TEST REPORT

Applicant:	Shanghai Xiangcheng Communication Technology Co., LTD
Address:	6 / F, Building 10, 3000 Longdong Avenue, Pudong New Area, Shanghai
Equipment Type:	P8 Dual Smart Payment Terminal
Model Name:	K1352
Brand Name:	Kozen
FCC ID:	2A2UU-K1352
Test Standard:	ANSI C95.1-1992 (refer to section 3.1)
Maximum SAR:	Body-worn (1g@10mm):0.23W/kg Hotspot (1g@10mm): 1.11W/kg Specific (10 g@0mm): 1.94W/kg
Sample Arrival Date:	Apr. 3, 2025
Test Date:	May 07, 2025 – May 11, 2025
Date of Issue:	May 23, 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 23, 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	Shanghai Xiangcheng Communication Technology Co., LTD
Address	6 / F, Building 10, 3000 Longdong Avenue, Pudong New Area, Shanghai

2.2 Manufacturer Information

Manufacturer	Shanghai Xiangcheng Communication Technology Co., LTD
Address	6 / F, Building 10, 3000 Longdong Avenue, Pudong New Area, Shanghai

2.3 General Description for Equipment under Test (EUT)

EUT Name	P8 Dual Smart Payment Terminal
Model Name Under Test	K1352
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	185.76mm x 79.67mm x51.05mm
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	F50118MA
	Serial No.	N/A
	Capacitance	Rated Capacity: 5100mAh Typical Capacity: 5200mAh
	Rated Voltage	7.7V
	Limited Voltage	8.8 V
	Manufacturer	N/A

2.5 Technical Information

Network and Wireless connectivity	2G Network GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/17/25/26/66 TDD LTE Band 38/41(120M) Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo，NFC
Note: The EUT is an Android POS Terminal, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

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

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 698 ~ 716 MHz	RX: 728 ~ 746 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 25	TX: 1850 ~ 1915 MHz	RX: 1930 ~ 1995 MHz
	LTE Band 26	TX: 814 ~ 849 MHz	RX: 859 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	802.11b/g/n(HT20/HT40)	2412 ~ 2462 MHz	
	802.11a/n(HT20/HT40)/ ac(VHT20/VHT40/VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2402 ~ 2480 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		

Hotspot Function	Support	
Power Reduction	Not 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	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
4	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
5	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
6	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
7	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
8	KDB 865664 D02 v01r02	RF Exposure Reporting
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/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)			Maximum Report SAR (W/kg)		
		Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)	Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)
		1g SAR		10g SAR	1g SAR		10g SAR
PCB	GSM 850	0.18	0.46	0.89	0.23	1.11	1.94
	GSM 1900	0.14	**1.11**	**1.94**			
	WCDMA Band 2	0.20	1.09	1.86			
	WCDMA Band 4	0.07	0.45	1.42			
	WCDMA Band 5	0.21	0.52	1.02			
	LTE Band 7	0.17	1.00	1.81			
	LTE Band 12	0.09	0.26	0.87			
	LTE Band 25	0.18	1.02	1.92			
	LTE Band 26	**0.23**	0.66	1.26			
	LTE Band 66	0.06	0.61	1.37			
	LTE Band 38	0.11	0.58	1.16			
	LTE Band 41	0.08	0.36	0.70			
DTS	2.4G WIFI	0.09	0.14	0.32			
NIII	5G WIFI	0.22	0.29	0.35			
DSS	Bluetooth	0.02	0.02	0.05			
Limit (W/kg)		1.60		4.00	1.60		4.00
Verdict		Pass					
This device supports LTE B2/B4/B5/B17 and LTE B25/B66/B26/B12. Since the supported frequency span for LTE B2/B4/B5/B17 falls completely within the supports freguency span for B25/B66/B26/B12, these LTE bands share the same transmission path, and LTE B2/B4/B5/B17 have lower or the same target power as LTE B25/B66/B26/B12; Therefore, SAR was only assessed for LTE B25/B66/B26/B12.							

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)		
	Body-worn 1g (0mm)	Hotspot 1g (10mm)	Specific 10g (0mm)
PCB	1.11	1.11	1.94
DTS	1.11	1.11	1.94
NII	1.11	1.11	1.94
DSS	1.11	1.11	1.94
Limit (W/Kg)	1.60		4.00
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 1g 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 1g SAR for the EUT in this report is 1.11 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 10g SAR for the EUT in this report is 1.94 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:

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

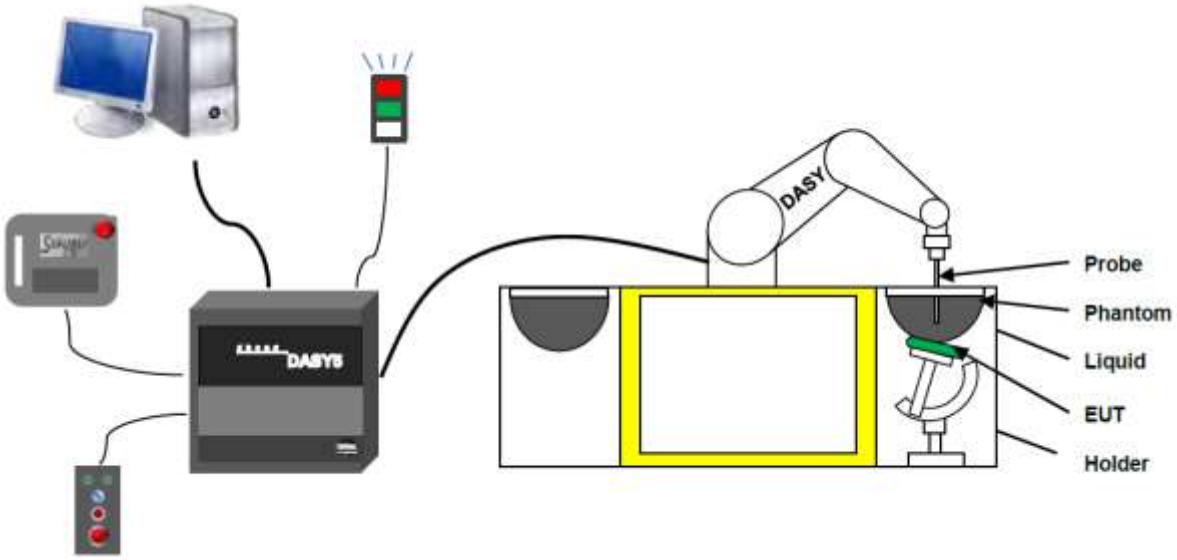
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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 DASY 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 with following specifications is used.

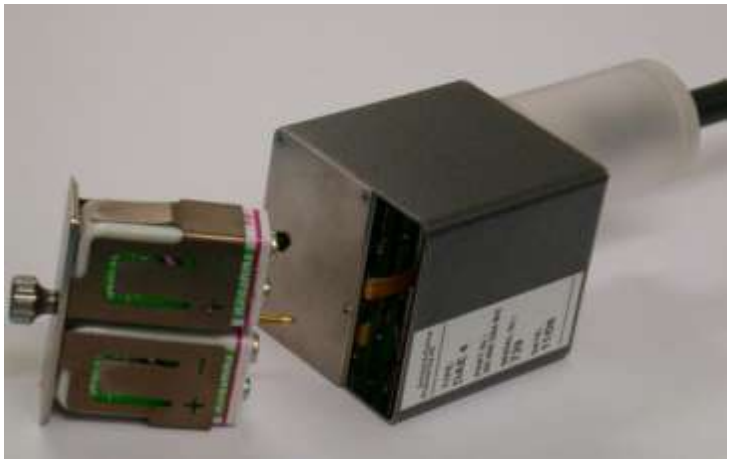
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB
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 IEC/IEEE 62209-1528 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528 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 SAM	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

The DASY 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

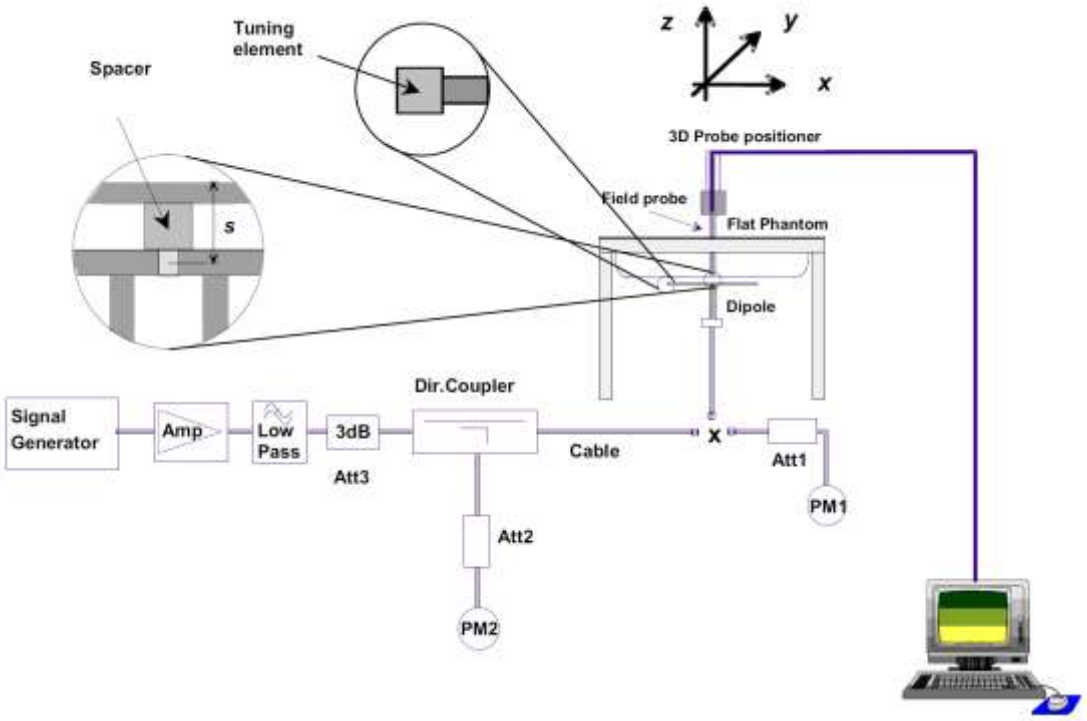
5 SYSTEM VERIFICATION

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

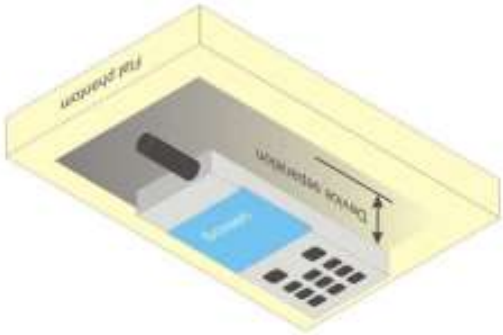
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

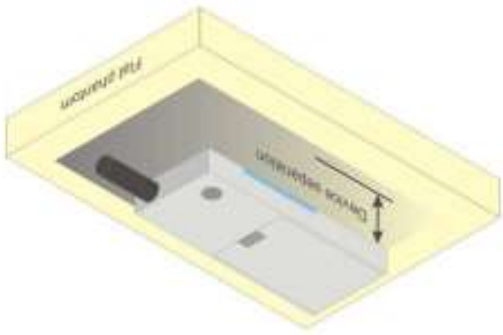
6.1 Body-worn Position Conditions

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.

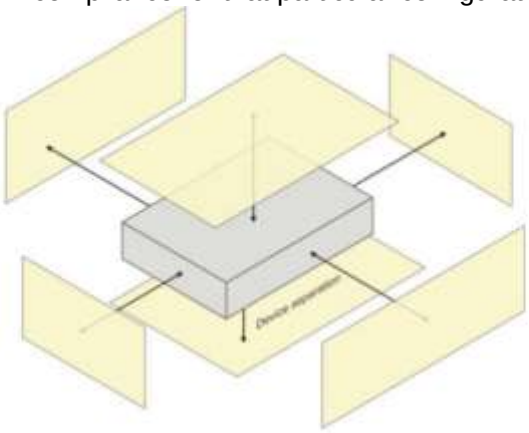
Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice 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.





6.2 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).



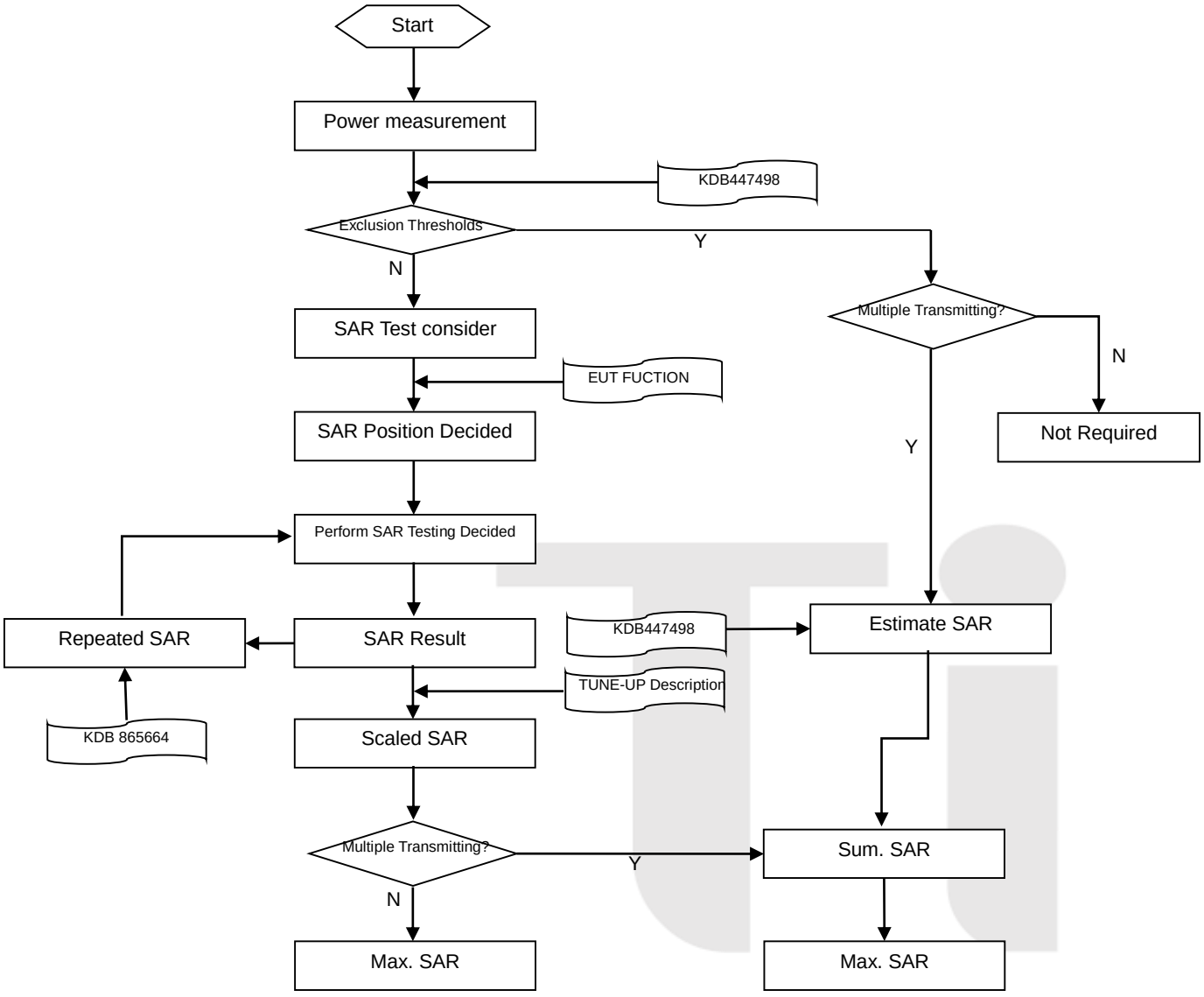
6.3 Product Specific 10g Exposure Consideration

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 $\leqslant$ 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.

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1g 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><td colspan="3"></td><td>≤3GHz</td><td>>3GHz</td></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="5">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="2">graded grid</td><td rowspan="2">Δz Zoom (1): between 1st two points closest to phantom surface</td><td rowspan="2">≤ 4 mm</td><td>3–4 GHz: ≤ 3 mm</td></tr>
<tr><td>4–5 GHz: ≤ 2.5 mm</td></tr>
<tr><td></td><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 1g 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

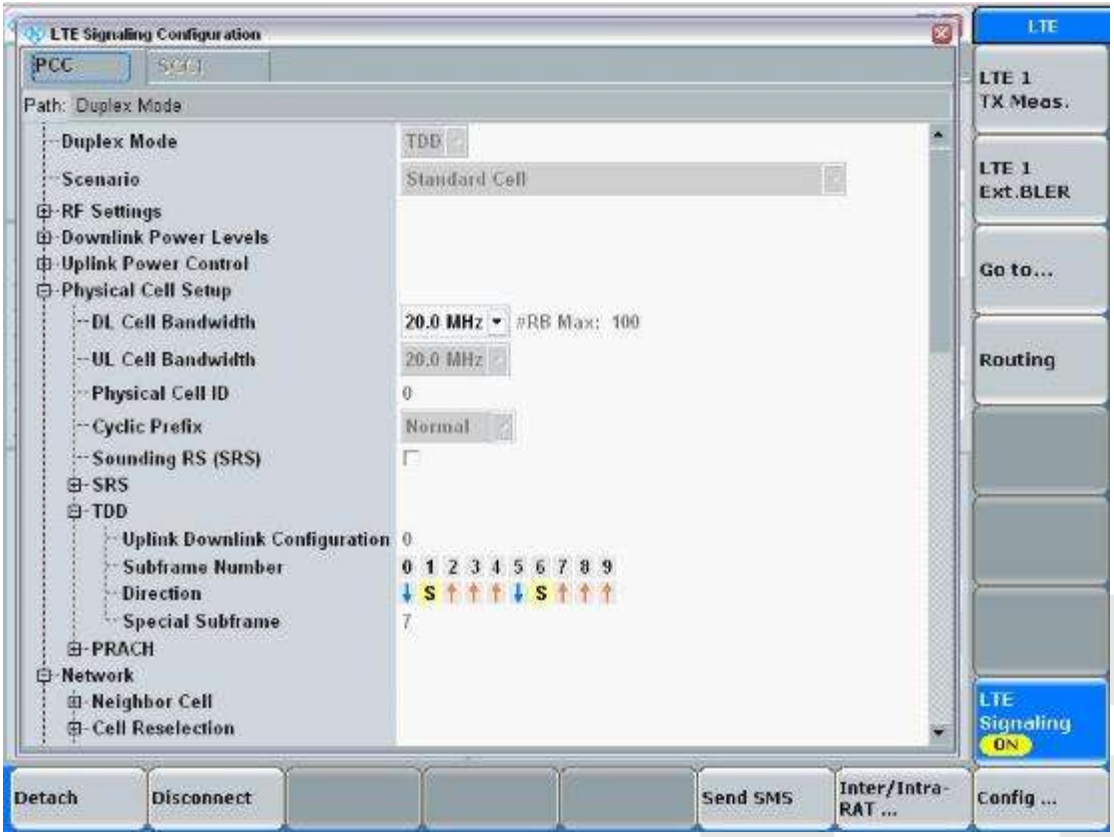
a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible 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

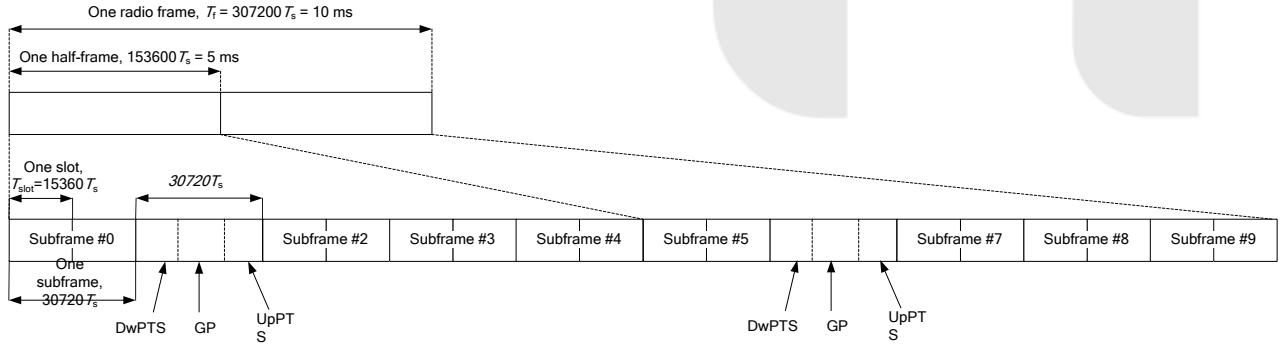
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan 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 1g 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-SH2540315-AP.pdf”.

8.2 WCDMA

Please refer the document “BL-SH2540315-AP.pdf”.

8.3 LTE

Please refer the document “BL-SH2540315-AP.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	19.67	21.00	NO
		6	2437	19.85	21.00	YES
		11	2462	19.82	21.00	NO
	802.11g	1	2412	17.41	18.50	NO
		6	2437	17.42	18.50	NO
		11	2462	17.48	18.50	NO
	802.11n(HT20)	1	2412	17.25	18.00	NO
		6	2437	17.44	18.50	NO
		11	2462	17.43	18.50	NO
	802.11n(HT40)	3	2422	16.76	18.00	NO
		6	2437	16.66	17.50	NO
		9	2452	16.71	17.50	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 = 0.136* (70.79mW/125.89mW) = 0.08W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	16.15	17.00	YES
		44	5220	15.97	17.00	NO
		48	5240	15.66	16.50	NO
	802.11n(HT20)	36	5180	15.70	16.50	NO
		44	5220	15.59	16.50	NO
		48	5240	15.65	16.50	NO
	802.11n(HT40)	38	5190	15.83	17.00	NO
		46	5230	15.81	17.00	NO
	802.11ac(VHT20)	36	5180	15.61	16.50	NO
		44	5220	15.65	16.50	NO
		48	5240	15.60	16.50	NO
	802.11ac(VHT40)	38	5190	15.76	16.50	NO
		46	5230	15.81	16.50	NO
	802.11ac(VHT80)	42	5210	15.76	16.50	NO
5.3	802.11a	52	5260	15.89	17.00	YES
		60	5300	15.72	16.50	NO
		64	5320	15.72	16.50	NO
	802.11n(HT20)	52	5260	15.55	16.50	NO
		60	5300	15.60	16.50	NO
		64	5320	15.67	16.50	NO
	802.11n(HT40)	54	5270	15.61	16.50	NO
		62	5310	15.21	16.00	NO
	802.11ac(VHT20)	52	5260	15.04	16.00	NO
		60	5300	15.05	16.00	NO
		64	5320	15.00	16.00	NO
	802.11ac(VHT40)	54	5270	15.23	16.00	NO
		62	5310	15.67	16.50	NO
		58	5290	15.24	16.00	NO
5.6	802.11a	100	5500	15.45	16.00	NO
		116	5580	15.55	16.50	NO
		140	5700	15.55	16.50	NO
	802.11n(HT20)	100	5500	15.38	16.00	NO
		116	5580	15.57	16.00	NO
		140	5700	15.47	16.00	NO

	802.11n(HT40)	102	5510	15.42	16.00	NO
		118	5590	15.44	16.00	NO
		134	5670	15.45	16.00	NO
	802.11ac(VHT20)	100	5500	15.32	16.00	NO
		116	5580	15.35	16.00	NO
		140	5700	15.43	16.00	NO
	802.11ac(VHT40)	102	5510	15.45	16.00	NO
		118	5590	15.49	16.00	NO
		134	5670	15.44	16.00	NO
	802.11ac(VHT80)	106	5530	15.47	16.00	NO
		122	5610	15.54	16.50	YES
5.8	802.11a	149	5745	15.45	16.00	NO
		157	5785	15.67	16.50	YES
		165	5825	15.53	16.50	NO
	802.11n(HT20)	149	5745	15.27	16.00	NO
		157	5785	15.53	16.50	NO
		165	5825	15.52	16.50	NO
	802.11n(HT40)	151	5755	15.21	16.00	NO
		159	5795	15.37	16.00	NO
	802.11ac(VHT20)	149	5745	15.28	16.00	NO
		157	5785	15.48	16.00	NO
		165	5825	15.56	16.50	NO
	802.11ac(VHT40)	151	5755	15.37	16.00	NO
		159	5795	15.39	16.00	NO
	802.11ac(VHT80)	155	5775	15.38	16.00	NO

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.
1) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same maximum tune-up output power.
2) When multiple transmission modes (802.11a/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac.

8.5 Bluetooth

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Peak Power (dBm)	11.95	10.43	11.78	11.12	10.28	11.07
Tune-Up Limit (dBm)	13.00	11.00	13.00	12.00	11.00	12.00
SAR Test Require	Yes	No	No	No	No	No
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Peak Power (dBm)	11.16	10.28	11.06	/	/	/
Tune-Up Limit (dBm)	12.00	11.00	12.00	/	/	/
SAR Test Require	No	No	No	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Peak Power (dBm)	-0.74	-0.44	-0.57	-0.67	-0.40	-0.54
Tune-Up Limit (dBm)	0.50	0.00	0.50	0.50	0.00	0.50
SAR Test Require	No	No	No	No	No	No
Note: 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.						

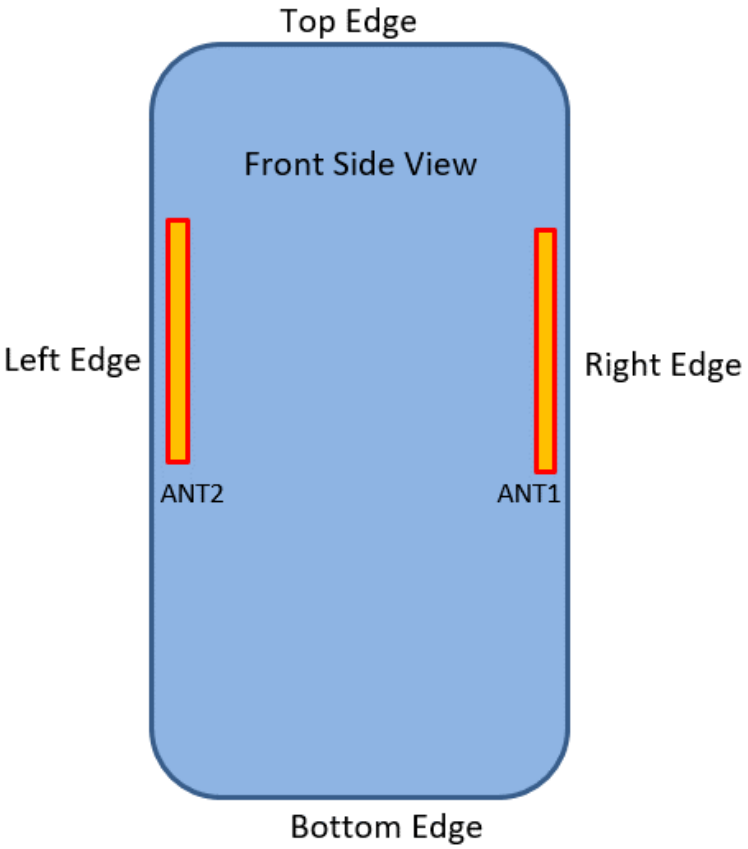
Note: The Bluetooth BT DH5 duty cycle is 76.84 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

Bluetooth-GFSK


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Ref Lvl Offset 6.50 dB
Ref Level 15.00 dBm
ΔMkr3 3.744 ms
-0.21 dB
Scale/Div 10 dB
Center 2.402000000 GHz
Res BW 1.0 MHz
Span 0 Hz
Sweep 10.1 ms (1000 pts)
Marker
Select Marker
Marker 3
Marker Δ Time
3.74380 ms
Marker Mode
Normal
Delta (Δ)
Fixed
Off
Delta Marker (Reset Delta)
Marker Table
On
Off
Marker Settings Diagram
All Markers Off
Couple Markers
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Mode Trace Scale X Y Function Function Width Function Value
1 Δ2 1 t (Δ) 2.877 ms (Δ) -0.6144 dB
2 F 1 t 3.171 ms 11.70 dBm
3 Δ4 1 t (Δ) 3.744 ms (Δ) -0.2095 dB
4 F 1 t 3.171 ms 11.70 dBm
Apr 10, 2025
7:26:58 PM

9 TEST EXCLUSION CONSIDERATION



Antenna	Band
Ant1	GSM850
	GSM1900
	WCDMA B2
	WCDMA B4
	WCDMA B5
	LTE B2（B25）
	LTE B4（B66）
	LTE B5（B26）
	LTE B7
	LTE B12（B17）
	LTE B38
	LTE B41（120M）
Ant2	Bluetooth
	WIFI2.4G
	WIFI5G

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.1	<25	<25	>25	<25	>25	>25
Ant.2	<25	<25	<25	>25	>25	>25
Note: 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	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot												
ANT1	GPRS 2Slots	Front Side	10	190	836.6	0.15	0.106	31.86	33.00	1.300	0.138	/
		Back Side	10	190	836.6	0.17	0.136	31.86	33.00	1.300	0.177	/
		Right Edge	10	190	836.6	-0.08	0.357	31.86	33.00	1.300	0.464	1
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific												
ANT1	GPRS 2Slots	Front Side	0	190	836.6	-0.11	0.173	31.86	33.00	1.300	0.225	/
		Back Side	0	190	836.6	-0.02	0.135	31.86	33.00	1.300	0.176	/
		Right Edge	0	190	836.6	0.18	0.658	31.86	33.00	1.300	0.856	/
		Right Edge	0	128	824.2	-0.02	0.675	31.80	33.00	1.318	0.890	2
		Right Edge	0	251	848.8	-0.17	0.644	31.68	33.00	1.355	0.873	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.2 GSM 1900

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot												
ANT1	GPRS 2Slots	Front Side	10	512	1850.2	-0.14	0.091	28.99	30.00	1.262	0.115	/
		Back Side	10	512	1850.2	0.07	0.114	28.99	30.00	1.262	0.144	/
		Right Edge	10	512	1850.2	-0.07	0.728	28.99	30.00	1.262	0.919	/
		Right Edge	10	661	1880	0.18	0.749	28.87	30.00	1.297	0.972	/
		Right Edge	10	810	1909.8	0.01	0.845	28.82	30.00	1.312	1.109	3
		Right Edge	10	810	1909.8	0.12	0.836	28.82	30.00	1.312	1.097	Repeat
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific												
ANT1	GPRS 2Slots	Front Side	0	512	1850.2	0.09	0.156	28.99	30.00	1.262	0.197	/
		Back Side	0	512	1850.2	0.18	0.132	28.99	30.00	1.262	0.167	/
		Right Edge	0	512	1850.2	0.16	1.280	28.99	30.00	1.262	1.615	/
		Right Edge	0	661	1880	0.17	1.300	28.87	30.00	1.297	1.686	/
		Right Edge	0	810	1909.8	0.08	1.480	28.82	30.00	1.312	1.942	4
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.3WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot												
ANT1	RCM	Front Side	10	9400	1880	-0.17	0.081	23.01	24.00	1.256	0.102	/
		Back Side	10	9400	1880	-0.07	0.159	23.01	24.00	1.256	0.200	/
		Right Edge	10	9400	1880	-0.12	0.667	23.01	24.00	1.256	0.838	/
		Right Edge	10	9262	1852.4	0.18	0.670	22.97	24.00	1.268	0.849	/
		Right Edge	10	9538	1907.6	0.16	0.860	22.98	24.00	1.265	1.088	5
		Right Edge	10	9538	1907.6	0.12	0.848	22.98	24.00	1.265	1.072	Repeat
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific												
ANT1	RCM	Front Side	0	9400	1880	0.08	0.142	23.01	24.00	1.256	0.178	
		Back Side	0	9400	1880	-0.06	0.155	23.01	24.00	1.256	0.195	
		Right Edge	0	9400	1880	0.09	1.280	23.01	24.00	1.256	1.608	
		Right Edge	0	9262	1852.4	-0.14	1.250	22.97	24.00	1.268	1.585	
		Right Edge	0	9538	1907.6	0.16	1.470	22.98	24.00	1.265	1.859	6
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot												
ANT1	RCM	Front Side	10	1413	1732.6	-0.06	0.031	22.93	24.00	1.279	0.040	/
		Back Side	10	1413	1732.6	-0.18	0.053	22.93	24.00	1.279	0.068	/
		Right Edge	10	1413	1732.6	-0.04	0.353	22.93	24.00	1.279	0.452	7
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific												
ANT1	RCM	Front Side	0	1413	1732.6	-0.15	0.037	22.93	24.00	1.279	0.047	
		Back Side	0	1413	1732.6	0.09	0.078	22.93	24.00	1.279	0.100	
		Left Edge	0	1413	1732.6	0.19	1.050	22.93	24.00	1.279	1.343	
		Right Edge	0	1312	1712.4	-0.06	1.080	22.85	24.00	1.303	1.407	
		Right Edge	0	1513	1752.6	0.16	1.100	22.90	24.00	1.288	1.417	8
		Right Edge	0	1413	1732.6	-0.15	0.037	22.93	24.00	1.279	0.047	
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot												
ANT1	RCM	Front Side	10	4182	836.4	-0.04	0.147	22.28	23.50	1.324	0.195	/
		Back Side	10	4182	836.4	-0.07	0.156	22.28	23.50	1.324	0.207	/
		Right Edge	10	4182	836.4	0.03	0.393	22.28	23.50	1.324	0.520	9
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific												
ANT1	RCM	Front Side	0	4182	836.4	0.07	0.219	22.28	23.50	1.324	0.290	
		Back Side	0	4182	836.4	0.15	0.158	22.28	23.50	1.324	0.209	
		Right Edge	0	4182	836.4	0.02	0.629	22.28	23.50	1.324	0.833	
		Right Edge	0	4132	826.4	-0.13	0.765	22.23	23.50	1.340	1.025	10
		Right Edge	0	4233	846.6	0.04	0.621	22.25	23.50	1.334	0.828	
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.6 LTE Band 25 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	26340	1880	1	0	-0.12	0.103	23.89	25.00	1.291	0.133	
		Back side	10	26340	1880	1	0	-0.09	0.142	23.89	25.00	1.291	0.183	
		Right side	10	26340	1880	1	0	-0.07	0.771	23.89	25.00	1.291	0.996	
		Right side	10	26140	1860	1	0	0.08	0.751	23.81	25.00	1.315	0.988	
		Right side	10	26590	1905	1	0	0.07	0.775	23.82	25.00	1.312	1.017	11
ANT1	QPSK	Front side	10	26340	1880	50	0	-0.05	0.082	22.85	24.00	1.303	0.107	
		Back side	10	26340	1880	50	0	-0.18	0.123	22.85	24.00	1.303	0.160	
		Right side	10	26340	1880	50	0	-0.14	0.648	22.85	24.00	1.303	0.844	
		Right side	10	26140	1860	50	0	0.06	0.687	22.74	24.00	1.337	0.918	
		Right side	10	26590	1905	50	0	0.18	0.705	22.66	24.00	1.361	0.960	
		Right side	10	26340	1880	100	0	-0.12	0.641	22.85	24.00	1.303	0.835	
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	26340	1880	1	0	-0.03	0.153	23.89	25.00	1.291	0.198	
		Back side	0	26340	1880	1	0	0.12	0.183	23.89	25.00	1.291	0.236	
		Right side	0	26340	1880	1	0	-0.09	1.450	23.89	25.00	1.291	1.872	
		Right side	0	26140	1860	1	0	-0.04	1.380	23.81	25.00	1.315	1.815	
		Right side	0	26590	1905	1	0	0.18	1.460	23.82	25.00	1.312	1.916	12
ANT1	QPSK	Front side	0	26340	1880	50	0	-0.05	0.129	22.85	24.00	1.303	0.168	
		Back side	0	26340	1880	50	0	-0.07	0.149	22.85	24.00	1.303	0.194	
		Right side	0	26340	1880	50	0	0.07	1.180	22.85	24.00	1.303	1.538	
		Right side	0	26140	1860	50	0	0.03	1.310	22.74	24.00	1.337	1.751	
		Right side	0	26590	1905	50	0	-0.01	1.370	22.66	24.00	1.361	1.865	
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

LTE Band 66 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	132322	1745	1	0	-0.10	0.044	23.88	25.00	1.294	0.057	
		Back side	10	132322	1745	1	0	-0.07	0.049	23.88	25.00	1.294	0.063	
		Right side	10	132322	1745	1	0	0.12	0.470	23.88	25.00	1.294	0.608	13
		Front side	10	132322	1745	50	0	0.08	0.032	22.84	24.00	1.306	0.042	
		Back side	10	132322	1745	50	0	0.19	0.049	22.84	24.00	1.306	0.064	
		Right side	10	132322	1745	50	0	-0.13	0.418	22.84	24.00	1.306	0.546	
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	132322	1745	1	0	-0.03	0.045	23.83	25.00	1.309	0.059	
		Back side	0	132322	1745	1	0	-0.15	0.082	23.83	25.00	1.309	0.107	
		Right side	0	132322	1745	1	0	0.18	0.960	23.83	25.00	1.309	1.257	
		Right side	0	132072	1720	1	0	0.01	0.980	23.74	25.00	1.337	1.310	
		Right side	0	132572	1770	1	0	0.12	1.020	23.71	25.00	1.346	1.373	14
ANT1	QPSK	Front side	0	132322	1745	50	0	-0.16	0.036	22.84	24.00	1.306	0.047	
		Back side	0	132322	1745	50	0	-0.18	0.068	22.84	24.00	1.306	0.089	
		Right side	0	132322	1745	50	0	-0.11	0.950	22.84	24.00	1.306	1.241	
		Right side	0	132072	1720	50	0	-0.03	0.890	22.77	24.00	1.327	1.181	
		Right side	0	132572	1770	50	0	0.12	0.940	22.65	24.00	1.365	1.283	
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.7 LTE Band 26 (15MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	26865	831.5	1	0	-0.05	0.180	23.74	24.50	1.191	0.214	
		Back side	10	26865	831.5	1	0	-0.16	0.189	23.74	24.50	1.191	0.225	
		Right side	10	26865	831.5	1	0	0.04	0.551	23.74	24.50	1.191	0.656	15
		Front side	10	26865	831.5	36	0	-0.06	0.147	22.66	23.50	1.213	0.178	
		Back side	10	26865	831.5	36	0	0.06	0.151	22.66	23.50	1.213	0.183	
		Right side	10	26865	831.5	36	0	-0.04	0.431	22.66	23.50	1.213	0.523	
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	26865	831.5	1	0	0.03	0.270	23.74	24.50	1.191	0.322	
		Back side	0	26865	831.5	1	0	0.11	0.201	23.74	24.50	1.191	0.239	
		Right side	0	26865	831.5	1	0	-0.07	0.855	23.74	24.50	1.191	1.019	
		Right side	0	26765	821.5	1	0	0.09	1.040	23.65	24.50	1.216	1.265	16
		Right side	0	26965	841.5	1	0	-0.15	0.840	23.60	24.50	1.230	1.033	
ANT1	QPSK	Front side	0	26865	831.5	36	0	-0.06	0.219	22.66	23.50	1.213	0.266	
		Back side	0	26865	831.5	36	0	0.06	0.157	22.66	23.50	1.213	0.191	
		Right side	0	26865	831.5	36	0	-0.13	0.732	22.66	23.50	1.213	0.888	
		Right side	0	26765	821.5	36	0	0.04	0.754	22.49	23.50	1.262	0.951	
		Right side	0	26965	841.5	36	0	0.16	0.711	22.53	23.50	1.250	0.889	
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.8 LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	21100	2535	1	0	0.12	0.047	23.94	25.00	1.276	0.060	/
		Back side	10	21100	2535	1	0	-0.08	0.135	23.94	25.00	1.276	0.172	/
		Right side	10	21100	2535	1	0	-0.04	0.740	23.94	25.00	1.276	0.945	/
		Right side	10	21100	2535	1	0	0.19	0.724	23.94	25.00	1.276	0.924	/
		Right side	10	20850	2510	1	0	0.11	0.619	23.79	25.00	1.321	0.818	/
		Right side	10	21350	2560	1	0	0.11	0.766	23.83	25.00	1.309	1.003	17
ANT1	QPSK	Front side	10	21100	2535	50	0	-0.14	0.046	22.82	24.00	1.312	0.060	/
		Back side	10	21100	2535	50	0	0.04	0.102	22.82	24.00	1.312	0.134	/
		Right side	10	21100	2535	50	0	0.14	0.667	22.82	24.00	1.312	0.875	/
		Right side	10	20850	2510	50	0	-0.03	0.565	22.72	24.00	1.343	0.759	/
		Right side	10	21350	2560	50	0	0.07	0.732	22.65	24.00	1.365	0.999	/
		Right side	10	21100	2535	100	0	-0.05	0.640	23.94	25.00	1.276	0.817	/
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	21100	2535	1	0	-0.12	0.076	23.94	25.00	1.276	0.097	/
		Back side	0	21100	2535	1	0	-0.10	0.106	23.94	25.00	1.276	0.135	/
		Right side	0	21100	2535	1	0	-0.11	1.250	23.94	25.00	1.276	1.596	/
		Right side	0	20850	2510	1	0	0.17	1.040	23.79	25.00	1.321	1.374	/
		Right side	0	21350	2560	1	0	-0.15	1.380	23.83	25.00	1.309	1.807	18
ANT1	QPSK	Front side	0	21100	2535	50	0	-0.11	0.052	22.82	24.00	1.312	0.068	/
		Back side	0	21100	2535	50	0	-0.10	0.081	22.82	24.00	1.312	0.106	/
		Right side	0	21100	2535	50	0	0.18	1.040	22.82	24.00	1.312	1.365	/
		Right side	0	20850	2510	50	0	0.01	0.934	22.72	24.00	1.343	1.254	/
		Right side	0	21350	2560	50	0	0.19	1.150	22.65	24.00	1.365	1.569	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.9LTE Band 12 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	23095	707.5	1	0	0.16	0.052	23.66	24.50	1.213	0.063	
		Back side	10	23095	707.5	1	0	-0.01	0.074	23.66	24.50	1.213	0.090	
		Right side	10	23095	707.5	1	0	0.13	0.217	23.66	24.50	1.213	0.263	19
		Front side	10	23095	707.5	25	0	-0.19	0.045	22.57	23.50	1.239	0.056	
		Back side	10	23095	707.5	25	0	-0.13	0.062	22.57	23.50	1.239	0.077	
		Right side	10	23095	707.5	25	0	0.17	0.185	22.57	23.50	1.239	0.229	
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	23095	707.5	1	0	-0.08	0.074	23.66	24.50	1.213	0.090	/
		Back side	0	23095	707.5	1	0	0.01	0.099	23.66	24.50	1.213	0.120	/
		Right side	0	23095	707.5	1	0	0.17	0.537	23.66	24.50	1.213	0.652	/
		Right side	0	23060	704	1	0	-0.17	0.594	23.59	24.50	1.233	0.732	/
		Right side	0	23130	711	1	0	0.13	0.694	23.53	24.50	1.250	0.868	20
ANT1	QPSK	Front side	0	23095	707.5	25	0	0.06	0.065	22.57	23.50	1.239	0.081	/
		Back side	0	23095	707.5	25	0	-0.04	0.106	22.57	23.50	1.239	0.131	/
		Right side	0	23095	707.5	25	0	-0.13	0.520	22.57	23.50	1.239	0.644	/
		Right side	0	23060	704	25	0	-0.02	0.486	22.49	23.50	1.262	0.613	/
		Right side	0	23130	711	25	0	-0.02	0.493	23.53	23.50	0.993	0.490	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.10 LTE Band 38 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	38000	2595	1	0	-0.02	0.059	23.93	25.00	1.279	0.075	/
		Back side	10	38000	2595	1	0	0.14	0.088	23.93	25.00	1.279	0.113	/
		Right side	10	38000	2595	1	0	0.10	0.453	23.93	25.00	1.279	0.580	21
		Front side	10	38000	2595	50	0	-0.01	0.047	22.82	24.00	1.312	0.062	/
		Back side	10	38000	2595	50	0	0.11	0.079	22.82	24.00	1.312	0.104	
		Right side	10	38000	2595	50	0	-0.18	0.418	22.82	24.00	1.312	0.548	/
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	38000	2595	1	0	0.01	0.067	23.93	25.00	1.279	0.086	/
		Back side	0	38000	2595	1	0	0.01	0.135	23.93	25.00	1.279	0.173	/
		Right side	0	38000	2595	1	0	0.18	0.858	23.93	25.00	1.279	1.098	/
		Right side	0	37850	2580	1	0	0.14	0.888	23.86	25.00	1.300	1.155	/
		Right side	0	38150	2610	1	0	0.11	0.897	23.88	25.00	1.294	1.161	22
ANT1	QPSK	Front side	0	38000	2595	50	0	-0.06	0.053	22.82	24.00	1.312	0.070	/
		Back side	0	38000	2595	50	0	0.02	0.139	22.82	24.00	1.312	0.182	
		Right side	0	38000	2595	50	0	-0.08	0.761	22.82	24.00	1.312	0.999	/
		Right side	0	37850	2580	50	0	-0.09	0.757	22.70	24.00	1.349	1.021	/
		Right side	0	38150	2610	50	0	0.11	0.759	22.65	24.00	1.365	1.036	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.11 LTE Band 41 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
ANT1	QPSK	Front side	10	40640	2595	1	0	-0.07	0.045	22.27	23.00	1.183	0.053	/
		Back side	10	40640	2595	1	0	-0.12	0.068	22.27	23.00	1.183	0.080	/
		Right side	10	40640	2595	1	0	0.18	0.308	22.27	23.00	1.183	0.364	23
		Front side	10	40640	2595	50	0	0.10	0.028	21.03	22.00	1.250	0.035	/
		Back side	10	40640	2595	50	0	0.10	0.056	21.03	22.00	1.250	0.070	/
		Right side	10	40640	2595	50	0	-0.16	0.274	21.03	22.00	1.250	0.343	/
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
ANT1	QPSK	Front side	0	40640	2595	1	0	0.11	0.043	22.27	23.00	1.183	0.051	
		Back side	0	40640	2595	1	0	0.11	0.088	22.27	23.00	1.183	0.104	
		Right side	0	40640	2595	1	0	-0.12	0.592	22.27	23.00	1.183	0.700	24
		Right side	0	40140	2545	1	0	-0.01	0.526	22.19	23.00	1.205	0.634	
		Right side	0	41140	2645	1	0	-0.04	0.568	22.18	23.00	1.208	0.686	
ANT1	QPSK	Right side	0	40640	2595	50	0	0.17	0.037	21.03	22.00	1.250	0.046	
		Front side	0	40640	2595	50	0	0.03	0.088	21.03	22.00	1.250	0.110	
		Back side	0	40640	2595	50	0	-0.08	0.479	21.03	22.00	1.250	0.599	
		Right side	0	40140	2545	50	0	0.09	0.428	20.88	22.00	1.294	0.554	
		Right side	0	41140	2645	50	0	0.07	0.485	20.82	22.00	1.312	0.636	
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.12 WIFI 2.4GHz

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
802.11b	ANT2	Front Side	10	6	2437	-0.09	0.044	19.85	21.00	1.303	99.32	1.007	0.058	/
		Back Side	10	6	2437	0.15	0.068	19.85	21.00	1.303	99.32	1.007	0.089	/
		Left Edge	10	6	2437	0.14	0.104	19.85	21.00	1.303	99.32	1.007	0.136	27
Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
802.11b	ANT2	Front Side	0	6	2437	-0.08	0.024	19.85	21.00	1.303	99.32	1.007	0.031	/
		Back Side	0	6	2437	-0.15	0.060	19.85	21.00	1.303	99.32	1.007	0.079	/
		Left Edge	0	6	2437	0.17	0.244	19.85	21.00	1.303	99.32	1.007	0.320	28
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.13 WIFI 5GHz

Band	Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot															
5.2G	802.11a	ANT2	Front Side	10	36	5180	0.12	0.053	16.15	17.00	1.216	96.46	1.037	0.067	/
			Back Side	10	36	5180	0.03	0.160	16.15	17.00	1.216	96.46	1.037	0.202	29
			Left Edge	10	36	5180	-0.06	0.127	16.15	17.00	1.216	96.46	1.037	0.160	/
5.3G	802.11a	ANT2	Front Side	10	52	5260	-0.12	0.052	15.89	17.00	1.291	96.46	1.037	0.070	/
			Back Side	10	52	5260	-0.14	0.157	15.89	17.00	1.291	96.46	1.037	0.210	31
			Left Edge	10	52	5260	0.08	0.131	15.89	17.00	1.291	96.46	1.037	0.175	/
5.6G	802.11ac (VHT80)	ANT2	Front Side	10	122	5610	0.11	0.061	15.54	16.50	1.247	87.66	1.141	0.087	/
			Back Side	10	122	5610	-0.13	0.155	15.54	16.50	1.247	87.66	1.141	0.221	/
			Left Edge	10	122	5610	0.03	0.164	15.54	16.50	1.247	87.66	1.141	0.233	33
5.8G	802.11a	ANT2	Front Side	10	157	5785	-0.02	0.055	15.67	16.50	1.211	96.46	1.037	0.069	/
			Back Side	10	157	5785	-0.18	0.159	15.67	16.50	1.211	96.46	1.037	0.200	/
			Left Edge	10	157	5785	0.16	0.231	15.67	16.50	1.211	96.46	1.037	0.290	35
Band	Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Report SAR (W/kg)	Meas. No.
Specific															
5.2G	802.11a	ANT2	Front Side	0	36	5180	0.08	0.047	16.15	17.00	1.216	96.46	1.037	0.059	
			Back Side	0	36	5180	-0.03	0.118	16.15	17.00	1.216	96.46	1.037	0.149	
			Left Edge	0	36	5180	-0.03	0.238	16.15	17.00	1.216	96.46	1.037	0.300	30
5.3G	802.11a	ANT2	Front Side	0	52	5260	-0.16	0.042	15.89	17.00	1.291	96.46	1.037	0.056	
			Back Side	0	52	5260	0.13	0.161	15.89	17.00	1.291	96.46	1.037	0.216	
			Left Edge	0	52	5260	-0.19	0.245	15.89	17.00	1.291	96.46	1.037	0.328	32
5.6G	802.11ac (VHT80)	ANT2	Front Side	0	122	5610	0.12	0.013	15.54	16.50	1.247	87.66	1.141	0.018	
			Back Side	0	122	5610	-0.13	0.247	15.54	16.50	1.247	87.66	1.141	0.351	34
			Left Edge	0	122	5610	0.18	0.224	15.54	16.50	1.247	87.66	1.141	0.319	
5.8G	802.11a	ANT2	Front Side	0	157	5785	0.09	0.020	15.67	16.50	1.211	96.46	1.037	0.025	/
			Back Side	0	157	5785	-0.19	0.228	15.67	16.50	1.211	96.46	1.037	0.286	/
			Left Edge	0	157	5785	-0.12	0.261	15.67	16.50	1.211	96.46	1.037	0.328	36
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.14 Bluetooth

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Report SAR (W/kg)	Meas. No.
Body-worn&Hotspot														
DH5	ANT2	Front Side	10	0	2402	0.12	0.008	11.95	13.00	1.259	76.84	1.301	0.013	
		Back Side	10	0	2402	-0.03	0.012	11.95	13.00	1.259	76.84	1.301	0.020	
		Left Edge	10	0	2402	0.16	0.015	11.95	13.00	1.259	76.84	1.301	0.025	25
Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Report SAR (W/kg)	Meas. No.
Specific														
DH5	ANT2	Front Side	0	0	2402	-0.02	0.011	11.95	13.00	1.259	76.84	1.301	0.018	
		Back Side	0	0	2402	-0.08	0.018	11.95	13.00	1.259	76.84	1.301	0.029	
		Left Edge	0	0	2402	0.19	0.030	11.95	13.00	1.259	76.84	1.301	0.049	26
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.15 NFC

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

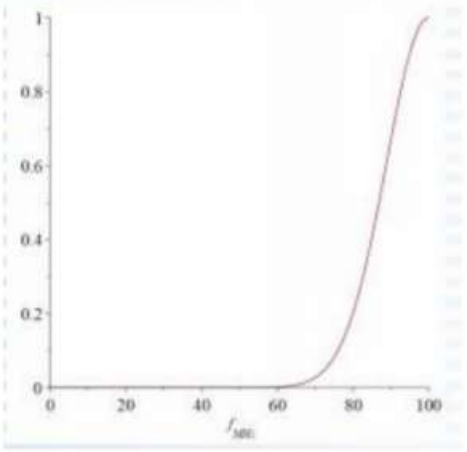
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \le 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \le 300 \\ P_{7}(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

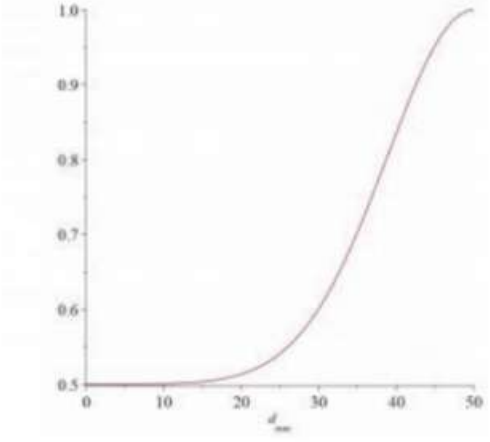
2. For portable products, when using a distance of ≤ 50mm, such as mobile phone NFC, P6s is calculated with the following formula calculate.

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

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.				

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

a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).

b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the 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	77.74	3	6	-1.06
Note: 1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz). 2.ERP= 77.74+20*Log(10) - 104.8 + 6 =-1.60 (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)	-1.06	Pmeas.(mW)	0.783
Pth.(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	0.003		

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
1909.8	PCS1900	Body-worn&Hotspot	Right Edge	0.845	Yes	0.836	1.01
1907.6	WCDMA Band2	Body-worn&Hotspot	Right Edge	0.860	Yes	0.848	1.01
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20, the second repeated measurement. Is not required.							

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	Body-worn&Hotspot	Specific
1	WWAN+2.4G WIFI	Yes	Yes
2	WWAN+BT	Yes	Yes
3	WWAN+5G WIFI	Yes	Yes

Note:
1. WiFi 2.4G 、5G and Bluetooth share the same antenna, and can't transmit simultaneously.
2. 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.
3. The maximum SAR summation is calculated based on the same configuration and test position.
4. The simultaneous transmission combinations of the more antennas contain combinations of less antennas, so only the worst simultaneous transmission combinations is shown in this report.

12.2 Sum SAR of Simultaneous Transmission

12.2.1 Body-worn&Hotspot Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Position	Stand alone SAR				SUM SAR		
		1	2	3	4			
		WWAN	2.4G WIFI Max	5G WIFI Max	Bluetooth	1+2	1+3	1+4
GSM850	Front Side	0.138	0.058	0.087	0.013	0.196	0.225	0.151
	Back Side	0.177	0.089	0.221	0.020	0.266	0.397	0.196
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.464	0.000	0.000	0.000	0.464	0.464	0.464
GSM1900	Front Side	0.115	0.058	0.087	0.013	0.173	0.202	0.128
	Back Side	0.144	0.089	0.221	0.020	0.233	0.364	0.164
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	1.109	0.000	0.000	0.000	**1.109**	**1.109**	**1.109**
WCDMA B2	Front Side	0.102	0.058	0.087	0.013	0.159	0.189	0.115
	Back Side	0.200	0.089	0.221	0.020	0.289	0.420	0.219
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	1.088	0.000	0.000	0.000	1.088	1.088	1.088
WCDMA B4	Front Side	0.040	0.058	0.087	0.013	0.097	0.126	0.053
	Back Side	0.068	0.089	0.221	0.020	0.157	0.288	0.087
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.452	0.000	0.000	0.000	0.452	0.452	0.452
WCDMA B5	Front Side	0.195	0.058	0.087	0.013	0.252	0.281	0.208
	Back Side	0.207	0.089	0.221	0.020	0.296	0.427	0.226
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.520	0.000	0.000	0.000	0.520	0.520	0.520
LTE B25	Front Side	0.133	0.058	0.087	0.013	0.191	0.220	0.146
	Back Side	0.183	0.089	0.221	0.020	0.273	0.404	0.203
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	1.017	0.000	0.000	0.000	1.017	1.017	1.017
LTE B66	Front Side	0.057	0.058	0.087	0.013	0.115	0.144	0.070
	Back Side	0.064	0.089	0.221	0.020	0.153	0.285	0.084
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.608	0.000	0.000	0.000	0.608	0.608	0.608
LTE B26	Front Side	0.214	0.058	0.087	0.013	0.272	0.301	0.228
	Back Side	0.225	0.089	0.221	0.020	0.314	0.446	0.245
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.656	0.000	0.000	0.000	0.656	0.656	0.656

LTE B7	Front Side	0.060	0.058	0.087	0.013	0.118	0.147	0.073
	Back Side	0.172	0.089	0.221	0.020	0.262	0.393	0.192
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	1.003	0.000	0.000	0.000	1.003	1.003	1.003
LTE B12	Front Side	0.063	0.058	0.087	0.013	0.121	0.150	0.076
	Back Side	0.090	0.089	0.221	0.020	0.179	0.310	0.109
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.263	0.000	0.000	0.000	0.263	0.263	0.263
LTE B38	Front Side	0.075	0.058	0.087	0.013	0.133	0.162	0.089
	Back Side	0.113	0.089	0.221	0.020	0.202	0.333	0.132
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.580	0.000	0.000	0.000	0.580	0.580	0.580
LTE B41	Front Side	0.053	0.058	0.087	0.013	0.111	0.140	0.066
	Back Side	0.080	0.089	0.221	0.020	0.170	0.301	0.100
	Left Side	0.000	0.136	0.290	0.025	0.136	0.290	0.025
	Right Side	0.364	0.000	0.000	0.000	0.364	0.364	0.364

Note:
1、The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.
2、The highest Summed 1g SAR is 1.109 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.2 Specific Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Position	Stand alone SAR				SUM SAR		
		1	2	3	4			
		WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	1+2	1+3	1+4
GSM850	Front Side	0.225	0.031	0.059	0.052	0.256	0.284	0.277
	Back Side	0.176	0.079	0.351	0.079	0.254	0.527	0.254
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	0.890	0.000	0.000	0.000	0.890	0.890	0.890
GSM1900	Front Side	0.197	0.031	0.059	0.052	0.228	0.256	0.249
	Back Side	0.167	0.079	0.351	0.079	0.245	0.518	0.245
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.942	0.000	0.000	0.000	**1.942**	**1.942**	**1.942**
WCDMA B2	Front Side	0.178	0.031	0.059	0.052	0.210	0.238	0.231
	Back Side	0.195	0.079	0.351	0.079	0.273	0.546	0.273
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.859	0.000	0.000	0.000	1.859	1.859	1.859

WCDMA B4	Front Side	0.047	0.031	0.059	0.052	0.079	0.107	0.100
	Back Side	0.100	0.079	0.351	0.079	0.179	0.451	0.178
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.417	0.000	0.000	0.000	1.417	1.417	1.417
WCDMA B5	Front Side	0.290	0.031	0.059	0.052	0.322	0.349	0.342
	Back Side	0.209	0.079	0.351	0.079	0.288	0.561	0.288
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.025	0.000	0.000	0.000	1.025	1.025	1.025
LTE B25	Front Side	0.198	0.031	0.059	0.052	0.229	0.257	0.250
	Back Side	0.236	0.079	0.351	0.079	0.315	0.588	0.315
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.916	0.000	0.000	0.000	1.916	1.916	1.916
LTE B66	Front Side	0.059	0.031	0.059	0.052	0.090	0.118	0.111
	Back Side	0.107	0.079	0.351	0.079	0.186	0.459	0.186
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.373	0.000	0.000	0.000	1.373	1.373	1.373
LTE B26	Front Side	0.322	0.031	0.059	0.052	0.353	0.381	0.374
	Back Side	0.239	0.079	0.351	0.079	0.318	0.591	0.318
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.265	0.000	0.000	0.000	1.265	1.265	1.265
LTE B7	Front Side	0.097	0.031	0.059	0.052	0.128	0.156	0.149
	Back Side	0.135	0.079	0.351	0.079	0.214	0.487	0.214
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.807	0.000	0.000	0.000	1.807	1.807	1.807
LTE B12	Front Side	0.090	0.031	0.059	0.052	0.121	0.149	0.142
	Back Side	0.131	0.079	0.351	0.079	0.210	0.483	0.210
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	0.868	0.000	0.000	0.000	0.868	0.868	0.868
LTE B38	Front Side	0.086	0.031	0.059	0.052	0.117	0.145	0.138
	Back Side	0.182	0.079	0.351	0.079	0.261	0.534	0.261
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	1.161	0.000	0.000	0.000	1.161	1.161	1.161
LTE B41	Front Side	0.051	0.031	0.059	0.052	0.082	0.110	0.103
	Back Side	0.110	0.079	0.351	0.079	0.189	0.461	0.189
	Left Side	0.000	0.320	0.328	0.098	0.320	0.328	0.098
	Right Side	0.700	0.000	0.000	0.000	0.700	0.700	0.700

Note:
1、The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.
2、The highest Summed 10g SAR is 1.942W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.3 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 1.11 [W/kg]. Therefore, the worst TER =(1.11+0.003)/1.6 = 0.696＜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
750MHz Validation Dipole	Speag	D750V3	SN: 1208	2024/08/19	2027/08/18
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2024/05/08	2027/05/07
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2024/05/08	2027/05/07
1950MHz Validation Dipole	Speag	D1950V3	SN: 1240	2024/08/22	2027/08/21
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2024/05/07	2027/05/06
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2024/05/08	2027/05/07
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2024/05/09	2027/05/08
Data Acquisition Electronicsr	Speag	DAE4	SN: 1710	2025/01/20	2026/01/19
E-Field Probe	Speag	EX3DV4	SN: 7510	2024/06/25	2025/06/24
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	EF7239002655	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF7216002974	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: 1859	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:
1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

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

Date	Fre. (MHz)	Temp. (℃)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ε)	Target Conductivity (σ) (S/m)	Target Permittivity (ε)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.5.7	750	21.3	0.87	41.26	0.89	41.94	-2.25	-1.62
2025.5.7	835	21.3	0.90	40.97	0.90	41.50	0.00	-1.28
2025.5.7	1750	21.4	1.41	39.28	1.37	40.08	2.92	-2.00
2025.5.8	1950	21.5	1.45	39.12	1.40	40.00	3.57	-2.20
2025.5.8	2450	21.5	1.85	38.32	1.80	39.20	2.78	-2.24
2025.5.8	2600	21.5	2.00	38.01	1.96	39.01	2.04	-2.56
2025.5.9	2600	21.3	2.01	38.00	1.96	39.01	2.55	-2.59
2025.5.10	5250	21.4	4.74	34.86	4.71	35.93	0.64	-2.98
2025.5.11	5600	21.5	5.18	34.32	5.07	35.53	2.17	-3.41
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).

liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.5.7	Head	750	100	0.848	8.48	8.46	0.24
2025.5.7	Head	835	100	0.901	9.01	9.74	-7.49
2025.5.7	Head	1750	100	3.730	37.30	37.00	0.81
2025.5.8	Head	1950	100	4.140	41.40	41.70	-0.72
2025.5.8	Head	2450	100	5.080	50.80	52.60	-3.42
2025.5.8	Head	2600	100	5.340	53.40	55.90	-4.47
2025.5.9	Head	2600	100	5.620	56.20	55.90	0.54
2025.5.10	Head	5250	100	7.900	79.00	77.70	1.67
2025.5.11	Head	5600	100	8.340	83.40	81.30	2.58
2025.5.11	Head	5750	100	8.440	84.40	77.60	8.76
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).

liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.5.7	Head	750	100	0.556	5.56	5.70	-2.46
2025.5.7	Head	835	100	0.589	5.89	6.43	-8.40
2025.5.7	Head	1750	100	1.960	19.60	19.70	-0.51
2025.5.8	Head	1950	100	2.130	21.30	21.70	-1.84
2025.5.8	Head	2450	100	2.340	23.40	24.70	-5.26
2025.5.8	Head	2600	100	2.370	23.70	25.40	-6.69
2025.5.9	Head	2600	100	2.490	24.90	25.40	-1.97
2025.5.10	Head	5250	100	2.250	22.50	22.00	2.27
2025.5.11	Head	5600	100	2.350	23.50	23.10	1.73
2025.5.11	Head	5750	100	2.400	24.00	21.90	9.59
Note: The tolerance limit of System validation ±10%.							

System Performance Check Data (750MHz)

Date: 2025/5/7
Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.874 S/m; ε_r = 41.259; ρ = 1000 kg/m^3
Phantom section: Flat Section

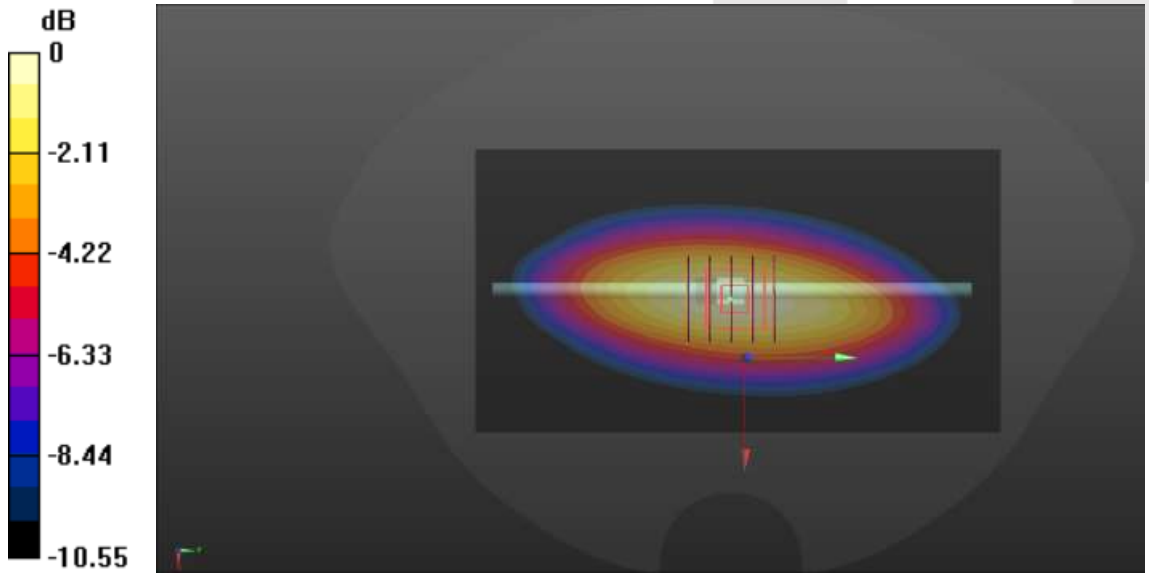
Ambient Temperature:22.4℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(10.29, 10.29, 10.29); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

750/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.27 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.848 W/kg; SAR(10 g) = 0.556 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg

System Performance Check Data (835MHz)

Date: 2025/5/7
Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.903 S/m; ε_r = 40.971; ρ = 1000 kg/m^3
Phantom section: Flat Section

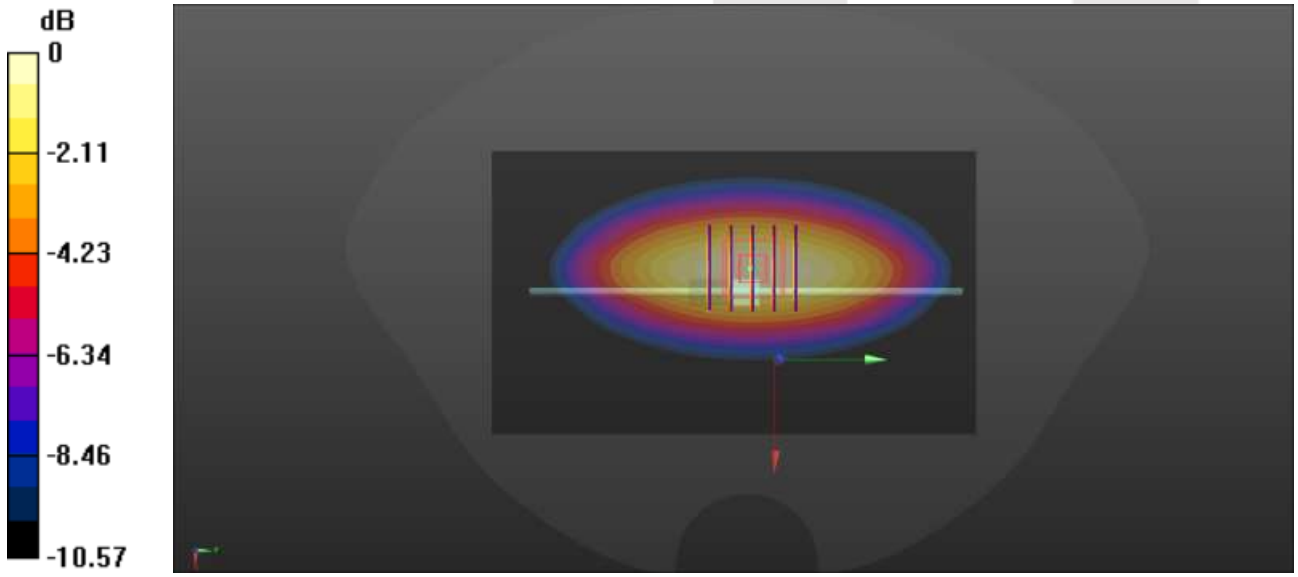
Ambient Temperature:22.5℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(9.99, 9.99, 9.99); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

835/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.25 W/kg

835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.08 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.901 W/kg; SAR(10 g) = 0.589 W/kg
Maximum value of SAR (measured) = 1.24 W/kg



0 dB = 1.24 W/kg

System Performance Check Data (1750MHz)

Date: 2025/5/7
Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.413 S/m; ε_r = 39.282; ρ = 1000 kg/m^3
Phantom section: Flat Section

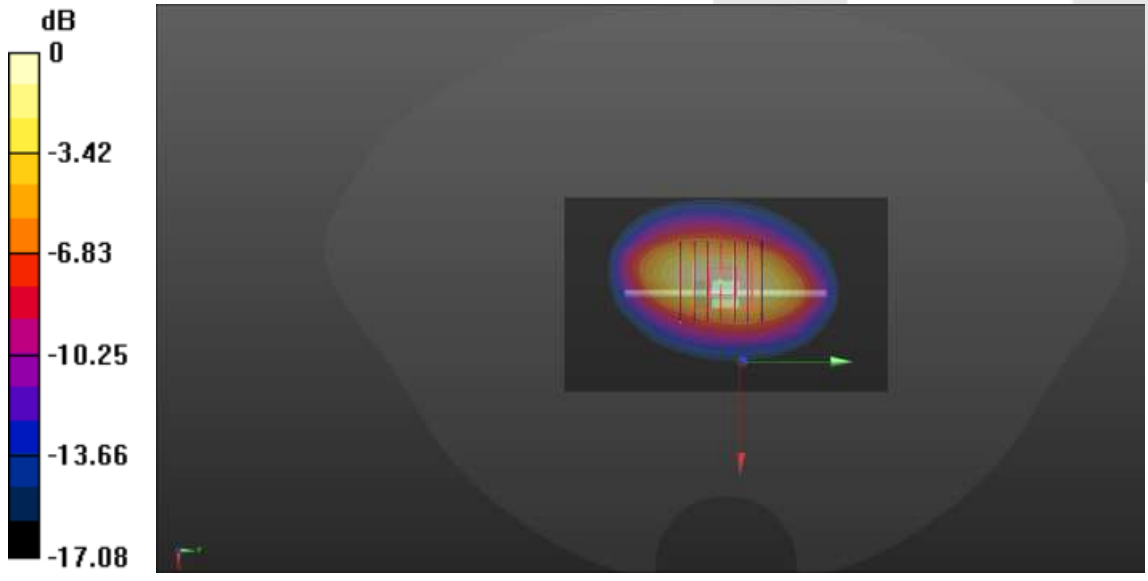
Ambient Temperature:22.3℃ Liquid Temperature:21.4℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.67, 8.67, 8.67); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

1750/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 5.85 W/kg

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) = 7.16 W/kg
SAR(1 g) = 3.73 W/kg; SAR(10 g) = 1.96 W/kg
Maximum value of SAR (measured) = 5.89 W/kg



0 dB = 5.89 W/kg

System Performance Check Data (1950MHz)

Date: 2025/5/8
Communication System Band: D1900 (1900.0 MHz); Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; σ = 1.451S/m; ε_r = 39.116; ρ = 1000 kg/m^3
Phantom section: Flat Section

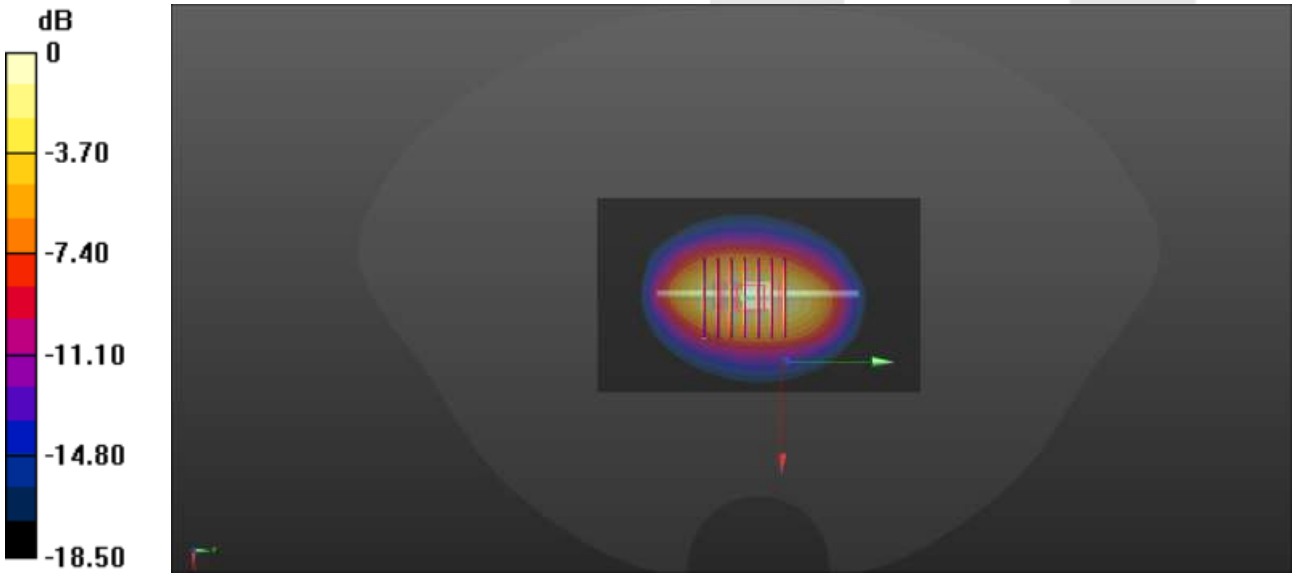
Ambient Temperature:22.6℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.33, 8.33, 8.33); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

1950/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 6.70 W/kg

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) = 7.98 W/kg
SAR(1 g) = 4.14 W/kg; SAR(10 g) = 2.13 W/kg
Maximum value of SAR (measured) = 6.56 W/kg



0 dB = 6.56 W/kg

System Performance Check Data (2450MHz)

Date: 2025/5/8
Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.847 S/m; ε_r = 38.323; ρ = 1000 kg/m^3
Phantom section: Flat Section

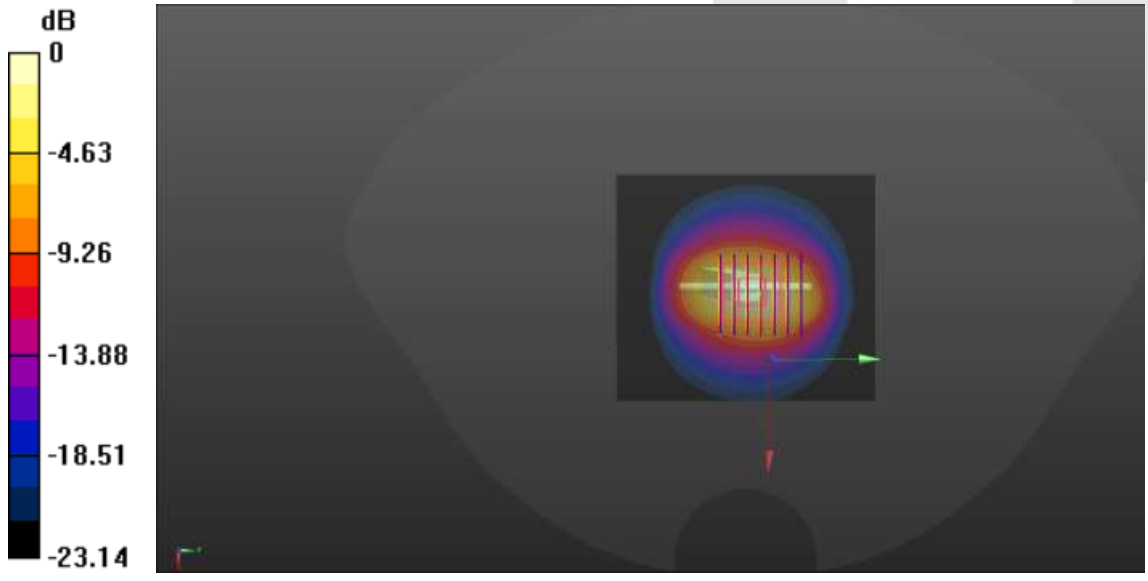
Ambient Temperature:22.6℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(8.33, 8.33, 8.33); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

2450/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 8.90 W/kg

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) = 10.7 W/kg
SAR(1 g) = 5.08 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 8.47 W/kg



0 dB = 8.47 W/kg

System Performance Check Data (2600MHz)

Date: 2025/5/8
Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.004 S/m; ε_r = 38.008; ρ = 1000 kg/m^3
Phantom section: Flat Section

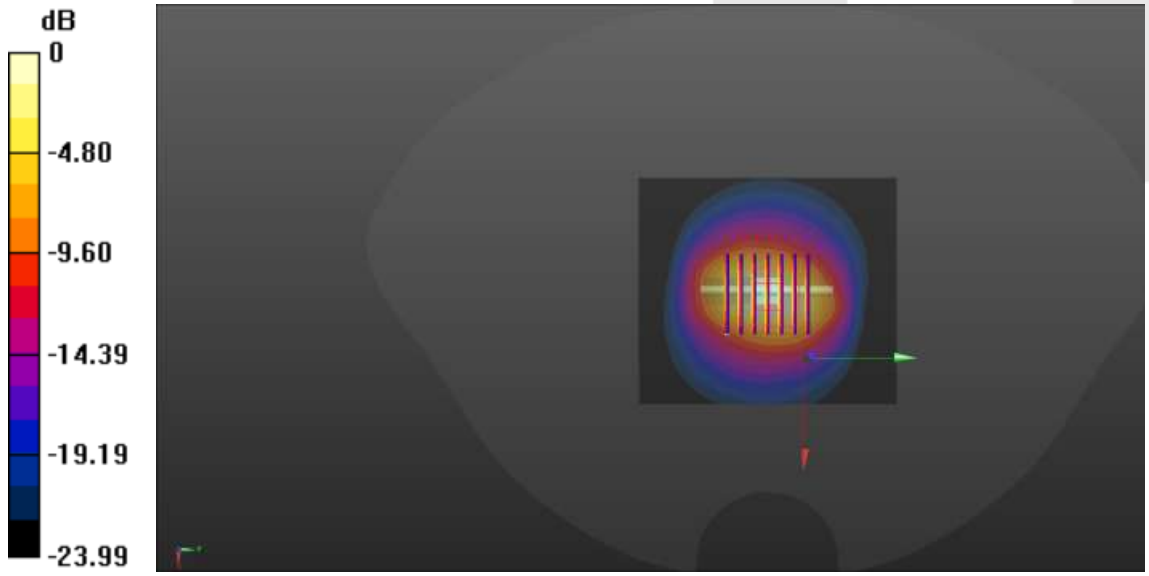
Ambient Temperature:22.5℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.59, 7.59, 7.59); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 9.50 W/kg

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) = 11.6 W/kg
SAR(1 g) = 5.34 W/kg; SAR(10 g) = 2.37 W/kg
Maximum value of SAR (measured) = 9.18 W/kg



0 dB = 9.18 W/kg

System Performance Check Data (2600MHz)

Date: 2025/5/9
Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.008 S/m; ε_r = 38.004; ρ = 1000 kg/m^3
Phantom section: Flat Section

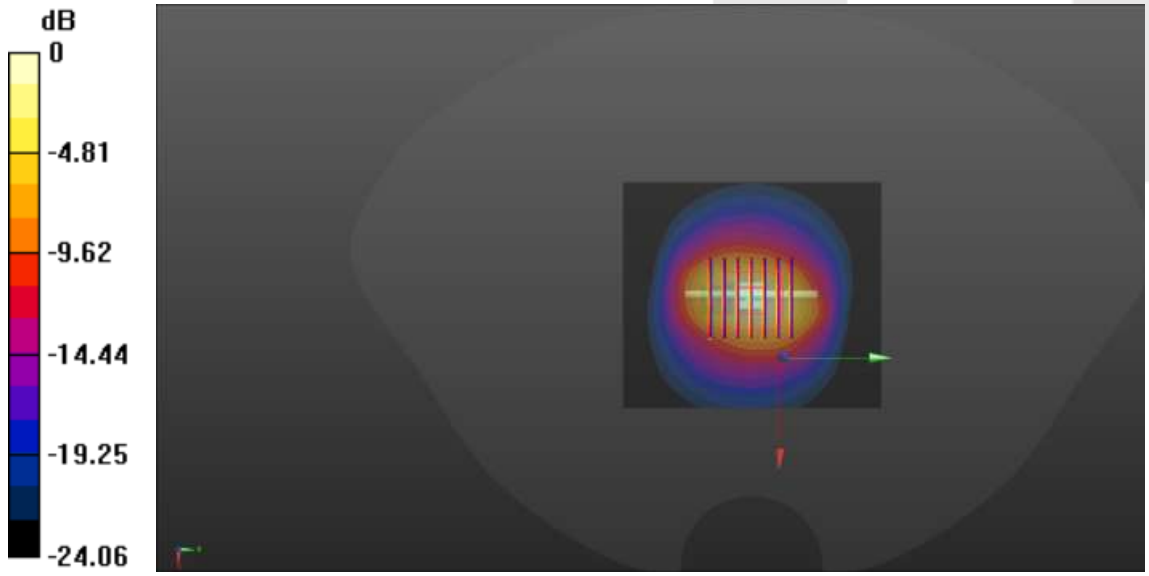
Ambient Temperature:22.3℃ Liquid Temperature:21.3℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(7.59, 7.59, 7.59); Calibrated: 2024/6/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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)

2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 9.91 W/kg

2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.40 V/m; Power Drift = -0.26 dB
Peak SAR (extrapolated) = 12.3 W/kg
SAR(1 g) = 5.62 W/kg; SAR(10 g) = 2.49 W/kg
Maximum value of SAR (measured) = 9.73 W/kg



0 dB = 9.73 W/kg

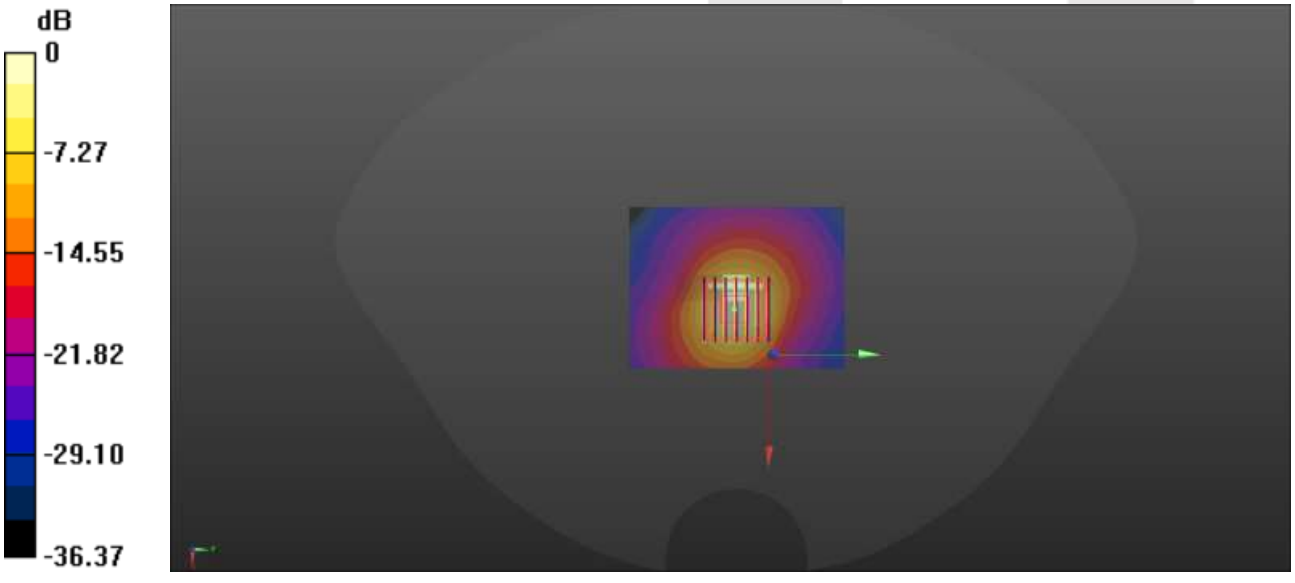
System Performance Check Data (5250MHz)

Date: 2025/5/10
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.743 S/m; ε_r = 34.858; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.1℃ Liquid Temperature:21.4℃
DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.74, 5.74, 5.74); Calibrated: 2024/6/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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 5250/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.6 W/kg

CW 5250/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) = 33.2 W/kg
SAR(1 g) = 7.9 W/kg; SAR(10 g) = 2.25 W/kg
Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg

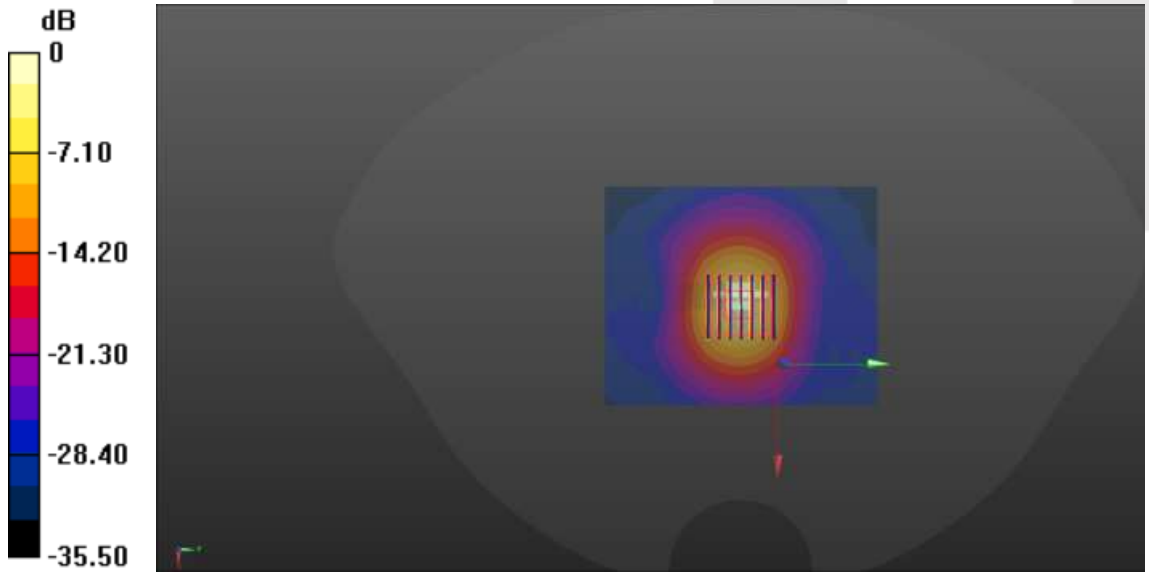
System Performance Check Data (5600MHz)

Date: 2025/5/11
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.181 S/m; ε_r = 34.322; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.5℃ Liquid Temperature:21.5℃
DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.00, 5.00, 5.00); Calibrated: 2024/6/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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) = 17.6 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) = 37.9 W/kg
SAR(1 g) = 8.34 W/kg; SAR(10 g) = 2.35 W/kg
Maximum value of SAR (measured) = 17.8 W/kg



0 dB = 17.8 W/kg

System Performance Check Data (5750MHz)

Date: 2025/5/11
Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.38 S/m; ε_r = 34.178; ρ = 1000 kg/m^3
Phantom section: Flat Section

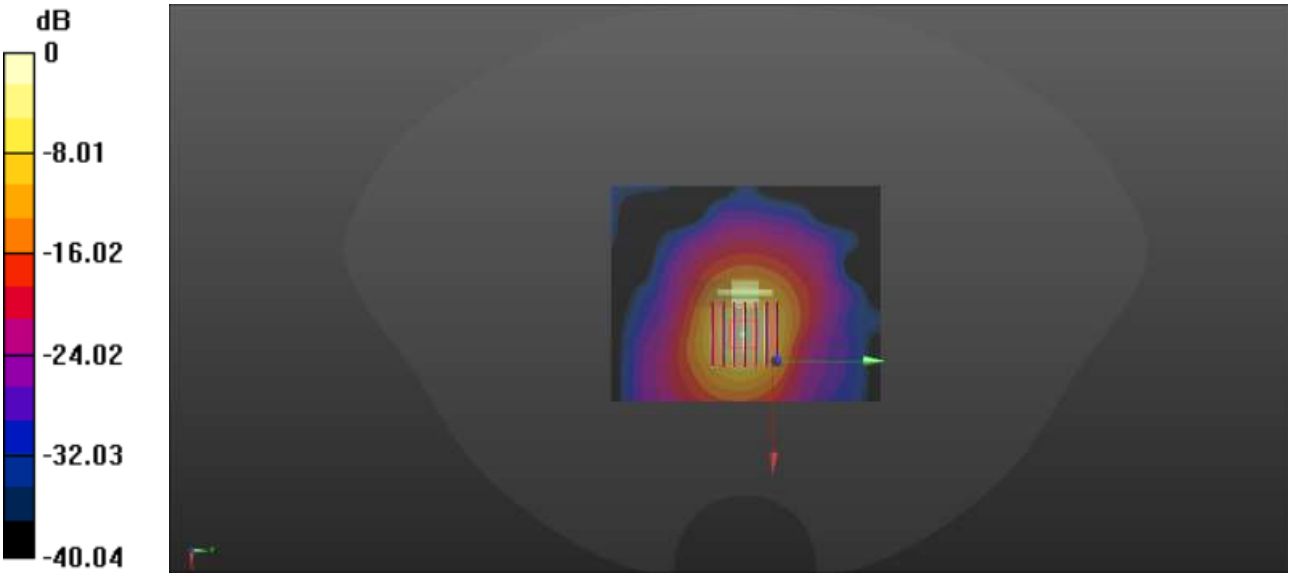
Ambient Temperature:22.5℃ Liquid Temperature:21.5℃

DASY5 Configuration:

- Probe: EX3DV4 - SN7510; ConvF(5.04, 5.04, 5.04); Calibrated: 2024/6/25
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1710; Calibrated: 2025/1/20
- 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) = 18.1 W/kg

CW 5750/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 16.00 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 41.0 W/kg
SAR(1 g) = 8.44 W/kg; SAR(10 g) = 2.4 W/kg
Maximum value of SAR (measured) = 18.4 W/kg



0 dB = 18.4 W/kg

ANNEX C TEST DATA

Please refer the document “BL-SH2540315-AT.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2540315-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SH2540315-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SH2540315-AC.pdf”.

ANNEX G TUNE-UP PROCEDURE

Please refer the document “BL-SH2540315-AP.pdf”.

Statement

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--END OF REPORT--