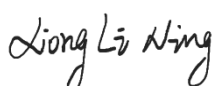


TEST REPORT

Applicant: Xiaomi Communications Co., Ltd.
Address: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road,
Haidian District, Beijing, China, 100085
Equipment Type: Mobile Phone
Model Name: 23124RA7EO
Brand Name: Redmi
FCC ID: 2AFZZA7EO
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1 g@0mm): 0.98 W/kg
Body-worn (1 g@10mm): 0.49 W/kg
Hotspot (1 g@10mm): 0.84 W/kg
Specific (10 g@0mm): 1.84 W/kg
Sample Arrival Date: Oct. 19, 2023
Test Date : Oct. 29, 2023 - Nov. 02, 2023
Date of Issue: Nov. 27, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining**Checked by:** Xu Rui**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Nov. 27, 2023</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2 Manufacturer Information

Manufacturer	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	23124RA7EO
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	135100N7
Software Version	MIUI14
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
EUT ID	SC-SZ2390301: S04, S05, S06, S30, S31, S32, S33, S34 SC-SZ2390305: S10, S18
IMEI Number	SC-SZ2390301-S04: IMEI1 869912060060866, IMEI2 869912060060874
	SC-SZ2390301-S05: IMEI1 869912060064363, IMEI2 869912060064371
	SC-SZ2390301-S06: IMEI1 869912060053465, IMEI2 869912060053473
	SC-SZ2390301-S30: IMEI1 869912060052442, IMEI2 869912060052459
	SC-SZ2390301-S31: IMEI1 869912060072762, IMEI2 869912060072770
	SC-SZ2390301-S32: IMEI1 869912060072804, IMEI2 869912060072812
	SC-SZ2390301-S33: IMEI1 869912060059843, IMEI2 869912060059850
	SC-SZ2390301-S34: IMEI1 869912060071160, IMEI2 869912060071178

	SC-SZ2390305-S10: IMEI1 861678060041069 IMEI2 861678060041077
	SC-SZ2390305-S18: IMEI1 861678060049609, IMEI2 861678060049617
Note1: EUT ID is used to identify the test sample in the lab internally. Note2: It is performed to test SAR with the EUT S30, S31, S32, S33, S34, S18 and conducted power with the EUT S04, S05, S06, S10.	

2.4 Ancillary Equipment

Please refer the document “BL-SZ23A0971-AW EUT external photo.pdf”.

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/900/1800/1900 3G Network WCDMA/HSDPA/HSUPA/DC-HSDPA Band 1/5/8 4G Network FDD LTE Band 1/3/5/7/8/20/28 TDD LTE Band 38/40/41 LTE CA Uplink (UL): CA_7C, CA_38C, CA_40C Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, GLONASS, Galileo, BDS, SBAS, FM receiver, 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)	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		
Product Type	Portable Device		
EUT Type	☒ Production unit		☐ Identical prototype

Note:

1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4/5G transmitter for held-to-ear exposure conditions.
2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4/5G transmitter for near to body exposure conditions.
3. The reduction power details please refer section 8.7.

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	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
5	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	KDB 941225 D05A v01r02	REL. 10 LTE SAR TEST GUIDANCE AND KDB INQUIRIES
7	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
8	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	KDB 865664 D02 v01r02	RF Exposure Reporting
10	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-SZ2391253-701, the changes of the EUT of this report as below:

1. The model name 23129RA5FL is updated to 23124RA7EO.
2. Added LTE B20 band.
3. Added the NFC function.
4. Removed WCDMA Band: 2/4/6/19; removed LTE Band: 2/4/12/13/17/18/19/26/66.
5. FCC ID changed from FCC ID: 2AFZZA5FL to FCC ID: 2AFZZA7EO.
6. The power and SAR values of WCDMA B5, LTE B5, B7, B41 on ANT 3 at DSI 1 condition were tested.
7. The power and SAR values of WCDMA B1, LTE B38, B41 on ANT 3 at DSI 4 condition were tested

The other hardware circuits and software are the same, the worse case SAR of remaining frequency band and state in BL-SZ2391253-701 report is verified, others test data please refer to report BL-SZ2391253-701, which was issued by Shenzhen BALUN Technology Co., Ltd. on

Nov. 09, 2023.

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/ Controlled Exposure
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 Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)				Maximum Report SAR (W/kg)							
		Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)	Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)				
		1g SAR			10g SAR	1g SAR			10g SAR				
PCE	GSM 850	0.79	0.26	0.26	/	0.98	0.49	0.84	1.84				
	GSM 1900	0.81	0.46	0.84	/								
	WCDMA Band 5	0.98	0.39	0.39	/								
	LTE Band 5	0.55	0.44	0.44	/								
	LTE Band 7	0.70	0.43	0.55	1.84								
	LTE Band 38	0.64	0.38	0.60	/								
	LTE Band 41	0.78	0.49	0.60	/								
DTS	2.4 G	0.63	0.19	0.24	/								
NII	5.2G	/	/	0.59	/								
	5.3G	0.45	0.23	/	0.38								
	5.6 G	0.44	0.25	/	0.51								
	5.8 G	0.24	0.33	0.41	/								
DSS	Bluetooth	0.41	0.13	0.15	/								
Limit (W/kg)		1.6			4.0					1.6			4.0
Verdict		PASS											

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)			
	Head 1g (0mm)	Body-worn 1g (0mm)	Hotspot 1g (10mm)	Specific 10g (0mm)
PCE	1.47	0.95	1.12	1.95
DTS	1.27	0.69	0.86	/
NII	1.47	0.95	1.12	1.95
DSS	1.47	0.95	1.12	1.95
Limit (W/Kg)	1.6	1.6	1.6	4
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 13.2				

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 0.98 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 1.84 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:

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

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

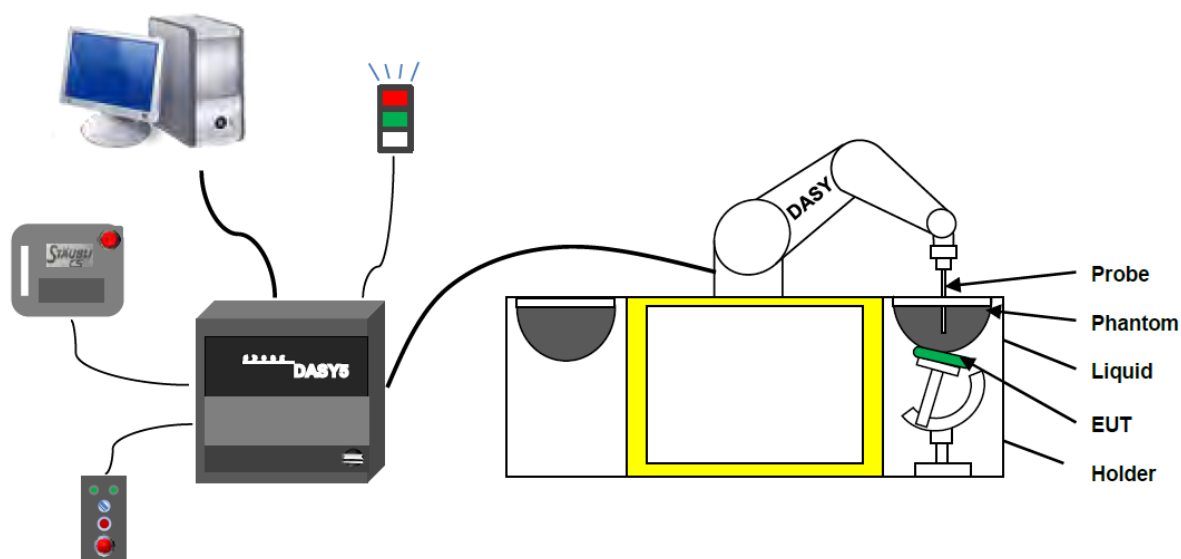
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

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

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:7510 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 μ W/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 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-converter 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: 200M Ω
- The Inputs: Symmetrical and Floating
- Common Mode Rejection: Above 80dB

4.2.5 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 head
- Right head
- Flat phantom

Photo of Phantom SN1857



Serial Number	Material	Length	Height
SN 1857 SAM1	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

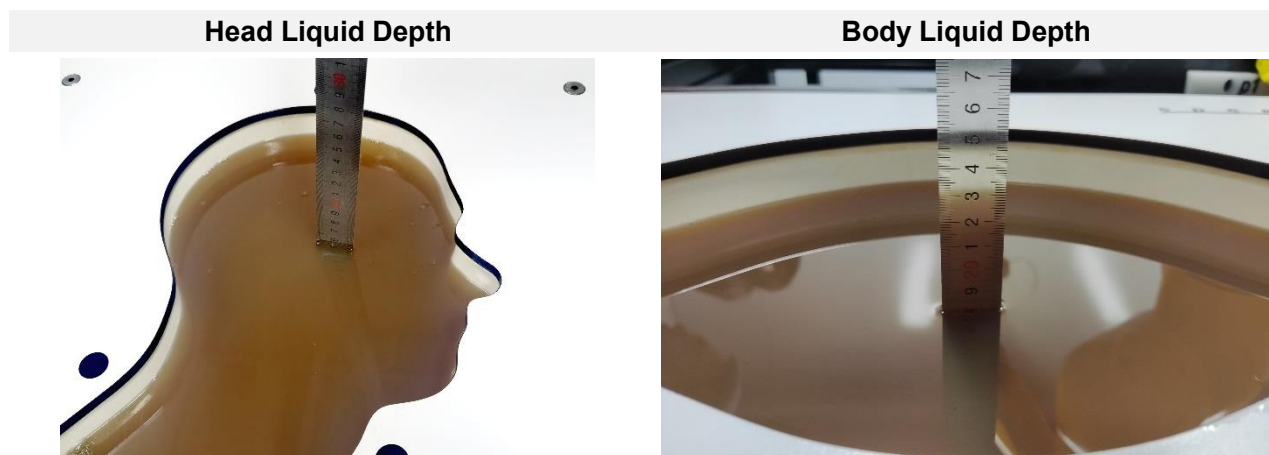
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for 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° .

4.2.7 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%.



The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethenediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

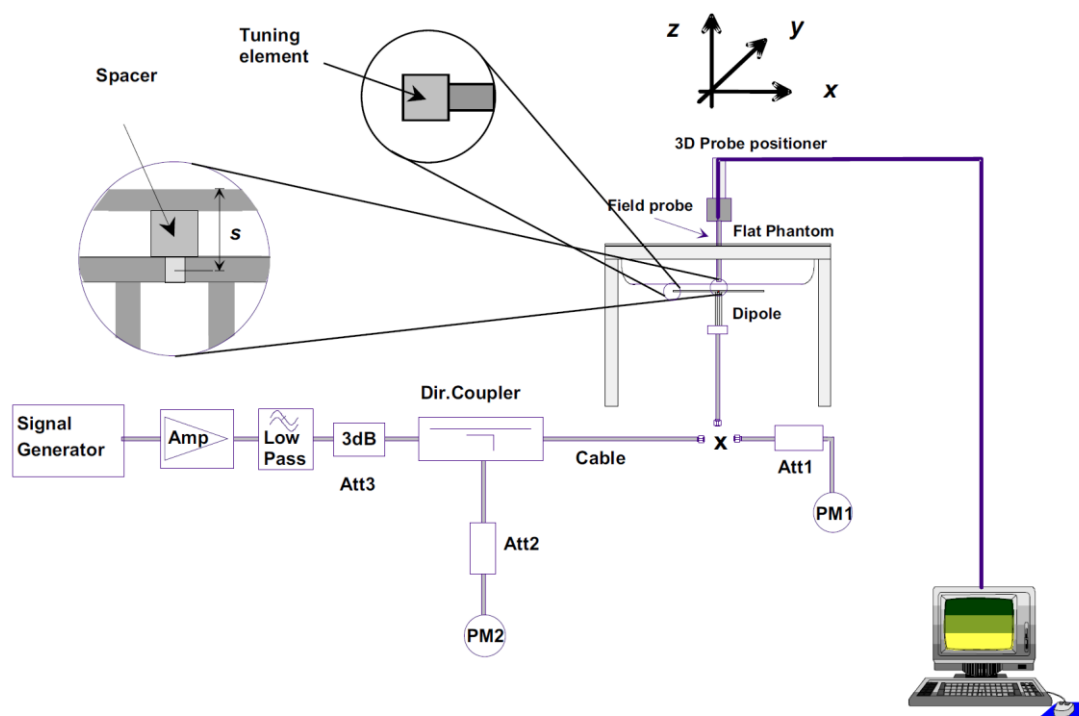
5 SYSTEM VERIFICATION

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

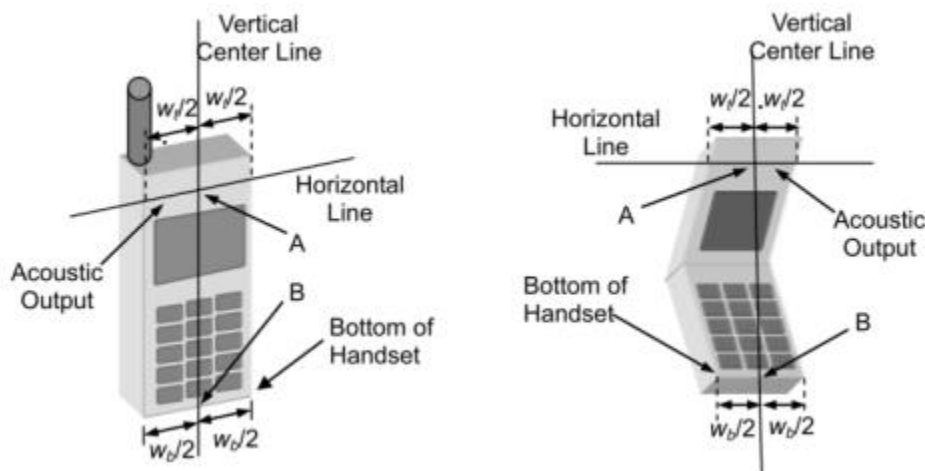
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

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.

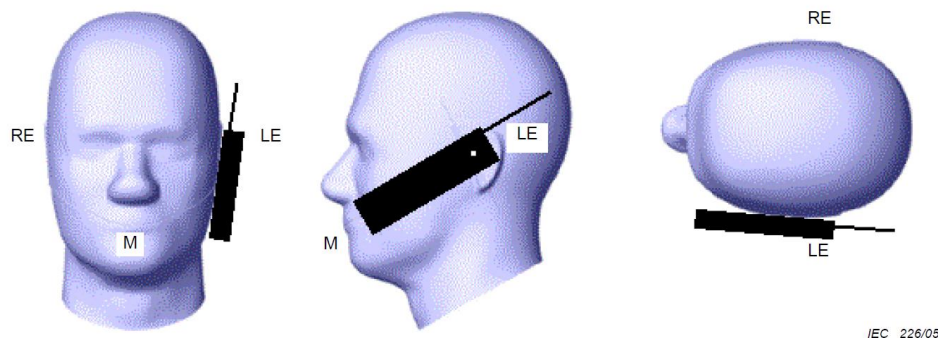
6.1.1 Two Imaginary Lines on the Handset

- 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.
- 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.
- 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

- 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.
- 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.

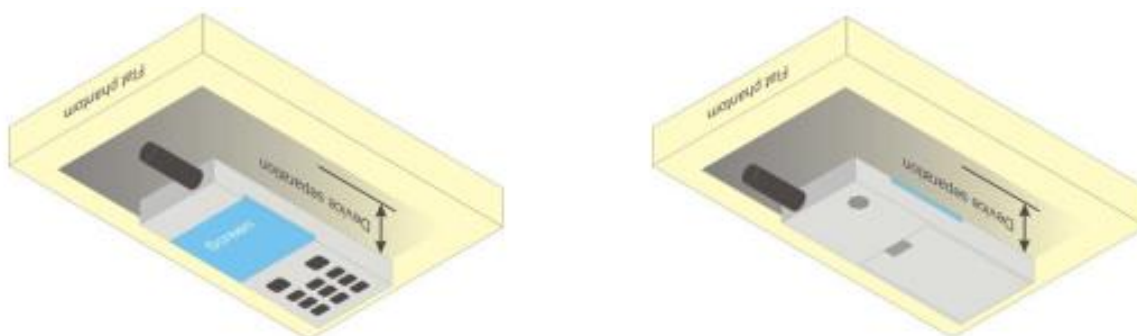


6.2 Body-worn Position Conditions

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.

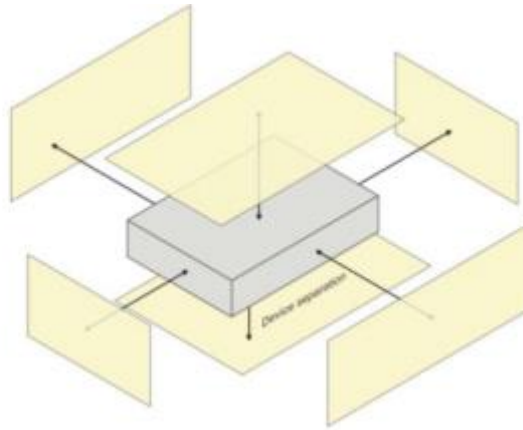
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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

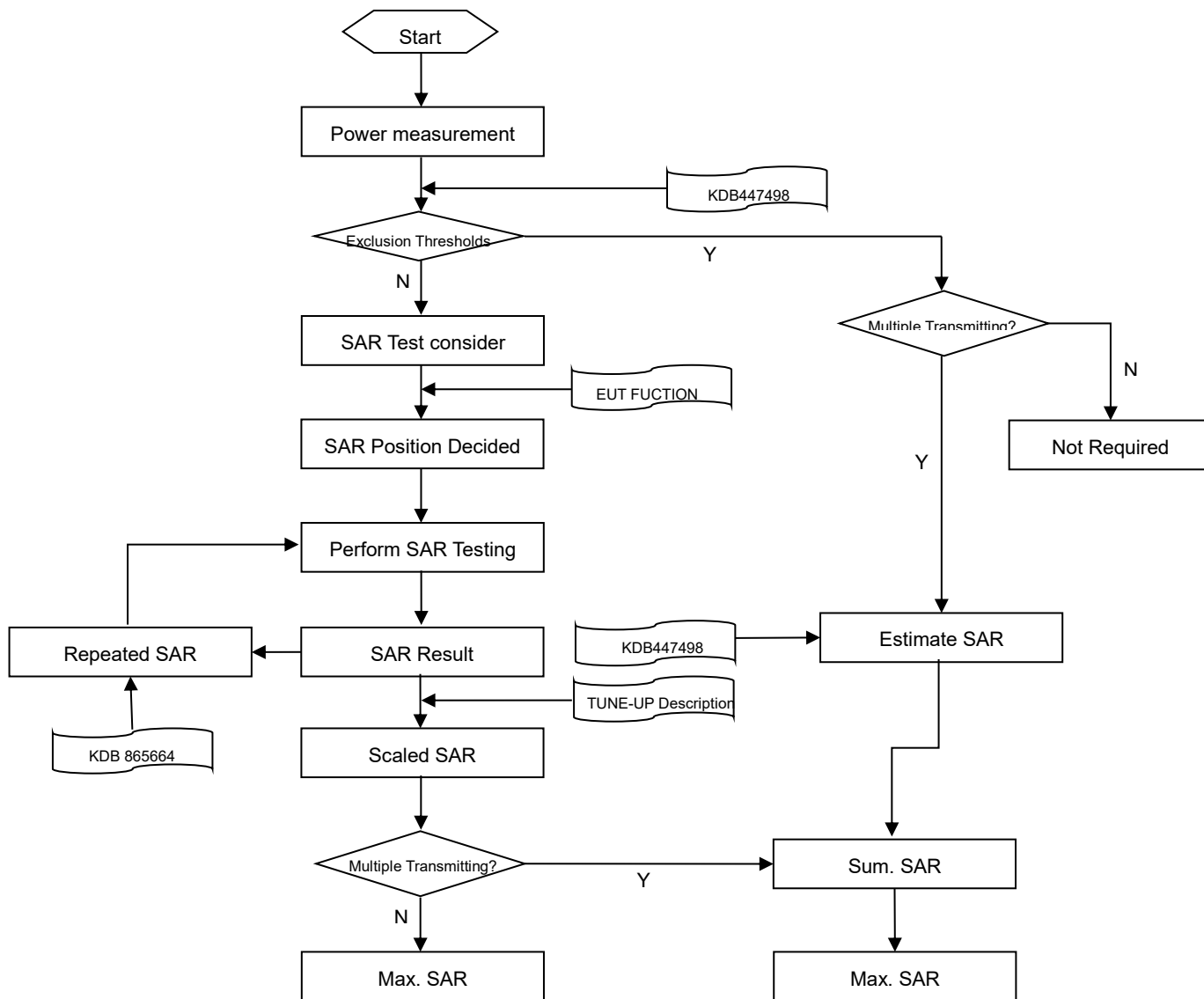
The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address 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.

6

6.

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. Both the 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.

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			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.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2 –3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points	≤ 1.5·Δz Zoom (n-1)	
Minimum zoom scan volume	x, y, z		≥30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm

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.

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 to 16 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 Intra-Band Uplink CA Normal Power

Note:

1. This devices supports intra-band uplink CA of 7C/38C/41C.
2. For intra-band uplink carrier aggregation power verification and measurement is selected highest PCC and SCC bandwidth combination to do and was according to 3GPP 36.52101 sectino6.2.2A.1 and section 6.2.2A.2 test procedure.
3. For intra-band uplink CA output power was measured high / middle / low channel combination, and for SAR verification is selected highest output power combination with each exposure condition in each frequency band using the highest SAR configuration test in standalone LTE mode.

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

8.5 WIFI

8.5.1 2.4G WLAN-Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.04	15.50	No
		6	2437	16.13	17.00	No
		11	2462	17.63	19.50	Yes
	802.11g	1	2412	15.93	17.00	No
		6	2437	15.82	17.00	No
		11	2462	15.86	17.00	No
	802.11n(HT20)	1	2412	14.42	15.50	No
		6	2437	14.20	15.50	No
		11	2462	14.39	15.50	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) 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.

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 = $0.619 * (89.13\text{mW}/35.48\text{mW}) = 1.555$ W/Kg, so 2.4G OFDM SAR test is not required.

8.5.2 2.4G WLAN-State1

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.04	15.50	No
		6	2437	16.13	17.00	Yes
		11	2462	16.10	17.00	No
	802.11g	1	2412	15.93	17.00	No
		6	2437	15.82	17.00	No
		11	2462	15.86	17.00	No
	802.11n(HT20)	1	2412	14.42	15.50	No
		6	2437	14.20	15.50	No
		11	2462	14.39	15.50	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) 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.

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 = $0.619 * (50.12\text{mW}/35.48\text{mW}) = 0.874$ W/Kg, so 2.4G OFDM SAR test is not required.

8.5.3 2.4G WLAN-State2

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.04	15.50	No
		6	2437	16.13	17.00	No
		11	2462	17.63	19.50	Yes
	802.11g	1	2412	15.93	17.00	No
		6	2437	15.82	17.00	No
		11	2462	15.86	17.00	No
	802.11n(HT20)	1	2412	14.42	15.50	No
		6	2437	14.20	15.50	No
		11	2462	14.39	15.50	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) 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.

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 = $0.619 * (89.13\text{mW}/35.48\text{mW}) = 1.555$ W/Kg, so 2.4G OFDM SAR test is not required.

8.5.4 5G WLAN-Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	13.85	15.00	No
		40	5200	13.90	15.00	No
		48	5240	13.87	15.00	No
	802.11n(HT20)	36	5180	13.84	15.00	No
		44	5220	13.70	15.00	No
		48	5240	13.86	15.00	No
	802.11n(HT40)	38	5190	13.77	15.00	No
		46	5230	13.82	15.00	No
	802.11ac(VHT20)	36	5180	13.89	15.00	No
		40	5200	13.89	15.00	No
		48	5240	13.71	15.00	No
	802.11ac(VHT40)	38	5190	13.73	15.00	No
		46	5230	13.73	15.00	No
	802.11ac(VHT80)	42	5210	13.98	15.00	Yes
5.3 (5.25~5.35)	802.11a	52	5260	14.16	15.00	No
		60	5300	14.22	15.00	No
		64	5320	14.28	15.00	No
	802.11n(HT20)	52	5260	14.21	15.00	No
		60	5300	14.26	15.00	No
		64	5320	14.28	15.00	No
	802.11n(HT40)	54	5270	14.30	15.00	No
		62	5310	14.18	15.00	No
	802.11ac(VHT20)	52	5260	14.35	15.00	No
		60	5300	14.19	15.00	No
		64	5320	14.11	15.00	No
	802.11ac(VHT40)	54	5270	14.25	15.00	No
		62	5310	14.29	15.00	No
	802.11ac(VHT80)	58	5290	14.49	15.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	13.86	15.00	No
		116	5580	13.76	15.00	No
		120	5600	13.93	15.00	No
		140	5700	13.71	15.00	No
	802.11n(HT20)	100	5500	13.81	15.00	No
		116	5580	13.92	15.00	No
		140	5700	13.92	15.00	No
	802.11n(HT40)	102	5510	13.79	15.00	No

		118	5590	13.70	15.00	No
		134	5670	13.93	15.00	No
	802.11ac(VHT20)	100	5500	13.70	15.00	No
		116	5580	13.72	15.00	No
		140	5700	13.78	15.00	No
	802.11ac(VHT40)	102	5510	13.72	15.00	No
		118	5590	13.70	15.00	No
		134	5670	13.71	15.00	No
	802.11ac(VHT80)	106	5530	14.12	15.00	Yes
		122	5610	14.02	15.00	Yes
		138	5690	13.99	15.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	13.60	15.00	No
		157	5785	13.50	15.00	No
		165	5825	13.54	15.00	No
	802.11n(HT20)	149	5745	13.74	15.00	No
		157	5785	13.50	15.00	No
		165	5825	13.58	15.00	No
	802.11n(HT40)	151	5755	13.51	15.00	No
		159	5795	13.65	15.00	No
	802.11ac(VHT20)	149	5745	13.62	15.00	No
		157	5785	13.63	15.00	No
		165	5825	13.64	15.00	No
	802.11ac(VHT40)	151	5755	13.66	15.00	No
		159	5795	13.72	15.00	No
	802.11ac(VHT80)	155	5775	13.65	15.00	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.						

8.5.5 5G WLAN-State1

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	9.90	11.00	Yes
		40	5200	9.95	11.00	Yes
		48	5240	9.78	11.00	Yes
	802.11n(HT20)	36	5180	9.70	11.00	No
		44	5220	9.95	11.00	No
		48	5240	9.90	11.00	No
	802.11n(HT40)	38	5190	9.90	11.00	No
		46	5230	9.94	11.00	No
	802.11ac(VHT20)	36	5180	9.93	11.00	No
		40	5200	9.71	11.00	No
		48	5240	9.86	11.00	No
	802.11ac(VHT40)	38	5190	9.83	11.00	No
		46	5230	9.73	11.00	No
	802.11ac(VHT80)	42	5210	10.01	11.00	Yes
5.3 (5.25~5.35)	802.11a	52	5260	10.33	11.00	Yes
		60	5300	10.25	11.00	Yes
		64	5320	10.14	11.00	Yes
	802.11n(HT20)	52	5260	10.10	11.00	No
		60	5300	10.34	11.00	No
		64	5320	10.35	11.00	No
	802.11n(HT40)	54	5270	10.24	11.00	No
		62	5310	10.28	11.00	No
	802.11ac(VHT20)	52	5260	10.23	11.00	No
		60	5300	10.34	11.00	No
		64	5320	10.21	11.00	No
	802.11ac(VHT40)	54	5270	10.18	11.00	No
		62	5310	10.24	11.00	No
	802.11ac(VHT80)	58	5290	10.05	11.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	10.41	11.00	No
		116	5580	10.43	11.00	No
		120	5600	10.53	11.00	No
		140	5700	10.45	11.00	No
	802.11n(HT20)	100	5500	10.31	11.00	No
		116	5580	10.39	11.00	No
		140	5700	10.40	11.00	No
	802.11n(HT40)	102	5510	10.55	11.00	No

		118	5590	10.50	11.00	No
		134	5670	10.55	11.00	No
	802.11ac(VHT20)	100	5500	10.30	11.00	No
		116	5580	10.35	11.00	No
		140	5700	10.55	11.00	No
	802.11ac(VHT40)	102	5510	10.52	11.00	No
		118	5590	10.35	11.00	No
		134	5670	10.51	11.00	No
	802.11ac(VHT80)	106	5530	10.65	11.00	Yes
		122	5610	10.55	11.00	Yes
		138	5690	10.42	11.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	9.92	11.00	No
		157	5785	9.93	11.00	No
		165	5825	10.14	11.00	No
	802.11n(HT20)	149	5745	10.15	11.00	No
		157	5785	10.07	11.00	No
		165	5825	10.01	11.00	No
	802.11n(HT40)	151	5755	10.15	11.00	No
		159	5795	10.10	11.00	No
	802.11ac(VHT20)	149	5745	9.94	11.00	No
		157	5785	10.07	11.00	No
		165	5825	9.93	11.00	No
	802.11ac(VHT40)	151	5755	10.03	11.00	No
		159	5795	10.05	11.00	No
	802.11ac(VHT80)	155	5775	10.11	11.00	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.

8.5.6 5G WLAN-State2

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	13.85	15.00	No
		40	5200	13.90	15.00	No
		48	5240	13.87	15.00	No
	802.11n(HT20)	36	5180	13.84	15.00	No
		44	5220	13.70	15.00	No
		48	5240	13.86	15.00	No
	802.11n(HT40)	38	5190	13.77	15.00	No
		46	5230	13.82	15.00	No
	802.11ac(VHT20)	36	5180	13.89	15.00	No
		40	5200	13.89	15.00	No
		48	5240	13.71	15.00	No
	802.11ac(VHT40)	38	5190	13.73	15.00	No
		46	5230	13.73	15.00	No
	802.11ac(VHT80)	42	5210	13.98	15.00	Yes
5.3 (5.25~5.35)	802.11a	52	5260	14.16	15.00	No
		60	5300	14.22	15.00	No
		64	5320	14.28	15.00	No
	802.11n(HT20)	52	5260	14.21	15.00	No
		60	5300	14.26	15.00	No
		64	5320	14.28	15.00	No
	802.11n(HT40)	54	5270	14.30	15.00	No
		62	5310	14.18	15.00	No
	802.11ac(VHT20)	52	5260	14.35	15.00	No
		60	5300	14.19	15.00	No
		64	5320	14.11	15.00	No
	802.11ac(VHT40)	54	5270	14.25	15.00	No
		62	5310	14.29	15.00	No
	802.11ac(VHT80)	58	5290	14.49	15.00	Yes
5.6 (5.47~5.725)	802.11a	100	5500	13.86	15.00	No
		116	5580	13.76	15.00	No
		120	5600	13.93	15.00	No
		140	5700	13.71	15.00	No
	802.11n(HT20)	100	5500	13.81	15.00	No
		116	5580	13.92	15.00	No
		140	5700	13.92	15.00	No
	802.11n(HT40)	102	5510	13.79	15.00	No

		118	5590	13.70	15.00	No
		134	5670	13.93	15.00	No
	802.11ac(VHT20)	100	5500	13.70	15.00	No
		116	5580	13.72	15.00	No
		140	5700	13.78	15.00	No
	802.11ac(VHT40)	102	5510	13.72	15.00	No
		118	5590	13.70	15.00	No
		134	5670	13.71	15.00	No
	802.11ac(VHT80)	106	5530	14.12	15.00	Yes
		122	5610	14.02	15.00	Yes
		138	5690	13.99	15.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	13.60	15.00	No
		157	5785	13.50	15.00	No
		165	5825	13.54	15.00	No
	802.11n(HT20)	149	5745	13.74	15.00	No
		157	5785	13.50	15.00	No
		165	5825	13.58	15.00	No
	802.11n(HT40)	151	5755	13.51	15.00	No
		159	5795	13.65	15.00	No
	802.11ac(VHT20)	149	5745	13.62	15.00	No
		157	5785	13.63	15.00	No
		165	5825	13.64	15.00	No
	802.11ac(VHT40)	151	5755	13.66	15.00	No
		159	5795	13.72	15.00	No
	802.11ac(VHT80)	155	5775	13.65	15.00	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.						

8.6 Bluetooth

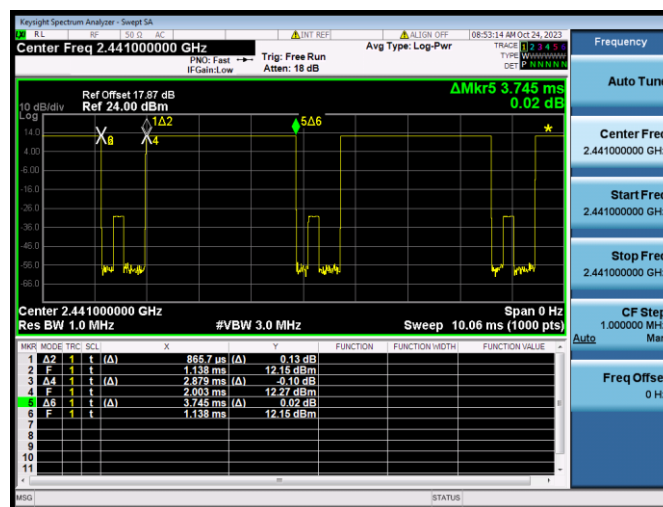
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power(dBm)	11.43	12.15	11.23	11.25	11.14	11.23
Tune-Up Limit (dBm)	13.00	13.00	13.00	13.00	13.00	13.00
SAR Test Require	YES	YES	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power(dBm)	11.22	11.34	11.41	/	/	/
Tune-Up Limit (dBm)	13.00	13.00	13.00	/	/	/
SAR Test Require	NO	NO	NO	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Average Power(dBm)	3.74	3.55	3.56	3.47	3.29	3.31
Tune-Up Limit (dBm)	5.00	5.00	5.00	5.00	5.00	5.00
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq 1/4$ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 76.88 % 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

GFSK



8.7 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, and the receiver will work, the power reduction will applied for SAR compliance.
3. When there is a voice call (including VOIP), the audio is actively routed through the headset or speaker, and the receiver will not work, which indicating the body/Limbs exposure conditions will trigger the body/Limbs exposure reduced the power.
4. When this device used data mode only, and the receiver will not work too, the reduced the power are same as body/Limbs exposure.
- 5.The device employs proximity sensors that detect the presence of the user's body of the device. When these conditions are detected, Body reduced power will be active.

WWAN Reduced power level table

Reduced level	Sensor state	Receiver state	Antenna	Position
DSI1	N/A	On (head scenario)	Ant.1	Head
			Ant.3	
DSI2	OFF	Off (Body scenario)	Ant.1	Front Side;Back Side; Left Edge;Right Edge;Top Edge;Bottom Edge
			Ant.3	
DSI3	ON	Off (Body scenario)	Ant.1	Front Side;Back Side;Right Edge; Bottom Edge
			Ant.3	
DSI4	ON	Off (Body scenario)	Ant.1	Front Side;Back Side;Left Edge;Top Edge
			Ant.3	

Note:

1. The max value is taken for multi condition fallback;
2. Singale/union mode is not distinguished in all scenes,and the max value of single/union mode should be taken for fallback;
- 3.Ant.1/3 reduce power by SAR sensor.

WWAN Antenna Power table

Mode	Antenna	Off	DSI1	DSI2	DSI3	DSI4
GSM850	Ant.3	33.50	33.50	33.50	33.50	33.50
GPRS850 1 Tx Slot	Ant.3	33.50	33.50	33.50	33.50	33.50
GPRS850 2 Tx Slot	Ant.3	30.50	30.50	30.50	30.50	30.50
GPRS850 3 Tx Slot	Ant.3	28.70	28.70	28.70	28.70	28.70
GPRS850 4 Tx Slot	Ant.3	27.50	27.50	27.50	27.50	27.50
EGPRS850 1 Tx Slot	Ant.3	27.50	27.50	27.50	27.50	27.50
EGPRS850 2 Tx Slot	Ant.3	24.50	24.50	24.50	24.50	24.50
EGPRS850 3 Tx Slot	Ant.3	22.70	22.70	22.70	22.70	22.70
EGPRS850 4 Tx Slot	Ant.3	21.50	21.50	21.50	21.50	21.50
GSM850	Ant.1	33.50	33.50	33.50	33.50	33.50
GPRS850 1 Tx Slot	Ant.1	33.50	33.50	33.50	33.50	33.50
GPRS850 2 Tx Slot	Ant.1	30.50	30.50	30.50	30.50	30.50
GPRS850 3 Tx Slot	Ant.1	28.70	28.70	28.70	28.70	28.70
GPRS850 4 Tx Slot	Ant.1	27.50	27.50	27.50	27.50	27.50
EGPRS850 1 Tx Slot	Ant.1	27.50	27.50	27.50	27.50	27.50
EGPRS850 2 Tx Slot	Ant.1	24.50	24.50	24.50	24.50	24.50
EGPRS850 3 Tx Slot	Ant.1	22.70	22.70	22.70	22.70	22.70
EGPRS850 4 Tx Slot	Ant.1	21.50	21.50	21.50	21.50	21.50
GSM1900	Ant.3	30.50	28.00	30.50	30.50	28.00
GPRS1900 1 Tx Slot	Ant.3	30.50	28.00	30.50	30.50	28.00
GPRS1900 2 Tx Slot	Ant.3	27.50	25.00	27.50	27.50	25.00
GPRS1900 3 Tx Slot	Ant.3	25.70	23.20	25.70	25.70	23.20
GPRS1900 4 Tx Slot	Ant.3	24.50	22.00	24.50	24.50	22.00
EGPRS1900 1 Tx Slot	Ant.3	26.50	24.00	26.50	26.50	24.00
EGPRS1900 2 Tx Slot	Ant.3	23.50	21.00	23.50	23.50	21.00
EGPRS1900 3 Tx Slot	Ant.3	21.70	19.20	21.70	21.70	19.20
EGPRS1900 4 Tx Slot	Ant.3	20.50	18.00	20.50	20.50	18.00
GSM1900	Ant.1	30.50	30.50	30.50	29.00	29.00
GPRS1900 1 Tx Slot	Ant.1	30.50	30.50	30.50	29.00	29.00
GPRS1900 2 Tx Slot	Ant.1	27.50	27.50	27.50	26.00	26.00
GPRS1900 3 Tx Slot	Ant.1	25.70	25.70	25.70	24.20	24.20
GPRS1900 4 Tx Slot	Ant.1	24.50	24.50	24.50	23.00	23.00
EGPRS1900 1 Tx Slot	Ant.1	26.50	26.50	26.50	25.00	25.00
EGPRS1900 2 Tx Slot	Ant.1	23.50	23.50	23.50	22.00	22.00
EGPRS1900 3 Tx Slot	Ant.1	21.70	21.70	21.70	20.20	20.20
EGPRS1900 4 Tx Slot	Ant.1	20.50	20.50	20.50	19.00	19.00
WCDMA Band5 RMC	Ant.3	25.50	25.00	25.50	25.50	25.50
WCDMA Band5AMR	Ant.3	25.50	25.00	25.50	25.50	25.50
HSDPA Subtest-1	Ant.3	24.50	24.00	24.50	24.50	24.50
HSDPA Subtest-2	Ant.3	24.50	24.00	24.50	24.50	24.50
HSDPA Subtest-3	Ant.3	24.50	24.00	24.50	24.50	24.50

HSDPA Subtest-4	Ant.3	24.50	24.00	24.50	24.50	24.50
DC-HSDPA Subtest-1	Ant.3	25.00	24.50	25.00	25.00	25.00
DC-HSDPA Subtest-2	Ant.3	25.00	24.50	25.00	25.00	25.00
DC-HSDPA Subtest-3	Ant.3	24.50	24.00	24.50	24.50	24.50
DC-HSDPA Subtest-4	Ant.3	24.50	24.00	24.50	24.50	24.50
HSUPA Subtest-1	Ant.3	23.00	22.50	23.00	23.00	23.00
HSUPA Subtest-2	Ant.3	23.00	22.50	23.00	23.00	23.00
HSUPA Subtest-3	Ant.3	24.00	23.50	24.00	24.00	24.00
HSUPA Subtest-4	Ant.3	22.50	22.00	22.50	22.50	22.50
HSUPA Subtest-5	Ant.3	24.00	23.50	24.00	24.00	24.00
HSPA+	Ant.3	24.00	23.50	24.00	24.00	24.00
WCDMA Band5 RMC	Ant.1	25.50	25.50	25.50	25.50	25.50
WCDMA Band5 AMR	Ant.1	25.50	25.50	25.50	25.50	25.50
HSDPA Subtest-1	Ant.1	24.50	24.50	24.50	24.50	24.50
HSDPA Subtest-2	Ant.1	24.50	24.50	24.50	24.50	24.50
HSDPA Subtest-3	Ant.1	24.50	24.50	24.50	24.50	24.50
HSDPA Subtest-4	Ant.1	24.50	24.50	24.50	24.50	24.50
DC-HSDPA Subtest-1	Ant.1	25.00	25.00	25.00	25.00	25.00
DC-HSDPA Subtest-2	Ant.1	25.00	25.00	25.00	25.00	25.00
DC-HSDPA Subtest-3	Ant.1	24.50	24.50	24.50	24.50	24.50
DC-HSDPA Subtest-4	Ant.1	24.50	24.50	24.50	24.50	24.50
HSUPA Subtest-1	Ant.1	23.00	23.00	23.00	23.00	23.00
HSUPA Subtest-2	Ant.1	23.00	23.00	23.00	23.00	23.00
HSUPA Subtest-3	Ant.1	24.00	24.00	24.00	24.00	24.00
HSUPA Subtest-4	Ant.1	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-5	Ant.1	24.00	24.00	24.00	24.00	24.00
HSPA+	Ant.1	24.00	24.00	24.00	24.00	24.00
LTE Band5	Ant.3	25.50	23.00	25.50	25.50	25.50
LTE Band5	Ant.1	25.50	25.50	25.50	25.50	25.50
LTE Band7	Ant.3	25.50	18.00	25.50	25.50	20.00
LTE Band7	Ant.1	25.50	25.50	25.50	22.50	22.50
LTE Band38	Ant.3	25.50	18.50	25.50	25.50	21.50
LTE Band38	Ant.1	25.50	25.50	25.50	24.00	24.00
LTE Band41	Ant.3	25.50	19.50	25.50	25.50	22.00
LTE Band41	Ant.1	25.50	25.50	25.50	24.50	24.50

Mode	Band	Antenna	LTE-CA Antenna				
			Full Power	Receiver on	Receiver off		
				Head	Body-worn&Hotspot&Specific		
				Standalone&Simultaneous transmission	Standalone&Simultaneous transmission		
			Off	DSI1	DSI2	DSI3	DSI4
CA_7C	LTE Band7	Ant.3	25.50	18.00	25.50	25.50	21.00
CA_7C	LTE Band7	Ant.1	25.50	25.50	25.50	22.50	22.50
CA_38C	LTE Band38	Ant.3	25.50	18.50	25.50	25.50	21.50
CA_38C	LTE Band38	Ant.1	25.50	25.50	25.50	24.00	24.00

WLAN Reduced power level table

Reduced level	Receiver state	Transmitting	Antenna	Position
		conditions		
State1	On (head scenario)	2.4G/5G WIFI & BT	Ant.4	Head
State2	Off (Body scenario)	2.4G/5G WIFI & BT	Ant.4	Front Side;Back Side; Left Edge;Right Edge;Top Edge;Bottom Edge

Mode	WLAN Antenna				
	Full Power	Receiver on	Receiver off		
		Head	Body-worn	Hotspot	Specific
		Standalone&Simultaneous transmission	Standalone&Simultaneous transmission		
	Off	State 1	Stste 2	Stste 2	Stste 2
2.4G WLAN 802.11b	19.5	17	19.5	17	/
2.4G WLAN 802.11g	17	17	17	17	/
2.4G WLAN 802.11n20	15.5	15.5	15.5	15.5	/
5.2G WLAN 802.11a	15	11	/	11	/
5.2G WLAN 802.11n20	15	11	/	11	/
5.2G WLAN 802.11n40	15	11	/	11	/
5.2G WLAN 802.11ac20	15	11	/	11	/
5.2G WLAN 802.11ac40	15	11	/	11	/
5.2G WLAN 802.11ac80	15	11	/	11	/
5.2G WLAN 802.11ax20	15	11	/	11	/
5.2G WLAN 802.11ax40	15	11	/	11	/
5.2G WLAN 802.11ax80	15	11	/	11	/
5.3G WLAN 802.11a	15	11	15	/	15
5.3G WLAN 802.11n20	15	11	15	/	15
5.3G WLAN 802.11n40	15	11	15	/	15
5.3G WLAN 802.11ac20	15	11	15	/	15
5.3G WLAN 802.11ac40	15	11	15	/	15
5.3G WLAN 802.11ac80	15	11	15	/	15
5.3G WLAN 802.11ax20	15	11	15	/	15
5.3G WLAN 802.11ax40	15	11	15	/	15
5.3G WLAN 802.11ax80	15	11	15	/	15
5.6G WLAN 802.11a	15	11	15	/	15
5.6G WLAN 802.11n20	15	11	15	/	15
5.6G WLAN 802.11n40	15	11	15	/	15
5.6G WLAN 802.11ac20	15	11	15	/	15
5.6G WLAN 802.11ac40	15	11	15	/	15
5.6G WLAN 802.11ac80	15	11	15	/	15
5.6G WLAN 802.11ax20	15	11	15	/	15

5.6G WLAN 802.11ax40	15	11	15	/	15
5.6G WLAN 802.11ax80	15	11	15	/	15
5.8G WLAN 802.11a	15	11	15	11	/
5.8G WLAN 802.11n20	15	11	15	11	/
5.8G WLAN 802.11n40	15	11	15	11	/
5.8G WLAN 802.11ac20	15	11	15	11	/
5.8G WLAN 802.11ac40	15	11	15	11	/
5.8G LAN 802.11ac80	15	11	15	11	/
5.8G WLAN 802.11ax20	15	11	15	11	/
5.8G WLAN 802.11ax40	15	11	15	11	/
5.8G LAN 802.11ax80	15	11	15	11	/
Bluetooth	13	13	13	13	/

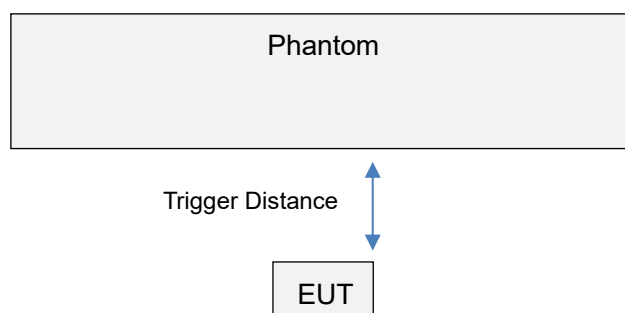
9 PROXIMITY SENSOR TRIGGERING TEST

9.1 Procedures for determining proximity sensor distance

The device uses one proximity sensors to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including the device held by hand(Extremity) and different exposure test positions test positions when the device is closed to a user's body.

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. Note that while sensor is failed and it sets the output power to the lowest one in the sensor trigger state ,to make sure the SAR requirements can still be satisfied.

9.1.1 proximity sensor Pad 1

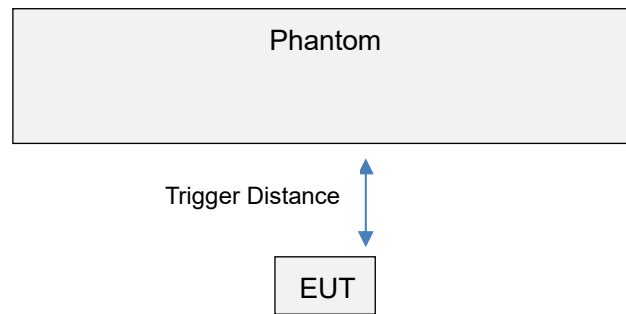


EUT moving toward Phantom

Distance in mm	1~5	6	7	8	9	10	11~15	16	17	18	19
Front Side	On	On	On	On	On	On	On	On	Off	Off	Off
Back Side	On	On	On	On	On	On	On	On	On	Off	Off
Right Edge	On	On	On	Off	Off	Off	Off	Off	Off	Off	Off
Bottom Edge	On	On	On	On	On	On	On	On	On	Off	Off

Note: Power reduction is only applicable for ANT1.

9.1.2 proximity sensorPad 2



EUT moving toward Phantom

Distance in mm	1~5	6	7	8	9	10	11~15	16	17	18	19
Front Side	On	On	On	On	On	On	On	On	Off	Off	Off
Back Side	On	On	On	On	On	On	On	On	On	Off	Off
Left Edge	On	On	On	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 ANT4&ANT3.

To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for EUT moving toward the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

ANT1 of proximity sensor Pad 1

EUT Sides	Additional SAR test Distance in mm
Front Side	15
Back Side	16
Left Edge	6
Bottom Edge	16

ANT3 of proximity sensor Pad 2

EUT Sides	Additional SAR test Distance in mm
Front Side	15
Back Side	16
Right Edge	6
Top Edge	16

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

The influence of EUT tilt angles to proximity sensor Pad 1 triggering was determined by positioning each EUT edge that contains a transmitting antenna 1, perpendicular to the flat phantom, at 7 mm separation for the left edge and 17 mm separation for the bottom edge and 17 mm separation for the Back Side and 16 mm separation for the Front Side.

The influence of EUT tilt angles to proximity sensor Pad 2 triggering was determined by positioning each EUT edge that contains transmitting antenna 3, perpendicular to the flat phantom, at 7 mm separation for the Right edge and 17 mm separation for the Top edge and 17 mm separation for the Back Side and 16 mm separation for the Front Side.

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

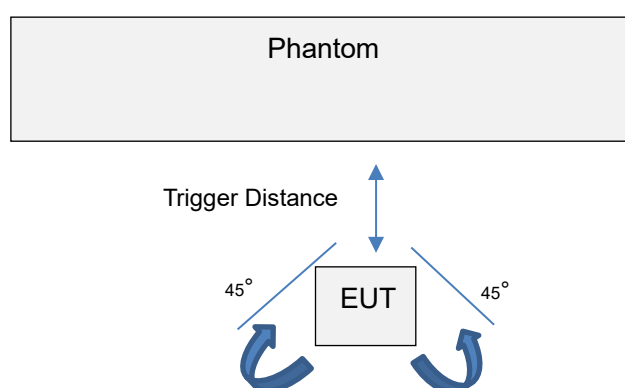


Table: Summary of Phone Tilt Angle Influence to Proximity Sensor Triggering(Left/Right/Top/Bottom edge)

Antenna	Posltion	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status											
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°	
ANT1	Left Edge	6mm	on	on	on	on	on	on	on	on	on	on	on	
ANT3	Right Edge	6mm	on	on	on	on	on	on	on	on	on	on	on	
ANT3	Top Edge	16mm	on	on	on	on	on	on	on	on	on	on	on	
ANT1	Bottom Edge	16mm	on	on	on	on	on	on	on	on	on	on	on	

10 TEST EXCLUSION CONSIDERATION

Please refer the document "BL-SZ23A0971-AI.pdf".

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.1	<25	<25	<25	<25	>25	<25
Ant.3	<25	<25	<25	>25	<25	>25
Ant.4	<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.

11 TEST RESULT

11.1 GSM 850

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head													
ANT3	DSI1	GPRS	Left Cheek	0	190	836.6	-0.05	0.327	28.63	30.50	1.538	0.503	/
	DSI1		Left Tilt	0	190	836.6	-0.15	0.206	28.63	30.50	1.538	0.317	/
	DSI1	2Slots	Right Cheek	0	190	836.6	-0.07	0.512	28.63	30.50	1.538	0.787	1#
	DSI1		Right Tilt	0	190	836.6	0.02	0.344	28.63	30.50	1.538	0.529	/
ANT1	DSI1	GPRS	Left Cheek	0	190	836.6	0.04	0.069	28.68	30.50	1.521	0.105	/
	DSI1		Left Tilt	0	190	836.6	0.14	0.023	28.68	30.50	1.521	0.035	/
	DSI1	2Slots	Right Cheek	0	190	836.6	-0.12	0.086	28.68	30.50	1.521	0.131	/
	DSI1		Right Tilt	0	190	836.6	0.15	0.034	28.68	30.50	1.521	0.052	/
Body-worn&Hotspot													
ANT3	DSI4	GPRS	Front Side	10	190	836.6	0.06	0.077	28.63	30.50	1.538	0.118	/
	DSI4		Back Side	10	190	836.6	-0.02	0.124	28.63	30.50	1.538	0.191	/
	DSI4	2Slots	Left Edge	10	190	836.6	-0.17	0.049	28.63	30.50	1.538	0.075	/
	DSI2		Right Edge	10	190	836.6	0.02	0.050	28.63	30.50	1.538	0.077	/
	DSI4		Top Edge	10	190	836.6	0.14	0.104	28.63	30.50	1.538	0.160	/
	DSI2		Bottom Edge	10	190	836.6	0.04	0.015	28.63	30.50	1.538	0.023	/
ANT1	DSI3	GPRS	Front Side	10	190	836.6	0.03	0.092	28.68	30.50	1.521	0.140	/
	DSI3		Back Side	10	190	836.6	-0.03	0.168	28.68	30.50	1.521	0.256	2#
	DSI2	2Slots	Left Edge	10	190	836.6	-0.06	0.047	28.68	30.50	1.521	0.071	/
	DSI3		Right Edge	10	190	836.6	-0.19	0.112	28.68	30.50	1.521	0.170	/
	DSI2		Top Edge	10	190	836.6	0.02	0.013	28.68	30.50	1.521	0.020	/
	DSI3		Bottom Edge	10	190	836.6	-0.13	0.136	28.68	30.50	1.521	0.207	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.2 GSM 1900

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head													
ANT3	DSI1	GPRS 2Slots	Left Cheek	0	661	1880.0	-0.15	0.412	24.39	25.00	1.151	0.474	/
	DSI1		Left Tilt	0	661	1880.0	-0.13	0.496	24.39	25.00	1.151	0.571	/
	DSI1		Right Cheek	0	661	1880.0	-0.09	0.532	24.39	25.00	1.151	0.612	/
	DSI1		Right Tilt	0	661	1880.0	-0.07	0.702	24.39	25.00	1.151	0.808	3#
	DSI1		Right Tilt	0	512	1850.2	-0.17	0.604	24.09	25.00	1.233	0.745	/
	DSI1		Right Tilt	0	810	1909.8	-0.15	0.635	24.37	25.00	1.156	0.734	/
ANT1	DSI1	GPRS 2Slots	Left Cheek	0	661	1880.0	0.14	0.042	25.78	27.50	1.486	0.062	/
	DSI1		Left Tilt	0	661	1880.0	0.02	0.020	25.78	27.50	1.486	0.030	/
	DSI1		Right Cheek	0	661	1880.0	0.12	0.051	25.78	27.50	1.486	0.076	/
	DSI1		Right Tilt	0	661	1880.0	-0.04	0.026	25.78	27.50	1.486	0.039	/
Head-worse case													
ANT3	DSI1	GPRS 2Slots	Right Tilt	0	661	1880.0	0.08	0.850	24.39	25.00	1.151	0.978	33#
Body-worn&Hotspot													
ANT3	DSI4	GPRS 2Slots	Front Side	10	661	1880.0	-0.02	0.133	24.75	26.50	1.496	0.199	/
	DSI4		Back Side	10	661	1880.0	-0.15	0.310	24.75	26.50	1.496	0.464	/
	DSI4		Left Edge	10	661	1880.0	-0.01	0.023	24.75	26.50	1.496	0.034	/
	DSI2		Right Edge	10	661	1880.0	0.10	0.014	25.73	27.50	1.503	0.021	/
	DSI4		Top Edge	10	661	1880.0	0.18	0.375	24.75	26.50	1.496	0.561	/
	DSI2		Bottom Edge	10	661	1880.0	0.17	0.011	25.73	27.50	1.503	0.017	/
ANT1	DSI3	GPRS 2Slots	Front Side	10	661	1880.0	0.10	0.139	24.91	26.00	1.285	0.179	/
	DSI3		Back Side	10	661	1880.0	0.10	0.243	24.91	26.00	1.285	0.312	/
	DSI2		Left Edge	10	661	1880.0	0.04	0.015	25.78	27.50	1.486	0.022	/
	DSI3		Right Edge	10	661	1880.0	-0.15	0.018	24.91	26.00	1.285	0.023	/
	DSI2		Top Edge	10	661	1880.0	-0.10	0.010	25.78	27.50	1.486	0.015	/
	DSI3		Bottom Edge	10	661	1880.0	-0.01	0.553	24.91	26.00	1.285	0.711	4#
Hotspot-worse case													
ANT1	DSI3	GPRS 2Slots	Bottom Edge	10	661	1880.0	0.05	0.655	24.91	26.00	1.285	0.842	34#
Sensor-1mm													
ANT3	DSI2	GPRS 2Slots	Front Side	15	661	1880.0	0.070	0.074	25.73	27.50	1.503	0.111	/
	DSI2		Back Side	16	661	1880.0	0.160	0.147	25.73	27.50	1.503	0.221	/
	DSI2		Top Edge	16	661	1880.0	0.180	0.167	25.73	27.50	1.503	0.251	/
ANT1	DSI2	GPRS 2Slots	Front Side	15	661	1880.0	0.150	0.079	25.78	27.50	1.486	0.117	/
	DSI2		Back Side	16	661	1880.0	-0.170	0.125	25.78	27.50	1.486	0.186	/

	DSI2		Bottom Edge	16	661	1880.0	-0.130	0.215	25.78	27.50	1.486	0.319	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.3WCDMA Band 5

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head													
ANT3	DSI1	RMC	Left Cheek	0	4233	846.6	0.05	0.522	24.28	25.00	1.180	0.616	/
	DSI1		Left Tilt	0	4233	846.6	0.07	0.381	24.28	25.00	1.180	0.450	/
	DSI1		Right Cheek	0	4233	846.6	-0.14	0.623	24.28	25.00	1.180	0.735	/
	DSI1		Right Tilt	0	4233	846.6	0.09	0.552	24.28	25.00	1.180	0.651	/
	DSI1		Right Cheek	0	4182	836.4	-0.01	0.693	24.21	25.00	1.199	0.831	5#
	DSI1		Right Cheek	0	4132	826.4	-0.11	0.671	24.09	25.00	1.233	0.827	/
ANT1	DSI1	RMC	Left Cheek	0	4233	846.6	0.04	0.116	23.96	25.50	1.426	0.165	/
	DSI1		Left Tilt	0	4233	846.6	-0.02	0.068	23.96	25.50	1.426	0.097	/
	DSI1		Right Cheek	0	4233	846.6	-0.17	0.147	23.96	25.50	1.426	0.210	/
	DSI1		Right Tilt	0	4233	846.6	-0.11	0.084	23.96	25.50	1.426	0.120	/
Body-worn&Hotpot													
ANT3	DSI4	RMC	Front Side	10	4233	846.6	-0.15	0.140	24.25	25.50	1.334	0.187	/
	DSI4		Back Side	10	4233	846.6	-0.12	0.218	24.25	25.50	1.334	0.291	/
	DSI4		Left Edge	10	4233	846.6	0.03	0.075	24.25	25.50	1.334	0.100	/
	DSI2		Right Edge	10	4233	846.6	-0.13	0.088	24.25	25.50	1.334	0.117	/
	DSI4		Top Edge	10	4233	846.6	-0.18	0.134	24.25	25.50	1.334	0.179	/
	DSI2		Bottom Edge	10	4233	846.6	0.19	0.014	24.25	25.50	1.334	0.019	/
ANT1	DSI3	RMC	Front Side	10	4233	846.6	0.12	0.150	23.96	25.50	1.426	0.214	/
	DSI3		Back Side	10	4233	846.6	-0.10	0.276	23.96	25.50	1.426	0.394	6#
	DSI2		Left Edge	10	4233	846.6	-0.18	0.075	23.96	25.50	1.426	0.107	/
	DSI3		Right Edge	10	4233	846.6	-0.15	0.180	23.96	25.50	1.426	0.257	/
	DSI2		Top Edge	10	4233	846.6	-0.02	0.015	23.96	25.50	1.426	0.021	/
	DSI3		Bottom Edge	10	4233	846.6	-0.15	0.206	23.96	25.50	1.426	0.294	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.5LTE Band 5 (10MHz Bandwidth)

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head															
ANT3	DSI1	QPSK	Left Cheek	0	20525	836.5	1	LOW	-0.01	0.311	22.10	23.00	1.230	0.383	/
	DSI1			0	20525	836.5	25	HIGH	0.14	0.302	22.09	23.00	1.233	0.372	/
	DSI1		Left Tilt	0	20525	836.5	1	LOW	-0.02	0.220	22.10	23.00	1.230	0.271	/
	DSI1			0	20525	836.5	25	HIGH	0.01	0.218	22.09	23.00	1.233	0.269	/
	DSI1		Right Cheek	0	20525	836.5	1	LOW	-0.08	0.445	22.10	23.00	1.230	0.547	7#
	DSI1			0	20525	836.5	25	HIGH	0.14	0.432	22.09	23.00	1.233	0.533	/
	DSI1		Right Tilt	0	20525	836.5	1	LOW	0.06	0.315	22.10	23.00	1.230	0.387	/
	DSI1			0	20525	836.5	25	HIGH	0.07	0.298	22.09	23.00	1.233	0.367	/
ANT1	DSI1	QPSK	Left Cheek	0	20525	836.5	1	HIGH	-0.05	0.144	24.32	25.50	1.312	0.189	/
	DSI1			0	20525	836.5	25	HIGH	-0.10	0.113	23.32	24.50	1.312	0.148	/
	DSI1		Left Tilt	0	20525	836.5	1	HIGH	0.17	0.080	24.32	25.50	1.312	0.105	/
	DSI1			0	20525	836.5	25	HIGH	-0.08	0.064	23.32	24.50	1.312	0.084	/
	DSI1		Right Cheek	0	20525	836.5	1	HIGH	-0.12	0.169	24.32	25.50	1.312	0.222	/
	DSI1			0	20525	836.5	25	HIGH	0.17	0.128	23.32	24.50	1.312	0.168	/
	DSI1		Right Tilt	0	20525	836.5	1	HIGH	0.13	0.095	24.32	25.50	1.312	0.125	/
	DSI1			0	20525	836.5	25	HIGH	-0.09	0.073	23.32	24.50	1.312	0.096	/
Body-worn&Hotspot															
ANT3	DSI4	QPSK	Front Side	10	20525	836.5	1	LOW	-0.17	0.164	24.50	24.50	1.000	0.164	/
	DSI4			10	20525	836.5	25	HIGH	-0.03	0.135	24.50	24.50	1.000	0.135	/
	DSI4		Back Side	10	20525	836.5	1	LOW	-0.11	0.241	24.50	24.50	1.000	0.241	/
	DSI4			10	20525	836.5	25	HIGH	0.06	0.196	24.50	24.50	1.000	0.196	/
	DSI4		Left Edge	10	20525	836.5	1	LOW	0.17	0.079	24.50	24.50	1.000	0.079	/
	DSI4			10	20525	836.5	25	HIGH	-0.17	0.064	24.50	24.50	1.000	0.064	/
	DSI2		Right Edge	10	20525	836.5	1	LOW	0.12	0.076	24.50	24.50	1.000	0.076	/
	DSI2			10	20525	836.5	25	HIGH	0.10	0.056	24.50	24.50	1.000	0.056	/
	DSI4		Top Edge	10	20525	836.5	1	LOW	0.08	0.133	24.50	24.50	1.000	0.133	/
	DSI4			10	20525	836.5	25	HIGH	-0.04	0.107	24.50	24.50	1.000	0.107	/
	DSI2		Bottom Edge	10	20525	836.5	1	LOW	0.01	0.015	24.50	24.50	1.000	0.015	/
	DSI2			10	20525	836.5	25	HIGH	0.04	0.011	24.50	24.50	1.000	0.011	/
ANT1	DSI3	QPSK	Front Side	10	20525	836.5	1	HIGH	-0.10	0.192	24.32	25.50	1.312	0.252	/
	DSI3			10	20525	836.5	25	HIGH	0.08	0.147	23.32	24.50	1.312	0.193	/
	DSI3		Back Side	10	20525	836.5	1	HIGH	-0.09	0.335	24.32	25.50	1.312	0.440	8#
	DSI3			10	20525	836.5	25	HIGH	0.14	0.242	23.32	24.50	1.312	0.318	/
	DSI2		Left Edge	10	20525	836.5	1	HIGH	0.15	0.096	24.32	25.50	1.312	0.126	/
	DSI2			10	20525	836.5	25	HIGH	0.06	0.076	23.32	24.50	1.312	0.100	/
	DSI3		Right Edge	10	20525	836.5	1	HIGH	-0.11	0.180	24.32	25.50	1.312	0.236	/

	DSI3			10	20525	836.5	25	HIGH	-0.17	0.144	23.32	24.50	1.312	0.189	/
	DSI2		Top Edge	10	20525	836.5	1	HIGH	-0.17	0.011	24.32	25.50	1.312	0.014	/
	DSI2			10	20525	836.5	25	HIGH	0.15	0.008	23.32	24.50	1.312	0.010	/
	DSI3		Bottom Edge	10	20525	836.5	1	HIGH	0.17	0.245	24.32	25.50	1.312	0.321	/
	DSI3			10	20525	836.5	25	HIGH	0.13	0.200	23.32	24.50	1.312	0.262	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.6LTE Band 7 (20MHz Bandwidth)

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head															
ANT3	DSI1	QPSK	Left Cheek	0	21100	2535	1	LOW	-0.05	0.162	17.02	18.00	1.253	0.203	/
	DSI1			0	21100	2535	50	LOW	0.14	0.152	17.03	18.00	1.250	0.190	/
	DSI1		Left Tilt	0	21100	2535	1	LOW	0.03	0.148	17.02	18.00	1.253	0.185	/
	DSI1			0	21100	2535	50	LOW	-0.11	0.149	17.03	18.00	1.250	0.186	/
	DSI1		Right Cheek	0	21100	2535	1	LOW	0.02	0.562	17.02	18.00	1.253	0.704	9#
	DSI1			0	21100	2535	50	LOW	-0.02	0.551	17.03	18.00	1.250	0.689	/
	DSI1		Right Tilt	0	21100	2535	1	LOW	0.08	0.402	17.02	18.00	1.253	0.504	/
	DSI1			0	21100	2535	50	LOW	0.06	0.395	17.03	18.00	1.250	0.494	/
ANT1	DSI1	QPSK	Left Cheek	0	21100	2535	1	LOW	-0.16	0.133	24.36	25.50	1.300	0.173	/
	DSI1			0	21100	2535	50	LOW	-0.14	0.114	23.18	24.50	1.355	0.154	/
	DSI1		Left Tilt	0	21100	2535	1	LOW	0.07	0.088	24.36	25.50	1.300	0.114	/
	DSI1			0	21100	2535	50	LOW	-0.07	0.067	23.18	24.50	1.355	0.091	/
	DSI1		Right Cheek	0	21100	2535	1	LOW	-0.15	0.274	24.36	25.50	1.300	0.356	/
	DSI1			0	21100	2535	50	LOW	0.00	0.228	23.18	24.50	1.355	0.309	/
	DSI1		Right Tilt	0	21100	2535	1	LOW	-0.08	0.109	24.36	25.50	1.300	0.142	/
	DSI1			0	21100	2535	50	LOW	0.02	0.088	23.18	24.50	1.355	0.119	/
Body-worn&Hotspot															
ANT3	DSI4	QPSK	Front Side	10	21100	2535	1	LOW	0.08	0.174	18.78	20.00	1.324	0.230	/
	DSI4			10	21100	2535	50	LOW	0.17	0.172	18.65	20.00	1.365	0.235	/
	DSI4		Back Side	10	21100	2535	1	LOW	-0.10	0.244	18.84	20.00	1.306	0.319	/
	DSI4			10	21100	2535	50	LOW	-0.06	0.236	18.65	20.00	1.365	0.322	/
	DSI4		Left Edge	10	21100	2535	1	LOW	0.14	0.388	18.84	20.00	1.306	0.507	/
	DSI4			10	21100	2535	50	LOW	0.15	0.354	18.65	20.00	1.365	0.483	/
	DSI2		Right Edge	10	20850	2510	1	LOW	0.13	0.015	23.80	25.50	1.479	0.022	/
	DSI2			10	21350	2560	50	LOW	0.15	0.011	22.78	24.50	1.486	0.016	/
	DSI4		Top Edge	10	21100	2535	1	LOW	-0.01	0.132	18.84	20.00	1.306	0.172	/
	DSI4			10	21100	2535	50	LOW	-0.09	0.130	18.65	20.00	1.365	0.177	/
	DSI2		Bottom Edge	10	20850	2510	1	LOW	0.06	0.015	23.80	25.50	1.479	0.022	/
	DSI2			10	21350	2560	50	LOW	0.12	0.010	22.78	24.50	1.486	0.015	/
ANT1	DSI3	QPSK	Front Side	10	21100	2535	1	LOW	-0.13	0.298	22.33	22.50	1.040	0.310	/
	DSI3			10	21100	2535	50	LOW	0.05	0.286	22.23	22.50	1.064	0.304	/
	DSI3		Back Side	10	21100	2535	1	LOW	0.01	0.408	22.33	22.50	1.040	0.424	/
	DSI3			10	21100	2535	50	LOW	0.05	0.405	22.23	22.50	1.064	0.431	/
	DSI2		Left Edge	10	21100	2535	1	LOW	-0.12	0.085	24.36	25.50	1.300	0.111	/
	DSI2			10	21100	2535	50	LOW	0.15	0.066	23.18	24.50	1.355	0.089	/
	DSI3		Right Edge	10	21100	2535	1	LOW	0.00	0.170	22.33	22.50	1.040	0.177	/

	DSI3			10	21100	2535	50	LOW	-0.14	0.166	22.23	22.50	1.064	0.177	/
	DSI2		Top Edge	10	21100	2535	1	LOW	0.12	0.025	24.36	25.50	1.300	0.033	/
	DSI2			10	21100	2535	50	LOW	-0.12	0.018	23.18	24.50	1.355	0.024	/
	DSI3		Bottom Edge	10	21100	2535	1	LOW	0.04	0.524	22.33	22.50	1.040	0.545	10#
	DSI3			10	21100	2535	50	LOW	-0.14	0.474	22.23	22.50	1.064	0.504	/
Sensor-1mm															
ANT3	DSI2	QPSK	Front Side	15	20850	2510	1	LOW	0.04	0.287	23.80	25.50	1.479	0.424	/
	DSI2			15	21350	2560	50	LOW	-0.19	0.234	22.78	24.50	1.486	0.348	/
	DSI2		Back Side	16	20850	2510	1	LOW	-0.06	0.320	23.80	25.50	1.479	0.473	/
	DSI2			16	21350	2560	50	LOW	0.18	0.244	22.78	24.50	1.486	0.363	/
	DSI2		Top Edge	16	20850	2510	1	LOW	-0.15	0.137	23.80	25.50	1.479	0.203	/
	DSI2			16	21350	2560	50	LOW	0.08	0.114	22.78	24.50	1.486	0.169	/
ANT1	DSI2	QPSK	Front Side	15	21100	2535	1	LOW	0.07	0.362	24.36	25.50	1.300	0.471	/
	DSI2			15	21100	2535	50	LOW	-0.13	0.294	23.18	24.50	1.355	0.398	/
	DSI2		Back Side	16	21100	2535	1	LOW	0.04	0.450	24.36	25.50	1.300	0.585	/
	DSI2			16	21100	2535	50	LOW	0.07	0.383	23.18	24.50	1.355	0.519	/
	DSI2		Bottom Edge	16	21100	2535	1	LOW	-0.11	0.528	24.36	25.50	1.300	0.686	/
	DSI2			16	21100	2535	50	LOW	0.08	0.420	23.18	24.50	1.355	0.569	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenna	DSI State	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific															
ANT3	DSI4	QPSK	Left Edge	0	21100	2535	1	LOW	0.17	1.530	18.84	20.00	1.306	1.998	11#
	DSI4			0	21100	2535	50	LOW	-0.10	1.450	18.65	20.00	1.365	1.979	/
Specific-worse case															
ANT3	DSI4	QPSK	Left Edge	0	21100	2535	1	LOW	0.11	1.410	18.84	20.00	1.306	1.841	35#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.1LTE Band 7 Worse case for CA Test

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head-CA															
ANT3	DSI1	QPSK	Right Cheek	0	21100 +21298	2535 +2554.8	1+0	High +Low	0.09	0.512	17.18	18.00	1.208	0.618	/
	DSI1			0	20850 +21048	2510 +2529.8	1+0	High +Low	-0.01	0.506	17.15	18.00	1.216	0.615	/
	DSI1			0	21350 +21152	2560 +2540.2	1+0	Low +High	0.17	0.546	17.14	18.00	1.219	0.666	29#
Body-worn&Hotspot-CA															
ANT1	DSI3	QPSK	Bottom Edge	10	21100 +21298	2535 +2554.8	1+0	High +Low	-0.06	0.411	21.88	22.50	1.153	0.474	30#
	DSI3			10	20850 +21048	2510 +2529.8	1+0	High +Low	0.01	0.388	21.86	22.50	1.159	0.450	/
	DSI3			10	21350 +21152	2560 +2540.2	1+0	Low +High	0.15	0.395	21.78	22.50	1.180	0.466	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.2LTE Band 38 (20MHz Bandwidth)

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head															
ANT3	DSI1	QPSK	Left Cheek	0	38150	2610	1	LOW	0.03	0.125	17.57	18.50	1.239	0.155	/
	DSI1			0	38150	2610	50	LOW	0.08	0.121	17.41	18.50	1.285	0.155	/
	DSI1		Left Tilt	0	38150	2610	1	LOW	0.01	0.108	17.57	18.50	1.239	0.134	/
	DSI1			0	38150	2610	50	LOW	-0.03	0.109	17.41	18.50	1.285	0.140	/
	DSI1		Right Cheek	0	38150	2610	1	LOW	-0.07	0.513	17.57	18.50	1.239	0.636	12#
	DSI1			0	38150	2610	50	LOW	0.04	0.471	17.41	18.50	1.285	0.605	/
	DSI1		Right Tilt	0	38150	2610	1	LOW	0.08	0.345	17.57	18.50	1.239	0.427	/
	DSI1			0	38150	2610	50	LOW	-0.08	0.325	17.41	18.50	1.285	0.418	/
ANT1	DSI1	QPSK	Left Cheek	0	38150	2610	1	HIGH	-0.09	0.084	25.28	25.50	1.052	0.088	/
	DSI1			0	38150	2610	50	MID	0.03	0.069	24.08	24.50	1.102	0.076	/
	DSI1		Left Tilt	0	38150	2610	1	HIGH	0.09	0.059	25.28	25.50	1.052	0.062	/
	DSI1			0	38150	2610	50	MID	0.13	0.052	24.08	24.50	1.102	0.057	/
	DSI1		Right Cheek	0	38150	2610	1	HIGH	-0.14	0.182	25.28	25.50	1.052	0.191	/
	DSI1			0	38150	2610	50	MID	-0.04	0.148	24.08	24.50	1.102	0.163	/
	DSI1		Right Tilt	0	38150	2610	1	HIGH	0.15	0.105	25.28	25.50	1.052	0.110	/
	DSI1			0	38150	2610	50	MID	0.19	0.097	24.08	24.50	1.102	0.107	/
Body-worn&Hotspot															
ANT3	DSI4	QPSK	Front Side	10	38150	2610	1	LOW	0.05	0.177	20.52	21.50	1.253	0.222	/
	DSI4			10	38150	2610	50	LOW	-0.14	0.162	20.53	21.50	1.250	0.203	/
	DSI4		Back Side	10	38150	2610	1	LOW	0.09	0.232	20.52	21.50	1.253	0.291	/
	DSI4			10	38150	2610	50	LOW	-0.12	0.241	20.53	21.50	1.250	0.301	/
	DSI4		Left Edge	10	38150	2610	1	LOW	0.09	0.356	20.52	21.50	1.253	0.446	/
	DSI4			10	38150	2610	50	LOW	0.02	0.351	20.53	21.50	1.250	0.439	/
	DSI2		Right Edge	10	38000	2595	1	LOW	-0.10	0.025	24.63	25.50	1.222	0.031	/
	DSI2			10	38150	2610	50	MID	0.08	0.020	23.61	24.50	1.227	0.025	/
	DSI4		Top Edge	10	38150	2610	1	LOW	0.05	0.127	20.52	21.50	1.253	0.159	/
	DSI4			10	38150	2610	50	LOW	-0.11	0.123	20.53	21.50	1.250	0.154	/
	DSI2		Bottom Edge	10	38000	2595	1	LOW	0.07	0.014	24.63	25.50	1.222	0.017	/
	DSI2			10	38150	2610	50	MID	0.14	0.010	23.61	24.50	1.227	0.012	/
ANT1	DSI3	QPSK	Front Side	10	38150	2610	1	LOW	-0.11	0.326	23.91	24.00	1.021	0.333	/
	DSI3			10	38150	2610	50	LOW	-0.15	0.314	23.81	24.00	1.045	0.328	/
	DSI3		Back Side	10	38150	2610	1	LOW	-0.05	0.367	23.91	24.00	1.021	0.375	/
	DSI3			10	38150	2610	50	LOW	-0.11	0.356	23.81	24.00	1.045	0.372	/
	DSI2		Left Edge	10	38150	2610	1	HIGH	-0.18	0.108	25.28	25.50	1.052	0.114	/
	DSI2			10	38150	2610	50	MID	-0.06	0.110	24.08	24.50	1.102	0.121	/
	DSI3		Right Edge	10	38150	2610	1	LOW	-0.13	0.154	23.91	24.00	1.021	0.157	/

	DSI3		Top Edge	10	38150	2610	50	LOW	0.02	0.147	23.81	24.00	1.045	0.154	/
	DSI2			10	38150	2610	1	HIGH	0.11	0.021	25.28	25.50	1.052	0.022	/
	DSI2			10	38150	2610	50	MID	0.11	0.018	24.08	24.50	1.102	0.020	/
	DSI3		Bottom Edge	10	38150	2610	1	LOW	0.02	0.584	23.91	24.00	1.021	0.596	13#
	DSI3			10	38150	2610	50	LOW	0.07	0.548	23.81	24.00	1.045	0.573	/
Sensor-1mm															
ANT3	DSI2	QPSK	Front Side	15	38000	2595	1	LOW	0.03	0.250	24.59	25.50	1.233	0.308	/
	DSI2			15	38150	2610	50	MID	0.13	0.032	23.58	24.50	1.236	0.040	/
	DSI2		Back Side	16	38000	2595	1	LOW	0.05	0.242	24.59	25.50	1.233	0.298	/
	DSI2			16	38150	2610	50	MID	0.02	0.225	23.58	24.50	1.236	0.278	/
	DSI2		Top Edge	16	38000	2595	1	LOW	-0.19	0.134	24.59	25.50	1.233	0.165	/
	DSI2			16	38150	2610	50	MID	0.10	0.116	23.58	24.50	1.236	0.143	/
ANT1	DSI2	QPSK	Front Side	15	38150	2610	1	HIGH	-0.10	0.247	25.28	25.50	1.052	0.260	/
	DSI2			15	38150	2610	50	MID	0.18	0.214	24.08	24.50	1.102	0.236	/
	DSI2		Back Side	16	38150	2610	1	HIGH	-0.19	0.332	25.28	25.50	1.052	0.349	/
	DSI2			16	38150	2610	50	MID	0.08	0.272	24.08	24.50	1.102	0.300	/
	DSI2		Bottom Edge	16	38150	2610	1	HIGH	0.08	0.496	25.28	25.50	1.052	0.522	/
	DSI2			16	38150	2610	50	MID	-0.08	0.327	24.08	24.50	1.102	0.360	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.3LTE Band 38 Worse case for CA Test

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head-CA															
ANT3	DSI1	QPSK	Right Cheek	0	38099 +37901	2589.9 +2570.1	1+0	High +Low	0.11	0.306	18.48	18.50	1.005	0.308	/
	DSI1			0	37850 +38048	2580 +2599.8	1+0	High +Low	0.03	0.323	18.48	18.50	1.005	0.325	/
	DSI1			0	38150 +37952	2610 +2590.2	1+0	Low +High	0.05	0.331	18.47	18.50	1.007	0.333	31#
Body-worn&Hotspot-CA															
ANT1	DSI3	Bottom Edge	QPSK	10	38099 +37901	2589.9 +2570.1	1+0	High +Low	0.11	0.388	23.93	24.00	1.016	0.394	/
	DSI3	Bottom Edge		10	37850 +38048	2580 +2599.8	1+0	High +Low	-0.14	0.385	23.91	24.00	1.021	0.393	/
	DSI3	Bottom Edge		10	38150 +37952	2610 +2590.2	1+0	Low +High	0.05	0.400	23.79	24.00	1.050	0.420	32#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.4LTE Band 41 (20MHz Bandwidth)

Antenna	DSI State	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 Report SAR (W/kg)	Meas. No.
Head															
ANT3	DSI1	QPSK	Left Cheek	0	41490	2680	1	MID	-0.11	0.118	18.68	19.50	1.208	0.143	/
	DSI1			0	41490	2680	50	MID	0.08	0.109	18.52	19.50	1.253	0.137	/
	DSI1		Left Tilt	0	41490	2680	1	MID	0.03	0.102	18.68	19.50	1.208	0.123	/
	DSI1			0	41490	2680	50	MID	-0.03	0.101	18.52	19.50	1.253	0.127	/
	DSI1		Right Cheek	0	41490	2680	1	MID	0.05	0.645	18.68	19.50	1.208	0.779	14#
	DSI1			0	41490	2680	50	MID	0.04	0.611	18.52	19.50	1.253	0.766	/
	DSI1		Right Tilt	0	41490	2680	1	MID	-0.02	0.458	18.68	19.50	1.208	0.553	/
	DSI1			0	41490	2680	50	MID	0.07	0.445	18.52	19.50	1.253	0.558	/
ANT1	DSI1	QPSK	Left Cheek	0	41055	2636.5	1	HIGH	0.00	0.074	24.28	25.50	1.324	0.098	/
	DSI1			0	41055	2636.5	50	LOW	0.07	0.061	23.20	24.50	1.349	0.082	/
	DSI1		Left Tilt	0	41055	2636.5	1	HIGH	-0.19	0.055	24.28	25.50	1.324	0.073	/
	DSI1			0	41055	2636.5	50	LOW	0.02	0.042	23.20	24.50	1.349	0.057	/
	DSI1		Right Cheek	0	41055	2636.5	1	HIGH	0.15	0.162	24.28	25.50	1.324	0.214	/
	DSI1			0	41055	2636.5	50	LOW	-0.04	0.126	23.20	24.50	1.349	0.170	/
	DSI1		Right Tilt	0	41055	2636.5	1	HIGH	0.18	0.087	24.28	25.50	1.324	0.115	/
	DSI1			0	41055	2636.5	50	LOW	0.18	0.070	23.20	24.50	1.349	0.094	/
Body-worn&Hotspot															
ANT3	DSI4	QPSK	Front Side	10	41490	2680	1	LOW	-0.14	0.165	21.25	22.00	1.189	0.196	/
	DSI4			10	41490	2680	50	MID	0.05	0.159	21.20	22.00	1.202	0.191	/
	DSI4		Back Side	10	41490	2680	1	LOW	-0.12	0.205	21.25	22.00	1.189	0.244	/
	DSI4			10	41490	2680	50	MID	0.09	0.202	21.20	22.00	1.202	0.243	/
	DSI4		Left Edge	10	41490	2680	1	LOW	-0.11	0.320	21.25	22.00	1.189	0.380	/
	DSI4			10	41490	2680	50	MID	0.06	0.318	21.20	22.00	1.202	0.382	/
	DSI2		Right Edge	10	41055	2636.5	1	MID	-0.17	0.023	23.82	25.50	1.472	0.034	/
	DSI2			10	40620	2593	50	LOW	0.03	0.018	22.84	24.50	1.466	0.026	/
	DSI4		Top Edge	10	41490	2680	1	LOW	0.08	0.108	21.25	22.00	1.189	0.128	/
	DSI4			10	41490	2680	50	MID	-0.09	0.110	21.20	22.00	1.202	0.132	/
	DSI2		Bottom Edge	10	41055	2636.5	1	MID	-0.14	0.018	23.82	25.50	1.472	0.026	/
	DSI2			10	40620	2593	50	LOW	0.06	0.013	22.84	24.50	1.466	0.019	/
ANT1	DSI3	QPSK	Front Side	10	41490	2680	1	LOW	-0.06	0.309	24.26	24.50	1.057	0.327	/
	DSI3			10	41055	2636.5	50	HIGH	-0.05	0.308	23.67	24.50	1.211	0.373	/
	DSI3		Back Side	10	41490	2680	1	LOW	-0.12	0.445	24.26	24.50	1.057	0.470	/
	DSI3			10	41055	2636.5	50	HIGH	0.00	0.435	23.67	24.50	1.211	0.527	/
	DSI2		Left Edge	10	41055	2636.5	1	HIGH	-0.06	0.094	24.28	25.50	1.324	0.124	/
	DSI2			10	41055	2636.5	50	LOW	-0.04	0.081	23.20	24.50	1.349	0.109	/
	DSI3		Right Edge	10	41490	2680	1	LOW	0.02	0.153	24.26	24.50	1.057	0.162	/

	DSI3		Top Edge	10	41055	2636.5	50	HIGH	-0.11	0.149	23.67	24.50	1.211	0.180	/
	DSI2			10	41055	2636.5	1	HIGH	0.06	0.018	24.28	25.50	1.324	0.024	/
	DSI2			10	41055	2636.5	50	LOW	0.05	0.015	23.20	24.50	1.349	0.020	/
	DSI3		Bottom Edge	10	41490	2680	1	LOW	0.04	0.566	24.26	24.50	1.057	0.598	15#
	DSI3			10	41055	2636.5	50	HIGH	0.14	0.454	23.67	24.50	1.211	0.550	/
Body-worn-worse case															
ANT1	DSI3	QPSK	Back Side	0	41055	2636.5	50	HIGH	0.00	0.408	23.67	24.50	1.211	0.494	36#
Sensor-1mm															
ANT3	DSI2	QPSK	Front Side	15	41490	2680	1	HIGH	0.04	0.222	23.82	25.50	1.472	0.327	/
	DSI2			15	41490	2680	50	MID	0.17	0.190	22.84	24.50	1.466	0.279	/
	DSI2		Back Side	16	41490	2680	1	HIGH	-0.18	0.198	23.82	25.50	1.472	0.291	/
	DSI2			16	41490	2680	50	MID	-0.17	0.172	22.84	24.50	1.466	0.252	/
	DSI2		Top Edge	16	41490	2680	1	HIGH	0.04	0.073	23.82	25.50	1.472	0.107	/
	DSI2			16	41490	2680	50	MID	-0.13	0.088	22.84	24.50	1.466	0.129	/
ANT1	DSI2	QPSK	Front Side	15	41055	2636.5	1	HIGH	0.00	0.245	24.28	25.50	1.324	0.324	/
	DSI2			15	41055	2636.5	50	LOW	-0.07	0.129	23.20	24.50	1.349	0.174	/
	DSI2		Back Side	16	41055	2636.5	1	HIGH	-0.05	0.254	24.28	25.50	1.324	0.336	/
	DSI2			16	41055	2636.5	50	LOW	-0.19	0.202	23.20	24.50	1.349	0.272	/
	DSI2		Bottom Edge	16	41055	2636.5	1	HIGH	0.12	0.385	24.28	25.50	1.324	0.510	/
	DSI2			16	41055	2636.5	50	LOW	-0.18	0.300	23.20	24.50	1.349	0.405	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.5WIFI 2.4GHz

Mode	Power State	Antenna	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 Report SAR (W/kg)	Meas. No.
Head															
802.11 b	Stste1	ANT4	Left Cheek	0	1	2412	-0.15	0.495	16.15	17.00	1.216	97.25	1.028	0.619	16#
	Stste1		Left Tilt	0	1	2412	0.18	0.375	16.15	17.00	1.216	97.25	1.028	0.469	/
	Stste1		Right Cheek	0	1	2412	0.03	0.239	16.15	17.00	1.216	97.25	1.028	0.299	/
	Stste1		Right Tilt	0	1	2412	-0.16	0.289	16.15	17.00	1.216	97.25	1.028	0.361	/
Body-worn&Hotspot															
802.11 b	State2	ANT4	Front Side	10	6	2437	0.07	0.174	18.48	19.50	1.265	97.25	1.028	0.226	/
	State2		Back Side	10	6	2437	0.15	0.235	18.48	19.50	1.265	97.25	1.028	0.306	/
	State2		Left Edge	10	6	2437	0.07	0.046	18.48	19.50	1.265	97.25	1.028	0.060	/
	State2		Right Edge	10	6	2437	0.16	0.102	18.48	19.50	1.265	97.25	1.028	0.133	/
	State2		Top Edge	10	6	2437	-0.14	0.278	18.48	19.50	1.265	97.25	1.028	0.362	17#
	State2		Bottom Edge	10	6	2437	0.18	0.014	18.48	19.50	1.265	97.25	1.028	0.018	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.6WIFI 5GHz

Band	Mode	Power State	Antenna	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 Report SAR (W/kg)	Meas. No.
Head																
5.3G	802.11ac80	Stste1	ANT4	Left Cheek	0	58	5290	0.03	0.317	10.05	11.00	1.245	88.25	1.133	0.447	18#
		Stste1		Left Tilt	0	58	5290	0.06	0.232	10.05	11.00	1.245	88.25	1.133	0.327	
		Stste1		Right Cheek	0	58	5290	0.01	0.188	10.05	11.00	1.245	88.25	1.133	0.265	/
		Stste1		Right Tilt	0	58	5290	0.03	0.134	10.05	11.00	1.245	88.25	1.133	0.189	/
5.6G	802.11ac80	Stste1	ANT4	Left Cheek	0	106	5530	0.03	0.355	10.65	11.00	1.084	88.25	1.133	0.436	19#
		Stste1		Left Tilt	0	106	5530	-0.10	0.232	10.65	11.00	1.084	88.25	1.133	0.285	/
		Stste1		Right Cheek	0	106	5530	-0.04	0.121	10.65	11.00	1.084	88.25	1.133	0.149	/
		Stste1		Right Tilt	0	106	5530	0.04	0.143	10.65	11.00	1.084	88.25	1.133	0.176	/
5.8G	802.11ac80	Stste1	ANT4	Left Cheek	0	155	5775	0.03	0.173	10.11	11.00	1.227	88.25	1.133	0.241	20#
		Stste1		Left Tilt	0	155	5775	-0.10	0.155	10.11	11.00	1.227	88.25	1.133	0.215	/
		Stste1		Right Cheek	0	155	5775	-0.02	0.132	10.11	11.00	1.227	88.25	1.133	0.184	/
		Stste1		Right Tilt	0	155	5775	-0.11	0.123	10.11	11.00	1.227	88.25	1.133	0.171	/
Body-worn																
5.3G	802.11ac80	State2	ANT4	Front Side	10	58	5290	0.05	0.107	14.49	15.00	1.125	88.25	1.133	0.136	/
		State2		Back Side	10	58	5290	-0.12	0.177	14.49	15.00	1.125	88.25	1.133	0.226	21#
5.6G	802.11ac80	State2	ANT4	Front Side	10	106	5530	0.07	0.115	14.12	15.00	1.225	88.25	1.133	0.160	/
		State2		Back Side	10	106	5530	-0.15	0.182	14.12	15.00	1.225	88.25	1.133	0.253	22#
		State2		Back Side	10	122	5610	0.00	0.145	13.56	15.00	1.393	88.25	1.133	0.229	/
Hotspot																
5.2G	802.11ac80	State2	ANT4	Front Side	10	42	5210	0.16	0.135	13.98	15.00	1.265	88.25	1.133	0.193	/
		State2		Back Side	10	42	5210	0.11	0.152	13.98	15.00	1.265	88.25	1.133	0.218	/
		State2		Left Edge	10	42	5210	0.08	0.041	13.98	15.00	1.265	88.25	1.133	0.059	/
		State2		Right Edge	10	42	5210	-0.19	0.219	13.98	15.00	1.265	88.25	1.133	0.314	23#
		State2		Top Edge	10	42	5210	-0.19	0.099	13.98	15.00	1.265	88.25	1.133	0.142	/
		State2		Bottom Edge	10	42	5210	-0.14	0.023	13.98	15.00	1.265	88.25	1.133	0.033	/
5.8G	802.11ac80	State2	ANT4	Front Side	10	155	5775	-0.15	0.142	13.65	15.00	1.365	88.25	1.133	0.220	/
		State2		Back Side	10	155	5775	0.18	0.214	13.65	15.00	1.365	88.25	1.133	0.331	/
		State2		Left Edge	10	155	5775	0.11	0.019	13.65	15.00	1.365	88.25	1.133	0.029	/
		State2		Right Edge	10	155	5775	-0.17	0.264	13.65	15.00	1.365	88.25	1.133	0.408	24#
		State2		Top Edge	10	155	5775	-0.10	0.235	13.65	15.00	1.365	88.25	1.133	0.363	/
		State2		Bottom Edge	10	155	5775	0.07	0.015	13.65	15.00	1.365	88.25	1.133	0.023	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

Band	Mode	Power State	Antenna	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 Report SAR (W/kg)	Meas. No.
Specific																
5.3G	802.11ac80	State2	ANT4	Front Side	0	58	5290	0.03	0.233	14.49	15.00	1.125	88.25	1.133	0.297	/
		State2		Back Side	0	58	5290	-0.10	0.296	14.49	15.00	1.125	88.25	1.133	0.377	25#
		State2		Left Edge	0	58	5290	0.10	0.082	14.49	15.00	1.125	88.25	1.133	0.105	/
		State2		Right Edge	0	58	5290	-0.04	0.284	14.49	15.00	1.125	88.25	1.133	0.362	/
		State2		Top Edge	0	58	5290	0.12	0.155	14.49	15.00	1.125	88.25	1.133	0.198	/
		State2		Bottom Edge	0	58	5290	-0.18	0.011	14.49	15.00	1.125	88.25	1.133	0.014	/
5.6G	802.11ac80	State2	ANT4	Front Side	0	106	5530	-0.19	0.045	14.12	15.00	1.225	88.25	1.133	0.062	/
		State2		Back Side	0	106	5530	0.05	0.074	14.12	15.00	1.225	88.25	1.133	0.103	/
		State2		Left Edge	0	106	5530	-0.11	0.023	14.12	15.00	1.225	88.25	1.133	0.032	/
		State2		Right Edge	0	106	5530	0.02	0.366	14.12	15.00	1.225	88.25	1.133	0.508	26#
		State2		Top Edge	0	106	5530	-0.19	0.134	14.12	15.00	1.225	88.25	1.133	0.186	/
		State2		Bottom Edge	0	106	5530	0.18	0.022	14.12	15.00	1.225	88.25	1.133	0.031	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

11.7 Bluetooth

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune powe r(dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Report SAR (W/kg)
Head													
Bluetooth	ANT4	Left Cheek	0	39	2441	-0.13	0.260	12.15	13.0	1.216	76.88	1.301	0.411
		Left Tilt	0	39	2441	0.12	0.202	12.15	13.0	1.216	76.88	1.301	0.320
		Right Cheek	0	39	2441	-0.07	0.135	12.15	13.0	1.216	76.88	1.301	0.214
		Right Tilt	0	39	2441	-0.03	0.164	12.15	13.0	1.216	76.88	1.301	0.259
Body-worn&Hotspot													
Bluetooth	ANT4	Front Side	5	39	2441	-0.15	0.061	12.15	13.0	1.216	76.88	1.301	0.097
		Back Side	5	39	2441	-0.04	0.081	12.15	13.0	1.216	76.88	1.301	0.128
		Left Edge	5	39	2441	-0.13	0.018	12.15	13.0	1.216	76.88	1.301	0.028
		Right Edge	5	39	2441	-0.18	0.034	12.15	13.0	1.216	76.88	1.301	0.054
		Top Edge	5	39	2441	0.12	0.094	12.15	13.0	1.216	76.88	1.301	0.149
		Bottom Edge	5	39	2441	-0.05	0.010	12.15	13.0	1.216	76.88	1.301	0.016
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.8NFC SAR

1. According to the 2022.04 TCBC Workshop meeting, the power threshold is $\leq 100\text{MHz}$, refer to P6s.

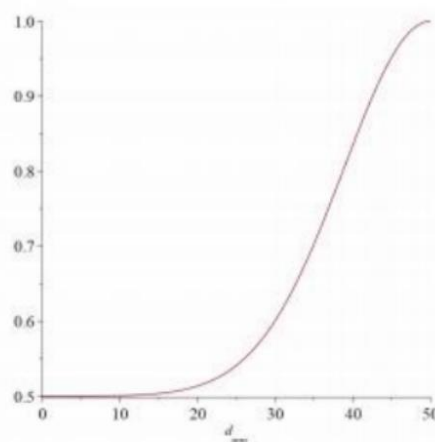
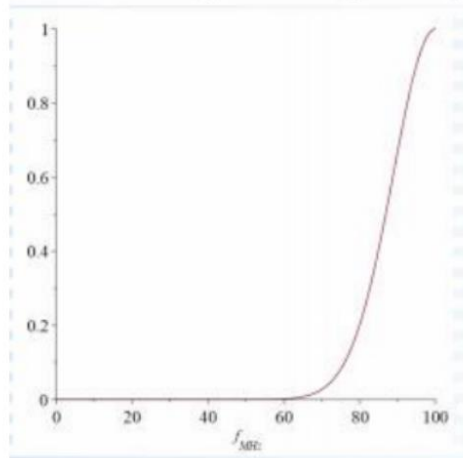
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

2. For portable products, when using a distance of $\leq 50\text{mm}$, such as mobile phone NFC, P6s is calculated with the following formula calculate.

$$S_f(f_{MHz}) \cdot P_{431a}(d_{mm}, f_{MHz}) + (1 - S_f(f_{MHz})) \cdot S_d(d_{mm}) P_{431b1}(50., 100.) \cdot \left(1 + \log_{10}\left(\frac{100.}{f_{MHz}}\right)\right) \quad d_{mm} \leq 50 \text{ and } f_{MHz} \leq 100$$

3. The smoothing functions S_f and S_d in P6s calculate the limits based on KDB 447498 V06 and are calculated as follows.

$$S_f(f_{MHz}) := \exp\left(-10 \frac{(f_{MHz} - f_{\max})^2}{\Delta f^2}\right) \quad S_d(d_{mm}) := 0.5 + 0.5 \cdot \exp\left(-10 \frac{(d_{mm} - d_{\max})^2}{\Delta d^2}\right)$$



d≤50mm				
f Max(MHz)	100		d Max(mm)	50
f MHz	13.56		d(mm)	5
△f(MHz)	100		△d	50
S _f (f _{MHz})	0.000568861		S _d (dmm)	0.50015177
P6s(mW)	443.1257378			
Note: SAR testing is required when the distance is 5mm and the power is greater than 443.13mW.				

4. According to the ANSI C63.10 clause 11.12.2.2:

The value of maximum peak output power is according to the method described in ANSI C63.10 clause 11.12.2.2 General procedure for conducted measurements in restricted bands:

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the ERP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies $\leq$ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies $>$ 1000 MHz).
- d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the ERP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant ERP level to an equivalent electric field strength using the following relationship: $E = \text{EIRP} - 20\log D + 104.8$

where:

E = electric field strength in dB μ V/m,

ERP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB μ V/m)	D (m)	Ground reflection factor (dB)	EIRP (dBm)
NFC (13.56MHz)	13.56	51.89	10	6	-26.91
Note: 1. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies $\leq$ 30 MHz). 2. $\text{EIRP} = 51.89 + 20 \cdot \log(10) - 104.8 + 6 = -26.91$ (dBm) 3. The E-Field strength of NFC refer to BL-SZ23A0971-402 Report.					

According to the FCC KDB 447498 D04

Estimated SAR: $\text{SAR}_{\text{test}} = 1.6 \cdot \text{P}_{\text{ant}} / \text{P}_{\text{th}}$ [W/kg]

Estimated SAR	$1.6 \cdot \text{P}_{\text{ant}} / \text{P}_{\text{th}}$ [W/kg]		
P _{meas} .(dBm)	-26.91	P _{meas} .(mW)	0.00204
P _{th} .(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

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.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Radio
GSM 1900	1900	Head-worse case	Right Tilt	0.961	Yes	0.835	1.15
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement. is not required.							

Note: For product specific 10g SAR, the highest measured 10g SAR is $0.61 < 2.0$ 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	Specific
1	WWAN+WLAN 2.4G+NFC	Yes	Yes	Yes	Yes
2	WWAN+WLAN5G+BT+NFC	Yes	Yes	Yes	Yes

Note:

1. Two WWAN antennas can switch automatically, but two WWAN antenna can't transmit simultaneously.
2. WLAN 2.4G and Bluetooth share the same antenna, and can't transmit simultaneously.
3. When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
4. The maximum SAR summation is calculated based on the same configuration and test position.
5. The simultaneous transmission combinations of the more antennas contain combinations of less antennas, so only the worst simultaneous transmission combinations is shown in this report.

13.2 Sum SAR of Simultaneous Transmission

13.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN Antenna with WLAN and Bluetooth

Band	Antenna	Position	Stand alone SAR							SUM SAR	
			1	2	3				4	WWAN+Max. 2.4GWIFI (1+2)	WWAN+Max. 5GWIFI+Max. BT (1+3+4)
			WWAN	Max.2.4GWIFI	5.3GWIFI	5.6GWIFI	5.8GWIFI	Max.5GWIFI	BT		
GSM850	Ant.3	Left Cheek	0.503	0.627	0.447	0.436	0.241	0.447	0.411	1.130	1.361
		Left Tilt	0.317	0.466	0.327	0.285	0.216	0.327	0.320	0.783	0.964
		Right Cheek	0.788	0.291	0.265	0.149	0.184	0.265	0.214	1.079	1.267
		Right Tilt	0.529	0.348	0.189	0.176	0.171	0.189	0.259	0.877	0.977
GSM850	Ant.1	Left Cheek	0.105	0.627	0.447	0.436	0.241	0.447	0.411	0.732	0.963
		Left Tilt	0.035	0.466	0.327	0.285	0.216	0.327	0.320	0.501	0.682
		Right Cheek	0.131	0.291	0.265	0.149	0.184	0.265	0.214	0.422	0.610
		Right Tilt	0.052	0.348	0.189	0.176	0.171	0.189	0.259	0.400	0.500
GSM1900	Ant.3	Left Cheek	0.474	0.627	0.447	0.436	0.241	0.447	0.411	1.101	1.332
		Left Tilt	0.571	0.466	0.327	0.285	0.216	0.327	0.320	1.037	1.218
		Right Cheek	0.612	0.291	0.265	0.149	0.184	0.265	0.214	0.903	1.091
		Right Tilt	0.808	0.348	0.189	0.176	0.171	0.189	0.259	1.156	1.256
GSM1900	Ant.1	Left Cheek	0.062	0.627	0.447	0.436	0.241	0.447	0.411	0.689	0.920
		Left Tilt	0.030	0.466	0.327	0.285	0.216	0.327	0.320	0.496	0.677
		Right Cheek	0.076	0.291	0.265	0.149	0.184	0.265	0.214	0.367	0.555
		Right Tilt	0.039	0.348	0.189	0.176	0.171	0.189	0.259	0.387	0.487
WCDMA B5	Ant.3	Left Cheek	0.616	0.627	0.447	0.436	0.241	0.447	0.411	1.243	1.474
		Left Tilt	0.450	0.466	0.327	0.285	0.216	0.327	0.320	0.916	1.097
		Right Cheek	0.978	0.291	0.265	0.149	0.184	0.265	0.214	1.269	1.457
		Right Tilt	0.651	0.348	0.189	0.176	0.171	0.189	0.259	0.999	1.099
WCDMA B5	Ant.1	Left Cheek	0.165	0.627	0.447	0.436	0.241	0.447	0.411	0.792	1.023
		Left Tilt	0.097	0.466	0.327	0.285	0.216	0.327	0.320	0.563	0.744
		Right Cheek	0.210	0.291	0.265	0.149	0.184	0.265	0.214	0.501	0.689
		Right Tilt	0.120	0.348	0.189	0.176	0.171	0.189	0.259	0.468	0.568
LTE B5	Ant.3	Left Cheek	0.383	0.627	0.447	0.436	0.241	0.447	0.411	1.010	1.241
		Left Tilt	0.271	0.466	0.327	0.285	0.216	0.327	0.320	0.737	0.918
		Right Cheek	0.547	0.291	0.265	0.149	0.184	0.265	0.214	0.838	1.026
		Right Tilt	0.387	0.348	0.189	0.176	0.171	0.189	0.259	0.735	0.835
LTE B5	Ant.1	Left Cheek	0.189	0.627	0.447	0.436	0.241	0.447	0.411	0.816	1.047
		Left Tilt	0.105	0.466	0.327	0.285	0.216	0.327	0.320	0.571	0.752
		Right Cheek	0.222	0.291	0.265	0.149	0.184	0.265	0.214	0.513	0.701
		Right Tilt	0.125	0.348	0.189	0.176	0.171	0.189	0.259	0.473	0.573
LTE B7	Ant.3	Left Cheek	0.203	0.627	0.447	0.436	0.241	0.447	0.411	0.830	1.061

		Left Tilt	0.185	0.466	0.327	0.285	0.216	0.327	0.320	0.651	0.832
		Right Cheek	0.704	0.291	0.265	0.149	0.184	0.265	0.214	0.995	1.183
		Right Tilt	0.504	0.348	0.189	0.176	0.171	0.189	0.259	0.852	0.952
LTE B7	Ant.1	Left Cheek	0.173	0.627	0.447	0.436	0.241	0.447	0.411	0.800	1.031
		Left Tilt	0.114	0.466	0.327	0.285	0.216	0.327	0.320	0.580	0.761
		Right Cheek	0.356	0.291	0.265	0.149	0.184	0.265	0.214	0.647	0.835
		Right Tilt	0.142	0.348	0.189	0.176	0.171	0.189	0.259	0.490	0.590
LTE B38	Ant.3	Left Cheek	0.156	0.627	0.447	0.436	0.241	0.447	0.411	0.783	1.014
		Left Tilt	0.140	0.466	0.327	0.285	0.216	0.327	0.320	0.606	0.787
		Right Cheek	0.636	0.291	0.265	0.149	0.184	0.265	0.214	0.927	1.115
		Right Tilt	0.427	0.348	0.189	0.176	0.171	0.189	0.259	0.775	0.875
LTE B38	Ant.1	Left Cheek	0.088	0.627	0.447	0.436	0.241	0.447	0.411	0.715	0.946
		Left Tilt	0.062	0.466	0.327	0.285	0.216	0.327	0.320	0.528	0.709
		Right Cheek	0.191	0.291	0.265	0.149	0.184	0.265	0.214	0.482	0.670
		Right Tilt	0.110	0.348	0.189	0.176	0.171	0.189	0.259	0.458	0.558
LTE B41	Ant.3	Left Cheek	0.143	0.627	0.447	0.436	0.241	0.447	0.411	0.770	1.001
		Left Tilt	0.123	0.466	0.327	0.285	0.216	0.327	0.320	0.589	0.770
		Right Cheek	0.779	0.291	0.265	0.149	0.184	0.265	0.214	1.070	1.258
		Right Tilt	0.558	0.348	0.189	0.176	0.171	0.189	0.259	0.906	1.006
LTE B41	Ant.1	Left Cheek	0.098	0.627	0.447	0.436	0.241	0.447	0.411	0.725	0.956
		Left Tilt	0.073	0.466	0.327	0.285	0.216	0.327	0.320	0.539	0.720
		Right Cheek	0.215	0.291	0.265	0.149	0.184	0.265	0.214	0.506	0.694
		Right Tilt	0.115	0.348	0.189	0.176	0.171	0.189	0.259	0.463	0.563

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 1.474 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.2 Body Worm Simultaneous Transmission SAR Evaluation for WWAN Antenna with WLAN and Bluetooth

Band	Antenna	Position	Stand alone SAR						SUM SAR	
			1	2	3			4	WWAN+Max. 2.4GWIFI (1+2)	WWAN+Max. 5GWIFI+Max. BT (1+3+4)
			WWAN	Max. 2.4GWIFI	5.2GWIFI CH0	5.8GWIFI CH0	Max.5GWIFI CH0	BT		
GSM850	Ant.3	Front Side 10mm	0.118	0.161	0.193	0.220	0.220	0.097	0.279	0.435
		Back Side 10mm	0.191	0.194	0.218	0.331	0.331	0.128	0.385	0.650
GSM850	Ant.1	Front Side 10mm	0.140	0.161	0.193	0.220	0.220	0.097	0.301	0.457
		Back Side 10mm	0.255	0.194	0.218	0.331	0.331	0.128	0.449	0.714
GSM1900	Ant.3	Front Side 10mm	0.199	0.161	0.193	0.220	0.220	0.097	0.360	0.516
		Back Side 10mm	0.464	0.194	0.218	0.331	0.331	0.128	0.658	0.923
GSM1900	Ant.1	Front Side 10mm	0.178	0.161	0.193	0.220	0.220	0.097	0.339	0.495
		Back Side 10mm	0.312	0.194	0.218	0.331	0.331	0.128	0.506	0.771
WCDMA B5	Ant.3	Front Side 10mm	0.187	0.161	0.193	0.220	0.220	0.097	0.348	0.504
		Back Side 10mm	0.291	0.194	0.218	0.331	0.331	0.128	0.485	0.750
WCDMA B5	Ant.1	Front Side 10mm	0.214	0.161	0.193	0.220	0.220	0.097	0.375	0.531
		Back Side 10mm	0.393	0.194	0.218	0.331	0.331	0.128	0.587	0.852
LTE B5	Ant.3	Front Side 10mm	0.164	0.161	0.193	0.220	0.220	0.097	0.325	0.481
		Back Side 10mm	0.241	0.194	0.218	0.331	0.331	0.128	0.435	0.700
LTE B5	Ant.1	Front Side 10mm	0.252	0.161	0.193	0.220	0.220	0.097	0.413	0.569
		Back Side 10mm	0.440	0.194	0.218	0.331	0.331	0.128	0.634	0.899
LTE B7	Ant.3	Front Side 10mm	0.235	0.161	0.193	0.220	0.220	0.097	0.396	0.552
		Back Side 10mm	0.322	0.194	0.218	0.331	0.331	0.128	0.516	0.781
LTE B7	Ant.1	Front Side 10mm	0.310	0.161	0.193	0.220	0.220	0.097	0.471	0.627
		Back Side 10mm	0.431	0.194	0.218	0.331	0.331	0.128	0.625	0.890
LTE B38	Ant.3	Front Side 10mm	0.222	0.161	0.193	0.220	0.220	0.097	0.383	0.539
		Back Side 10mm	0.301	0.194	0.218	0.331	0.331	0.128	0.495	0.760
LTE B38	Ant.1	Front Side 10mm	0.332	0.161	0.193	0.220	0.220	0.097	0.493	0.649
		Back Side 10mm	0.375	0.194	0.218	0.331	0.331	0.128	0.569	0.834
LTE B41	Ant.3	Front Side 10mm	0.196	0.161	0.193	0.220	0.220	0.097	0.357	0.513
		Back Side 10mm	0.244	0.194	0.218	0.331	0.331	0.128	0.438	0.703
LTE B41	Ant.1	Front Side 10mm	0.373	0.161	0.193	0.220	0.220	0.097	0.534	0.690
		Back Side 10mm	0.494	0.194	0.218	0.331	0.331	0.128	0.688	0.953

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 0.986 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.3 Hotspot Simultaneous Transmission SAR Evaluation for WWAN Antenna with WLAN and Bluetooth

Band	Antenna	Position	Stand alone SAR						SUM SAR	
			1	2	3			4	WWAN+Max. 2.4GWIFI (1+2)	WWAN+Max. 5GWIFI+Max. BT (1+3+4)
			WWAN	Max. 2.4GWIFI	5.2GWIFI CH0	5.8GWIFI CH0	Max.5GWIFI CH0	BT		
GSM850	Ant.3	Front Side 10mm	0.118	0.161	0.193	0.220	0.220	0.097	0.279	0.435
		Back Side 10mm	0.191	0.194	0.218	0.331	0.331	0.128	0.385	0.650
		Left Edge 10mm	0.075	0.055	0.588	0.029	0.588	0.028	0.130	0.691
		Right Edge 10mm	0.077	0.139	0.314	0.408	0.408	0.054	0.216	0.539
		Top Edge 10mm	0.160	0.244	0.142	0.363	0.363	0.148	0.404	0.671
		Bottom Edge 10mm	0.023	0.019	0.033	0.023	0.033	0.016	0.042	0.072
GSM850	Ant.1	Front Side 10mm	0.140	0.161	0.193	0.220	0.220	0.097	0.301	0.457
		Back Side 10mm	0.255	0.194	0.218	0.331	0.331	0.128	0.449	0.714
		Left Edge 10mm	0.071	0.055	0.588	0.029	0.588	0.028	0.126	0.687
		Right Edge 10mm	0.170	0.139	0.314	0.408	0.408	0.054	0.309	0.632
		Top Edge 10mm	0.020	0.244	0.142	0.363	0.363	0.148	0.264	0.531
		Bottom Edge 10mm	0.207	0.019	0.033	0.023	0.033	0.016	0.226	0.256
GSM1900	Ant.3	Front Side 10mm	0.199	0.161	0.193	0.220	0.220	0.097	0.360	0.516
		Back Side 10mm	0.464	0.194	0.218	0.331	0.331	0.128	0.658	0.923
		Left Edge 10mm	0.034	0.055	0.588	0.029	0.588	0.028	0.089	0.650
		Right Edge 10mm	0.021	0.139	0.314	0.408	0.408	0.054	0.160	0.483
		Top Edge 10mm	0.561	0.244	0.142	0.363	0.363	0.148	0.805	1.072
		Bottom Edge 10mm	0.017	0.019	0.033	0.023	0.033	0.016	0.036	0.066
GSM1900	Ant.1	Front Side 10mm	0.178	0.161	0.193	0.220	0.220	0.097	0.339	0.495
		Back Side 10mm	0.312	0.194	0.218	0.331	0.331	0.128	0.506	0.771
		Left Edge 10mm	0.022	0.055	0.588	0.029	0.588	0.028	0.077	0.638
		Right Edge 10mm	0.023	0.139	0.314	0.408	0.408	0.054	0.162	0.485
		Top Edge 10mm	0.015	0.244	0.142	0.363	0.363	0.148	0.259	0.526
		Bottom Edge 10mm	0.842	0.019	0.033	0.023	0.033	0.016	0.861	0.891
WCDMA B5	Ant.3	Front Side 10mm	0.187	0.161	0.193	0.220	0.220	0.097	0.348	0.504
		Back Side 10mm	0.291	0.194	0.218	0.331	0.331	0.128	0.485	0.750
		Left Edge 10mm	0.100	0.055	0.588	0.029	0.588	0.028	0.155	0.716
		Right Edge 10mm	0.117	0.139	0.314	0.408	0.408	0.054	0.256	0.579
		Top Edge 10mm	0.179	0.244	0.142	0.363	0.363	0.148	0.423	0.690
		Bottom Edge 10mm	0.019	0.019	0.033	0.023	0.033	0.016	0.038	0.068
WCDMA B5	Ant.1	Front Side 10mm	0.214	0.161	0.193	0.220	0.220	0.097	0.375	0.531
		Back Side 10mm	0.393	0.194	0.218	0.331	0.331	0.128	0.587	0.852
		Left Edge 10mm	0.107	0.055	0.588	0.029	0.588	0.028	0.162	0.723
		Right Edge 10mm	0.257	0.139	0.314	0.408	0.408	0.054	0.396	0.719

		Top Edge 10mm	0.021	0.244	0.142	0.363	0.363	0.148	0.265	0.532
		Bottom Edge 10mm	0.294	0.019	0.033	0.023	0.033	0.016	0.313	0.343
LTE B5	Ant.3	Front Side 10mm	0.164	0.161	0.193	0.220	0.220	0.097	0.325	0.481
		Back Side 10mm	0.241	0.194	0.218	0.331	0.331	0.128	0.435	0.700
		Left Edge 10mm	0.079	0.055	0.588	0.029	0.588	0.028	0.134	0.695
		Right Edge 10mm	0.076	0.139	0.314	0.408	0.408	0.054	0.215	0.538
		Top Edge 10mm	0.133	0.244	0.142	0.363	0.363	0.148	0.377	0.644
		Bottom Edge 10mm	0.015	0.019	0.033	0.023	0.033	0.016	0.034	0.064
LTE B5	Ant.1	Front Side 10mm	0.252	0.161	0.193	0.220	0.220	0.097	0.413	0.569
		Back Side 10mm	0.440	0.194	0.218	0.331	0.331	0.128	0.634	0.899
		Left Edge 10mm	0.126	0.055	0.588	0.029	0.588	0.028	0.181	0.742
		Right Edge 10mm	0.236	0.139	0.314	0.408	0.408	0.054	0.375	0.698
		Top Edge 10mm	0.014	0.244	0.142	0.363	0.363	0.148	0.258	0.525
		Bottom Edge 10mm	0.321	0.019	0.033	0.023	0.033	0.016	0.340	0.370
LTE B7	Ant.3	Front Side 10mm	0.235	0.161	0.193	0.220	0.220	0.097	0.396	0.552
		Back Side 10mm	0.322	0.194	0.218	0.331	0.331	0.128	0.516	0.781
		Left Edge 10mm	0.507	0.055	0.588	0.029	0.588	0.028	0.562	1.123
		Right Edge 10mm	0.023	0.139	0.314	0.408	0.408	0.054	0.162	0.485
		Top Edge 10mm	0.177	0.244	0.142	0.363	0.363	0.148	0.421	0.688
		Bottom Edge 10mm	0.022	0.019	0.033	0.023	0.033	0.016	0.041	0.071
LTE B7	Ant.1	Front Side 10mm	0.310	0.161	0.193	0.220	0.220	0.097	0.471	0.627
		Back Side 10mm	0.431	0.194	0.218	0.331	0.331	0.128	0.625	0.890
		Left Edge 10mm	0.111	0.055	0.588	0.029	0.588	0.028	0.166	0.727
		Right Edge 10mm	0.177	0.139	0.314	0.408	0.408	0.054	0.316	0.639
		Top Edge 10mm	0.033	0.244	0.142	0.363	0.363	0.148	0.277	0.544
		Bottom Edge 10mm	0.545	0.019	0.033	0.023	0.033	0.016	0.564	0.594
LTE B38	Ant.3	Front Side 10mm	0.222	0.161	0.193	0.220	0.220	0.097	0.383	0.539
		Back Side 10mm	0.301	0.194	0.218	0.331	0.331	0.128	0.495	0.760
		Left Edge 10mm	0.446	0.055	0.588	0.029	0.588	0.028	0.501	1.062
		Right Edge 10mm	0.031	0.139	0.314	0.408	0.408	0.054	0.170	0.493
		Top Edge 10mm	0.159	0.244	0.142	0.363	0.363	0.148	0.403	0.670
		Bottom Edge 10mm	0.017	0.019	0.033	0.023	0.033	0.016	0.036	0.066
LTE B38	Ant.1	Front Side 10mm	0.332	0.161	0.193	0.220	0.220	0.097	0.493	0.649
		Back Side 10mm	0.375	0.194	0.218	0.331	0.331	0.128	0.569	0.834
		Left Edge 10mm	0.121	0.055	0.588	0.029	0.588	0.028	0.176	0.737
		Right Edge 10mm	0.157	0.139	0.314	0.408	0.408	0.054	0.296	0.619
		Top Edge 10mm	0.022	0.244	0.142	0.363	0.363	0.148	0.266	0.533
		Bottom Edge 10mm	0.596	0.019	0.033	0.023	0.033	0.016	0.615	0.645
LTE B41	Ant.3	Front Side 10mm	0.196	0.161	0.193	0.220	0.220	0.097	0.357	0.513
		Back Side 10mm	0.244	0.194	0.218	0.331	0.331	0.128	0.438	0.703
		Left Edge 10mm	0.382	0.055	0.588	0.029	0.588	0.028	0.437	0.998
		Right Edge 10mm	0.034	0.139	0.314	0.408	0.408	0.054	0.173	0.496
		Top Edge 10mm	0.132	0.244	0.142	0.363	0.363	0.148	0.376	0.643

		Bottom Edge 10mm	0.026	0.019	0.033	0.023	0.033	0.016	0.045	0.075
LTE B41	Ant.1	Front Side 10mm	0.373	0.161	0.193	0.220	0.220	0.097	0.534	0.690
		Back Side 10mm	0.527	0.194	0.218	0.331	0.331	0.128	0.721	0.986
		Left Edge 10mm	0.124	0.055	0.588	0.029	0.588	0.028	0.179	0.740
		Right Edge 10mm	0.180	0.139	0.314	0.408	0.408	0.054	0.319	0.642
		Top Edge 10mm	0.024	0.244	0.142	0.363	0.363	0.148	0.268	0.535
		Bottom Edge 10mm	0.598	0.019	0.033	0.023	0.033	0.016	0.617	0.647

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 1.123 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.4 Specific Simultaneous Transmission SAR Evaluation for WWAN Antenna with WLAN

Band	Antenna	Position	Stand alone SAR				SUM SAR
			1	2			
			WWAN	5.3GWIFI CH0	5.3GWIFI CH0	Max.5GWIFI CH0	WWAN+Max.5GWIFI (1+2)
LTE B7	Ant.3	Left Edge 0mm	1.841	0.104	0.032	0.104	1.945

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 10g SAR is 2.102 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.5 Highest Total Exposure Ratio of Simultaneous Transmission

NFC multi-transmit requires the use of the TER formula:

$$TER = \sum_{k=1}^{N_s} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field, k}}{MPE_{field, lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left(\frac{MPE_{PD, k}}{MPE_{PD, lim}} \right)$$

The maximum SAR value for Simultaneous Transmission is 1.474 [W/kg]. Therefore, the worst TER = (1.474+0.001)/1.6 = 0.922 < 1, the NFC SAR transmit simultaneously Pass.

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
750MHz Validation Dipole	Speag	D750V3	SN: 1201	2020/11/11	2023/11/10
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2021/05/17	2024/05/16
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	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: 7510	2023/01/19	2024/01/18
Data Acquisition Electronicsr	Speag	DAE4	SN: 1710	2023/01/30	2024/01/29
Data Acquisition Electronicsr	Speag	DAE4	SN: 1454	2023/03/20	2024/03/19
Power Meter	R&S	NRVD-B2	835843/014	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z4	100381	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z2	100211	2023/09/05	2024/09/04
Wireless Communication Test Set	Anritsu	MT8820C	6201502974	2022/12/28	2023/12/27
Network Analyzer	Agilent	E5071C	MY46103472	2022/12/06	2023/12/05
Thermometer	Elitech	RC-4HC	EF7225003029	2023/07/14	2024/07/13
Thermometer	Elitech	RC-4HC	EF720B004820	2022/11/25	2023/11/24
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	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 DAK3.5 Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2023.10.09	Head	750	21.3	0.90	41.82	0.89	41.94	0.56	-0.28
2023.10.10	Head	750	21.7	0.90	41.94	0.89	41.94	0.79	0.00
2023.10.11	Head	750	21.4	0.90	41.77	0.89	41.94	1.24	-0.41
2023.10.12	Head	835	21.1	0.90	41.79	0.90	41.50	-0.33	0.70
2023.10.13	Head	835	21.2	0.90	41.77	0.90	41.50	-0.56	0.66
2023.10.14	Head	835	21.4	0.90	41.72	0.90	41.50	-0.33	0.53
2023.10.15	Head	835	21.8	0.90	41.91	0.90	41.50	0.00	0.99
2023.10.16	Head	1750	21.4	1.38	40.16	1.37	40.08	0.44	0.19
2023.10.17	Head	1750	21.4	1.38	40.01	1.37	40.08	0.80	-0.18
2023.10.18	Head	1750	21.6	1.38	40.03	1.37	40.08	0.80	-0.13
2023.10.19	Head	1900	21.7	1.39	39.98	1.40	40.00	-0.50	-0.05
2023.10.20	Head	1900	21.3	1.40	39.99	1.40	40.00	0.14	-0.03
2023.10.22	Head	2450	21.9	1.80	39.49	1.80	39.20	0.17	0.75
2023.10.23	Head	2600	21.9	1.98	38.46	1.96	39.01	0.77	-1.42
2023.10.24	Head	2600	21.6	1.98	38.64	1.96	39.01	0.77	-0.96
2023.10.25	Head	2600	21.9	1.98	38.46	1.96	39.01	0.82	-1.41
2023.10.26	Head	5250	21.1	4.70	35.81	4.71	35.93	-0.23	-0.33
2023.10.27	Head	5600	21.9	5.06	35.31	5.07	35.53	-0.28	-0.62
2023.10.28	Head	5750	21.1	5.18	35.54	5.22	35.36	-0.84	0.50
2023.10.29	Head	835	21.4	0.90	41.50	0.90	41.50	0.11	0.00
2023.10.30	Head	835	21.3	0.90	41.54	0.90	41.50	0.44	0.10
2023.10.31	Head	2600	21.3	2.00	38.00	1.96	39.01	1.99	-2.60
2023.11.01	Head	2600	21.4	1.99	38.88	1.96	39.01	1.38	-0.33
2023.11.02	Head	1900	21.1	1.40	39.21	1.40	40.00	0.29	-1.97
2023.11.02	Head	2600	21.1	1.98	38.36	1.96	39.01	1.07	-1.66
Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification 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 (%)
2023.10.09	Head	750	100	0.86	8.61	8.29	3.86
2023.10.10	Head	750	100	0.82	8.21	9.49	-0.97
2023.10.11	Head	750	100	0.81	8.09	28.40	-2.41
2023.10.12	Head	835	100	0.94	9.35	36.80	-4.20
2023.10.13	Head	835	100	0.94	9.39	39.40	-3.79
2023.10.14	Head	835	100	0.97	9.68	41.50	-0.82
2023.10.16	Head	1750	100	3.76	37.60	48.40	2.45
2023.10.19	Head	1900	100	4.04	40.40	52.60	0.25
2023.10.20	Head	1900	100	3.95	39.50	56.30	-1.99
2023.10.21	Head	1900	100	3.99	39.90	68.50	-0.99
2023.10.22	Head	2450	100	5.35	53.50	67.60	0.94
2023.10.23	Head	2600	100	5.75	57.50	68.10	1.23
2023.10.24	Head	2600	100	5.74	57.40	69.30	1.06
2023.10.25	Head	2600	100	5.48	54.80	68.10	-3.52
2023.10.26	Head	5250	100	7.91	79.10	69.90	1.67
2023.10.27	Head	5600	100	8.27	82.70	67.60	1.85
2023.10.28	Head	5750	100	8.01	80.10	70.10	3.76
2023.10.29	Head	835	100	0.94	9.44	9.76	-3.28
2023.10.30	Head	835	100	0.94	9.38	9.76	-3.89
2023.10.31	Head	2600	100	5.78	57.80	56.80	1.76
2023.11.01	Head	2600	100	5.81	58.10	56.80	2.29
2023.11.02	Head	1900	100	3.99	39.90	40.30	-0.99
2023.11.02	Head	2600	100	5.83	58.30	56.80	2.64

Note: The tolerance limit of System validation $\pm 10\%$.

Head liquid 10g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2023.10.16	1750	100	1.97	19.70	19.10	3.14
2023.10.19	1900	100	2.04	20.40	20.30	0.49
2023.10.20	1900	100	2.02	20.20	20.30	-0.49
2023.10.21	1900	100	2.01	20.10	20.30	-0.99
2023.10.22	2450	100	2.41	24.10	24.10	0.00
2023.10.23	2600	100	2.51	25.10	24.80	1.21
2023.10.24	2600	100	2.49	24.90	24.80	0.40
2023.10.25	2600	100	2.41	24.10	24.80	-2.82
2023.10.26	5250	100	2.28	22.80	22.10	3.17
2023.10.27	5600	100	2.35	23.50	23.10	1.73
2023.10.28	5750	100	2.18	21.80	21.70	0.46
2023.10.31	2600	100	2.62	26.20	24.80	5.65
2023.11.01	2600	100	2.55	25.50	24.80	2.82
2023.11.02	2600	100	2.55	25.50	24.80	2.82
Note: The tolerance limit of System validation $\pm 10\%$.						

System Performance Check Data (750MHz)

Date: 2023.10.09

Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 750$ MHz; $\sigma = 0.895$ S/m; $\epsilon_r = 41.824$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.4, 10.4, 10.4); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 750/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.907 W/kg

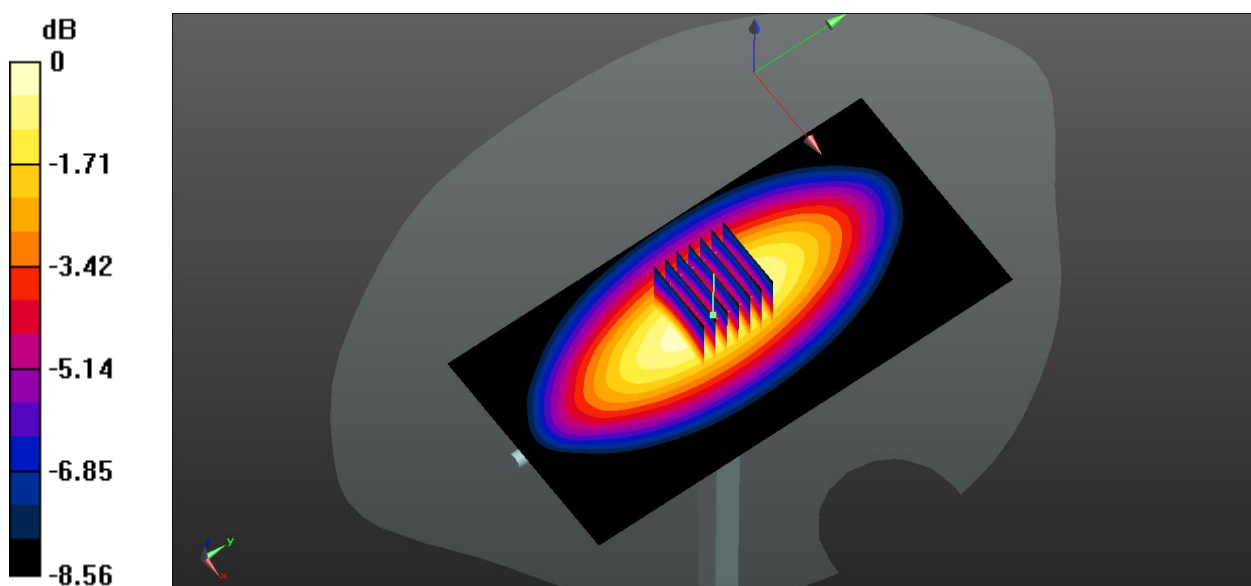
CW 750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.18 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.861 W/kg; SAR(10 g) = 0.545 W/kg

Maximum value of SAR (measured) = 0.932 W/kg



0 dB = 0.932 W/kg

System Performance Check Data (750MHz)

Date: 2023.10.10

Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 750$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.939$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.4, 10.4, 10.4); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 750/Area Scan (61x121x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.871 W/kg

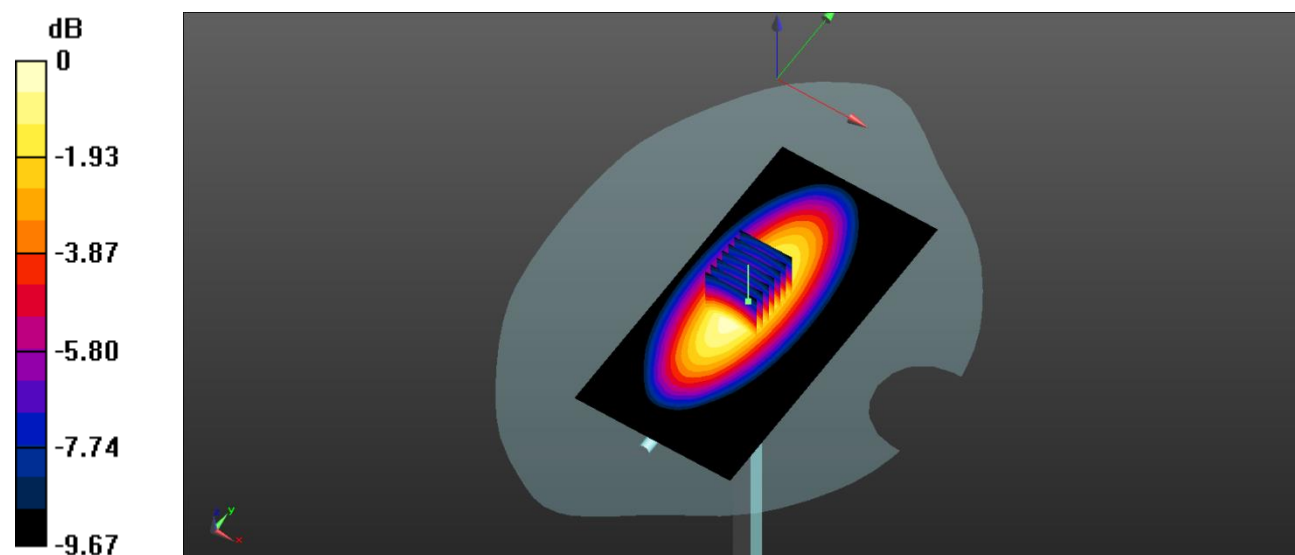
CW 750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 29.97 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.821 W/kg; SAR(10 g) = 0.537 W/kg

Maximum value of SAR (measured) = 0.882 W/kg



0 dB = 0.882 W/kg

System Performance Check Data (750MHz)

Date: 2023.10.11

Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 750 \text{ MHz}$; $\sigma = 0.901 \text{ S/m}$; $\epsilon_r = 41.766$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.1°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.4, 10.4, 10.4); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 750 100mW/Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.858 W/kg

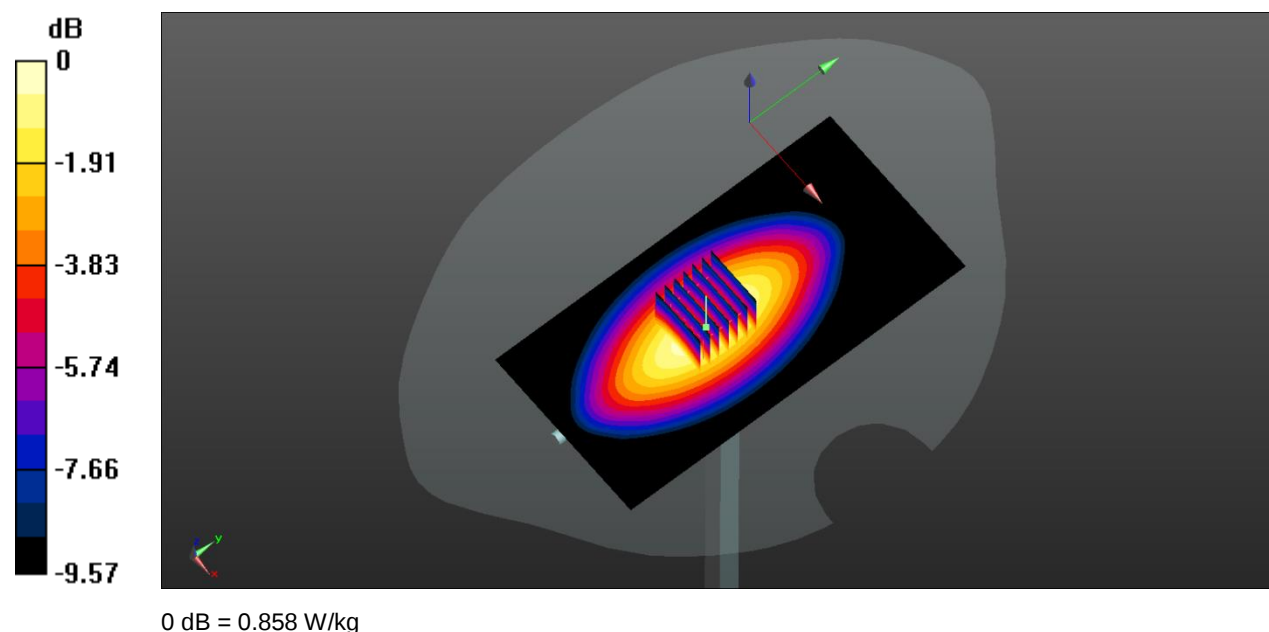
CW 750 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.52 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.809 W/kg; SAR(10 g) = 0.521 W/kg

Maximum value of SAR (measured) = 0.858 W/kg



System Performance Check Data (835MHz)

Date: 2023.10.12

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.791$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.921 W/kg

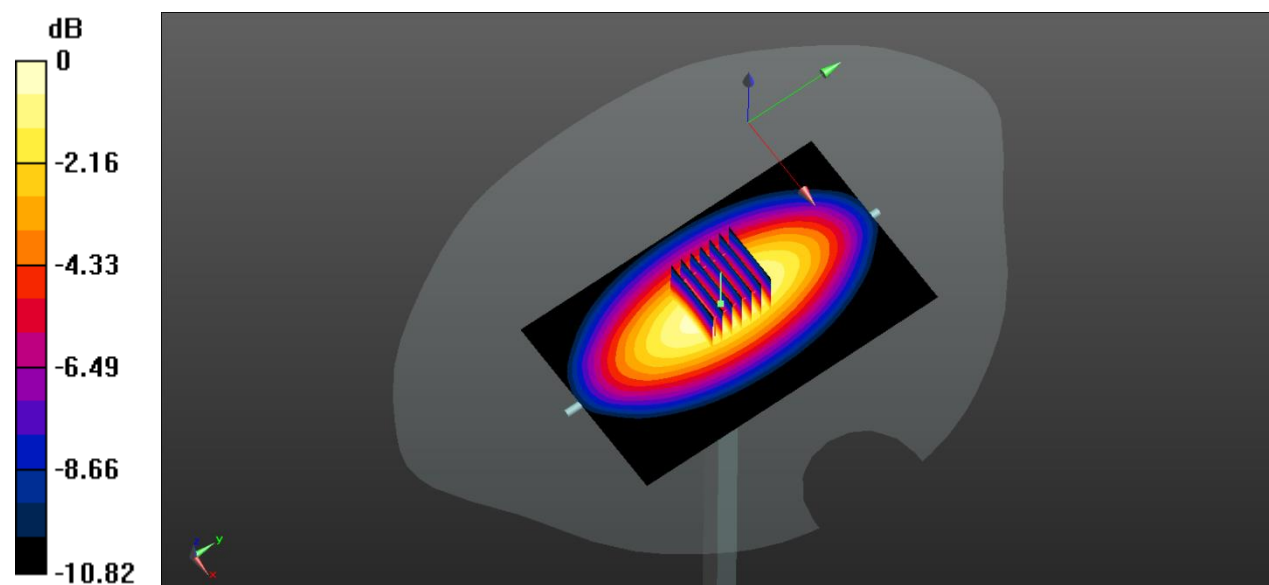
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.81 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.935 W/kg; SAR(10 g) = 0.612 W/kg

Maximum value of SAR (measured) = 0.969 W/kg



0 dB = 0.969 W/kg

System Performance Check Data (835MHz)

Date: 2023.10.13

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.895$ S/m; $\epsilon_r = 41.772$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW835/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.961 W/kg

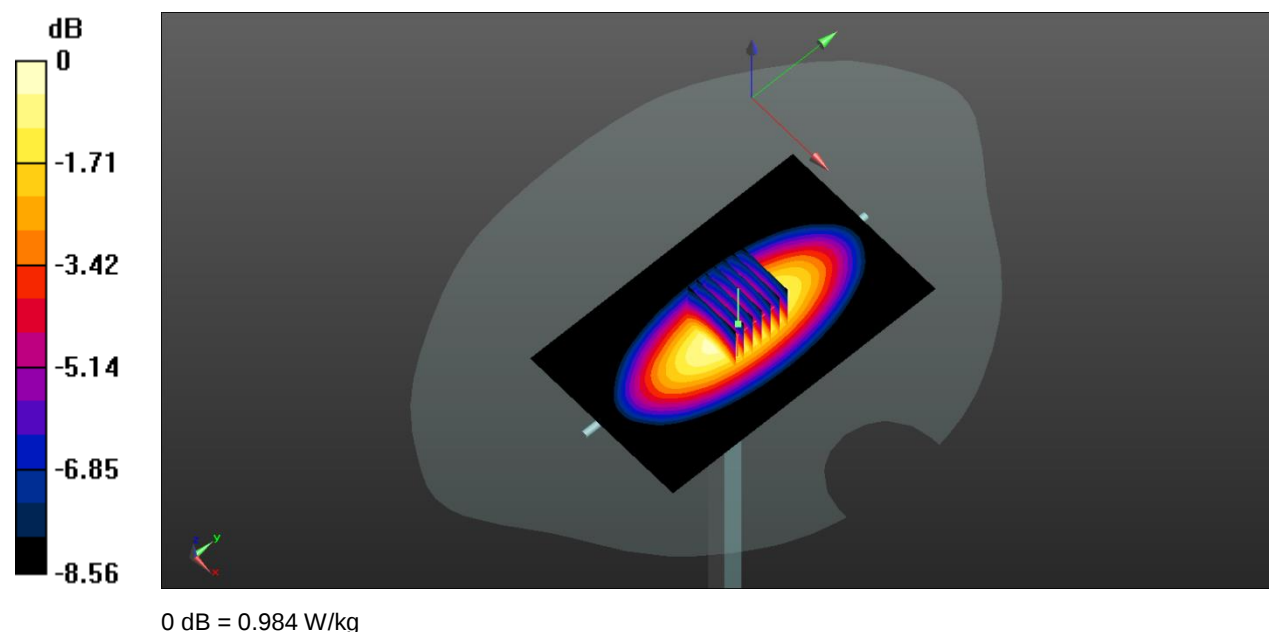
CW835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.01 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.939 W/kg; SAR(10 g) = 0.630 W/kg

Maximum value of SAR (measured) = 0.984 W/kg



System Performance Check Data (835MHz)

Date: 2023.10.14

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.722$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.987 W/kg

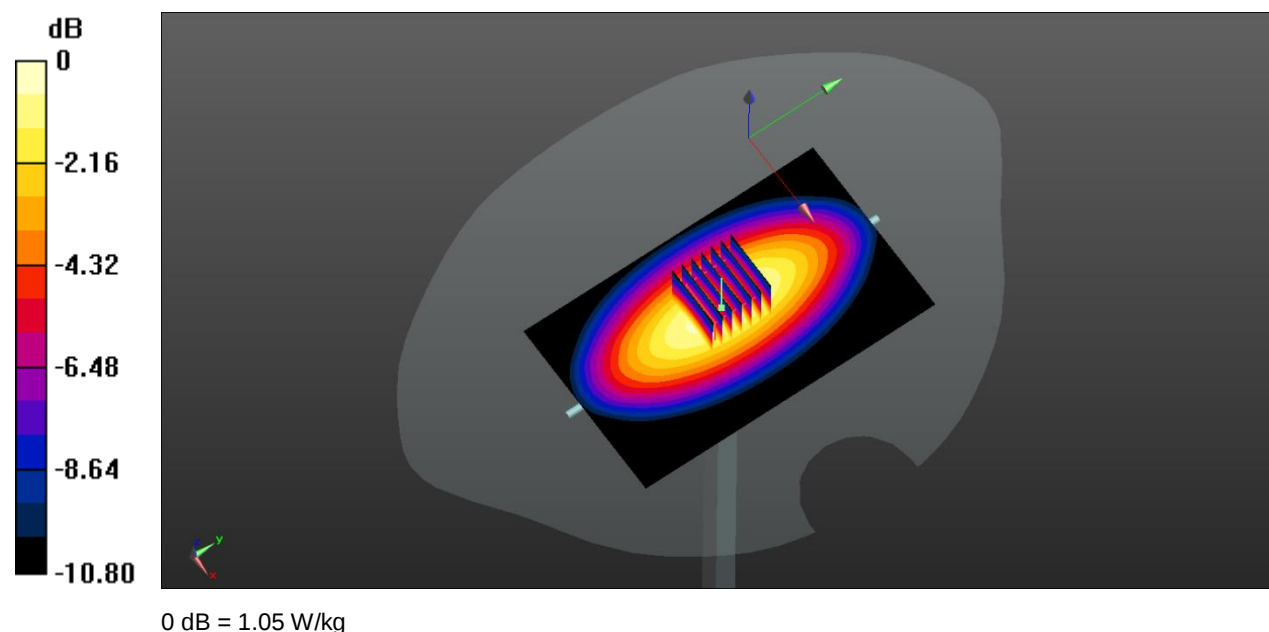
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.62V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.627 W/kg

Maximum value of SAR (measured) = 1.05 W/kg



System Performance Check Data (835MHz)

Date: 2023.10.15

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ S/m; $\epsilon_r = 41.909$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.994 W/kg

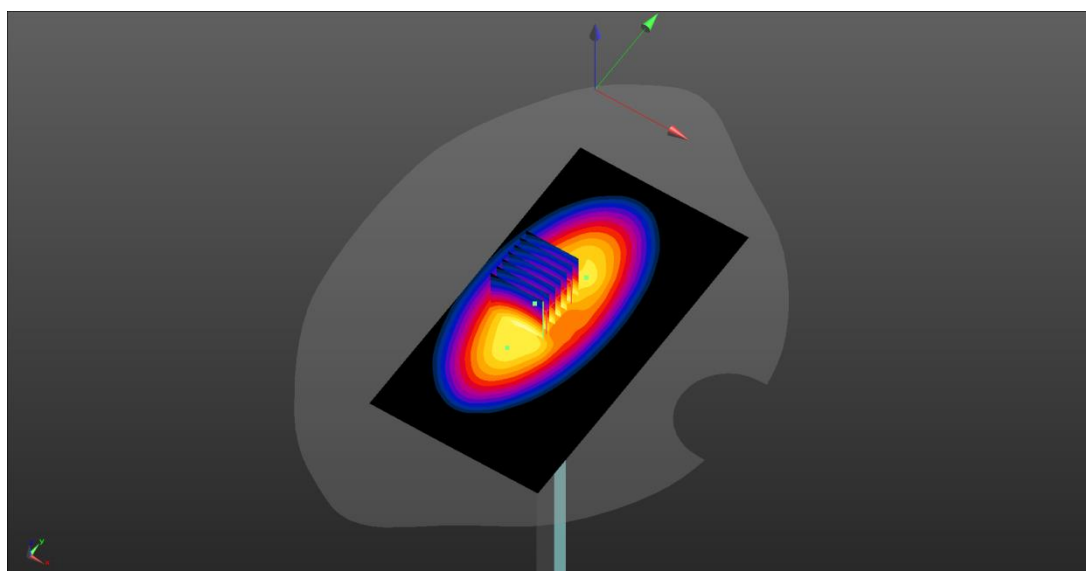
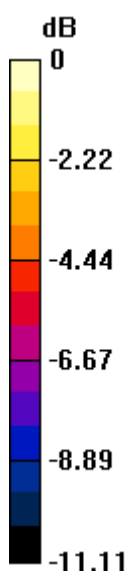
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 32.11 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.938 W/kg; SAR(10 g) = 0.624 W/kg

Maximum value of SAR (measured) = 0.963 W/kg



0 dB = 0.963 W/kg

System Performance Check Data (1750MHz)

Date: 2023.10.16

Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.155$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.65, 8.65, 8.65); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 1750/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.22 W/kg

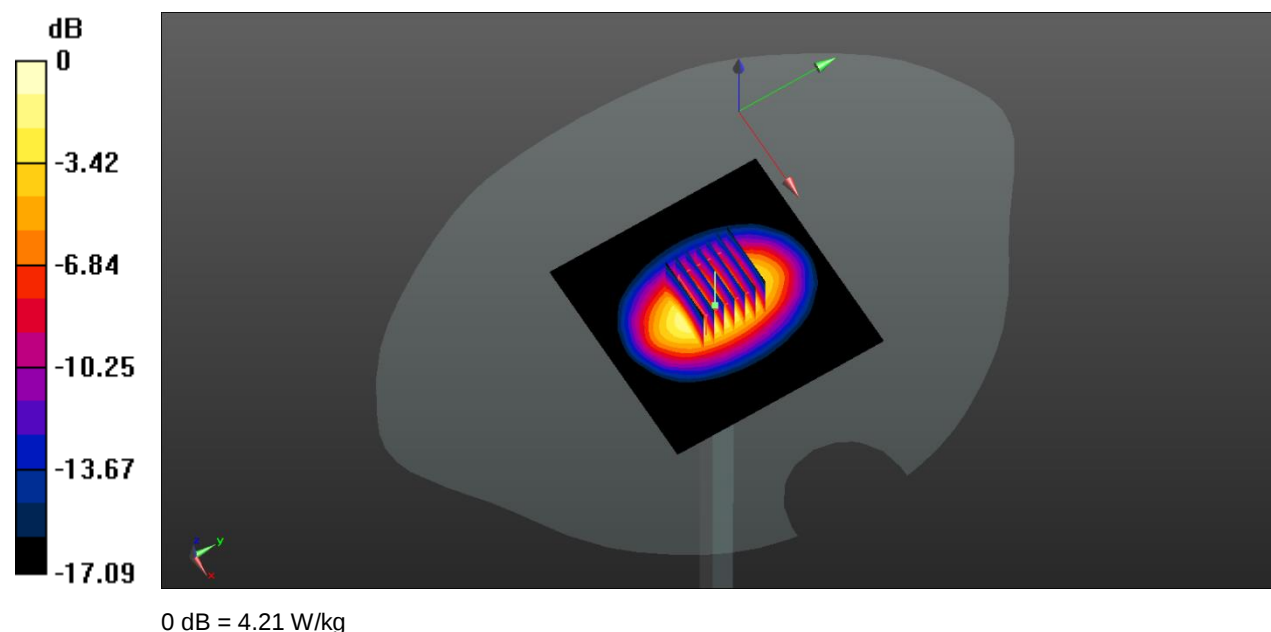
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.24 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 7.03 W/kg

SAR(1 g) = 3.76 W/kg; SAR(10 g) = 1.97 W/kg

Maximum value of SAR (measured) = 4.21 W/kg



System Performance Check Data (1750MHz)

Date: 2023.10.17

Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 40.009$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.65, 8.65, 8.65); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 1750/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.13 W/kg

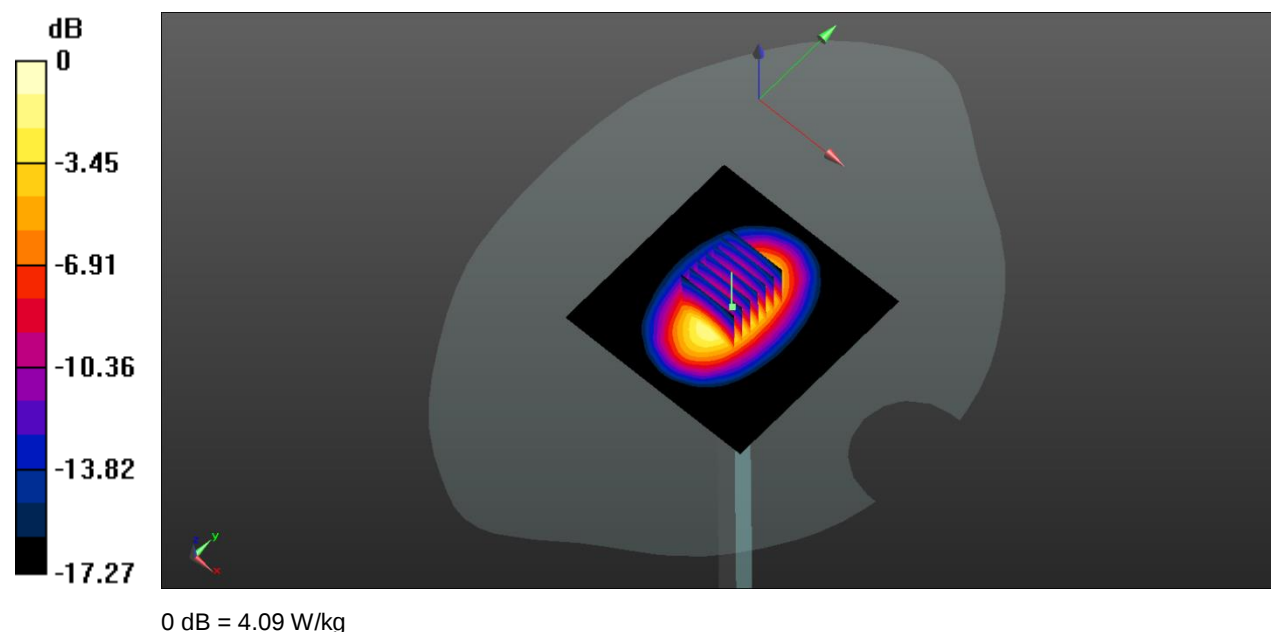
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.44 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 6.75 W/kg

SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.95 W/kg

Maximum value of SAR (measured) = 4.09 W/kg



System Performance Check Data (1750MHz)

Date: 2023.10.18

Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.381$ S/m; $\epsilon_r = 40.029$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.65, 8.65, 8.65); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 1750/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.03 W/kg

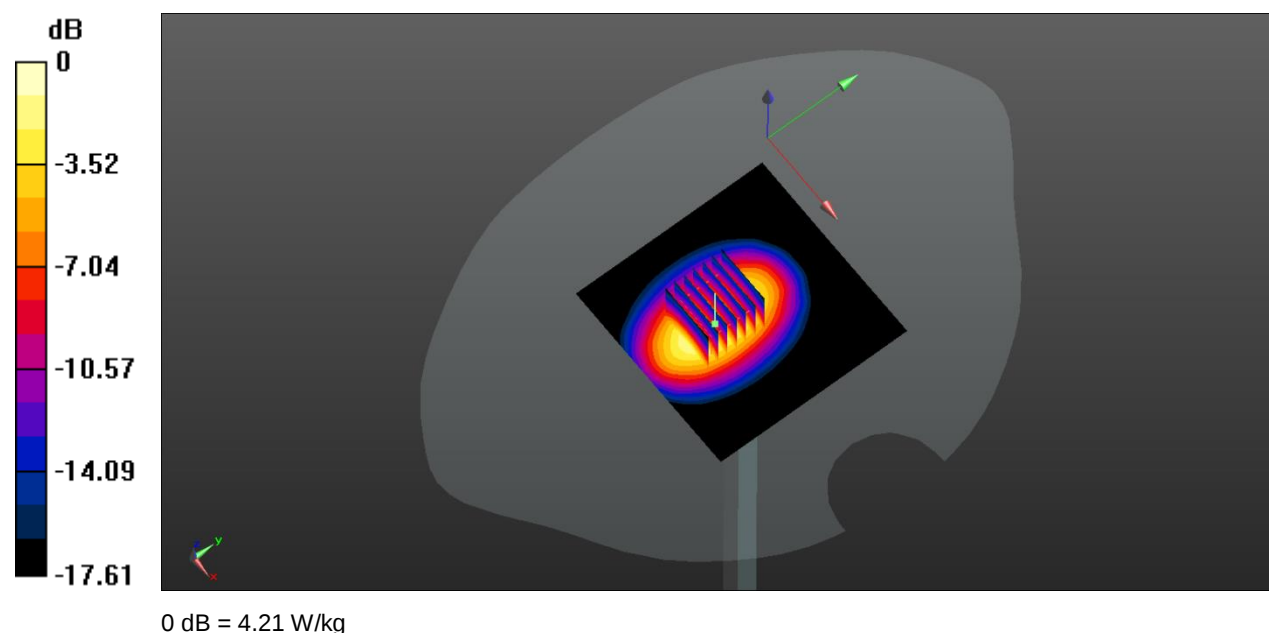
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.41 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 6.75 W/kg

SAR(1 g) = 3.59 W/kg; SAR(10 g) = 1.91 W/kg

Maximum value of SAR (measured) = 4.21 W/kg



System Performance Check Data (1900MHz)

Date: 2023.10.19

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 39.979$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C Liquid Temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.55 W/kg

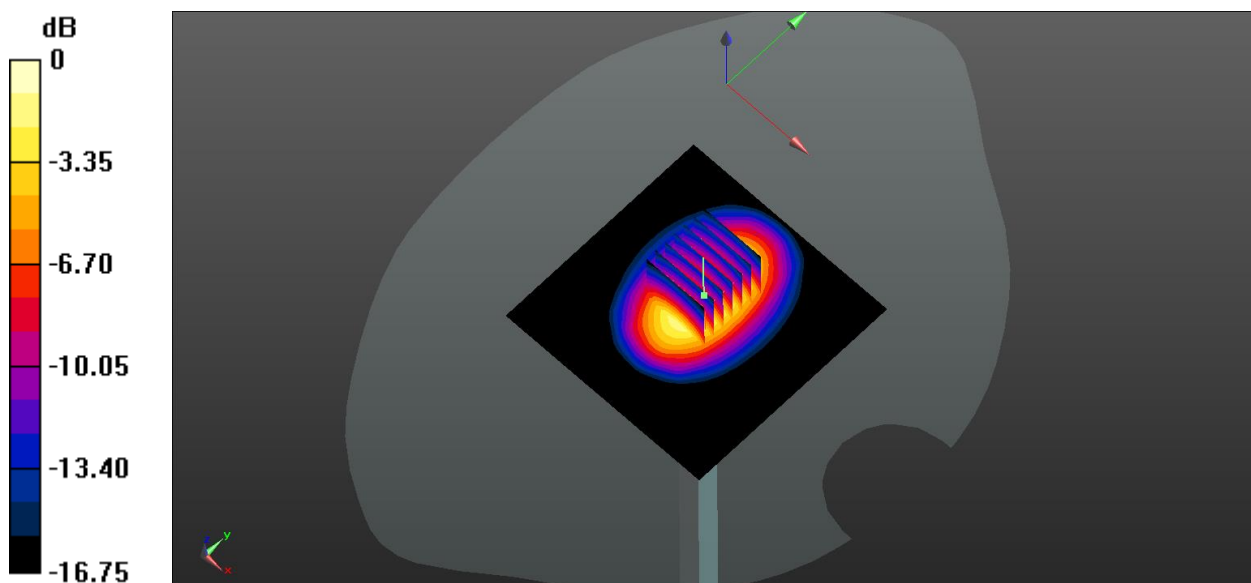
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 55.76 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 7.32 W/kg

SAR(1 g) = 4.04 W/kg; SAR(10 g) = 2.04 W/kg

Maximum value of SAR (measured) = 4.52 W/kg



0 dB = 4.52 W/kg

System Performance Check Data (1900MHz)

Date: 2023.10.20

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.987$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.37 W/kg

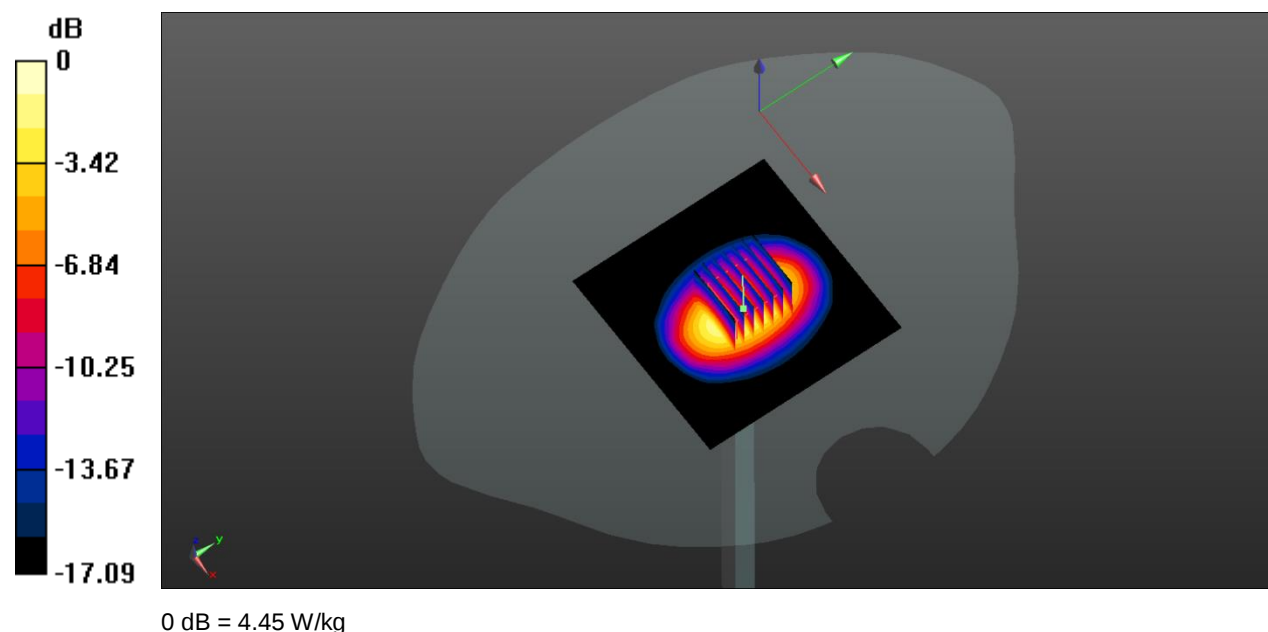
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.71 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 7.21 W/kg

SAR(1 g) = 3.95 W/kg; SAR(10 g) = 2.02 W/kg

Maximum value of SAR (measured) = 4.45 W/kg



System Performance Check Data (1900MHz)

Date: 2023.10.21

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.395$ S/m; $\epsilon_r = 39.964$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.58 W/kg

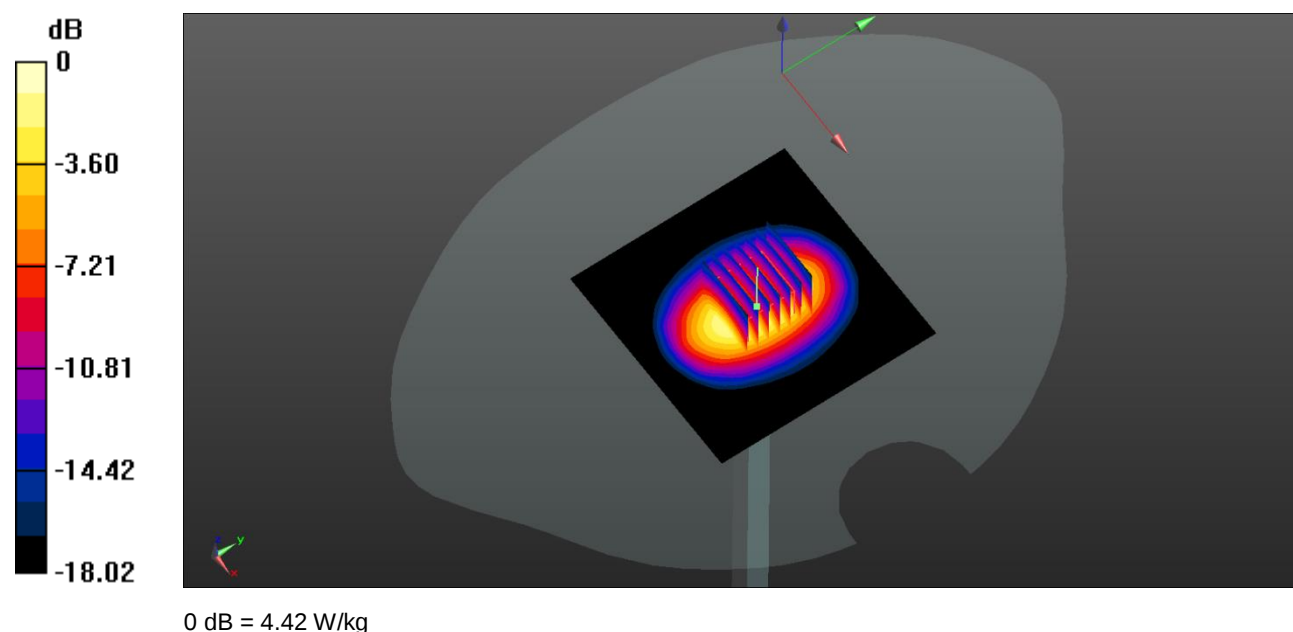
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.86 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 7.49 W/kg

SAR(1 g) = 3.99 W/kg; SAR(10 g) = 2.01 W/kg

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



System Performance Check Data (2450MHz)

Date: 2023.10.22

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

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.803$ S/m; $\epsilon_r = 39.494$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.78, 7.78, 7.78); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 6.21 W/kg

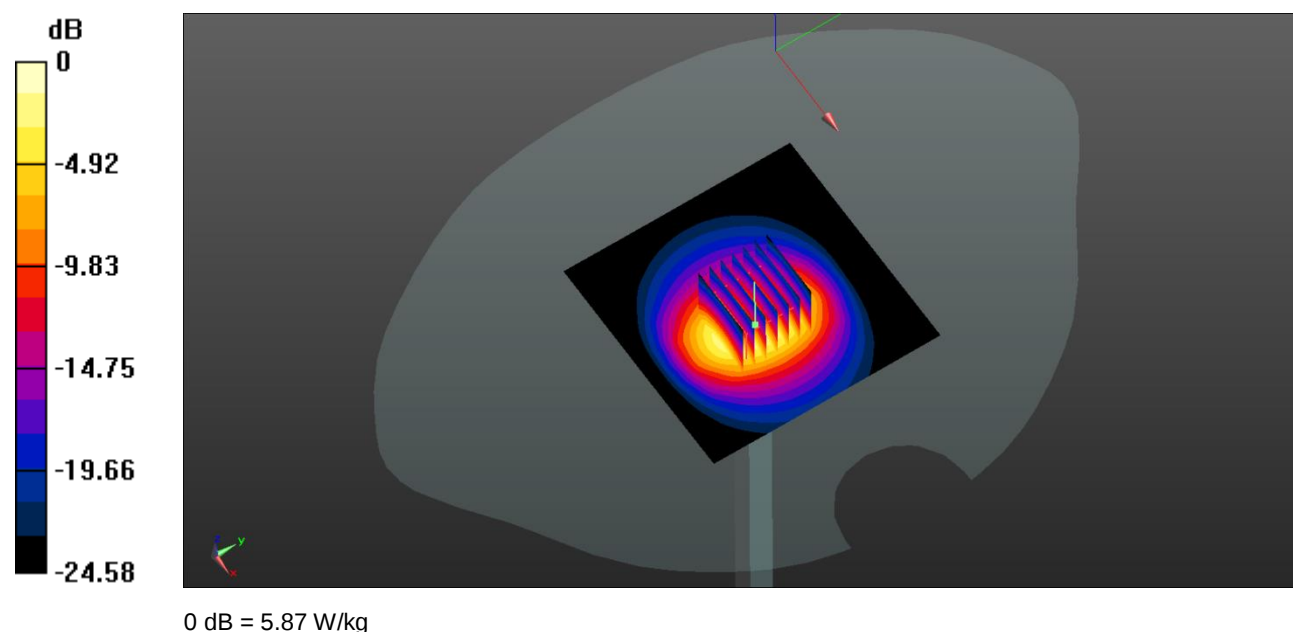
CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 45.43 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 12.3 W/kg

SAR(1 g) = 5.35 W/kg; SAR(10 g) = 2.41 W/kg

Maximum value of SAR (measured) = 5.87 W/kg



System Performance Check Data (2600MHz)

Date: 2023.10.23

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.975$ S/m; $\epsilon_r = 38.457$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.73 W/kg

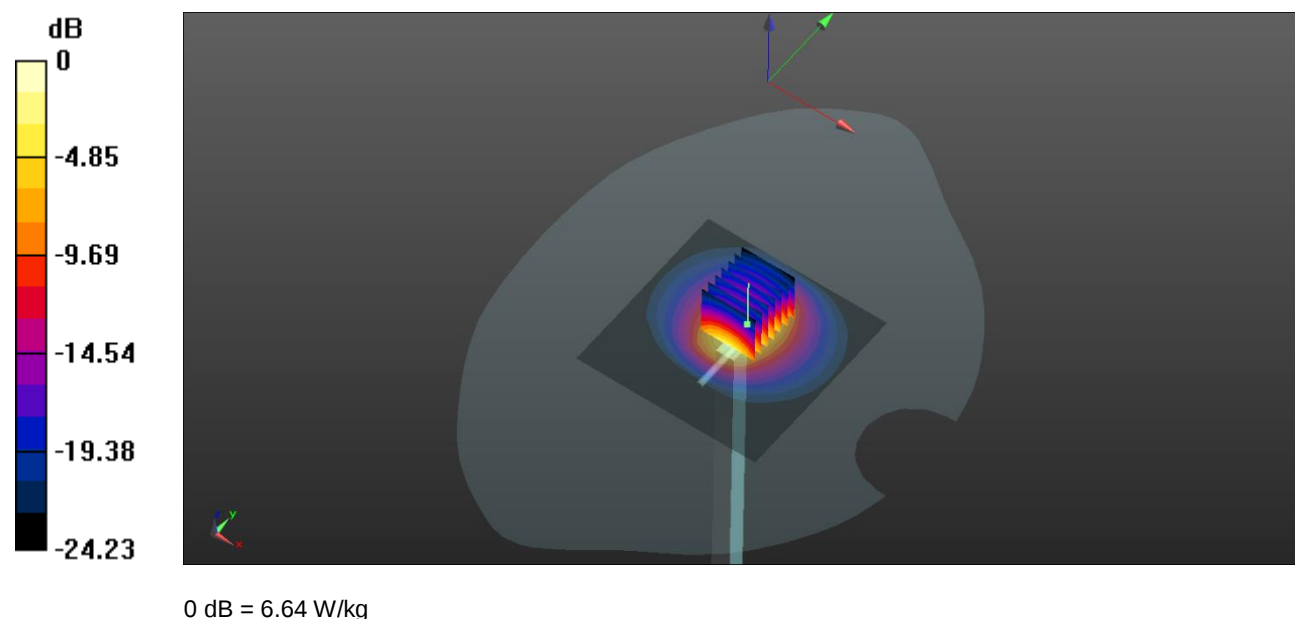
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.39 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 13.6 W/kg

SAR(1 g) = 5.75 W/kg; SAR(10 g) = 2.51 W/kg

Maximum value of SAR (measured) = 6.64 W/kg



System Performance Check Data (2600MHz)

Date: 2023.10.24

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.975$ S/m; $\epsilon_r = 38.635$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8°C Liquid Temperature: 21.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 7.06 W/kg

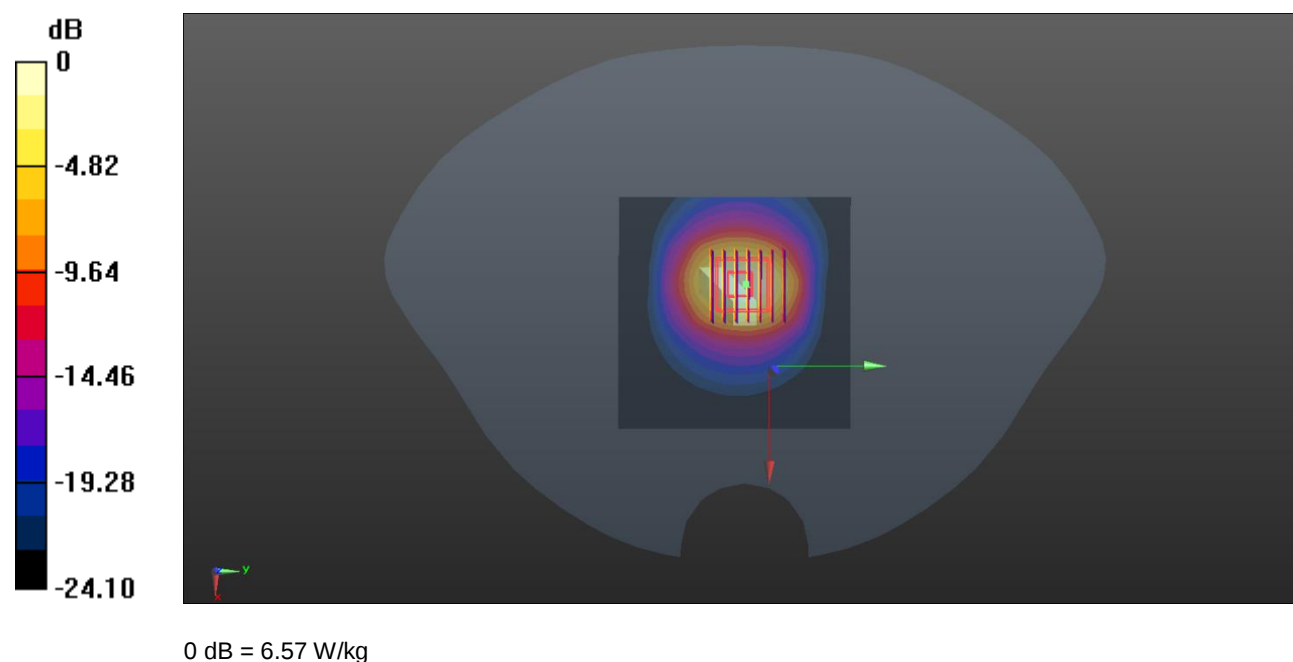
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.44 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 12.8 W/kg

SAR(1 g) = 5.74 W/kg; SAR(10 g) = 2.49 W/kg

Maximum value of SAR (measured) = 6.57 W/kg



System Performance Check Data (2600MHz)

Date: 2023.10.25

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

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.976$ S/m; $\epsilon_r = 38.46$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.45 W/kg

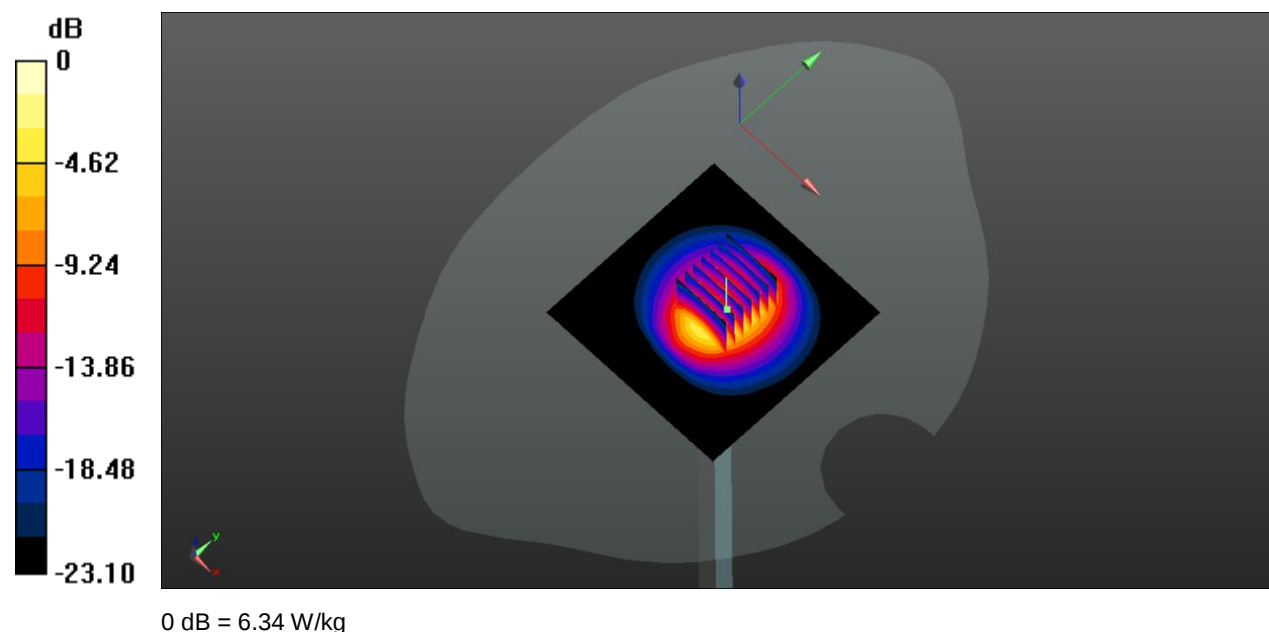
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 50.43 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 11.3 W/kg

SAR(1 g) = 5.48 W/kg; SAR(10 g) = 2.41 W/kg

Maximum value of SAR (measured) = 6.34 W/kg



System Performance Check Data (5250MHz)

Date: 2023.10.26

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

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.699$ S/m; $\epsilon_r = 35.811$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.67, 5.67, 5.67); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 8.39 W/kg

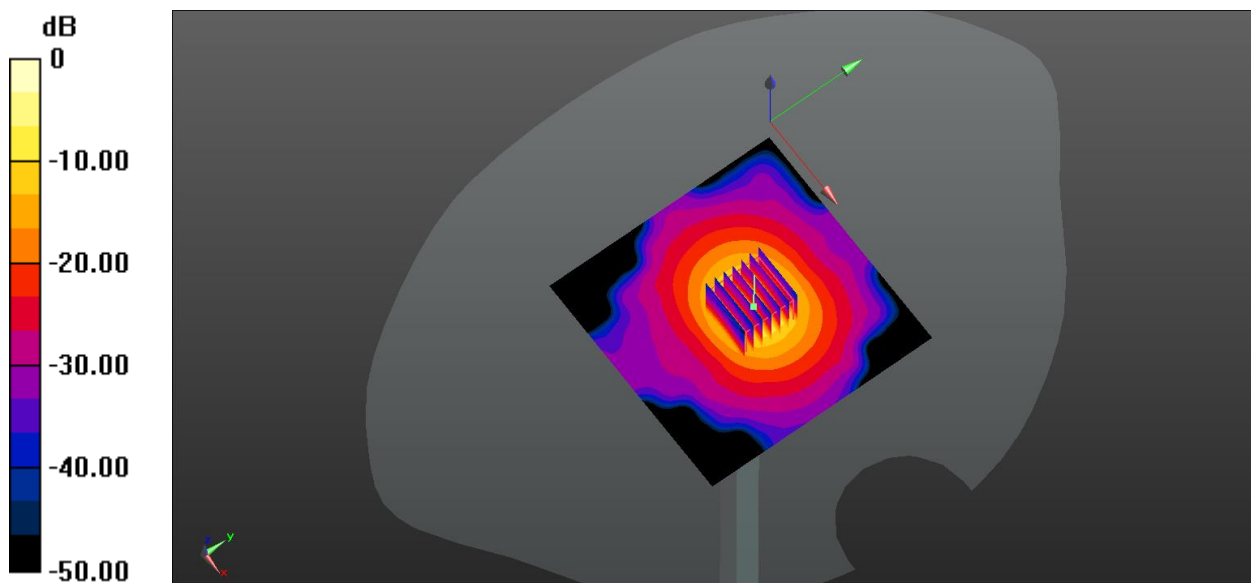
CW 5250/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 37.06 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 33.2 W/kg

SAR(1 g) = 7.91 W/kg; SAR(10 g) = 2.28 W/kg

Maximum value of SAR (measured) = 19.95 W/kg



0 dB = 19.95 W/kg

System Performance Check Data (5600MHz)

Date: 2023.10.27

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.056$ S/m; $\epsilon_r = 35.309$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.88, 4.88, 4.88); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5600/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.36 W/kg

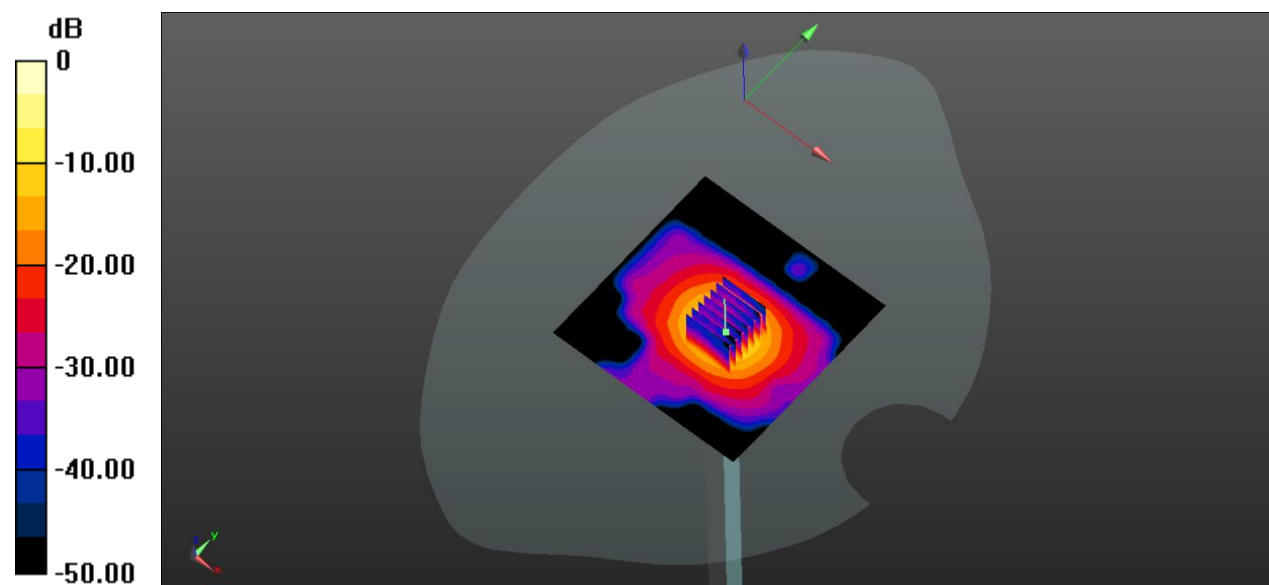
CW 5600/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 34.67 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 38.53 W/kg

SAR(1 g) = 8.27 W/kg; SAR(10 g) = 2.35 W/kg

Maximum value of SAR (measured) = 21.58 W/kg



0 dB = 21.58 W/kg

System Performance Check Data (5750MHz)

Date: 2023.10.28

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

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.176$ S/m; $\epsilon_r = 35.538$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(4.83, 4.83, 4.83); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5750 100mW/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 9.04 W/kg

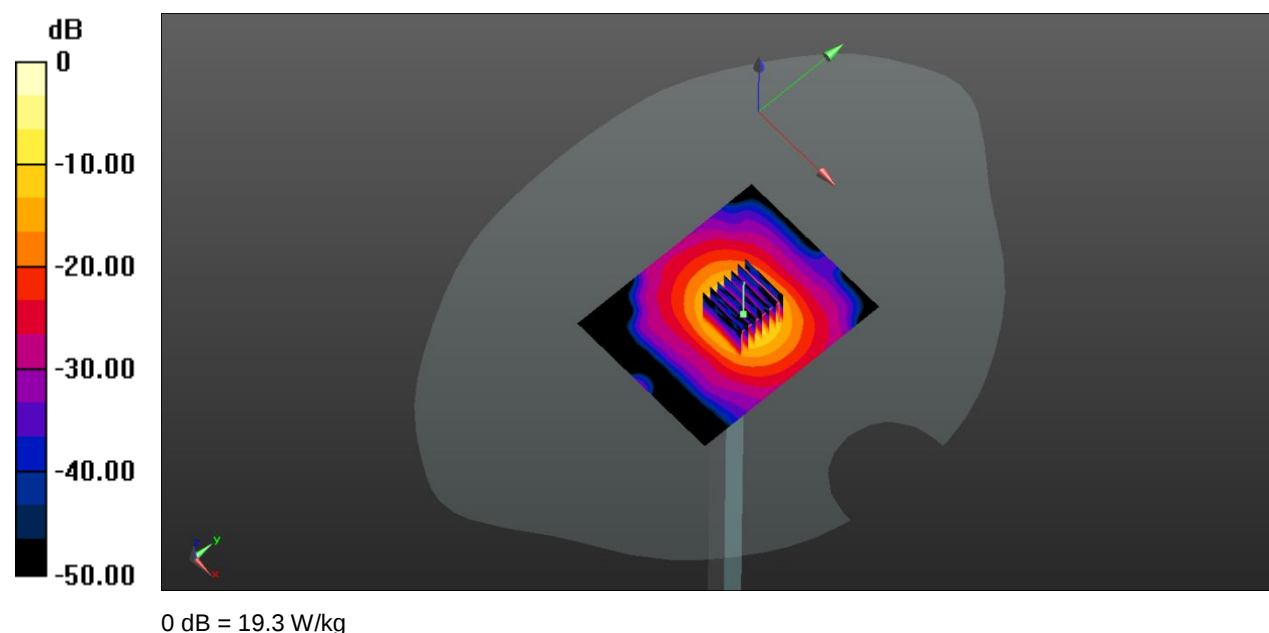
CW 5750 100mW/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 33.35 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 40.5 W/kg

SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.18 W/kg

Maximum value of SAR (measured) = 19.3 W/kg



System Performance Check Data (835MHz)

Date: 2023.10.29

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.901$ S/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.922 W/kg

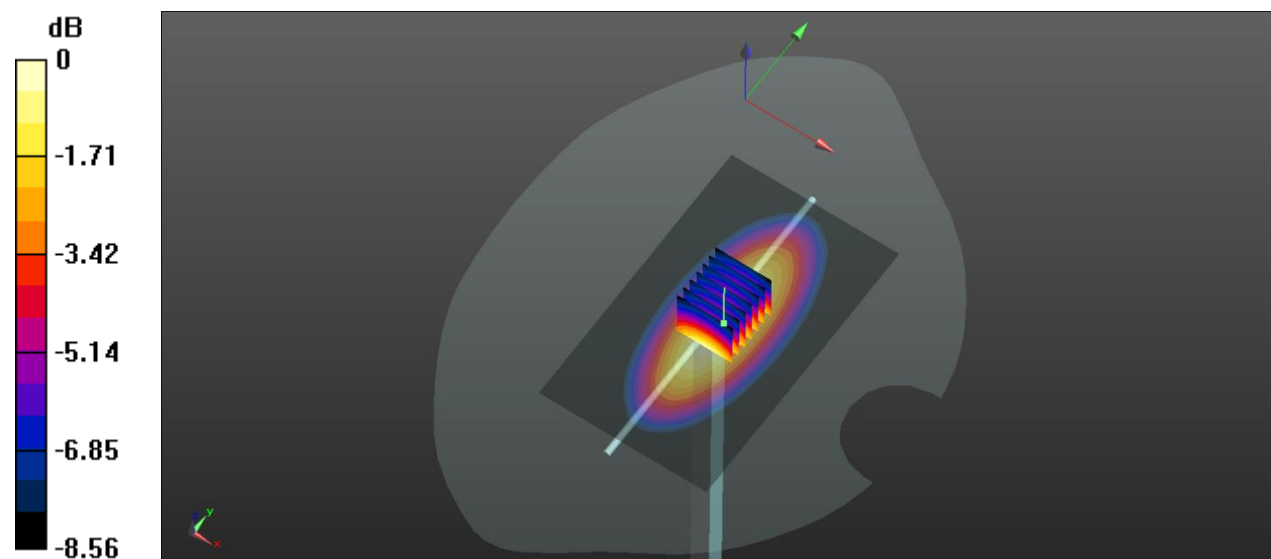
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.81 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.944 W/kg; SAR(10 g) = 0.598 W/kg

Maximum value of SAR (measured) = 0.951 W/kg



0 dB = 0.951 W/kg

System Performance Check Data (835MHz)

Date: 2023.10.30

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.904$ S/m; $\epsilon_r = 41.542$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW835/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.958 W/kg

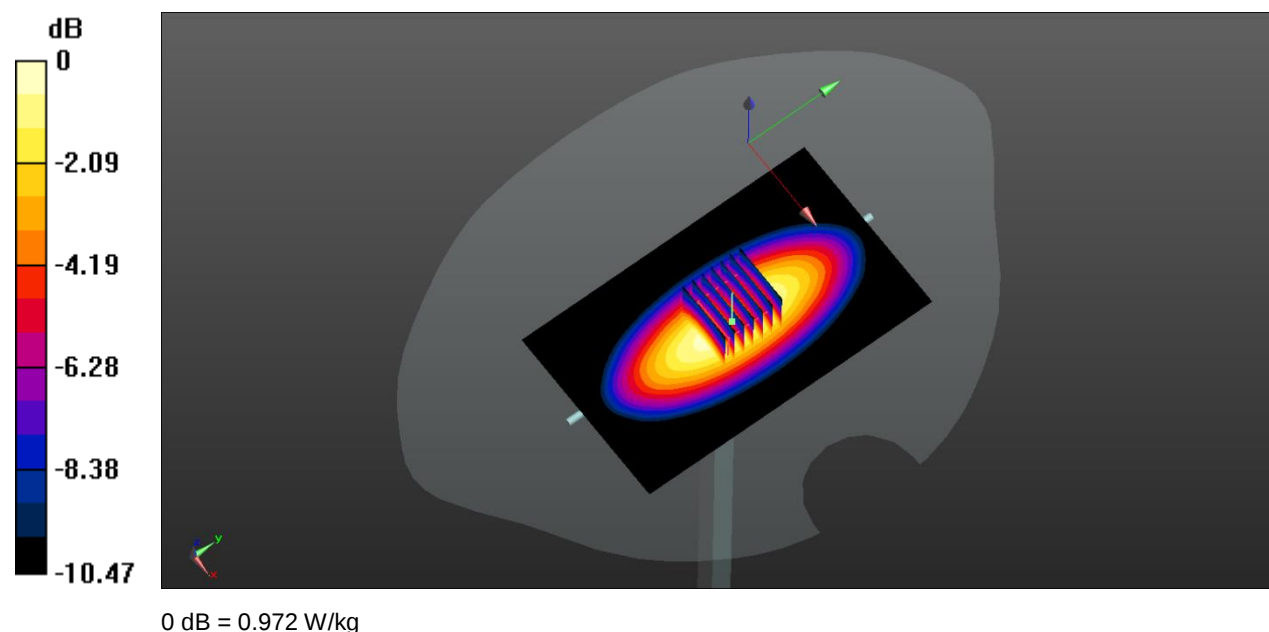
CW835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.26 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.938 W/kg; SAR(10 g) = 0.601 W/kg

Maximum value of SAR (measured) = 0.972 W/kg



System Performance Check Data (2600MHz)

Date: 2023.10.31

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.999$ S/m; $\epsilon_r = 37.996$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.85 W/kg

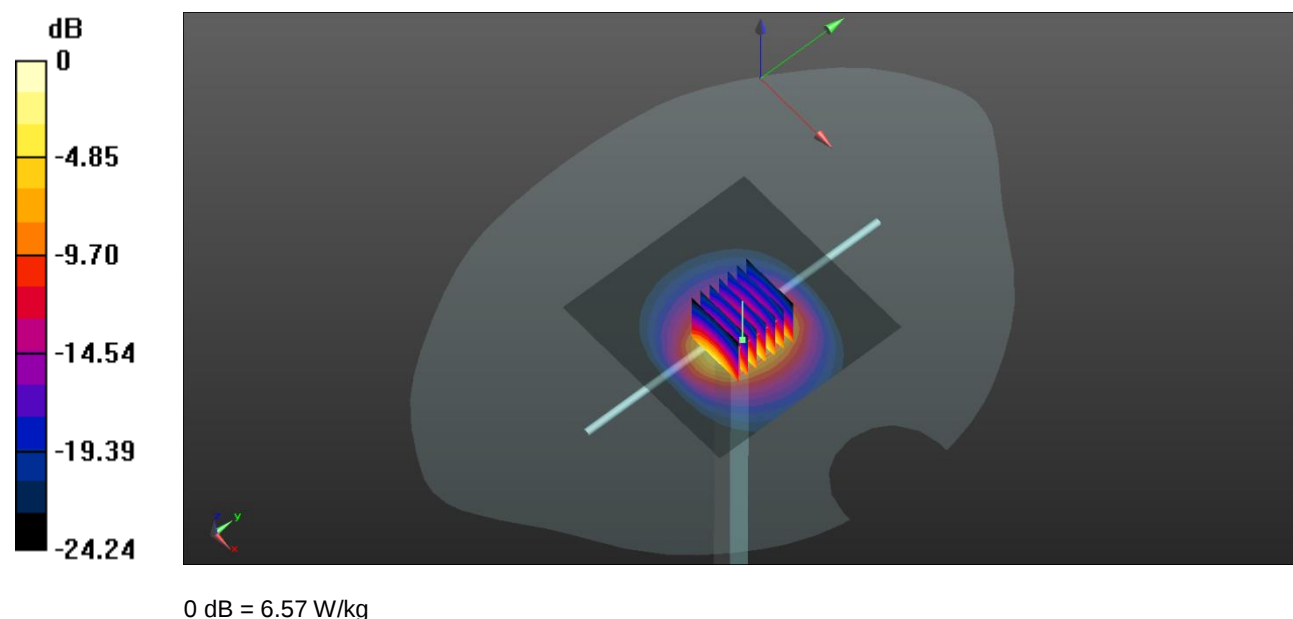
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.41 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 13.7 W/kg

SAR(1 g) = 5.78 W/kg; SAR(10 g) = 2.62 W/kg

Maximum value of SAR (measured) = 6.57 W/kg



System Performance Check Data (2600MHz)

Date: 2023.11.01

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.987$ S/m; $\epsilon_r = 38.882$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2600/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 7.11 W/kg

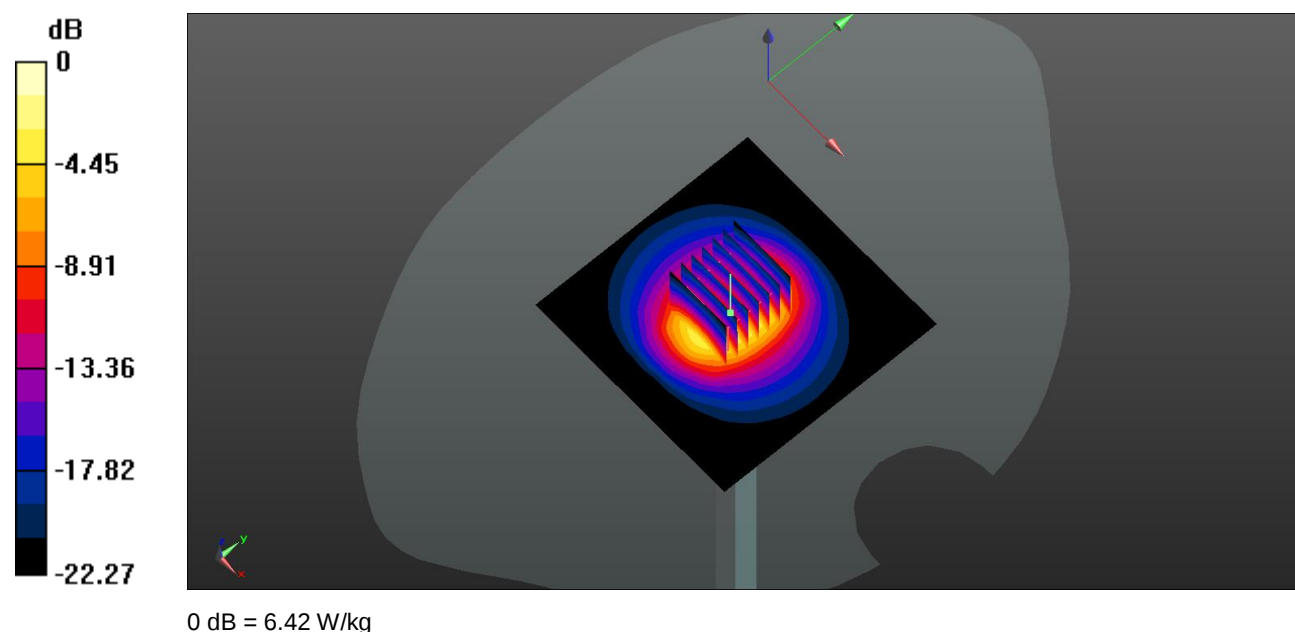
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 47.44 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 5.81 W/kg; SAR(10 g) = 2.55 W/kg

Maximum value of SAR (measured) = 6.42 W/kg



System Performance Check Data (1900MHz)

Date: 2023.11.02

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.404$ S/m; $\epsilon_r = 39.212$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.55 W/kg

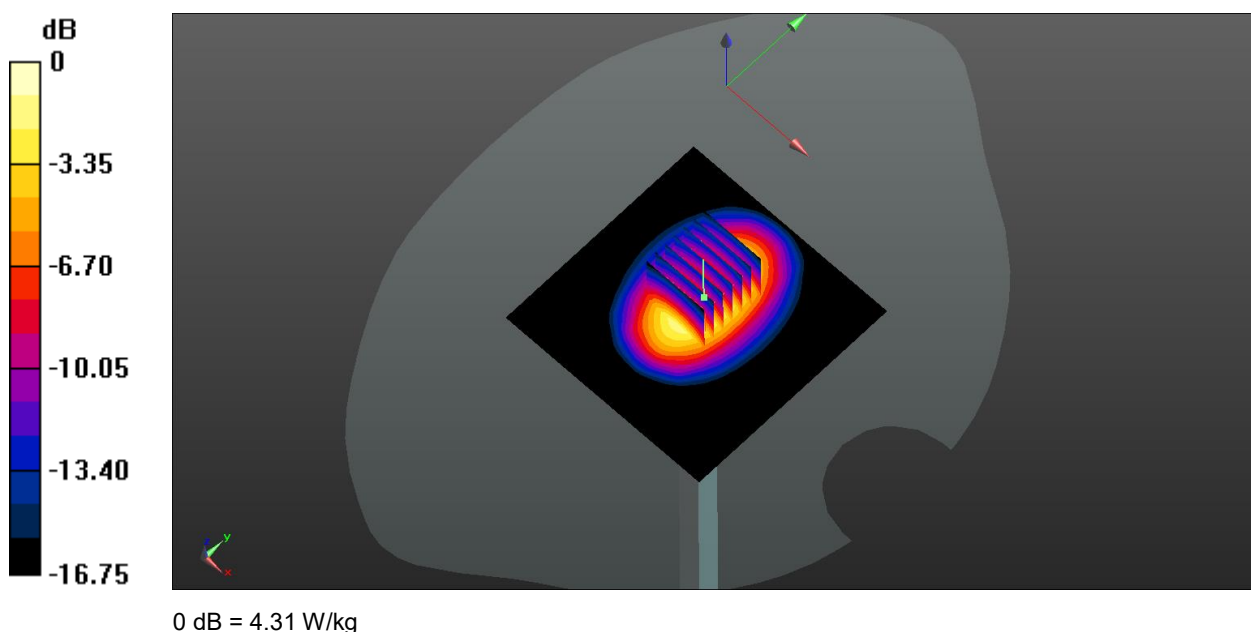
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.83 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 7.21 W/kg

SAR(1 g) = 3.99 W/kg; SAR(10 g) = 2.02 W/kg

Maximum value of SAR (measured) = 4.31 W/kg



System Performance Check Data (2600MHz)

Date: 2023.11.02

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

Medium parameters used (extrapolated): $f = 2600$ MHz; $\sigma = 1.981$ S/m; $\epsilon_r = 38.361$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.55 W/kg

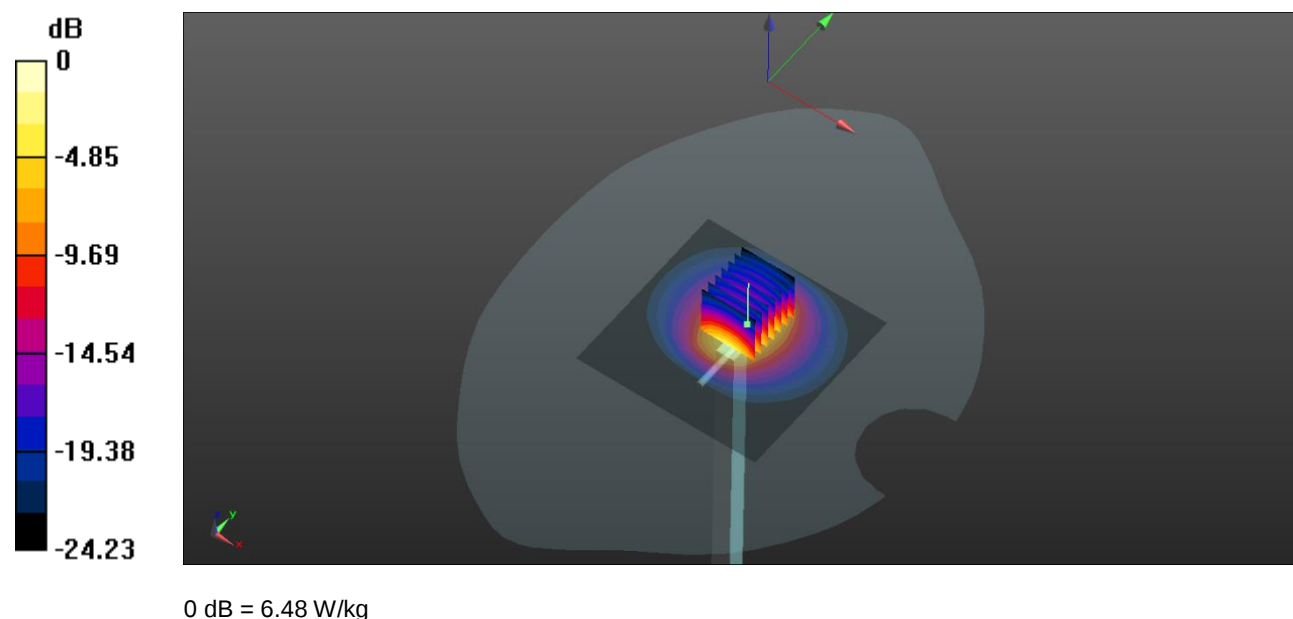
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.39 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 13.6 W/kg

SAR(1 g) = 5.83 W/kg; SAR(10 g) = 2.55 W/kg

Maximum value of SAR (measured) = 6.48 W/kg



ANNEX C TEST DATA

Meas.1 Right Head with Cheek on Middle Channel in GPRS850 2slots mode with Antenna 3

Date: 2023.10.12

Communication System Band: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.747$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch190/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.616 W/kg

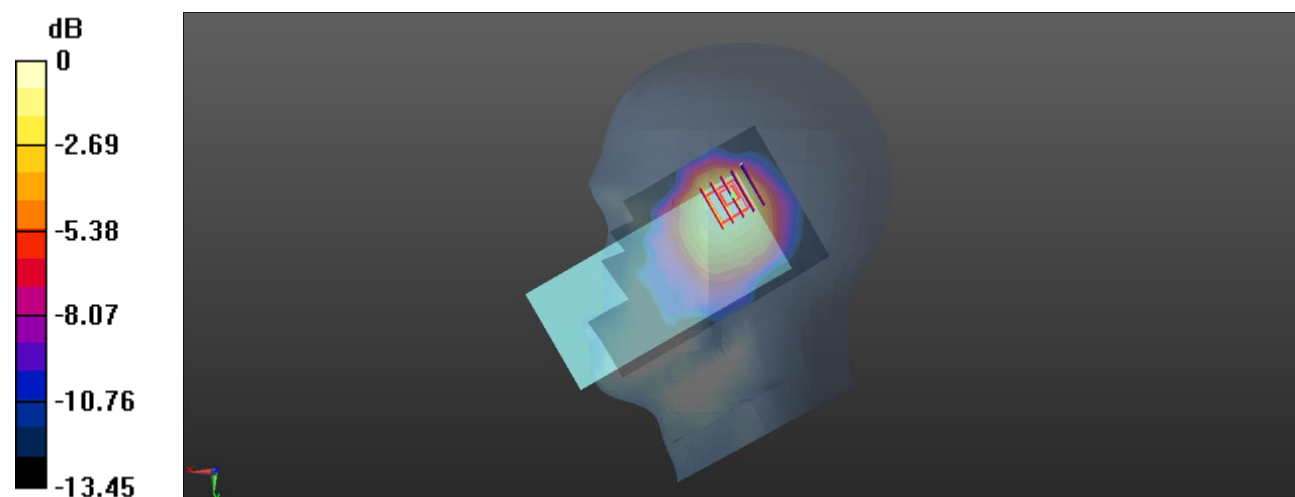
Ch190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.63 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.938 W/kg

SAR(1 g) = 0.512 W/kg; SAR(10 g) = 0.320 W/kg

Maximum value of SAR (measured) = 0.545 W/kg



0 dB = 0.545 W/kg

Meas.2Body Plane with Back Side 10mm on Middle Channel in GPRS850 2slots mode with Antenna 1

Date: 2023.10.12

Communication System Band: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.747$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch190/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.181 W/kg

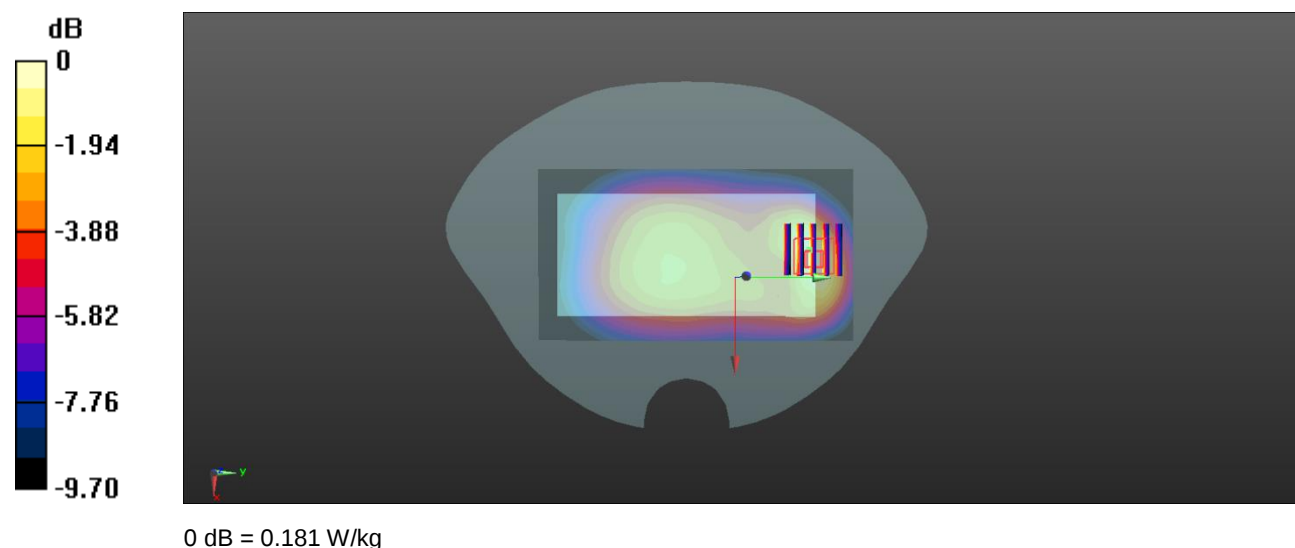
Ch190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.22 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 0.181 W/kg



Meas.3 Right Head with Tilt on Middle Channel in GPRS1900 2slots mode with Antenna 3

Date: 2023.10.21

Communication System Band: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.385$ S/m; $\epsilon_r = 40.224$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.930 W/kg

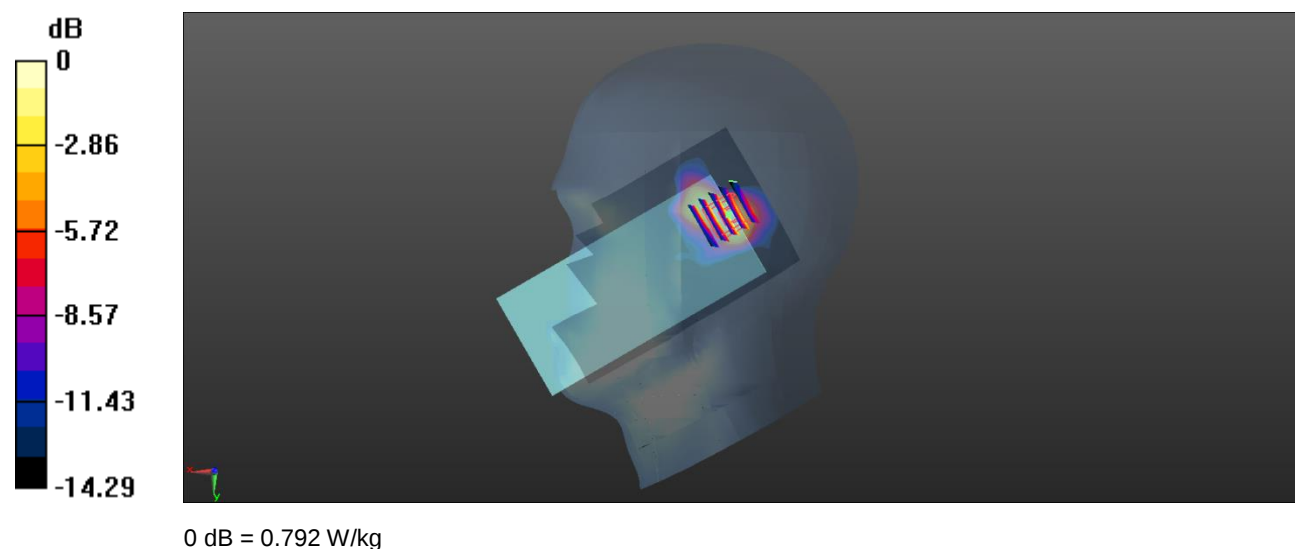
Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.34 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.348 W/kg

Maximum value of SAR (measured) = 0.792 W/kg



Meas.4 Body Plane with Bottom Edge 10mm on Middle Channel in GPRS1900 4Slots mode with Antenna 1

Date: 2023.10.21

Communication System Band: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.385$ S/m; $\epsilon_r = 40.224$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.727 W/kg

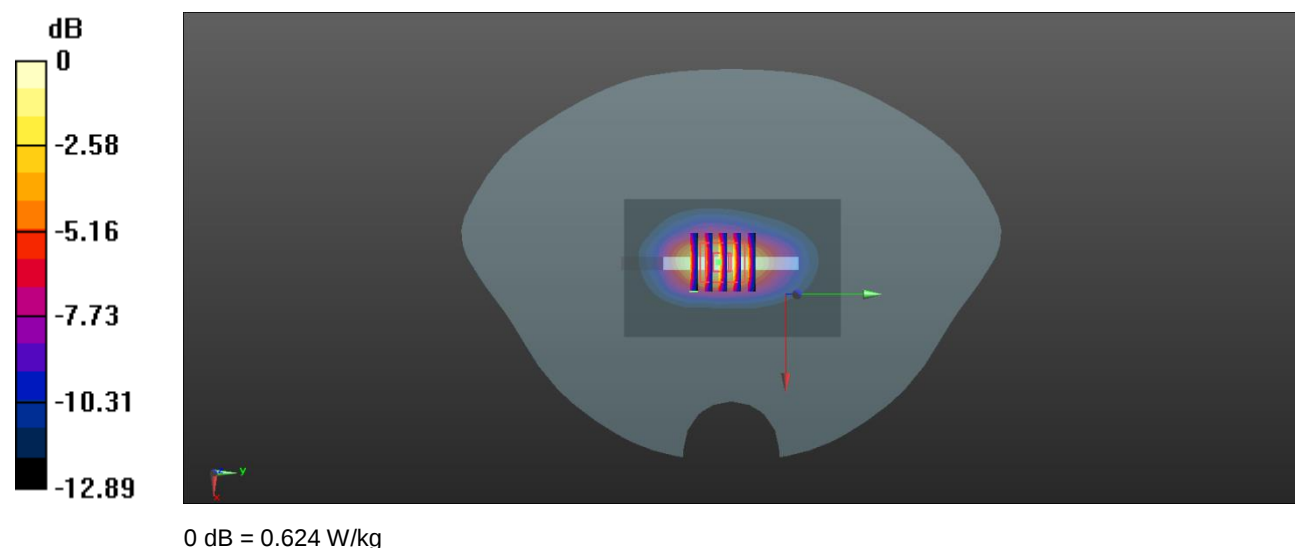
Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.08 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.907 W/kg

SAR(1 g) = 0.553 W/kg; SAR(10 g) = 0.302 W/kg

Maximum value of SAR (measured) = 0.624 W/kg



Meas.5 Right Head with Cheek on Middle Channel in WCDMA B5 mode with Antenna 3

Date: 2023.10.29

Communication System Band: BAND 5; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 41.073$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.2°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch4182 2/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.860 W/kg

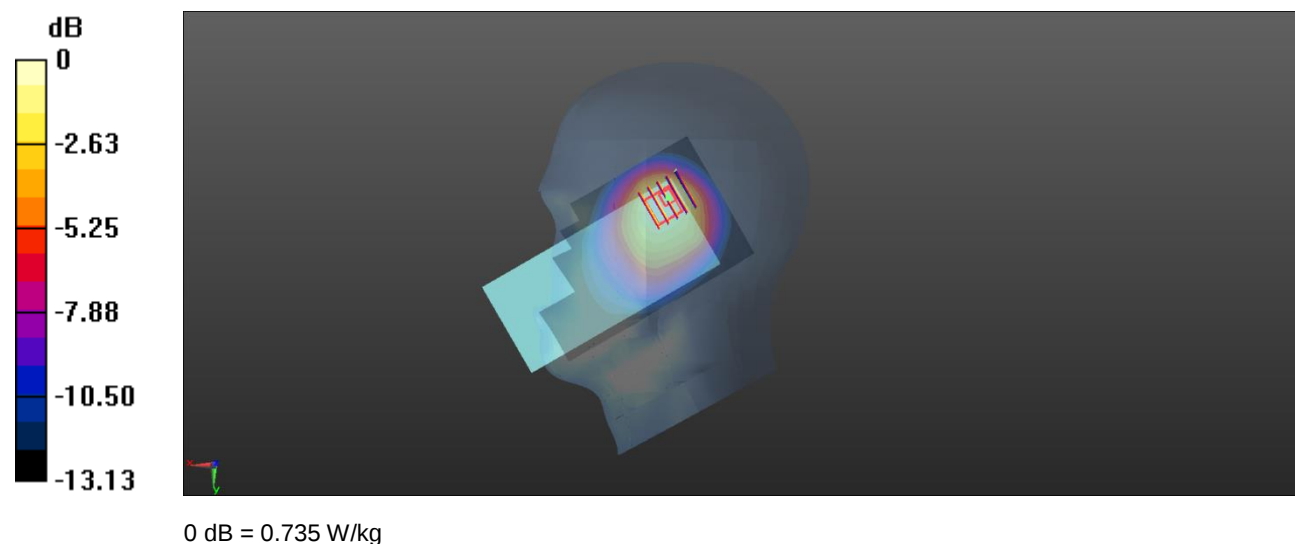
Ch4182 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.60 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.693 W/kg; SAR(10 g) = 0.440 W/kg

Maximum value of SAR (measured) = 0.735 W/kg



Meas.6 Body Plane with Back Side 10mm on High Channel in WCDMA Band5 mode with Antenna 1

Date: 2023.10.13

Communication System Band: BAND 5; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.917$ S/m; $\epsilon_r = 41.472$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.305 W/kg

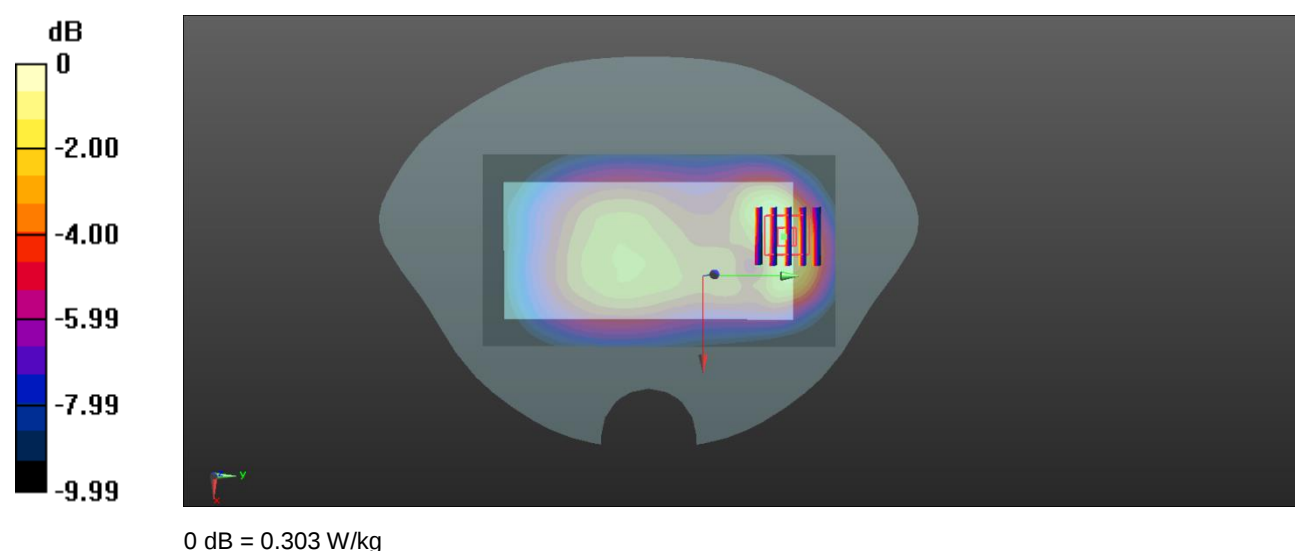
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.76 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.444 W/kg

SAR(1 g) = 0.276 W/kg; SAR(10 g) = 0.170 W/kg

Maximum value of SAR (measured) = 0.303 W/kg



Meas.7 Right Head with Cheek on High Channel in LTE Band5 mode with Antenna 3

Date: 2023.10.30

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

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.918$ S/m; $\epsilon_r = 41.193$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch20600/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.566 W/kg

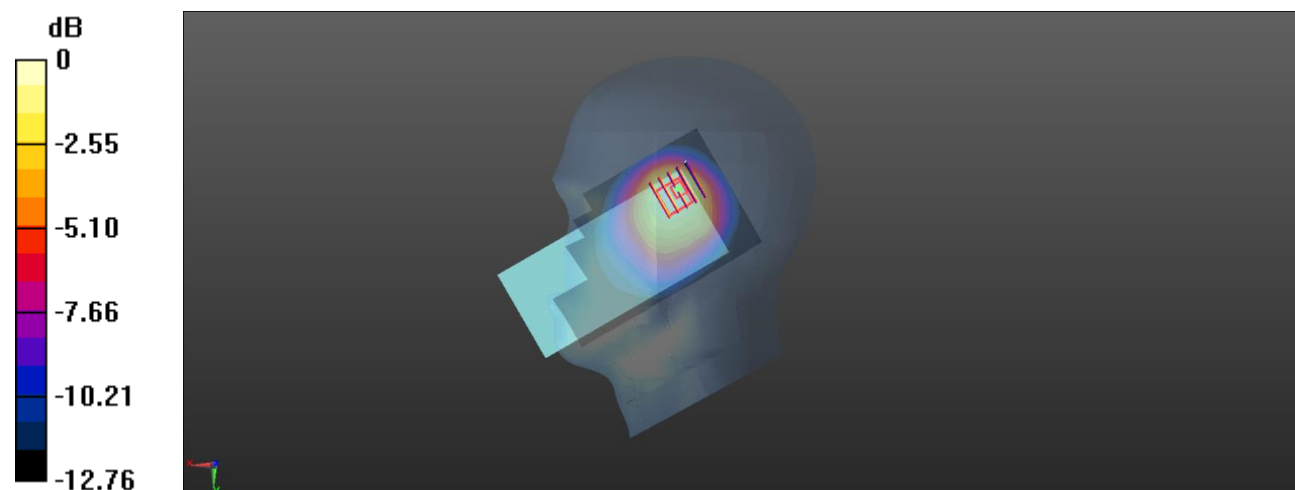
Ch20600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.34 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.819 W/kg

SAR(1 g) = 0.445 W/kg; SAR(10 g) = 0.287 W/kg

Maximum value of SAR (measured) = 0.479 W/kg



0 dB = 0.479 W/kg

Meas.8 Body Plane with Back Side 10mm on Middle Channel in LTE Band5 mode with Antenna 1

Date: 2023.10.16

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

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.681$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (9.97, 9.97, 9.97); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.381 W/kg

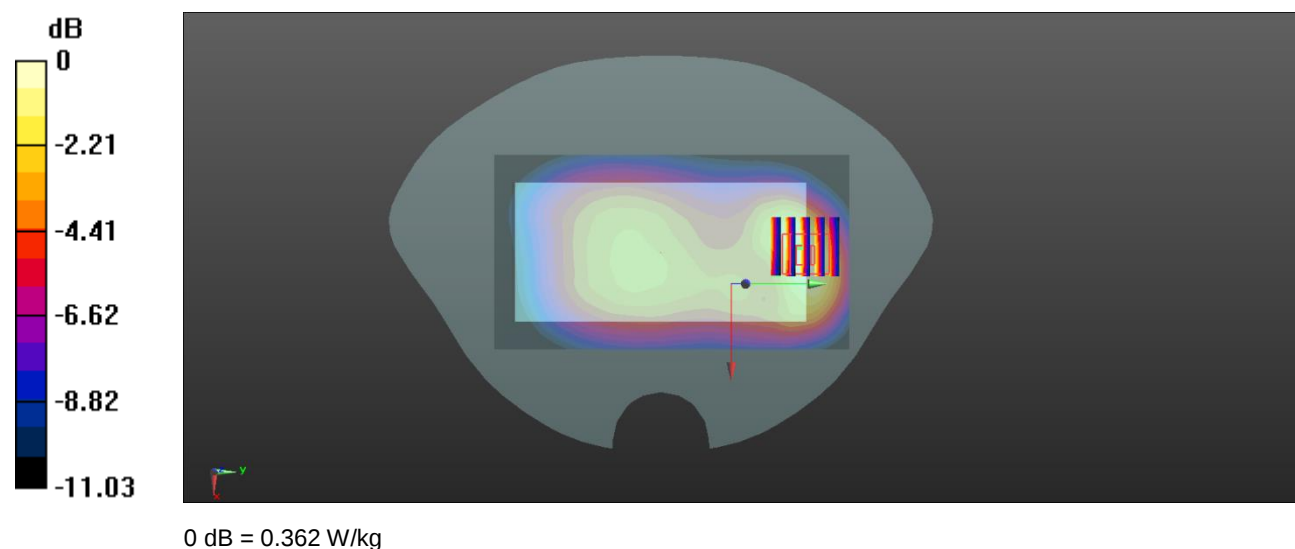
Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 14.19 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.546 W/kg

SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.362 W/kg



Meas.9 Right Head with Cheek on High Channel in LTE Band7 mode with Antenna 3

Date: 2023.10.31

Communication System Band: BAND 7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.945$ S/m; $\epsilon_r = 38.516$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch21350/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.743 W/kg

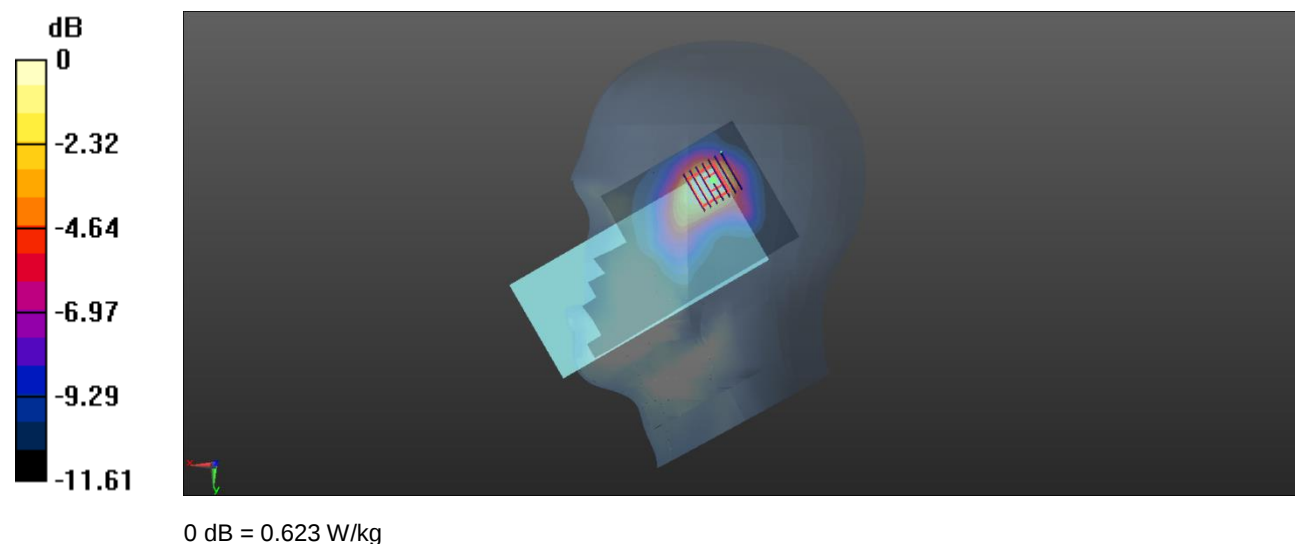
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.287 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.562 W/kg; SAR(10 g) = 0.323 W/kg

Maximum value of SAR (measured) = 0.623 W/kg



Meas.10 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band7 mode with Antenna 1

Date: 2023.10.25

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

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.895$ S/m; $\epsilon_r = 38.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.611 W/kg

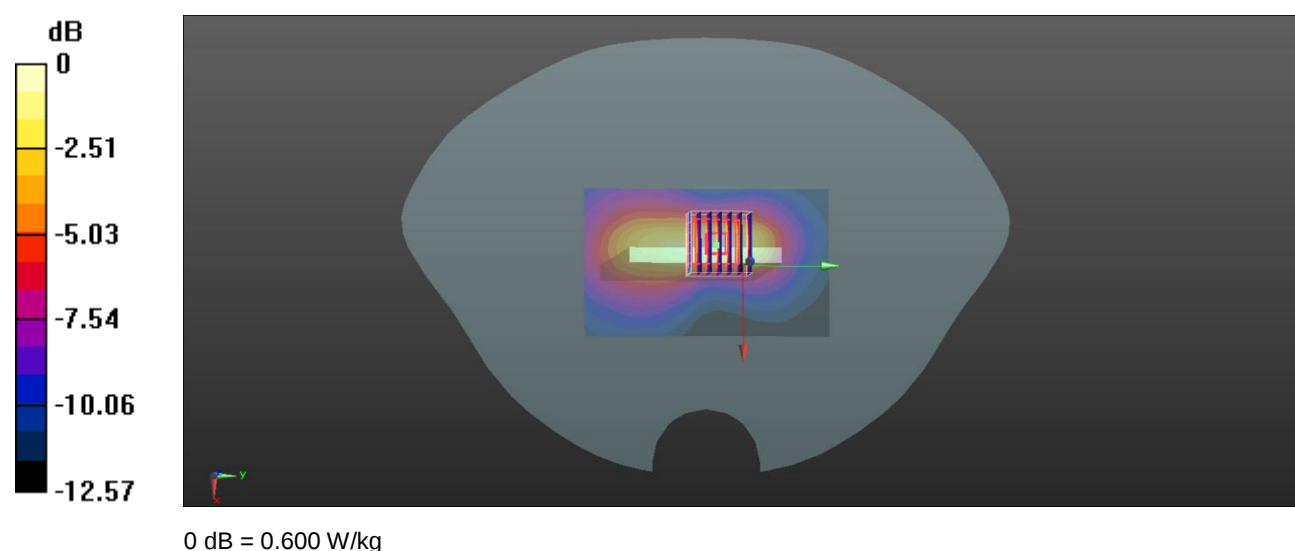
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.79 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.956 W/kg

SAR(1 g) = 0.524 W/kg; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 0.600 W/kg



Meas.11 Body Plane with Left Edge 0mm on Middle Channel in LTE Band7 mode with Antenna 3

Date: 2023.10.25

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

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.895$ S/m; $\epsilon_r = 38.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (61x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 5.52 W/kg

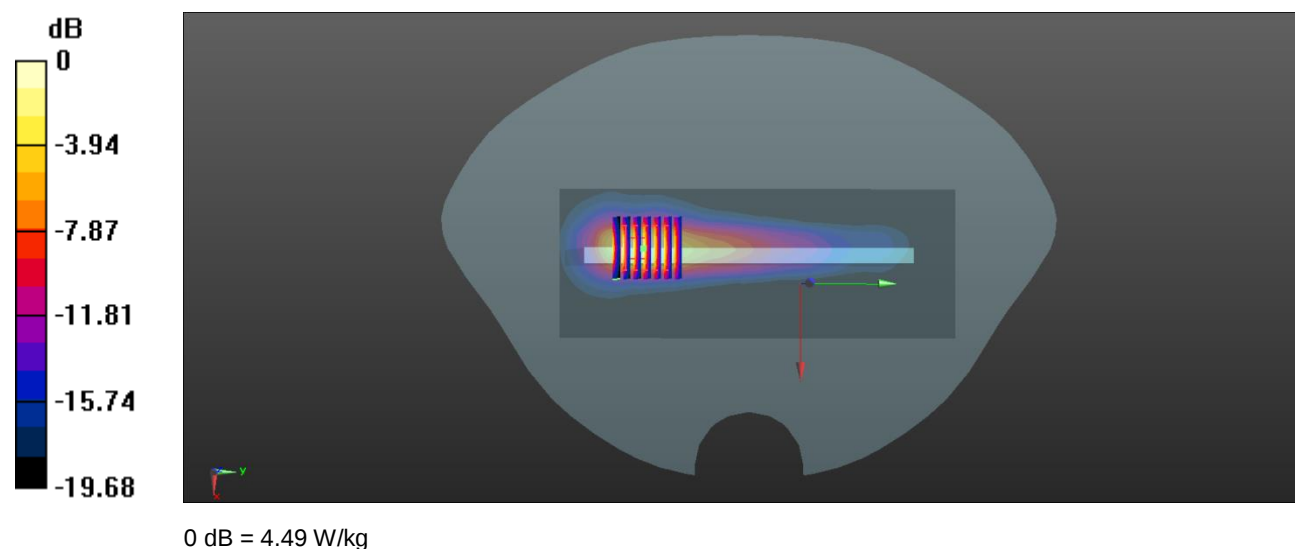
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 17.63 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 9.60 W/kg

SAR(1 g) = 3.72 W/kg; SAR(10 g) = 1.53 W/kg

Maximum value of SAR (measured) = 4.49 W/kg



Meas.12 Right Head with Cheek on High Channel in LTE Band38 mode with Antenna 3

Date: 2023.10.23

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

Medium parameters used (interpolated): $f = 2610$ MHz; $\sigma = 1.986$ S/m; $\epsilon_r = 38.375$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.699 W/kg

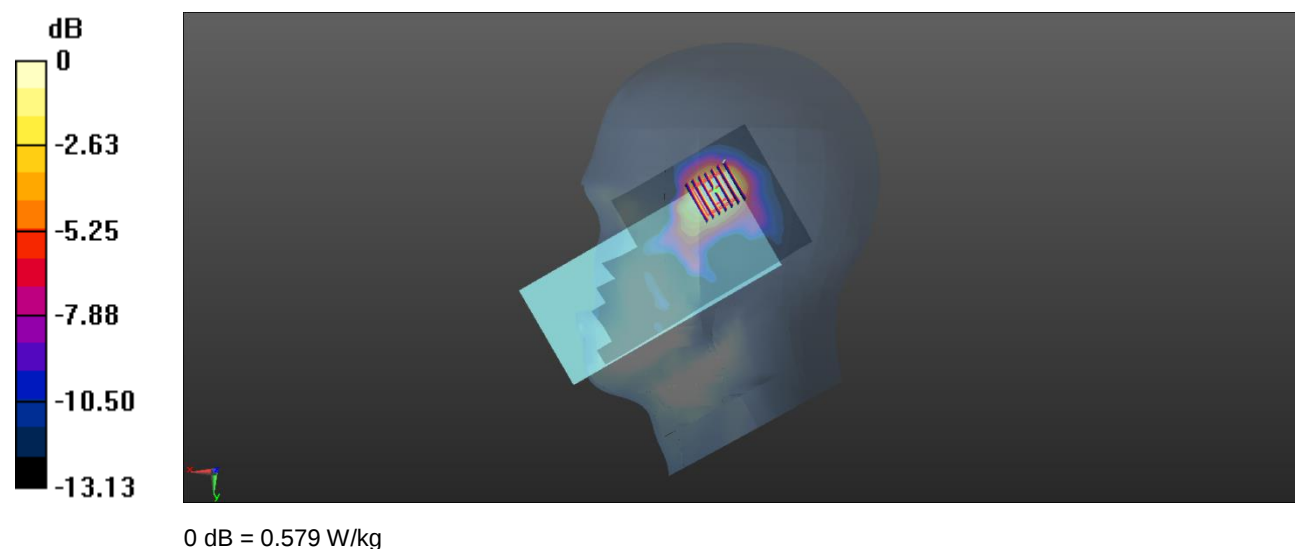
Ch38150/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.348 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.291 W/kg

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



Meas.13 Body Plane with Bottom Edge 10mm on High Channel in LTE Band38 mode with Antenna 1

Date: 2023.10.23

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

Medium parameters used (interpolated): $f = 2610$ MHz; $\sigma = 1.986$ S/m; $\epsilon_r = 38.375$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch38150/Area Scan (61x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.691 W/kg

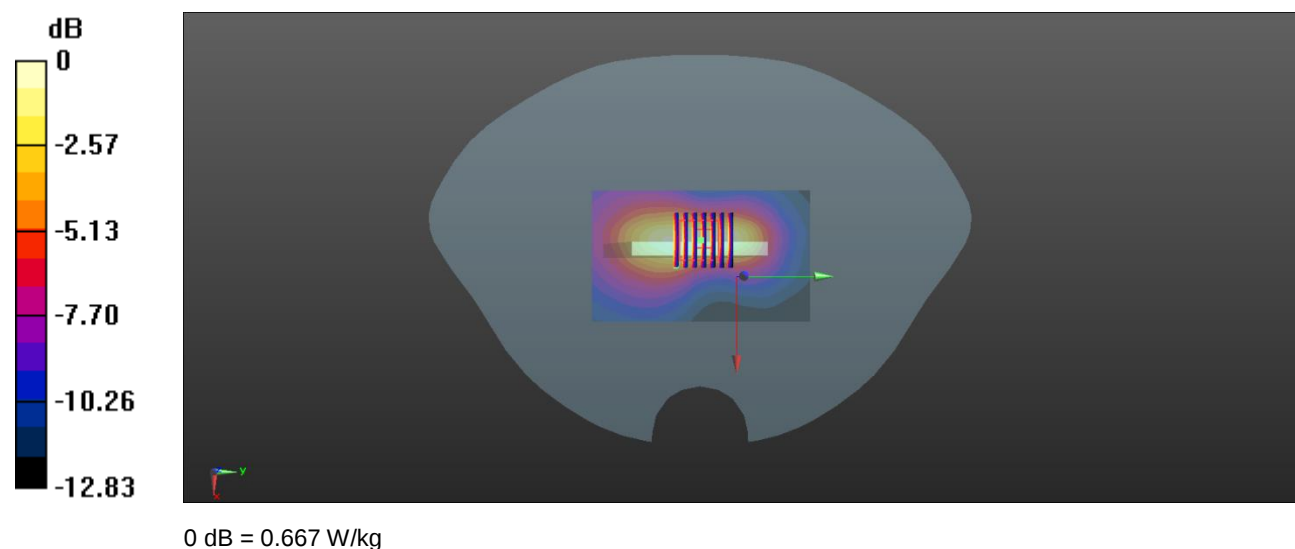
Ch38150/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 17.33 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.584 W/kg; SAR(10 g) = 0.306 W/kg

Maximum value of SAR (measured) = 0.667 W/kg



Meas.14 Right Head with Cheek on High Channel in LTE Band41 mode with Antenna 3

Date: 2023.11.02

Communication System Band: BAND41; Frequency: 2680 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2680$ MHz; $\sigma = 2.093$ S/m; $\epsilon_r = 37.777$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch41490/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

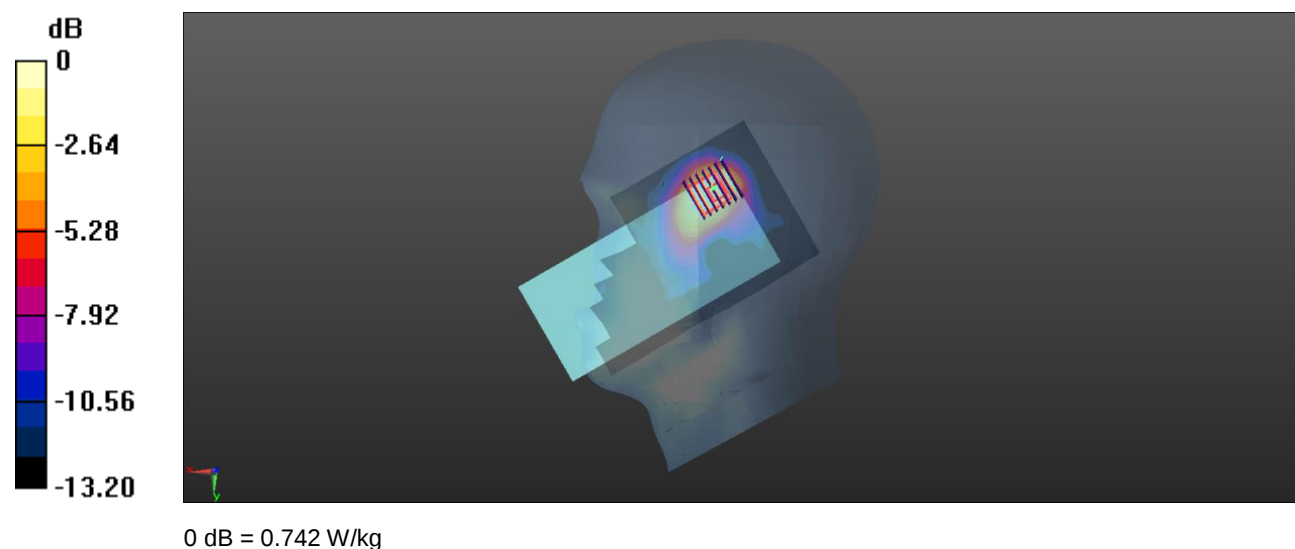
Ch41490/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.507 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.376 W/kg

Maximum value of SAR (measured) = 0.742 W/kg



Meas.15 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band41 mode with Antenna 1

Date: 2023.10.24

Communication System Band: BAND41; Frequency: 2680 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2680$ MHz; $\sigma = 2.064$ S/m; $\epsilon_r = 38.525$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.8°C Liquid Temperature: 21.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch41490/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.664 W/kg

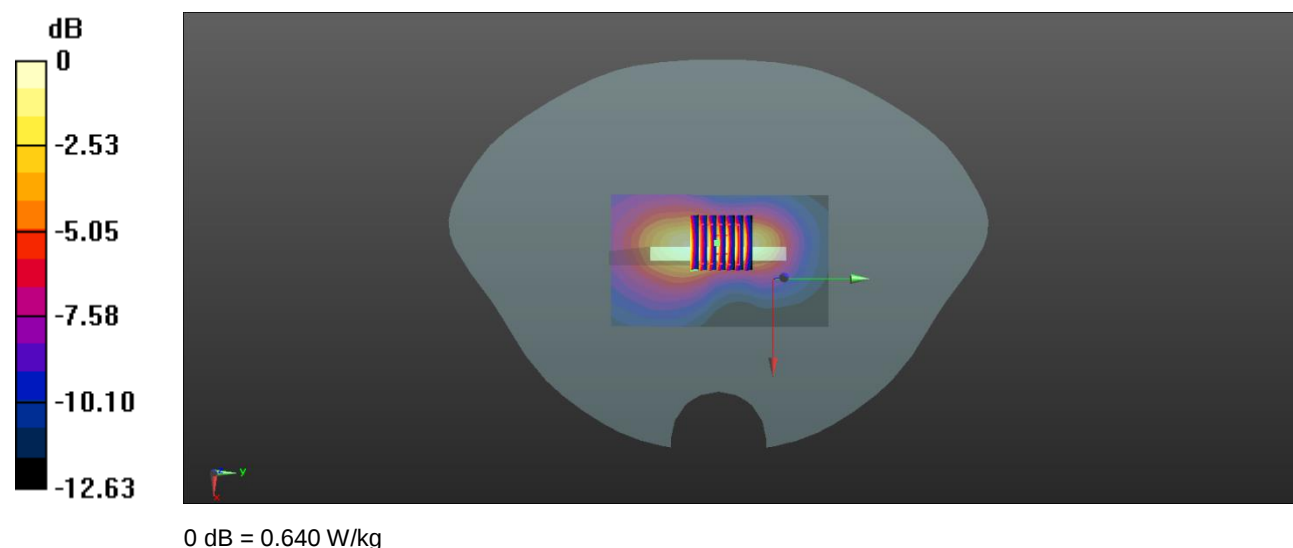
Ch41490/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.02 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.566 W/kg; SAR(10 g) = 0.296 W/kg

Maximum value of SAR (measured) = 0.640 W/kg



Meas.16 Left Head with Cheek on 6 Channel in IEEE802.11b mode with Antenna 4

Date: 2023.10.22

Communication System Band: 2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1.028

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.787$ S/m; $\epsilon_r = 39.622$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.78, 7.78, 7.78); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.859 W/kg

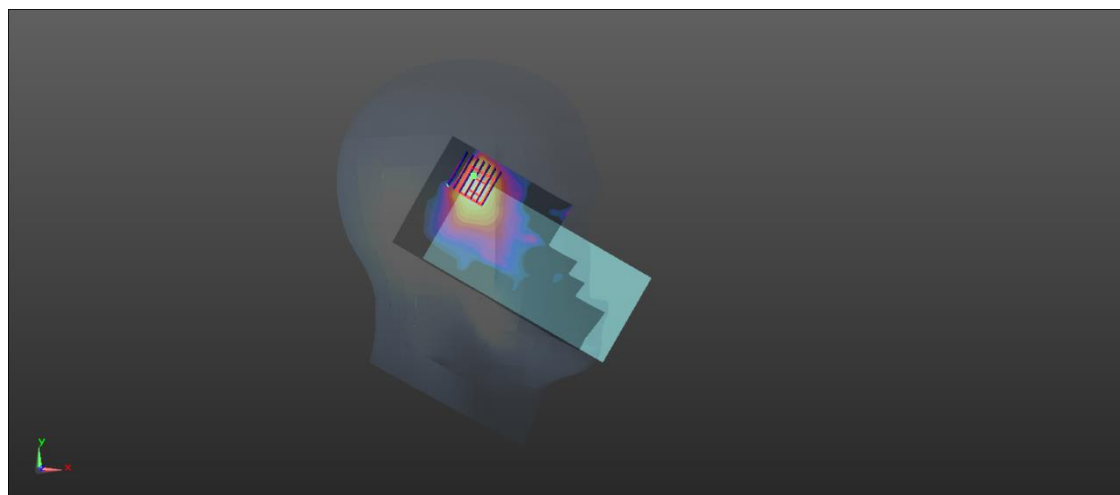
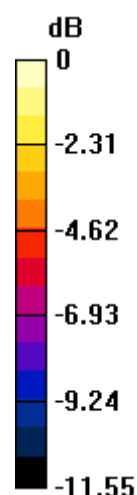
Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.051 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.907 W/kg

SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.547 W/kg



0 dB = 0.547 W/kg

Meas.17 Body Plane with Top Edge 10mm on 11 Channel in IEEE802.11b mode with Antenna 4

Date: 2023.10.22

Communication System Band: 2.4G; Frequency: 2462 MHz; Duty Cycle: 1:1.028

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.828$ S/m; $\epsilon_r = 39.373$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.78, 7.78, 7.78); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch11/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.179 W/kg

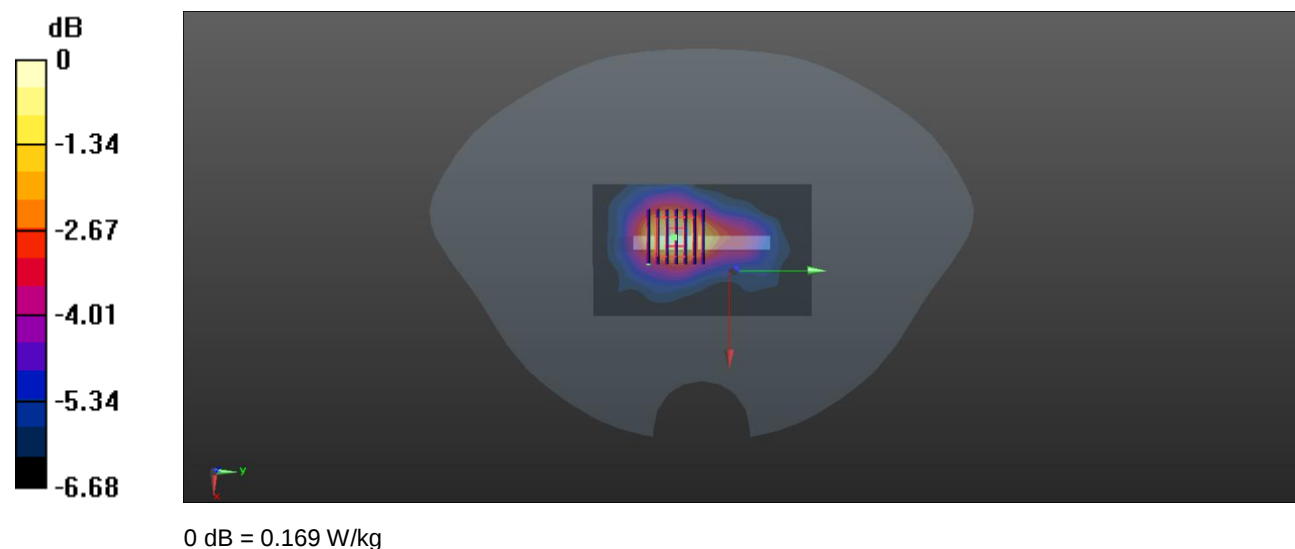
Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.219 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.235 W/kg

SAR(1 g) = 0.154 W/kg; SAR(10 g) = 0.099 W/kg

Maximum value of SAR (measured) = 0.169 W/kg



Meas.18 Left Head with Cheek on 58 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.26

Communication System Band: 5.3G; Frequency: 5290 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.786$ S/m; $\epsilon_r = 35.294$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (5.37, 5.37, 5.37); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.712 W/kg

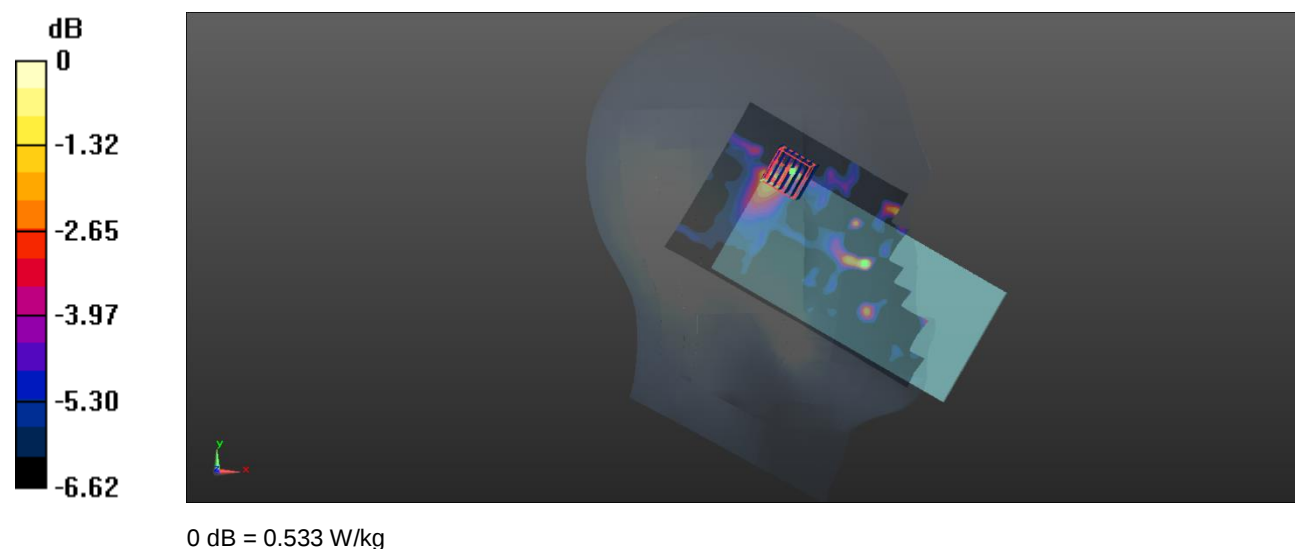
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.025 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.924 W/kg

SAR(1 g) = 0.317 W/kg; SAR(10 g) = 0.173 W/kg

Maximum value of SAR (measured) = 0.533 W/kg



Meas.19 Left Head with Cheek on 106 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.27

Communication System Band: 5.6G; Frequency: 5530 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5530$ MHz; $\sigma = 4.946$ S/m; $\epsilon_r = 36.089$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (4.98, 4.98, 4.98); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 1.18 W/kg

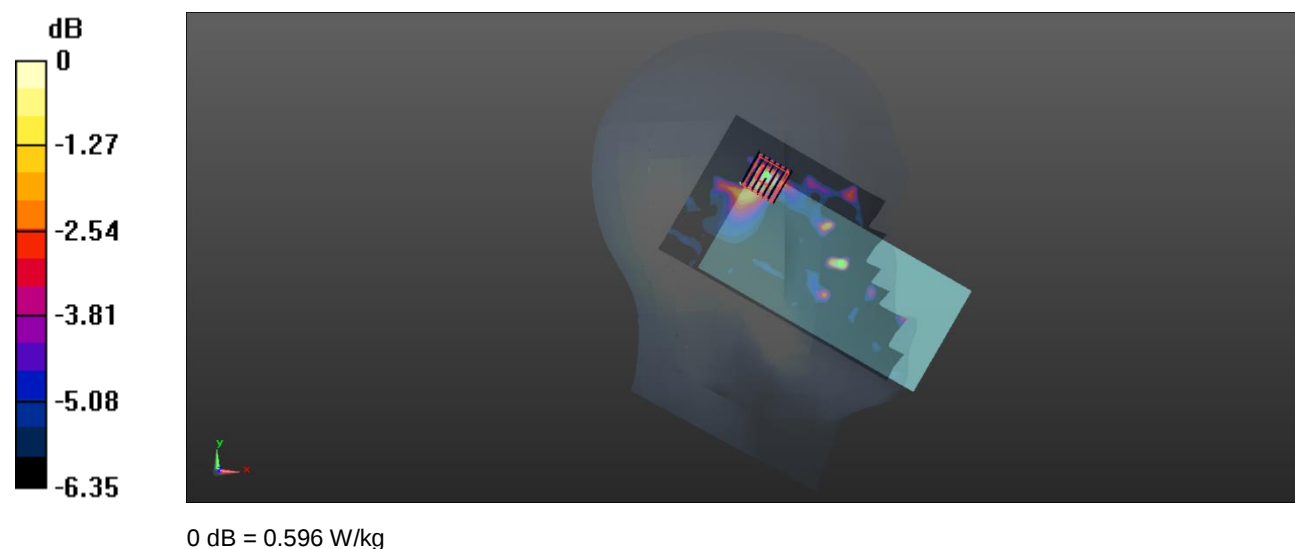
Ch106/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 5.531 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.596 W/kg



Meas.20 Left Head with Cheek on 155 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.28

Communication System Band: 5.8G; Frequency: 5775 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.223$ S/m; $\epsilon_r = 35.23$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (4.83, 4.83, 4.83); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.637 W/kg

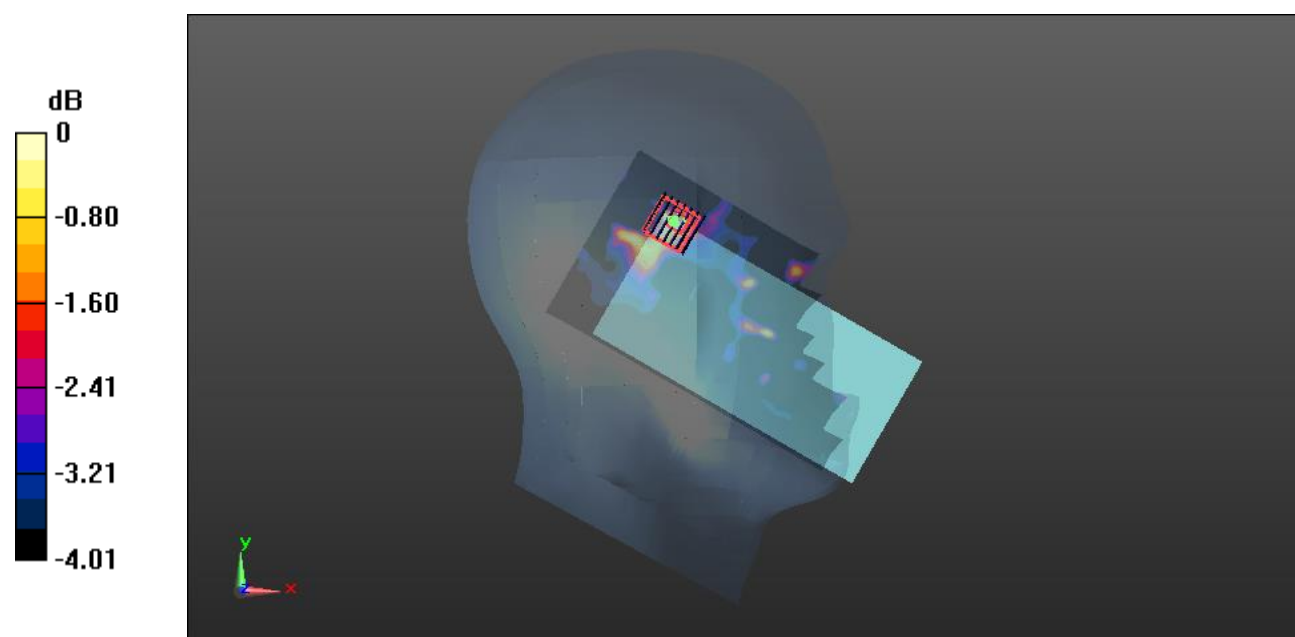
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.121 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.470 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 0.274 W/kg



0 dB = 0.274 W/kg

Meas.21 Body Plane with Back Side 10mm on 58 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.26

Communication System Band: 5.3G; Frequency: 5290 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.786$ S/m; $\epsilon_r = 35.294$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (5.37, 5.37, 5.37); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.216 W/kg

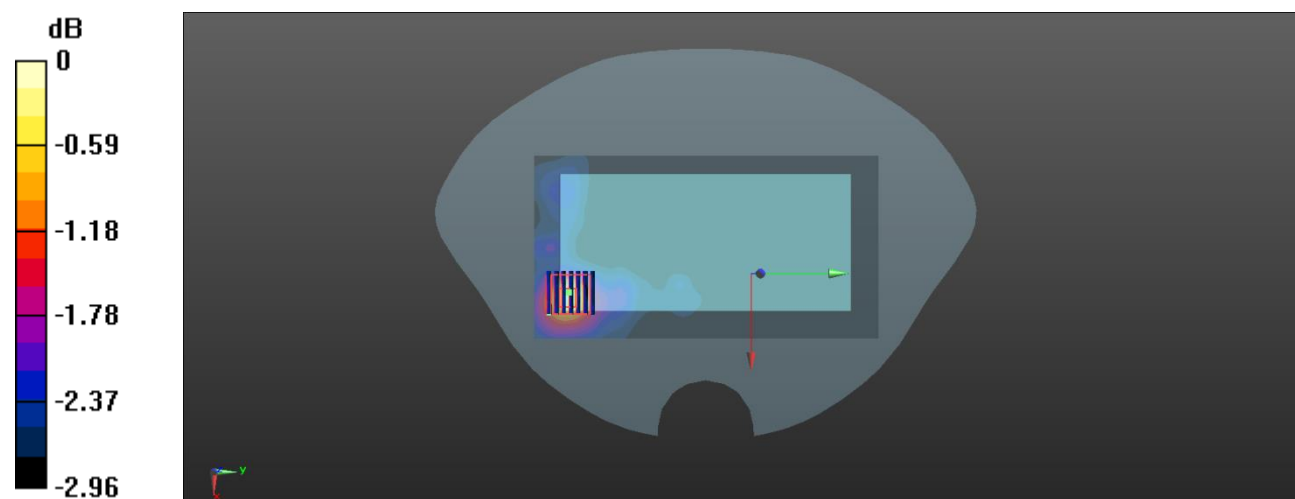
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.793 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.329 W/kg

SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.140 W/kg

Maximum value of SAR (measured) = 0.221 W/kg



0 dB = 0.221 W/kg

Meas.22 Body Plane with Back Side 10mm on 106 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.27

Communication System Band: 5.6G; Frequency: 5530 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5530$ MHz; $\sigma = 4.946$ S/m; $\epsilon_r = 36.089$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (4.98, 4.98, 4.98); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.224 W/kg

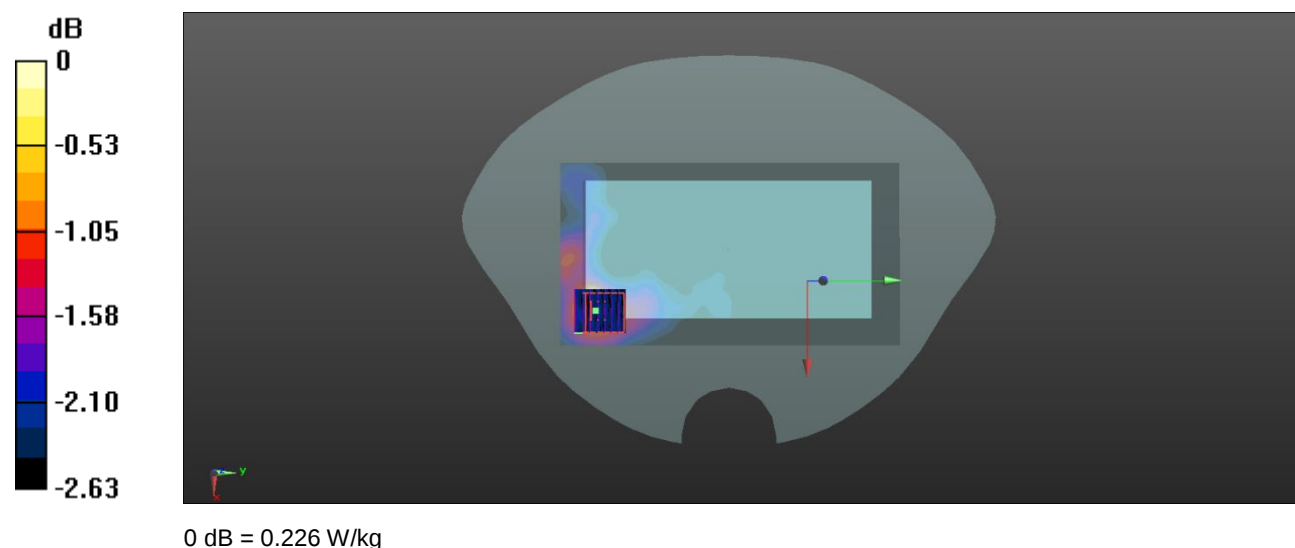
Ch106 /Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.683 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.290 W/kg

SAR(1 g) = 0.182 W/kg; SAR(10 g) = 0.150 W/kg

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



Meas.23 Body Plane with Right Edge 10mm on 42 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.26

Communication System Band: 5.2G; Frequency: 5210 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5210$ MHz; $\sigma = 4.623$ S/m; $\epsilon_r = 36.336$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (5.67, 5.67, 5.67); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch42/Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.296 W/kg

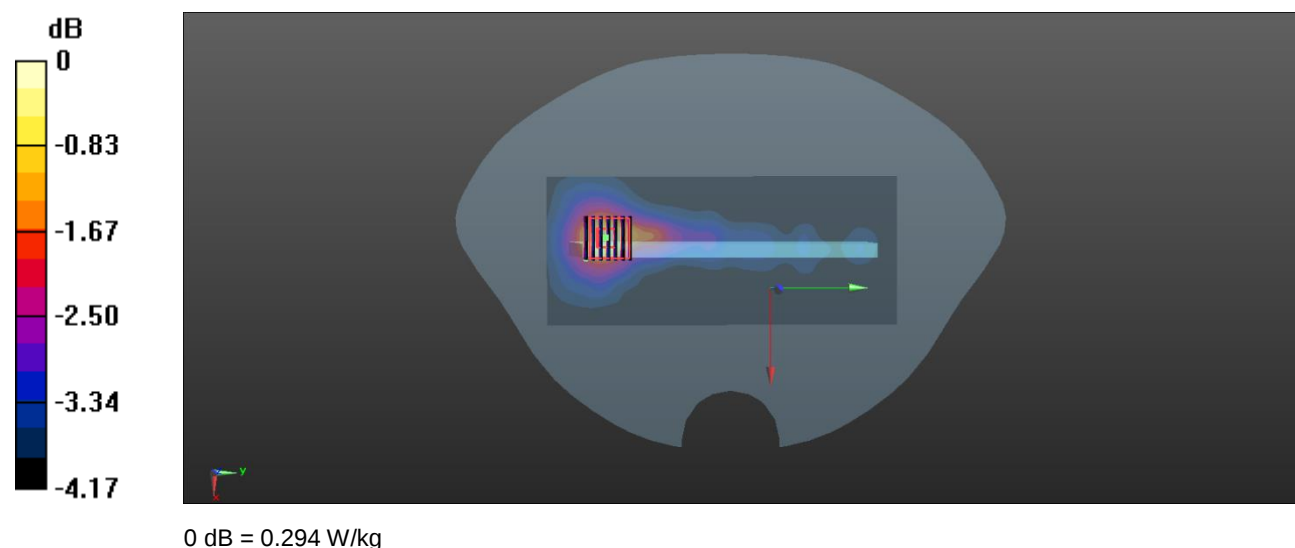
Ch42/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.037 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.157 W/kg

Maximum value of SAR (measured) = 0.294 W/kg



Meas.24 Body Plane with Right Edge 10mm on 155 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.28

Communication System Band: 5.8G; Frequency: 5775 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.223$ S/m; $\epsilon_r = 35.23$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (4.83, 4.83, 4.83); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch155/Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.391 W/kg

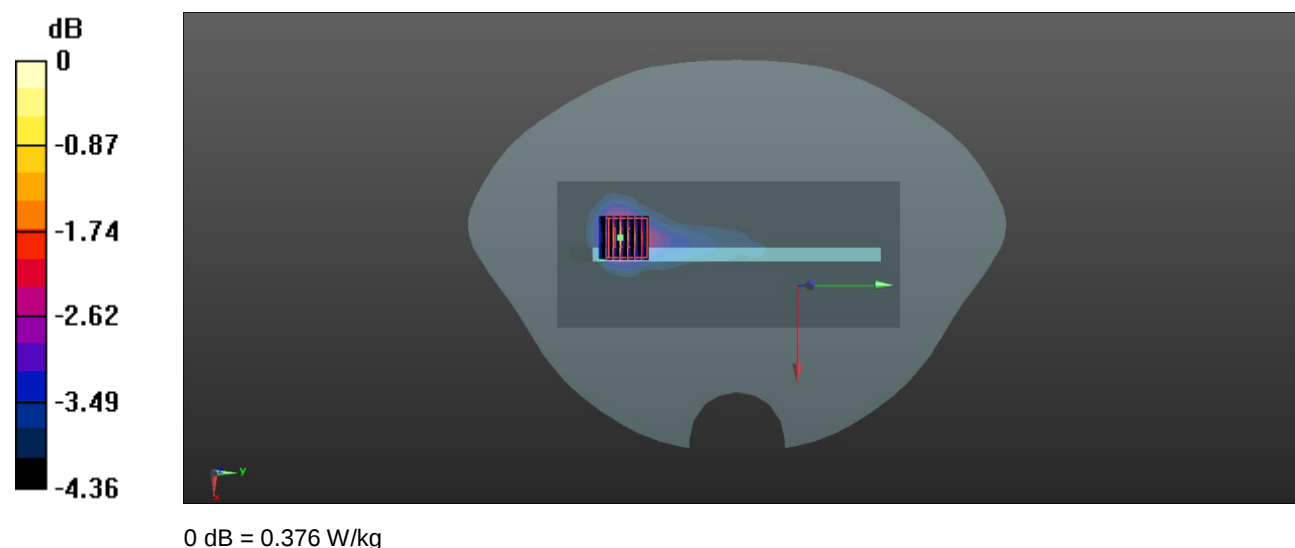
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.241 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.182 W/kg

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



Meas.25 Body Plane with Right Edge 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna

Date: 2023.10.26

Communication System Band: 5.3G; Frequency: 5290 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.786$ S/m; $\epsilon_r = 35.294$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (5.37, 5.37, 5.37); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 1.47 W/kg

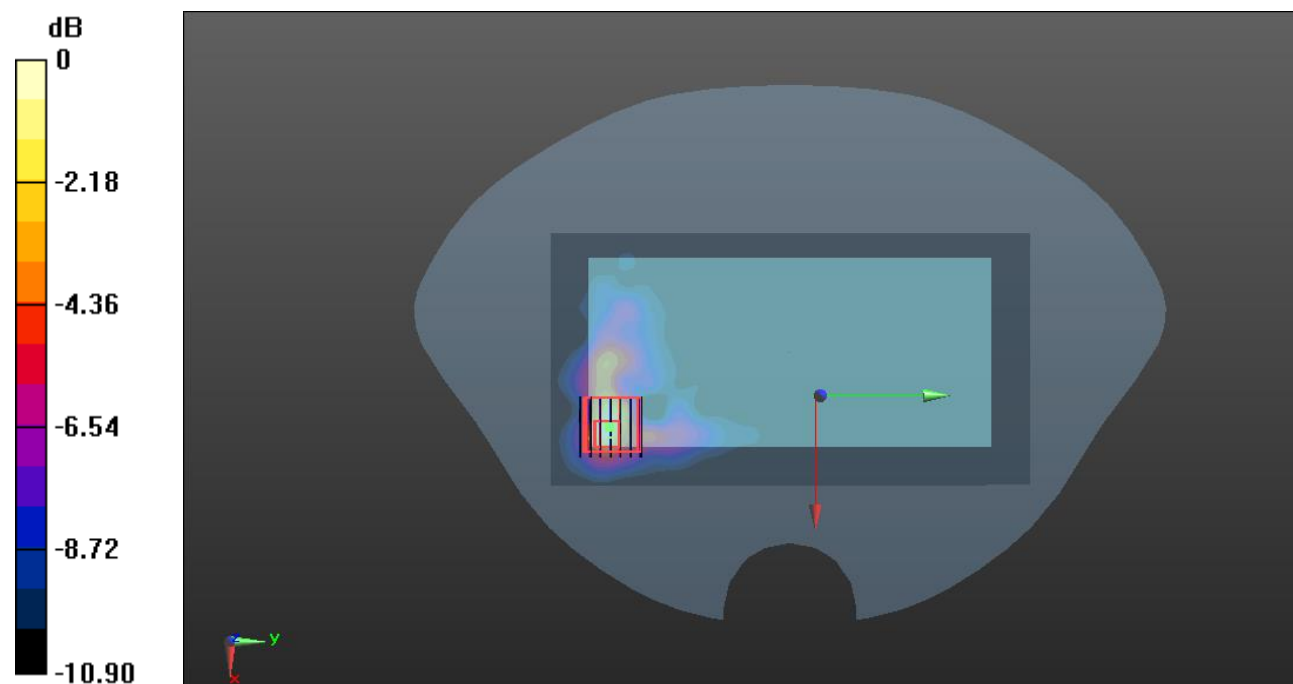
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.526 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 2.67 W/kg

SAR(1 g) = 0.695 W/kg; SAR(10 g) = 0.296 W/kg

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



0 dB = 1.39 W/kg

Meas.26 Body Plane with Right Edge 0mm on 106 Channel in IEEE802.11ac80 mode with Antenna 4

Date: 2023.10.27

Communication System Band: 5.6G; Frequency: 5530 MHz; Duty Cycle: 1:1.133

Medium parameters used (interpolated): $f = 5530$ MHz; $\sigma = 4.946$ S/m; $\epsilon_r = 36.089$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (4.98, 4.98, 4.98); Calibrated: 2023.01.19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch106/Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.99 W/kg

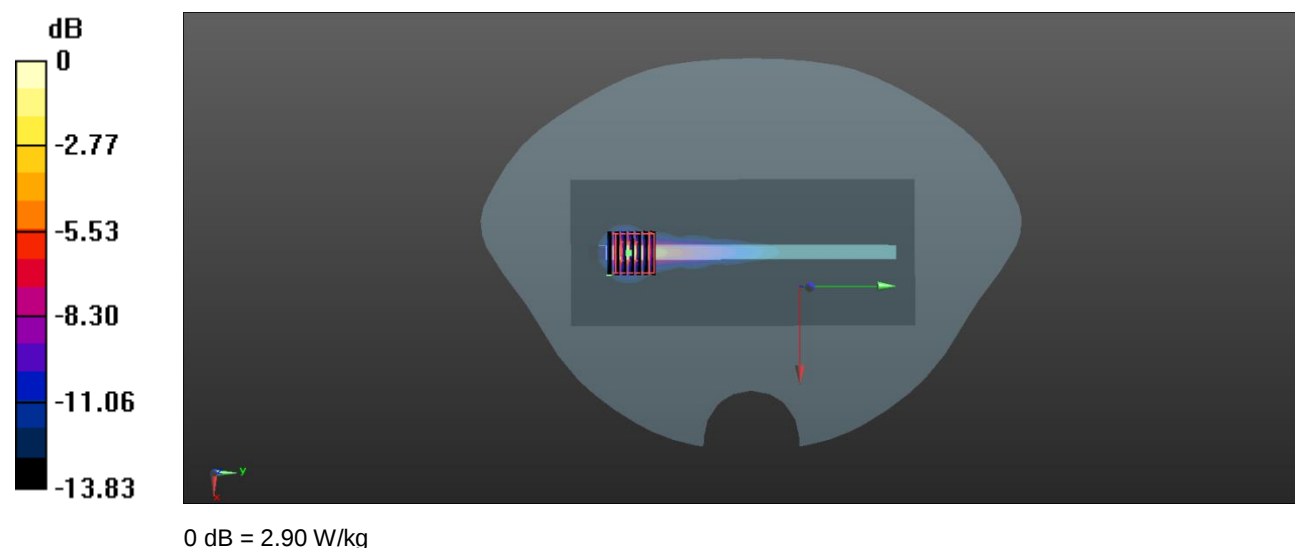
Ch106/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.839 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 6.06 W/kg

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.366 W/kg

Maximum value of SAR (measured) = 2.90 W/kg



Meas.27 Left Head with Cheek on 39 Channel in Bluetooth mode with Antenna 4

Date: 2023.10.19

Communication System Band: BT; Frequency: 2441 MHz; Duty Cycle: 1:1.301

Medium parameters used (interpolated): $f = 2441$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.571$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.78, 7.78, 7.78); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.307 W/kg

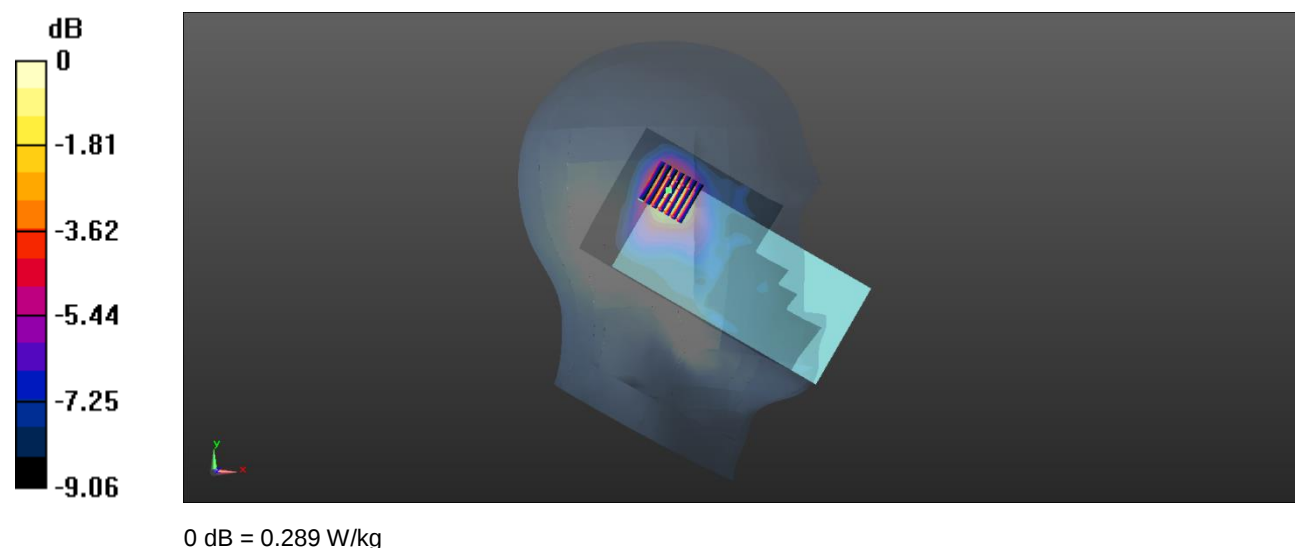
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.094 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.614 W/kg

SAR(1 g) = 0.260 W/kg; SAR(10 g) = 0.148 W/kg

Maximum value of SAR (measured) = 0.289 W/kg



Meas.28 Body Plane with Top Edge 10mm on 39 Channel in Bluetooth mode with Antenna 4

Date: 2023.10.22

Communication System Band: BT; Frequency: 2441 MHz; Duty Cycle: 1:1.301

Medium parameters used (interpolated): $f = 2441$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.571$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.7°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF (7.78, 7.78, 7.78); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39/Area Scan (61x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

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

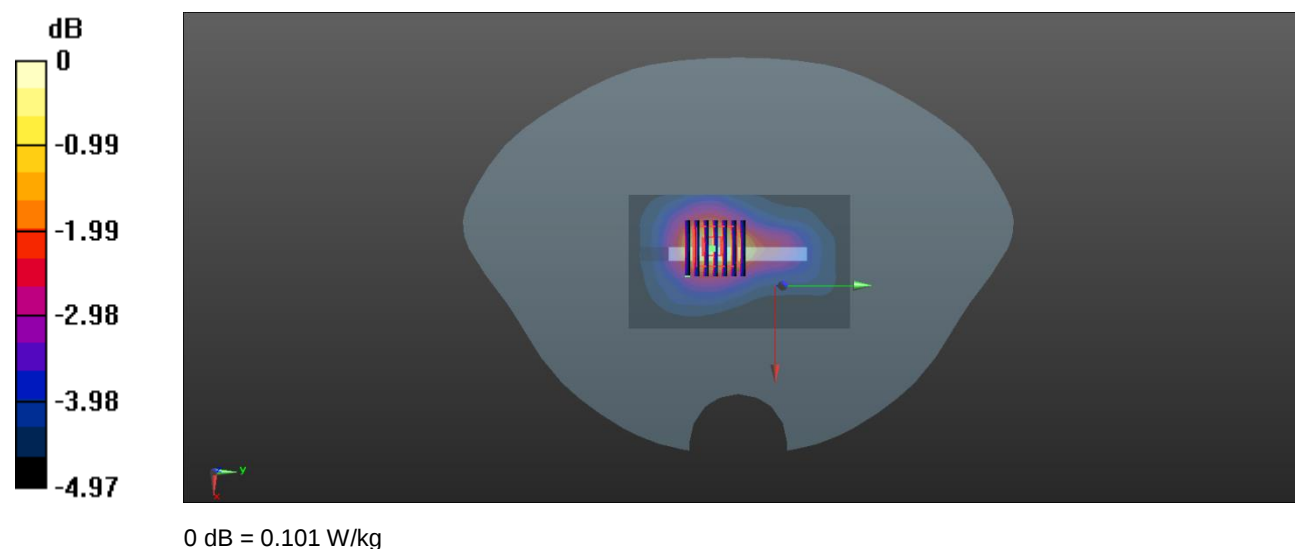
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 6.517 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.139 W/kg

SAR(1 g) = 0.094 W/kg; SAR(10 g) = 0.065 W/kg

Maximum value of SAR (measured) = 0.101 W/kg



Meas.29 Right Head with Cheek on PCC21350+SCC21152 Channel in LTE Band7 mode with Antenna 3

Date: 2023.10.25

Communication System Band: BAND 7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.924$ S/m; $\epsilon_r = 38.759$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21350/Area Scan (81x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

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

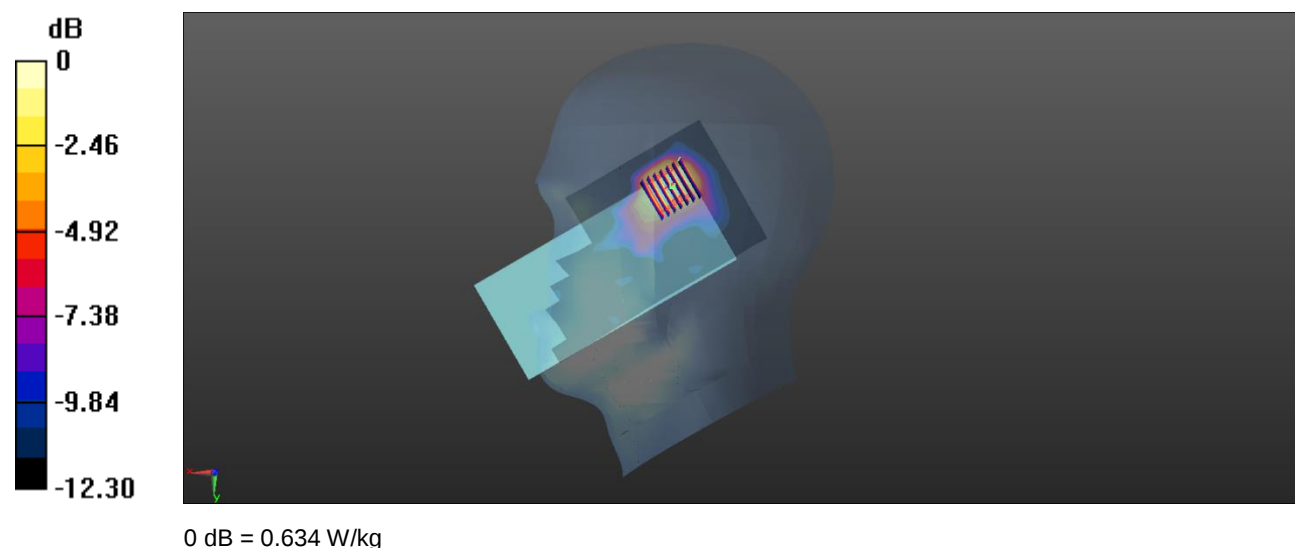
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 6.927 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.546 W/kg; SAR(10 g) = 0.317 W/kg

Maximum value of SAR (measured) = 0.634 W/kg



Meas.30 Body Plane with Bottom Edge 10mm on PCC21100+SCC21298 Channel in LTE Band7 mode with Antenna 1

Date: 2023.10.25

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

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.895$ S/m; $\epsilon_r = 38.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.7, 7.7, 7.7); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.491 W/kg

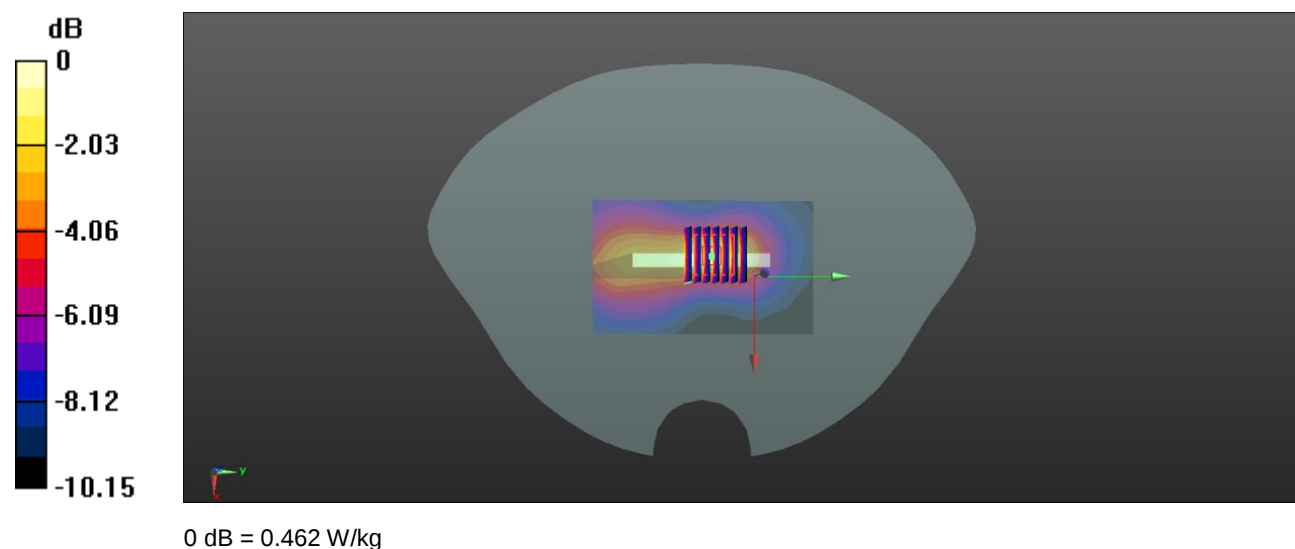
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.37 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.691 W/kg

SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.462 W/kg



Meas.31 Right Head with Cheek on PCC38150+SCC37952 Channel in LTE Band38 mode with Antenna 3

Date: 2023.10.23

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

Medium parameters used (interpolated): $f = 2610$ MHz; $\sigma = 1.986$ S/m; $\epsilon_r = 38.375$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- 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) = 0.396 W/kg

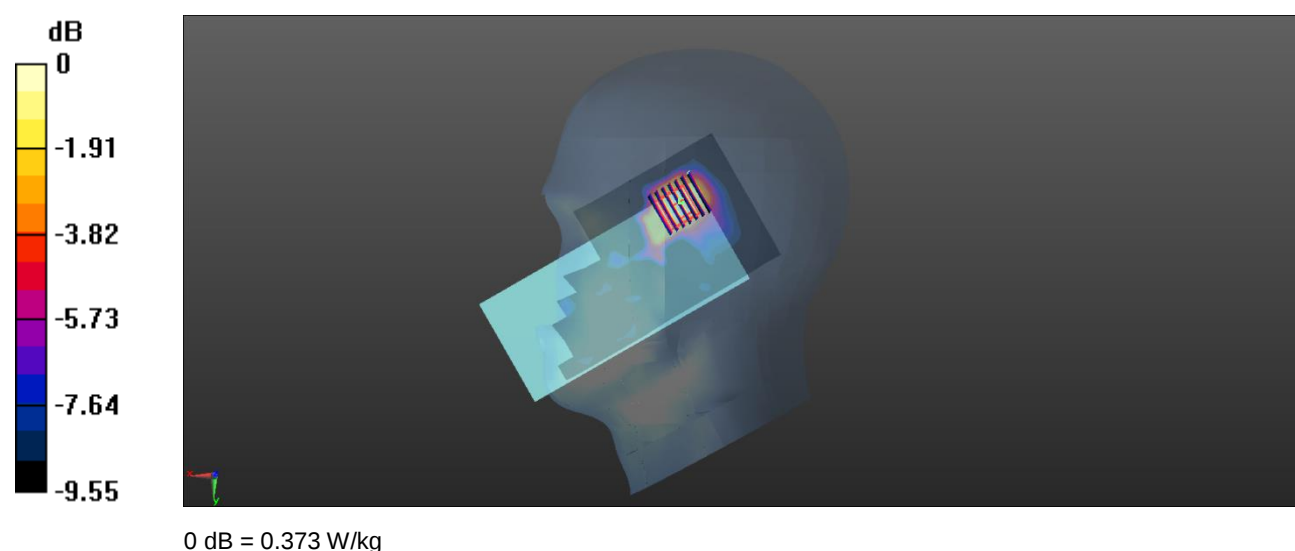
Ch38150/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.143 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.619 W/kg

SAR(1 g) = 0.331 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 0.373 W/kg



Meas.32 Body Plane with Bottom Edge 10mm on PCC38150+SCC37952 Channel in LTE Band38 mode with Antenna 1

Date: 2023.10.23

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

Medium parameters used (interpolated): $f = 2610$ MHz; $\sigma = 1.986$ S/m; $\epsilon_r = 38.375$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C Liquid Temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1454; Calibrated: 2023.03.20
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch38150/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.484 W/kg

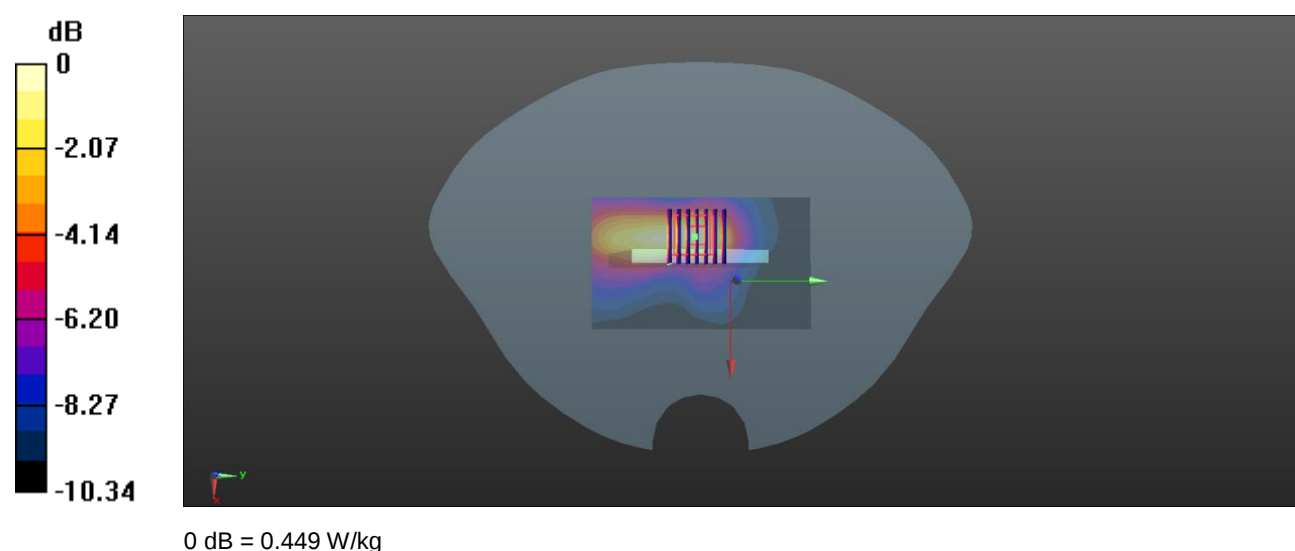
Ch38150/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.15 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.710 W/kg

SAR(1 g) = 0.400 W/kg; SAR(10 g) = 0.213 W/kg

Maximum value of SAR (measured) = 0.449 W/kg



Meas.33 Right Head with Tilt on 661 Channel in GPRS 1900 2Slots with Antenna 3

Date: 2023.11.02

Communication System Band: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.0797

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 39.776$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.05 W/kg

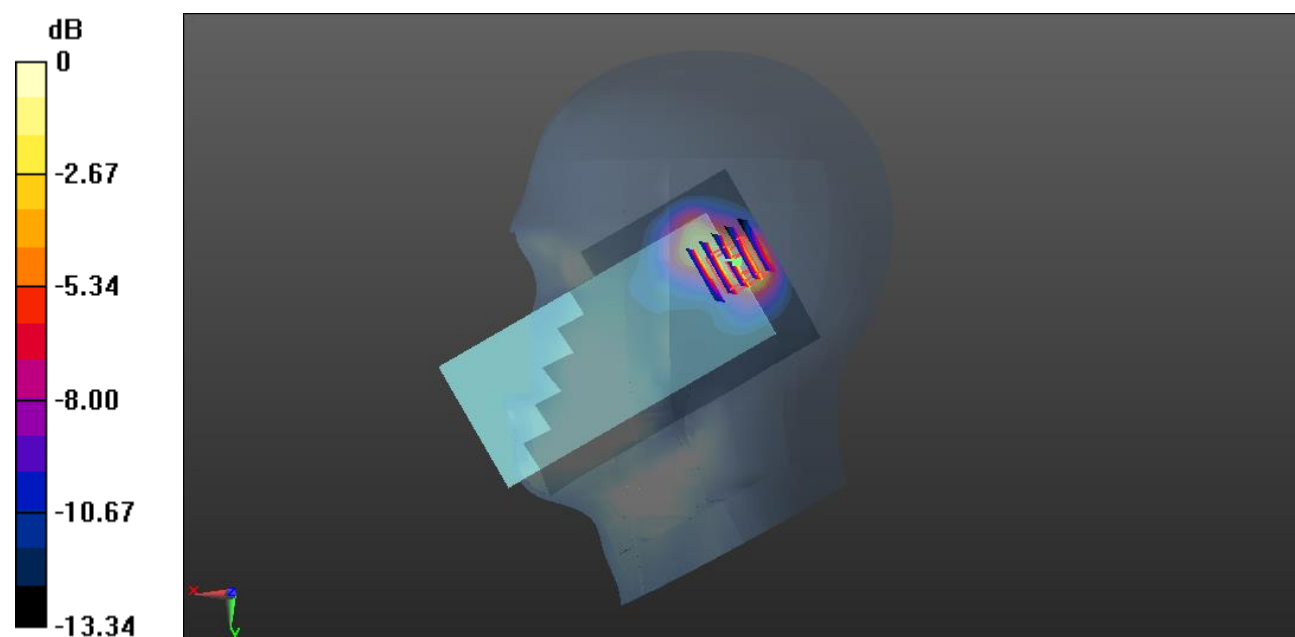
Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.45 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 0.85 W/kg; SAR(10 g) = 0.434 W/kg

Maximum value of SAR (measured) = 0.932 W/kg



0 dB = 0.932 W/kg

Meas.34 Body Plane with Bottom Edge 10mm on Middle Channel in GPRS1900 2Slots mode with Antenna 1

Date: 2023.11.02

Communication System Band: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 39.776$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.21, 8.21, 8.21); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.14 (7501)

Ch661 /Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.805 W/kg

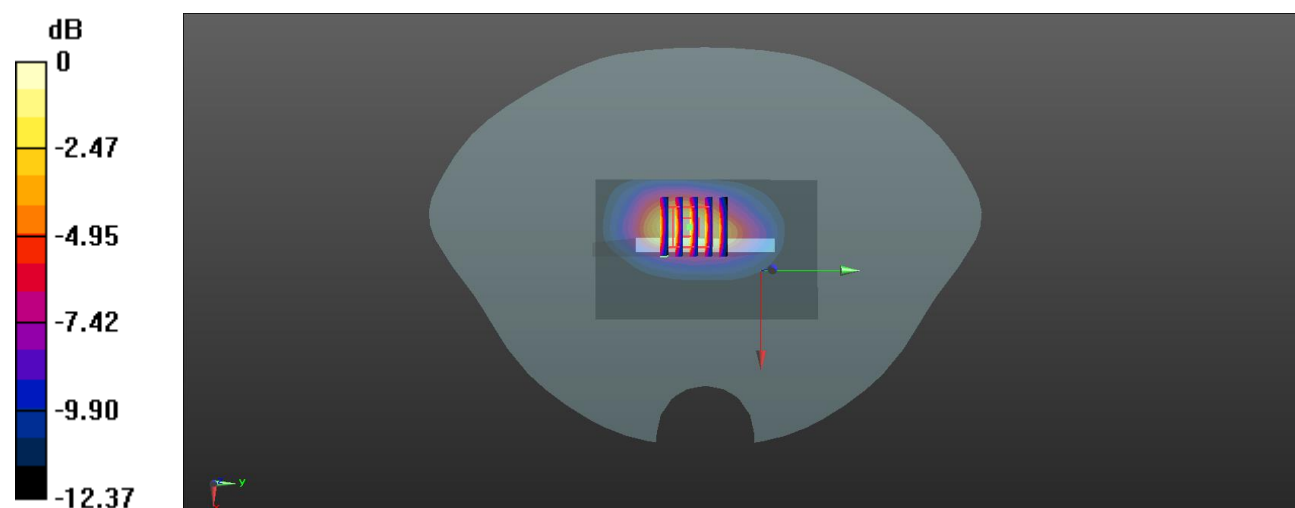
Ch661 /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.60 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.655 W/kg; SAR(10 g) = 0.361 W/kg

Maximum value of SAR (measured) = 0.735 W/kg



0 dB = 0.735 W/kg

Meas.35 Body Plane with Left Edge 0mm on Middle Channel in LTE B7 mode with Antenna 3

Date: 2023.11.02

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

Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.901$ S/m; $\epsilon_r = 39.863$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (61x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 6.29 W/kg

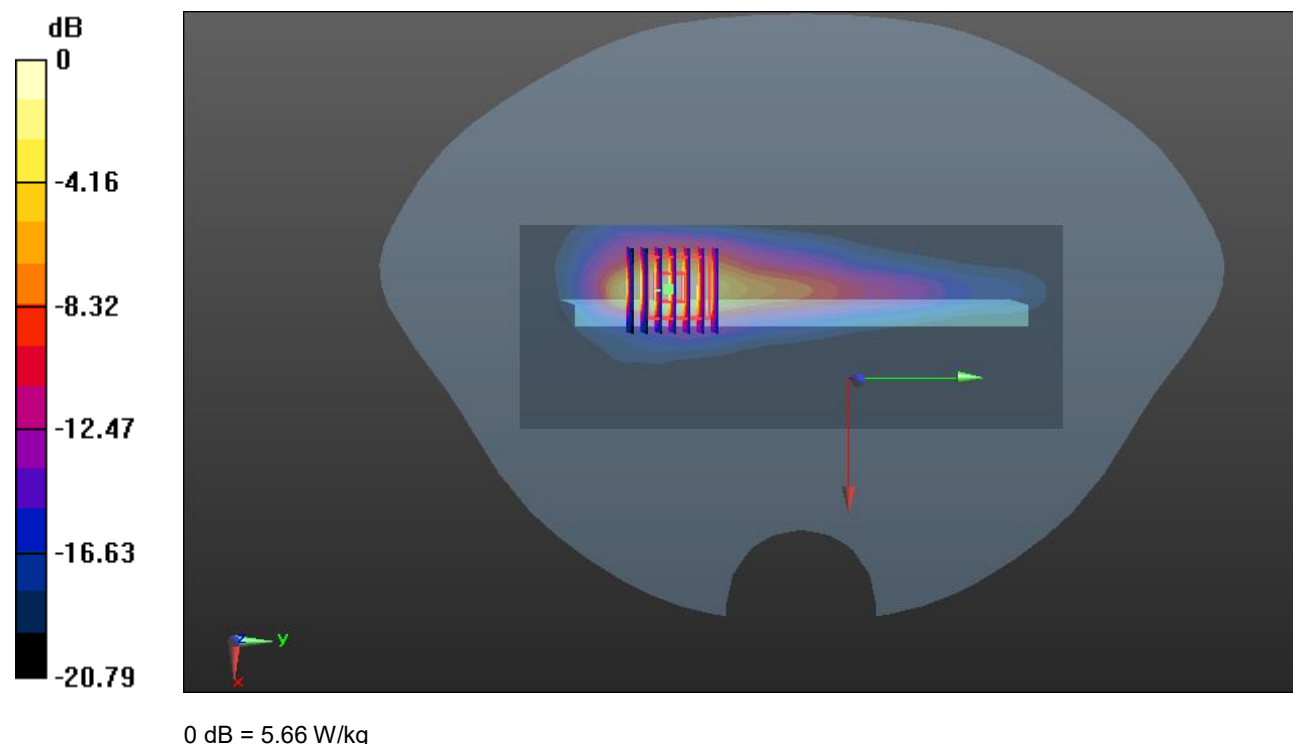
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.32 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 8.88 W/kg

SAR(1 g) = 3.45 W/kg; SAR(10 g) = 1.41 W/kg

Maximum value of SAR (measured) = 5.66 W/kg



Meas.36 Body Plane with Back Side 10mm on High Channel in LTE B41 mode with Antenna 1

Date: 2023.11.02

Communication System Band: BAND41; Frequency: 2636.5 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2636.5$ MHz; $\sigma = 2.038$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.6, 7.6, 7.6); Calibrated: 2023.01.19;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2023.01.30
- Phantom: SAM (20deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CC; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch41055/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

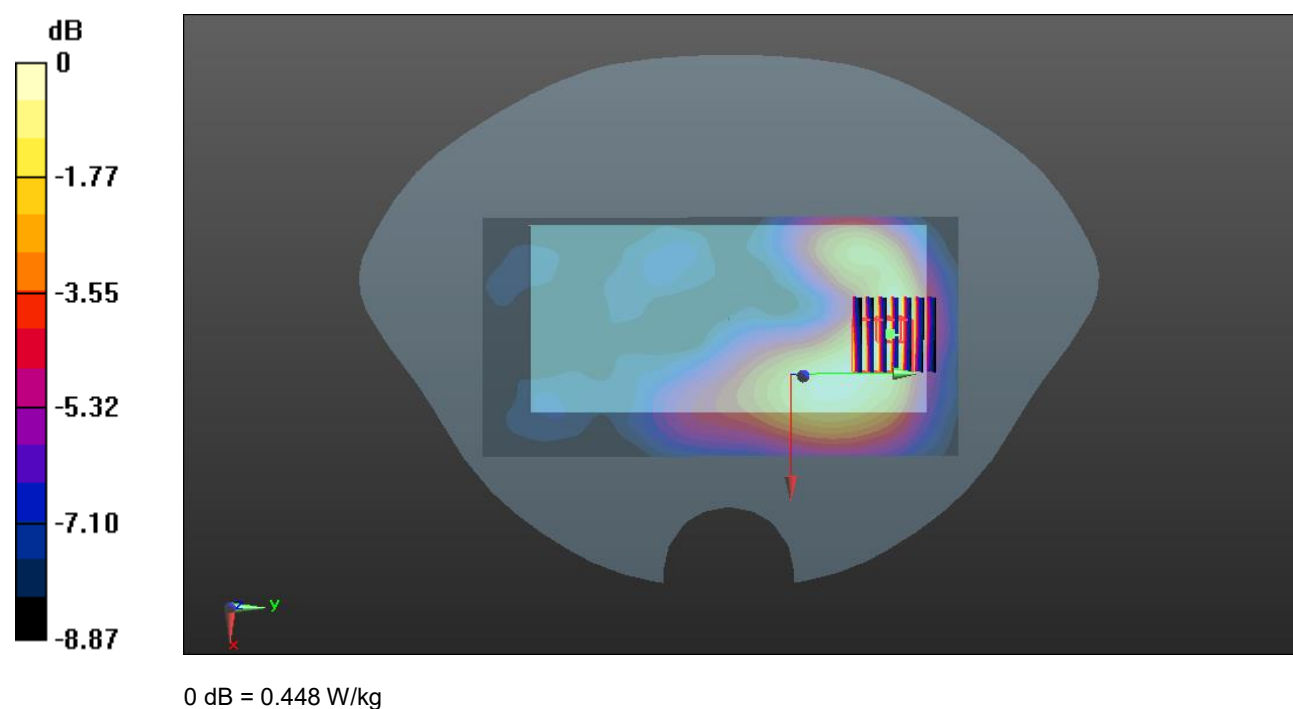
Ch41055/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.412 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.696 W/kg

SAR(1 g) = 0.408 W/kg; SAR(10 g) = 0.243 W/kg

Maximum value of SAR (measured) = 0.448 W/kg



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ23A0971-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ23A0971-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ23A0971-AC.pdf”.

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--END OF REPORT--