

TEST REPORT

Applicant: ITTEL MOBILE LIMITED

Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL
CENTRE 19-25 SHAN MEI STREET FOTAN NT
HONGKONG

Equipment Type: Mobile phone

Model Name: S667LN

Brand Name: itel

FCC ID: 2AJMN-S667LN

Test Standard: FCC 47 CFR Part 2.1093
(refer to section 3.1)

Maximum SAR: Head (1 g@0mm): 1.10 W/kg
Body-worn (1 g@10mm): 0.40 W/kg
Hotspot (1 g@10mm): 0.53 W/kg
Specific (10 g@0mm): 0.55 W/kg

Sample Arrival Date: Dec. 06, 2023

Test Date : Dec. 20, 2023 - Dec. 27, 2023

Date of Issue: Jan. 15, 2024

ISSUED BY:

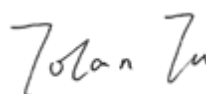
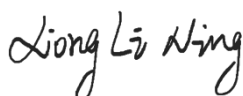
Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining

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(Testing Director)



Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jan. 15, 2024</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	ITEL MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

Manufacturer	ITEL MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile phone
Model Name Under Test	S667LN
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Li-Polymer Battery 1	
	Brand Name	itel
	Model No.	BL-49NI
	Serial No.	N/A
	Capacitance	Rated: 4900mAh/18.86Wh Typical: 5000mAh/19.25Wh
	Rated Voltage	3.85 V
	Limited Voltage	4.40 V

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/17/26/66 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, GLONASS, Galileo, BDS, SBAS, NFC
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

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

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 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 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 26	TX: 814 ~ 824 MHz	RX: 859 ~ 869 MHz
		TX: 814 ~ 824 MHz	RX: 869 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2535 ~ 2655 MHz	RX: 2535 ~ 2655 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	
	NFC	13.56 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		

	NFC: Coil 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

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 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

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	0.52	0.15	0.16	/	1.10	0.40	0.53	0.55
	GSM 1900	1.10	0.31	0.53	/				
	WCDMA Band 2	0.66	0.21	0.29	/				
	WCDMA Band 4	0.83	0.23	0.30	/				
	WCDMA Band 5	0.57	0.17	0.17	/				
	LTE Band 2	0.50	0.15	0.21	/				
	LTE Band 5	0.68	0.19	0.19	/				
	LTE Band 7	0.68	0.40	0.40	/				
	LTE Band 12	0.67	0.25	0.25	/				
	LTE Band 26	0.76	0.21	0.21	/				
	LTE Band 66	0.72	0.23	0.29	/				
	LTE Band 38	0.48	0.31	0.31	/				
	LTE Band 41	0.57	0.33	0.35	/				
DTS	2.4G WLAN	0.55	0.21	0.25	/				
NII	5.2G WLAN	/	/	0.14	/				
	5.3G WLAN	0.43	0.16	/	0.55				
	5.6G WLAN	0.54	0.12	/	0.54				
	5.8G WLAN	0.54	0.13	0.14	/				
DSS	Bluetooth	0.11	0.05	0.07	/				
Limit (W/kg)		1.6			4.0				
Verdict		PASS							
Note: This device supports both LTE Band 4/17 and Band 66/12. Since the supported frequency span for LTE Band 4/17 falls completely within the supports frequency span for LTE Band 66/12, three LTE bands have the same target power, and three LTE bands share the same transmission path; therefore, SAR was only assessed for LTE Band 66/12.									

3.4 Test Uncertainty

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

The maximum 1 g SAR for the EUT in this report is 1.10 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 0.55 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

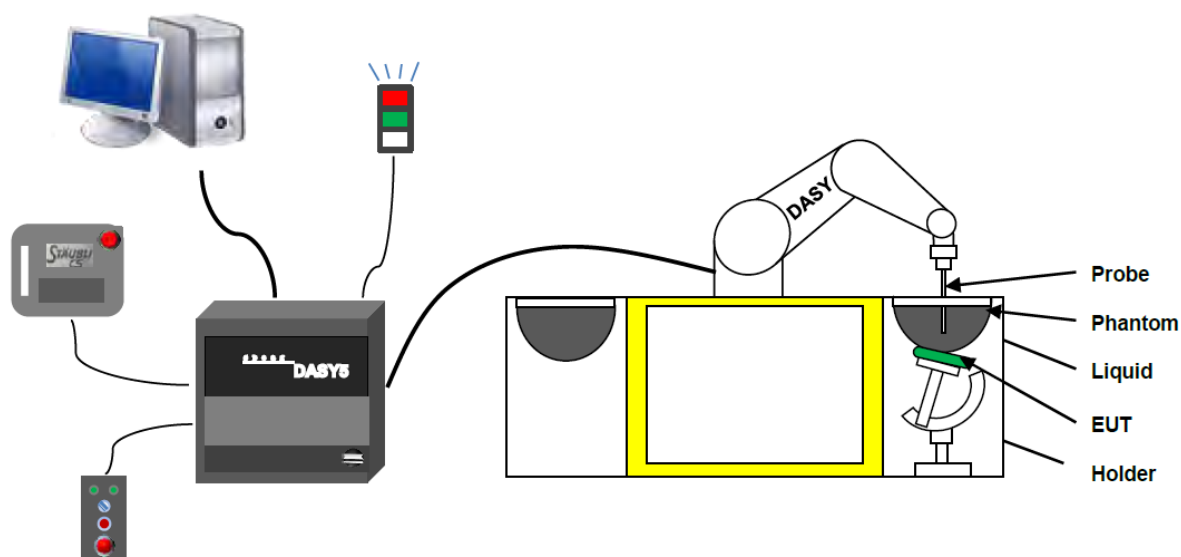
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

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:7607 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-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

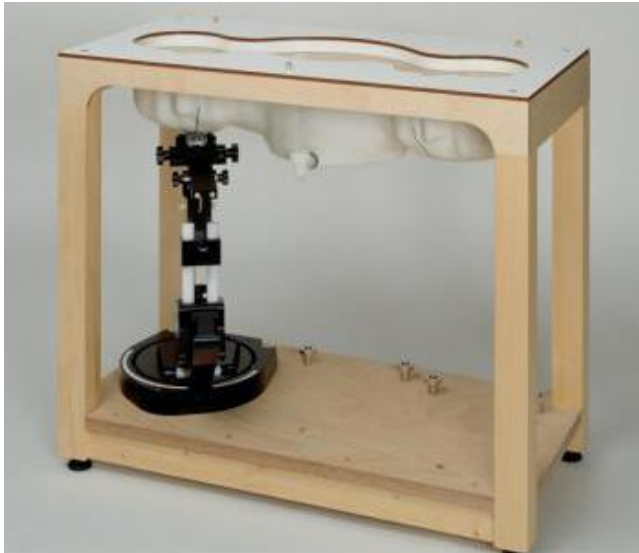
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through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



- Input Impedance: 200M Ω m
- 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 SN1859



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

4.2.6 Device Holder

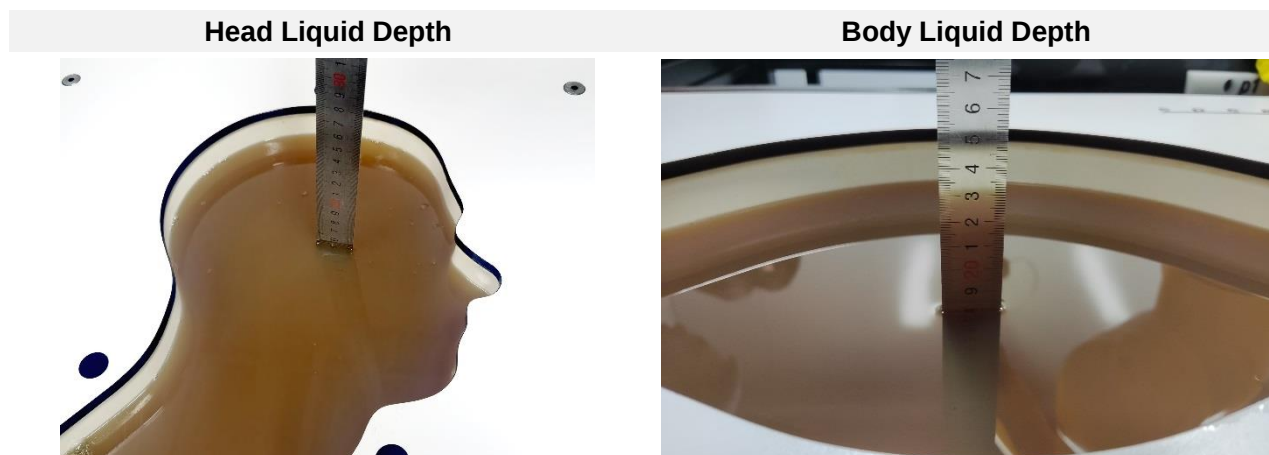
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for 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	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

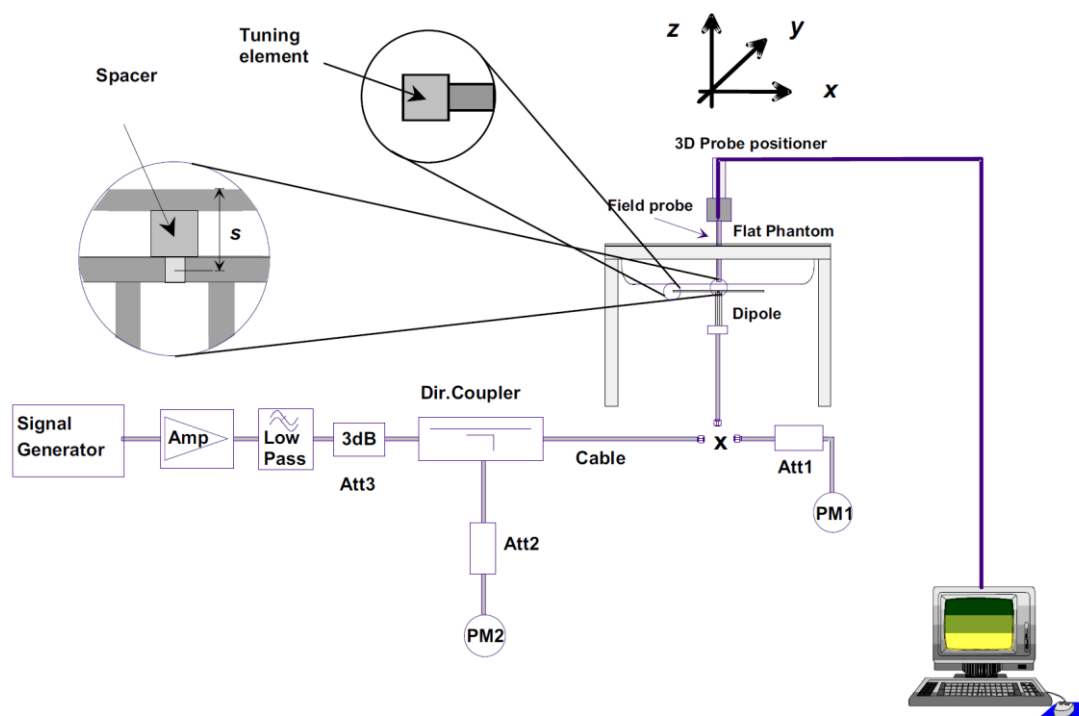
5 SYSTEM VERIFICATION

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

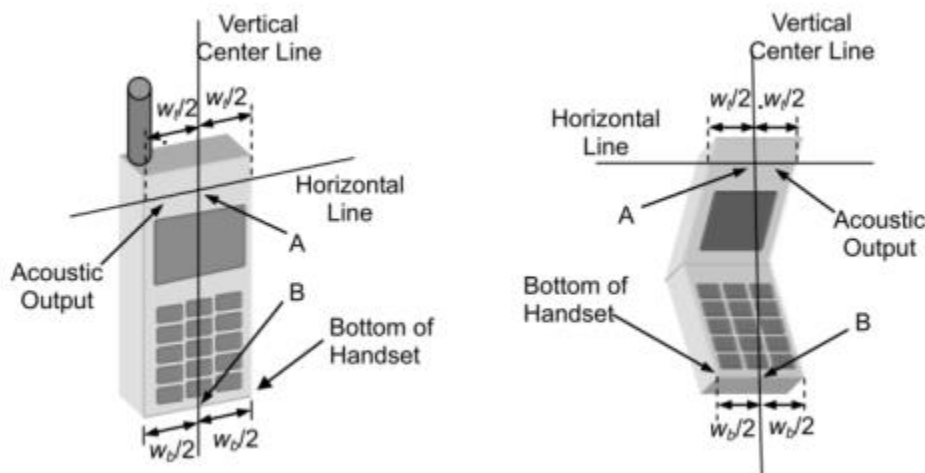
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

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.

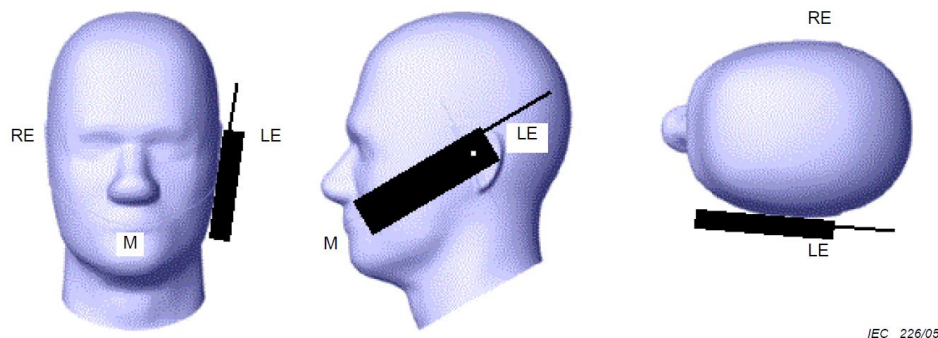
6.1.1 Two Imaginary Lines on the Handset

- (a) The vertical center line passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.
- (b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- (c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



6.1.2 Cheek Position

- (a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- (b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.



6.1.3 Tilted Position

- To position the device in the “cheek” position described above.
- 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.

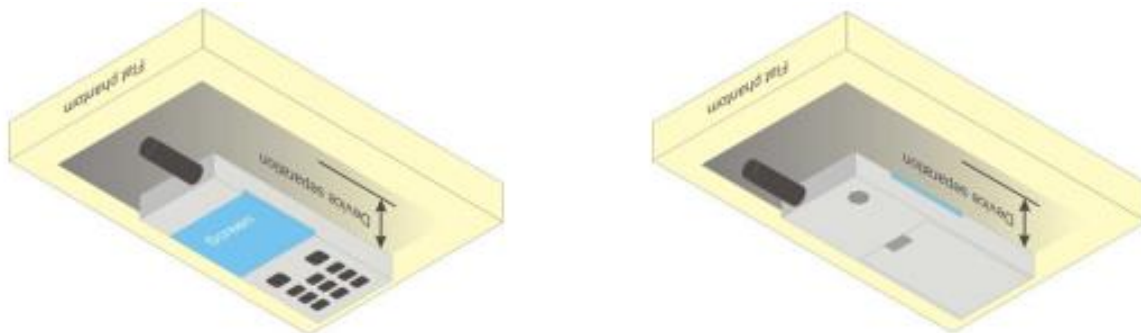


6.2 Body-worn Position Conditions

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.

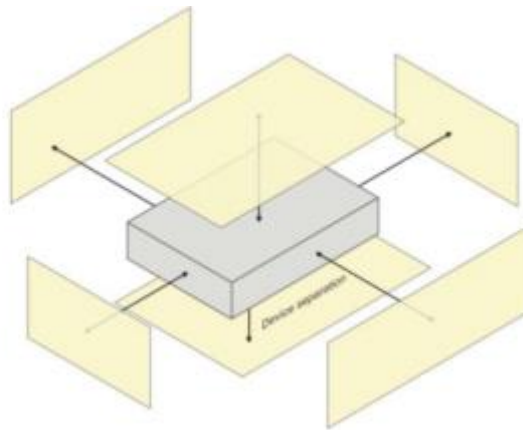
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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

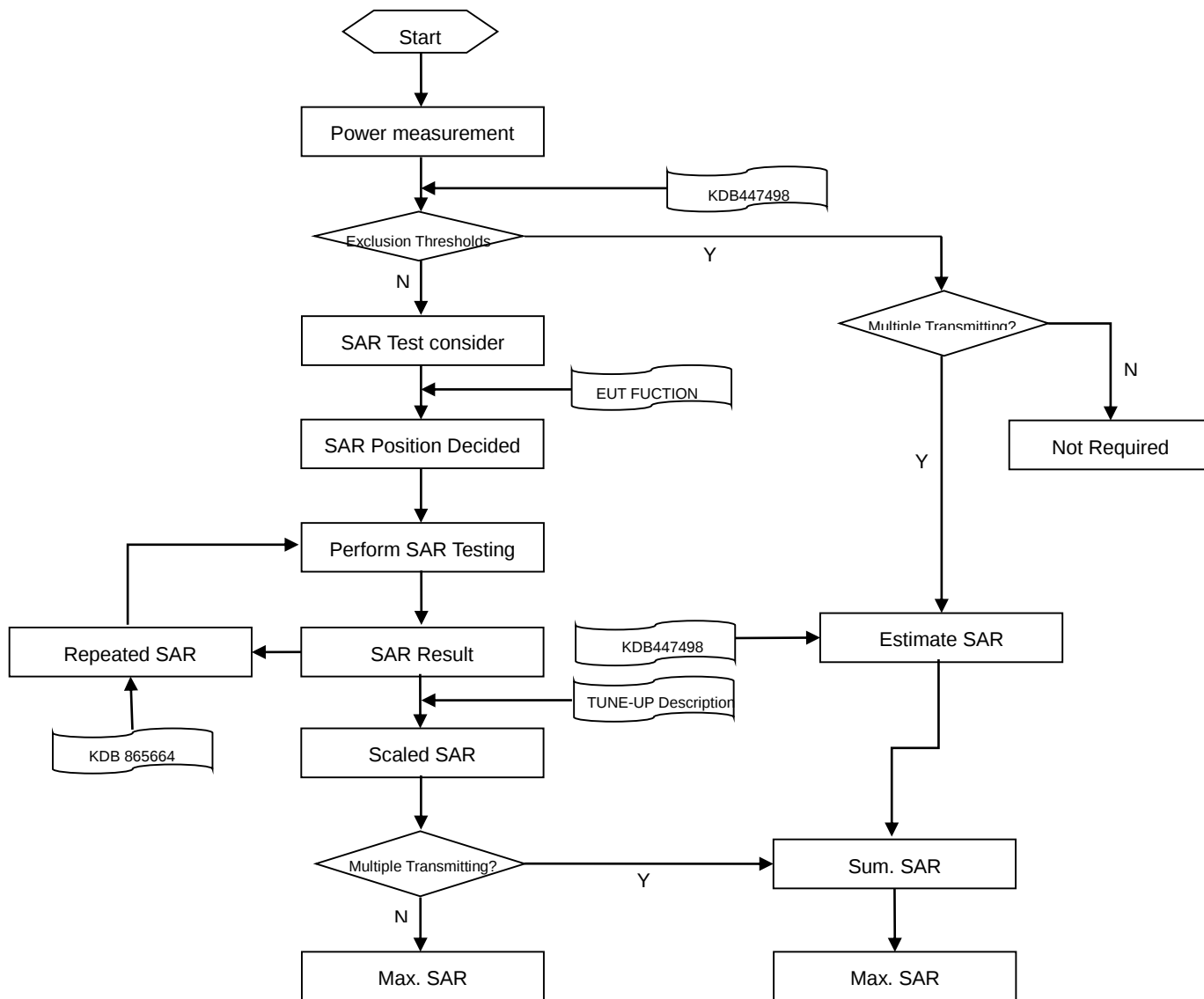
The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address 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	½·δ·ln(2)±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 “BL-SZ23C0328-AP Power List.pdf”.

8.2 WCDMA

Please refer the document “BL-SZ23C0328-AP Power List.pdf”.

8.3 LTE

Please refer the document “BL-SZ23C0328-AP Power List.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	AV Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	18.07	18.50	Yes
		6	2437	18.05	18.50	Yes
		11	2462	18.17	18.50	Yes
	802.11g	1	2412	15.91	16.50	No
		6	2437	15.99	16.50	No
		11	2462	15.78	16.50	No
	802.11n(HT20)	1	2412	15.80	16.50	No
		6	2437	15.78	16.50	No
		11	2462	15.47	16.50	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 = $0.553 * (89.13\text{mW}/112.20\text{mW}) = 0.876$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	AV Power(dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	15.80	16.50	No
		44	5220	15.77	16.50	No
		48	5240	15.31	16.50	No
	802.11n(HT20)	36	5180	15.65	16.50	No
		44	5220	15.77	16.50	No
		48	5240	15.80	16.50	No
	802.11n(HT40)	38	5190	15.65	16.50	No
		46	5230	15.61	16.50	No
	802.11ac(VHT20)	36	5180	15.76	16.50	No
		44	5220	15.81	16.50	No
		48	5240	15.71	16.50	No
	802.11ac(VHT40)	38	5190	15.79	16.50	No
		46	5230	15.75	16.50	No
	802.11ac(VHT80)	42	5210	15.53	16.50	Yes
5.3 (5.25~5.35)	802.11a	52	5260	15.39	16.50	No
		60	5300	15.39	16.50	No
		64	5320	15.38	16.50	No
	802.11n(HT20)	52	5260	15.73	16.50	No
		60	5300	15.89	16.50	No
		64	5320	15.98	16.50	No
	802.11n(HT40)	54	5270	15.79	16.50	No
		62	5310	15.65	16.50	No
	802.11ac(VHT20)	52	5260	15.78	16.50	No
		60	5300	15.92	16.50	No
		64	5320	16.03	16.50	No
	802.11ac(VHT40)	54	5270	15.81	16.50	No
		62	5310	15.75	16.50	No
	802.11ac(VHT80)	58	5290	15.48	16.50	Yes
5.6 (5.47~5.725)	802.11a	100	5500	16.40	16.50	No
		116	5580	16.44	16.50	No
		140	5700	16.32	16.50	No
	802.11n(HT20)	100	5500	16.21	16.50	No
		116	5580	16.18	16.50	No
		140	5700	16.17	16.50	No
	802.11n(HT40)	102	5510	16.04	16.50	No
		118	5590	16.14	16.50	No

	802.11ac(VHT20)	134	5670	15.82	16.50	No
		100	5500	16.25	16.50	No
		116	5580	16.23	16.50	No
		140	5700	16.10	16.50	No
	802.11ac(VHT40)	102	5510	16.05	16.50	No
		118	5590	16.10	16.50	No
		134	5670	15.95	16.50	No
	802.11ac(VHT80)	106	5530	16.33	16.50	Yes
		122	5690	16.38	16.50	Yes
5.8 (5.725~5.850)	802.11a	149	5745	15.77	16.50	No
		157	5785	15.79	16.50	No
		165	5825	15.69	16.50	No
	802.11n(HT20)	149	5745	15.70	16.50	No
		157	5785	15.63	16.50	No
		165	5825	15.67	16.50	No
	802.11n(HT40)	151	5755	15.47	16.50	No
		159	5795	15.45	16.50	No
	802.11ac(VHT20)	149	5745	15.72	16.50	No
		157	5785	15.75	16.50	No
		165	5825	15.66	16.50	No
	802.11ac(VHT40)	151	5755	15.51	16.50	No
		159	5795	15.34	16.50	No
	802.11ac(VHT80)	155	5775	15.24	16.50	Yes

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

8.5 Bluetooth

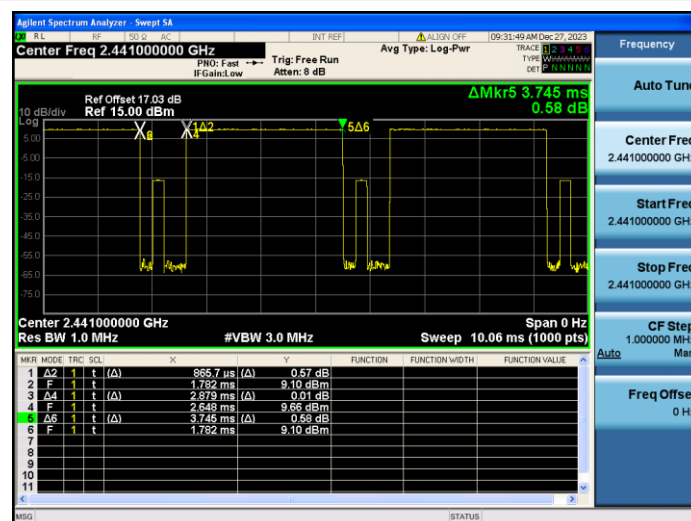
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
AV Power(dBm)	12.71	10.36	7.33	10.02	7.50	3.30
Tune-Up Limit (dBm)	13.00	11.0	8.00	11.00	8.00	4.00
SAR Test Require	YES	YES	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
AV Power(dBm)	9.99	7.46	3.65	/	/	/
Tune-Up Limit (dBm)	11.00	8.00	4.00	/	/	/
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
AV Power(dBm)	-1.91	-1.60	-2.80	-1.79	-1.52	-2.72
Tune-Up Limit (dBm)	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
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 $\leq \frac{1}{4}$ dB higher than the primary mode.

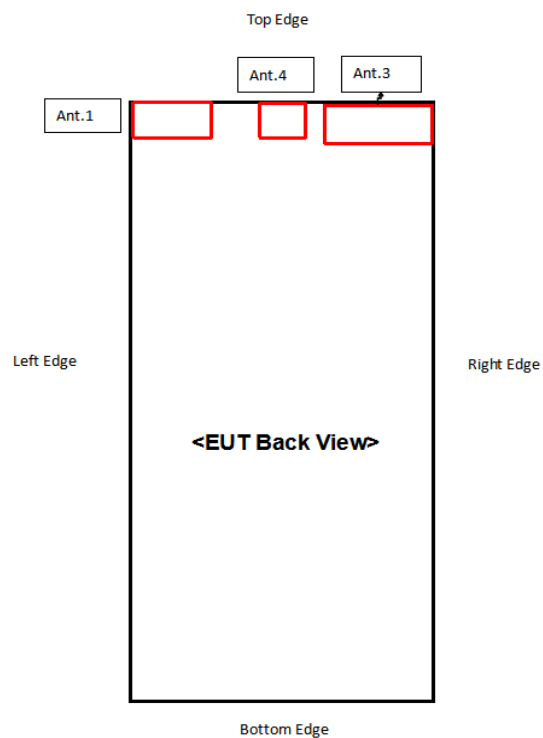
The Bluetooth duty cycle is 76.88 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

Bluetooth-GFSK



9 TEST EXCLUSION CONSIDERATION



Antenna	Support Bands
Antenna 1	WIFI2.4G; Bluetooth
Antenna 3	GSM850/1900
	WCDMA 2/4/5
	LTE B2/4/5/7/12/17/26/38/41/66
Antenna 4	WIFI5G

9.1 SAR Test Exclusion Consideration Table

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

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.

10 TEST RESULT

10.1GSM 850

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
ANT3	DATA 2 Slots	Left Cheek	0	251	848.8	0.14	0.311	28.41	29.00	1.146	0.356	/
ANT3	DATA 2 Slots	Left Tilt	0	251	848.8	-0.12	0.400	28.41	29.00	1.146	0.458	/
ANT3	DATA 2 Slots	Right Cheek	0	251	848.8	-0.05	0.349	28.41	29.00	1.146	0.400	/
ANT3	DATA 2 Slots	Right Tilt	0	251	848.8	0.05	0.449	28.41	29.00	1.146	0.515	1#
Body-worn&Hotspot												
ANT3	DATA 2 Slots	Front Side	10	251	848.8	-0.18	0.100	28.41	29.00	1.146	0.115	/
ANT3	DATA 2 Slots	Back Side	10	251	848.8	-0.17	0.132	28.41	29.00	1.146	0.151	/
ANT3	DATA 2 Slots	Right Edge	10	251	848.8	0.03	0.055	28.41	29.00	1.146	0.063	/
ANT3	DATA 2 Slots	Top Edge	10	251	848.8	0.12	0.141	28.41	29.00	1.146	0.162	2#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.2GSM 1900

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
ANT3	DATA 2 Slots	Left Cheek	0	512	1850.2	0.00	0.502	23.20	24.00	1.202	0.603	/
ANT3	DATA 2 Slots	Left Tilt	0	512	1850.2	0.04	0.622	23.20	24.00	1.202	0.748	/
ANT3	DATA 2 Slots	Right Cheek	0	512	1850.2	-0.03	0.788	23.20	24.00	1.202	0.947	/
ANT3	DATA 2 Slots	Right Tilt	0	512	1850.2	-0.02	0.954	23.40	24.00	1.148	1.095	3#
ANT3	DATA 2 Slots	Right Cheek	0	661	1880.0	-0.09	0.723	22.98	24.00	1.265	0.915	/
ANT3	DATA 2 Slots	Right Cheek	0	810	1909.8	0.03	0.556	22.95	24.00	1.274	0.708	/
ANT3	DATA 2 Slots	Right Tilt	0	661	1880.0	-0.03	0.833	22.98	24.00	1.265	1.054	/
ANT3	DATA 2 Slots	Right Tilt	0	810	1909.8	0.01	0.802	22.95	24.00	1.274	1.022	/
Body-worn&Hotspot												
ANT3	DATA 2 Slots	Front Side	10	512	1850.2	-0.12	0.146	23.20	24.00	1.202	0.175	/
ANT3	DATA 2 Slots	Back Side	10	512	1850.2	-0.10	0.255	23.20	24.00	1.202	0.307	/
ANT3	DATA 2 Slots	Right Edge	10	512	1850.2	-0.11	0.033	23.20	24.00	1.202	0.040	/
ANT3	DATA 2 Slots	Top Edge	10	512	1850.2	0.15	0.441	23.20	24.00	1.202	0.530	4#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.3WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
ANT3	RMC	Left Cheek	0	9400	1880.0	0.13	0.271	16.19	17.00	1.205	0.327	/
ANT3	RMC	Left Tilt	0	9400	1880.0	0.18	0.332	16.19	17.00	1.205	0.400	/
ANT3	RMC	Right Cheek	0	9400	1880.0	0.15	0.416	16.19	17.00	1.205	0.501	/
ANT3	RMC	Right Tilt	0	9400	1880.0	-0.09	0.547	16.19	17.00	1.205	0.659	5#
Body-worn&Hotspot												
ANT3	RMC	Front Side	10	9400	1880.0	0.02	0.087	16.19	17.00	1.205	0.105	/
ANT3	RMC	Back Side	10	9400	1880.0	0.08	0.175	16.19	17.00	1.205	0.211	/
ANT3	RMC	Right Edge	10	9400	1880.0	0.09	0.023	16.19	17.00	1.205	0.028	/
ANT3	RMC	Top Edge	10	9400	1880.0	0.08	0.237	16.19	17.00	1.205	0.286	6#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
ANT3	RMC	Left Cheek	0	1513	1752.6	0.00	0.322	15.13	16.00	1.222	0.393	/
ANT3	RMC	Left Tilt	0	1513	1752.6	0.09	0.416	15.13	16.00	1.222	0.508	/
ANT3	RMC	Right Cheek	0	1513	1752.6	-0.02	0.556	15.13	16.00	1.222	0.679	/
ANT3	RMC	Right Tilt	0	1513	1752.6	0.02	0.681	15.13	16.00	1.222	0.832	7#
Body-worn&Hotspot												
ANT3	RMC	Front Side	10	1513	1752.6	0.06	0.121	15.13	16.00	1.222	0.148	/
ANT3	RMC	Back Side	10	1513	1752.6	0.07	0.188	15.13	16.00	1.222	0.230	/
ANT3	RMC	Right Edge	10	1513	1752.6	0.12	0.016	15.13	16.00	1.222	0.020	/
ANT3	RMC	Top Edge	10	1513	1752.6	0.18	0.241	15.13	16.00	1.222	0.295	8#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
ANT3	RMC	Left Cheek	0	4233	846.6	-0.05	0.385	22.45	23.00	1.135	0.437	/
ANT3	RMC	Left Tilt	0	4233	846.6	0.07	0.353	22.45	23.00	1.135	0.401	/
ANT3	RMC	Right Cheek	0	4233	846.6	0.08	0.506	22.45	23.00	1.135	0.574	9#
ANT3	RMC	Right Tilt	0	4233	846.6	-0.02	0.466	22.45	23.00	1.135	0.529	/
Body-worn&Hotspot												
ANT3	RMC	Front Side	10	4233	846.6	0.10	0.123	22.45	23.00	1.135	0.140	/
ANT3	RMC	Back Side	10	4233	846.6	-0.05	0.146	22.45	23.00	1.135	0.166	10#
ANT3	RMC	Right Edge	10	4233	846.6	-0.13	0.063	22.45	23.00	1.135	0.072	/
ANT3	RMC	Top Edge	10	4233	846.6	0.09	0.116	22.45	23.00	1.135	0.132	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.6LTE Band 2 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	18900	1880	1	Mid.	0.17	0.211	15.28	16.00	1.180	0.249	/
ANT3	QPSK	Left Cheek	0	18900	1880	50	Mid.	-0.11	0.171	14.20	15.00	1.202	0.206	/
ANT3	QPSK	Left Tilt	0	18900	1880	1	Mid.	0.05	0.243	15.28	16.00	1.180	0.287	/
ANT3	QPSK	Left Tilt	0	18900	1880	50	Mid.	-0.09	0.206	14.20	15.00	1.202	0.248	/
ANT3	QPSK	Right Cheek	0	18900	1880	1	Mid.	0.13	0.336	15.28	16.00	1.180	0.396	/
ANT3	QPSK	Right Cheek	0	18900	1880	50	Mid.	-0.06	0.271	14.20	15.00	1.202	0.326	/
ANT3	QPSK	Right Tilt	0	18900	1880	1	Mid.	0.01	0.422	15.28	16.00	1.180	0.498	11#
ANT3	QPSK	Right Tilt	0	18900	1880	50	Mid.	-0.05	0.388	14.20	15.00	1.202	0.466	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	18900	1880	1	Mid.	0.03	0.068	15.28	16.00	1.180	0.080	/
ANT3	QPSK	Front Side	10	18900	1880	50	Mid.	-0.05	0.057	14.20	15.00	1.202	0.069	/
ANT3	QPSK	Back Side	10	18900	1880	1	Mid.	-0.12	0.125	15.28	16.00	1.180	0.148	/
ANT3	QPSK	Back Side	10	18900	1880	50	Mid.	-0.12	0.113	14.20	15.00	1.202	0.136	/
ANT3	QPSK	Right Edge	10	18900	1880	1	Mid.	-0.02	0.023	15.28	16.00	1.180	0.027	/
ANT3	QPSK	Right Edge	10	18900	1880	50	Mid.	-0.02	0.016	14.20	15.00	1.202	0.019	/
ANT3	QPSK	Top Edge	10	18900	1880	1	Mid.	0.08	0.175	15.28	16.00	1.180	0.207	12#
ANT3	QPSK	Top Edge	10	18900	1880	50	Mid.	0.02	0.151	14.20	15.00	1.202	0.182	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.7LTE Band 5 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	20600	844	1	Mid.	-0.08	0.451	22.99	23.50	1.125	0.507	/
ANT3	QPSK	Left Cheek	0	20600	844	50	Mid.	-0.09	0.358	21.94	22.50	1.138	0.407	/
ANT3	QPSK	Left Tilt	0	20600	844	1	Mid.	0.16	0.419	22.99	23.50	1.125	0.471	/
ANT3	QPSK	Left Tilt	0	20600	844	50	Mid.	0.09	0.315	21.94	22.50	1.138	0.358	/
ANT3	QPSK	Right Cheek	0	20600	844	1	Mid.	-0.05	0.601	22.99	23.50	1.125	0.676	13#
ANT3	QPSK	Right Cheek	0	20600	844	50	Mid.	0.17	0.495	21.94	22.50	1.138	0.563	/
ANT3	QPSK	Right Tilt	0	20600	844	1	Mid.	-0.16	0.538	22.99	23.50	1.125	0.605	/
ANT3	QPSK	Right Tilt	0	20600	844	50	Mid.	0.18	0.414	21.94	22.50	1.138	0.471	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	20600	844	1	Mid.	-0.05	0.132	22.99	23.50	1.125	0.149	/
ANT3	QPSK	Front Side	10	20600	844	50	Mid.	0.10	0.085	21.94	22.50	1.138	0.097	/
ANT3	QPSK	Back Side	10	20600	844	1	Mid.	-0.06	0.165	22.99	23.50	1.125	0.186	14#
ANT3	QPSK	Back Side	10	20600	844	50	Mid.	0.02	0.116	21.94	22.50	1.138	0.132	/
ANT3	QPSK	Right Edge	10	20600	844	1	Mid.	-0.06	0.081	22.99	23.50	1.125	0.091	/
ANT3	QPSK	Right Edge	10	20600	844	50	Mid.	-0.15	0.063	21.94	22.50	1.138	0.072	/
ANT3	QPSK	Top Edge	10	20600	844	1	Mid.	0.03	0.126	22.99	23.50	1.125	0.142	/
ANT3	QPSK	Top Edge	10	20600	844	50	Mid.	0.19	0.106	21.94	22.50	1.138	0.121	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.8LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	21350	2560	1	Mid.	-0.03	0.266	15.72	16.00	1.067	0.284	/
ANT3	QPSK	Left Cheek	0	21100	2535	50	Mid.	0.17	0.221	14.56	15.50	1.242	0.274	/
ANT3	QPSK	Left Tilt	0	21350	2560	1	Mid.	0.11	0.374	15.72	16.00	1.067	0.399	/
ANT3	QPSK	Left Tilt	0	21100	2535	50	Mid.	0.14	0.266	14.56	15.50	1.242	0.330	/
ANT3	QPSK	Right Cheek	0	21350	2560	1	Mid.	0.06	0.512	15.72	16.00	1.067	0.546	/
ANT3	QPSK	Right Cheek	0	21100	2535	50	Mid.	0.01	0.455	14.56	15.50	1.242	0.565	/
ANT3	QPSK	Right Tilt	0	21350	2560	1	Mid.	0.07	0.634	15.72	16.00	1.067	0.676	15#
ANT3	QPSK	Right Tilt	0	21100	2535	50	Mid.	0.12	0.525	14.56	15.50	1.242	0.652	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	21350	2560	1	Mid.	-0.02	0.101	15.72	16.00	1.067	0.108	/
ANT3	QPSK	Front Side	10	21100	2535	50	Mid.	-0.15	0.080	14.56	15.50	1.242	0.099	/
ANT3	QPSK	Back Side	10	21350	2560	1	Mid.	0.02	0.373	15.72	16.00	1.067	0.398	16#
ANT3	QPSK	Back Side	10	21100	2535	50	Mid.	0.17	0.255	14.56	15.50	1.242	0.317	/
ANT3	QPSK	Right Edge	10	21350	2560	1	Mid.	-0.07	0.118	15.72	16.00	1.067	0.126	/
ANT3	QPSK	Right Edge	10	21100	2535	50	Mid.	0.11	0.080	14.56	15.50	1.242	0.099	/
ANT3	QPSK	Top Edge	10	21350	2560	1	Mid.	0.03	0.334	15.72	16.00	1.067	0.356	/
ANT3	QPSK	Top Edge	10	21100	2535	50	Mid.	0.05	0.259	14.56	15.50	1.242	0.322	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.9LTE Band 12 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	23130	711	1	Mid.	0.03	0.421	22.67	23.00	1.079	0.454	/
ANT3	QPSK	Left Cheek	0	23095	707.5	50	Mid.	-0.13	0.345	21.56	22.50	1.242	0.428	/
ANT3	QPSK	Left Tilt	0	23130	711	1	Mid.	0.16	0.366	22.67	23.00	1.079	0.395	/
ANT3	QPSK	Left Tilt	0	23095	707.5	50	Mid.	-0.05	0.274	21.56	22.50	1.242	0.340	/
ANT3	QPSK	Right Cheek	0	23130	711	1	Mid.	0.01	0.616	22.67	23.00	1.079	0.665	17#
ANT3	QPSK	Right Cheek	0	23095	707.5	50	Mid.	-0.02	0.465	21.56	22.50	1.242	0.578	/
ANT3	QPSK	Right Tilt	0	23130	711	1	Mid.	-0.11	0.558	22.67	23.00	1.079	0.602	/
ANT3	QPSK	Right Tilt	0	23095	707.5	50	Mid.	-0.13	0.463	21.56	22.50	1.242	0.575	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	23130	711	1	Mid.	0.17	0.163	22.67	23.00	1.079	0.176	/
ANT3	QPSK	Front Side	10	23095	707.5	50	Mid.	-0.01	0.135	21.56	22.50	1.242	0.168	/
ANT3	QPSK	Back Side	10	23130	711	1	Mid.	-0.09	0.228	22.67	23.00	1.079	0.246	18#
ANT3	QPSK	Back Side	10	23095	b	50	Mid.	0.06	0.174	21.56	22.50	1.242	0.216	/
ANT3	QPSK	Right Edge	10	23130	711	1	Mid.	0.09	0.126	22.67	23.00	1.079	0.136	/
ANT3	QPSK	Right Edge	10	23095	707.5	50	Mid.	-0.04	0.103	21.56	22.50	1.242	0.128	/
ANT3	QPSK	Top Edge	10	23130	711	1	Mid.	0.13	0.185	22.67	23.00	1.079	0.200	/
ANT3	QPSK	Top Edge	10	23095	707.5	50	Mid.	0.17	0.147	21.56	22.50	1.242	0.183	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.10 LTE Band 26 (15MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	26965	841.5	1	Mid.	-0.01	0.521	23.27	23.50	1.054	0.549	/
ANT3	QPSK	Left Cheek	0	26865	831.5	50	High	0.09	0.506	22.37	23.00	1.156	0.585	/
ANT3	QPSK	Left Tilt	0	26965	841.5	1	Mid.	0.12	0.443	23.27	23.50	1.054	0.467	/
ANT3	QPSK	Left Tilt	0	26865	831.5	50	High	-0.04	0.419	22.37	23.00	1.156	0.484	/
ANT3	QPSK	Right Cheek	0	26965	841.5	1	Mid.	0.02	0.720	23.27	23.50	1.054	0.759	19#
ANT3	QPSK	Right Cheek	0	26865	831.5	50	High	0.19	0.656	22.37	23.00	1.156	0.758	/
ANT3	QPSK	Right Tilt	0	26965	841.5	1	Mid.	-0.19	0.623	23.27	23.50	1.054	0.657	/
ANT3	QPSK	Right Tilt	0	26865	831.5	50	High	0.15	0.574	22.37	23.00	1.156	0.664	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	26965	841.5	1	Mid.	-0.07	0.147	23.27	23.50	1.054	0.155	/
ANT3	QPSK	Front Side	10	26865	831.5	50	High	0.06	0.113	22.37	23.00	1.156	0.131	/
ANT3	QPSK	Back Side	10	26965	841.5	1	Mid.	-0.02	0.200	23.27	23.50	1.054	0.211	20#
ANT3	QPSK	Back Side	10	26865	831.5	50	High	0.12	0.177	22.37	23.00	1.156	0.205	/
ANT3	QPSK	Right Edge	10	26965	841.5	1	Mid.	0.14	0.106	23.27	23.50	1.054	0.112	/
ANT3	QPSK	Right Edge	10	26865	831.5	50	High	0.17	0.091	22.37	23.00	1.156	0.105	/
ANT3	QPSK	Top Edge	10	26965	841.5	1	Mid.	0.13	0.148	23.27	23.50	1.054	0.156	/
ANT3	QPSK	Top Edge	10	26865	831.5	50	High	-0.08	0.137	22.37	23.00	1.156	0.158	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.11 LTE Band 66 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	132572	1770	1	Mid.	0.06	0.287	15.55	16.50	1.245	0.357	/
ANT3	QPSK	Left Cheek	0	132572	1770	50	Mid.	-0.04	0.240	14.46	15.50	1.271	0.305	/
ANT3	QPSK	Left Tilt	0	132572	1770	1	Mid.	-0.13	0.365	15.55	16.50	1.245	0.454	/
ANT3	QPSK	Left Tilt	0	132572	1770	50	Mid.	-0.18	0.313	14.46	15.50	1.271	0.398	/
ANT3	QPSK	Right Cheek	0	132572	1770	1	Mid.	0.05	0.492	15.55	16.50	1.245	0.613	/
ANT3	QPSK	Right Cheek	0	132572	1770	50	Mid.	0.10	0.416	14.46	15.50	1.271	0.529	/
ANT3	QPSK	Right Tilt	0	132572	1770	1	Mid.	0.05	0.575	15.55	16.50	1.245	0.716	21#
ANT3	QPSK	Right Tilt	0	132572	1770	50	Mid.		0.499	14.46	15.50	1.271	0.634	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	132572	1770	1	Mid.	-0.09	0.115	15.55	16.50	1.245	0.143	/
ANT3	QPSK	Front Side	10	132572	1770	50	Mid.	0.04	0.099	14.46	15.50	1.271	0.126	/
ANT3	QPSK	Back Side	10	132572	1770	1	Mid.	0.02	0.187	15.55	16.50	1.245	0.233	/
ANT3	QPSK	Back Side	10	132572	1770	50	Mid.	0.12	0.162	14.46	15.50	1.271	0.206	/
ANT3	QPSK	Right Edge	10	132572	1770	1	Mid.	0.07	0.025	15.55	16.50	1.245	0.031	/
ANT3	QPSK	Right Edge	10	132572	1770	50	Mid.	-0.05	0.018	14.46	15.50	1.271	0.023	/
ANT3	QPSK	Top Edge	10	132572	1770	1	Mid.	0.02	0.233	15.55	16.50	1.245	0.290	22#
ANT3	QPSK	Top Edge	10	132572	1770	50	Mid.	0.01	0.218	14.46	15.50	1.271	0.277	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.12 LTE Band 38 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	37850	2580	1	Mid.	0.17	0.121	16.36	17.00	1.159	0.140	/
ANT3	QPSK	Left Cheek	0	37850	2580	50	Mid.	0.00	0.113	15.05	16.00	1.245	0.141	/
ANT3	QPSK	Left Tilt	0	37850	2580	1	Mid.	0.16	0.174	16.36	17.00	1.159	0.202	/
ANT3	QPSK	Left Tilt	0	37850	2580	50	Mid.	0.08	0.145	15.05	16.00	1.245	0.181	/
ANT3	QPSK	Right Cheek	0	37850	2580	1	Mid.	-0.09	0.336	16.36	17.00	1.159	0.389	/
ANT3	QPSK	Right Cheek	0	37850	2580	50	Mid.	-0.13	0.274	15.05	16.00	1.245	0.341	/
ANT3	QPSK	Right Tilt	0	37850	2580	1	Mid.	0.01	0.417	16.36	17.00	1.159	0.483	23#
ANT3	QPSK	Right Tilt	0	37850	2580	50	Mid.	0.01	0.345	15.05	16.00	1.245	0.430	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	37850	2580	1	Mid.	0.04	0.081	16.36	17.00	1.159	0.094	/
ANT3	QPSK	Front Side	10	37850	2580	50	Low	-0.07	0.065	15.05	16.00	1.245	0.081	/
ANT3	QPSK	Back Side	10	37850	2580	1	Mid.	0.05	0.264	16.36	17.00	1.159	0.306	24#
ANT3	QPSK	Back Side	10	37850	2580	50	Low	0.02	0.234	15.05	16.00	1.245	0.291	/
ANT3	QPSK	Right Edge	10	37850	2580	1	Mid.	0.00	0.112	16.36	17.00	1.159	0.130	/
ANT3	QPSK	Right Edge	10	37850	2580	50	Low	0.01	0.074	15.05	16.00	1.245	0.092	/
ANT3	QPSK	Top Edge	10	37850	2580	1	Mid.	0.06	0.243	16.36	17.00	1.159	0.282	/
ANT3	QPSK	Top Edge	10	37850	2580	50	Low	0.02	0.212	15.05	16.00	1.245	0.264	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.13 LTE Band 41 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Tune- up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
ANT3	QPSK	Left Cheek	0	40640	2595	1	Mid.	0.18	0.163	17.50	18.00	1.122	0.183	/
ANT3	QPSK	Left Cheek	0	40640	2595	50	Mid.	0.06	0.141	16.24	17.00	1.191	0.168	/
ANT3	QPSK	Left Tilt	0	40640	2595	1	Mid.	-0.07	0.234	17.50	18.00	1.122	0.263	/
ANT3	QPSK	Left Tilt	0	40640	2595	50	Mid.	0.11	0.199	16.24	17.00	1.191	0.237	/
ANT3	QPSK	Right Cheek	0	40640	2595	1	Mid.	-0.06	0.388	17.50	18.00	1.122	0.435	/
ANT3	QPSK	Right Cheek	0	40640	2595	50	Mid.	-0.08	0.302	16.24	17.00	1.191	0.360	/
ANT3	QPSK	Right Tilt	0	40640	2595	1	Mid.	0.03	0.507	17.50	18.00	1.122	0.569	25#
ANT3	QPSK	Right Tilt	0	40640	2595	50	Mid.	-0.17	0.434	16.24	17.00	1.191	0.517	/
ANT3	QPSK	Right Tilt	0	40140	2545	1	Mid.	0.09	0.406	17.50	18.00	1.122	0.456	/
ANT3	QPSK	Right Tilt	0	41140	2645	1	Mid.	-0.15	0.356	16.24	17.00	1.191	0.424	/
Body-worn&Hotspot														
ANT3	QPSK	Front Side	10	40640	2595	1	Mid.	0.17	0.088	17.50	18.00	1.122	0.099	/
ANT3	QPSK	Front Side	10	40640	2595	50	Low	0.03	0.075	16.24	17.00	1.191	0.089	/
ANT3	QPSK	Back Side	10	40640	2595	1	Mid.	0.06	0.290	17.50	18.00	1.122	0.325	/
ANT3	QPSK	Back Side	10	40640	2595	50	Mid.	-0.04	0.249	16.24	17.00	1.191	0.297	/
ANT3	QPSK	Right Edge	10	40640	2595	1	Mid.	0.04	0.112	17.50	18.00	1.122	0.126	/
ANT3	QPSK	Right Edge	10	40640	2595	50	Low	-0.05	0.089	16.24	17.00	1.191	0.106	/
ANT3	QPSK	Top Edge	10	40640	2595	1	Mid.	0.04	0.313	17.50	18.00	1.122	0.351	26#
ANT3	QPSK	Top Edge	10	40640	2595	50	Low	0.02	0.266	16.24	17.00	1.191	0.317	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.14 WIFI 2.4GHz

Mode	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 Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
802.11b	ANT1	Left Cheek	0	11	2462	0.06	0.510	18.17	18.50	1.079	99.5	1.005	0.553	27#
	ANT1	Left Tilt	0	11	2462	-0.07	0.308	18.17	18.50	1.079	99.5	1.005	0.334	/
	ANT1	Right Cheek	0	11	2462	-0.01	0.198	18.17	18.50	1.079	99.5	1.005	0.215	/
	ANT1	Right Tilt	0	11	2462	0.08	0.142	18.17	18.50	1.079	99.5	1.005	0.154	/
Hotspot&Body-worn Accessory														
802.11b	ANT1	Front Side	10	11	2462	-0.02	0.150	18.17	18.50	1.079	99.5	1.005	0.163	/
	ANT1	Back Side	10	11	2462	-0.15	0.191	18.17	18.50	1.079	99.5	1.005	0.207	/
	ANT1	Left Edge	10	11	2462	-0.05	0.228	18.17	18.50	1.079	99.5	1.005	0.247	28#
	ANT1	Top Edge	10	11	2462	-0.19	0.093	18.17	18.50	1.079	99.5	1.005	0.101	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.15 WIFI 5GHz

Fre. Band	Mode	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 Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
5.3G	802.11ac80c80	ANT4	Left Cheek	0	58	5290	-0.11	0.306	15.48	16.50	1.265	97.5	1.026	0.397	/
		ANT4	Left Tilt	0	58	5290	-0.04	0.331	15.48	16.50	1.265	97.5	1.026	0.430	29#
		ANT4	Right Cheek	0	58	5290	-0.07	0.223	15.48	16.50	1.265	97.5	1.026	0.289	/
		ANT4	Right Tilt	0	58	5290	-0.19	0.275	15.48	16.50	1.265	97.5	1.026	0.357	/
5.6G	802.11ac80c80	ANT4	Left Cheek	0	122	5610	-0.05	0.495	16.38	16.50	1.028	97.5	1.026	0.522	/
		ANT4	Left Tilt	0	122	5610	-0.01	0.535	16.38	16.50	1.028	97.5	1.026	0.564	30#
		ANT4	Right Cheek	0	122	5610	-0.04	0.426	16.38	16.50	1.028	97.5	1.026	0.449	/
		ANT4	Right Tilt	0	122	5610	-0.16	0.401	16.38	16.50	1.028	97.5	1.026	0.423	/
5.8G	802.11ac80c80	ANT4	Left Cheek	0	155	5775	0.08	0.355	15.24	16.50	1.337	97.5	1.026	0.487	/
		ANT4	Left Tilt	0	155	5775	-0.07	0.396	15.24	16.50	1.337	97.5	1.026	0.543	31#
		ANT4	Right Cheek	0	155	5775	-0.14	0.264	15.24	16.50	1.337	97.5	1.026	0.362	/
		ANT4	Right Tilt	0	155	5775	-0.18	0.313	15.24	16.50	1.337	97.5	1.026	0.429	/
Body-worn Accessory															
5.3G	802.11ac80	ANT4	Front Side	10	58	5290	-0.08	0.065	15.48	16.50	1.265	97.5	1.026	0.084	/
		ANT4	Back Side	10	58	5290	0.00	0.126	15.48	16.50	1.265	97.5	1.026	0.164	32#
5.6G	802.11ac80	ANT4	Front Side	10	122	5610	0.08	0.092	16.38	16.50	1.028	97.5	1.026	0.097	/
		ANT4	Back Side	10	122	5610	0.01	0.110	16.38	16.50	1.028	97.5	1.026	0.116	33#
Hotspot&Body-worn Accessory															
5.2G	802.11ac80	ANT4	Front Side	10	42	5210	-0.13	0.067	15.53	16.50	1.250	97.5	1.026	0.086	/
		ANT4	Back Side	10	42	5210	0.04	0.105	15.53	16.50	1.250	97.5	1.026	0.135	34#
		ANT4	Left Edge	10	42	5210	-0.02	0.030	15.53	16.50	1.250	97.5	1.026	0.038	/
		ANT4	Right Edge	10	42	5210	-0.05	0.045	15.53	16.50	1.250	97.5	1.026	0.058	/
		ANT4	Top Edge	10	42	5210	-0.08	0.098	15.53	16.50	1.250	97.5	1.026	0.126	/
5.8G	802.11ac80	ANT4	Front Side	10	155	5775	0.15	0.083	15.24	16.50	1.337	97.5	1.026	0.114	/
		ANT4	Back Side	10	155	5775	-0.07	0.095	15.24	16.50	1.337	97.5	1.026	0.130	/
		ANT4	Left Edge	10	155	5775	0.18	0.045	15.24	16.50	1.337	97.5	1.026	0.062	/
		ANT4	Right Edge	10	155	5775	-0.19	0.063	15.24	16.50	1.337	97.5	1.026	0.086	/
		ANT4	Top Edge	10	155	5775	0.01	0.100	15.24	16.50	1.337	97.5	1.026	0.137	35#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Fre. Band	Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
5.3G	802.11ac80	ANT4	Front Side	0	58	5290	-0.17	0.192	15.48	16.50	1.265	97.5	1.026	0.249	/
		ANT4	Back Side	0	58	5290	-0.01	0.196	15.48	16.50	1.265	97.5	1.026	0.254	/
		ANT4	Left Edge	0	58	5290	-0.09	0.055	15.48	16.50	1.265	97.5	1.026	0.071	/
		ANT4	Right Edge	0	58	5290	-0.07	0.043	15.48	16.50	1.265	97.5	1.026	0.056	/
		ANT4	Top Edge	0	58	5290	0.08	0.427	15.48	16.50	1.265	97.5	1.026	0.554	36#
5.6G	802.11ac80	ANT4	Front Side	0	122	5610	0.01	0.226	16.38	16.50	1.028	97.5	1.026	0.238	/
		ANT4	Back Side	0	122	5610	-0.16	0.203	16.38	16.50	1.028	97.5	1.026	0.214	/
		ANT4	Left Edge	0	122	5610	0.17	0.081	16.38	16.50	1.028	97.5	1.026	0.085	/
		ANT4	Right Edge	0	122	5610	-0.12	0.086	16.38	16.50	1.028	97.5	1.026	0.091	/
		ANT4	Top Edge	0	122	5610	0.05	0.513	16.38	16.50	1.028	97.5	1.026	0.541	37#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.16 Bluetooth

Mode	Position	Antenna	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 Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
DH5	Left Cheek	ANT1	0	0	2402	0.02	0.081	12.71	13.00	1.069	76.88	1.301	0.113	38#
	Left Tilt	ANT1	0	0	2402	0.07	0.032	12.71	13.00	1.069	76.88	1.301	0.045	/
	Right Cheek	ANT1	0	0	2402	-0.07	0.035	12.71	13.00	1.069	76.88	1.301	0.049	/
	Right Tilt	ANT1	0	0	2402	-0.14	0.018	12.71	13.00	1.069	76.88	1.301	0.025	/
Hotspot&Body-worn Accessory														
DH5	Front Side	ANT1	10	0	2402	-0.05	0.021	12.71	13.00	1.069	76.88	1.301	0.029	/
	Back Side	ANT1	10	0	2402	-0.12	0.032	12.71	13.00	1.069	76.88	1.301	0.045	/
	Left Edge	ANT1	10	0	2402	-0.07	0.053	12.71	13.00	1.069	76.88	1.301	0.074	39#
	Top Edge	ANT1	10	0	2402	-0.02	0.018	12.71	13.00	1.069	76.88	1.301	0.025	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.17 NFC SAR

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

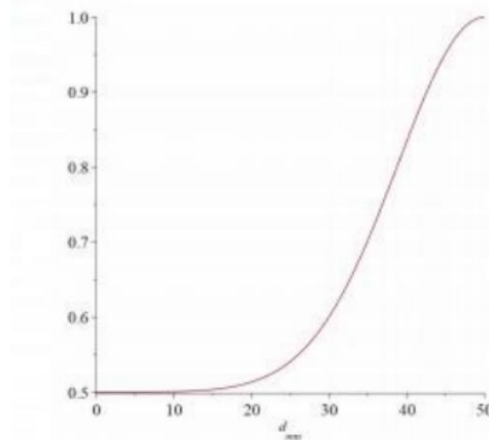
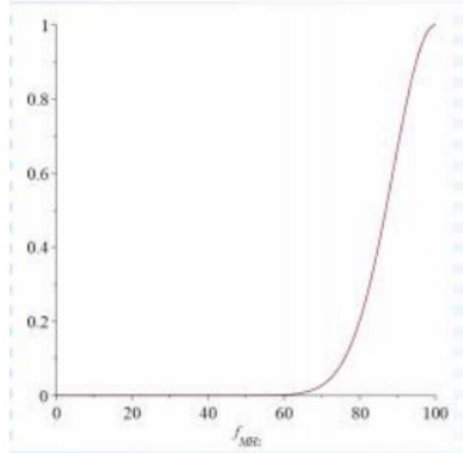
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

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 Sf and Sd 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	54.28	3	6	-34.98

Note:

1. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies $\leq$ 30 MHz).

2. $\text{EIRP} = 54.28 + 20 \cdot \log(3) - 104.8 + 6 = -34.98$ (dBm)

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 · P _{ant} / P _{th} [W/kg]		
P _{meas} .(dBm)	-34.98	P _{meas} .(mW)	0.0003
P _{th} .(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

10.17.1 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 1g SAR value for Simultaneous Transmission is 1.549 [W/kg]. Therefore, the worst TER = (1.549+0.001)/1.6 = 0.969 < 1, the NFC SAR transmit simultaneously Pass.

11 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
1900	GSM 1900	Head	Right Tilt	0.954	Yes	0.941	1.01
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 $0.51 < 2.0$ W/kg, repeated measurement is not required.

12 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).

12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot	Specific
1	WWAN + WIFI2.4G+BT	Yes	Yes	Yes	Yes
2	WWAN + WIFI5G+BT	Yes	Yes	Yes	Yes

Note:

1. When stand-alone SAR is not required for a side of antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
2. The maximum SAR summation is calculated based on the same configuration and test position.
3. 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.

12.2 Sum SAR of Simultaneous Transmission

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

Band	Position	Stand alone SAR				SUM SAR	
		1	2	3	4	1+2+4	1+3+4
		WWAN	2.4G WIFI	5G WIFI Max .	Bluetooth	WWAN+2.4G WIFI+BT	WWAN+5G WIFI+BT
GSM850	Left Cheek	0.356	0.553	0.522	0.113	1.022	0.991
GSM850	Left Tilt	0.458	0.334	0.564	0.045	0.837	1.067
GSM850	Right Cheek	0.400	0.215	0.449	0.049	0.664	0.898
GSM850	Right Tilt	0.515	0.154	0.429	0.025	0.694	0.969
GSM1900	Left Cheek	0.603	0.553	0.522	0.113	1.269	1.238
GSM1900	Left Tilt	0.748	0.334	0.564	0.045	1.127	1.357
GSM1900	Right Cheek	0.947	0.215	0.449	0.049	1.211	1.445
GSM1900	Right Tilt	1.095	0.154	0.429	0.025	1.274	1.549
WCDMA B2	Left Cheek	0.327	0.553	0.522	0.113	0.993	0.962
WCDMA B2	Left Tilt	0.400	0.334	0.564	0.045	0.779	1.009
WCDMA B2	Right Cheek	0.501	0.215	0.449	0.049	0.765	0.999
WCDMA B2	Right Tilt	0.659	0.154	0.429	0.025	0.838	1.113
WCDMA B4	Left Cheek	0.393	0.553	0.522	0.113	1.059	1.028
WCDMA B4	Left Tilt	0.508	0.334	0.564	0.045	0.887	1.117
WCDMA B4	Right Cheek	0.679	0.215	0.449	0.049	0.943	1.177
WCDMA B4	Right Tilt	0.832	0.154	0.429	0.025	1.011	1.286
WCDMA B5	Left Cheek	0.437	0.553	0.522	0.113	1.103	1.072
WCDMA B5	Left Tilt	0.401	0.334	0.564	0.045	0.780	1.010
WCDMA B5	Right Cheek	0.574	0.215	0.449	0.049	0.838	1.072
WCDMA B5	Right Tilt	0.529	0.154	0.429	0.025	0.708	0.983
LTE B2	Left Cheek	0.249	0.553	0.522	0.113	0.915	0.884
LTE B2	Left Tilt	0.287	0.334	0.564	0.045	0.666	0.896
LTE B2	Right Cheek	0.396	0.215	0.449	0.049	0.660	0.894
LTE B2	Right Tilt	0.498	0.154	0.429	0.025	0.677	0.952
LTE B5	Left Cheek	0.507	0.553	0.522	0.113	1.173	1.142
LTE B5	Left Tilt	0.471	0.334	0.564	0.045	0.850	1.080
LTE B5	Right Cheek	0.676	0.215	0.449	0.049	0.940	1.174
LTE B5	Right Tilt	0.605	0.154	0.429	0.025	0.784	1.059
LTE B7	Left Cheek	0.284	0.553	0.522	0.113	0.950	0.919
LTE B7	Left Tilt	0.399	0.334	0.564	0.045	0.778	1.008
LTE B7	Right Cheek	0.565	0.215	0.449	0.049	0.829	1.063
LTE B7	Right Tilt	0.713	0.154	0.429	0.025	0.892	1.167
LTE B12	Left Cheek	0.454	0.553	0.522	0.113	1.120	1.089
LTE B12	Left Tilt	0.395	0.334	0.564	0.045	0.774	1.004
LTE B12	Right Cheek	0.665	0.215	0.449	0.049	0.929	1.163
LTE B12	Right Tilt	0.602	0.154	0.429	0.025	0.781	1.056

LTE B26	Left Cheek	0.585	0.553	0.522	0.113	1.251	1.220
LTE B26	Left Tilt	0.484	0.334	0.564	0.045	0.863	1.093
LTE B26	Right Cheek	0.808	0.215	0.449	0.049	1.072	1.306
LTE B26	Right Tilt	0.664	0.154	0.429	0.025	0.843	1.118
LTE B66	Left Cheek	0.357	0.553	0.522	0.113	1.023	0.992
LTE B66	Left Tilt	0.454	0.334	0.564	0.045	0.833	1.063
LTE B66	Right Cheek	0.613	0.215	0.449	0.049	0.877	1.111
LTE B66	Right Tilt	0.716	0.154	0.429	0.025	0.895	1.170
LTE B38	Left Cheek	0.141	0.553	0.522	0.113	0.807	0.776
LTE B38	Left Tilt	0.202	0.334	0.564	0.045	0.581	0.811
LTE B38	Right Cheek	0.389	0.215	0.449	0.049	0.653	0.887
LTE B38	Right Tilt	0.483	0.154	0.429	0.025	0.662	0.937
LTE B41	Left Cheek	0.183	0.553	0.522	0.113	0.849	0.818
LTE B41	Left Tilt	0.263	0.334	0.564	0.045	0.642	0.872
LTE B41	Right Cheek	0.435	0.215	0.449	0.049	0.699	0.933
LTE B41	Right Tilt	0.569	0.154	0.429	0.025	0.748	1.023

Note: The highest Summed 1g SAR is 1.549 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.2 Body-worn Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Position	Stand alone SAR				SUM SAR	
		1	2	3	4	1+2+4	1+3+4
		WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	WWAN+2.4G WIFI+BT	WWAN+5G WIFI+BT
GSM850	Front Side 10mm	0.115	0.163	0.114	0.029	0.307	0.258
GSM850	Back Side 10mm	0.151	0.207	0.164	0.045	0.403	0.360
GSM1900	Front Side 10mm	0.175	0.163	0.114	0.029	0.367	0.318
GSM1900	Back Side 10mm	0.307	0.207	0.164	0.045	0.559	0.516
WCDMA B2	Front Side 10mm	0.105	0.163	0.114	0.029	0.297	0.248
WCDMA B2	Back Side 10mm	0.211	0.207	0.164	0.045	0.463	0.420
WCDMA B4	Front Side 10mm	0.148	0.163	0.114	0.029	0.340	0.291
WCDMA B4	Back Side 10mm	0.230	0.207	0.164	0.045	0.482	0.439
WCDMA B5	Front Side 10mm	0.140	0.163	0.114	0.029	0.332	0.283
WCDMA B5	Back Side 10mm	0.166	0.207	0.164	0.045	0.418	0.375
LTE B2	Front Side 10mm	0.080	0.163	0.114	0.029	0.272	0.223
LTE B2	Back Side 10mm	0.148	0.207	0.164	0.045	0.400	0.357
LTE B5	Front Side 10mm	0.149	0.163	0.114	0.029	0.341	0.292
LTE B5	Back Side 10mm	0.186	0.207	0.164	0.045	0.438	0.395
LTE B7	Front Side 10mm	0.108	0.163	0.114	0.029	0.300	0.251
LTE B7	Back Side 10mm	0.398	0.207	0.164	0.045	0.650	0.607
LTE B12	Front Side 10mm	0.176	0.163	0.114	0.029	0.368	0.319
LTE B12	Back Side 10mm	0.246	0.207	0.164	0.045	0.498	0.455
LTE B26	Front Side 10mm	0.155	0.163	0.114	0.029	0.347	0.298
LTE B26	Back Side 10mm	0.211	0.207	0.164	0.045	0.463	0.420
LTE B66	Front Side 10mm	0.143	0.163	0.114	0.029	0.335	0.286
LTE B66	Back Side 10mm	0.233	0.207	0.164	0.045	0.485	0.442
LTE B38	Front Side 10mm	0.094	0.163	0.114	0.029	0.286	0.237
LTE B38	Back Side 10mm	0.306	0.207	0.164	0.045	0.558	0.515
LTE B41	Front Side 10mm	0.099	0.163	0.114	0.029	0.291	0.242
LTE B41	Back Side 10mm	0.325	0.207	0.164	0.045	0.577	0.534

Note: The highest Summed 1g SAR is 0.650 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

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

Band	Position	Stand alone SAR				SUM SAR	
		1	2	3	4	1+2+4	1+3+4
		WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	WWAN+2.4G WIFI+BT	WWAN+5G WIFI+BT
GSM850	Front Side 10mm	0.115	0.163	0.114	0.029	0.307	0.258
GSM850	Back Side 10mm	0.151	0.207	0.135	0.045	0.403	0.331
GSM850	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
GSM850	Right Edge 10mm	0.063	0.247	0.086	0.000	0.310	0.149
GSM850	Top Edge 10mm	0.162	0.101	0.137	0.025	0.288	0.324
GSM1900	Front Side 10mm	0.175	0.163	0.114	0.029	0.367	0.318
GSM1900	Back Side 10mm	0.307	0.207	0.135	0.045	0.559	0.487
GSM1900	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
GSM1900	Right Edge 10mm	0.040	0.247	0.086	0.000	0.287	0.126
GSM1900	Top Edge 10mm	0.530	0.101	0.137	0.025	0.656	0.692
WCDMA B2	Front Side 10mm	0.105	0.163	0.114	0.029	0.297	0.248
WCDMA B2	Back Side 10mm	0.211	0.207	0.135	0.045	0.463	0.391
WCDMA B2	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
WCDMA B2	Right Edge 10mm	0.028	0.247	0.086	0.000	0.275	0.114
WCDMA B2	Top Edge 10mm	0.286	0.101	0.137	0.025	0.412	0.448
WCDMA B4	Front Side 10mm	0.148	0.163	0.114	0.029	0.340	0.291
WCDMA B4	Back Side 10mm	0.230	0.207	0.135	0.045	0.482	0.410
WCDMA B4	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
WCDMA B4	Right Edge 10mm	0.020	0.247	0.086	0.000	0.267	0.106
WCDMA B4	Top Edge 10mm	0.295	0.101	0.137	0.025	0.421	0.457
WCDMA B5	Front Side 10mm	0.140	0.163	0.114	0.029	0.332	0.283
WCDMA B5	Back Side 10mm	0.166	0.207	0.135	0.045	0.418	0.346
WCDMA B5	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
WCDMA B5	Right Edge 10mm	0.072	0.247	0.086	0.000	0.319	0.158
WCDMA B5	Top Edge 10mm	0.132	0.101	0.137	0.025	0.258	0.294
LTE B2	Front Side 10mm	0.080	0.163	0.114	0.029	0.272	0.223
LTE B2	Back Side 10mm	0.148	0.207	0.135	0.045	0.400	0.328
LTE B2	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B2	Right Edge 10mm	0.027	0.247	0.086	0.000	0.274	0.113
LTE B2	Top Edge 10mm	0.207	0.101	0.137	0.025	0.333	0.369
LTE B5	Front Side 10mm	0.149	0.163	0.114	0.029	0.341	0.292
LTE B5	Back Side 10mm	0.186	0.207	0.135	0.045	0.438	0.366
LTE B5	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B5	Right Edge 10mm	0.091	0.247	0.086	0.000	0.338	0.177
LTE B5	Top Edge 10mm	0.142	0.101	0.137	0.025	0.268	0.304
LTE B7	Front Side 10mm	0.108	0.163	0.114	0.029	0.300	0.251
LTE B7	Back Side 10mm	0.398	0.207	0.135	0.045	0.650	0.578

LTE B7	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B7	Right Edge 10mm	0.126	0.247	0.086	0.000	0.373	0.212
LTE B7	Top Edge 10mm	0.356	0.101	0.137	0.025	0.482	0.518
LTE B12	Front Side 10mm	0.193	0.163	0.114	0.029	0.385	0.336
LTE B12	Back Side 10mm	0.246	0.207	0.135	0.045	0.498	0.426
LTE B12	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B12	Right Edge 10mm	0.136	0.247	0.086	0.000	0.383	0.222
LTE B12	Top Edge 10mm	0.200	0.101	0.137	0.025	0.326	0.362
LTE B26	Front Side 10mm	0.165	0.163	0.114	0.029	0.357	0.308
LTE B26	Back Side 10mm	0.211	0.207	0.135	0.045	0.463	0.391
LTE B26	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B26	Right Edge 10mm	0.112	0.247	0.086	0.000	0.359	0.198
LTE B26	Top Edge 10mm	0.158	0.101	0.137	0.025	0.284	0.320
LTE B66	Front Side 10mm	0.143	0.163	0.114	0.029	0.335	0.286
LTE B66	Back Side 10mm	0.233	0.207	0.135	0.045	0.485	0.413
LTE B66	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B66	Right Edge 10mm	0.031	0.247	0.086	0.000	0.278	0.117
LTE B66	Top Edge 10mm	0.290	0.101	0.137	0.025	0.416	0.452
LTE B38	Front Side 10mm	0.094	0.163	0.114	0.029	0.286	0.237
LTE B38	Back Side 10mm	0.306	0.207	0.135	0.045	0.558	0.486
LTE B38	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B38	Right Edge 10mm	0.130	0.247	0.086	0.000	0.377	0.216
LTE B38	Top Edge 10mm	0.282	0.101	0.137	0.025	0.408	0.444
LTE B41	Front Side 10mm	0.099	0.163	0.114	0.029	0.291	0.242
LTE B41	Back Side 10mm	0.325	0.207	0.135	0.045	0.577	0.505
LTE B41	Left Edge 10mm	0.000	0.000	0.062	0.074	0.074	0.136
LTE B41	Right Edge 10mm	0.126	0.247	0.086	0.000	0.373	0.212
LTE B41	Top Edge 10mm	0.351	0.101	0.137	0.025	0.477	0.513

Note: The highest Summed 1g SAR is 0.692 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13 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: 1208	2021/07/05	2024/07/05
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: 7607	2023/07/04	2024/07/04
Data Acquisition Electronicsr	Speag	DAE4	SN: 878	2023/03/23	2024/03/23
Signal Generator	R&S	SMB100A	182396	2023/09/05	2024/09/04
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	6201144551	2023/06/29	2024/06/29
Network Analyzer	Agilent	E5071C	MY46103472	2023/11/14	2024/11/14
Thermometer	Elitech	RC-4	EF5238001628	2023/10/09	2024/10/09
Thermometer	Elitech	RC-4HC	EF7239002652	2023/11/17	2024/11/17
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: 1859	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

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

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

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

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

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2023.12.20	Head	750	21.2	0.92	41.21	0.89	41.94	3.37	-1.74
2023.12.21	Head	835	21.3	0.89	42.71	0.90	41.50	-1.11	2.92
2023.12.20	Head	835	21.2	0.89	41.25	0.90	41.50	-1.11	-0.60
2024.12.22	Head	1750	21.1	1.38	40.17	1.37	40.08	0.73	0.22
2024.12.23	Head	1900	21.4	1.40	39.12	1.40	40.00	0.00	-2.20
2024.12.24	Head	2450	21.3	1.84	38.88	1.80	39.20	2.22	-0.82
2024.12.25	Head	2600	21.5	2.00	38.19	1.96	39.01	2.04	-2.10
2024.12.26	Head	2600	21.2	2.00	38.42	1.96	39.01	2.04	-1.51
2024.12.26	Head	5250	21.2	4.66	36.06	4.71	35.93	-1.06	0.36
2024.12.27	Head	5600	21.5	5.18	35.26	5.07	35.53	2.17	-0.76
2024.12.27	Head	5750	21.5	5.09	35.18	5.22	35.36	-2.49	-0.51

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 (%)
2023.12.20	Head	750	100	0.87	8.68	8.51	2.00
2023.12.21	Head	835	100	0.98	9.83	9.76	0.72
2023.12.20	Head	835	100	0.99	9.92	9.76	1.64
2024.12.22	Head	1750	100	3.77	37.70	36.70	2.72
2024.12.23	Head	1900	100	4.05	40.50	40.30	0.01
2024.12.24	Head	2450	100	5.41	54.10	53.00	0.02
2024.12.25	Head	2600	100	5.64	56.40	56.80	-0.01
2024.12.26	Head	2600	100	5.71	57.10	56.80	0.01
2024.12.26	Head	5250	100	7.81	78.10	77.80	0.00
2024.12.27	Head	5600	100	8.33	83.30	81.20	0.03
2024.12.27	Head	5750	100	7.74	77.40	77.20	0.00
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 (%)
2024.12.26	5250	100	2.22	22.20	22.10	0.00
2024.12.27	5600	100	2.41	24.10	23.10	0.04

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

System Performance Check Data (750MHz)

Date: 2023.12.20

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

Medium parameters used (extrapolated): $f = 750$ MHz; $\sigma = 0.918$ S/m; $\epsilon_r = 41.206$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.31,10.57,10.43); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.859 W/kg

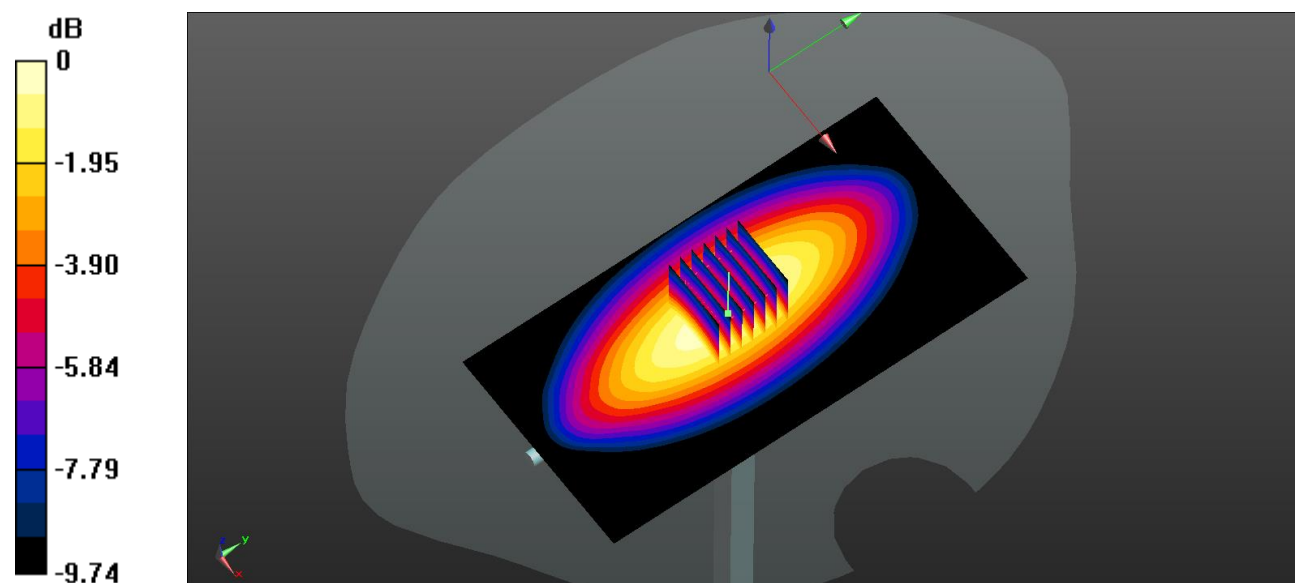
CW 750 100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 29.97 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.868 W/kg; SAR(10 g) = 0.559 W/kg

Maximum value of SAR (measured) = 0.879 W/kg



0 dB = 0.879 W/kg

System Performance Check Data (835MHz)

Date: 2023.12.21

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.885$ S/m; $\epsilon_r = 42.708$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.15 W/kg

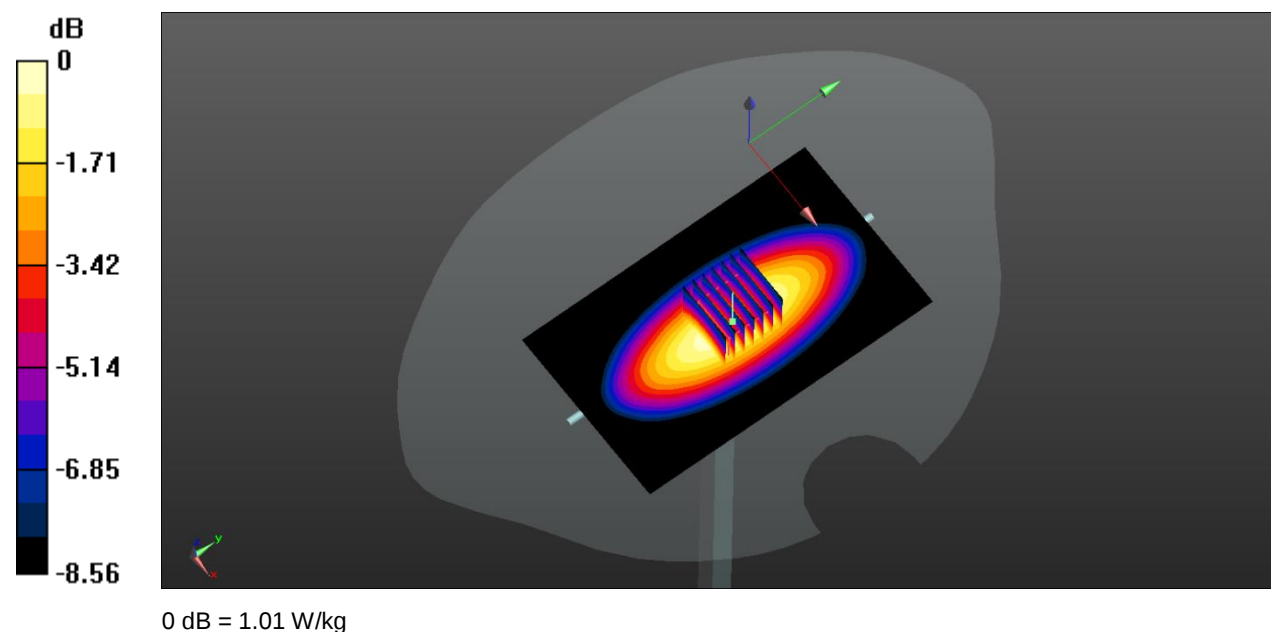
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.31 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.658 W/kg

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



System Performance Check Data (835MHz)

Date: 2023.12.20

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 41.251$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 835/Area Scan (61x81x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.17 W/kg

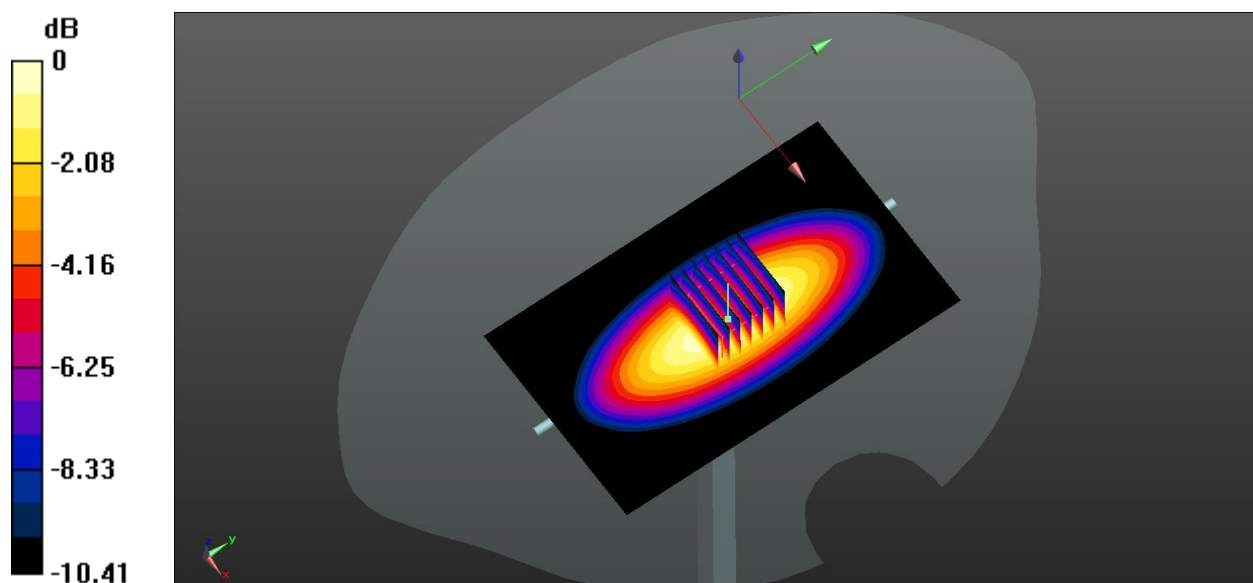
CW 835/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 34.51 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.992 W/kg; SAR(10 g) = 0.648 W/kg

Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg

System Performance Check Data (1750MHz)

Date: 2023.12.22

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

Medium parameters used (interpolated): $f = 1750$ MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 40.169$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.52, 8.91, 8.76); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 4.17 W/kg

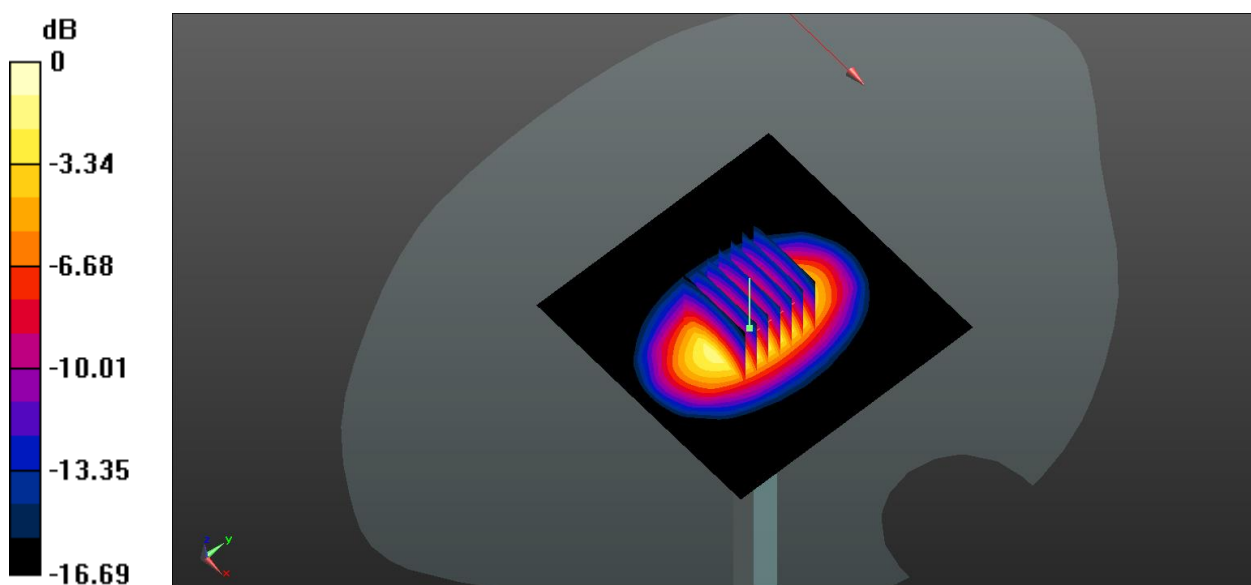
CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.99 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 7.04 W/kg

SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.98 W/kg

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



0 dB = 4.37 W/kg

System Performance Check Data (1900MHz)

Date: 2023.12.23

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.398$ S/m; $\epsilon_r = 39.124$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

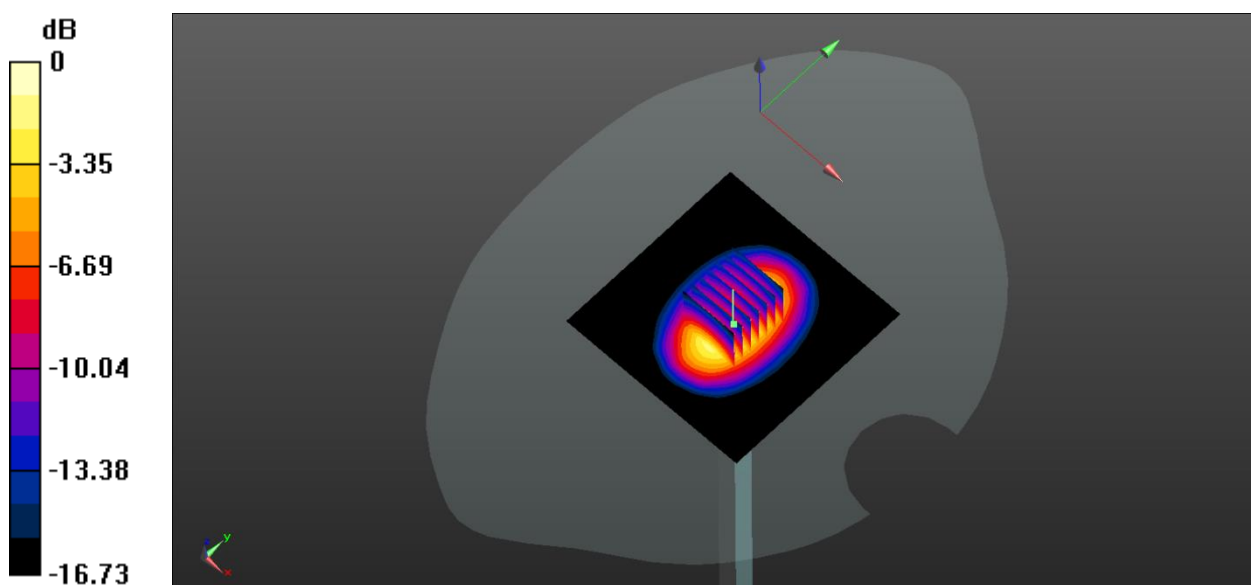
CW 1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.18 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 7.34 W/kg

SAR(1 g) = 4.05 W/kg; SAR(10 g) = 2.07 W/kg

Maximum value of SAR (measured) = 4.57 W/kg



0 dB = 4.57 W/kg

System Performance Check Data (2450MHz)

Date: 2023.12.24

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

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.841$ S/m; $\epsilon_r = 38.88$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 6.21 W/kg

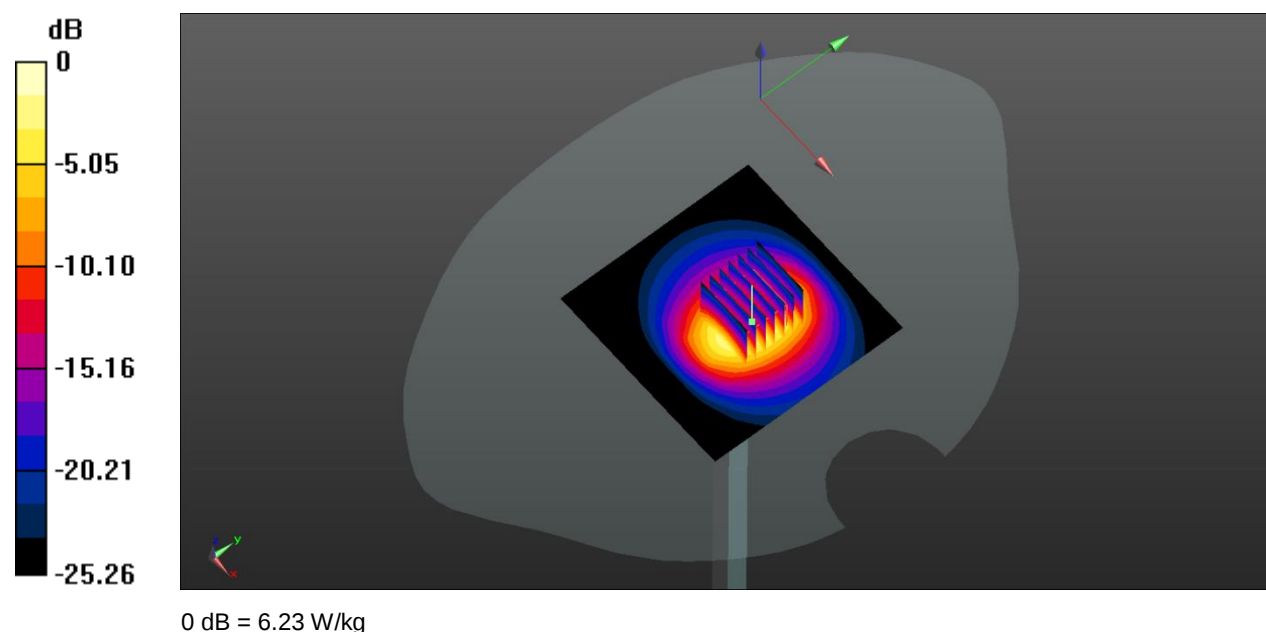
CW 2450 100mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.37 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 11.4 W/kg

SAR(1 g) = 5.41 W/kg; SAR(10 g) = 2.48 W/kg

Maximum value of SAR (measured) = 6.23 W/kg



System Performance Check Data (2600MHz)

Date: 2023.12.25

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

Medium parameters used (interpolated): $f = 2600$ MHz; $\sigma = 1.998$ S/m; $\epsilon_r = 38.193$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

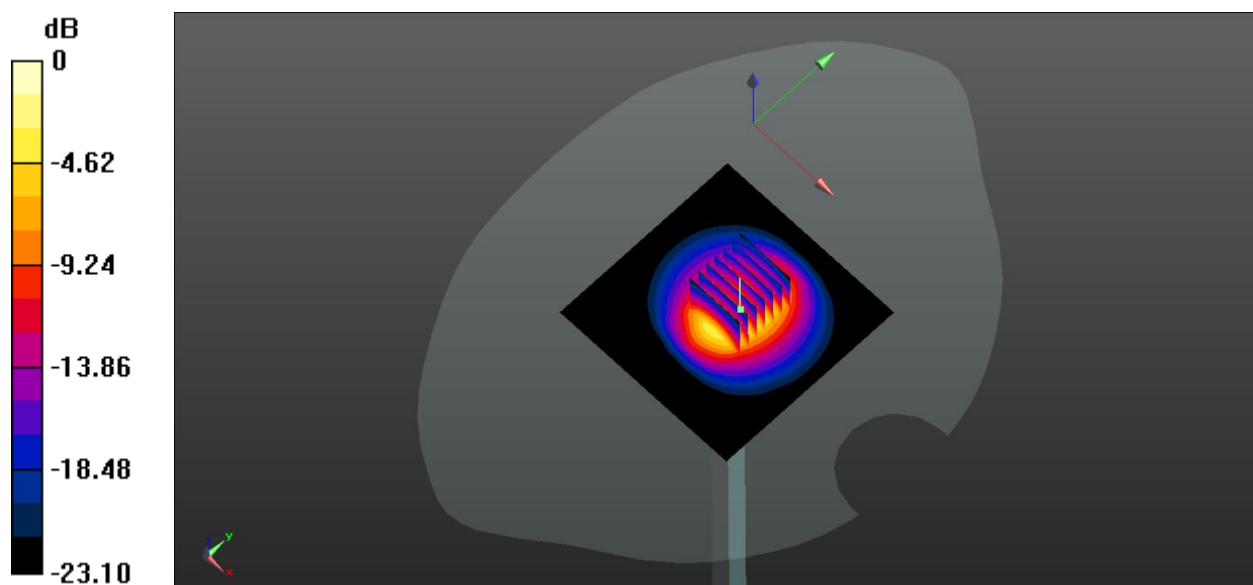
CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 45.7 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 12.6 W/kg

SAR(1 g) = 5.64 W/kg; SAR(10 g) = 2.45 W/kg

Maximum value of SAR (measured) = 6.47 W/kg



System Performance Check Data (2600MHz)

Date: 2023.12.26

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

Medium parameters used (interpolated): $f = 2600$ MHz; $\sigma = 1.995$ S/m; $\epsilon_r = 38.419$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

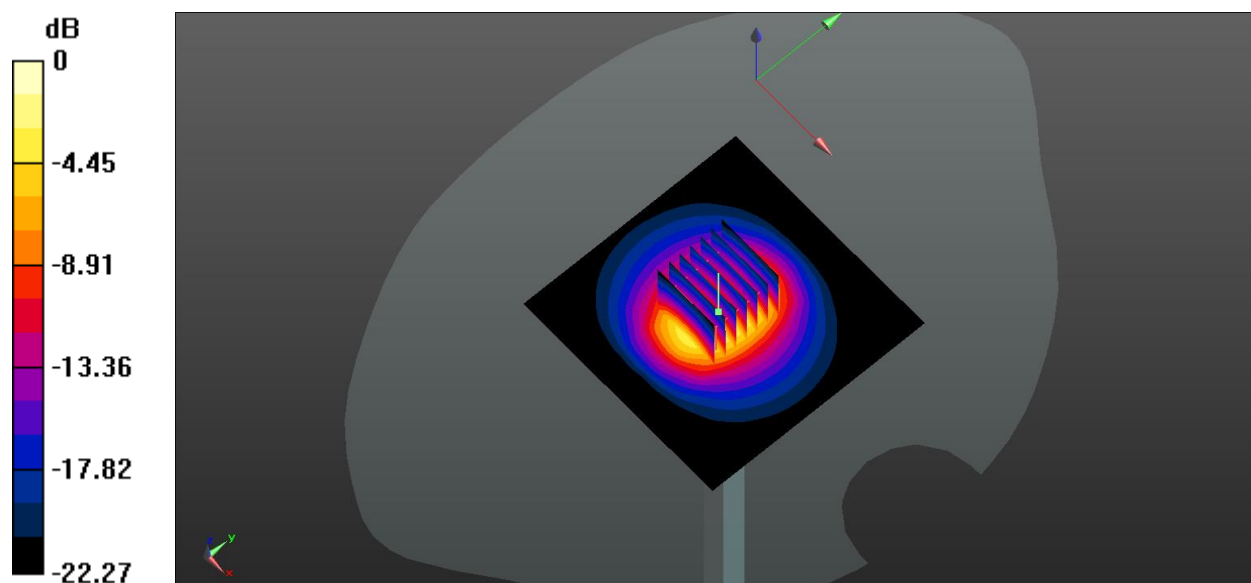
CW 2600 100mW /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.63 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 13.7 W/kg

SAR(1 g) = 5.71 W/kg; SAR(10 g) = 2.52 W/kg

Maximum value of SAR (measured) = 6.37 W/kg



0 dB = 6.37 W/kg

System Performance Check Data (5250MHz)

Date: 2023.12.26

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

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.659$ S/m; $\epsilon_r = 36.059$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 8.38 W/kg

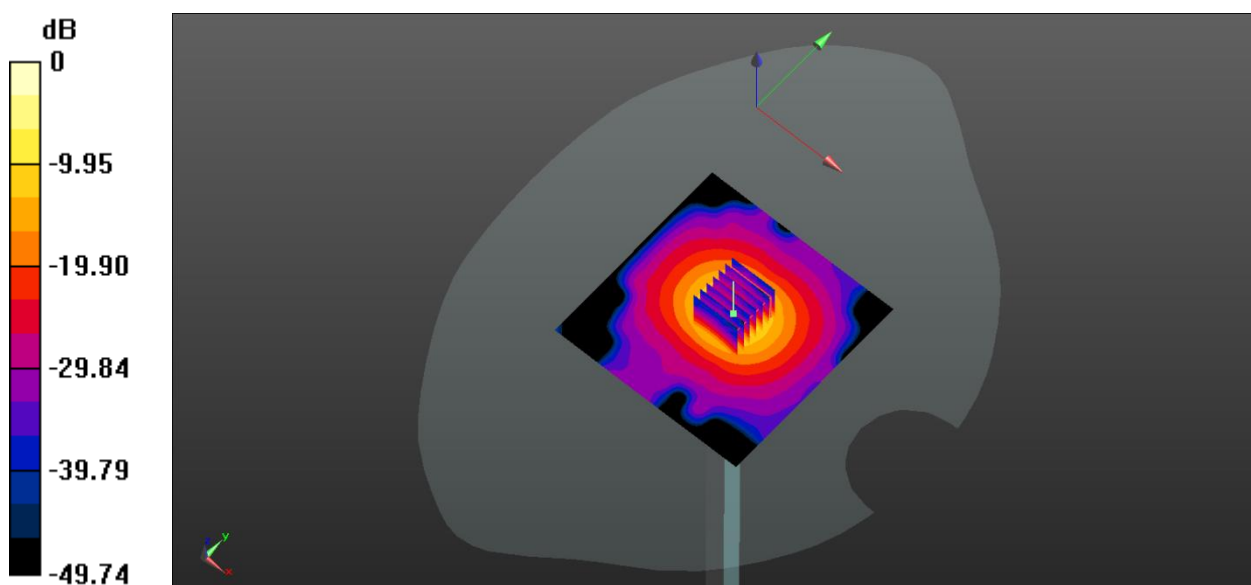
CW 5250/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 37.15 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 34.8 W/kg

SAR(1 g) = 7.81 W/kg; SAR(10 g) = 2.22 W/kg

Maximum value of SAR (measured) = 19.4 W/kg



0 dB = 19.4 W/kg

System Performance Check Data (5600MHz)

Date: 2023.12.27

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.182$ S/m; $\epsilon_r = 35.255$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.58, 4.95, 4.75); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 8.56 W/kg

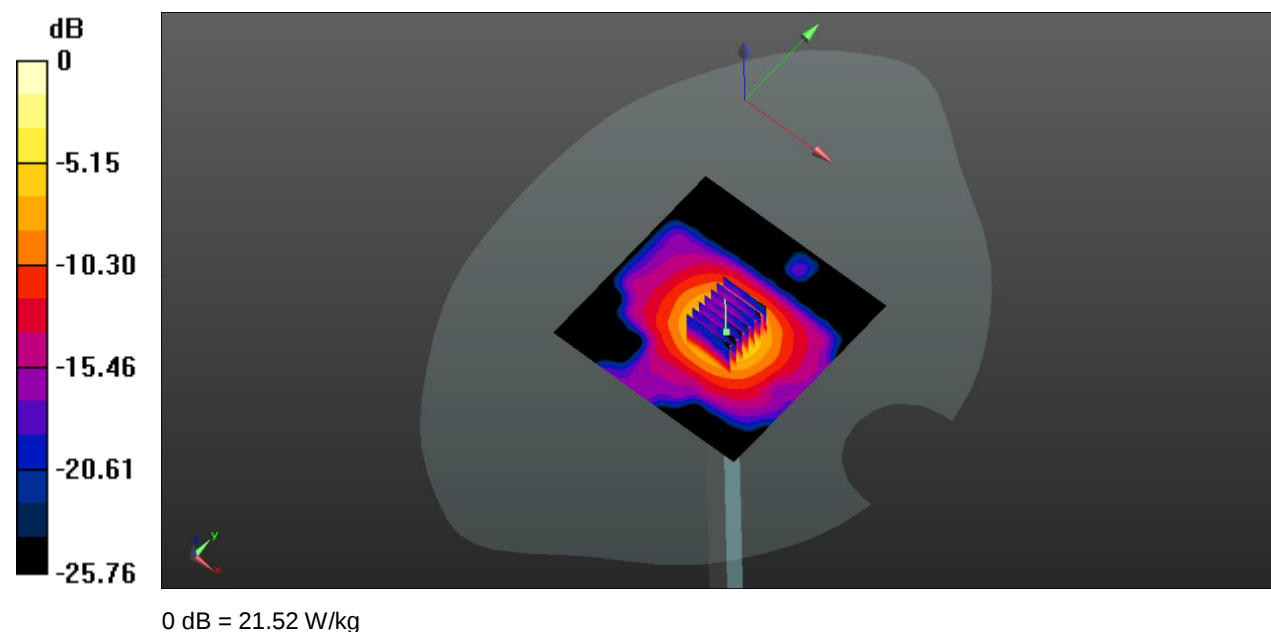
CW 5600/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 34.73 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 37.65 W/kg

SAR(1 g) = 8.33 W/kg; SAR(10 g) = 2.41 W/kg

Maximum value of SAR (measured) = 21.52 W/kg



System Performance Check Data (5750MHz)

Date: 2023.12.27

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

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.086$ S/m; $\epsilon_r = 35.175$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5750/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.82 W/kg

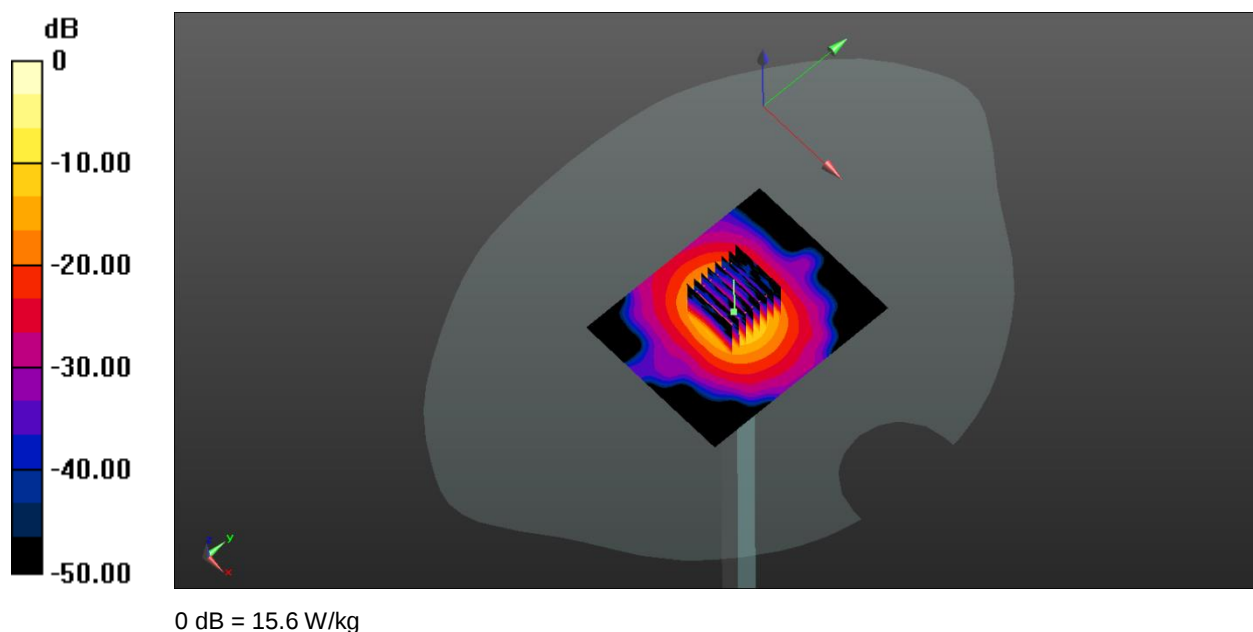
CW 5750/Zoom Scan (7x7x15)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.34 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 36.5 W/kg

SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.11 W/kg

Maximum value of SAR (measured) = 15.6 W/kg



ANNEX C TEST DATA

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

Date: 2023.12.21

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

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.941$ S/m; $\epsilon_r = 40.745$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch251/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.593 W/kg

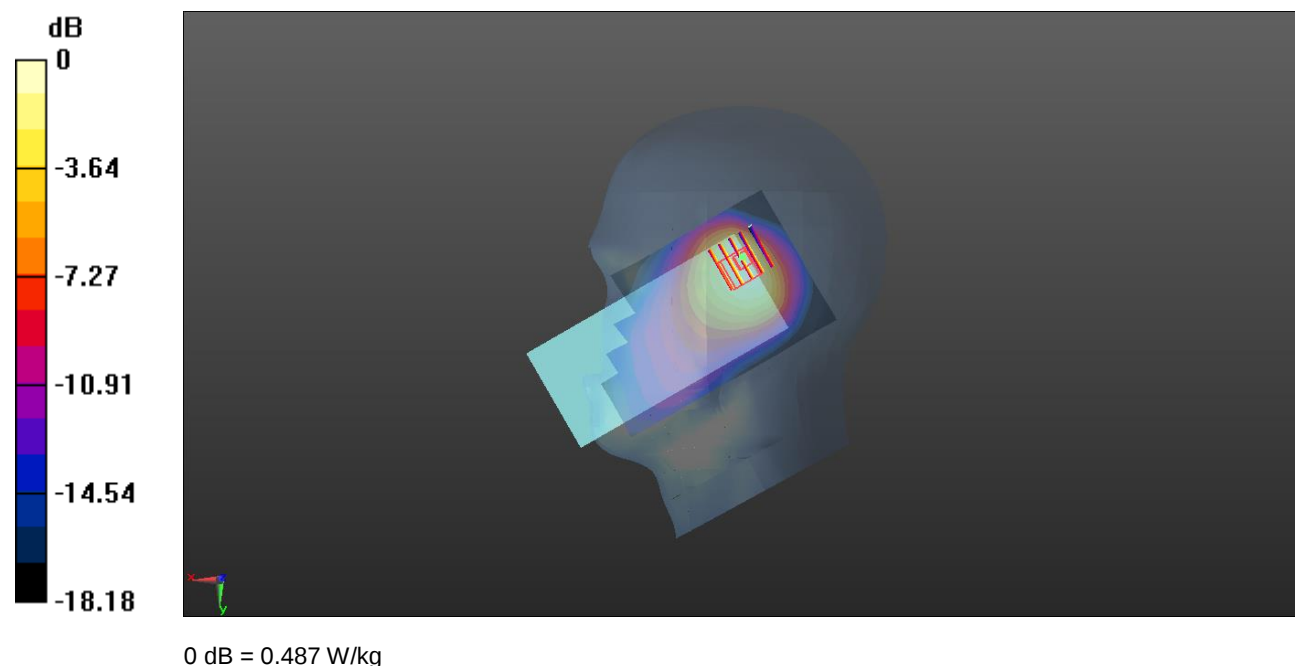
Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.91 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.884 W/kg

SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.487 W/kg



Meas.2 Body Plane with Top Edge 10mm on High Channel in GPRS850 2slots mode with Antenna 1

Date: 2023.12.21

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

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.941$ S/m; $\epsilon_r = 40.745$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch251/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.152 W/kg

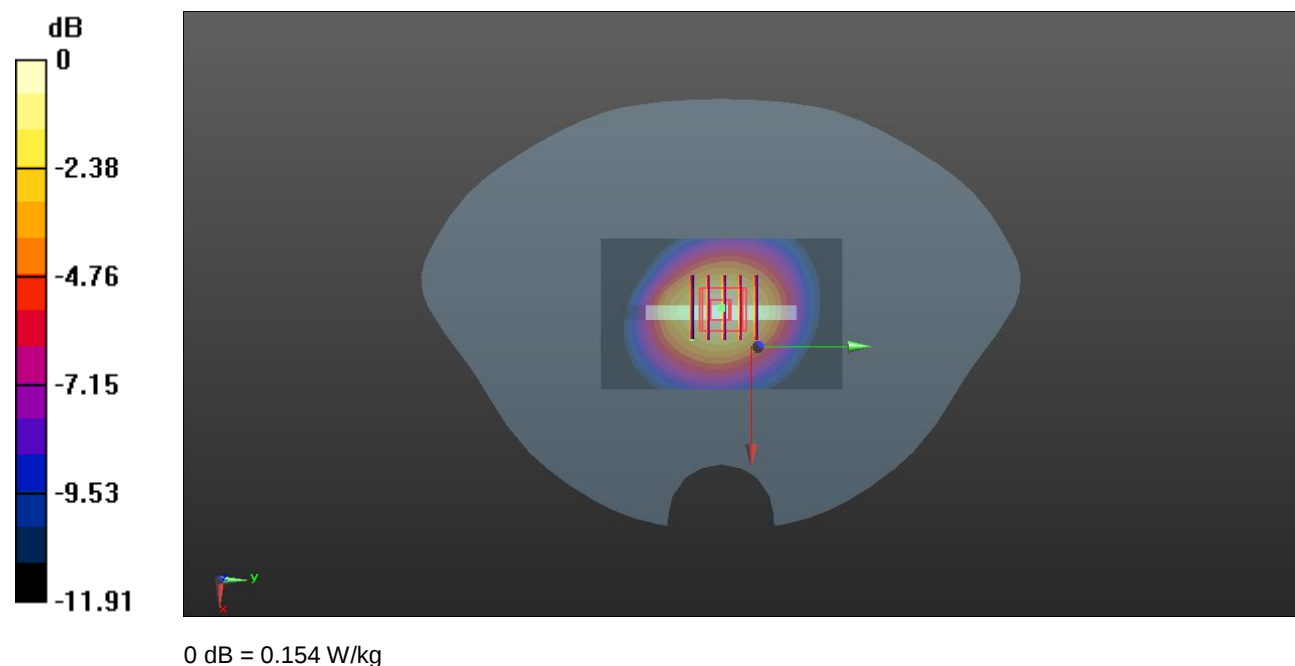
Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.70 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.212 W/kg

SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.091 W/kg

Maximum value of SAR (measured) = 0.154 W/kg



Meas.3 Right Head with Tilt on Low Channel GPRS 1900 2Slots with Antenna 3

Date: 2023.12.23

Communication System Band: GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.367$ S/m; $\epsilon_r = 41.164$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

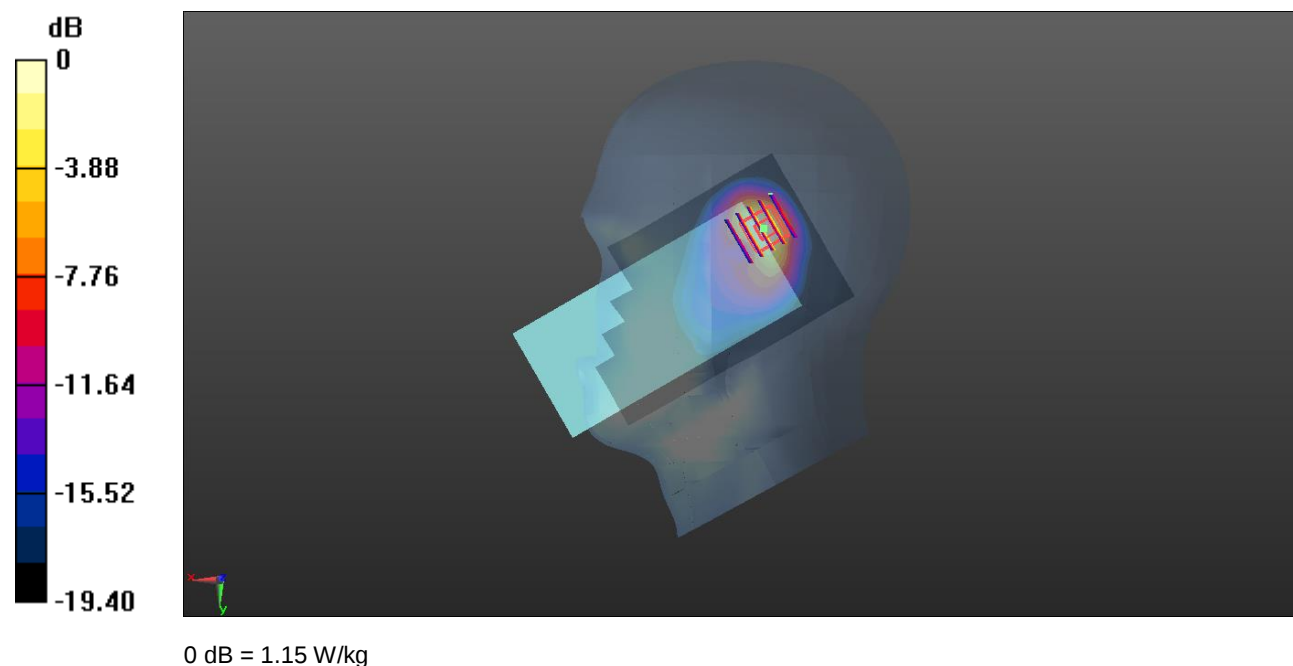
Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.30 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.954 W/kg; SAR(10 g) = 0.439 W/kg

Maximum value of SAR (measured) = 1.15 W/kg



Meas.4 Body Plane with Top Edge 10mm on Low Channel GPRS 1900 2Slots with Antenna 3

Date: 2023.12.23

Communication System Band: GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.1

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.367$ S/m; $\epsilon_r = 41.164$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch512/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.494 W/kg

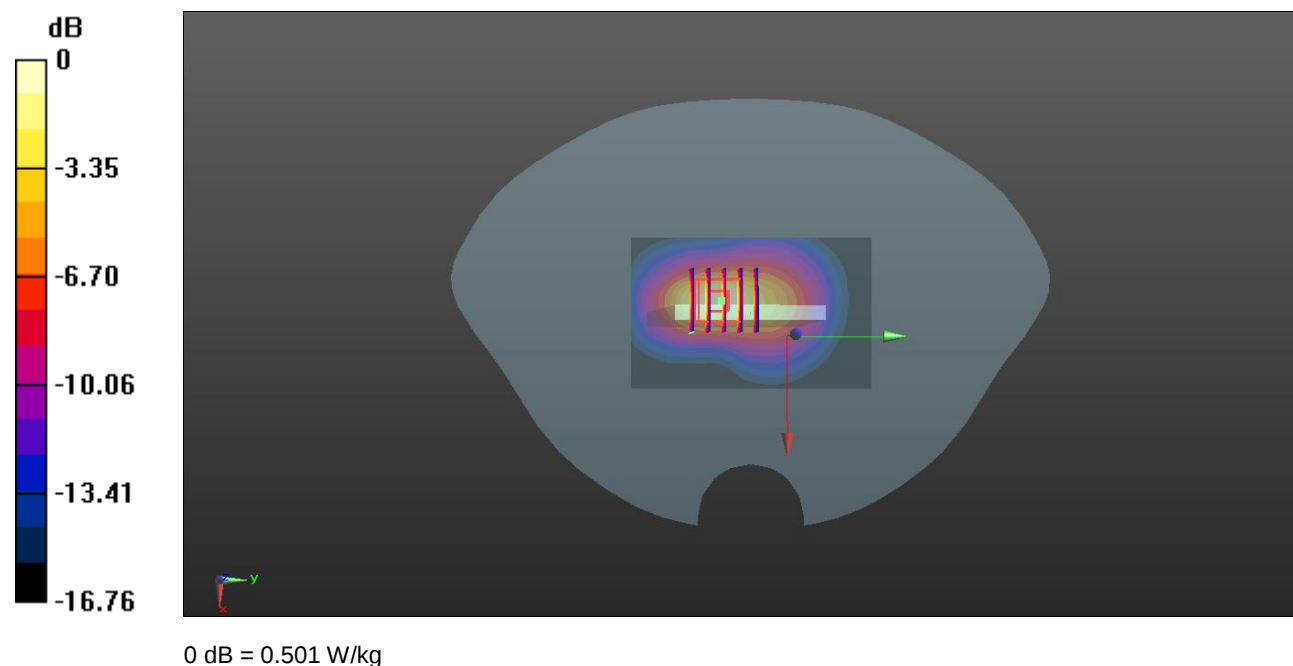
Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.58 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.759 W/kg

SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.501 W/kg



5-Right Head with Tilt on Middle Channel WCDMA Band2 with Antenna 3

Date: 2023.12.23

Communication System Band: Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.092$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9400/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.673 W/kg

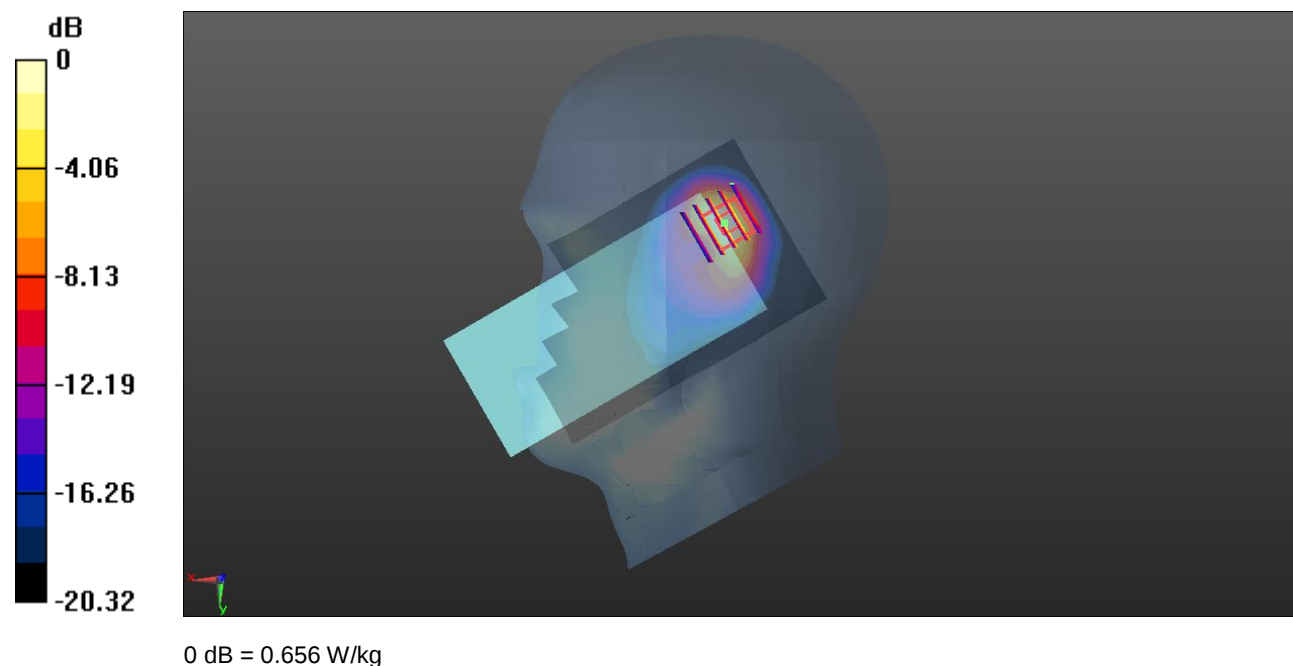
Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.79 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.547 W/kg; SAR(10 g) = 0.245 W/kg

Maximum value of SAR (measured) = 0.656 W/kg



Meas.6 Body Plane with Top Edge 10mm on Middle Channel in WCDMA Band2 mode with Antenna 3

Date: 2023.12.23

Communication System Band: Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.092$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9400/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.271 W/kg

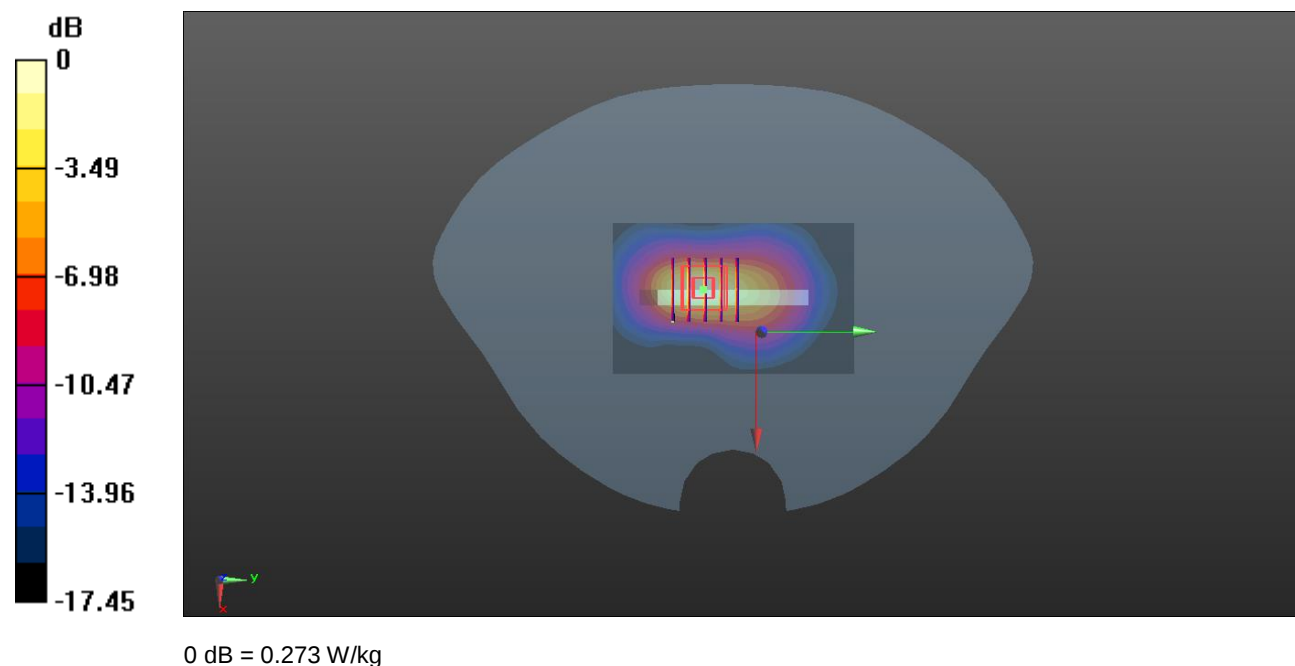
Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.42 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.421 W/kg

SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.120 W/kg

Maximum value of SAR (measured) = 0.273 W/kg



Meas.7 Right Head with Tilt on High Channel WCDMA Band4 with Antenna 3

Date: 2023.12.22

Communication System Band: Band 4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.379$ S/m; $\epsilon_r = 40.044$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.52, 8.91, 8.76); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1513/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.840 W/kg

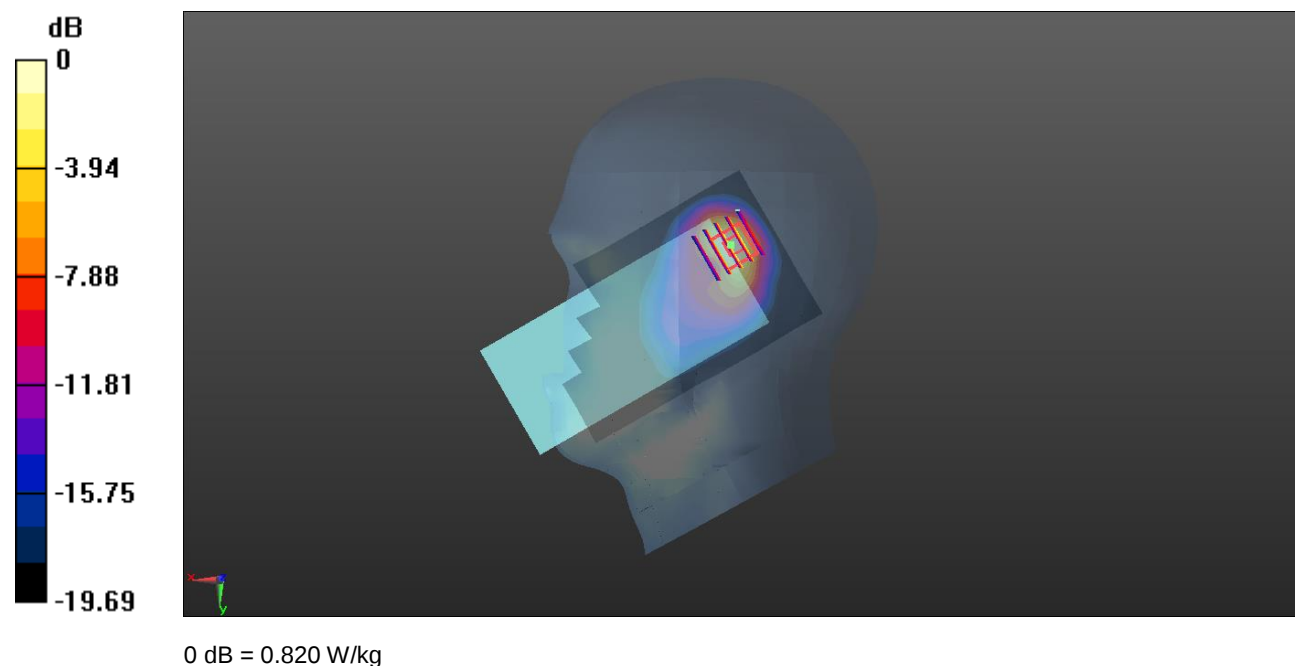
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.16 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.681 W/kg; SAR(10 g) = 0.315 W/kg

Maximum value of SAR (measured) = 0.820 W/kg



Meas.8 Body Plane with Top Edge 10mm on High Channel in WCDMA Band4 mode with Antenna 3

Date: 2023.12.22

Communication System Band: Band 4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.379$ S/m; $\epsilon_r = 40.044$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.52, 8.91, 8.76); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1513/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.278 W/kg

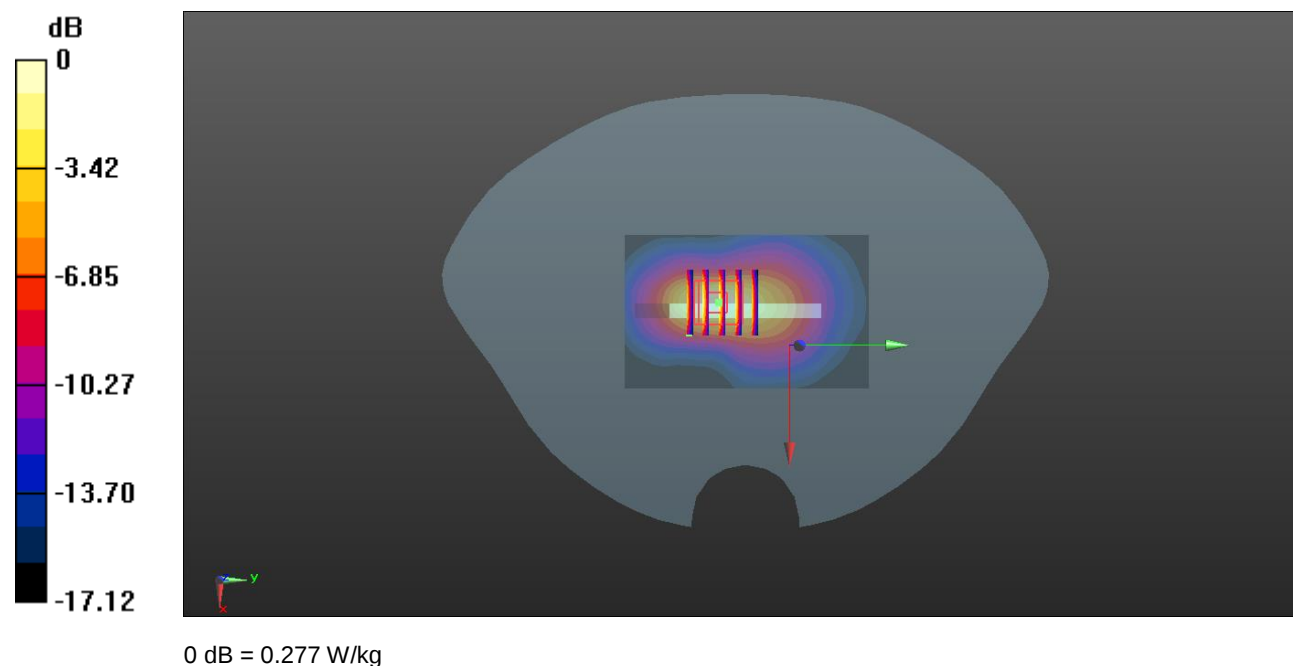
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.21 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.418 W/kg

SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.125 W/kg

Maximum value of SAR (measured) = 0.277 W/kg



Meas.9 Right Head with Cheek on High Channel WCDMA Band5 with Antenna 3

Date: 2023.12.21

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

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.928$ S/m; $\epsilon_r = 41.824$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.571 W/kg

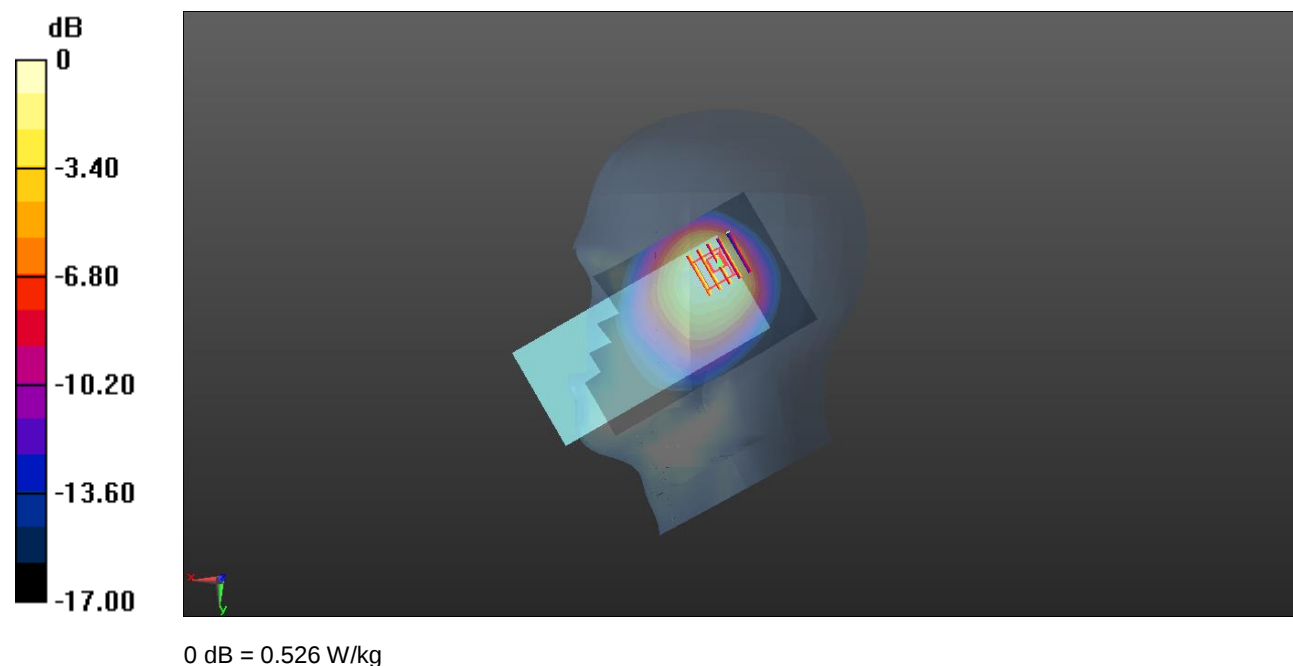
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.58 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.905 W/kg

SAR(1 g) = 0.506 W/kg; SAR(10 g) = 0.331 W/kg

Maximum value of SAR (measured) = 0.526 W/kg



Meas.10 Body Plane with Back Side 10mm on High Channel in WCDMA Band5 mode with Antenna 3

Date: 2023.12.21

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

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.928$ S/m; $\epsilon_r = 41.824$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.166 W/kg

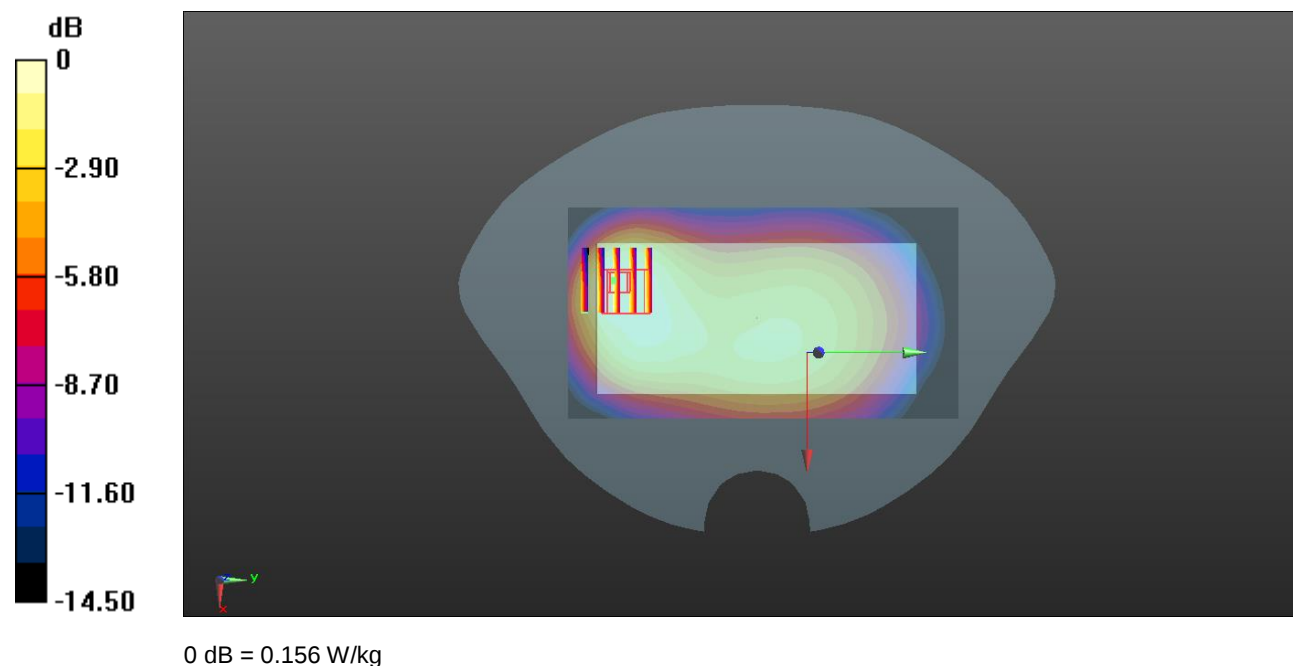
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.31 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.224 W/kg

SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.099 W/kg

Maximum value of SAR (measured) = 0.156 W/kg



Meas.11 Right Head with Tilt on Middle Channel LTE Band2 with Antenna 3

Date: 2023.12.29

Communication System Band: Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.092$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18900/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.519 W/kg

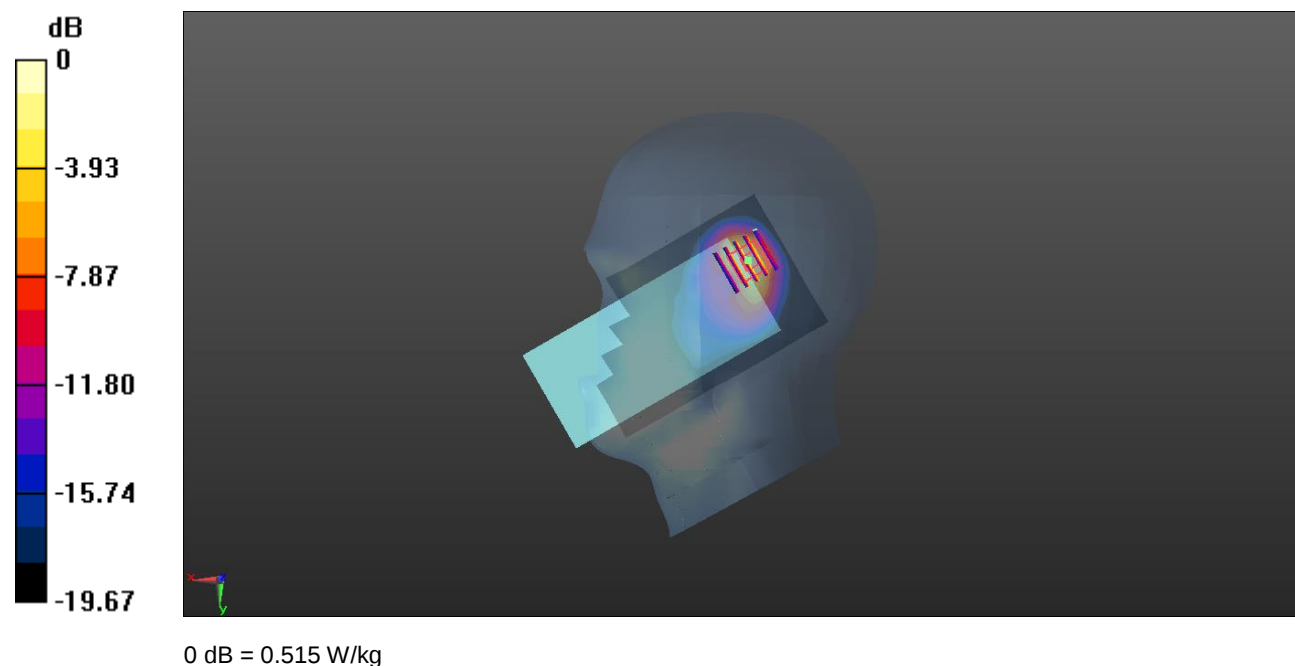
Ch18900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.60 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.840 W/kg

SAR(1 g) = 0.422 W/kg; SAR(10 g) = 0.191 W/kg

Maximum value of SAR (measured) = 0.515 W/kg



Meas.12 Body Plane with Top Edge 10mm on Middle Channel in LTE B2 mode with Antenna 3

Date: 2023.12.29

Communication System Band: Band 2; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.376$ S/m; $\epsilon_r = 40.092$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.98, 8.26, 8.14); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18900/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.199 W/kg

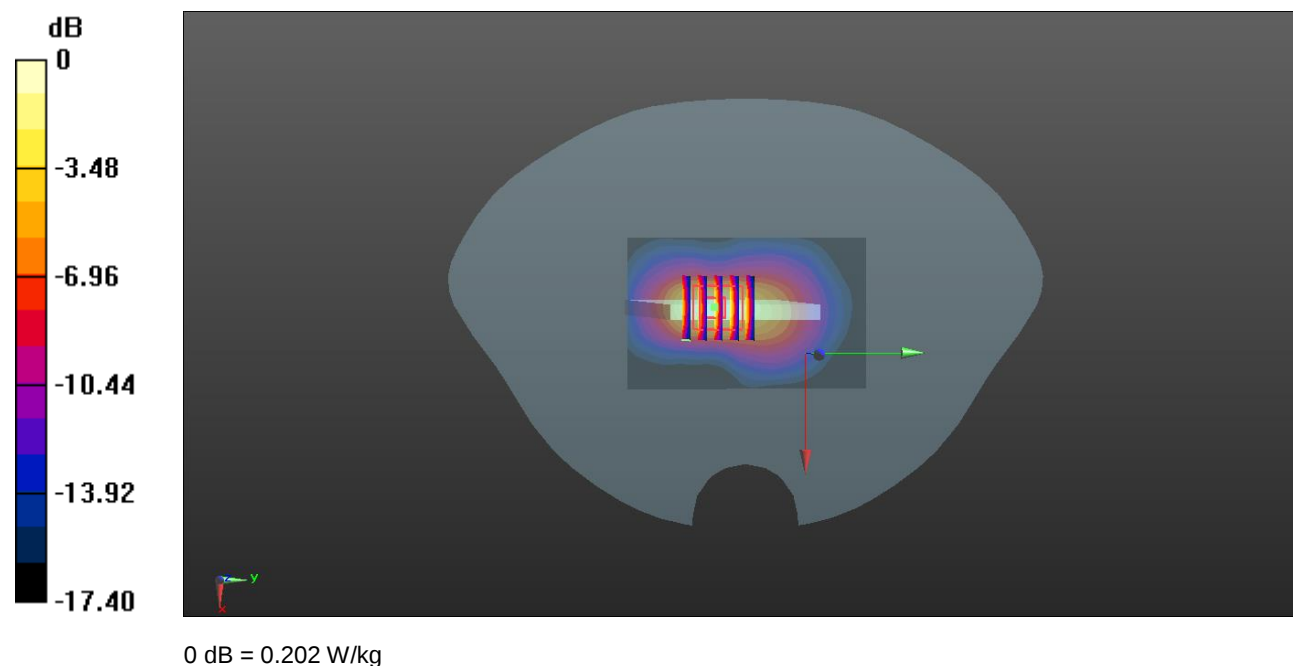
Ch18900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.212 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.307 W/kg

SAR(1 g) = 0.175 W/kg; SAR(10 g) = 0.089 W/kg

Maximum value of SAR (measured) = 0.202 W/kg



Meas.13 Right Head with Cheek on High Channel LTE Band5 with Antenna 3

Date: 2023.12.20

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

Medium parameters used (interpolated): $f = 844$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.321$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.679 W/kg

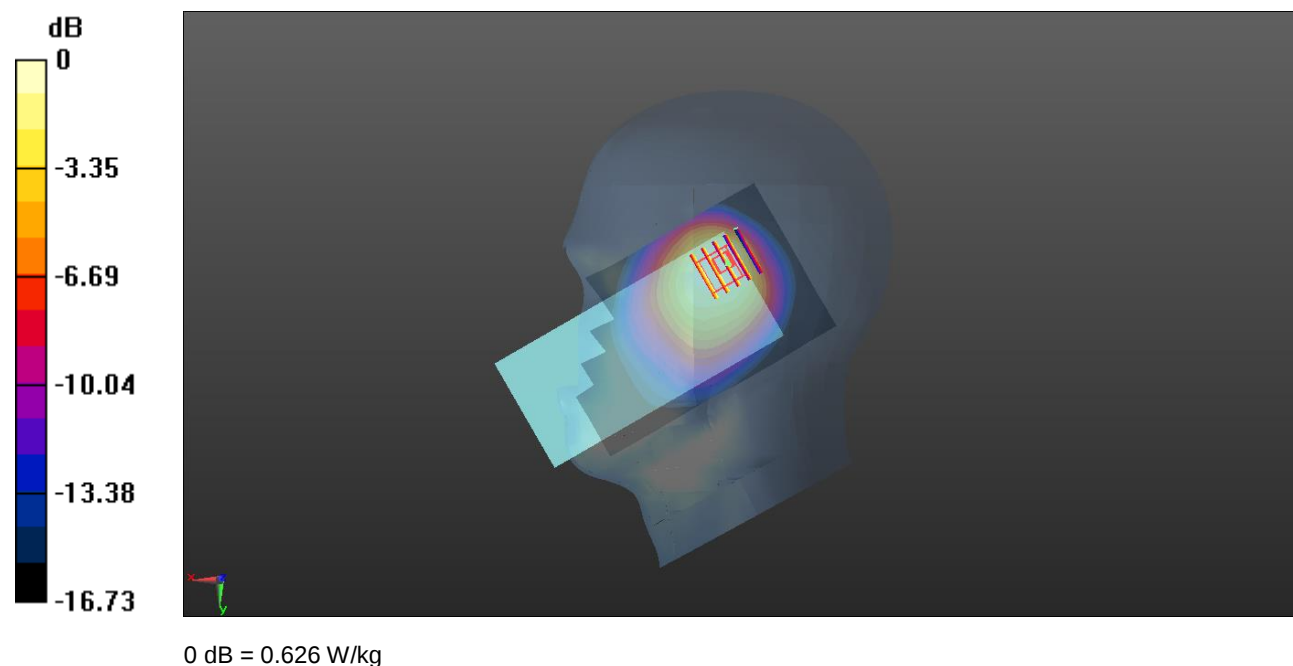
Ch20600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.59 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.601 W/kg; SAR(10 g) = 0.394 W/kg

Maximum value of SAR (measured) = 0.626 W/kg



Meas.14 Body Plane with Back Side 10mm on High Channel in LTE Band5 mode with Antenna 3

Date: 2023.12.20

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

Medium parameters used (interpolated): $f = 844$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.321$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.188 W/kg

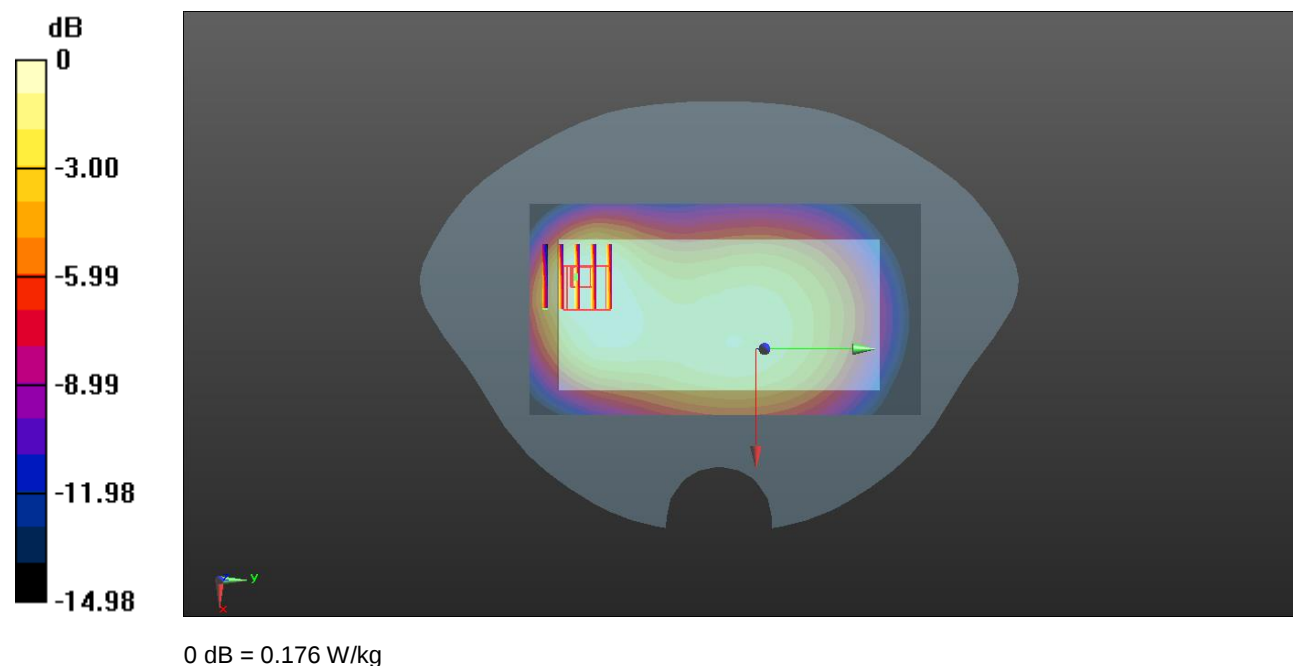
Ch20600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.94 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.255 W/kg

SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.111 W/kg

Maximum value of SAR (measured) = 0.176 W/kg



Meas.15 Right Head with Tilt on High Channel LTE Band7 with Antenna 3

Date: 2023.12.25

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

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.908$ S/m; $\epsilon_r = 38.968$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.800 W/kg

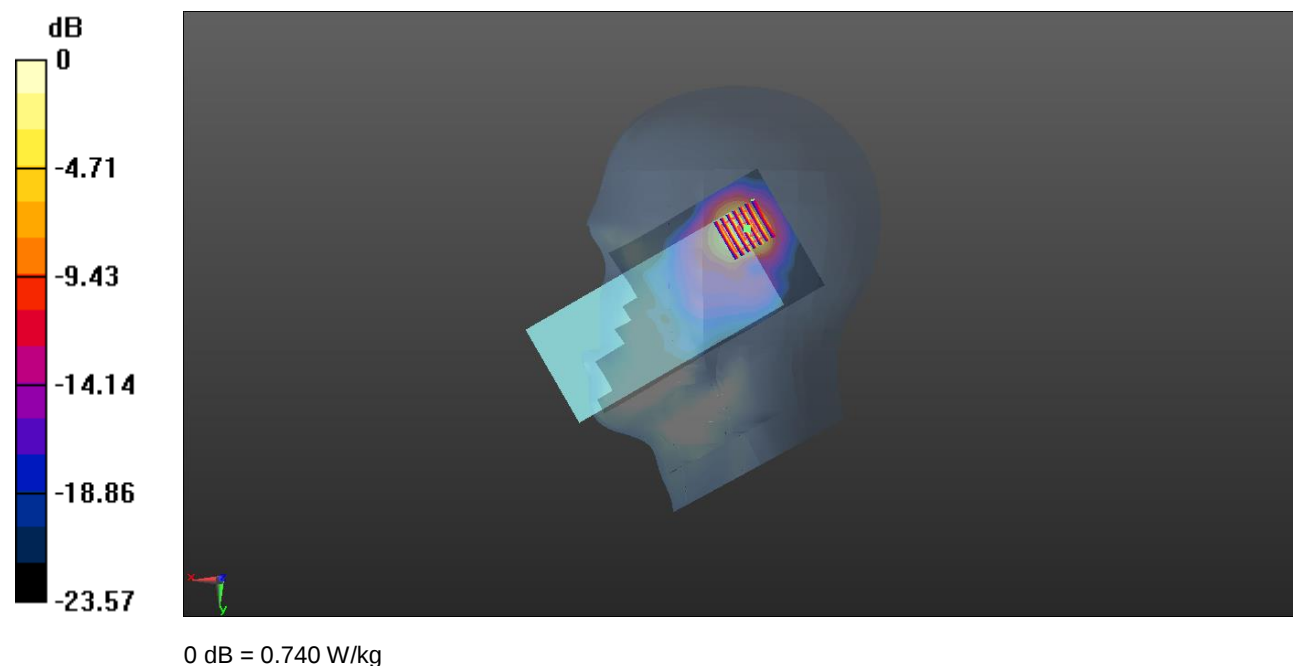
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.149 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.43 W/kg

SAR(1 g) = 0.634 W/kg; SAR(10 g) = 0.279 W/kg

Maximum value of SAR (measured) = 0.740 W/kg



Meas.16 Body Plane with Back Side 10mm on High Channel in LTE Band7 mode with Antenna 3

Date: 2023.12.25

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

Medium parameters used (interpolated): $f = 2560$ MHz; $\sigma = 1.908$ S/m; $\epsilon_r = 38.968$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21350/Area Scan (91x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.436 W/kg

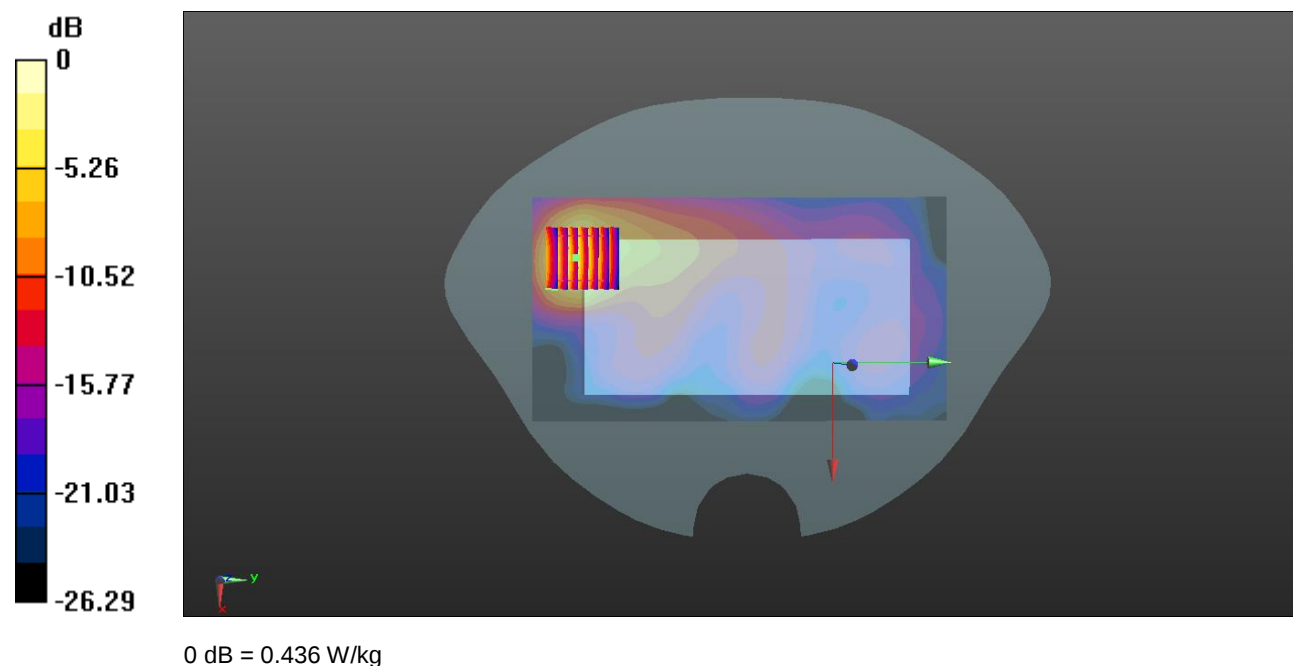
Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.677 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.759 W/kg

SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.169 W/kg

Maximum value of SAR (measured) = 0.436 W/kg



Meas.17 Right Head with Cheek on High Channel LTE Band 12 with Antenna 3

Date: 2023.12.20

Communication System Band: Band 12; Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 711$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 42.728$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.31,10.57,10.43); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23130/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.720 W/kg

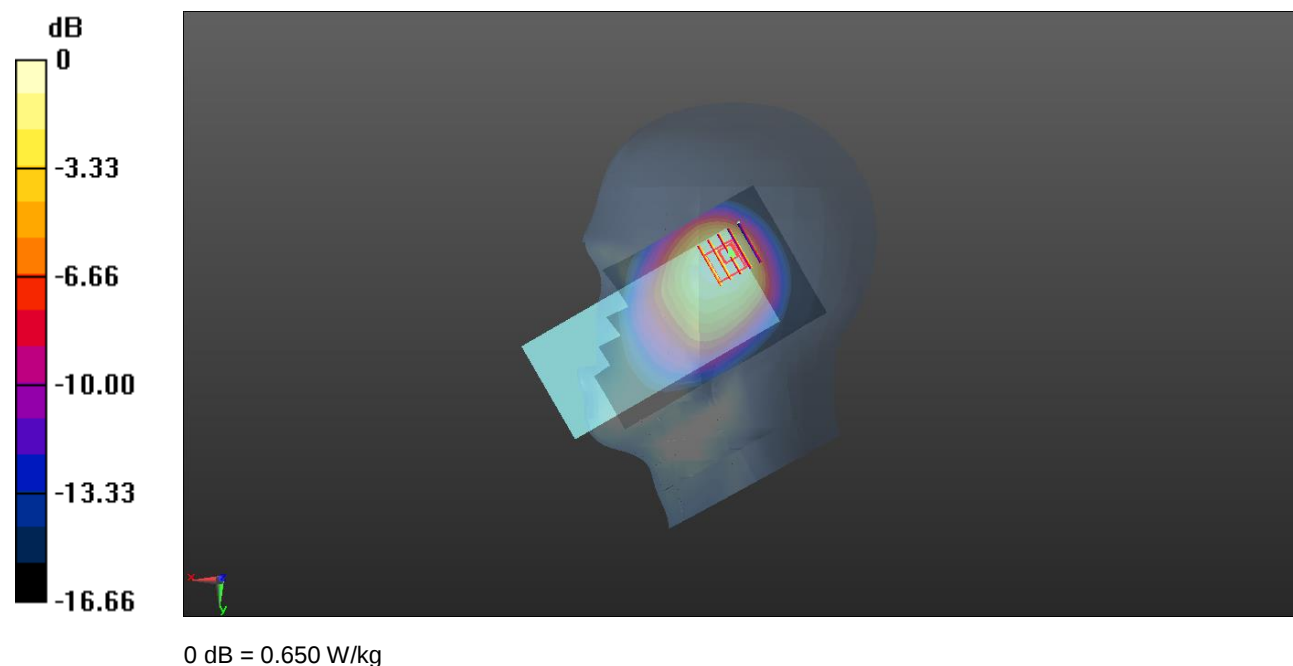
Ch23130/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.37 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.616 W/kg; SAR(10 g) = 0.401 W/kg

Maximum value of SAR (measured) = 0.650 W/kg



Meas.18 Body Plane with Back Side 10mm on High Channel in LTE Band12 mode with Antenna 3

Date: 2023.12.20

Communication System Band: Band 12; Frequency: 711 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 711$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 42.728$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(10.31,10.57,10.43); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23130/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.239 W/kg

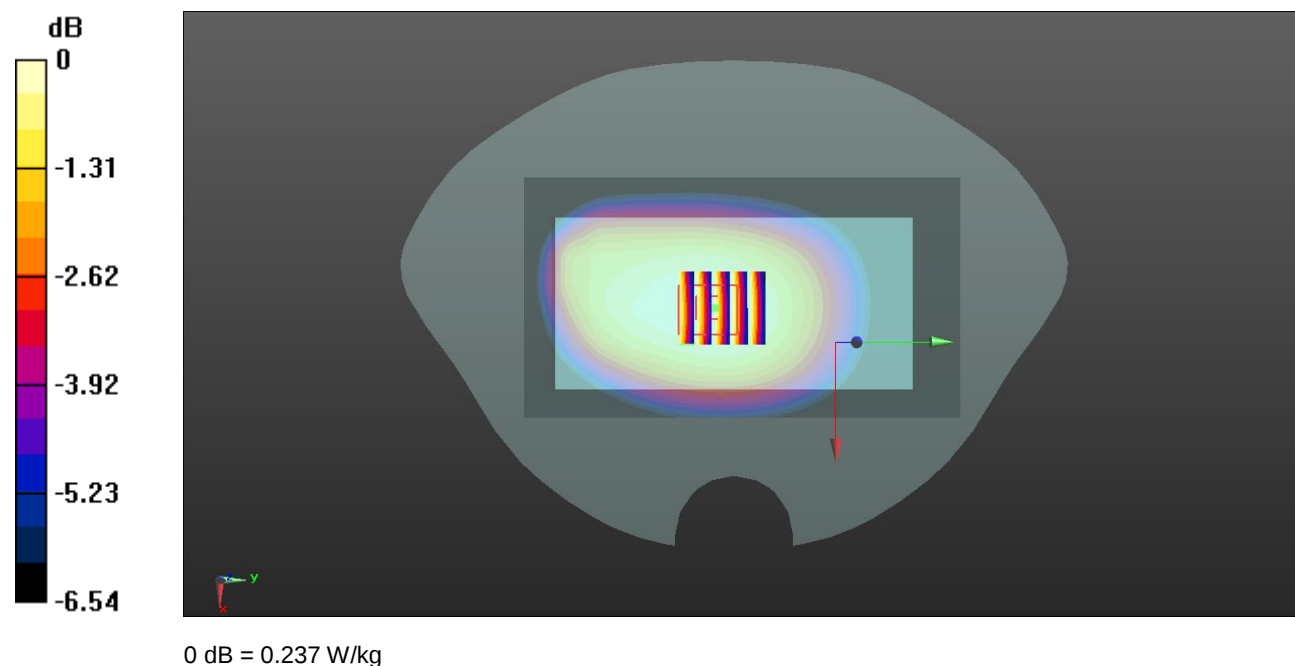
Ch23130/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 16.13 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.272 W/kg

SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.183 W/kg

Maximum value of SAR (measured) = 0.237 W/kg



Meas.19 Right Head with Cheek on High Channel LTE Band 26 with Antenna 3

Date: 2023.12.20

Communication System Band: Band 26; Frequency: 841.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 841.5$ MHz; $\sigma = 0.905$ S/m; $\epsilon_r = 40.346$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26965/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.813 W/kg

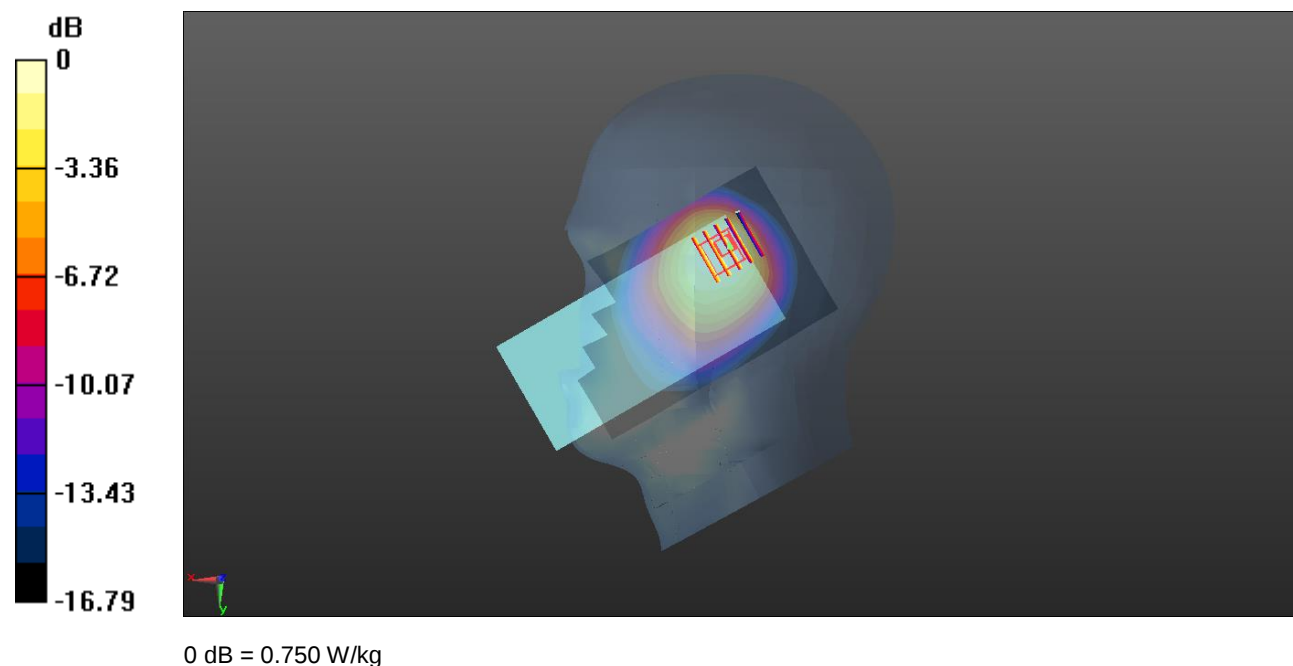
Ch26965/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.40 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.720 W/kg; SAR(10 g) = 0.472 W/kg

Maximum value of SAR (measured) = 0.750 W/kg



Meas.20 Body Plane with Back Side 10mm on High Channel in LTE Band26 mode with Antenna 1

Date: 2023.12.20

Communication System Band: Band 26; Frequency: 841.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 841.5$ MHz; $\sigma = 0.905$ S/m; $\epsilon_r = 40.346$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(9.96, 10.1, 10.15); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch26965/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.227 W/kg

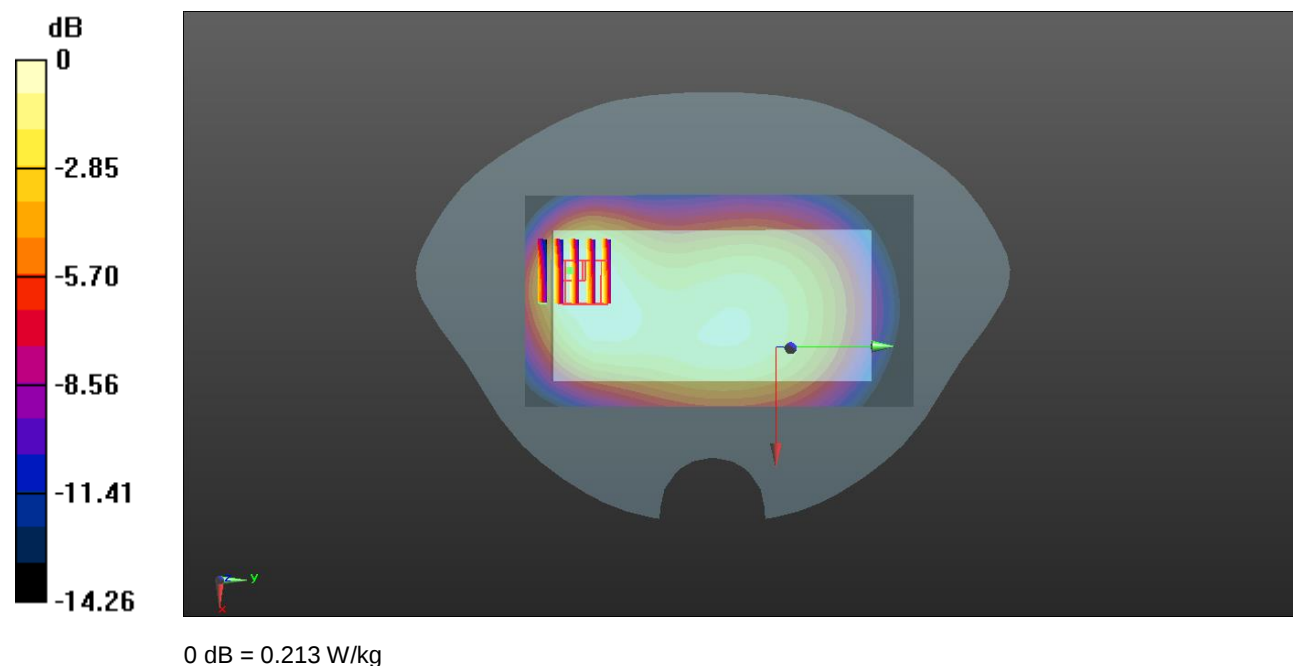
Ch26965/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.37 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.305 W/kg

SAR(1 g) = 0.200 W/kg; SAR(10 g) = 0.137 W/kg

Maximum value of SAR (measured) = 0.213 W/kg



Meas.21 Right Head with Tilt on High Channel LTE Band66 with Antenna 3

Date: 2023.12.22

Communication System Band: Band 66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.399$ S/m; $\epsilon_r = 39.636$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.52, 8.91, 8.76); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch132572 /Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.700 W/kg

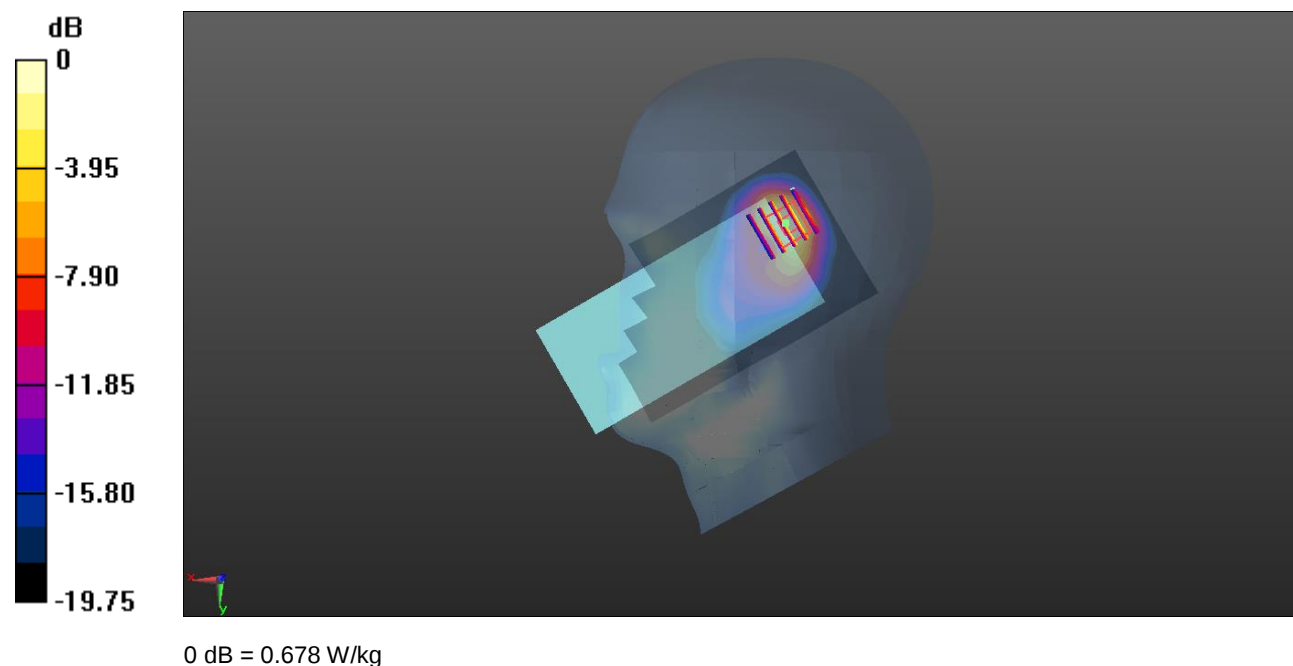
Ch132572 /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.47 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.575 W/kg; SAR(10 g) = 0.265 W/kg

Maximum value of SAR (measured) = 0.678 W/kg



Meas.22 Body Plane with Top Edge 10mm on High Channel in LTE Band66 mode with Antenna 3

Date: 2023.12.22

Communication System Band: Band 66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1770$ MHz; $\sigma = 1.399$ S/m; $\epsilon_r = 39.636$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(8.52, 8.91, 8.76); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch13257/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.269 W/kg

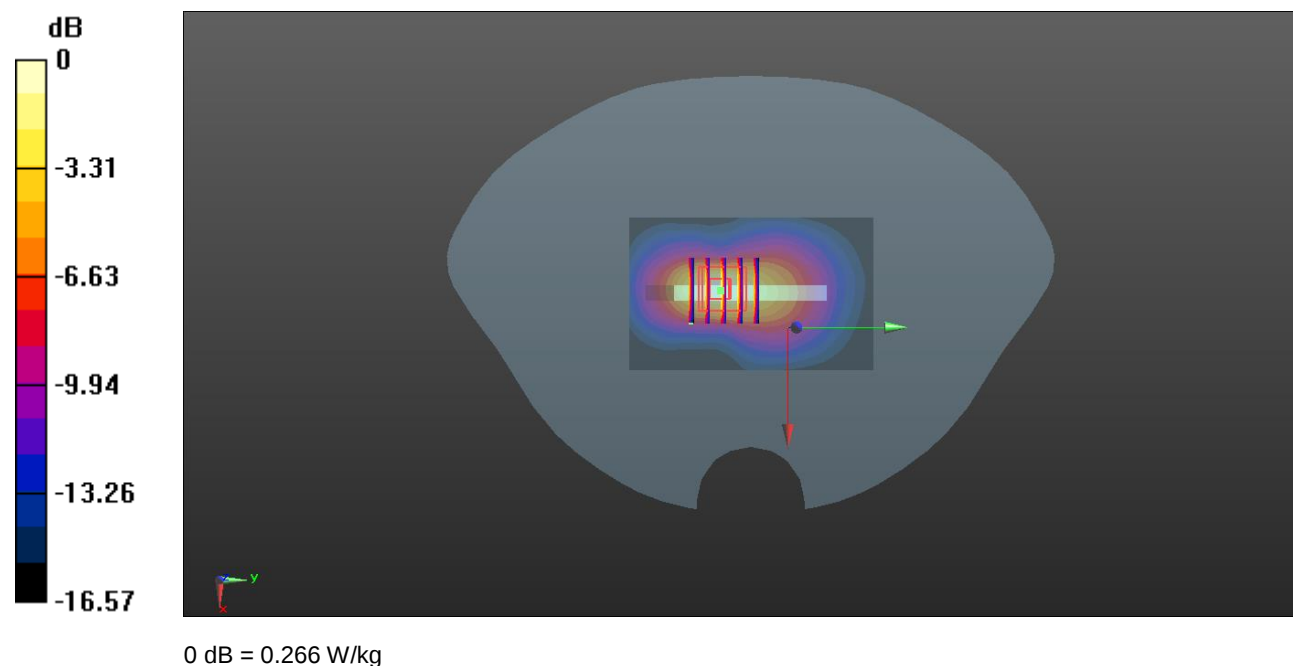
Ch13257/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.07 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.402 W/kg

SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.266 W/kg



Meas.23 Right Head with Tilt on Low Channel LTE Band38 with Antenna 3

Date: 2023.12.25

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

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.921$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch37850/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.526 W/kg

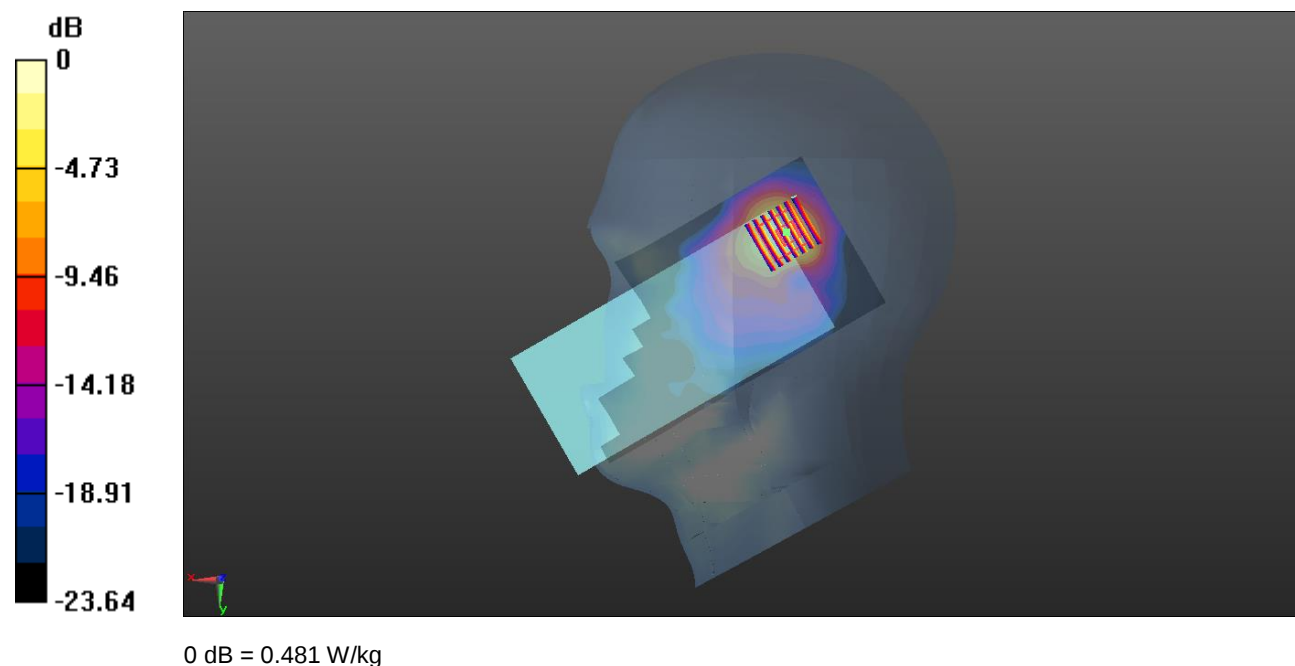
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.989 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.930 W/kg

SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.184 W/kg

Maximum value of SAR (measured) = 0.481 W/kg



Meas.24 Body Plane with Back Side 10mm on Low Channel in LTE Band38 mode with Antenna 3

Date: 2023.12.25

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

Medium parameters used (interpolated): $f = 2580$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.921$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch37850/Area Scan (91x171x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

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

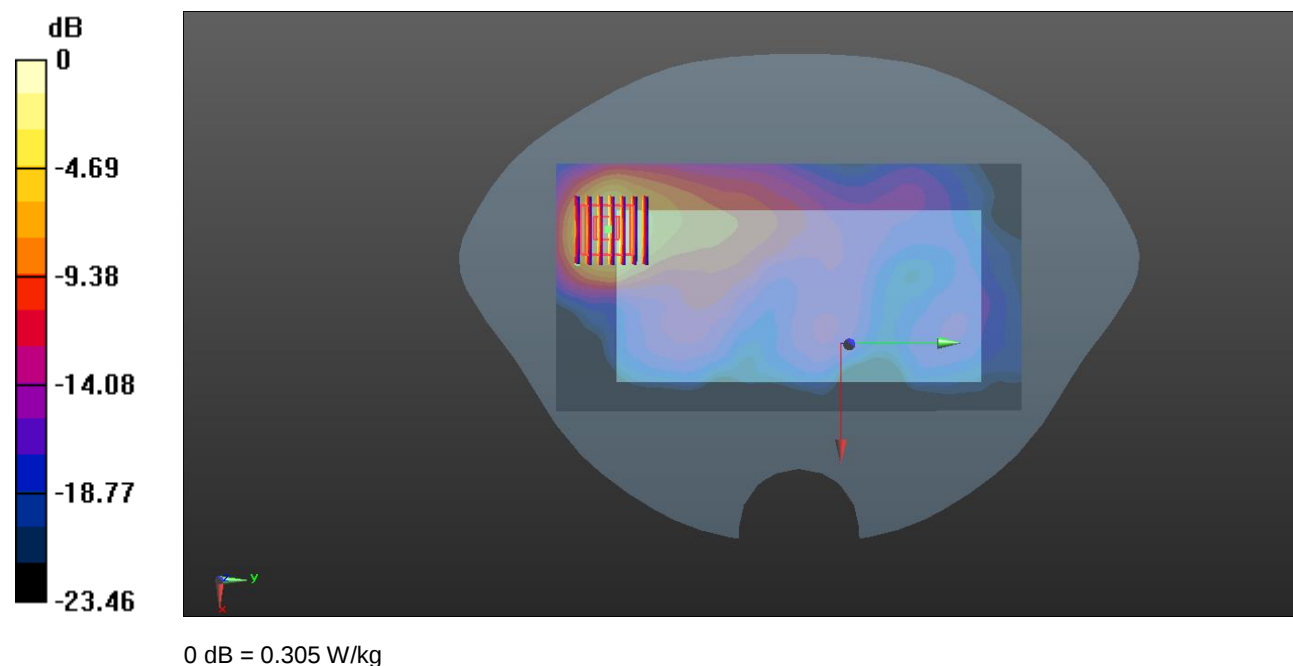
Ch37850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 2.075 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.541 W/kg

SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.119 W/kg

Maximum value of SAR (measured) = 0.305 W/kg



Meas.25 Right Head with Tilt on Middle Channel LTE Band41 with Antenna 3

Date: 2023.12.26

Communication System Band: Band41; Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2595$ MHz; $\sigma = 1.983$ S/m; $\epsilon_r = 38.515$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch40640/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.637 W/kg

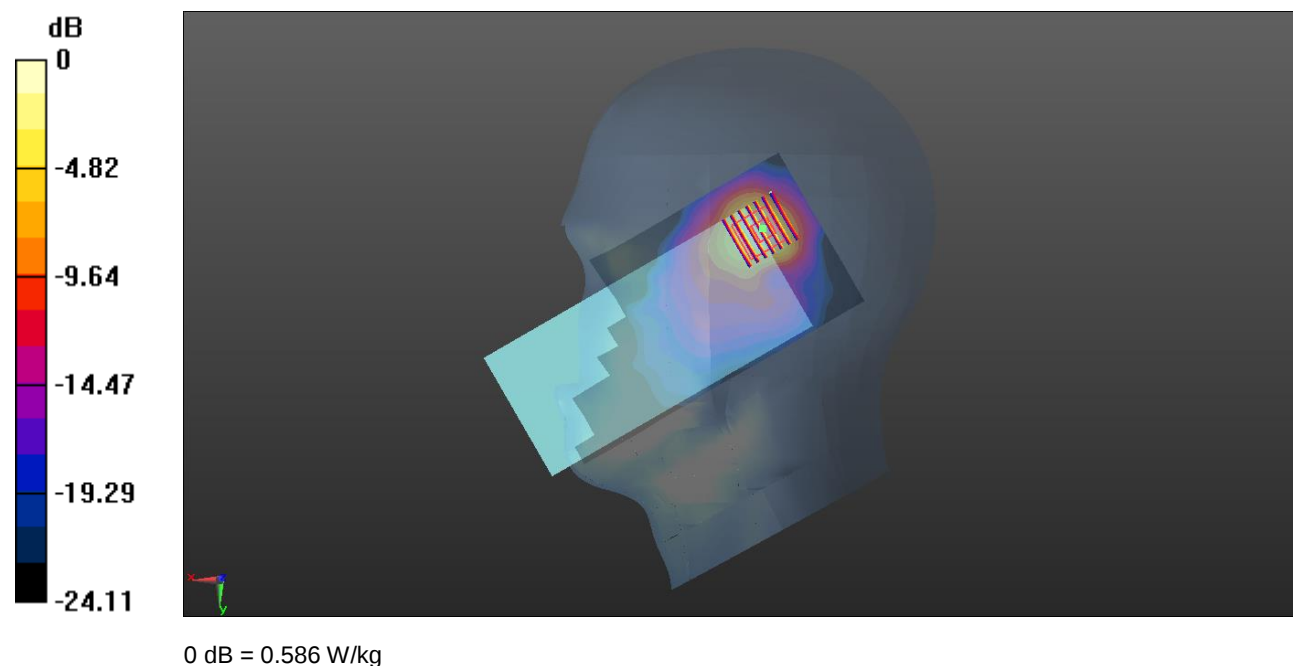
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.957 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.226 W/kg

Maximum value of SAR (measured) = 0.586 W/kg



Meas.26 Body Plane with Top Edge 10mm on Middle Channel in LTE Band41 mode with Antenna 3

Date: 2023.12.26

Communication System Band: Band41; Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2595$ MHz; $\sigma = 1.983$ S/m; $\epsilon_r = 38.515$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.41, 7.73, 7.59); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch40640/Area Scan (61x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.413 W/kg

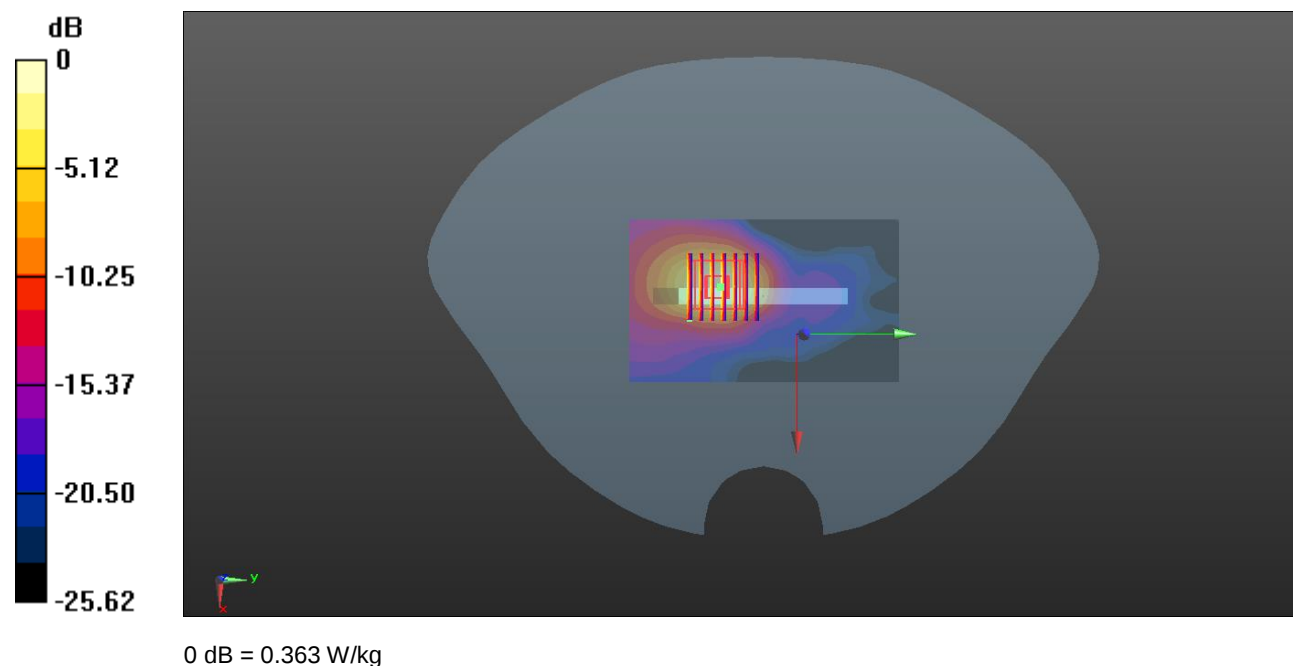
Ch40640/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 4.586 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.640 W/kg

SAR(1 g) = 0.313 W/kg; SAR(10 g) = 0.139 W/kg

Maximum value of SAR (measured) = 0.363 W/kg



Meas.27 Left Head with Cheek on 11 Channel in IEEE802.11b mode with Antenna 1

Date: 2023.12.24

Communication System Band: WLAN(b); Frequency: 2462 MHz; Duty Cycle: 1:1.005

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.865$ S/m; $\epsilon_r = 37.388$; $\rho = 1000$ kg/m³

Phantom section: Left Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch11/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.724 W/kg

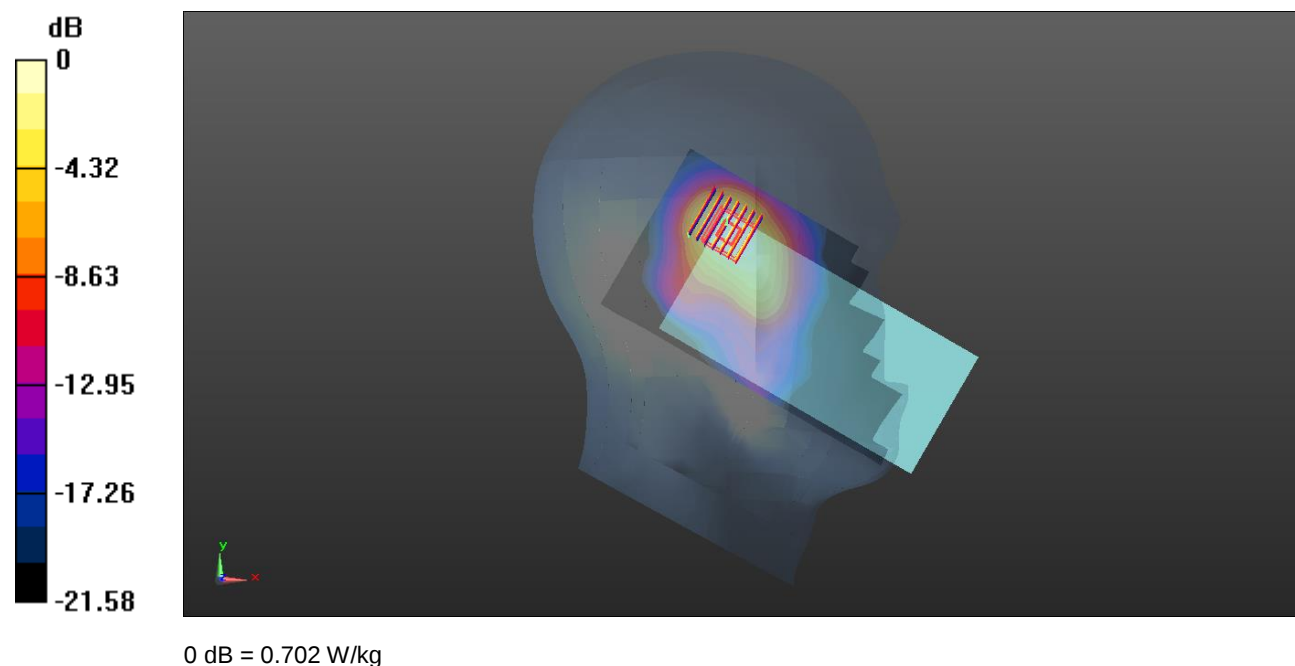
Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.871 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.901 W/kg

SAR(1 g) = 0.510 W/kg; SAR(10 g) = 0.276 W/kg

Maximum value of SAR (measured) = 0.702 W/kg



Meas.28 Body Plane with Left Edge 10mm on 11 Channel in IEE802.11b mode with Antenna 1

Date: 2023.12.24

Communication System Band: WLAN(b); Frequency: 2462 MHz; Duty Cycle: 1:1.005

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.865$ S/m; $\epsilon_r = 37.388$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch11/Area Scan (41x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.265 W/kg

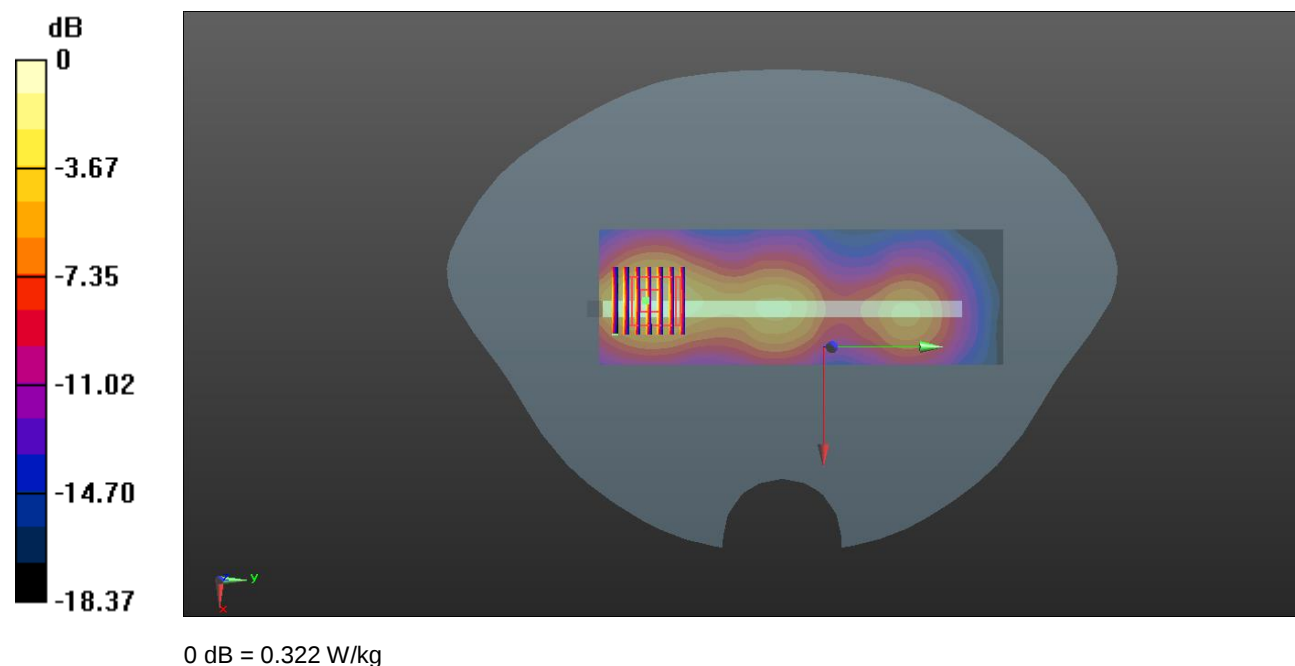
Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.201 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.416 W/kg

SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.122 W/kg

Maximum value of SAR (measured) = 0.322 W/kg



Meas.29 Left Head with Tilt on 58 Channel in IEEE802.11ac80 mode with Antenna 1

Date: 2023.12.26

Communication System Band: WLAN(ac80); Frequency: 5290 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.711$ S/m; $\epsilon_r = 34.82$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

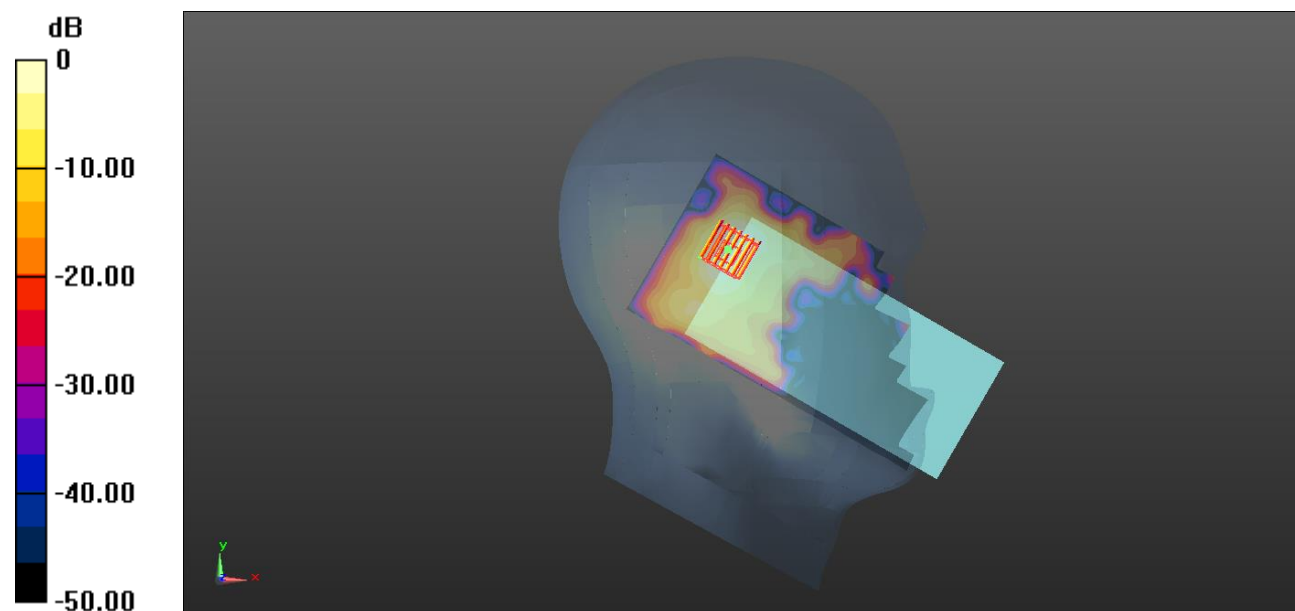
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.487 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.331 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.638 W/kg



0 dB = 0.638 W/kg

Meas.30 Left Head with Tilt on 122 Channel in IEEE802.11ac80 mode with Antenna 1

Date: 2023.12.27

Communication System Band: WLAN(ac80); Frequency: 5610 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5610$ MHz; $\sigma = 5.215$ S/m; $\epsilon_r = 34.628$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.58, 4.95, 4.75); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

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

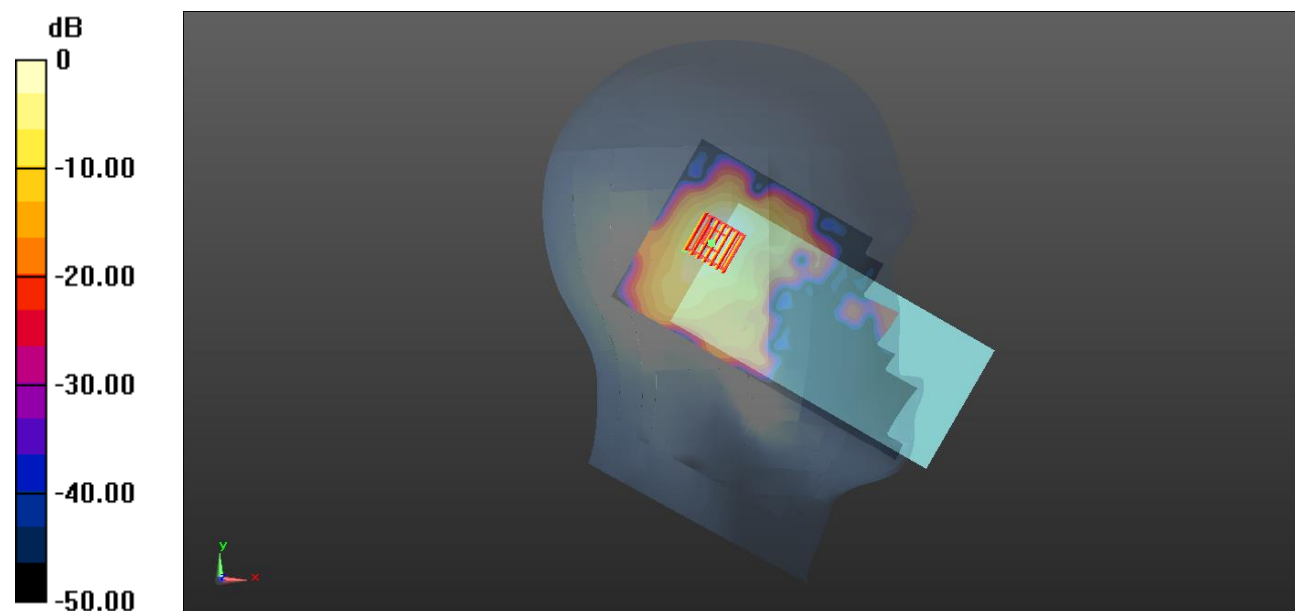
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.175 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.29 W/kg

SAR(1 g) = 0.535 W/kg; SAR(10 g) = 0.176 W/kg

Maximum value of SAR (measured) = 1.12 W/kg



0 dB = 1.12 W/kg

Meas.31 Left Head with Tilt on 155 Channel in IEEE802.11ac80 mode with Antenna 1

Date: 2023.12.27

Communication System Band: WLAN(ac80); Frequency: 5775 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.264$ S/m; $\epsilon_r = 34.469$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

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

Maximum value of SAR (interpolated) = 0.736 W/kg

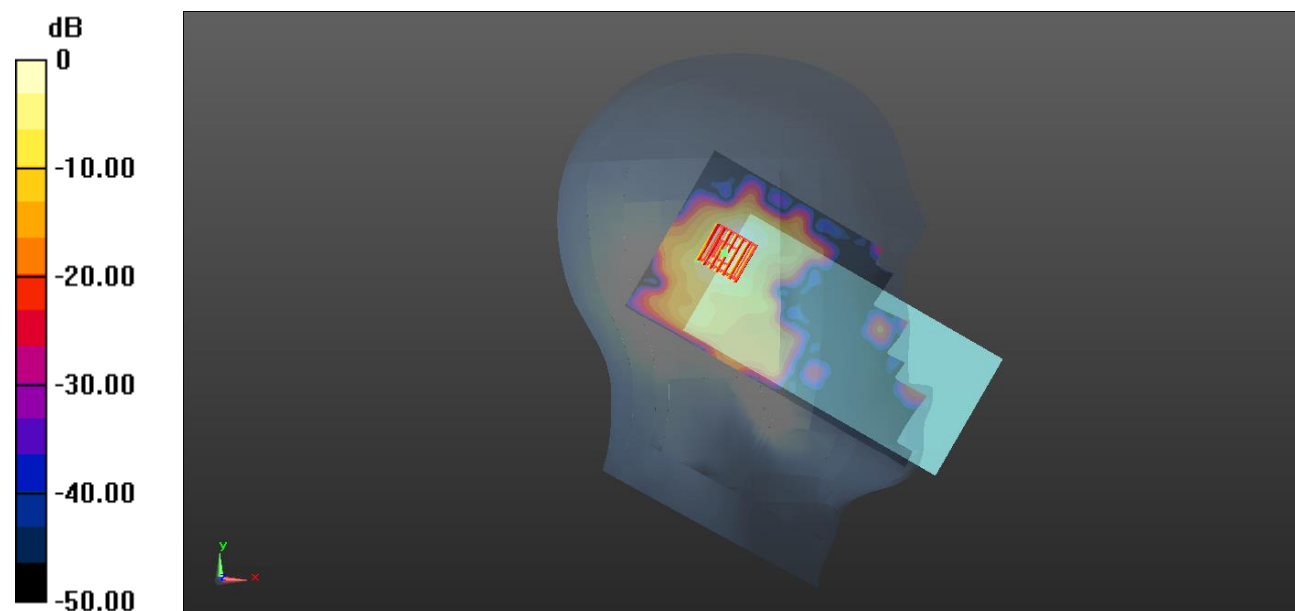
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.140 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.82 W/kg

SAR(1 g) = 0.396 W/kg; SAR(10 g) = 0.130 W/kg

Maximum value of SAR (measured) = 0.838 W/kg



0 dB = 0.838 W/kg

Meas.32 Body Plane with Back Side 10mm on 58 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.26

Communication System Band: WLAN(ac80); Frequency: 5290 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.711$ S/m; $\epsilon_r = 34.82$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch58 /Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.131 W/kg

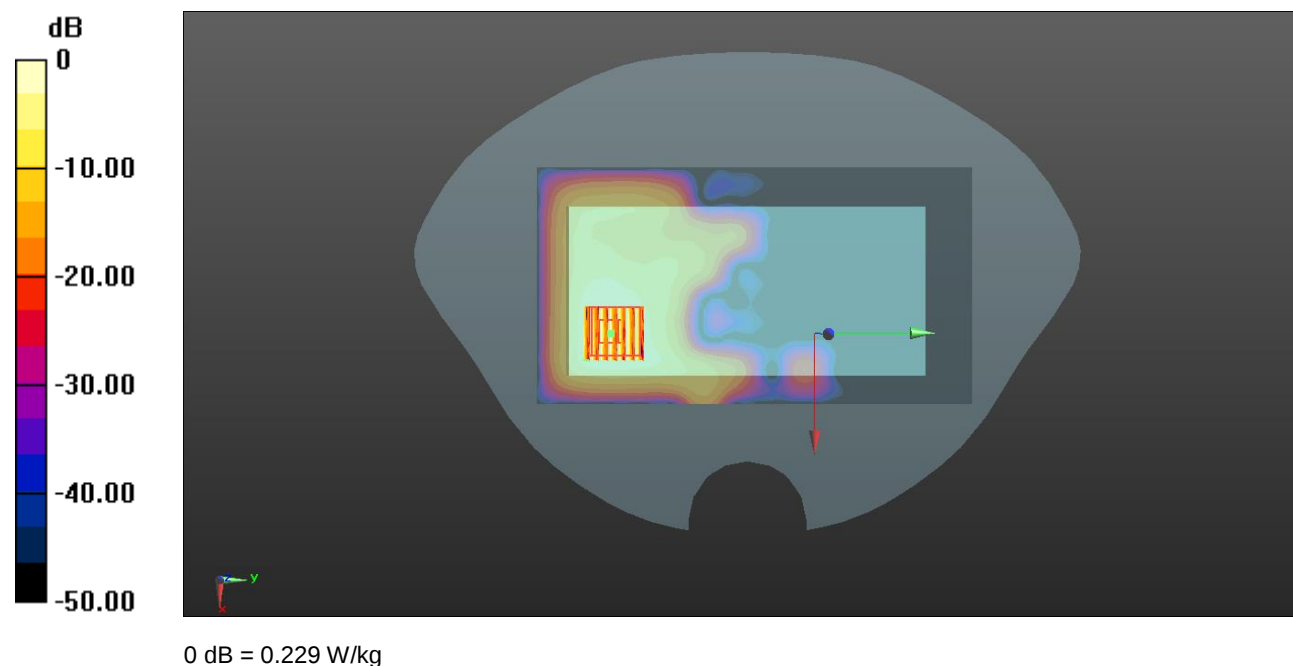
Ch58 /Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.034 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.445 W/kg

SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.050 W/kg

Maximum value of SAR (measured) = 0.229 W/kg



Meas.33 Body Plane with Back Side 10mm on 122 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.27

Communication System Band: WLAN(ac80); Frequency: 5610 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5610$ MHz; $\sigma = 5.215$ S/m; $\epsilon_r = 34.628$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.58, 4.95, 4.75); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch122/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.134 W/kg

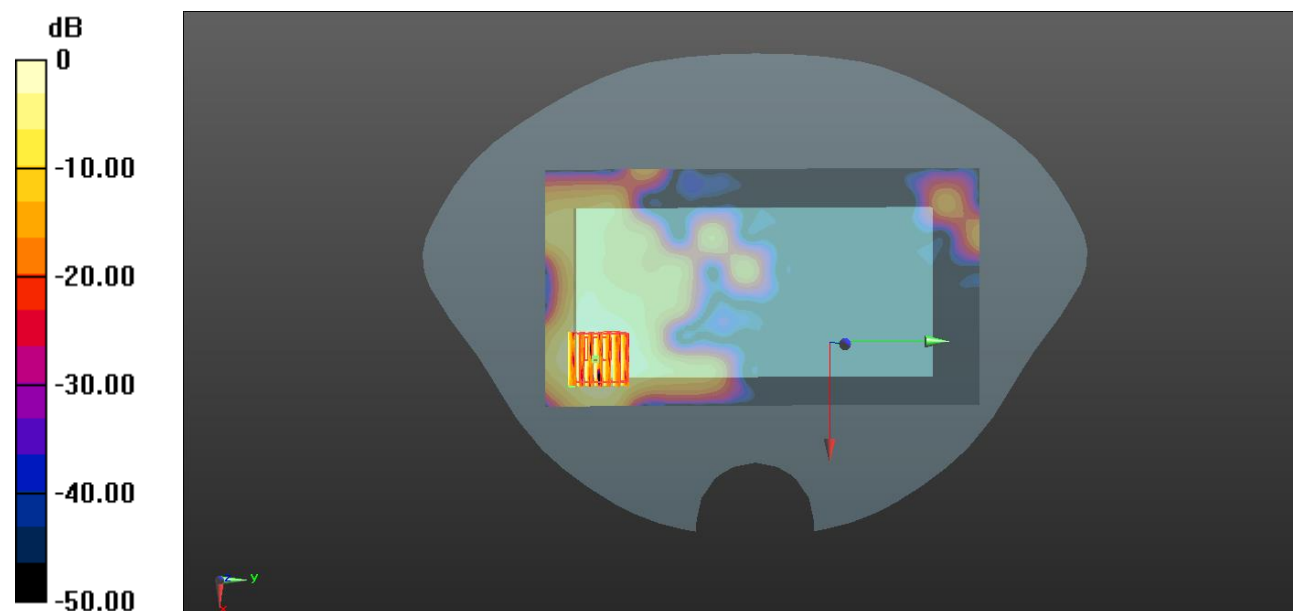
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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

Peak SAR (extrapolated) = 0.405 W/kg

SAR(1 g) = 0.110 W/kg; SAR(10 g) = 0.043 W/kg

Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.204 W/kg

Meas.34 Body Plane with Back Side 10mm on 42 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.26

Communication System Band: WLAN(ac80); Frequency: 5210 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5210$ MHz; $\sigma = 4.518$ S/m; $\epsilon_r = 36.517$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch42/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

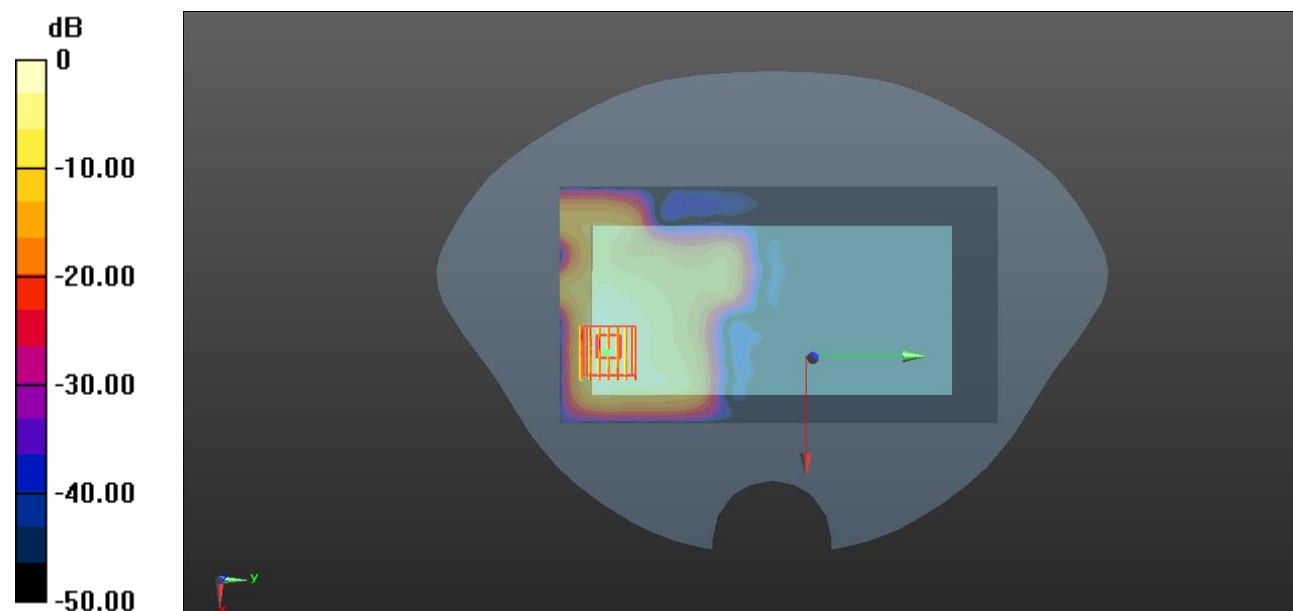
Ch42/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.042 W/kg

Maximum value of SAR (measured) = 0.187 W/kg



0 dB = 0.187 W/kg

Meas.35 Body Plane with Top Edge 10mm on 155 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.27

Communication System Band: WLAN(ac80); Frequency: 5775 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.264$ S/m; $\epsilon_r = 34.469$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch155/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0892 W/kg

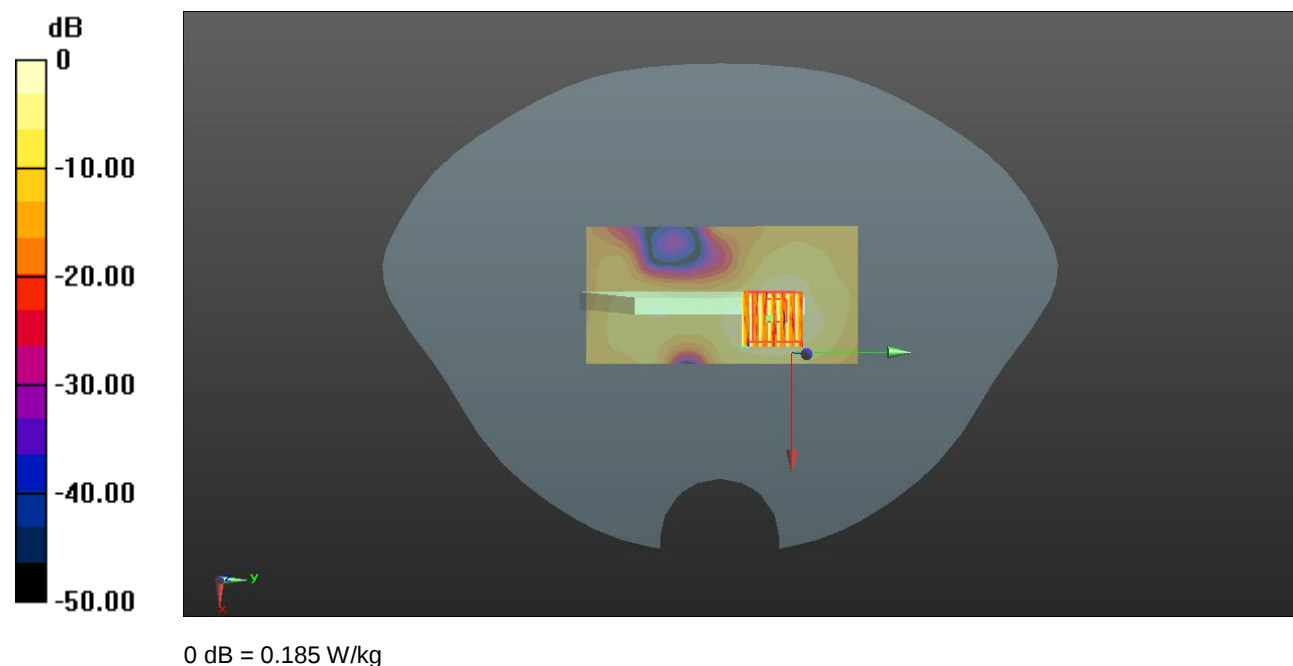
Ch155/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.115 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.401 W/kg

SAR(1 g) = 0.100 W/kg; SAR(10 g) = 0.039 W/kg

Maximum value of SAR (measured) = 0.185 W/kg



Meas.36 Body Plane with Top Edge 0mm on 58 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.26

Communication System Band: WLAN(ac80); Frequency: 5290 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 4.711$ S/m; $\epsilon_r = 34.82$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch58/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.95 W/kg

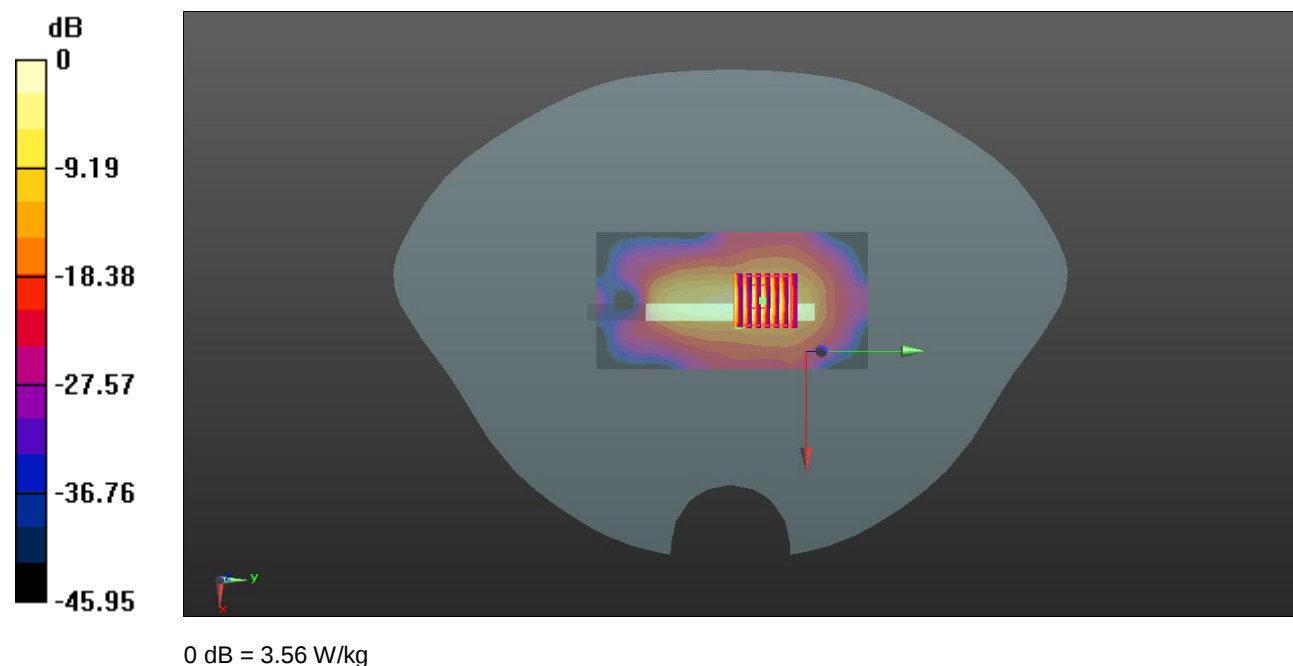
Ch58/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 11.60 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 11.2 W/kg

SAR(1 g) = 1.63 W/kg; SAR(10 g) = 0.427 W/kg

Maximum value of SAR (measured) = 3.56 W/kg



Meas.37 Body Plane with Top Edge 0mm on 122 Channel in IEE802.11ac80 mode with Antenna 1

Date: 2023.12.27

Communication System Band: WLAN(ac80); Frequency: 5610 MHz; Duty Cycle: 1:1.026

Medium parameters used (interpolated): $f = 5610$ MHz; $\sigma = 5.215$ S/m; $\epsilon_r = 34.628$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.58, 4.95, 4.75); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch122/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.89 W/kg

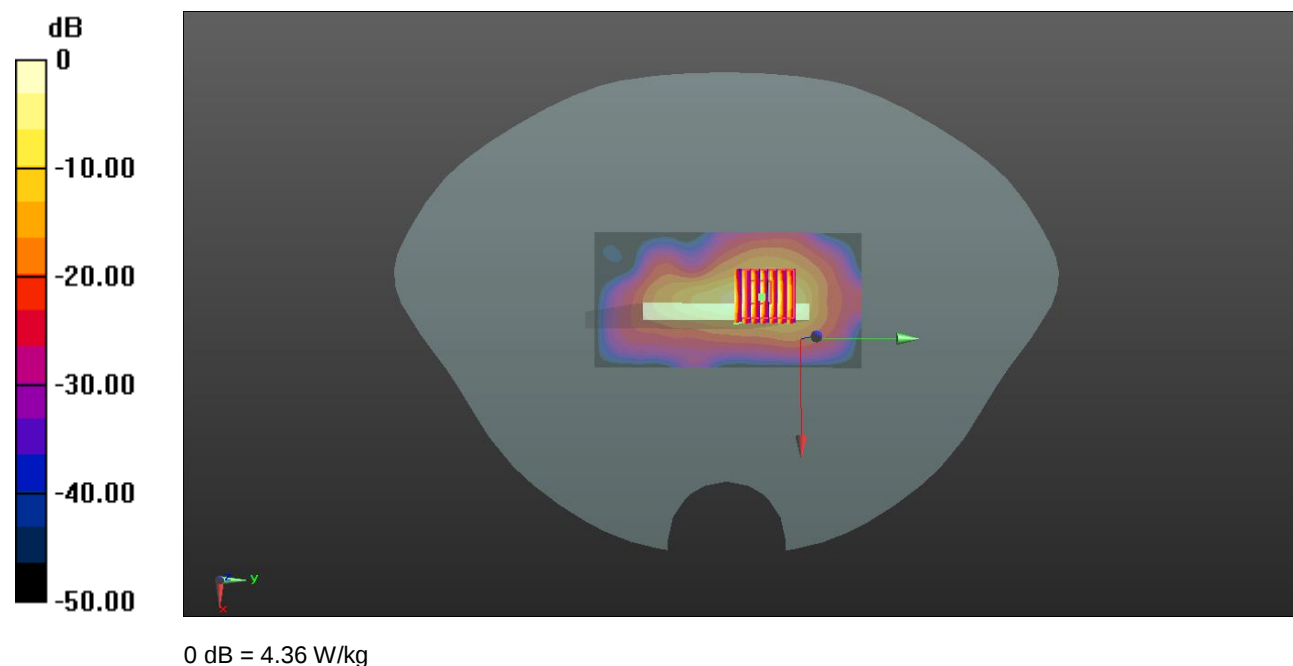
Ch122/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.875 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 14.8 W/kg

SAR(1 g) = 1.94 W/kg; SAR(10 g) = 0.513 W/kg

Maximum value of SAR (measured) = 4.36 W/kg



Meas.38 Left Head with Cheek on 0 Channel in Bluetooth mode with Antenna 1

Date: 2023.12.24

Communication System Band: BT; Frequency: 2402 MHz; Duty Cycle: 1:1.305

Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.75$ S/m; $\epsilon_r = 40.142$; $\rho = 1000$ kg/m³

Phantom section: Left Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch0/Area Scan (101x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.116 W/kg

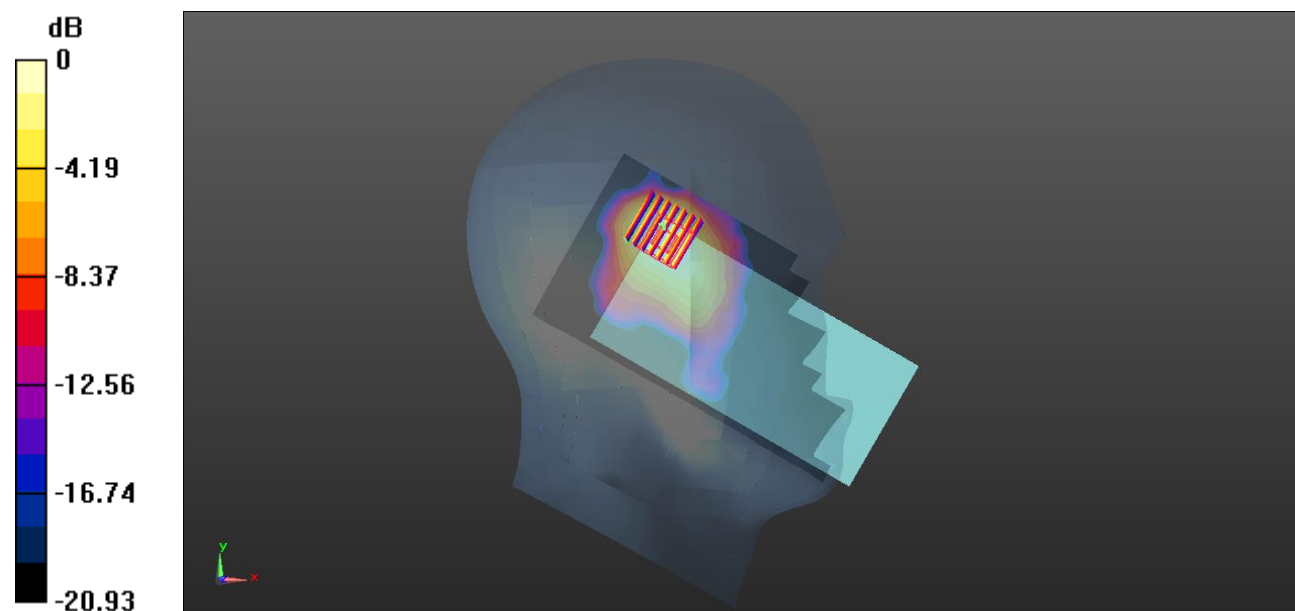
Ch0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.407 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.141 W/kg

SAR(1 g) = 0.081 W/kg; SAR(10 g) = 0.045 W/kg

Maximum value of SAR (measured) = 0.109 W/kg



0 dB = 0.109 W/kg

Meas.39 Body Plane with Left Edge 10mm on 0 Channel in Bluetooth mode with Antenna 1

Date: 2023.12.24

Communication System Band: BT; Frequency: 2402 MHz; Duty Cycle: 1:1.305

Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.75$ S/m; $\epsilon_r = 40.142$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM (20deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CC; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch0/Area Scan (41x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0613 W/kg

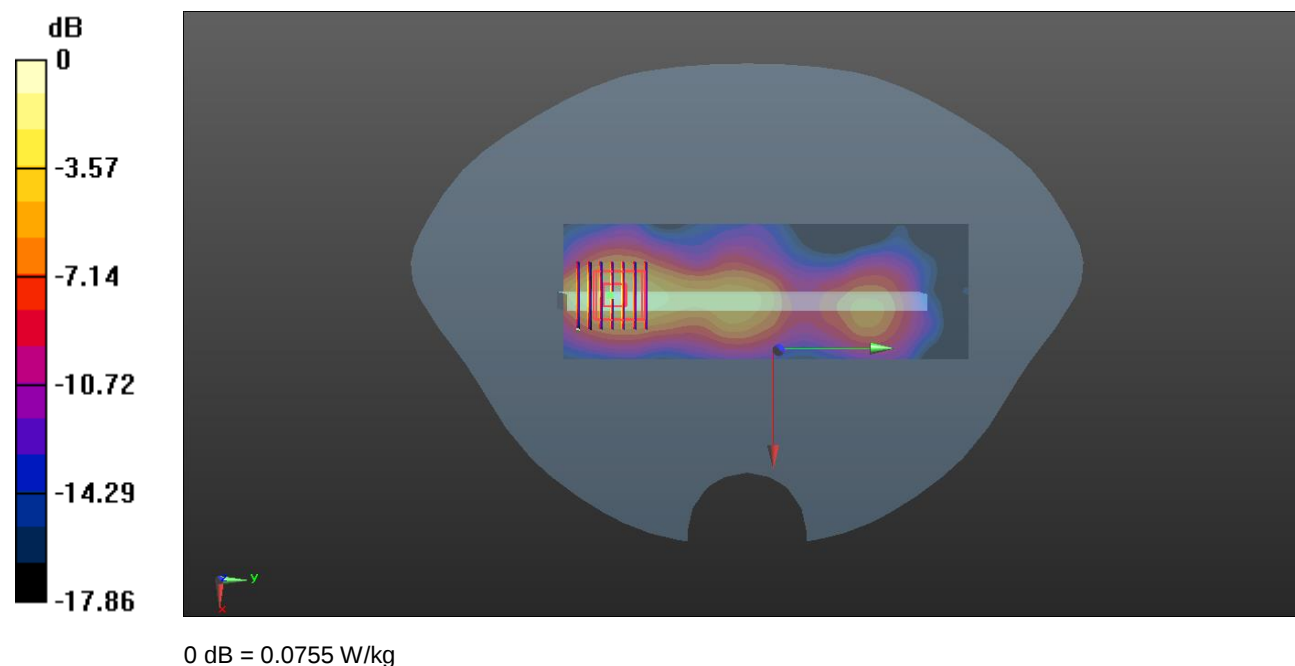
Ch0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.279 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.0970 W/kg

SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.028 W/kg

Maximum value of SAR (measured) = 0.0755 W/kg



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ23C0328-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ23C0328-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ23C0328-AC.pdf”.

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