TEST REPORT

Applicant:	INFINIX MOBILITY LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT, Hong Kong
Equipment Type:	Mobile Phone
Model Name:	X6885
Brand Name:	INFINIX
FCC ID:	2AIZN-X6885
Test Standard:	FCC 47 CFR Part 2.1093 (refer section 3.1)
Maximum SAR:	Head (1 g@0mm): 0.94 W/kg Body-worn (1 g@10mm): 1.01 W/kg Hotspot (1 g@10mm): 1.01 W/kg Extremity (10 g@0mm): 0.55 W/kg
Sample Arrival Date:	Mar. 31, 2025
Test Date：	Apr. 29, 2025 - May. 08, 2025
Date of Issue:	May. 19, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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

Revision History

Version	Issue Date	Revisions Content
Rev. 01	May. 19, 2025	Initial Issue

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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℃ to 25℃
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	INFINIX MOBILITY LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT, Hong Kong

2.2 Manufacturer Information

Manufacturer	INFINIX MOBILITY LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT, Hong Kong

2.3 Factory Information

Factory	SHENZHEN TECNO TECHNOLOGY CO., LTD.
Address	101, Building 24, Waijing Industrial Park,Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R. China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	X6885
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	163.67*75.87*6.85mm
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	BL-50FX
	Serial No.	N/A
	Capacitance	Rated Capacity: 5060mAh Typical Capacity: 5160mAh
	Rated Voltage	3.92 V
	Limited Voltage	4.53 V
	Manufacturer	N/A

2.6 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 LTE FDD Band 2/4/5/7 LTE TDD Band 38/41 UL CA:CA_2C/CA_5B/ CA_7C /CA_38C/CA_41C 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) , 5.8G SRD, GPS, GLONASS, BDS, Galileo, SBAS, FM receiver, NFC
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

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

Operating Mode	GSM, WCDMA, LTE, 2.4G WIFI, 5G WIFI, Bluetooth, NFC		
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 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	802.11b/g/n(HT20)	2412 ~ 2462 MHz	
	802.11a/ /n(HT20/HT40) /ac(VHT20/VHT40 /VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2402 ~ 2480 MHz	
	NFC	13.56 MHz	
Antenna Type	WWAN: PIFA Antenna WIFI: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		

Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype

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 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
10	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/ ControlledExposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)				Maximum Report SAR (W/kg)			
		Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Extremity (0mm)	Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Extremity (0mm)
		1g SAR			10g SAR	1g SAR			10g SAR
PCE	GSM 850	0.91	0.49	0.51	/	0.94	1.01	1.01	0.55
	GSM 1900	0.89	0.46	0.56	/				
	WCDMA Band 2	0.94	0.46	0.72	/				
	WCDMA Band 4	0.82	0.34	0.34	/				
	WCDMA Band 5	0.54	0.38	0.38	/				
	LTE Band 2	0.74	0.36	0.57	/				
	LTE Band 4	0.88	0.39	0.42	/				
	LTE Band 5	0.52	0.37	0.37	/				
	LTE Band 7	0.93	0.98	0.98	/				
	LTE Band 41	0.73	1.01	1.01	/				
DTS	2.4G WIFI	0.41	0.11	0.15	/				
NII	5G WIFI	0.46	0.19	0.32	0.55				
DSS	Bluetooth	0.38	0.21	0.30	/				
Limit (W/kg)		1.6			4.0	1.6			4.0
Verdict		PASS							

Note: This device supports LTE B38 and LTE B41. Since the supported frequency span for LTE B38 falls completely within the supports freguency span for LTE B41, these LTE bands share the same transmission path, and B38 have lower or the same target power as LTE B41; Therefore, SAR was only assessed for LTE B41.

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)		
	Head 1g (0mm)	Body-worn 1g (5mm)	Hotspot 1g (10mm)
PCE	**1.40**	**1.54**	**1.54**
DTS	1.05	1.12	1.12
NII	1.40	1.54	1.54
DSS	1.40	1.54	1.54
Limit (W/Kg)	1.60	1.60	1.60
Verdict	Pass		
Note: The highest simultaneous SAR please refer section 12.2			

3.4 Test Uncertainty

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

The maximum 1 g SAR for the EUT in this report is 1.01 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:

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

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

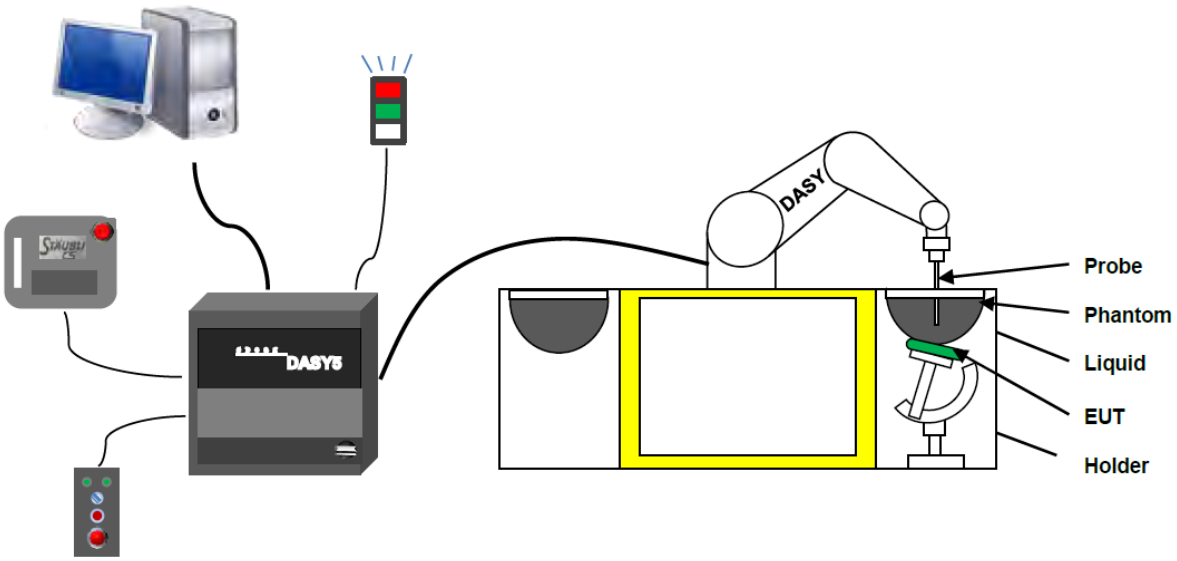
$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}\mathbf{E}^{2}}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue,

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

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



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

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

4.2.2 Robot

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

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

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7510 with following specifications is used.

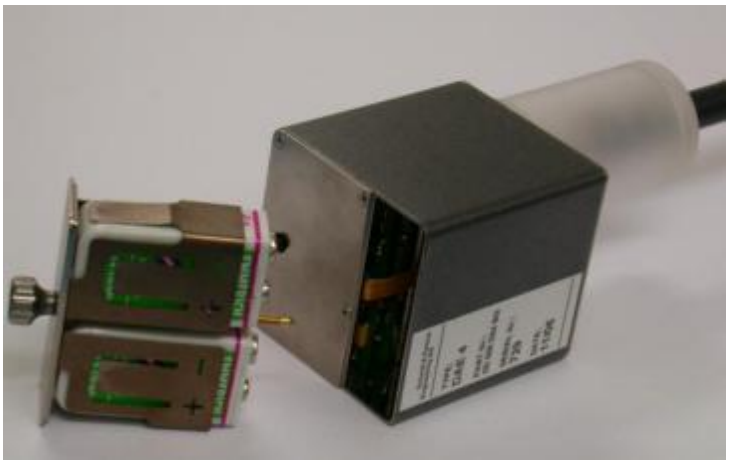
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection systemBuilt-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz;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

E-Field Probe Calibration Process

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

4.2.4 Data Acquisition Electronics

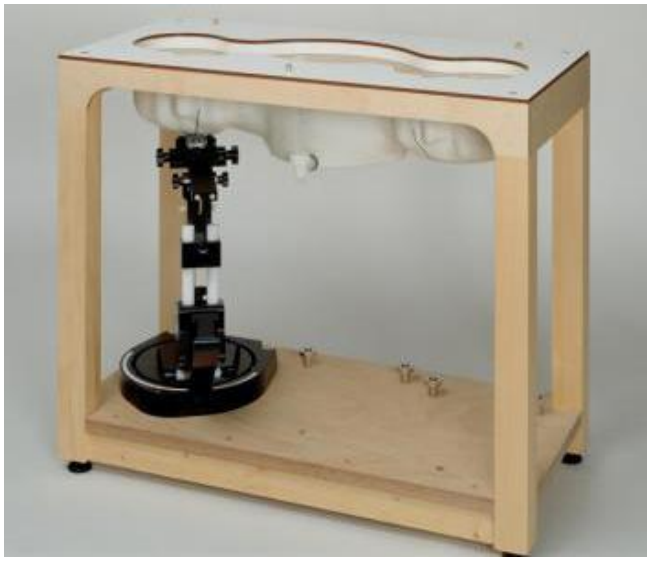
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



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

4.2.5 Phantoms

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



- Left head
- Right head
- Flat phantom

Photo of Phantom SN1857

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

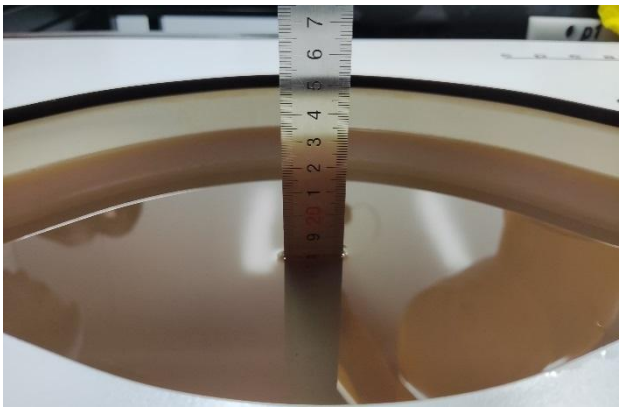
4.2.6 Device Holder

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

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

4.2.7 Simulating Liquid

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

Head Liquid Depth	Body Liquid Depth
	

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

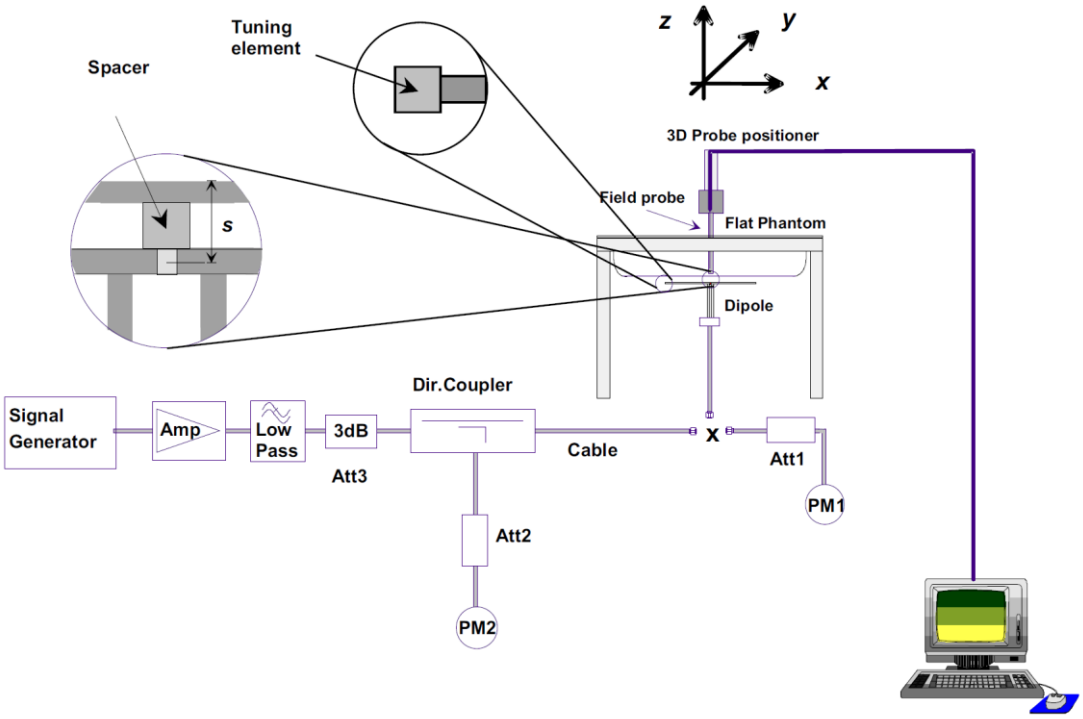
5 SYSTEM VERIFICATION

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

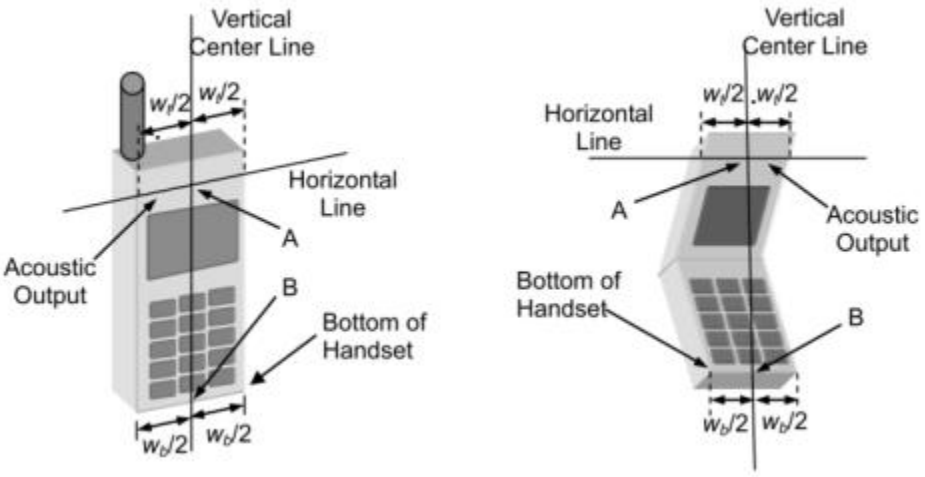
Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

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.

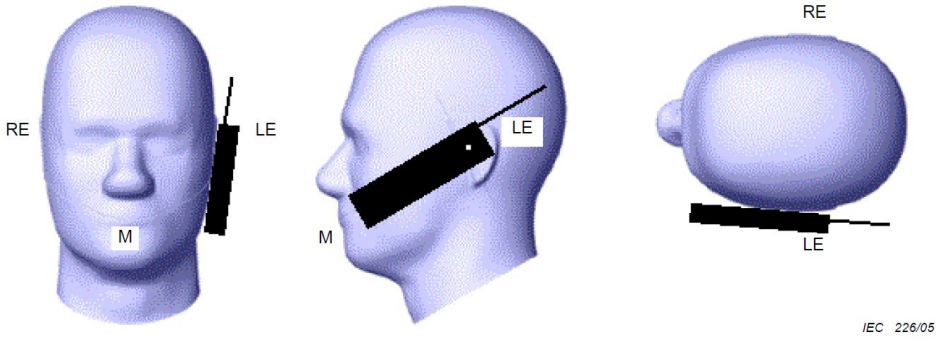
(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical center line is not necessarily parallel to the front face of the handset,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

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

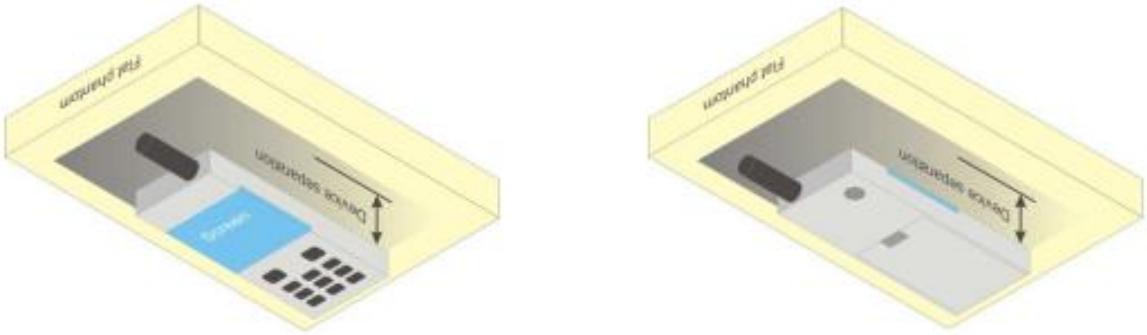
(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.

6.2 Body-worn Position Conditions

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

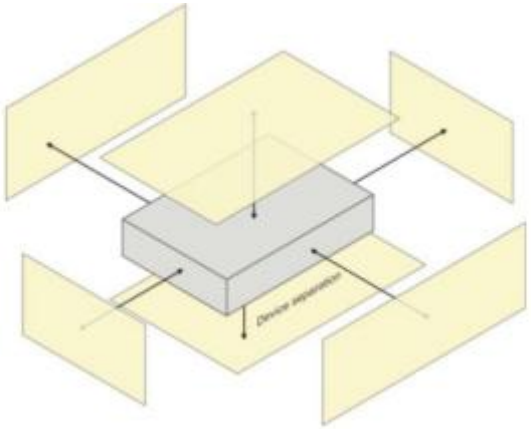
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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

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



6.3 Hotspot Mode Exposure Position Conditions

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



6.4 Product Specific 10g Exposure Consideration

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

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

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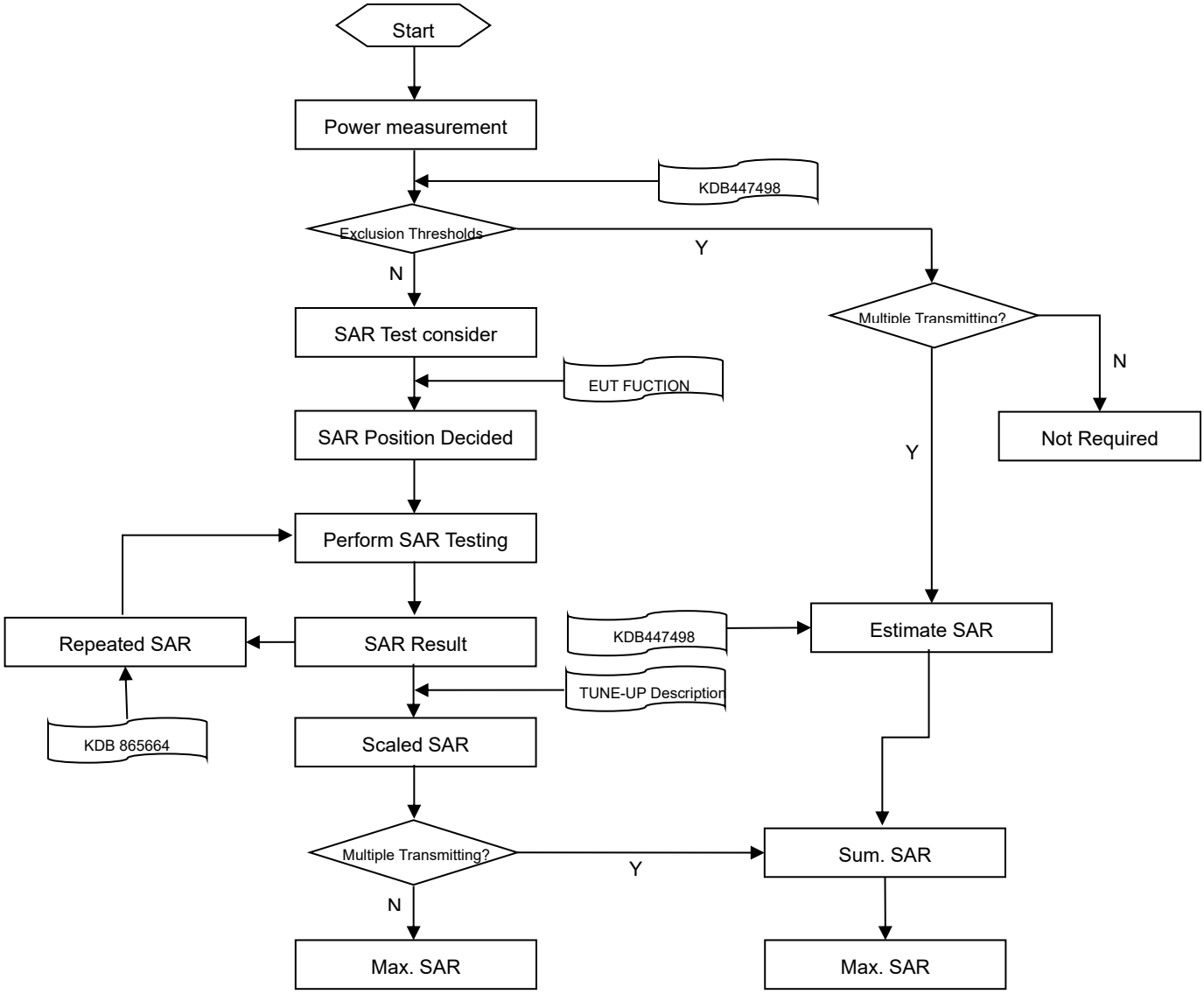
7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

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

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

7.3 Measurement Procedure

The following steps are used for each test position

a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface

b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.

c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.

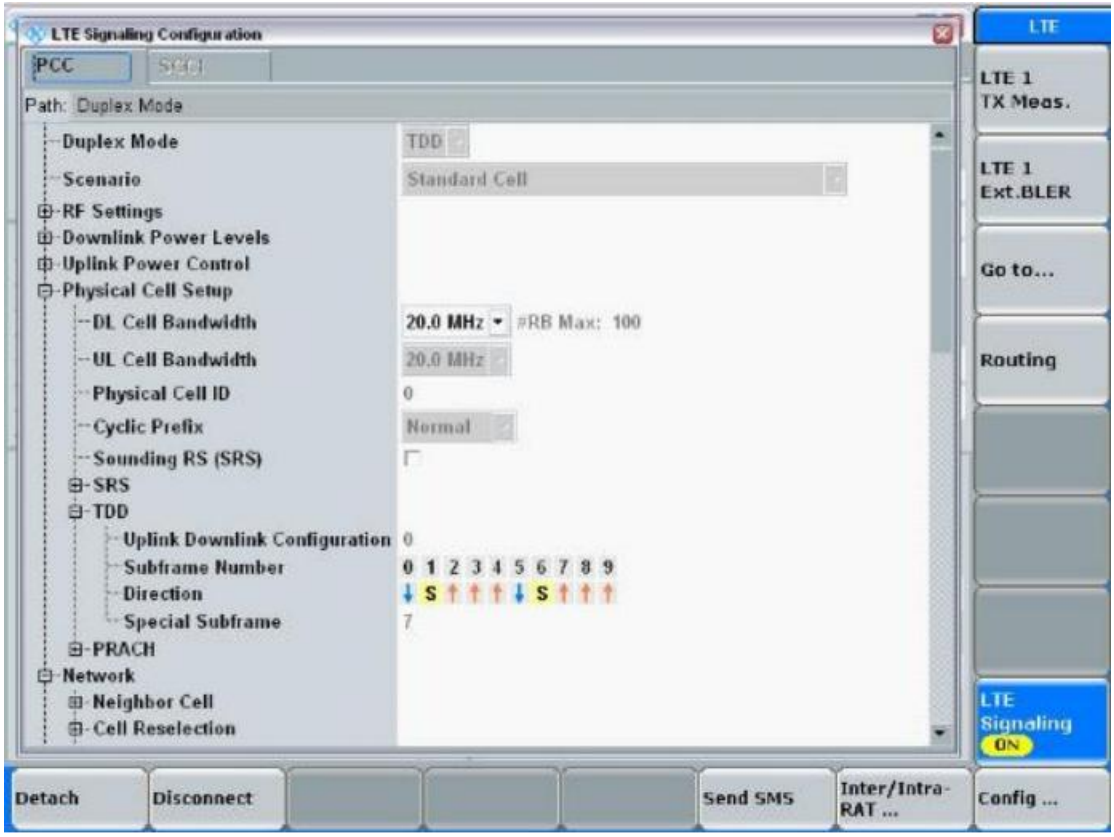
d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 *32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

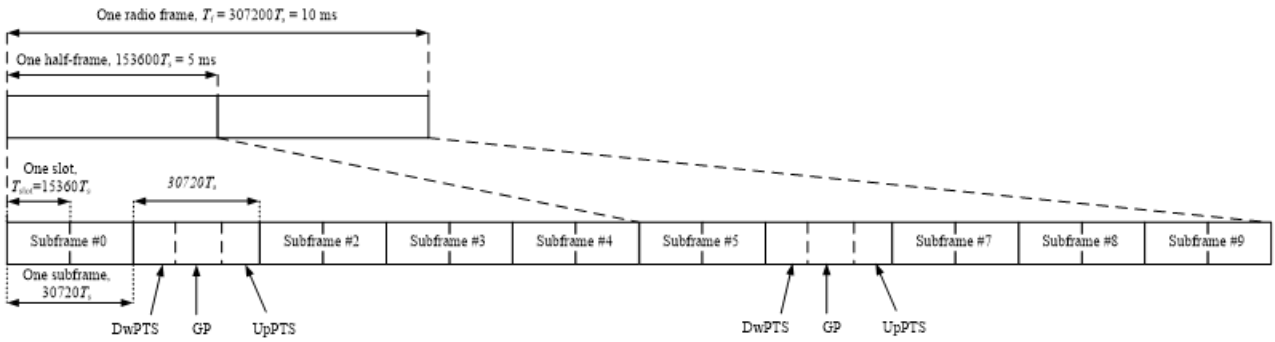
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan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

7.5 LTE (TDD) Considerations

During TDD-LTE SAR testing, the EUT was commanded to transmit on maximum output power and maximum transmitting bandwidth. The uplink and downlink slot configuration as below in one radio frame.



According to 3GPP Per 3GPP TS 36.211. Each radio frame of length (Tf=307200*TS =10ms) of two half-frames of length (153600*TS =5ms). Each half-frame consists of five sub-frames of length (30720*TS =1ms)



And the special sub-frame with the three fields DwPTS, GP and UpPTS.

The length of DwPTS and UpPTS is given by below table subject to the total length of DwPTS, GP and UpPTS being equal to 30720*T_S =1ms.

Configuration of special sub-frame (lengths of DwPTS/GP/UpPTS)

Special sub-frame configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592·T_s	2192·T_s	2560·T_s	7680·T_s	2192·T_s	2560·T_s
1	19760·T_s			20480·T_s		
2	21592·T_s			23040·T_s		
3	24144·T_s			25600·T_s		
4	26336·T_s			7680·T_s	2560·T_s	5120·T_s
5	6592·T_s	4384·T_s	5120·T_s	20480·T_s		
6	19760·T_s			23040·T_s		
7	21592·T_s			12800·T_s		
8	24144·T_s			-	-	-
9	13168·T_s			-	-	-

For special sub-frame uplink time we used the largest cyclic prefix for duty cycle calculate;

Maximum uplink time of one special sub-frame=(largest cyclic prefix)/(one sub-frame of length)* time of one sub-frame=5120.Ts/30720.Ts*1ms=0.167ms

One radio frame with 6 uplink sub-frames and two special sub-frame,
there for the maximum Uplink time in one radio frame is: **6*1 ms+2*0.167 ms=6.334ms**
So, the duty cycle for TDD-LTE is: **6.334ms/10ms =1: 1.58**

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “BL-SH2530301-AP Power List.pdf”.

8.2 WCDMA

Please refer the document “BL-SH2530301-AP Power List.pdf”.

8.3 LTE

Please refer the document “BL-SH2530301-AP Power List.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	12.36	13.50	No
		6	2437	12.82	13.50	Yes
		11	2462	12.71	13.50	No
	802.11g	1	2412	11.83	12.50	No
		6	2437	12.14	12.50	No
		11	2462	12.01	12.50	No
	802.11n(HT20)	1	2412	11.76	12.50	No
		6	2437	12.06	12.50	No
		11	2462	11.89	12.50	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 $\leqslant$ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = 0.407 * (17.78mW/22.39mW) = 0.323 W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	11.60	12.50	No
		44	5220	11.77	12.50	No
		48	5240	11.15	12.50	No
	802.11n(HT20)	36	5180	11.54	12.50	No
		44	5220	11.21	12.50	No
		48	5240	11.10	12.50	No
	802.11n(HT40)	38	5190	11.64	12.50	No
		46	5230	11.29	12.50	No
	802.11ac(VHT20)	36	5180	11.67	12.50	No
		44	5220	11.30	12.50	No
		48	5240	11.17	12.50	No
	802.11ac(VHT40)	38	5190	11.62	12.50	No

		46	5230	11.30	12.50	No
	802.11ac(VHT80)	42	5210	11.38	12.50	Yes
5.3 (5.25~5.35)	802.11a	52	5260	11.28	12.50	No
		60	5300	11.31	12.50	No
		64	5320	11.39	12.50	No
	802.11n(HT20)	52	5260	11.04	12.50	No
		60	5300	11.06	12.50	No
		64	5320	11.15	12.50	No
	802.11n(HT40)	54	5270	11.13	12.50	No
		62	5310	11.24	12.50	No
	802.11ac(VHT20)	52	5260	11.06	12.50	No
		60	5300	11.02	12.50	No
		64	5320	11.06	12.50	No
	802.11ac(VHT40)	54	5270	11.04	12.50	No
		62	5310	11.15	12.50	No
	802.11ac(VHT80)	58	5290	10.95	12.50	Yes
5.6 (5.47~5.725)	802.11a	100	5500	11.48	12.50	No
		116	5580	11.30	12.50	No
		140	5700	11.29	12.50	No
	802.11n(HT20)	100	5500	11.37	12.50	No
		116	5580	11.22	12.50	No
		140	5700	11.17	12.50	No
	802.11n(HT40)	102	5510	11.39	12.50	No
		118	5590	11.38	12.50	No
		134	5670	11.34	12.50	No
	802.11ac(VHT20)	100	5500	11.34	12.50	No
		116	5580	11.27	12.50	No
		140	5700	11.21	12.50	No
	802.11ac(VHT40)	102	5510	11.42	12.50	No
		118	5590	11.39	12.50	No
		134	5670	11.37	12.50	No
	802.11ac(VHT80)	106	5530	11.30	12.50	No
		122	5690	11.43	12.50	Yes
5.8 (5.725~5.850)	802.11a	149	5745	11.62	12.50	No
		157	5785	11.90	12.50	No
		165	5825	11.79	12.50	No
	802.11n(HT20)	149	5745	11.51	12.50	No
		157	5785	11.63	12.50	No
		165	5825	11.57	12.50	No

	802.11n(HT40)	151	5755	11.61	12.50	No
		159	5795	11.78	12.50	No
	802.11ac(VHT20)	149	5745	11.38	12.50	No
		157	5785	11.65	12.50	No
		165	5825	11.61	12.50	No
	802.11ac(VHT40)	151	5755	11.58	12.50	No
		159	5795	11.74	12.50	No
	802.11ac(VHT80)	155	5775	11.60	12.50	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.						

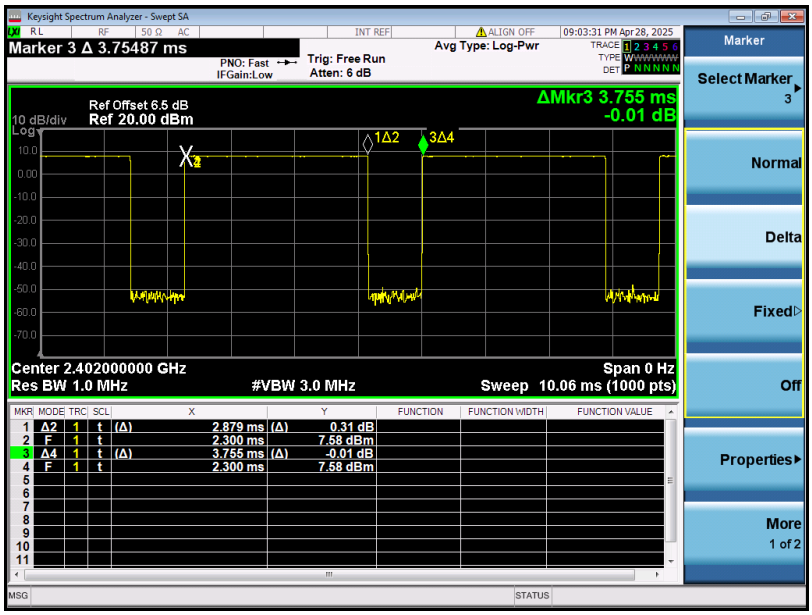
8.5 Bluetooth

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	9.08	10.13	14.11	8.06	9.41	13.60
Tune-Up Limit (dBm)	10.00	11.00	15.00	9.00	10.50	14.50
SAR Test Require	NO	NO	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	7.87	9.25	13.37	/	/	/
Tune-Up Limit (dBm)	9.00	10.50	14.50	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Conducted Power (dBm)	-5.28	-2.77	-4.64	-5.01	-2.86	-4.83
Tune-Up Limit (dBm)	-4.00	-1.50	-3.50	-4.00	-1.50	-3.50
SAR Test Require	NO	NO	NO	NO	NO	NO

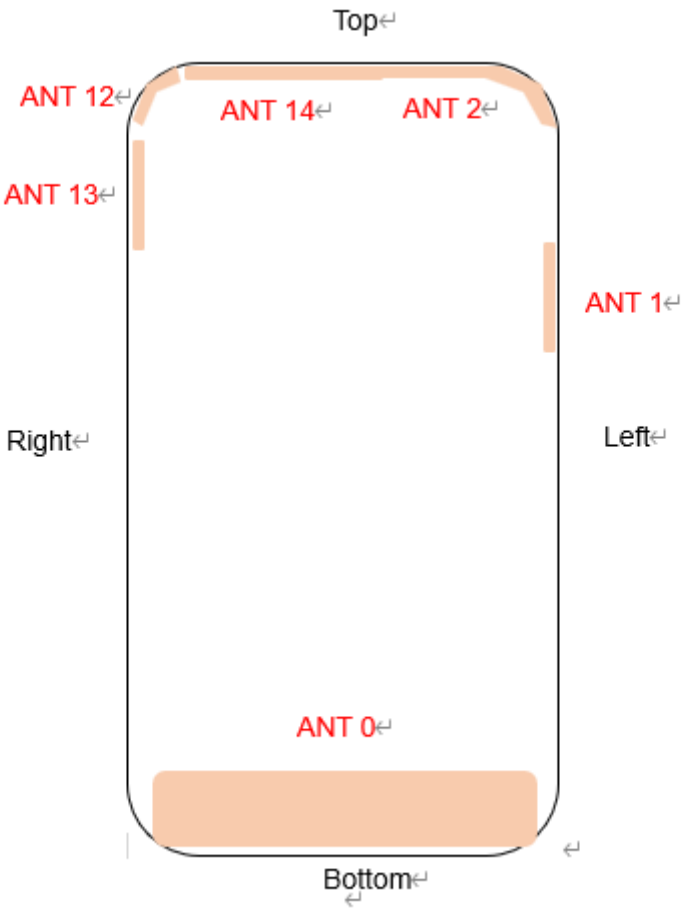
Note 1: Since Bluetooth BR mode is the maximum output power mode，SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is ≤ ¼ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 76.7 % 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



9 TEST EXCLUSION CONSIDERATION



<EUT Back View>

Antenna	Support Bands
ANT 0	GSM 850/1900; WCDMA B2/4/5; LTE B2/4/5/7/38/41
ANT 1	LTE CA(DL)
ANT 2	GSM 850/1900; WCDMA B2/4/5; LTE B2/4/5/7/38/41
ANT 12	GPS
ANT 13	2.4G WLAN, BT
ANT 14	5G WLAN

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
ANT 0	<25	<25	<25	<25	>25	<25
ANT 2	<25	<25	<25	<25	<25	>25
ANT 13	<25	<25	>25	<25	<25	>25
ANT 14	<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

10.1 GSM 850

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head												
ANT 0	Left cheek	0mm	GPRS 3TX	190	836.6	0.11	0.169	29.93	31.00	1.279	0.216	/
	Left tilt			190	836.6	0.07	0.105	29.93	31.00	1.279	0.134	/
	Right cheek			190	836.6	0.15	0.184	29.93	31.00	1.279	0.235	/
	Right tilt			190	836.6	-0.01	0.108	29.93	31.00	1.279	0.138	/
ANT 2	Left cheek	0mm	GPRS 4TX	128	824.2	0.18	0.522	29.10	30.00	1.230	0.642	/
	Left tilt			128	824.2	-0.03	0.514	29.10	30.00	1.230	0.632	/
	Right cheek			128	824.2	-0.18	0.690	29.10	30.00	1.230	0.849	/
	Right tilt			128	824.2	0.03	0.655	29.10	30.00	1.230	0.806	/
	Right cheek			190	836.6	0.14	0.680	29.00	30.00	1.259	0.856	/
	Right cheek			251	848.8	0.03	0.692	28.82	30.00	1.312	0.908	1
Body-worn& Hotspot												
ANT 0	Front side	10mm	GPRS 3TX	190	836.6	-0.05	0.296	29.93	31.00	1.279	0.379	/
	Back side			190	836.6	-0.10	0.384	29.93	31.00	1.279	0.491	/
	Left side			190	836.6	-0.19	0.147	29.93	31.00	1.279	0.188	/
	Right side			190	836.6	0.11	0.179	29.93	31.00	1.279	0.229	/
	Bottom side			190	836.6	-0.16	0.398	29.93	31.00	1.279	0.509	2
ANT 2	Front side	10mm	GPRS 4TX	128	824.2	0.05	0.133	29.10	30.00	1.230	0.164	/
	Back side			128	824.2	-0.10	0.292	29.10	30.00	1.230	0.359	/
	Left side			128	824.2	-0.01	0.108	29.10	30.00	1.230	0.133	/
	Right side			128	824.2	-0.15	0.057	29.10	30.00	1.230	0.070	/
	Top side			128	824.2	-0.05	0.231	29.10	30.00	1.230	0.284	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.2 GSM 1900

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head												
ANT 0	Left cheek	0mm	GPRS 4TX	512	1850.2	-0.04	0.012	23.74	24.50	1.191	0.014	/
	Left tilt			512	1850.2	-0.10	0.005	23.74	24.50	1.191	0.006	/
	Right cheek			512	1850.2	0.16	0.010	23.74	24.50	1.191	0.012	/
	Right tilt			512	1850.2	0.03	0.004	23.74	24.50	1.191	0.005	/
ANT 2	Left cheek	0mm	GPRS 4TX	810	1909.8	-0.05	0.420	23.53	24.50	1.250	0.525	/
	Left tilt			810	1909.8	-0.08	0.499	23.53	24.50	1.250	0.624	/
	Right cheek			810	1909.8	0.03	0.501	23.53	24.50	1.250	0.626	/
	Right tilt			810	1909.8	-0.04	0.711	23.53	24.50	1.250	0.889	3
	Right tilt			512	1850.2	0.03	0.555	23.48	24.50	1.265	0.702	/
	Right tilt			661	1880	0.01	0.548	23.39	24.50	1.291	0.708	/
Body-worn& Hotspot												
ANT 0	Front side	10mm	GPRS 4TX	512	1850.2	-0.10	0.186	23.74	24.50	1.191	0.222	/
	Back side			512	1850.2	0.01	0.222	23.74	24.50	1.191	0.264	/
	Left side			512	1850.2	-0.14	0.053	23.74	24.50	1.191	0.063	/
	Right side			512	1850.2	0.19	0.046	23.74	24.50	1.191	0.055	/
	Bottom side			512	1850.2	0.10	0.470	23.74	24.50	1.191	0.560	4
ANT 2	Front side	10mm	GPRS 4TX	810	1909.8	0.02	0.157	23.53	24.50	1.250	0.196	/
	Back side			810	1909.8	0.15	0.370	23.53	24.50	1.250	0.463	/
	Left side			810	1909.8	-0.06	0.061	23.53	24.50	1.250	0.076	/
	Right side			810	1909.8	0.07	0.010	23.53	24.50	1.250	0.013	/
	Top side			810	1909.8	-0.14	0.364	23.53	24.50	1.250	0.455	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.3WCDMA Band 2

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head												
ANT 0	Left cheek	0mm	RMC	9262	1852.4	0.10	0.018	20.41	21.00	1.146	0.021	/
	Left tilt			9262	1852.4	-0.17	0.010	20.41	21.00	1.146	0.011	/
	Right cheek			9262	1852.4	0.15	0.015	20.41	21.00	1.146	0.017	/
	Right tilt			9262	1852.4	-0.10	0.007	20.41	21.00	1.146	0.008	/
ANT 2	Left cheek	0mm	RMC	9262	1852.4	-0.14	0.514	20.68	21.00	1.076	0.553	/
	Left tilt			9262	1852.4	-0.03	0.629	20.68	21.00	1.076	0.677	/
	Right cheek			9262	1852.4	-0.08	0.603	20.68	21.00	1.076	0.649	/
	Right tilt			9262	1852.4	0.09	0.875	20.68	21.00	1.076	0.942	5
	Right tilt			9262	1852.4	-0.17	0.842	20.68	21.00	1.076	0.906	repeat
	Right tilt			9400	1880	0.12	0.737	20.53	21.00	1.114	0.821	/
	Right tilt			9538	1907.6	0.02	0.706	20.52	21.00	1.117	0.789	/
Body-worn& Hotspot												
ANT 0	Front side	10mm	RMC	9262	1852.4	0.04	0.229	20.41	21.00	1.146	0.262	/
	Back side			9262	1852.4	-0.09	0.257	20.41	21.00	1.146	0.294	/
	Left side			9262	1852.4	0.18	0.061	20.41	21.00	1.146	0.070	/
	Right side			9262	1852.4	0.18	0.050	20.41	21.00	1.146	0.057	/
	Bottom side			9262	1852.4	0.10	0.628	20.41	21.00	1.146	0.719	6
ANT 2	Front side	10mm	RMC	9262	1852.4	0.18	0.183	20.68	21.00	1.076	0.197	/
	Back side			9262	1852.4	-0.01	0.431	20.68	21.00	1.076	0.464	/
	Left side			9262	1852.4	0.17	0.075	20.68	21.00	1.076	0.081	/
	Right side			9262	1852.4	-0.13	0.053	20.68	21.00	1.076	0.057	/
	Top side			9262	1852.4	0.01	0.445	20.68	21.00	1.076	0.479	/

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

10.4WCDMA Band 4

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head												
ANT 0	Left cheek	0mm	RMC	1312	1712.4	0.08	0.016	18.56	19.00	1.107	0.018	/
	Left tilt			1312	1712.4	0.14	0.010	18.56	19.00	1.107	0.011	/
	Right cheek			1312	1712.4	0.08	0.012	18.56	19.00	1.107	0.013	/
	Right tilt			1312	1712.4	0.18	0.007	18.56	19.00	1.107	0.008	/
ANT 2	Left cheek	0mm	RMC	1312	1712.4	-0.14	0.449	18.70	19.00	1.072	0.481	/
	Left tilt			1312	1712.4	-0.15	0.585	18.70	19.00	1.072	0.627	/
	Right cheek			1312	1712.4	-0.10	0.542	18.70	19.00	1.072	0.581	/
	Right tilt			1312	1712.4	0.12	0.767	18.70	19.00	1.072	0.822	7
	Right tilt			1412	1732.4	0.11	0.709	18.64	19.00	1.086	0.770	/
	Right tilt			1513	1752.6	0.03	0.685	18.52	19.00	1.117	0.765	/
Body-worn& Hotspot												
ANT 0	Front side	10mm	RMC	1312	1712.4	-0.08	0.086	18.56	19.00	1.107	0.095	/
	Back side			1312	1712.4	-0.07	0.102	18.56	19.00	1.107	0.113	/
	Left side			1312	1712.4	0.17	0.020	18.56	19.00	1.107	0.022	/
	Right side			1312	1712.4	0.08	0.011	18.56	19.00	1.107	0.012	/
	Bottom side			1312	1712.4	0.18	0.202	18.56	19.00	1.107	0.224	/
ANT 2	Front side	10mm	RMC	1312	1712.4	-0.13	0.146	18.70	19.00	1.072	0.156	/
	Back side			1312	1712.4	0.05	0.315	18.70	19.00	1.072	0.338	8
	Left side			1312	1712.4	-0.10	0.042	18.70	19.00	1.072	0.045	/
	Right side			1312	1712.4	0.11	0.048	18.70	19.00	1.072	0.051	/
	Top side			1312	1712.4	0.12	0.310	18.70	19.00	1.072	0.332	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.5WCDMA Band 5

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head												
ANT 0	Left cheek	0mm	RMC	4182	836.4	0.07	0.125	23.41	24.00	1.146	0.143	/
	Left tilt			4182	836.4	-0.11	0.070	23.41	24.00	1.146	0.080	/
	Right cheek			4182	836.4	0.08	0.132	23.41	24.00	1.146	0.151	/
	Right tilt			4182	836.4	-0.11	0.069	23.41	24.00	1.146	0.079	/
ANT 2	Left cheek	0mm	RMC	4182	836.4	0.17	0.437	23.55	24.00	1.109	0.485	/
	Left tilt			4182	836.4	0.12	0.410	23.55	24.00	1.109	0.455	/
	Right cheek			4182	836.4	0.10	0.490	23.55	24.00	1.109	0.543	9
	Right tilt			4182	836.4	-0.01	0.487	23.55	24.00	1.109	0.540	/
Body-worn& Hotspot												
ANT 0	Front side	10mm	RMC	4182	836.4	-0.13	0.254	23.41	24.00	1.146	0.291	/
	Back side			4182	836.4	-0.03	0.333	23.41	24.00	1.146	0.381	10
	Left side			4182	836.4	-0.07	0.096	23.41	24.00	1.146	0.110	/
	Right side			4182	836.4	0.17	0.204	23.41	24.00	1.146	0.234	/
	Bottom side			4182	836.4	-0.04	0.287	23.41	24.00	1.146	0.329	/
ANT 2	Front side	10mm	RMC	4182	836.4	0.03	0.115	23.55	24.00	1.109	0.128	/
	Back side			4182	836.4	-0.19	0.230	23.55	24.00	1.109	0.255	/
	Left side			4182	836.4	0.08	0.108	23.55	24.00	1.109	0.120	/
	Right side			4182	836.4	0.11	0.065	23.55	24.00	1.109	0.072	/
	Top side			4182	836.4	0.06	0.197	23.55	24.00	1.109	0.219	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.6 LTE Band 2 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head														
ANT 0	Left cheek	0mm	QPSK	18900	1880	1	0	-0.16	0.026	19.67	20.50	1.211	0.031	/
	Left tilt			18900	1880	1	0	0.19	0.021	19.67	20.50	1.211	0.025	/
	Right cheek			18900	1880	1	0	0.07	0.036	19.67	20.50	1.211	0.044	/
	Right tilt			18900	1880	1	0	0.02	0.034	19.67	20.50	1.211	0.041	/
	Left cheek			18900	1880	50	24	-0.08	0.022	18.61	19.50	1.227	0.027	/
	Left tilt			18900	1880	50	24	-0.19	0.018	18.61	19.50	1.227	0.022	/
	Right cheek			18900	1880	50	24	-0.14	0.032	18.61	19.50	1.227	0.039	/
	Right tilt			18900	1880	50	24	-0.04	0.030	18.61	19.50	1.227	0.037	/
ANT 2	Left cheek	0mm	QPSK	18900	1880	1	0	0.10	0.457	19.96	20.50	1.132	0.518	/
	Left tilt			18900	1880	1	0	0.15	0.563	19.96	20.50	1.132	0.638	/
	Right cheek			18900	1880	1	0	-0.16	0.539	19.96	20.50	1.132	0.610	/
	Right tilt			18900	1880	1	0	0.09	0.656	19.96	20.50	1.132	0.743	11
	Left cheek			18900	1880	50	24	0.14	0.362	18.96	19.50	1.132	0.410	/
	Left tilt			18900	1880	50	24	0.08	0.446	18.96	19.50	1.132	0.505	/
	Right cheek			18900	1880	50	24	0.07	0.418	18.96	19.50	1.132	0.473	/
	Right tilt			18900	1880	50	24	0.10	0.513	18.96	19.50	1.132	0.581	/
Body-worn& Hotspot														
ANT 0	Front side	10mm	QPSK	18900	1880	1	0	0.05	0.189	19.67	20.50	1.211	0.229	/
	Back side			18900	1880	1	0	0.12	0.211	19.67	20.50	1.211	0.255	/
	Left side			18900	1880	1	0	0.06	0.055	19.67	20.50	1.211	0.067	/
	Right side			18900	1880	1	0	-0.01	0.044	19.67	20.50	1.211	0.053	/
	Bottom side			18900	1880	1	0	0.10	0.474	19.67	20.50	1.211	0.574	12
	Front side			18900	1880	50	24	-0.11	0.151	18.61	19.50	1.227	0.185	/
	Back side			18900	1880	50	24	-0.01	0.174	18.61	19.50	1.227	0.214	/
	Left side			18900	1880	50	24	0.05	0.047	18.61	19.50	1.227	0.058	/
	Right side			18900	1880	50	24	0.06	0.038	18.61	19.50	1.227	0.047	/
	Bottom side			18900	1880	50	24	-0.02	0.371	18.61	19.50	1.227	0.455	/
ANT 2	Front side	10mm	QPSK	18900	1880	1	0	-0.12	0.138	19.96	20.50	1.132	0.156	/
	Back side			18900	1880	1	0	0.18	0.315	19.96	20.50	1.132	0.357	/
	Left side			18900	1880	1	0	-0.04	0.057	19.96	20.50	1.132	0.065	/
	Right side			18900	1880	1	0	0.15	0.041	19.96	20.50	1.132	0.046	/
	Top side			18900	1880	1	0	0.12	0.322	19.96	20.50	1.132	0.365	/
	Front side			18900	1880	50	24	0.13	0.114	18.96	19.50	1.132	0.129	/
	Back side			18900	1880	50	24	0.10	0.255	18.96	19.50	1.132	0.289	/
	Left side			18900	1880	50	24	0.17	0.045	18.96	19.50	1.132	0.051	/
	Right side			18900	1880	50	24	-0.09	0.012	18.96	19.50	1.132	0.014	/

	Top side			18900	1880	50	24	-0.03	0.267	18.96	19.50	1.132	0.302	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.7 LTE Band 2 Worse case for CA Test

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head-CA														
ANT 2	Right tilt	0mm	QPSK	18900+19098	1880	1+1	99+0	0.11	0.594	19.60	20.50	1.230	0.731	/
Hotspot-CA														
ANT 0	Bottom side	10mm	QPSK	18900+19098	1880	1+1	99+0	-0.16	0.418	19.28	20.50	1.324	0.554	/

10.8 LTE Band 4 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head														
ANT 0	Left cheek	0mm	QPSK	20175	1732.5	1	0	-0.13	0.033	18.82	19.50	1.169	0.039	/
	Left tilt			20175	1732.5	1	0	-0.09	0.030	18.82	19.50	1.169	0.035	/
	Right cheek			20175	1732.5	1	0	-0.09	0.027	18.82	19.50	1.169	0.032	/
	Right tilt			20175	1732.5	1	0	0.08	0.025	18.82	19.50	1.169	0.029	/
	Left cheek			20175	1732.5	50	24	-0.16	0.028	17.78	18.50	1.180	0.033	/
	Left tilt			20175	1732.5	50	24	-0.18	0.024	17.78	18.50	1.180	0.028	/
	Right cheek			20175	1732.5	50	24	-0.18	0.019	17.78	18.50	1.180	0.022	/
	Right tilt			20175	1732.5	50	24	-0.08	0.017	17.78	18.50	1.180	0.020	/
ANT 2	Left cheek	0mm	QPSK	20175	1732.5	1	0	-0.13	0.514	19.06	19.50	1.107	0.569	/
	Left tilt			20175	1732.5	1	0	0.15	0.665	19.06	19.50	1.107	0.736	/
	Right cheek			20175	1732.5	1	0	0.19	0.617	19.06	19.50	1.107	0.683	/
	Right tilt			20175	1732.5	1	0	-0.08	0.792	19.06	19.50	1.107	0.876	13
	Right tilt			20050	1720	1	0	-0.10	0.752	19.03	19.50	1.114	0.838	/
	Right tilt			20300	1745	1	0	-0.14	0.732	18.91	19.50	1.146	0.839	/
	Left cheek			20175	1732.5	50	0	0.07	0.418	17.87	18.50	1.156	0.483	/
	Left tilt			20175	1732.5	50	0	0.02	0.545	17.87	18.50	1.156	0.630	/
	Right cheek			20175	1732.5	50	0	-0.06	0.494	17.87	18.50	1.156	0.571	/
	Right tilt			20175	1732.5	50	0	0.07	0.644	17.87	18.50	1.156	0.745	/
	Right tilt			20175	1732.5	100	0	0.15	0.656	17.89	18.50	1.151	0.755	/
Body-worn& Hotspot														
ANT 0	Front side	10mm	QPSK	20175	1732.5	1	0	0.08	0.097	18.82	19.50	1.169	0.113	/
	Back side			20175	1732.5	1	0	0.09	0.111	18.82	19.50	1.169	0.130	/
	Left side			20175	1732.5	1	0	0.04	0.025	18.82	19.50	1.169	0.029	/
	Right side			20175	1732.5	1	0	0.12	0.018	18.82	19.50	1.169	0.021	/
	Bottom side			20175	1732.5	1	0	-0.10	0.215	18.82	19.50	1.169	0.251	/
	Front side			20175	1732.5	50	24	-0.02	0.082	17.78	18.50	1.180	0.097	/
	Back side			20175	1732.5	50	24	-0.06	0.093	17.78	18.50	1.180	0.110	/
	Left side			20175	1732.5	50	24	0.14	0.020	17.78	18.50	1.180	0.024	/
	Right side			20175	1732.5	50	24	0.14	0.013	17.78	18.50	1.180	0.015	/
	Bottom side			20175	1732.5	50	24	0.16	0.183	17.78	18.50	1.180	0.216	/
ANT 2	Front side	10mm	QPSK	20175	1732.5	1	0	-0.01	0.150	19.06	19.50	1.107	0.166	/
	Back side			20175	1732.5	1	0	-0.15	0.353	19.06	19.50	1.107	0.391	/
	Left side			20175	1732.5	1	0	-0.10	0.050	19.06	19.50	1.107	0.055	/
	Right side			20175	1732.5	1	0	0.01	0.051	19.06	19.50	1.107	0.056	/
	Top side			20175	1732.5	1	0	0.13	0.377	19.06	19.50	1.107	0.417	14
	Front side			20175	1732.5	50	0	0.02	0.125	17.87	18.50	1.156	0.145	/

	Back side			20175	1732.5	50	0	-0.19	0.270	17.87	18.50	1.156	0.312	/
	Left side			20175	1732.5	50	0	0.07	0.035	17.87	18.50	1.156	0.040	/
	Right side			20175	1732.5	50	0	0.06	0.032	17.87	18.50	1.156	0.037	/
	Top side			20175	1732.5	50	0	-0.07	0.282	17.87	18.50	1.156	0.326	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.9 LTE Band 5 (10MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head														
ANT 0	Left cheek	0mm	QPSK	20525	836.5	1	0	-0.16	0.140	23.74	24.50	1.191	0.167	/
	Left tilt			20525	836.5	1	0	-0.03	0.074	23.74	24.50	1.191	0.088	/
	Right cheek			20525	836.5	1	0	0.04	0.149	23.74	24.50	1.191	0.177	/
	Right tilt			20525	836.5	1	0	0.02	0.080	23.74	24.50	1.191	0.095	/
	Left cheek			20525	836.5	25	12	-0.12	0.107	22.75	23.50	1.189	0.127	/
	Left tilt			20525	836.5	25	12	-0.15	0.060	22.75	23.50	1.189	0.071	/
	Right cheek			20525	836.5	25	12	0.18	0.115	22.75	23.50	1.189	0.137	/
	Right tilt			20525	836.5	25	12	0.01	0.060	22.75	23.50	1.189	0.071	/
ANT 2	Left cheek	0mm	QPSK	20525	836.5	1	0	-0.04	0.313	23.86	24.50	1.159	0.363	/
	Left tilt			20525	836.5	1	0	-0.01	0.312	23.86	24.50	1.159	0.362	/
	Right cheek			20525	836.5	1	0	0.11	0.451	23.86	24.50	1.159	0.523	15
	Right tilt			20525	836.5	1	0	-0.08	0.397	23.86	24.50	1.159	0.460	/
	Left cheek			20525	836.5	25	25	0.03	0.248	22.86	23.50	1.159	0.287	/
	Left tilt			20525	836.5	25	25	-0.05	0.235	22.86	23.50	1.159	0.272	/
	Right cheek			20525	836.5	25	25	-0.12	0.325	22.86	23.50	1.159	0.377	/
	Right tilt			20525	836.5	25	25	-0.13	0.302	22.86	23.50	1.159	0.350	/
Body-worn& Hotspot														
ANT 0	Front side	10mm	QPSK	20525	836.5	1	0	-0.15	0.220	23.74	24.50	1.191	0.262	/
	Back side			20525	836.5	1	0	-0.11	0.313	23.74	24.50	1.191	0.373	16
	Left side			20525	836.5	1	0	0.06	0.083	23.74	24.50	1.191	0.099	/
	Right side			20525	836.5	1	0	0.03	0.160	23.74	24.50	1.191	0.191	/
	Bottom side			20525	836.5	1	0	-0.02	0.267	23.74	24.50	1.191	0.318	/
	Front side			20525	836.5	25	12	0.06	0.167	22.75	23.50	1.189	0.198	/
	Back side			20525	836.5	25	12	-0.16	0.243	22.75	23.50	1.189	0.289	/
	Left side			20525	836.5	25	12	-0.04	0.065	22.75	23.50	1.189	0.077	/
	Right side			20525	836.5	25	12	-0.08	0.132	22.75	23.50	1.189	0.157	/
	Bottom side			20525	836.5	25	12	-0.03	0.208	22.75	23.50	1.189	0.247	/
ANT 2	Front side	10mm	QPSK	20525	836.5	1	0	-0.08	0.122	23.86	24.50	1.159	0.141	/
	Back side			20525	836.5	1	0	0.06	0.241	23.86	24.50	1.159	0.279	/
	Left side			20525	836.5	1	0	-0.05	0.118	23.86	24.50	1.159	0.137	/
	Right side			20525	836.5	1	0	0.10	0.082	23.86	24.50	1.159	0.095	/
	Top side			20525	836.5	1	0	0.11	0.164	23.86	24.50	1.159	0.190	/
	Front side			20525	836.5	25	25	0.12	0.092	22.86	23.50	1.159	0.107	/
	Back side			20525	836.5	25	25	-0.17	0.170	22.86	23.50	1.159	0.197	/
	Left side			20525	836.5	25	25	-0.11	0.086	22.86	23.50	1.159	0.100	/
	Right side			20525	836.5	25	25	-0.12	0.057	22.86	23.50	1.159	0.066	/

	Top side			20525	836.5	25	25	0.09	0.160	22.86	23.50	1.159	0.185	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.10 LTE Band 5 Worse case for CA Test

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head-CA														
ANT 2	Right cheek	0mm	QPSK	20525+20624	836.5	1+1	49+0	-0.15	0.407	23.49	24.50	1.262	0.514	/
Hotspot-CA														
ANT 0	Back side	10mm	QPSK	20525+20624	836.5	1+1	49+0	0.06	0.274	23.44	24.50	1.276	0.350	/

10.11 LTE Band 7 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head														
ANT 0	Left cheek	0mm	QPSK	21100	2535	1	0	0.07	0.030	17.39	18.00	1.151	0.035	/
	Left tilt			21100	2535	1	0	0.08	0.026	17.39	18.00	1.151	0.030	/
	Right cheek			21100	2535	1	0	-0.02	0.022	17.39	18.00	1.151	0.025	/
	Right tilt			21100	2535	1	0	-0.03	0.021	17.39	18.00	1.151	0.024	/
	Left cheek			21100	2535	50	24	0.18	0.026	16.35	17.00	1.161	0.030	/
	Left tilt			21100	2535	50	24	0.01	0.024	16.35	17.00	1.161	0.028	/
	Right cheek			21100	2535	50	24	0.16	0.018	16.35	17.00	1.161	0.021	/
	Right tilt			21100	2535	50	24	-0.06	0.016	16.35	17.00	1.161	0.019	/
ANT 2	Left cheek	0mm	QPSK	21100	2535	1	0	-0.01	0.288	17.65	18.00	1.084	0.312	/
	Left tilt			21100	2535	1	0	0.15	0.368	17.65	18.00	1.084	0.399	/
	Right cheek			21100	2535	1	0	0.15	0.556	17.65	18.00	1.084	0.603	/
	Right tilt			21100	2535	1	0	0.02	0.752	17.65	18.00	1.084	0.815	/
	Right tilt			20850	2510	1	0	0.18	0.858	17.65	18.00	1.084	0.930	17
	Right tilt			20850	2510	1	0	-0.03	0.844	17.65	18.00	1.084	0.915	repeat
	Right tilt			21350	2560	1	0	-0.10	0.688	17.65	18.00	1.084	0.746	/
	Left cheek			21100	2535	50	24	-0.15	0.231	16.60	17.00	1.096	0.253	/
	Left tilt			21100	2535	50	24	-0.10	0.301	16.60	17.00	1.096	0.330	/
	Right cheek			21100	2535	50	24	0.06	0.464	16.60	17.00	1.096	0.509	/
	Right tilt			21100	2535	50	24	0.09	0.617	16.60	17.00	1.096	0.677	/
	Right tilt			21100	2535	100	0	0.02	0.623	16.51	17.00	1.119	0.697	/
Body-worn& Hotspot														
ANT 0	Front side	10mm	QPSK	21100	2535	1	0	0.12	0.100	17.39	18.00	1.151	0.115	/
	Back side			21100	2535	1	0	-0.15	0.085	17.39	18.00	1.151	0.098	/
	Left side			21100	2535	1	0	0.17	0.010	17.39	18.00	1.151	0.012	/
	Right side			21100	2535	1	0	-0.06	0.083	17.39	18.00	1.151	0.096	/
	Bottom side			21100	2535	1	0	0.06	0.181	17.39	18.00	1.151	0.208	/
	Front side			21100	2535	50	24	-0.03	0.083	16.35	17.00	1.161	0.096	/
	Back side			21100	2535	50	24	-0.03	0.073	16.35	17.00	1.161	0.085	/
	Left side			21100	2535	50	24	0.12	0.007	16.35	17.00	1.161	0.008	/
	Right side			21100	2535	50	24	0.17	0.062	16.35	17.00	1.161	0.072	/
	Bottom side			21100	2535	50	24	0.16	0.143	16.35	17.00	1.161	0.166	/
ANT 2	Front side	10mm	QPSK	21100	2535	1	0	-0.18	0.154	17.65	18.00	1.084	0.167	/
	Back side			21100	2535	1	0	0.01	0.847	17.65	18.00	1.084	0.918	/
	Left side			21100	2535	1	0	0.09	0.060	17.65	18.00	1.084	0.065	/
	Right side			21100	2535	1	0	-0.09	0.020	17.65	18.00	1.084	0.022	/
	Top side			21100	2535	1	0	-0.10	0.658	17.65	18.00	1.084	0.713	/

	Back side			20850	2510	1	0	-0.09	0.900	17.63	18.00	1.089	0.980	18
	Back side			20850	2510	1	0	-0.09	0.862	17.63	18.00	1.089	0.939	repeat
	Back side			21350	2560	1	0	0.17	0.717	17.59	18.00	1.099	0.788	/
	Front side			21100	2535	50	24	0.04	0.126	16.60	17.00	1.096	0.138	/
	Back side			21100	2535	50	24	0.03	0.687	16.60	17.00	1.096	0.753	/
	Left side			21100	2535	50	24	0.18	0.049	16.60	17.00	1.096	0.054	/
	Right side			21100	2535	50	24	-0.17	0.012	16.60	17.00	1.096	0.013	/
	Top side			21100	2535	50	24	0.13	0.535	16.60	17.00	1.096	0.587	/
	Back side			21100	2535	100	0	0.15	0.650	16.51	17.00	1.119	0.728	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.12 LTE Band 7 Worse case for CA Test

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head-CA														
ANT 2	Right tilt	0mm	QPSK	21100+21198	2535	1+1	99+0	-0.19	0.728	17.19	18.00	1.205	0.877	/
	Right tilt			20850+21048	2510	1+1	99+0	0.12	0.736	17.14	18.00	1.219	0.897	/
	Right tilt			21350+21152	2560	1+1	0+99	-0.11	0.616	17.11	18.00	1.227	0.756	/
Hotspot-CA														
ANT 2	Back side	0mm	QPSK	21100+21198	2535	1+1	99+0	0.10	0.735	17.19	18.00	1.205	0.886	/
	Back side			20850+21048	2510	1+1	99+0	0.17	0.751	17.14	18.00	1.219	0.915	/
	Back side			21350+21152	2560	1+1	0+99	-0.15	0.632	17.11	18.00	1.227	0.776	/

10.13 LTE Band 41 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head														
ANT 0	Left cheek	0mm	QPSK	40640	2595	1	0	0.15	0.039	19.80	20.50	1.175	0.046	/
	Left tilt			40640	2595	1	0	-0.06	0.036	19.80	20.50	1.175	0.042	/
	Right cheek			40640	2595	1	0	0.02	0.028	19.80	20.50	1.175	0.033	/
	Right tilt			40640	2595	1	0	-0.16	0.024	19.80	20.50	1.175	0.028	/
	Left cheek			40640	2595	50	24	-0.19	0.033	18.71	19.50	1.199	0.040	/
	Left tilt			40640	2595	50	24	0.08	0.030	18.71	19.50	1.199	0.036	/
	Right cheek			40640	2595	50	24	-0.14	0.024	18.71	19.50	1.199	0.029	/
	Right tilt			40640	2595	50	24	0.10	0.021	18.71	19.50	1.199	0.025	/
ANT 2	Left cheek	0mm	QPSK	40640	2595	1	0	-0.17	0.289	20.04	20.50	1.112	0.321	/
	Left tilt			40640	2595	1	0	0.08	0.345	20.04	20.50	1.112	0.384	/
	Right cheek			40640	2595	1	0	0.09	0.587	20.04	20.50	1.112	0.653	/
	Right tilt			40640	2595	1	0	-0.11	0.653	20.04	20.50	1.112	0.726	19
	Left cheek			40640	2595	50	24	0.05	0.232	18.94	19.50	1.138	0.264	/
	Left tilt			40640	2595	50	24	-0.01	0.259	18.94	19.50	1.138	0.295	/
	Right cheek			40640	2595	50	24	-0.15	0.477	18.94	19.50	1.138	0.543	/
	Right tilt			40640	2595	50	24	-0.02	0.591	18.94	19.50	1.138	0.672	/
Body-worn& Hotspot														
ANT 0	Front side	10mm	QPSK	40640	2595	1	0	0.14	0.105	19.80	20.50	1.175	0.123	/
	Back side			40640	2595	1	0	0.09	0.102	19.80	20.50	1.175	0.120	/
	Left side			40640	2595	1	0	-0.19	0.050	19.80	20.50	1.175	0.059	/
	Right side			40640	2595	1	0	0.13	0.072	19.80	20.50	1.175	0.085	/
	Bottom side			40640	2595	1	0	0.03	0.195	19.80	20.50	1.175	0.229	/
	Front side			40640	2595	50	24	0.12	0.090	18.71	19.50	1.199	0.108	/
	Back side			40640	2595	50	24	-0.09	0.087	18.71	19.50	1.199	0.104	/
	Left side			40640	2595	50	24	0.04	0.038	18.71	19.50	1.199	0.046	/
	Right side			40640	2595	50	24	0.18	0.056	18.71	19.50	1.199	0.067	/
	Bottom side			40640	2595	50	24	0.04	0.159	18.71	19.50	1.199	0.191	/
ANT 2	Front side	10mm	QPSK	40640	2595	1	0	0.03	0.124	20.04	20.50	1.112	0.138	/
	Back side			40640	2595	1	0	-0.09	0.760	20.04	20.50	1.112	0.845	/
	Left side			40640	2595	1	0	-0.04	0.049	20.04	20.50	1.112	0.054	/
	Right side			40640	2595	1	0	0.12	0.048	20.04	20.50	1.112	0.053	/
	Top side			40640	2595	1	0	-0.13	0.507	20.04	20.50	1.112	0.564	/
	Back side			40140	2545	1	0	-0.05	0.883	19.92	20.50	1.143	1.009	20
	Back side			40140	2545	1	0	-0.01	0.850	19.92	20.50	1.143	0.971	repeat
	Back side			41140	2645	1	0	0.01	0.707	20.01	20.50	1.119	0.791	/
	Front side			40640	2595	50	24	0.14	0.099	18.94	19.50	1.138	0.113	/

	Back side			40640	2595	50	24	0.10	0.505	18.94	19.50	1.138	0.575	/
	Left side			40640	2595	50	24	0.09	0.045	18.94	19.50	1.138	0.051	/
	Right side			40640	2595	50	24	-0.02	0.030	18.94	19.50	1.138	0.034	/
	Top side			40640	2595	50	24	0.16	0.407	18.94	19.50	1.138	0.463	/
	Back side			40640	2595	100	0	-0.09	0.552	18.85	19.50	1.161	0.641	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.14 LTE Band 41 Worse case for CA Test

Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. no.
Head-CA														
ANT 2	Right cheek	0mm	QPSK	40640+40838	2595	1+1	99+0	0.07	0.568	19.56	20.50	1.242	0.705	/
Hotspot-CA														
ANT 2	Back side	0mm	QPSK	40640+40838	2595	1+1	99+0	-0.12	0.665	19.56	20.50	1.242	0.826	/
	Back side			40140+40338	2545	1+1	99+0	-0.17	0.761	19.53	20.50	1.250	0.951	/
	Back side			41140+40942	2645	1+1	0+99	0.06	0.648	19.51	20.50	1.256	0.814	/

10.15 WIFI 2.4GHz

Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
Left cheek	0mm	802.11b	6	2437	-0.16	0.346	12.82	13.50	1.169	99.50	1.005	0.407	21
Left tilt			6	2437	-0.13	0.138	12.82	13.50	1.169	99.50	1.005	0.162	/
Right cheek			6	2437	0.04	0.086	12.82	13.50	1.169	99.50	1.005	0.101	/
Right tilt			6	2437	-0.13	0.048	12.82	13.50	1.169	99.50	1.005	0.056	/
Body-worn& Hotspot													
Front side	10mm	802.11b	6	2437	0.02	0.044	12.82	13.50	1.169	99.50	1.005	0.052	/
Back side			6	2437	-0.12	0.094	12.82	13.50	1.169	99.50	1.005	0.110	/
Left side			6	2437	0.00	0.010	12.82	13.50	1.169	99.50	1.005	0.012	/
Right side			6	2437	0.18	0.125	12.82	13.50	1.169	99.50	1.005	0.147	22
Top side			6	2437	-0.10	0.021	12.82	13.50	1.169	99.50	1.005	0.025	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.16 WIFI 5GHz

Test Band	Test Position	Dist.	Test Mode	Test Channe	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
5.3G	Left cheek	0mm	11ac80	58	5290	0.14	0.173	10.95	12.50	1.429	90.20	1.109	0.274	/
	Left tilt			58	5290	-0.18	0.201	10.95	12.50	1.429	90.20	1.109	0.318	23
	Right cheek			58	5290	0.05	0.109	10.95	12.50	1.429	90.20	1.109	0.173	/
	Right tilt			58	5290	-0.01	0.159	10.95	12.50	1.429	90.20	1.109	0.252	/
5.6G	Left cheek	0mm	11ac80	122	5610	-0.19	0.183	11.43	12.50	1.280	90.20	1.109	0.260	/
	Left tilt			122	5610	0.16	0.322	11.43	12.50	1.280	90.20	1.109	0.457	24
	Right cheek			122	5610	-0.13	0.130	11.43	12.50	1.280	90.20	1.109	0.184	/
	Right tilt			122	5610	0.11	0.192	11.43	12.50	1.280	90.20	1.109	0.272	/
5.8G	Left cheek	0mm	11ac80	155	5775	-0.06	0.163	11.60	12.50	1.231	90.20	1.109	0.222	/
	Left tilt			155	5775	0.19	0.315	11.60	12.50	1.231	90.20	1.109	0.430	25
	Right cheek			155	5775	0.15	0.178	11.60	12.50	1.231	90.20	1.109	0.243	/
	Right tilt			155	5775	0.17	0.234	11.60	12.50	1.231	90.20	1.109	0.319	/
Body-worn														
5.3G	Front side	10mm	11ac80	58	5290	0.11	0.071	10.95	12.50	1.429	90.20	1.109	0.112	/
	Back side			58	5290	0.09	0.118	10.95	12.50	1.429	90.20	1.109	0.187	26
5.6G	Front side	10mm	11ac80	122	5610	0.16	0.070	11.43	12.50	1.280	90.20	1.109	0.099	/
	Back side			122	5610	-0.16	0.119	11.43	12.50	1.280	90.20	1.109	0.169	27
5.8G	Front side	10mm	11ac80	155	5775	-0.10	0.072	11.60	12.50	1.231	90.20	1.109	0.098	/
	Back side			155	5775	-0.13	0.126	11.60	12.50	1.231	90.20	1.109	0.172	28
Hotspot														
5.2G	Front side	10mm	11ac80	42	5210	-0.09	0.049	11.38	12.50	1.294	90.20	1.109	0.070	/
	Back side			42	5210	-0.13	0.152	11.38	12.50	1.294	90.20	1.109	0.218	29
	Left side			42	5210	0.00	0.012	11.38	12.50	1.294	90.20	1.109	0.017	/
	Right side			42	5210	-0.13	0.052	11.38	12.50	1.294	90.20	1.109	0.075	/
	Top side			42	5210	0.07	0.094	11.38	12.50	1.294	90.20	1.109	0.135	/
5.8G	Front side	10mm	11ac80	155	5775	-0.10	0.068	11.60	12.50	1.231	90.20	1.109	0.093	/
	Back side			155	5775	-0.04	0.232	11.60	12.50	1.231	90.20	1.109	0.317	/
	Left side			155	5775	0.05	0.016	11.60	12.50	1.231	90.20	1.109	0.022	/
	Right side			155	5775	0.05	0.074	11.60	12.50	1.231	90.20	1.109	0.101	/
	Top side			155	5775	0.14	0.237	11.60	12.50	1.231	90.20	1.109	0.323	30
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

Test Band	Test Position	Dist.	Test Mode	Test Channe	Freq. (MHz)	Power Drift(dB)	Measured 10-g SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Extremity														
5.3G	Front side	0mm	11ac80	58	5290	0.11	0.072	10.95	12.50	1.429	90.20	1.109	0.114	/
	Back side			58	5290	-0.01	0.158	10.95	12.50	1.429	90.20	1.109	0.250	/
	Left side			58	5290	0.00	0.010	10.95	12.50	1.429	90.20	1.109	0.016	/
	Right side			58	5290	0.09	0.049	10.95	12.50	1.429	90.20	1.109	0.078	/
	Top side			58	5290	0.11	0.216	10.95	12.50	1.429	90.20	1.109	0.342	31
5.6G	Front side	0mm	11ac80	122	5610	-0.10	0.156	11.48	12.50	1.265	90.20	1.109	0.219	/
	Back side			122	5610	0.15	0.277	11.43	12.50	1.280	90.20	1.109	0.393	/
	Left side			122	5610	0.00	0.013	11.43	12.50	1.280	90.20	1.109	0.018	/
	Right side			122	5610	-0.18	0.087	11.43	12.50	1.280	90.20	1.109	0.123	/
	Top side			122	5610	0.12	0.390	11.43	12.50	1.280	90.20	1.109	0.553	32
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.17 Bluetooth

Test Position	Dist.	Test Mode	Test Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Meas. Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
Left cheek	0mm	DH5	78	2480	0.04	0.236	14.11	15.00	1.227	76.70	1.304	0.378	33
Left tilt			78	2480	-0.05	0.132	14.11	15.00	1.227	76.70	1.304	0.211	/
Right cheek			78	2480	0.08	0.099	14.11	15.00	1.227	76.70	1.304	0.158	/
Right tilt			78	2480	0.01	0.054	14.11	15.00	1.227	76.70	1.304	0.086	/
Body-worn& Hotspot													
Front side	10mm	DH5	78	2480	0.15	0.074	14.11	15.00	1.227	76.70	1.304	0.118	/
Back side			78	2480	-0.01	0.131	14.11	15.00	1.227	76.70	1.304	0.210	/
Left side			78	2480	0.00	0.014	14.11	15.00	1.227	76.70	1.304	0.022	/
Right side			78	2480	0.04	0.187	14.11	15.00	1.227	76.70	1.304	0.299	34
Top side			78	2480	0.06	0.016	14.11	15.00	1.227	76.70	1.304	0.026	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.18 NFC

1. According to the 2022.04 TCBC Workshop meeting, the power threshold is ≤ 100MHz, refer to P6s.

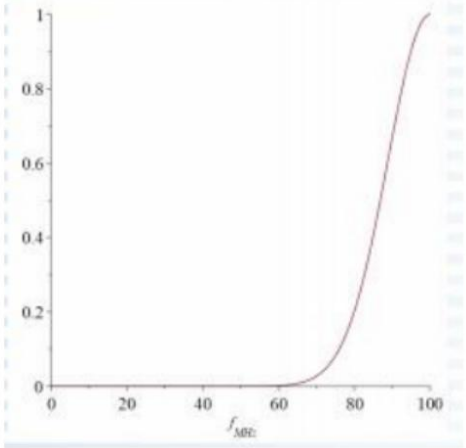
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \le 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \le 300 \\ P_{7}(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

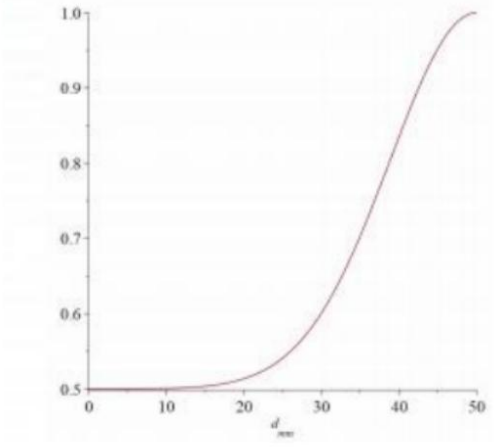
2. For portable products, when using a distance of ≤ 50mm, such as mobile phone NFC, P6s is calculated with the following formula calculate.

$$S_f(f_{MHz}) \cdot P_{431a}(d_{mm}, f_{MHz}) + (1 - S_f(f_{MHz})) \cdot S_d(d_{mm}) P_{431b1}(50., 100.) \cdot \left(1. + log10\left(\frac{100.}{f_{MHz}}\right)\right) \qquad d_{mm} \le 50 \text{ and } f_{MHz} \le 100$$

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

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





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.				

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 EIRP 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 ≤ 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 EIRP of all chains in linear terms (e.g., Watts, mW).

e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship: E = EIRP - 20log D + 104.8

where:

E = electric field strength in dBμV/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dBuV/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	56.20	3	6	-22.60
Note: 1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz). 2.ERP= 56.20+20*Log(10) - 104.8 + 6 =-22.60 (dBm)					

According to the FCC KDB 447498 D04

Estimated SAR: SAR test =1.6 · Pant / Pth [W/kg]

Estimated SAR	1.6 ·Pant / Pth [W/kg]		
Pmeas.(dBm)	-22.60	Pmeas.(mW)	0.005
Pth.(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	＜0.001		

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^{1th} Measured SAR (W/kg)	Largest to Smallest SAR Radio
Band 2	WCDMA	Head	Right tilt	0.875	Yes	0.842	1.04
Band 7	LTE	Head	Right tilt	0.858	Yes	0.844	1.02
Band 7	LTE	Body	Back Side	0.900	Yes	0.862	1.04
Band 41	LTE	Body	Back Side	0.883	Yes	0.850	1.04
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.							

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
1	WWAN+2.4G WIFI	Yes	Yes	Yes
2	WWAN+BT	Yes	Yes	Yes
3	WWAN+5G WIFI	Yes	Yes	Yes
4	WWAN+5G WIFI+BT	Yes	Yes	Yes

Note:
1. WWAN antennas can switch automatically, the standards supported by WWAN are(GSM Voice/GPRS/EDGE/WCDMA/LTE).
2. 2.4G WIFI can’t transmit simultaneously with Bluetooth or 5G WIFI.
3. 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.
4. The maximum SAR summation is calculated based on the same configuration and test position.

12.2 Sum SAR of Simultaneous Transmission

12.2.1 Sum Head SAR of Simultaneous Transmission

Band	ANT	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4G WIFI	5G WIFI Max .	Bluetooth	1+2	1+3+4
GSM850	ANT 0	Left cheek	0.216	0.407	0.274	0.378	0.623	0.868
		Left Tilt	0.134	0.162	0.457	0.211	0.297	0.802
		Right Cheek	0.235	0.101	0.243	0.158	0.336	0.637
		Right Tilt	0.138	0.056	0.319	0.086	0.195	0.544
GSM850	ANT 2	Left cheek	0.642	0.407	0.274	0.378	1.049	1.294
		Left Tilt	0.632	0.162	0.457	0.211	0.795	1.300
		Right Cheek	0.908	0.101	0.243	0.158	1.009	1.309
		Right Tilt	0.806	0.056	0.319	0.086	0.862	1.211
GSM1900	ANT 0	Left Cheek	0.014	0.407	0.274	0.378	0.421	0.666
		Left Tilt	0.006	0.162	0.457	0.211	0.168	0.674
		Right Cheek	0.012	0.101	0.243	0.158	0.113	0.413
		Right Tilt	0.005	0.056	0.319	0.086	0.061	0.410
GSM1900	ANT 2	Left Cheek	0.525	0.407	0.274	0.378	0.932	1.177
		Left Tilt	0.624	0.162	0.457	0.211	0.786	1.292
		Right Cheek	0.626	0.101	0.243	0.158	0.727	1.028
		Right Tilt	0.889	0.056	0.319	0.086	0.945	1.295
WCDMA B2	ANT 0	Left Cheek	0.021	0.407	0.274	0.378	0.427	0.672
		Left Tilt	0.011	0.162	0.457	0.211	0.174	0.680
		Right Cheek	0.017	0.101	0.243	0.158	0.118	0.418
		Right Tilt	0.008	0.056	0.319	0.086	0.064	0.414
WCDMA B2	ANT 2	Left Cheek	0.553	0.407	0.274	0.378	0.960	1.205
		Left Tilt	0.677	0.162	0.457	0.211	0.839	1.345
		Right Cheek	0.649	0.101	0.243	0.158	0.750	1.050
		Right Tilt	0.942	0.056	0.319	0.086	0.998	1.348
WCDMA B4	ANT 0	Left Cheek	0.018	0.407	0.274	0.378	0.424	0.669
		Left Tilt	0.011	0.162	0.457	0.211	0.173	0.679
		Right Cheek	0.013	0.101	0.243	0.158	0.114	0.415
		Right Tilt	0.008	0.056	0.319	0.086	0.064	0.413
WCDMA B4	ANT 2	Left Cheek	0.481	0.407	0.274	0.378	0.888	1.133
		Left Tilt	0.627	0.162	0.457	0.211	0.789	1.295
		Right Cheek	0.581	0.101	0.243	0.158	0.682	0.982
		Right Tilt	0.822	0.056	0.319	0.086	0.878	1.228
WCDMA B5	ANT 0	Left Cheek	0.143	0.407	0.274	0.378	0.550	0.795
		Left Tilt	0.080	0.162	0.457	0.211	0.242	0.748
		Right Cheek	0.151	0.101	0.243	0.158	0.252	0.552
		Right Tilt	0.079	0.056	0.319	0.086	0.135	0.485

WCDMA B5	ANT 2	Left Cheek	0.485	0.407	0.274	0.378	0.891	1.137
		Left Tilt	0.455	0.162	0.457	0.211	0.617	1.123
		Right Cheek	0.543	0.101	0.243	0.158	0.645	0.945
		Right Tilt	0.540	0.056	0.319	0.086	0.597	0.946
LTE B2	ANT 0	Left Cheek	0.031	0.407	0.274	0.378	0.438	0.683
		Left Tilt	0.025	0.162	0.457	0.211	0.188	0.693
		Right Cheek	0.044	0.101	0.243	0.158	0.145	0.445
		Right Tilt	0.041	0.056	0.319	0.086	0.098	0.447
LTE B2	ANT 2	Left Cheek	0.518	0.407	0.274	0.378	0.924	1.169
		Left Tilt	0.638	0.162	0.457	0.211	0.800	1.306
		Right Cheek	0.610	0.101	0.243	0.158	0.711	1.012
		Right Tilt	0.743	0.056	0.319	0.086	0.799	1.149
LTE B4	ANT 0	Left Cheek	0.039	0.407	0.274	0.378	0.445	0.690
		Left Tilt	0.035	0.162	0.457	0.211	0.197	0.703
		Right Cheek	0.032	0.101	0.243	0.158	0.133	0.433
		Right Tilt	0.029	0.056	0.319	0.086	0.086	0.435
LTE B4	ANT 2	Left Cheek	0.569	0.407	0.274	0.378	0.975	1.221
		Left Tilt	0.736	0.162	0.457	0.211	0.898	1.404
		Right Cheek	0.683	0.101	0.243	0.158	0.784	1.084
		Right Tilt	0.876	0.056	0.319	0.086	0.933	1.282
LTE B5	ANT 0	Left Cheek	0.167	0.407	0.274	0.378	0.573	0.819
		Left Tilt	0.088	0.162	0.457	0.211	0.250	0.756
		Right Cheek	0.177	0.101	0.243	0.158	0.279	0.579
		Right Tilt	0.095	0.056	0.319	0.086	0.152	0.501
LTE B5	ANT 2	Left Cheek	0.363	0.407	0.274	0.378	0.769	1.014
		Left Tilt	0.362	0.162	0.457	0.211	0.524	1.030
		Right Cheek	0.523	0.101	0.243	0.158	0.624	0.924
		Right Tilt	0.460	0.056	0.319	0.086	0.516	0.866
LTE 7	ANT 0	Left Cheek	0.035	0.407	0.274	0.378	0.441	0.686
		Left Tilt	0.030	0.162	0.457	0.211	0.192	0.698
		Right Cheek	0.025	0.101	0.243	0.158	0.126	0.427
		Right Tilt	0.024	0.056	0.319	0.086	0.081	0.430
LTE 7	ANT 2	Left Cheek	0.312	0.407	0.274	0.378	0.719	0.964
		Left Tilt	0.399	0.162	0.457	0.211	0.561	1.067
		Right Cheek	0.603	0.101	0.243	0.158	0.704	1.004
		Right Tilt	0.930	0.056	0.319	0.086	0.986	1.336
LTE 41	ANT 0	Left Cheek	0.046	0.407	0.274	0.378	0.453	0.698
		Left Tilt	0.042	0.162	0.457	0.211	0.204	0.710
		Right Cheek	0.033	0.101	0.243	0.158	0.134	0.434
		Right Tilt	0.028	0.056	0.319	0.086	0.085	0.434
LTE 41	ANT 2	Left Cheek	0.321	0.407	0.274	0.378	0.728	0.973
		Left Tilt	0.384	0.162	0.457	0.211	0.546	1.052
		Right Cheek	0.653	0.101	0.243	0.158	0.754	1.054

		Right Tilt	0.726	0.056	0.319	0.086	0.782	1.132
Note: The highest Summed 1g SAR is 1.404 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.								

12.2.2 Sum Body-worn SAR of Simultaneous Transmission

Band	ANT	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	1+2	1+3+4
GSM850	ANT0	Front Side	0.379	0.052	0.112	0.118	0.430	0.610
		Back Side	0.491	0.110	0.317	0.210	0.602	1.017
GSM850	ANT2	Front Side	0.164	0.052	0.112	0.118	0.215	0.395
		Back Side	0.359	0.110	0.317	0.210	0.470	0.885
GSM1900	ANT0	Front Side	0.222	0.052	0.112	0.118	0.273	0.452
		Back Side	0.264	0.110	0.317	0.210	0.375	0.791
GSM1900	ANT2	Front Side	0.196	0.052	0.112	0.118	0.248	0.427
		Back Side	0.463	0.110	0.317	0.210	0.573	0.989
WCDMA B2	ANT0	Front Side	0.262	0.052	0.112	0.118	0.314	0.493
		Back Side	0.294	0.110	0.317	0.210	0.405	0.821
WCDMA B2	ANT2	Front Side	0.197	0.052	0.112	0.118	0.249	0.428
		Back Side	0.464	0.110	0.317	0.210	0.574	0.990
WCDMA B4	ANT0	Front Side	0.095	0.052	0.112	0.118	0.147	0.326
		Back Side	0.113	0.110	0.317	0.210	0.223	0.639
WCDMA B4	ANT2	Front Side	0.156	0.052	0.112	0.118	0.208	0.387
		Back Side	0.338	0.110	0.317	0.210	0.448	0.864
WCDMA B5	ANT0	Front Side	0.291	0.052	0.112	0.118	0.343	0.522
		Back Side	0.381	0.110	0.317	0.210	0.492	0.908
WCDMA B5	ANT2	Front Side	0.128	0.052	0.112	0.118	0.179	0.358
		Back Side	0.255	0.110	0.317	0.210	0.366	0.781
LTE B2	ANT0	Front Side	0.229	0.052	0.112	0.118	0.281	0.460
		Back Side	0.255	0.110	0.317	0.210	0.366	0.782
LTE B2	ANT2	Front Side	0.156	0.052	0.112	0.118	0.208	0.387
		Back Side	0.357	0.110	0.317	0.210	0.467	0.883
LTE B4	ANT0	Front Side	0.113	0.052	0.112	0.118	0.165	0.344
		Back Side	0.130	0.110	0.317	0.210	0.240	0.656
LTE B4	ANT2	Front Side	0.166	0.052	0.112	0.118	0.218	0.397
		Back Side	0.391	0.110	0.317	0.210	0.501	0.917
LTE B5	ANT0	Front Side	0.262	0.052	0.112	0.118	0.314	0.493
		Back Side	0.373	0.110	0.317	0.210	0.483	0.899
LTE B5	ANT2	Front Side	0.141	0.052	0.112	0.118	0.193	0.372
		Back Side	0.279	0.110	0.317	0.210	0.390	0.805
LTE B7	ANT0	Front Side	0.115	0.052	0.112	0.118	0.167	0.346
		Back Side	0.098	0.110	0.317	0.210	0.208	0.624
LTE B7	ANT2	Front Side	0.167	0.052	0.112	0.118	0.219	0.398

		Back Side	0.980	0.110	0.317	0.210	1.091	1.506
LTE B41	ANT0	Front Side	0.123	0.052	0.112	0.118	0.175	0.354
		Back Side	0.120	0.110	0.317	0.210	0.230	0.646
LTE B41	ANT2	Front Side	0.138	0.052	0.112	0.118	0.190	0.369
		Back Side	1.009	0.110	0.317	0.210	1.120	1.535
Note: The highest Summed 1g SAR is 1.535 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.								

12.2.3 Sum Hotspot SAR of Simultaneous Transmission

Band	ANT	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	1+2	1+3+4
GSM850	ANT0	Front Side	0.379	0.052	0.112	0.118	0.430	0.610
		Back Side	0.491	0.110	0.317	0.210	0.602	1.017
		Left Side	0.188	0.012	0.022	0.022	0.200	0.232
		Right Side	0.229	0.147	0.101	0.299	0.376	0.629
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.509	0.000	0.000	0.000	0.509	0.509
GSM850	ANT2	Front Side	0.164	0.052	0.112	0.118	0.215	0.395
		Back Side	0.359	0.110	0.317	0.210	0.470	0.885
		Left Side	0.133	0.012	0.022	0.022	0.145	0.177
		Right Side	0.070	0.147	0.101	0.299	0.217	0.470
		Top Side	0.284	0.025	0.323	0.026	0.309	0.633
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
GSM1900	ANT0	Front Side	0.222	0.052	0.112	0.118	0.273	0.452
		Back Side	0.264	0.110	0.317	0.210	0.375	0.791
		Left Side	0.063	0.012	0.022	0.022	0.075	0.107
		Right Side	0.055	0.147	0.101	0.299	0.202	0.455
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.560	0.000	0.000	0.000	0.560	0.560
GSM1900	ANT2	Front Side	0.196	0.052	0.112	0.118	0.248	0.427
		Back Side	0.463	0.110	0.317	0.210	0.573	0.989
		Left Side	0.076	0.012	0.022	0.022	0.088	0.120
		Right Side	0.013	0.147	0.101	0.299	0.159	0.413
		Top Side	0.455	0.025	0.323	0.026	0.480	0.804
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	ANT0	Front Side	0.262	0.052	0.112	0.118	0.314	0.493
		Back Side	0.294	0.110	0.317	0.210	0.405	0.821
		Left Side	0.070	0.012	0.022	0.022	0.082	0.114
		Right Side	0.057	0.147	0.101	0.299	0.204	0.457
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.719	0.000	0.000	0.000	0.719	0.719
WCDMA B2	ANT2	Front Side	0.197	0.052	0.112	0.118	0.249	0.428
		Back Side	0.464	0.110	0.317	0.210	0.574	0.990
		Left Side	0.081	0.012	0.022	0.022	0.092	0.125
		Right Side	0.057	0.147	0.101	0.299	0.204	0.457
		Top Side	0.479	0.025	0.323	0.026	0.504	0.828
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	ANT0	Front Side	0.095	0.052	0.112	0.118	0.147	0.326

		Back Side	0.113	0.110	0.317	0.210	0.223	0.639
		Left Side	0.022	0.012	0.022	0.022	0.034	0.066
		Right Side	0.012	0.147	0.101	0.299	0.159	0.412
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.224	0.000	0.000	0.000	0.224	0.224
WCDMA B4	ANT2	Front Side	0.156	0.052	0.112	0.118	0.208	0.387
		Back Side	0.338	0.110	0.317	0.210	0.448	0.864
		Left Side	0.045	0.012	0.022	0.022	0.057	0.089
		Right Side	0.051	0.147	0.101	0.299	0.198	0.452
		Top Side	0.332	0.025	0.323	0.026	0.357	0.681
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	ANT0	Front Side	0.291	0.052	0.112	0.118	0.343	0.522
		Back Side	0.381	0.110	0.317	0.210	0.492	0.908
		Left Side	0.110	0.012	0.022	0.022	0.122	0.154
		Right Side	0.234	0.147	0.101	0.299	0.381	0.634
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.329	0.000	0.000	0.000	0.329	0.329
WCDMA B5	ANT2	Front Side	0.128	0.052	0.112	0.118	0.179	0.358
		Back Side	0.255	0.110	0.317	0.210	0.366	0.781
		Left Side	0.120	0.012	0.022	0.022	0.132	0.164
		Right Side	0.072	0.147	0.101	0.299	0.219	0.472
		Top Side	0.219	0.025	0.323	0.026	0.243	0.567
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	ANT0	Front Side	0.229	0.052	0.112	0.118	0.281	0.460
		Back Side	0.255	0.110	0.317	0.210	0.366	0.782
		Left Side	0.067	0.012	0.022	0.022	0.078	0.111
		Right Side	0.053	0.147	0.101	0.299	0.200	0.453
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.574	0.000	0.000	0.000	0.574	0.574
LTE B2	ANT2	Front Side	0.156	0.052	0.112	0.118	0.208	0.387
		Back Side	0.357	0.110	0.317	0.210	0.467	0.883
		Left Side	0.065	0.012	0.022	0.022	0.076	0.109
		Right Side	0.046	0.147	0.101	0.299	0.193	0.447
		Top Side	0.365	0.025	0.323	0.026	0.389	0.714
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B4	ANT0	Front Side	0.113	0.052	0.112	0.118	0.165	0.344
		Back Side	0.130	0.110	0.317	0.210	0.240	0.656
		Left Side	0.029	0.012	0.022	0.022	0.041	0.073
		Right Side	0.021	0.147	0.101	0.299	0.168	0.421
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.251	0.000	0.000	0.000	0.251	0.251
LTE B4	ANT2	Front Side	0.166	0.052	0.112	0.118	0.218	0.397
		Back Side	0.391	0.110	0.317	0.210	0.501	0.917

		Left Side	0.055	0.012	0.022	0.022	0.067	0.100
		Right Side	0.056	0.147	0.101	0.299	0.203	0.457
		Top Side	0.417	0.025	0.323	0.026	0.442	0.766
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B5	ANT0	Front Side	0.262	0.052	0.112	0.118	0.314	0.493
		Back Side	0.373	0.110	0.317	0.210	0.483	0.899
		Left Side	0.099	0.012	0.022	0.022	0.111	0.143
		Right Side	0.191	0.147	0.101	0.299	0.338	0.591
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.318	0.000	0.000	0.000	0.318	0.318
LTE B5	ANT2	Front Side	0.141	0.052	0.112	0.118	0.193	0.372
		Back Side	0.279	0.110	0.317	0.210	0.390	0.805
		Left Side	0.137	0.012	0.022	0.022	0.148	0.181
		Right Side	0.095	0.147	0.101	0.299	0.242	0.495
		Top Side	0.190	0.025	0.323	0.026	0.215	0.539
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	ANT0	Front Side	0.115	0.052	0.112	0.118	0.167	0.346
		Back Side	0.098	0.110	0.317	0.210	0.208	0.624
		Left Side	0.012	0.012	0.022	0.022	0.023	0.056
		Right Side	0.096	0.147	0.101	0.299	0.242	0.496
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.208	0.000	0.000	0.000	0.208	0.208
LTE B7	ANT2	Front Side	0.167	0.052	0.112	0.118	0.219	0.398
		Back Side	0.980	0.110	0.317	0.210	1.091	1.506
		Left Side	0.065	0.012	0.022	0.022	0.077	0.109
		Right Side	0.022	0.147	0.101	0.299	0.169	0.422
		Top Side	0.713	0.025	0.323	0.026	0.738	1.062
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	ANT0	Front Side	0.123	0.052	0.112	0.118	0.175	0.354
		Back Side	0.120	0.110	0.317	0.210	0.230	0.646
		Left Side	0.059	0.012	0.022	0.022	0.070	0.103
		Right Side	0.085	0.147	0.101	0.299	0.232	0.485
		Top Side	0.000	0.025	0.323	0.026	0.025	0.349
		Bottom Side	0.229	0.000	0.000	0.000	0.229	0.229
LTE B41	ANT2	Front Side	0.138	0.052	0.112	0.118	0.190	0.369
		Back Side	1.009	0.110	0.317	0.210	1.120	1.535
		Left Side	0.054	0.012	0.022	0.022	0.066	0.099
		Right Side	0.053	0.147	0.101	0.299	0.200	0.454
		Top Side	0.564	0.025	0.323	0.026	0.588	0.913
		Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
Note: The highest Summed 1g SAR is 1.535 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.								

12.2.4 Highest Total Exposure Ratio of Simultaneous Transmission

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

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

The maximum SAR value for Simultaneous Transmission is 1.54 [W/kg]. Therefore, the worst TER =(1.54+0.001)/1.6 = 0.963＜1,the NFC SAR transmit simultaneously Pass.

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
835MHz Validation Dipole	Speag	D835V2	SN: 4d277	2024/08/30	2027/08/29
1750MHz Validation Dipole	Speag	D1750V2	SN: 1183	2024/09/03	2027/09/02
1950MHz Validation Dipole	Speag	D1950V3	SN: 1240	2024/08/22	2027/08/21
2450MHz Validation Dipole	Speag	D2450V2	SN: 1065	2024/09/05	2027/09/04
2600MHz Validation Dipole	Speag	D2600V2	SN: 1184	2024/08/30	2027/08/29
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1333	2024/09/04	2027/09/03
Data Acquisition Electronicsr	Speag	DAE4	SN: 540	2025/04/21	2026/04/20
E-Field Probe	Speag	EX3DV4	SN: 3748	2025/04/24	2026/04/23
Signal Generator	Keysight	N5173B	MY62150163	2024/08/12	2025/08/11
Power Meter	R&S	NRVD-B2	835843/014	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z4	100381	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z2	100211	2024/08/08	2025/08/07
Wireless Communication Test Set	Anritsu	MT8820C	6201144551	2024/05/14	2025/05/13
Network Analyzer	Agilent	E5071C	MY46103472	2024/09/11	2025/09/10
Thermometer	Elitech	RC-4HC	EF7216002985	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF720B004811	2024/10/31	2025/10/30
Power Amplifier	Mini-Circuits	ZVA-183W-S+	932502132	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 1857	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

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

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

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an DAK3.5 Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (℃)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ε)	Target Conductivity (σ) (S/m)	Target Permittivity (ε)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.4.29	Head	835	21.3	0.90	42.62	0.90	41.50	0.00	2.70
2025.4.30	Head	835	21.1	0.91	42.44	0.90	41.50	1.11	2.27
2025.5.3	Head	1750	21.6	1.40	40.43	1.37	40.08	2.19	0.87
2025.5.4	Head	1950	21.4	1.43	40.07	1.40	40.00	2.14	0.18
2025.5.5	Head	1950	21.2	1.45	39.90	1.40	40.00	3.57	-0.25
2025.4.30	Head	2450	21.1	1.83	38.97	1.80	39.20	1.67	-0.59
2025.5.6	Head	2600	21.3	1.99	38.65	1.96	39.01	1.53	-0.92
2025.5.7	Head	2600	21.6	2.01	38.51	1.96	39.01	2.55	-1.28
2025.5.8	Head	5200	21.5	4.80	34.98	4.66	35.99	3.00	-2.81
2025.5.8	Head	5300	21.5	4.88	34.73	4.76	35.87	2.52	-3.18
2025.5.9	Head	5600	21.3	5.17	34.59	5.07	35.53	1.97	-2.65
2025.5.9	Head	5800	21.3	5.34	34.75	5.27	35.30	1.33	-1.56
Note: The tolerance limit of Conductivity and Permittivity is± 5%.									

ANNEX B SYSTEM CHECK RESULT

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

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.4.29	Head	835	100	0.915	9.15	9.59	-4.59
2025.4.30	Head	835	100	0.932	9.32	9.59	-2.82
2025.5.3	Head	1750	100	3.700	37.00	36.50	1.37
2025.5.4	Head	1950	100	4.110	41.10	41.70	-1.44
2025.5.5	Head	1950	100	4.280	42.80	41.70	2.64
2025.4.30	Head	2450	100	5.040	50.40	52.60	-4.18
2025.5.6	Head	2600	100	5.290	52.90	55.30	-4.34
2025.5.7	Head	2600	100	5.570	55.70	55.30	0.72
2025.5.8	Head	5200	100	7.840	78.40	77.80	0.77
2025.5.8	Head	5300	100	8.150	81.50	79.00	3.16
2025.5.9	Head	5600	100	8.280	82.80	82.80	0.00
2025.5.9	Head	5800	100	7.920	79.20	78.50	0.89
Note: The tolerance limit of System validation ±10%.							

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

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.5.8	Head	5300	100	2.330	23.30	23.00	1.30
2025.5.9	Head	5600	100	2.340	23.40	24.00	-2.50
Note: The tolerance limit of System validation ±10%.							

System Performance Check Data (835MHz)

Date: 2025/4/29
Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.897 S/m; ε_r = 42.621; ρ = 1000 kg/m^3
Phantom section: Flat Section

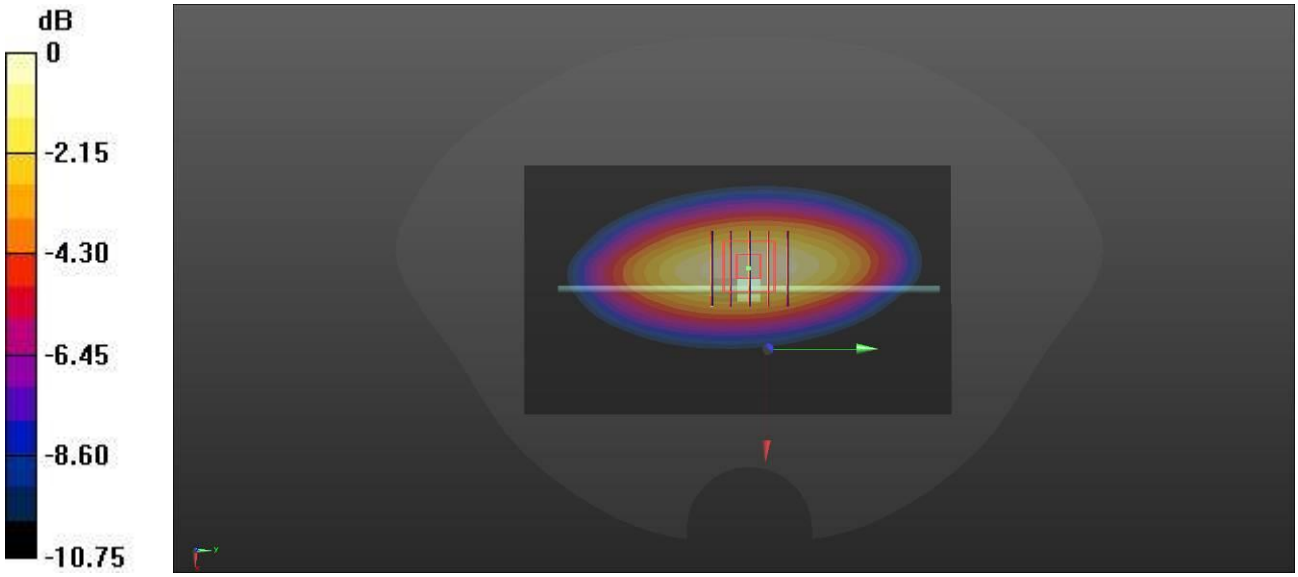
Ambient Temperature:22.5℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(8.74, 8.74, 8.74); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 835/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

CW 835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.08 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.915 W/kg; SAR(10 g) = 0.596 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg

System Performance Check Data (835MHz)

Date: 2025/4/30
Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.912 S/m; ε_r = 42.439; ρ = 1000 kg/m^3
Phantom section: Flat Section

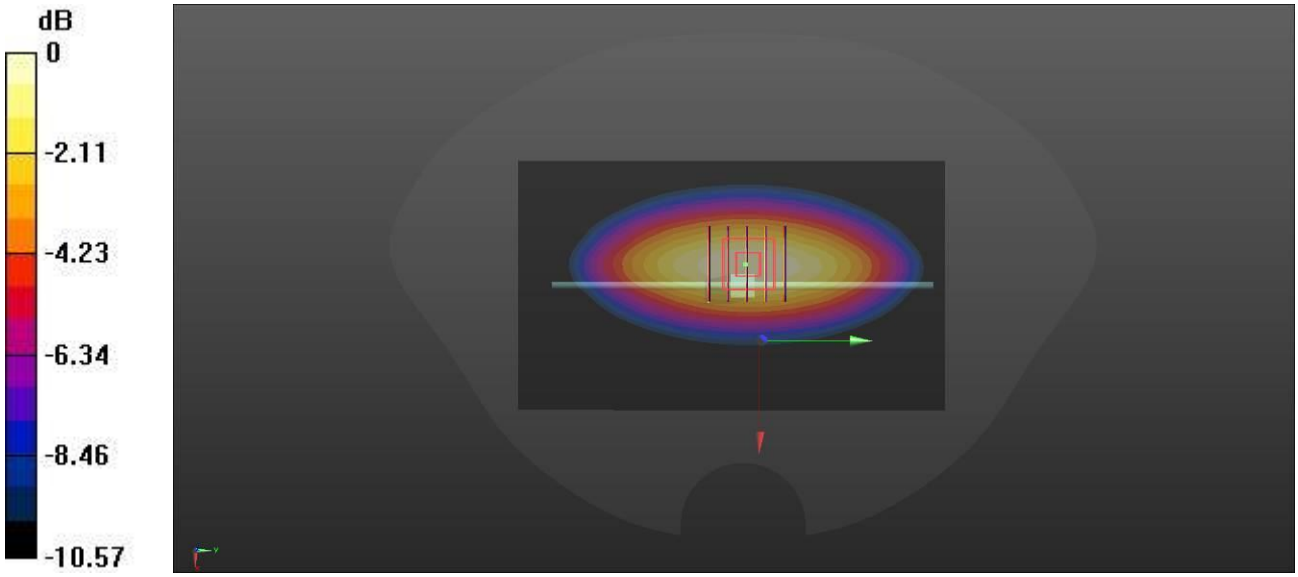
Ambient Temperature:22.4℃ Liquid Temperature:21.1℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(8.74, 8.74, 8.74); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 835/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.26 W/kg

CW 835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.22 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.932 W/kg; SAR(10 g) = 0.610 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.29 W/kg

System Performance Check Data (1750MHz)

Date: 2025/5/3
Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.401 S/m; ε_r = 40.432; ρ = 1000 kg/m^3
Phantom section: Flat Section

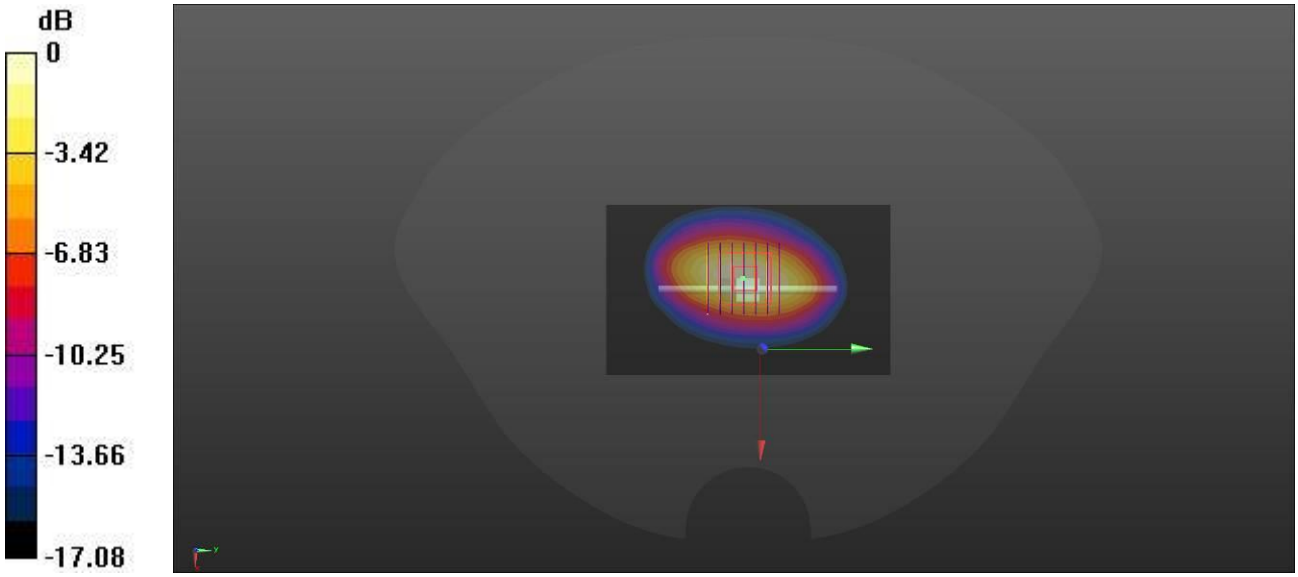
Ambient Temperature:22.7℃ Liquid Temperature:21.6℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.63, 7.63, 7.63); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 1750/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 5.80 W/kg

CW 1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.72 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 7.10 W/kg
SAR(1 g) = 3.7 W/kg; SAR(10 g) = 1.95 W/kg
Maximum value of SAR (measured) = 5.84 W/kg



0 dB = 5.84 W/kg

System Performance Check Data (1950MHz)

Date: 2025/5/4
Communication System Band: D1950 (1950.0 MHz); Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; σ = 1.431 S/m; ε_r = 40.066; ρ = 1000 kg/m^3
Phantom section: Flat Section

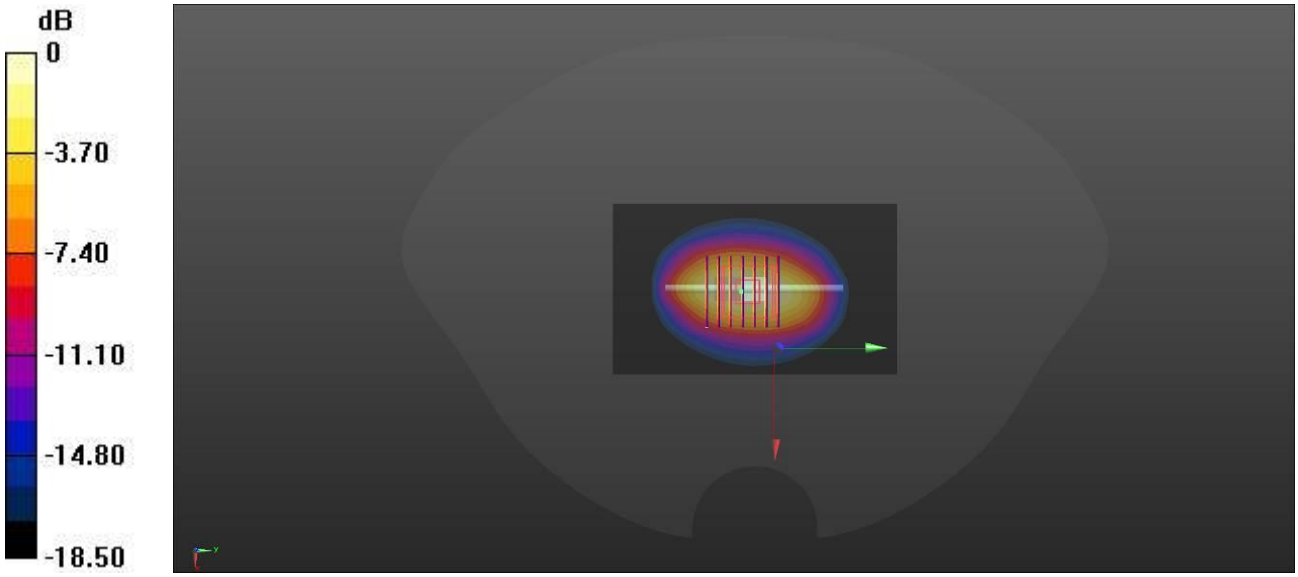
Ambient Temperature:22.5℃ Liquid Temperature:21.4℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.3, 7.3, 7.3); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 1950/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 6.64 W/kg

CW 1950/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.16 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 7.91 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 2.11 W/kg
Maximum value of SAR (measured) = 6.50 W/kg



0 dB = 6.50 W/kg

System Performance Check Data (1950MHz)

Date: 2025/5/5
Communication System Band: D1950 (1900.0 MHz); Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; σ = 1.448 S/m; ε_r = 39.896; ρ = 1000 kg/m^3
Phantom section: Flat Section

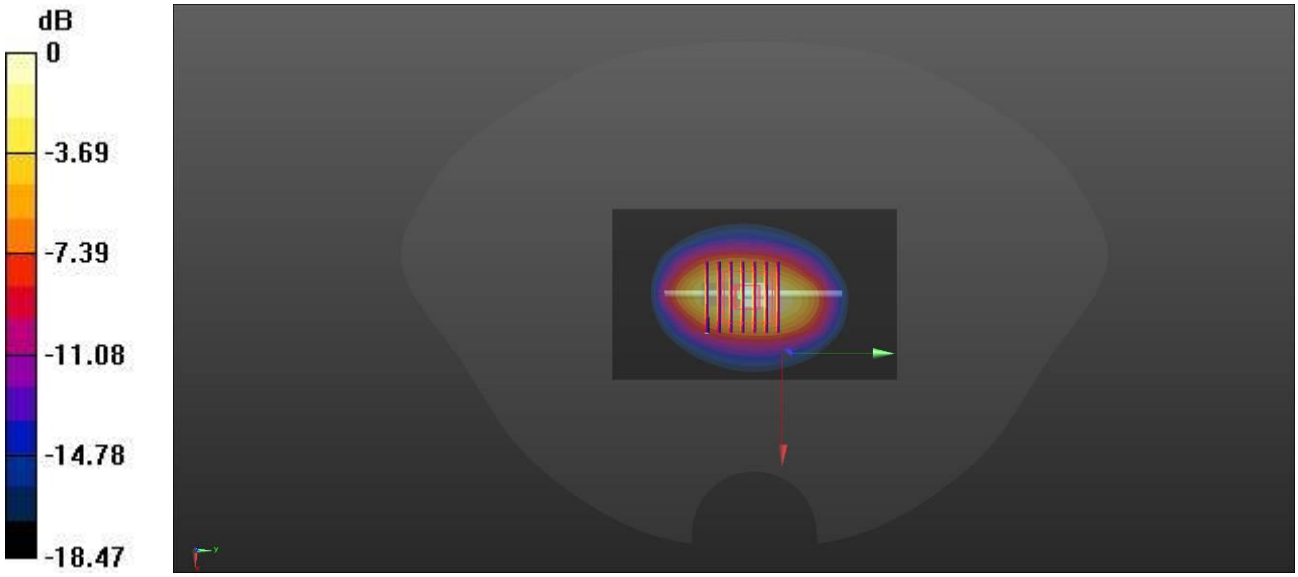
Ambient Temperature:22.3℃ Liquid Temperature:21.2℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.3, 7.3, 7.3); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 1950/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 6.92 W/kg

CW 1950/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.22 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 8.18 W/kg
SAR(1 g) = 4.28 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 6.73 W/kg



0 dB = 6.73 W/kg

System Performance Check Data (2450MHz)

Date: 2025/4/30
Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.831 S/m; ε_r = 38.973; ρ = 1000 kg/m^3
Phantom section: Flat Section

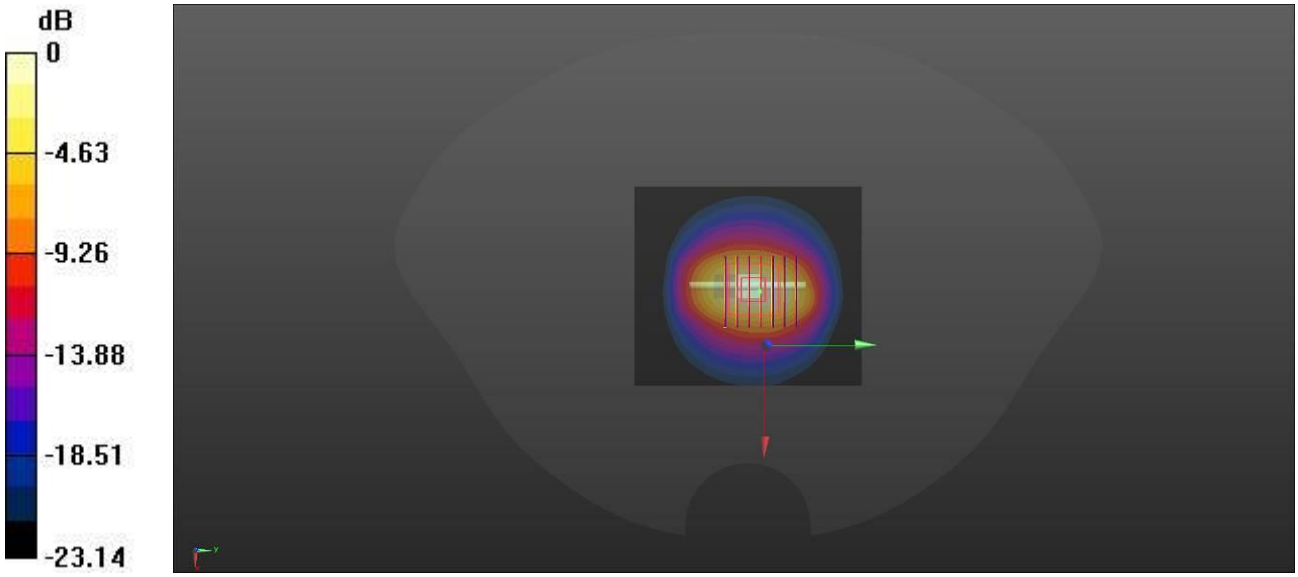
Ambient Temperature:22.4℃ Liquid Temperature:21.1℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.9, 6.9, 6.9); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 2450/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 8.82 W/kg

CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.04 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 10.6 W/kg
SAR(1 g) = 5.04 W/kg; SAR(10 g) = 2.32 W/kg
Maximum value of SAR (measured) = 8.39 W/kg



0 dB = 8.39 W/kg

System Performance Check Data (2600MHz)

Date: 2025/5/6
Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.991 S/m; ε_r = 38.654; ρ = 1000 kg/m^3
Phantom section: Flat Section

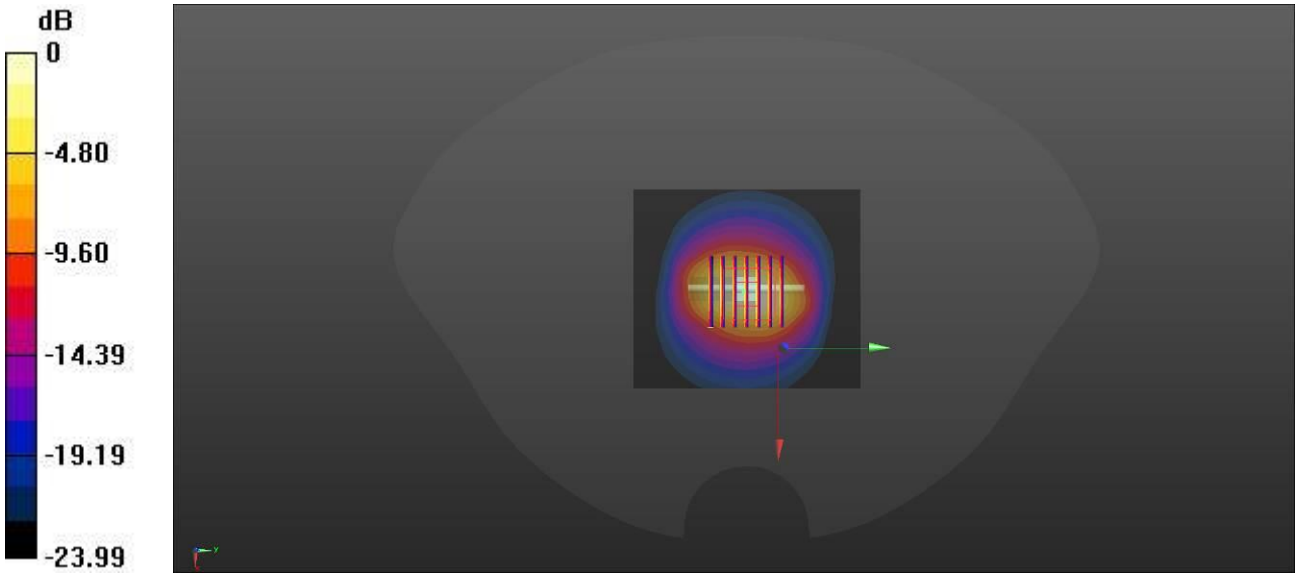
Ambient Temperature:22.6℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.72, 6.72, 6.72); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 9.42 W/kg

CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.38 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 11.5 W/kg
SAR(1 g) = 5.29 W/kg; SAR(10 g) = 2.35 W/kg
Maximum value of SAR (measured) = 9.10 W/kg



0 dB = 9.10 W/kg

System Performance Check Data (2600MHz)

Date: 2025/5/7
Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.012 S/m; ε_r = 38.508; ρ = 1000 kg/m^3
Phantom section: Flat Section

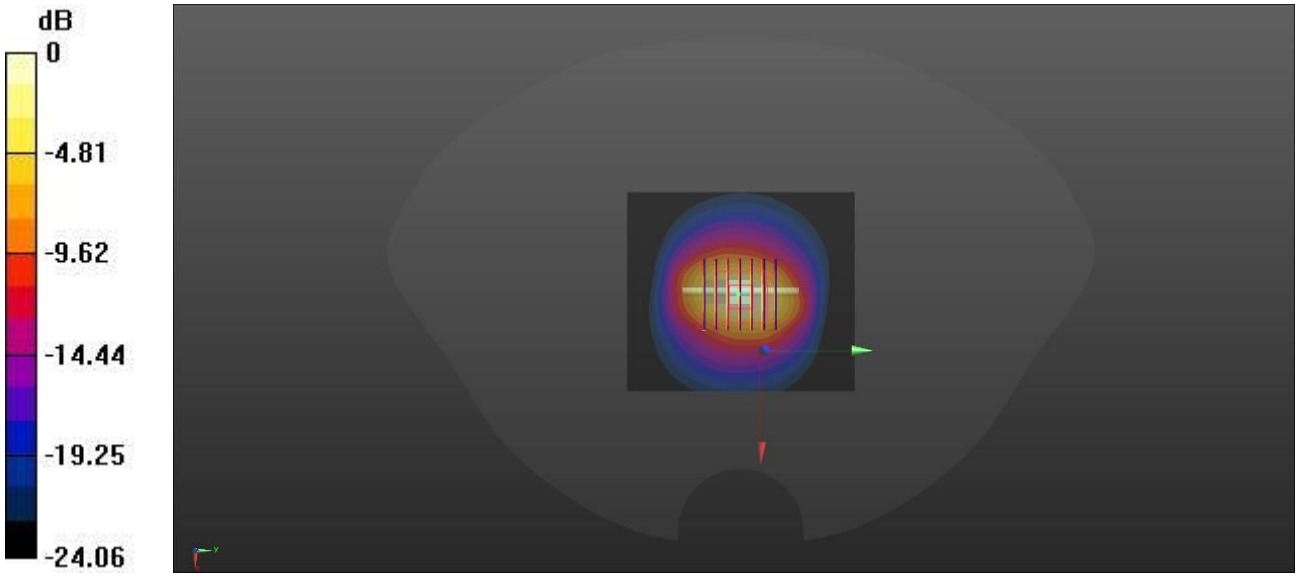
Ambient Temperature:22.9℃ Liquid Temperature:21.6℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.72, 6.72, 6.72); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 9.82 W/kg

CW 2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.40 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 12.2 W/kg
SAR(1 g) = 5.57 W/kg; SAR(10 g) = 2.47 W/kg
Maximum value of SAR (measured) = 9.65 W/kg



0 dB = 9.65 W/kg

System Performance Check Data (5200MHz)

Date: 2025/5/8
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.798 S/m; ε_r = 34.983; ρ = 1000 kg/m^3
Phantom section: Flat Section

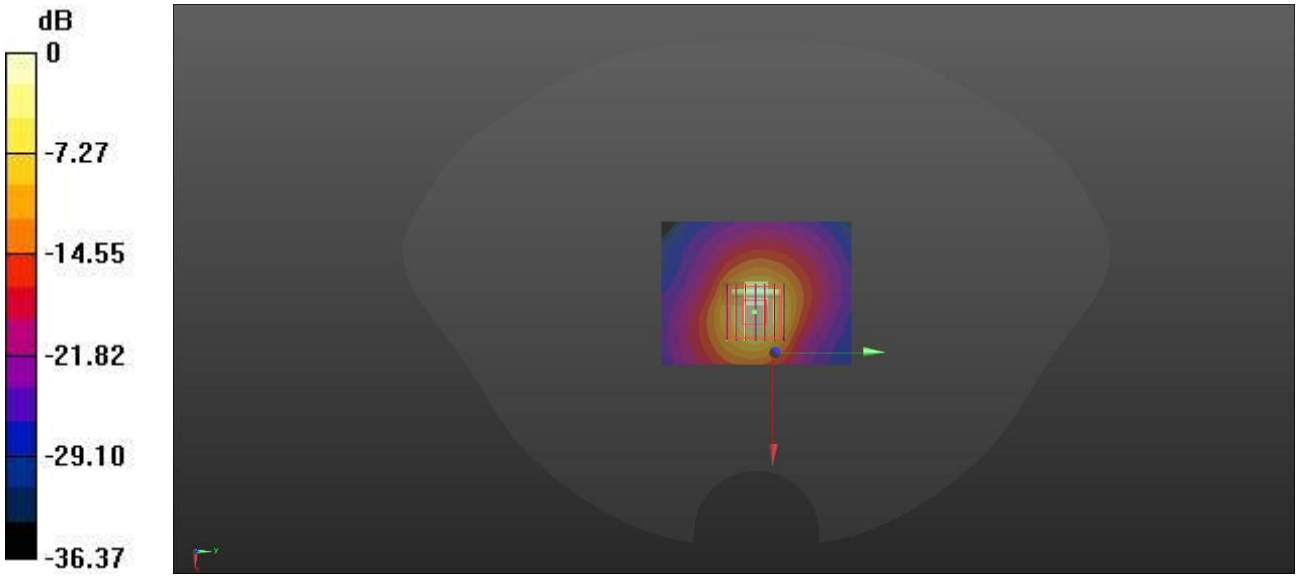
Ambient Temperature:22.4℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(5, 5, 5); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5200/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.5 W/kg

CW 5200/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 29.68 V/m; Power Drift = -0.20 dB
Peak SAR (extrapolated) = 32.9 W/kg
SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.24 W/kg
Maximum value of SAR (measured) = 16.4 W/kg



0 dB = 16.4 W/kg

System Performance Check Data (5300MHz)

Date: 2025/5/8
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 4.878 S/m; ε_r = 34.725; ρ = 1000 kg/m^3
Phantom section: Flat Section

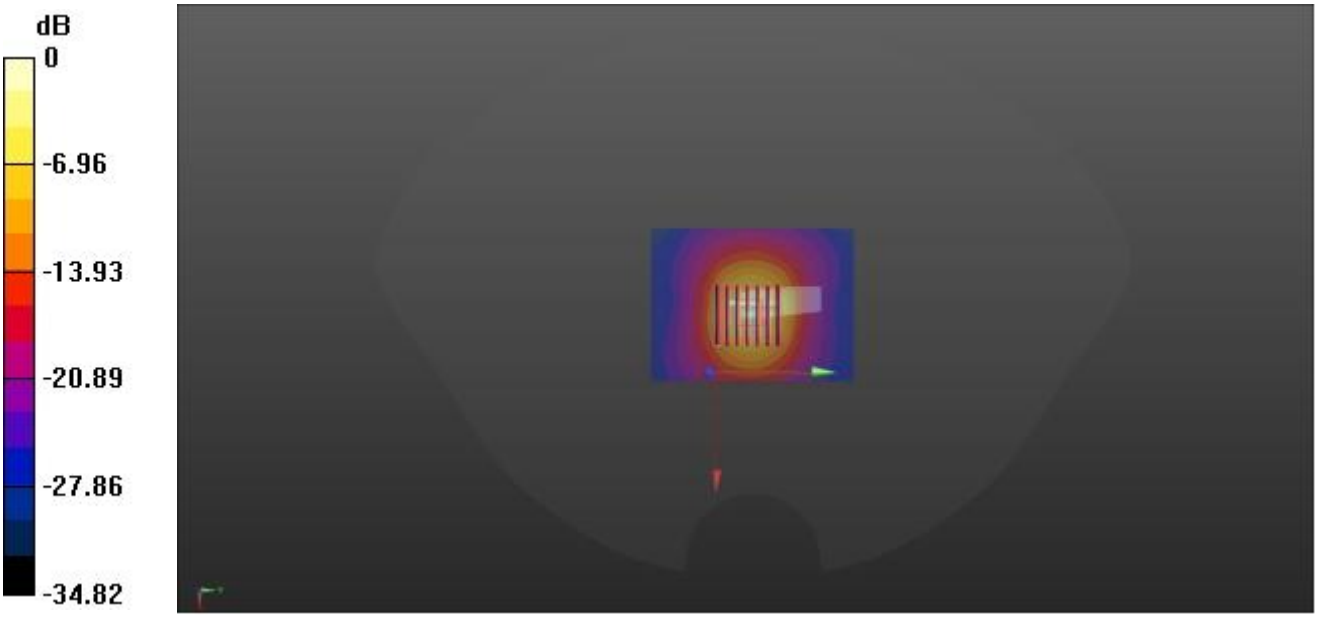
Ambient Temperature:22.4℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.85, 4.85, 4.85); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5300/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.0 W/kg

CW 5300/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 41.06 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 35.2 W/kg
SAR(1 g) = 8.15 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 17.6 W/kg



0 dB = 17.6 W/kg

System Performance Check Data (5600MHz)

Date: 2025/5/9
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.174 S/m; ε_r = 34.594; ρ = 1000 kg/m^3
Phantom section: Flat Section

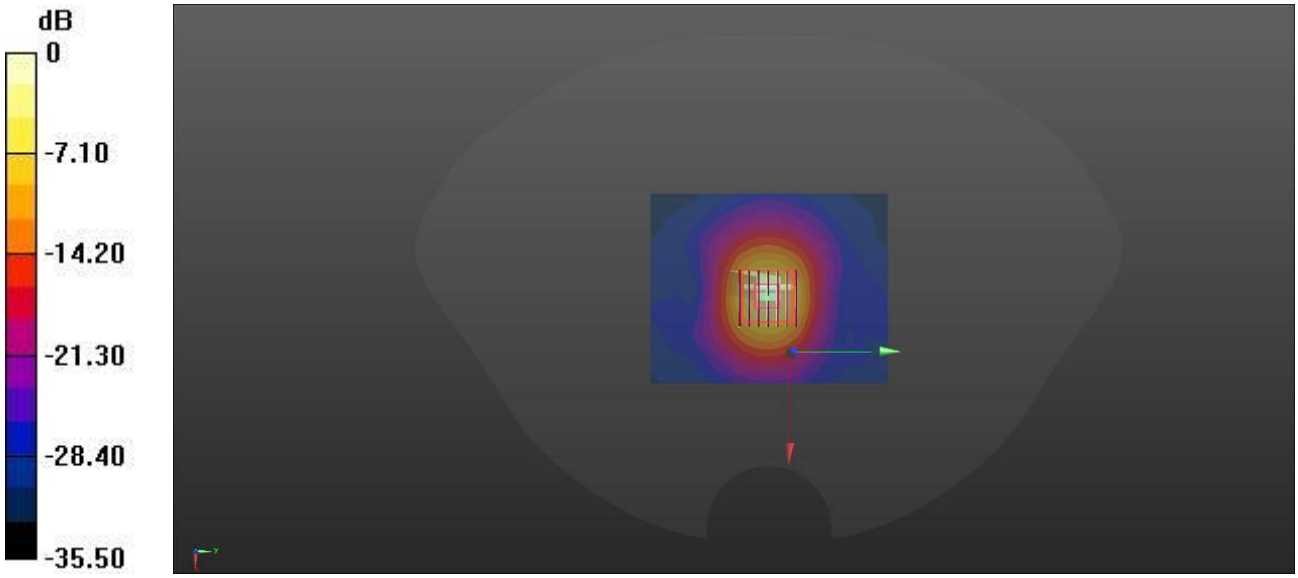
Ambient Temperature:22.1℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.39, 4.39, 4.39); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5600/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.5 W/kg

CW 5600/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 39.43 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 37.6 W/kg
SAR(1 g) = 8.28 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.7 W/kg

System Performance Check Data (5800MHz)

Date: 2025/5/9
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.341 S/m; ε_r = 34.745; ρ = 1000 kg/m^3
Phantom section: Flat Section

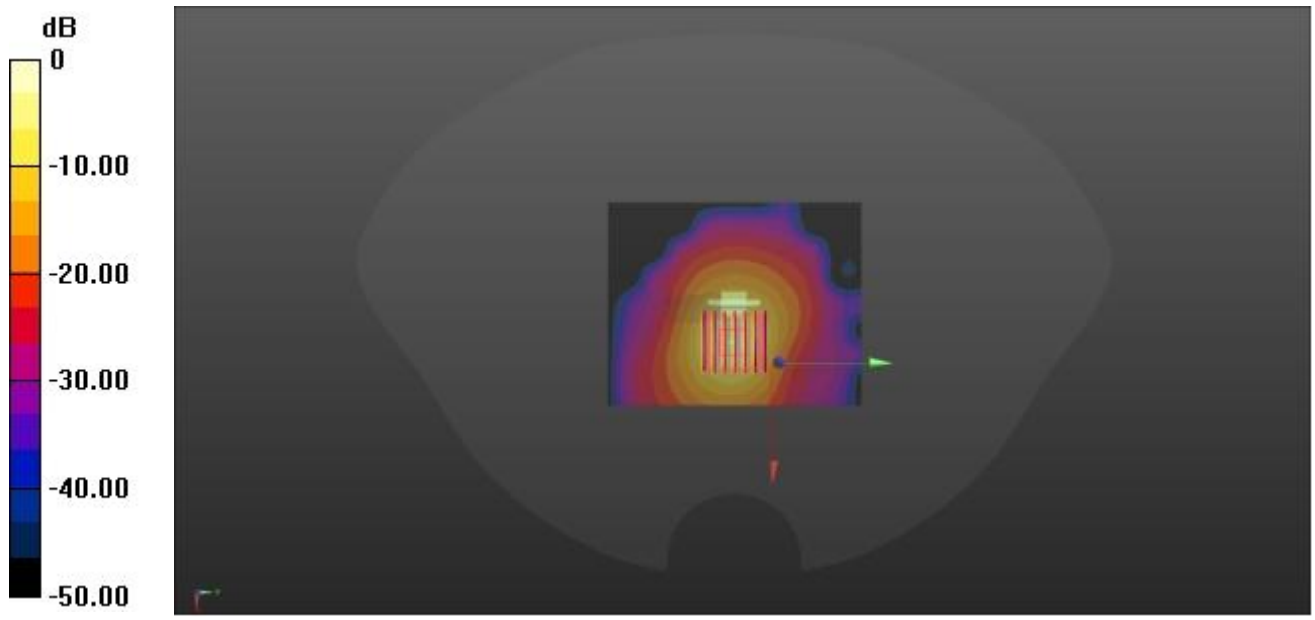
Ambient Temperature:22.1℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.41, 4.41, 4.41); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5750/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.6 W/kg

CW 5750/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 15.60 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 38.05 W/kg
SAR(1 g) = 7.92 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 17.2 W/kg



0 dB = 17.2 W/kg

ANNEX C TEST DATA

Please refer the document “BL-SH2530301-AT.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2530301-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SH2530301-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SH2530301-AC.pdf”.

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