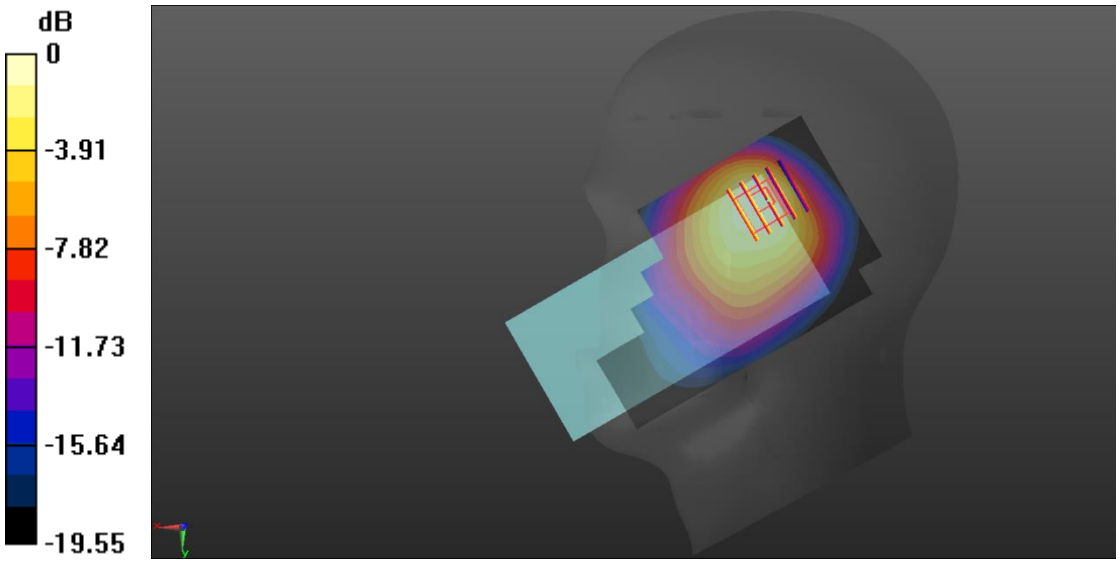
Ch4132/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.67 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.710 W/kg

SAR(1 g) = 0.348 W/kg; SAR(10 g) = 0.205 W/kg

Maximum value of SAR (measured) = 0.361 W/kg



0 dB = 0.361 W/kg

Meas.8 Body Plane with Back 15mm on High Channel in WCDMA Band5 mode with Antenna1

Date: 2022.04.01

Communication System Band: V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.898 S/m; ε_r = 41.666; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.2 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4233/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.123 W/kg

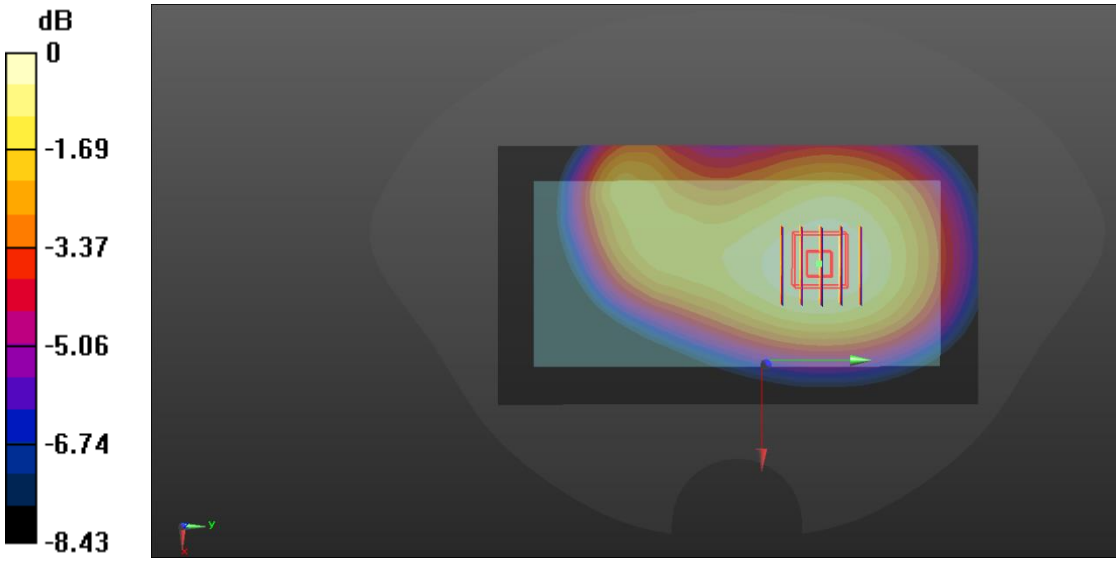
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.35 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.118 W/kg; SAR(10 g) = 0.089 W/kg

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



0 dB = 0.124 W/kg

Meas.9 Body Plane with Top 10mm on High Channel in WCDMA Band5 mode with Antenna1

Date: 2022.04.01

Communication System Band: V; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.898 S/m; ε_r = 41.666; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.2 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4233/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.164 W/kg

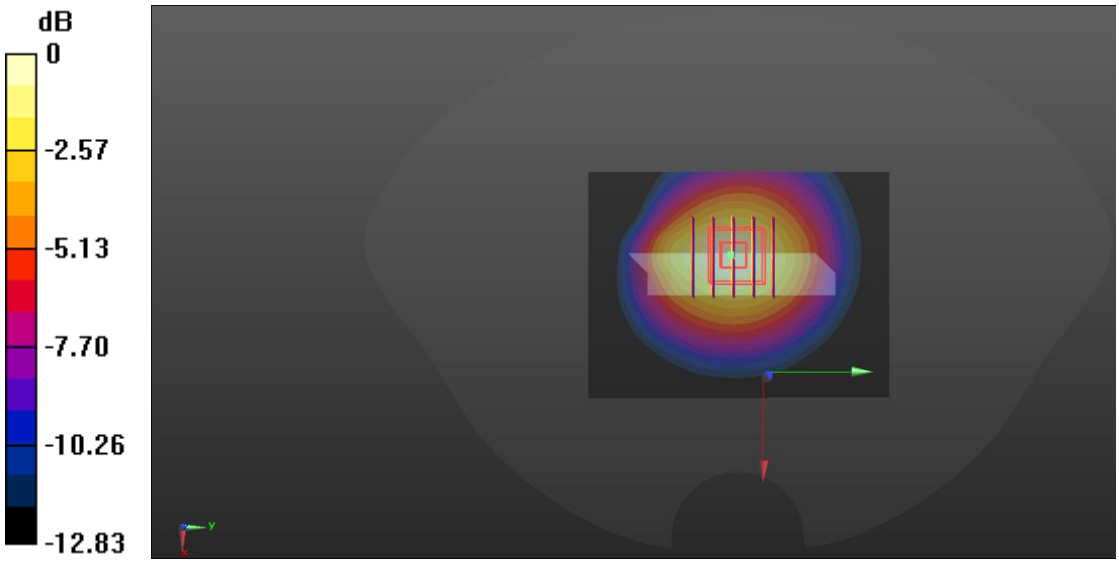
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.33 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.227 W/kg

SAR(1 g) = 0.149 W/kg; SAR(10 g) = 0.094 W/kg

Maximum value of SAR (measured) = 0.163 W/kg



0 dB = 0.163 W/kg

Meas.10 Right Head with Cheek on Middle Channel in LTE Band5 mode with Antenna1

Date: 2022.04.02

Communication System Band: Band 5; Frequency: 836.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.877 S/m; ε_r = 41.778; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.6 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.336 W/kg

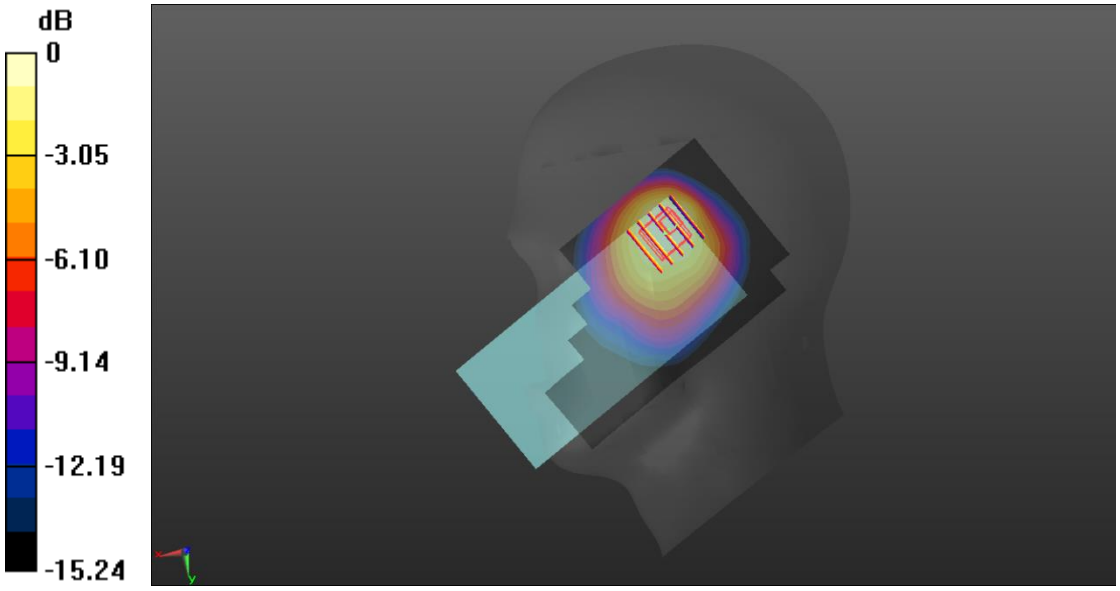
Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.23 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.193 W/kg

Maximum value of SAR (measured) = 0.324 W/kg



0 dB = 0.324 W/kg

Meas.11 Body Plane with Back Side 15mm on High Channel in LTE Band5 mode with Antenna1

Date: 2022.04.03

Communication System Band: Band 5; Frequency: 844 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 844 MHz; σ = 0.927 S/m; ε_r = 40.706; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20600/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.160 W/kg

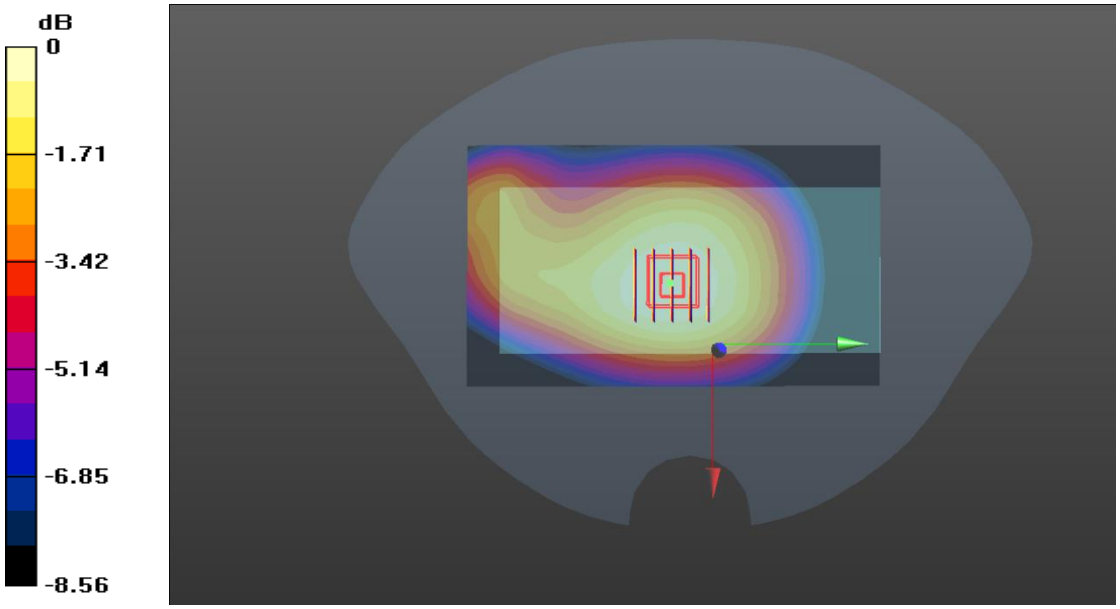
Ch20600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.15 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.195 W/kg

SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.113 W/kg

Maximum value of SAR (measured) = 0.160 W/kg



0 dB = 0.160 W/kg

Meas.12 Body Plane with Top 10mm on Middle Channel in LTE Band5 mode with Antenna1

Date: 2022.04.03

Communication System Band: Band 5, E-UTRA/FDD (824.0 - 849.0 MHz); Frequency: 836.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.927 S/m; ε_r = 40.706; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.3, 10.3, 10.3); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.158 W/kg

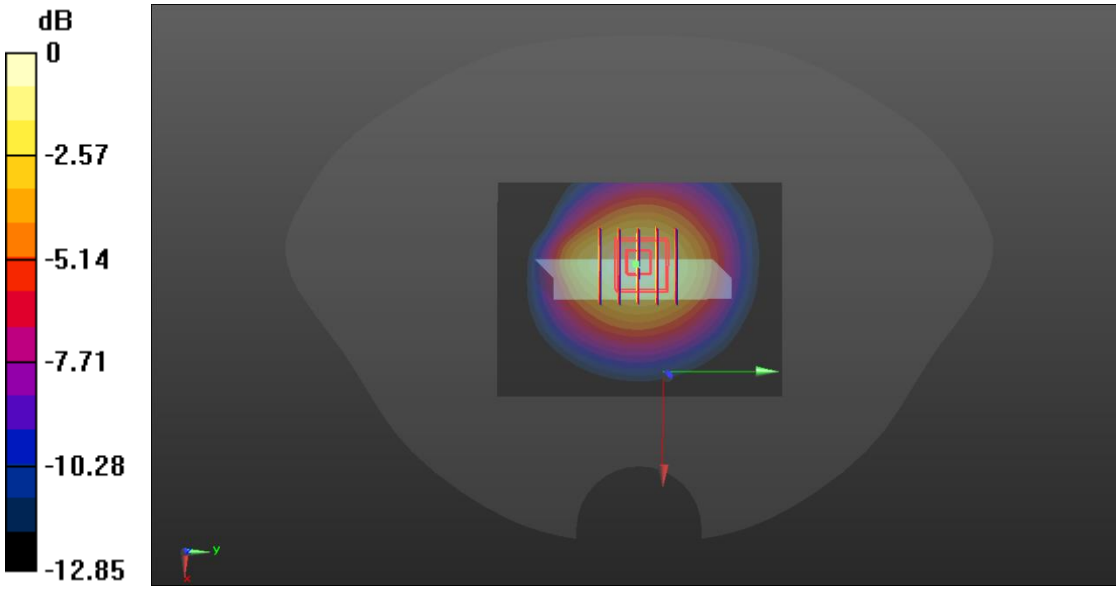
Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.46 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.218 W/kg

SAR(1 g) = 0.143 W/kg; SAR(10 g) = 0.090 W/kg

Maximum value of SAR (measured) = 0.157 W/kg



0 dB = 0.157 W/kg

Meas.13 Right Head with Tilt on Middle Channel in LTE Band7 mode with Antenna1

Date: 2022.04.06

Communication System Band: Band 7; Frequency: 2535 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2535 MHz; σ = 1.934 S/m; ε_r = 39.788; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.6 Liquid Temperature:21.1

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (81x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.568 W/kg

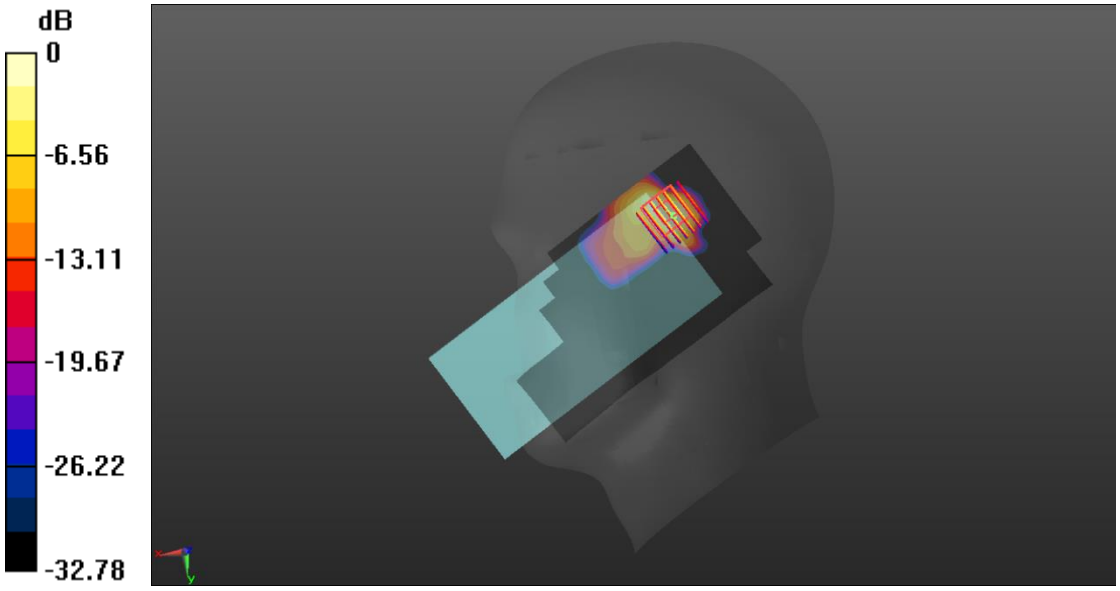
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.459 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.389 W/kg; SAR(10 g) = 0.142 W/kg

Maximum value of SAR (measured) = 0.454 W/kg



0 dB = 0.454 W/kg

Meas.14 Body Plane with Back Side 15mm on Middle Channel in LTE Band7 mode with Antenna0

Date: 2022.04.07

Communication System Band: Band 7; Frequency: 2535 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2535 MHz; σ = 1.912 S/m; ε_r = 39.319; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.105 W/kg

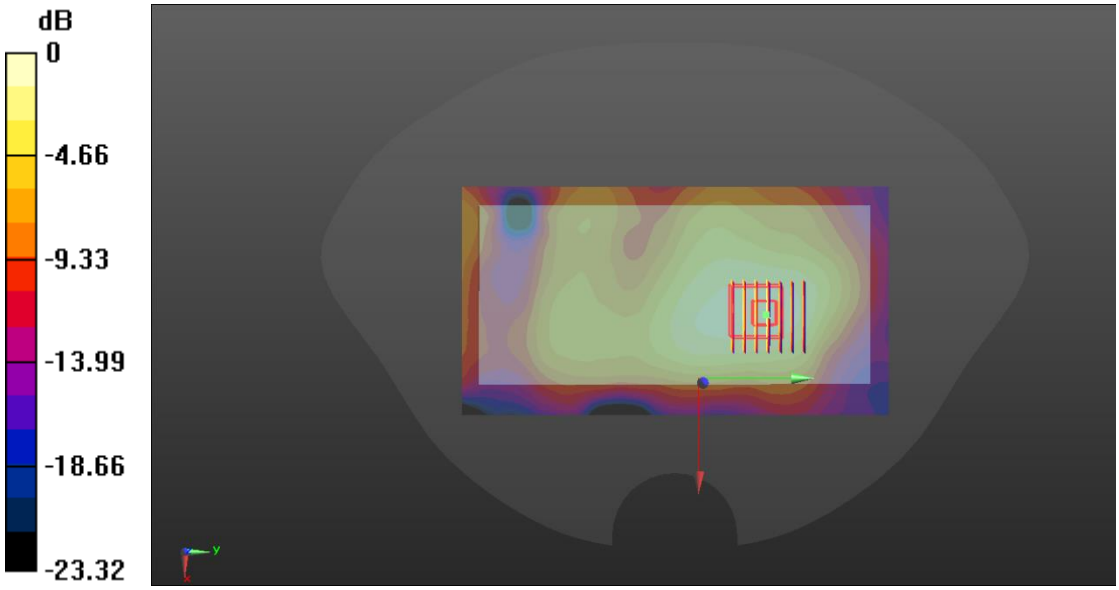
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.517 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.171 W/kg

SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.054 W/kg

Maximum value of SAR (measured) = 0.107 W/kg



0 dB = 0.107 W/kg

Meas.15 Body Plane with Top 10mm on Low Channel in LTE Band7 mode with Antenna1

Date: 2022.04.07

Communication System Band: Band 7; Frequency: 2510 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): f = 2510 MHz; σ = 1.883 S/m; ε_r = 39.517; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20850/Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.339 W/kg

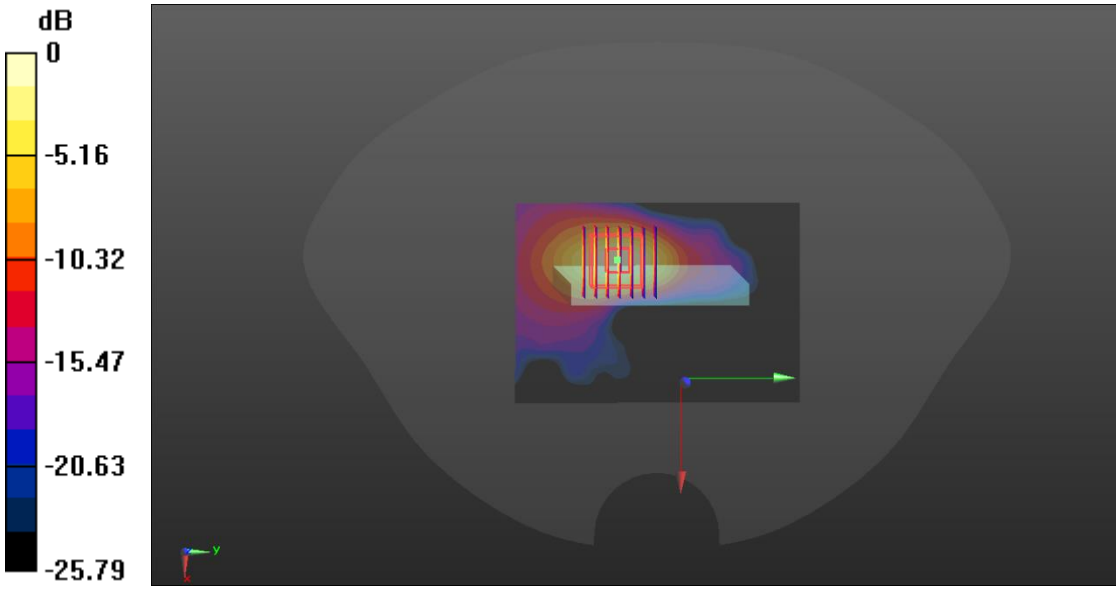
Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.983 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.601 W/kg

SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.112 W/kg

Maximum value of SAR (measured) = 0.327 W/kg



0 dB = 0.327 W/kg

Meas.16 Right Head with Tilt on Low Channel in LTE Band38 mode with Antenna1

Date: 2022.04.08

Communication System Band: Band 38; Frequency: 2580 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2580 MHz; σ = 1.907 S/m; ε_r = 39.932; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.9 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch37850/Area Scan (81x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.310 W/kg

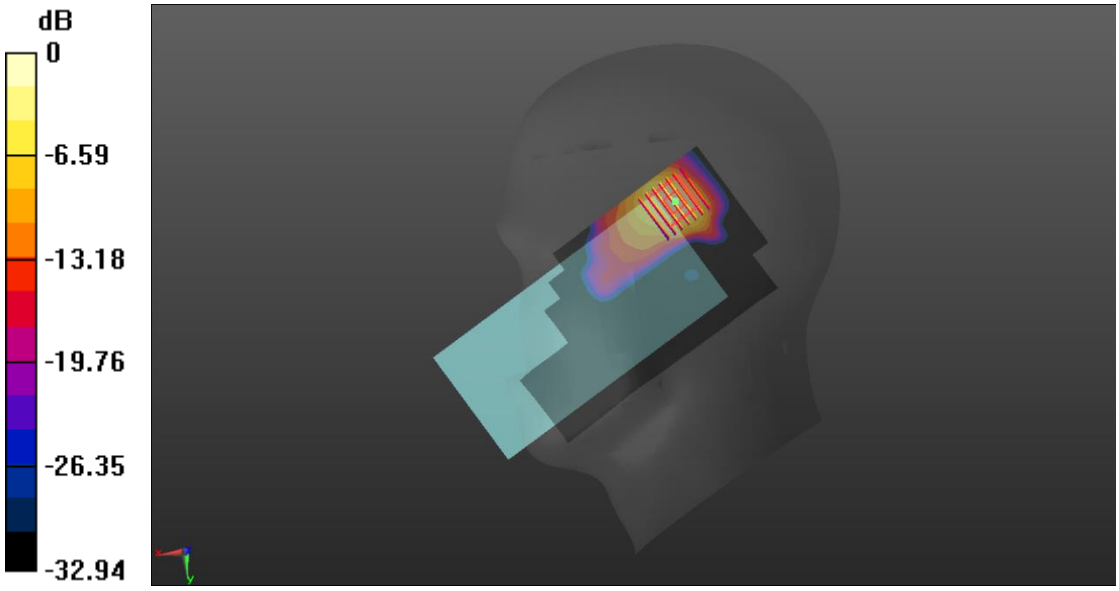
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.754 W/kg

SAR(1 g) = 0.279 W/kg; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 0.342 W/kg



0 dB = 0.342 W/kg

Meas.17 Body Plane with Back Side 15mm on High Channel in LTE Band38 mode with Antenna0

Date: 2022.04.09

Communication System Band: Band 38; Frequency: 2610 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2610 MHz; σ = 1.991 S/m; ε_r = 39.337; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch38150/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

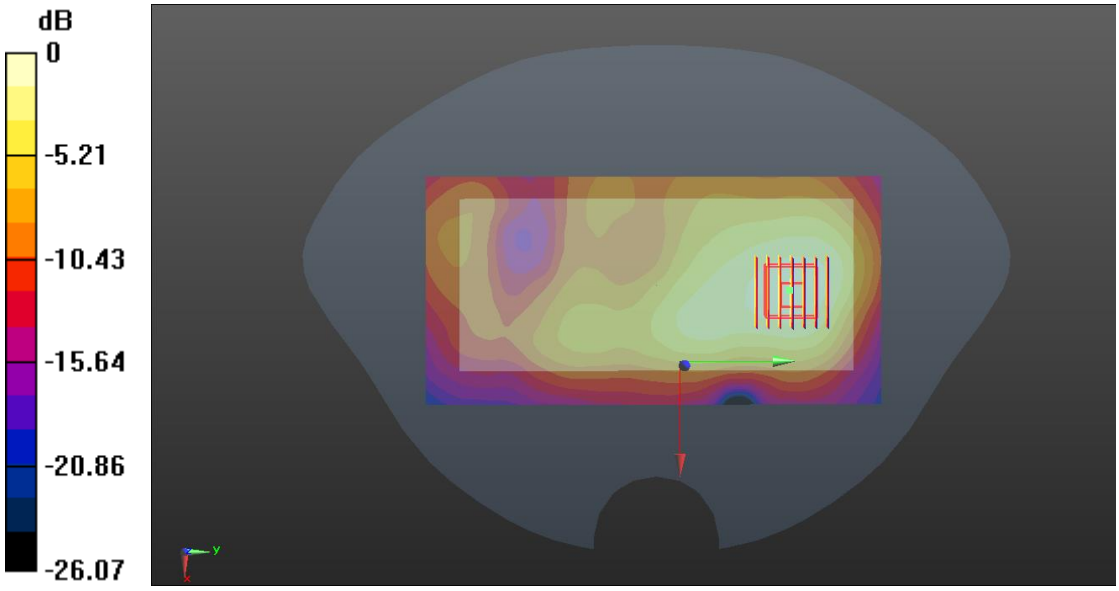
Ch38150/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.457 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.251 W/kg

SAR(1 g) = 0.138 W/kg; SAR(10 g) = 0.074 W/kg

Maximum value of SAR (measured) = 0.149 W/kg



0 dB = 0.149 W/kg

Meas.18 Body Plane with Top Side 10mm on Low Channel in LTE Band38 mode with Antenna1

Date: 2022.04.09

Communication System Band: Band 38; Frequency: 2580 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2580 MHz; σ = 1.948 S/m; ε_r = 39.893; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.3

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.49, 7.49, 7.49); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch37850/Area Scan (61x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.446 W/kg

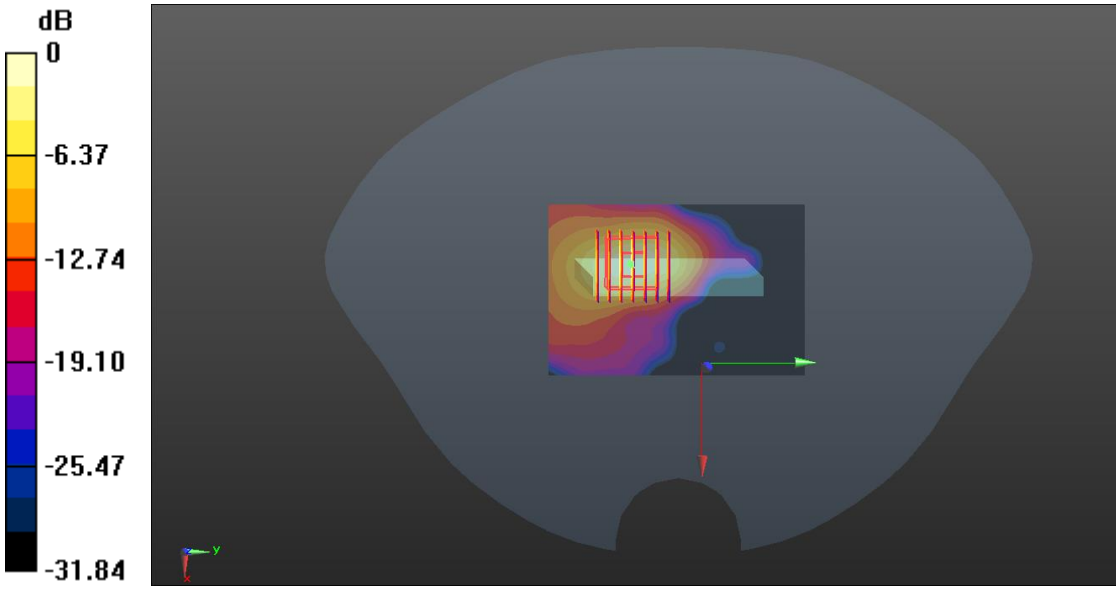
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.820 W/kg

SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.153 W/kg

Maximum value of SAR (measured) = 0.442 W/kg



0 dB = 0.442 W/kg

Meas.19 Right Head with Tilt on Low Channel in LTE Band41 mode with Antenna1

Date: 2022.04.10

Communication System Band: Band 41; Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2506 MHz; σ = 1.798 S/m; ε_r = 40.266; ρ = 1000 kg/m^3

Phantom section: Right Section

Ambient Temperature:22.6 Liquid Temperature:21.8

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39750/Area Scan (81x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.317 W/kg

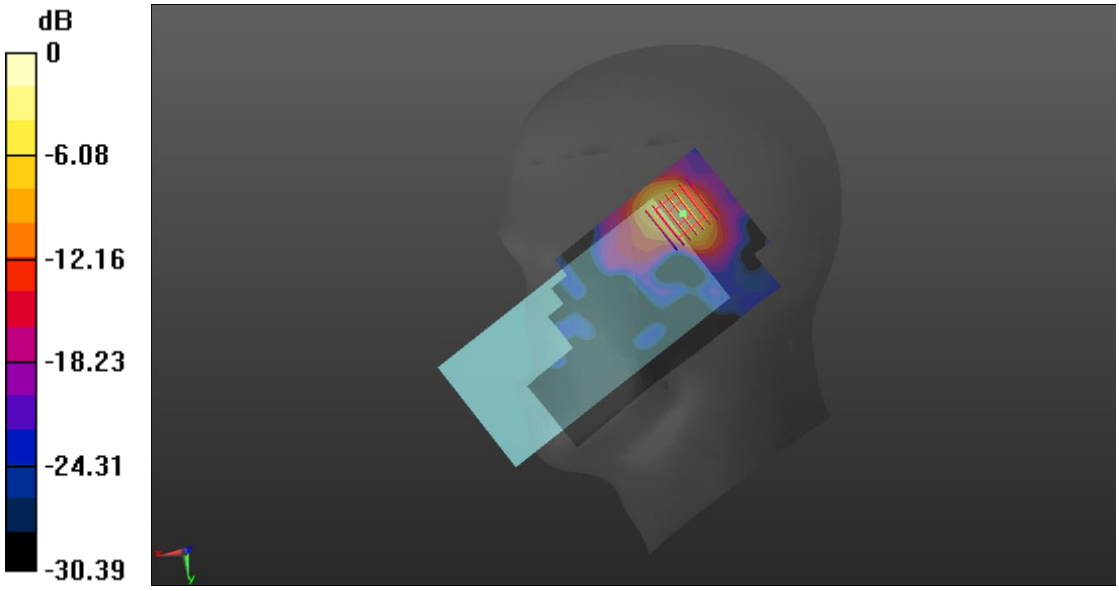
Ch39750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.3670 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.739 W/kg

SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.106 W/kg

Maximum value of SAR (measured) = 0.343 W/kg



0 dB = 0.343 W/kg

Meas.20 Body Plane with Back Side 15mm on Low Channel in LTE Band41 mode with Antenna0

Date: 2022.04.11

Communication System Band: Band 41; Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2506 MHz; σ = 1.843 S/m; ε_r = 40.11; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39750/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.200 W/kg

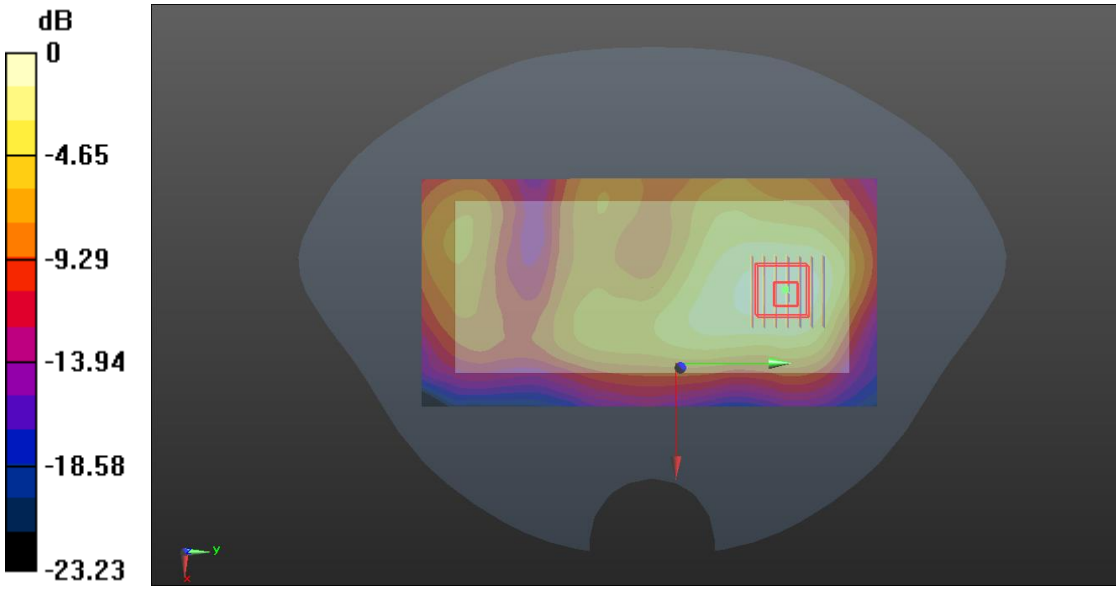
Ch39750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.251 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.181 W/kg; SAR(10 g) = 0.100 W/kg

Maximum value of SAR (measured) = 0.198 W/kg



0 dB = 0.198 W/kg

Meas.21 Body Plane with Top Side 10mm on Low Channel in LTE Band41 mode with Antenna1

Date: 2022.04.11

Communication System Band: Band 41; Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used (interpolated): f = 2506 MHz; σ = 1.843 S/m; ε_r = 40.11; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39750/Area Scan (61x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.417 W/kg

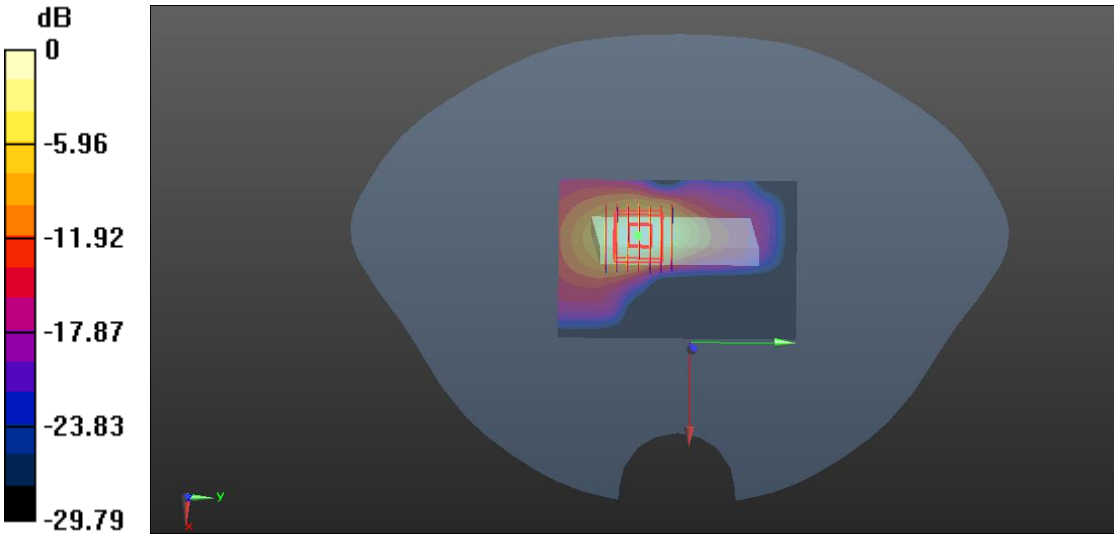
Ch39750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.767 W/kg

SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 0.419 W/kg



0 dB = 0.419 W/kg

Meas.22 Left Head with Cheek on 6 Channel in IEEE802.11b mode with Antenna2

Date: 2022.04.12

Communication System Band: WLAN(b); Frequency: 2437 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.786 S/m; ε_r = 39.847; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch6/Area Scan (81x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

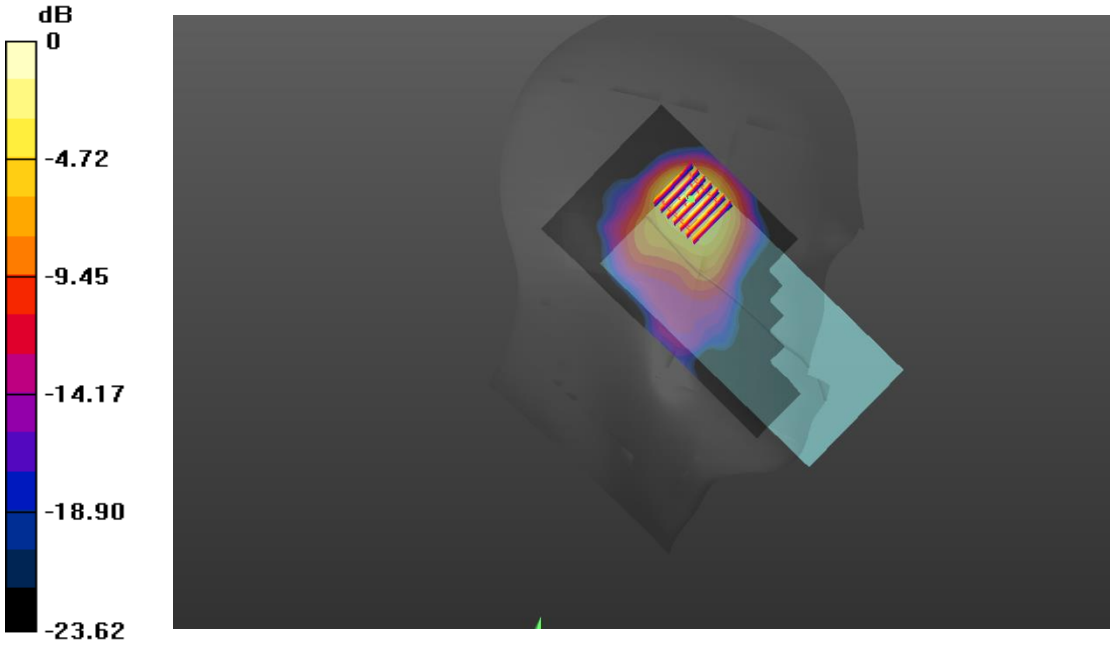
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.077 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.547 W/kg; SAR(10 g) = 0.263 W/kg

Maximum value of SAR (measured) = 0.603 W/kg



0 dB = 0.603 W/kg

Meas.23 Body Plane with Back Side 15mm on 6 Channel in IEEE802.11b mode with Antenna2

Date: 2022.04.12

Communication System Band: WLAN(b); Frequency: 2437 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.786 S/m; ε_r = 39.847; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch6/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0692 W/kg

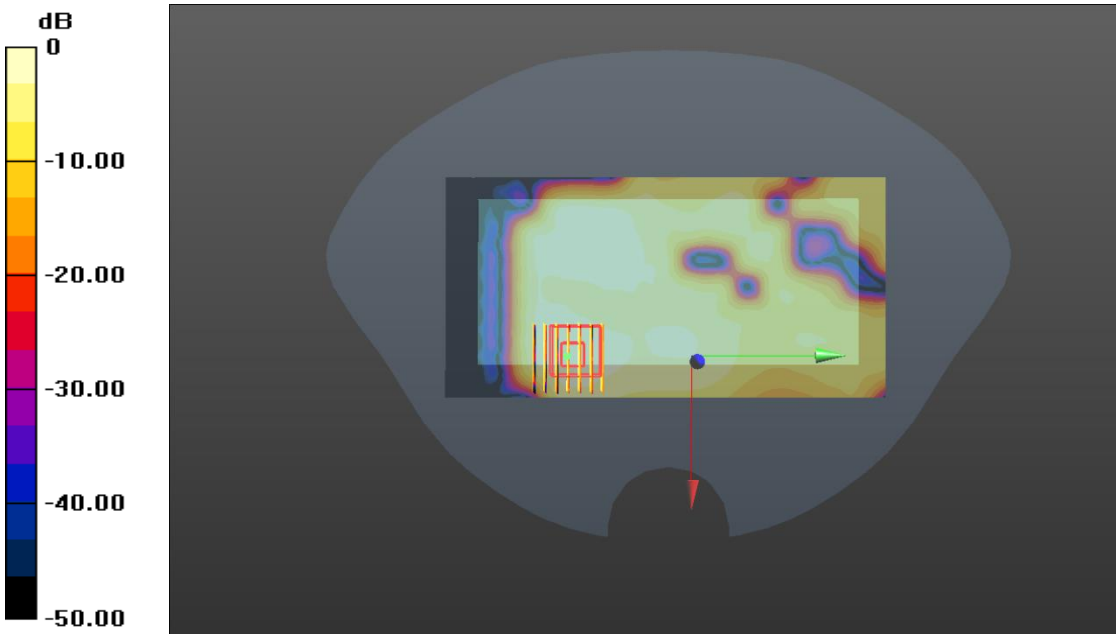
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.819 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.150 W/kg

SAR(1 g) = 0.066 W/kg; SAR(10 g) = 0.032 W/kg

Maximum value of SAR (measured) = 0.0736 W/kg



0 dB = 0.0736 W/kg

Meas.24 Body Plane with Back Side 10mm on 6 Channel in IEEE802.11b mode with Antenna2

Date: 2022.04.12

Communication System Band: WLAN(b); Frequency: 2437 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.786 S/m; ε_r = 39.847; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch6/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.170 W/kg

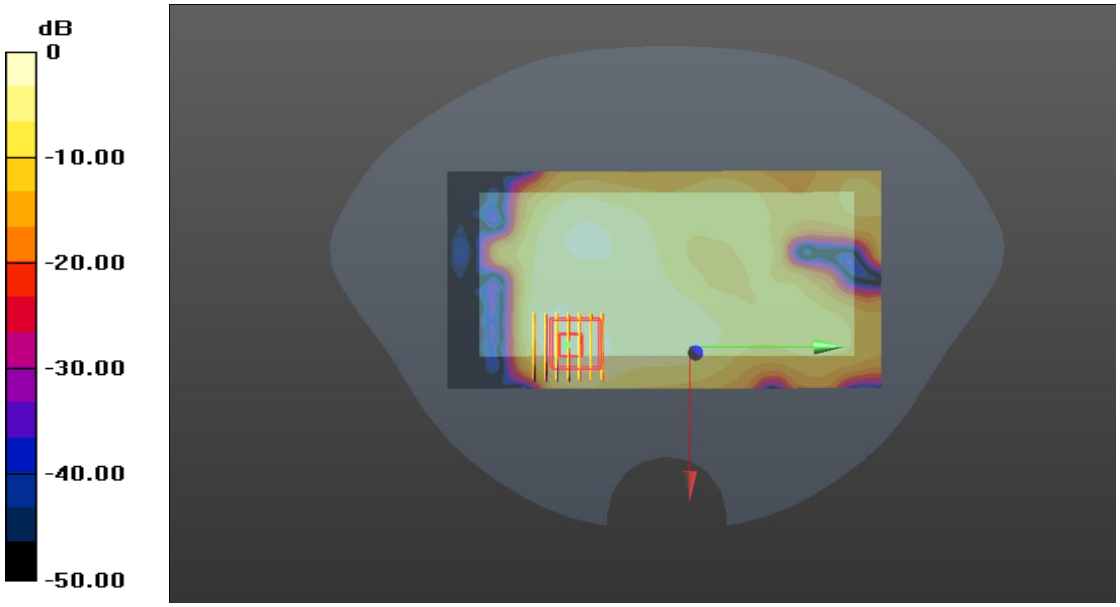
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.184 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.150 W/kg; SAR(10 g) = 0.070 W/kg

Maximum value of SAR (measured) = 0.167 W/kg



0 dB = 0.167 W/kg

Meas.25 Left Head with Cheek on 58 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.13

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5290 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5290 MHz; σ = 4.852 S/m; ε_r = 35.898; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch58/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.01 W/kg

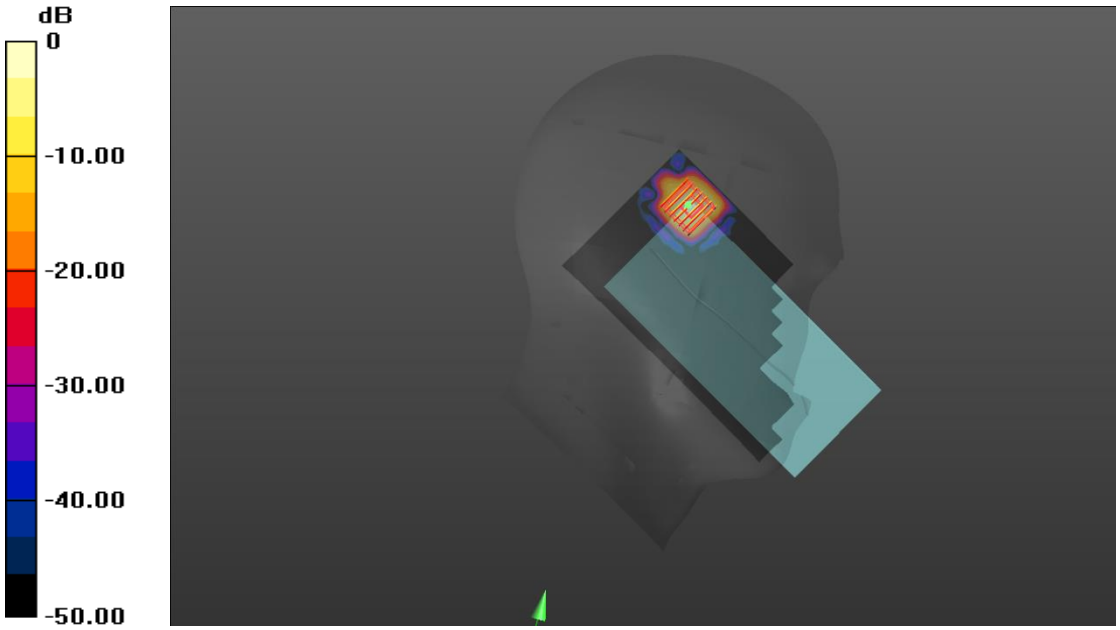
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.92 W/kg

SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 0.866 W/kg



0 dB = 0.866 W/kg

Meas.26 Left Head with Cheek on 106 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.14

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5530 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5530 MHz; σ = 4.954 S/m; ε_r = 36.5; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.8 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.88, 4.88, 4.88); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch106/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.20 W/kg

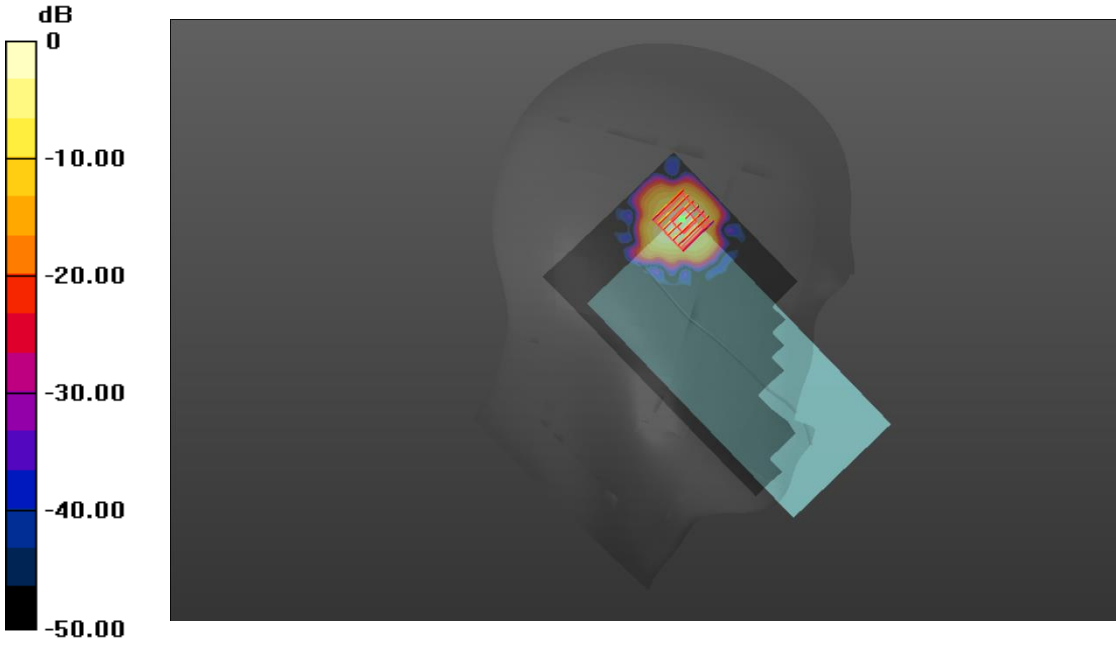
Ch106/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.617 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.117 W/kg

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



0 dB = 1.02 W/kg

Meas.27 Left Head with Cheek on 155 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.15

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5775 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5775 MHz; σ = 5.124 S/m; ε_r = 35.153; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.92, 4.92, 4.92); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch155/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

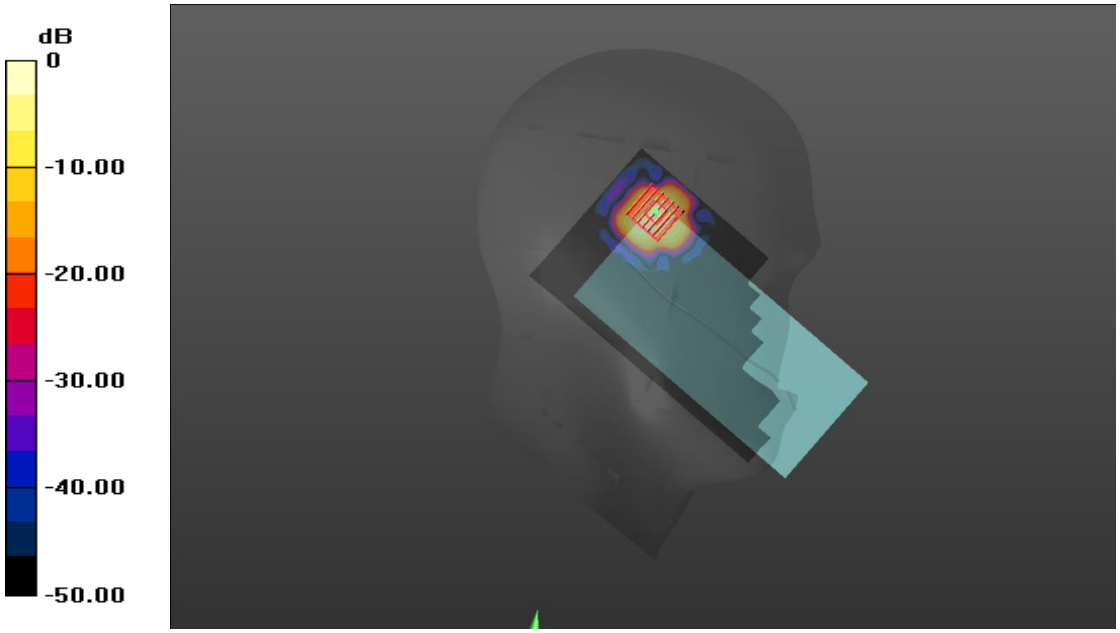
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.67 W/kg

SAR(1 g) = 0.502 W/kg; SAR(10 g) = 0.128 W/kg

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



0 dB = 1.13 W/kg

Meas.28 Body Plane with Back Side 15mm on 52 Channel in IEEE802.11a mode with Antenna2

Date: 2022.04.13

Communication System Band: WLAN(a); Frequency: 5260 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 5260 MHz; σ = 4.815 S/m; ε_r = 36.078; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch52/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.09 W/kg

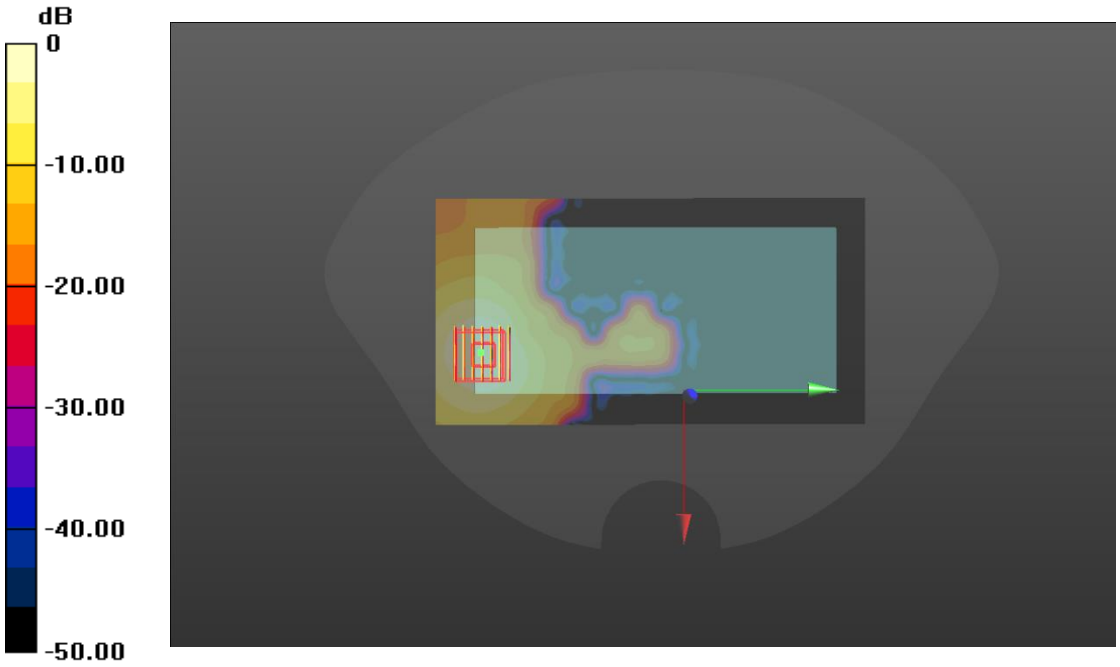
Ch52/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.78 W/kg

SAR(1 g) = 0.546 W/kg; SAR(10 g) = 0.215 W/kg

Maximum value of SAR (measured) = 0.970 W/kg



0 dB = 0.970 W/kg

Meas.29 Body Plane with Back Side 15mm on 122 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.14

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5610 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5610 MHz; σ = 5.06 S/m; ε_r = 35.773; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.88, 4.88, 4.88); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch122/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

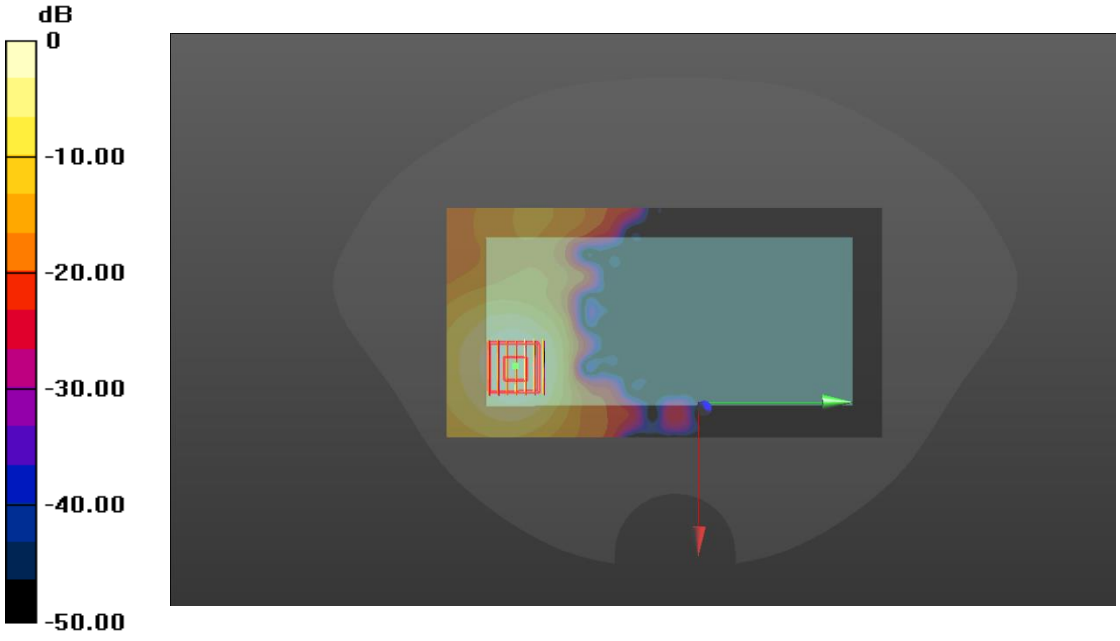
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.73 W/kg

SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.180 W/kg

Maximum value of SAR (measured) = 1.34 W/kg



0 dB = 1.34 W/kg

Meas.30 Body Plane with Back Side 10mm on 42 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.13

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5210 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5210 MHz; σ = 4.735 S/m; ε_r = 36.369; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch42/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.35 W/kg

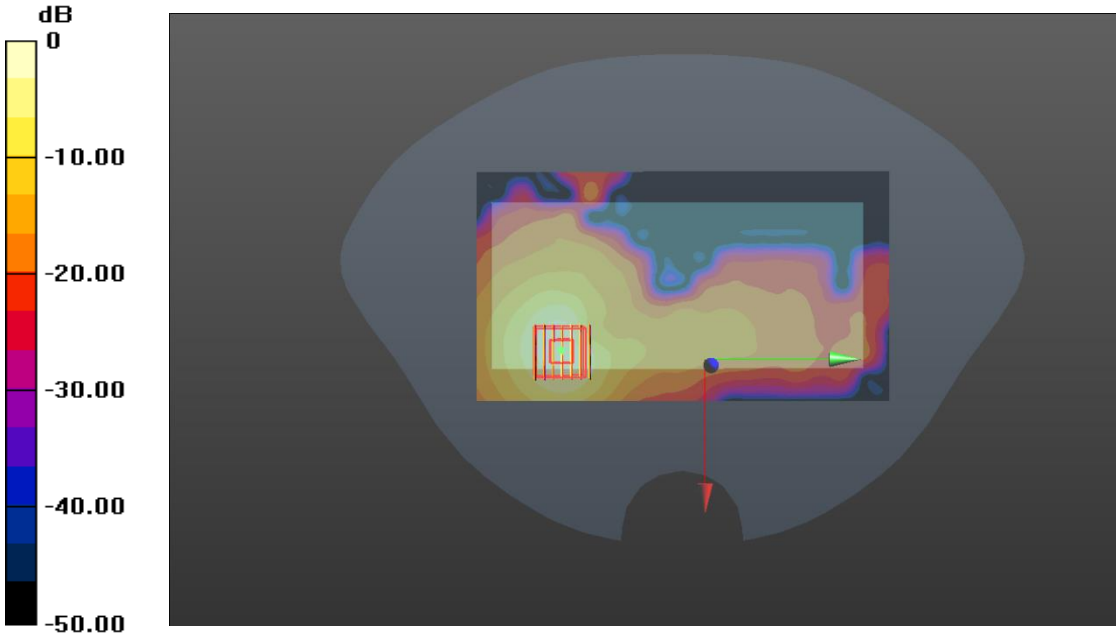
Ch42/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.39 W/kg

SAR(1 g) = 0.653 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 1.30 W/kg



0 dB = 1.30 W/kg

Meas.31 Body Plane with Back Side 10mm on 155 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.15

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5775 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5775 MHz; σ = 5.124 S/m; εr = 35.153; ρ = 1000 kg/m3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.92, 4.92, 4.92); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch155/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.327 W/kg

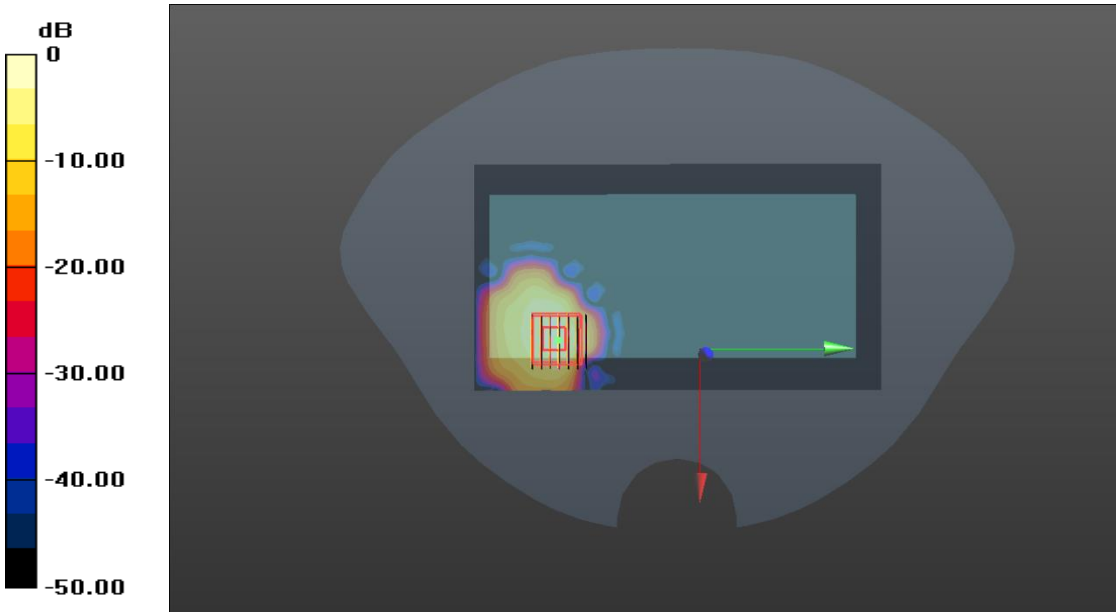
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.825 W/kg

SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.072 W/kg

Maximum value of SAR (measured) = 0.433 W/kg



0 dB = 0.433 W/kg

Meas.32 Body Plane with Left Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.13

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5290 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5290 MHz; σ = 4.852 S/m; ε_r = 35.898; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.46, 5.46, 5.46); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch58/Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.42 W/kg

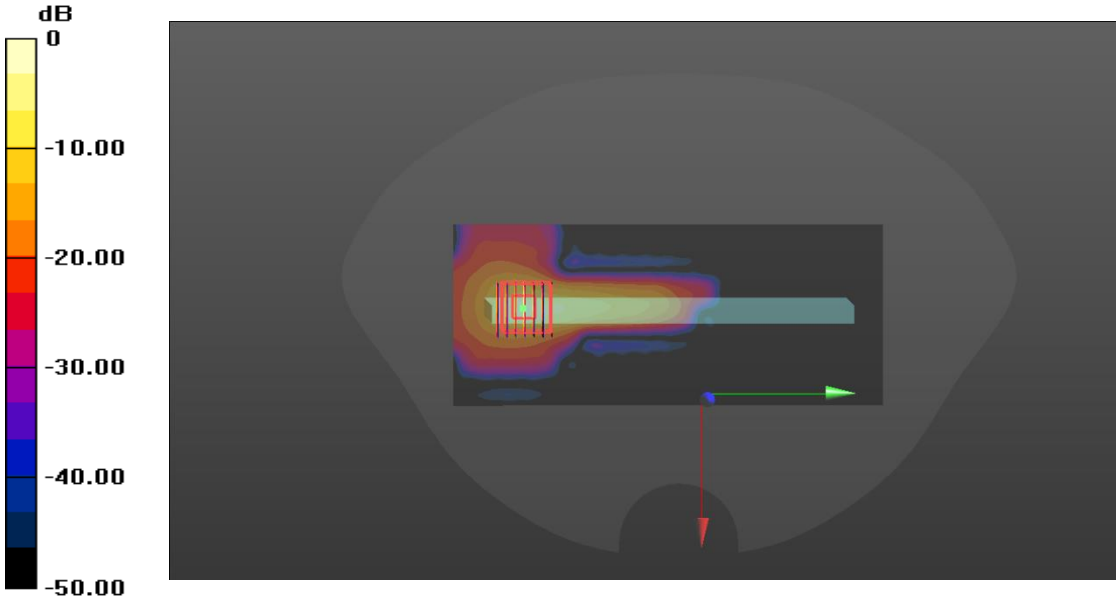
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.237 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 19.1 W/kg

SAR(1 g) = 3.13 W/kg; SAR(10 g) = 0.639 W/kg

Maximum value of SAR (measured) = 8.41 W/kg



0 dB = 8.41 W/kg

Meas.33 Body Plane with Left Side 0mm on 122 Channel in IEEE802.11ac80 mode with Antenna2

Date: 2022.04.14

Communication System Band: WLAN(ac) 80Mhz; Frequency: 5610 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5610 MHz; σ = 5.06 S/m; ε_r = 35.773; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.8 Liquid Temperature:21.9

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.88, 4.88, 4.88); Calibrated: 2021.08.12;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch122/Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 3.02 W/kg

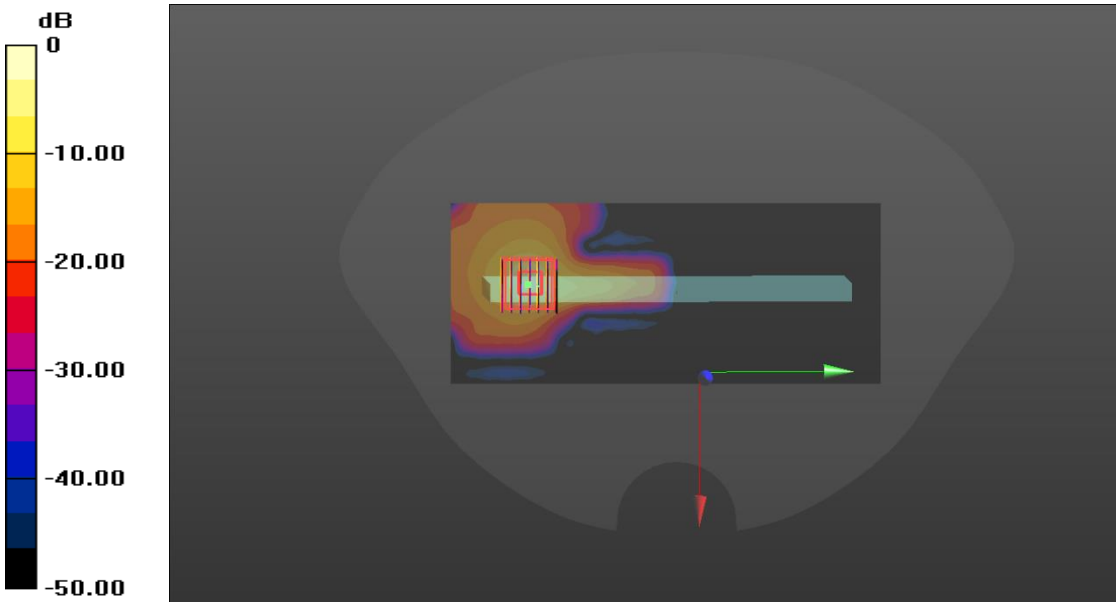
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 14.0 W/kg

SAR(1 g) = 2.2 W/kg; SAR(10 g) = 0.465 W/kg

Maximum value of SAR (measured) = 5.45 W/kg



0 dB = 5.45 W/kg

Meas.34 Left Head with Cheek on 39 Channel in Bluetooth mode with Antenna2

Date: 2022.04.12

Communication System Band: Bluetooth; Frequency: 2441 MHz;Duty Cycle: 1:1.304

Medium parameters used (interpolated): f = 2441 MHz; σ = 1.795 S/m; ε_r = 39.751; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39/Area Scan (81x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.211 W/kg

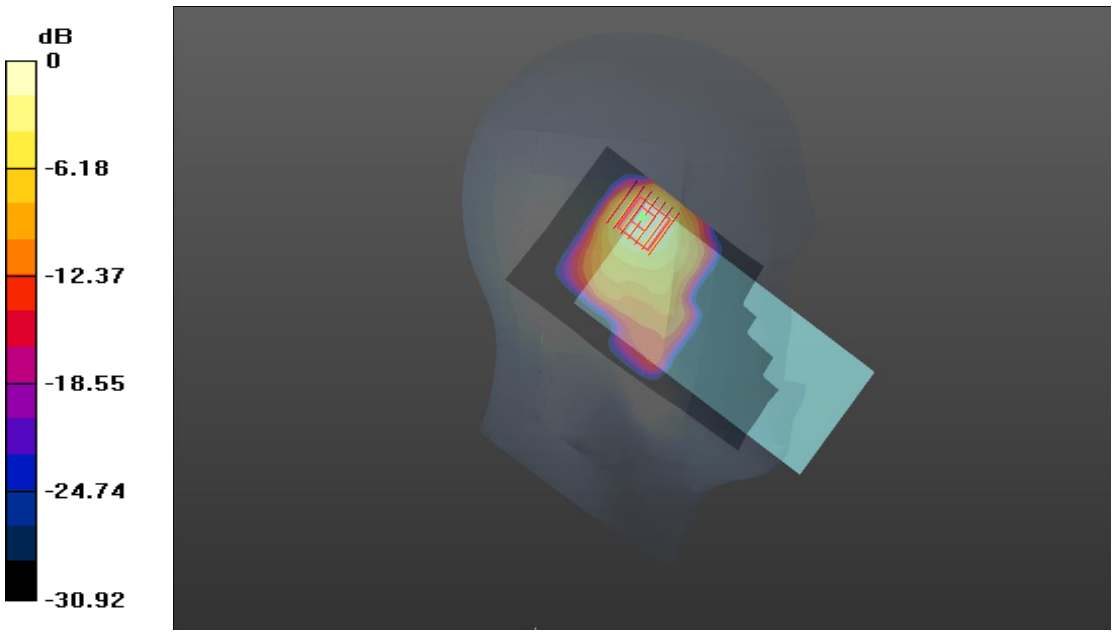
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.093 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.385 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.081 W/kg

Maximum value of SAR (measured) = 0.195 W/kg



0 dB = 0.195 W/kg

Meas.35 Body Plane with Back Side 15mm on 39 Channel in Bluetooth mode with Antenna2

Date: 2022.04.12

Communication System Band: Bluetooth; Frequency: 2441 MHz;Duty Cycle: 1:1.304

Medium parameters used (interpolated): f = 2441 MHz; σ = 1.795 S/m; ε_r = 39.751; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0520 W/kg

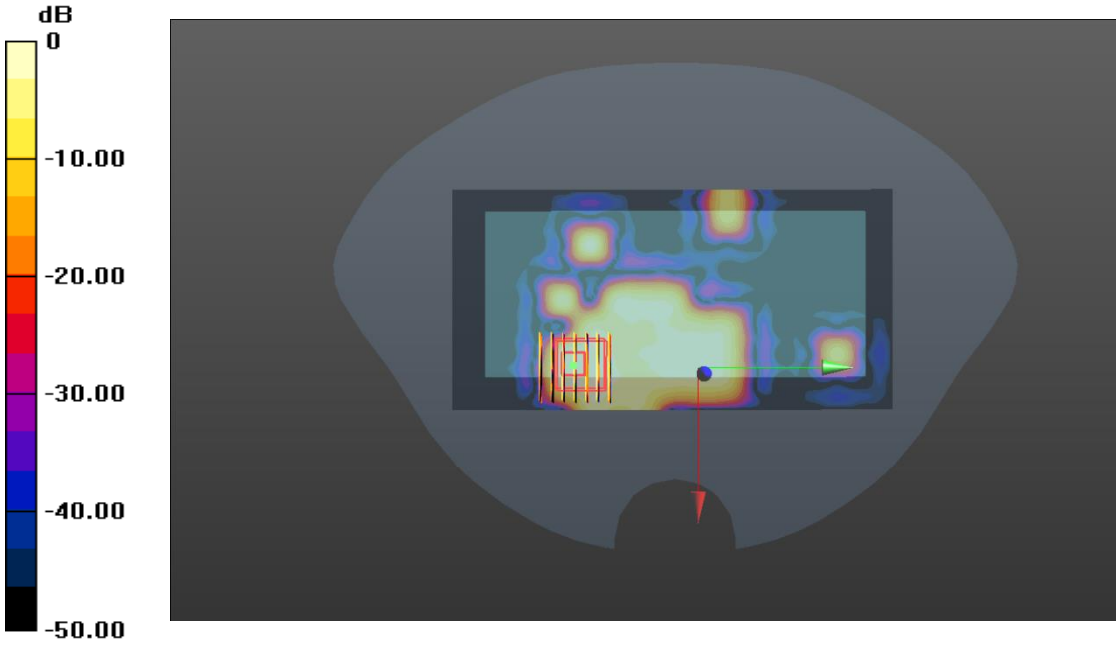
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.0310 W/kg

SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.0069 W/kg

Maximum value of SAR (measured) = 0.0178 W/kg



0 dB = 0.0178 W/kg

Meas.36 Body Plane with Back Side 10mm on 39 Channel in Bluetooth mode with Antenna2

Date: 2022.04.12

Communication System Band: Bluetooth; Frequency: 2441 MHz;Duty Cycle: 1:1.304

Medium parameters used (interpolated): f = 2441 MHz; σ = 1.795 S/m; ε_r = 39.751; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.1 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.68, 7.68, 7.68); Calibrated: 2021.08.12;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2021.11.05
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0469 W/kg

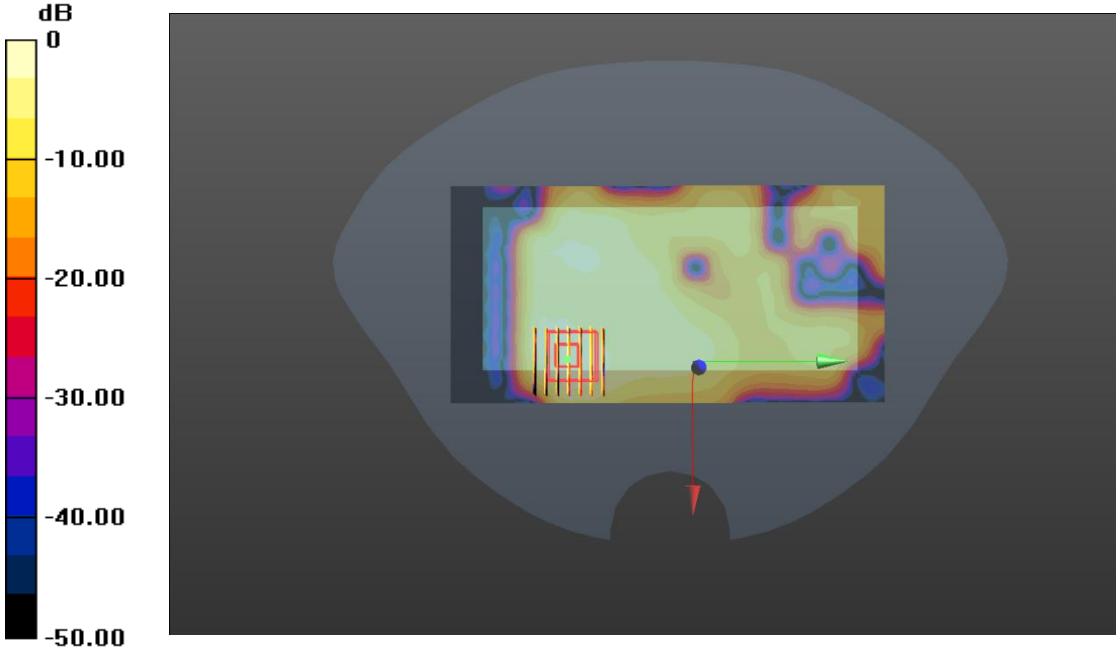
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.244 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0850 W/kg

SAR(1 g) = 0.039 W/kg; SAR(10 g) = 0.017 W/kg

Maximum value of SAR (measured) = 0.0437 W/kg



0 dB = 0.0437 W/kg

Meas.37 Left Head with Cheek on 6 Channel in IEEE802.11b mode with Antenna.2

Date: 2022.05.06

Communication System Band: 2.4G; Frequency: 2437 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 2437 MHz; σ = 1.782 S/m; ε_r = 39.601; ρ = 1000 kg/m^3

Phantom section: Left Section

Ambient Temperature:22.5 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: EX3DV4 - SN3717 ConvF(7.15, 7.15, 7.15); Calibrated: 2021.06.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch6/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.512 W/kg

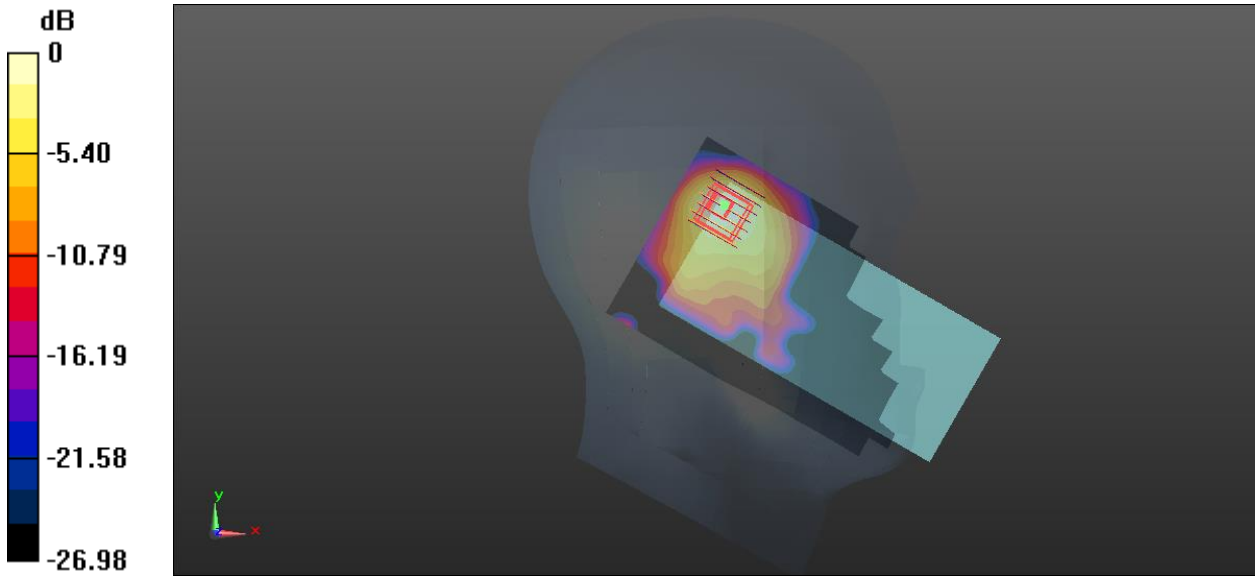
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.145 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.876 W/kg

SAR(1 g) = 0.405 W/kg; SAR(10 g) = 0.193 W/kg

Maximum value of SAR (measured) = 0.451 W/kg



0 dB = 0.451 W/kg

Meas.38 Body Plane with Back Side 15mm on 52 Channel in IEEE802.11a mode with Antenna.2

Date: 2022.05.06

Communication System Band: 5.2G; Frequency: 5260 MHz;Duty Cycle: 1:1.007

Medium parameters used (interpolated): f = 5260 MHz; σ = 4.723 S/m; ε_r = 35.624; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN3717 ConvF(7.15, 7.15, 7.15); Calibrated: 2021.06.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch52/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.552 W/kg

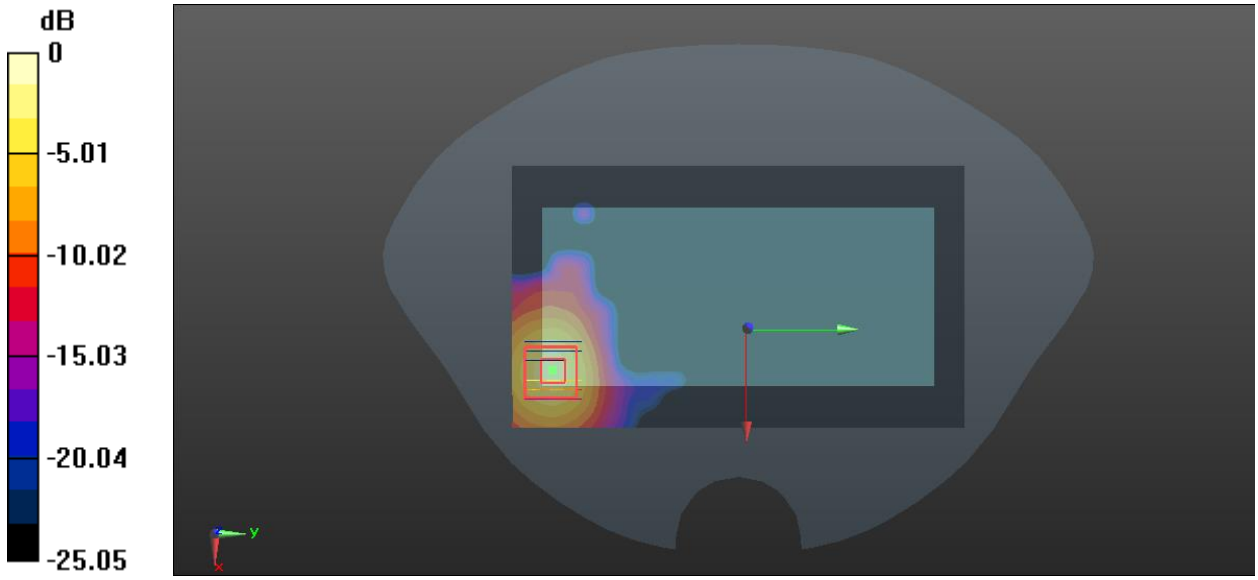
Ch52/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0.6090 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.201 W/kg

Maximum value of SAR (measured) = 0.924 W/kg



0 dB = 0.924 W/kg

Meas.39 Body Plane with Back Side 10mm on 42 Channel in IEEE802.11ac80 mode with Antenna.2

Date: 2022.05.06

Communication System Band: 5.2G; Frequency: 5210 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5210 MHz; σ = 4.626 S/m; ε_r = 36.267; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN3717 ConvF(7.15, 7.15, 7.15); Calibrated: 2021.06.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch42/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.728 W/kg

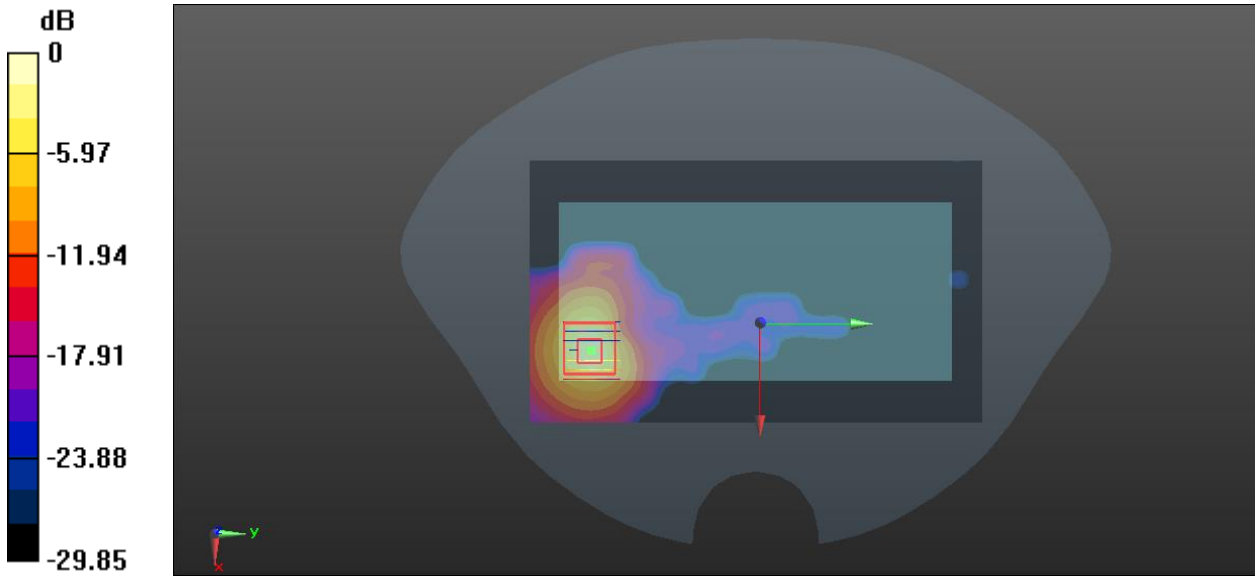
Ch42/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.310 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.64 W/kg

SAR(1 g) = 0.635 W/kg; SAR(10 g) = 0.226 W/kg

Maximum value of SAR (measured) = 1.22 W/kg



0 dB = 1.22 W/kg

Meas.40 Body Plane with Left Edge 0mm on 58 Channel in 802.11ac80 mode with Antenna.2

Date: 2022.05.06

Communication System Band: 5.3G; Frequency: 5290 MHz;Duty Cycle: 1:1.139

Medium parameters used (interpolated): f = 5290 MHz; σ = 4.789 S/m; ε_r = 35.248; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.7

DASY5 Configuration:

- Probe: EX3DV4 - SN3717 ConvF(7.15, 7.15, 7.15); Calibrated: 2021.06.07;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2021.05.17
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP:1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch58/Area Scan (91x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.00 W/kg

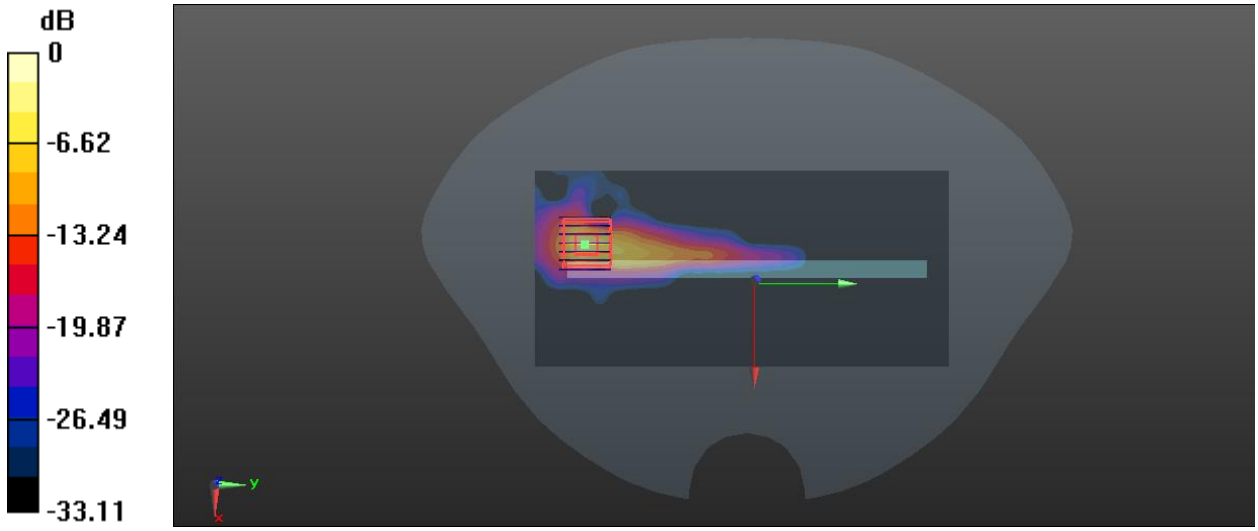
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.522 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 2.76 W/kg; SAR(10 g) = 0.539 W/kg

Maximum value of SAR (measured) = 7.50 W/kg



0 dB = 7.50 W/kg

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2241045-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ2241045-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “CALIBRATION REPORT.pdf”.

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