



SAR TEST REPORT

Product Name: Smart Tablet

Model Number: BY-2401A, BY-2501A, BY-2501P, BY-2501F, BY-2501R,
M5-2401A, M5-2501A, A8-2401A, A8-2501A

FCC ID: 2BVL9-BY-2401A

Issued For : Shenzhen Boyuan Technology Co., LTD

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Issued By : Shenzhen LGT Test Service Co., Ltd.

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Report Number: LGT26C185HA02

Sample Received Date: Mar. 24, 2026

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Date of Issue Apr. 15, 2026

Max. SAR (1g) Body: 0.739W/kg

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Revision History

Rev.	Issue Date	Contents
00	Apr. 15, 2026	Initial Issue



TEST REPORT CERTIFICATION

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Product Name Smart Tablet
Trademark N/A
Model Number BY-2401A, BY-2501A, BY-2501P, BY-2501F, BY-2501R, M5-2401A,
M5-2501A, A8-2401A, A8-2501A
Sample number LGT2603249-1

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
ANSI/IEEE Std. C95.1-2019 FCC 47 CFR Part 2 (2.1093) IEEE 1528: 2013	PASS

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1. General Information

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

1.1 EUT Description

Product Name	Smart Tablet	
Test Model Number	BY-2401A	
Series Number	BY-2501A, BY-2501P, BY-2501F, BY-2501R, M5-2401A, M5-2501A, A8-2401A, A8-2501A	
Model Difference	The electrical principles and internal structures of the inspected model and the covered model, as well as the key components, materials, rated parameters, etc., are all the same, only the appearance color and model are different.	
Device Category	Portable	
Product stage	Production unit	
RF Exposure Environment	General Population / Uncontrolled	
Hardware Version	1.0	
Software Version	1.0	
Frequency Range	LTE Band 2:1850 ~1910MHz LTE Band 5:824 ~ 849MHz LTE Band 7:2500 ~ 2570MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11n40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz Bluetooth: 2402 ~ 2480 MHz	
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Body:0mm	Mode	Body Worn and Hotspot (W/kg)
	LTE Band 2	0.696
	LTE Band 5	0.276
	LTE Band 7	0.423
	2.4G WLAN	0.567
	5.2G WLAN	0.739
	5.8G WLAN	0.459
Bluetooth ^{Note}		0.147
1-g Sum SAR		1.435
Battery	Rated Voltage:3.8V Capacity: 10000mAh	
Description test modes	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested.	
Operating Mode:	LTE: QPSK, 16QAM 2.4G WLAN: 802.11b(DSSS): CCK, DQPSK, DBPSK 802.11g(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK, QPSK,16-QAM,64-QAM 5G WLAN: 802.11a(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11ac (OFDM): BPSK, QPSK,16-QAM,64-QAM,256-QAM Bluetooth: GFSK + π /4DQPSK+8DPSK BLE: GFSK	



Antenna Specification	LTE: PIFA Antenna Bluetooth: PIFA Antenna WLAN: PIFA Antenna
Operating Mode	Maximum continuous output
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot trans mitting at the same time
Hotspot Mode	Support
DTM Mode	Not Support
Note 1: The BT value was Estimated.	

1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (°C)	18-25
Humidity (%RH)	30-70

1.3 Test Factory

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	FCC Registration No.: 746540
	CAB ID: CN0136



2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-2019	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
8	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
9	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
10	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices
11	KDB 616217 D04 SAR for laptop and tablets v01r01	SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body Partial-Body Hands, Wrists, Feet and Ankles

0.4 8.0 20.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body Partial-Body Hands, Wrists, Feet and Ankles

0.08 1.6 4.0

NOTE: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational/Controlled Environments:

Are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

NOTE
GENERAL POPULATION/UNCONTROLLED EXPOSURE
PARTIAL BODY LIMIT
1.6 W/kg



3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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:

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

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

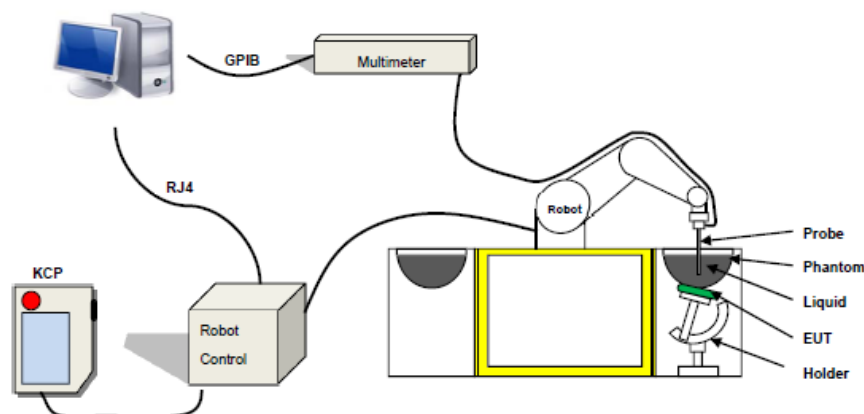
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue;

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

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:

- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.



The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The OpenSAR software computes the results to give a SAR value in a 1g or 1g mass.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe 2225-EPGO-450 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 0.15 GHz to 7.5 GHz for head simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°



Figure 1-MVG COMOSAR Dosimetric E field Probe

3.2.2 Phantom

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.

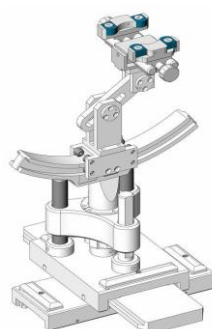


Figure-SN 06/22 SAM 148



Figure-SN 06/22 ELLI 51

3.2.3 Device Holder



The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine if the dielectric parameters are within the tolerances of the specified target values

The uncertainty due to the liquid conductivity and permittivity arises from two different sources. The first source of error is the deviation of the liquid conductivity from its target value (max _ 5 %) and the second source of error arises from the measurement procedures used to assess conductivity. The uncertainty shall be assessed using a rectangular probability For 1 g averaging, the maximum weighting coefficient for SAR is 0,5.

IEEE SCC-34/SC-2 RECOMMENDED TISSUE DIELECTRIC PARAMETERS

The head and body tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 have been incorporated in the following table.

Frequency	ϵ_r	σ 10g S/m
300	45.3	0.87
450	43.5	0.87
750	41.9	0.89
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1800 to 2000	40.0	1.40
2100	39.8	1.49
2450	39.2	1.80
2600	39.0	1.96
3000	38.5	2.40
3500	37.9	2.91
4000	37.4	3.43
4500	36.8	3.94
5000	36.2	4.45
5200	36.0	4.66
5400	35.8	4.86
5600	35.5	5.07
5800	35.3	5.27



LIQUID MEASUREMENT RESULTS

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2026-03-31	23	56	835	22.7	Permittivity	41.50	42.34	2.02	±5
					Conductivity	0.90	0.94	4.44	±5
2026-03-31	22.6	59	1900	22.3	Permittivity	40.00	41.38	3.45	±5
					Conductivity	1.40	1.37	-2.14	±5
2026-03-25	22.3	53	2450	20	Permittivity	39.20	39.95	1.91	±5
					Conductivity	1.80	1.76	-2.22	±5
2026-03-25	22.9	55	2600	22.6	Permittivity	39.00	39.27	0.69	±5
					Conductivity	1.96	2.02	3.06	±5
2026-03-25	22.8	48	5200	22.5	Permittivity	36.00	36.65	1.81	±5
					Conductivity	4.66	4.60	-1.29	±5
2026-03-25	22.6	47	5800	21.3	Permittivity	35.30	36.58	3.63	±5
					Conductivity	5.27	5.22	-0.95	±5

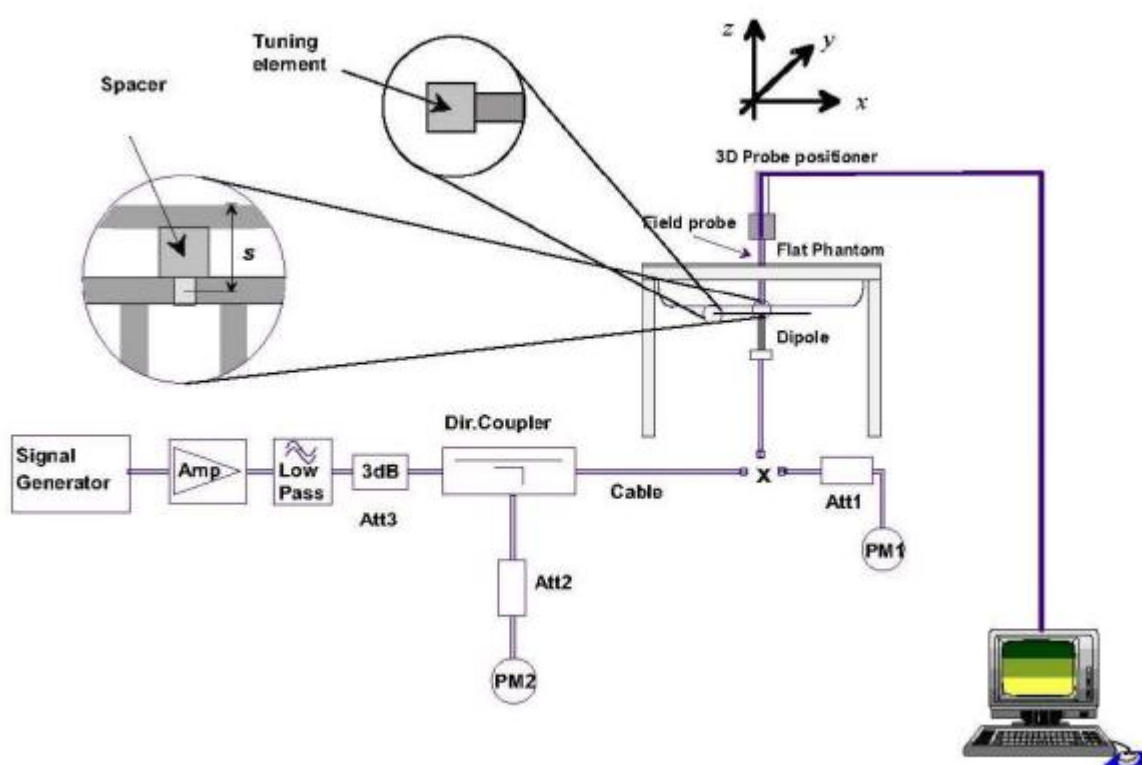


5. SAR System Validation

5.1 Validation System

Each MVG system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the MVG software, enable the user to conduct the system performance check and system validation. System kit includes a dipole, and dipole device holder.

The system check verifies that the system operates within its specifications. It's performed daily or before every SAR measurement. The system check uses normal SAR measurement in the flat section of the phantom with a matched dipole at a specified distance. The system validation setup is shown as below.





5.2 Validation Result

Comparing to the original SAR value provided by MVG, the validation data should be within its specification of $\pm 10\%$.

Date	Freq.	Power	Power drift	Tested Value	Normalized SAR	Target SAR	Tolerance
	(MHz)	(mW)	(%)	(W/Kg)	(W/kg)	1g(W/kg)	(%)
2026-03-31	835	100	0.972	9.72	9.63	0.93	10
2026-03-31	1900	100	4.030	40.30	40.20	0.25	10
2026-03-25	2450	100	5.274	52.74	52.98	-0.45	10
2026-03-25	2600	100	5.635	56.35	56.15	0.36	10
2026-03-25	5200	100	7.796	77.96	77.84	0.15	10
2026-03-25	5800	100	8.064	80.64	80.51	0.16	10

Note:

1. The tolerance limit of System validation $\pm 10\%$.
2. The dipole input power (forward power) was 100 mW.
3. The results are normalized to 1 W input power.



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

The following steps are used for each test position

- 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
- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- 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.

➤ Area Scan& Zoom Scan

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 D01 quoted below.

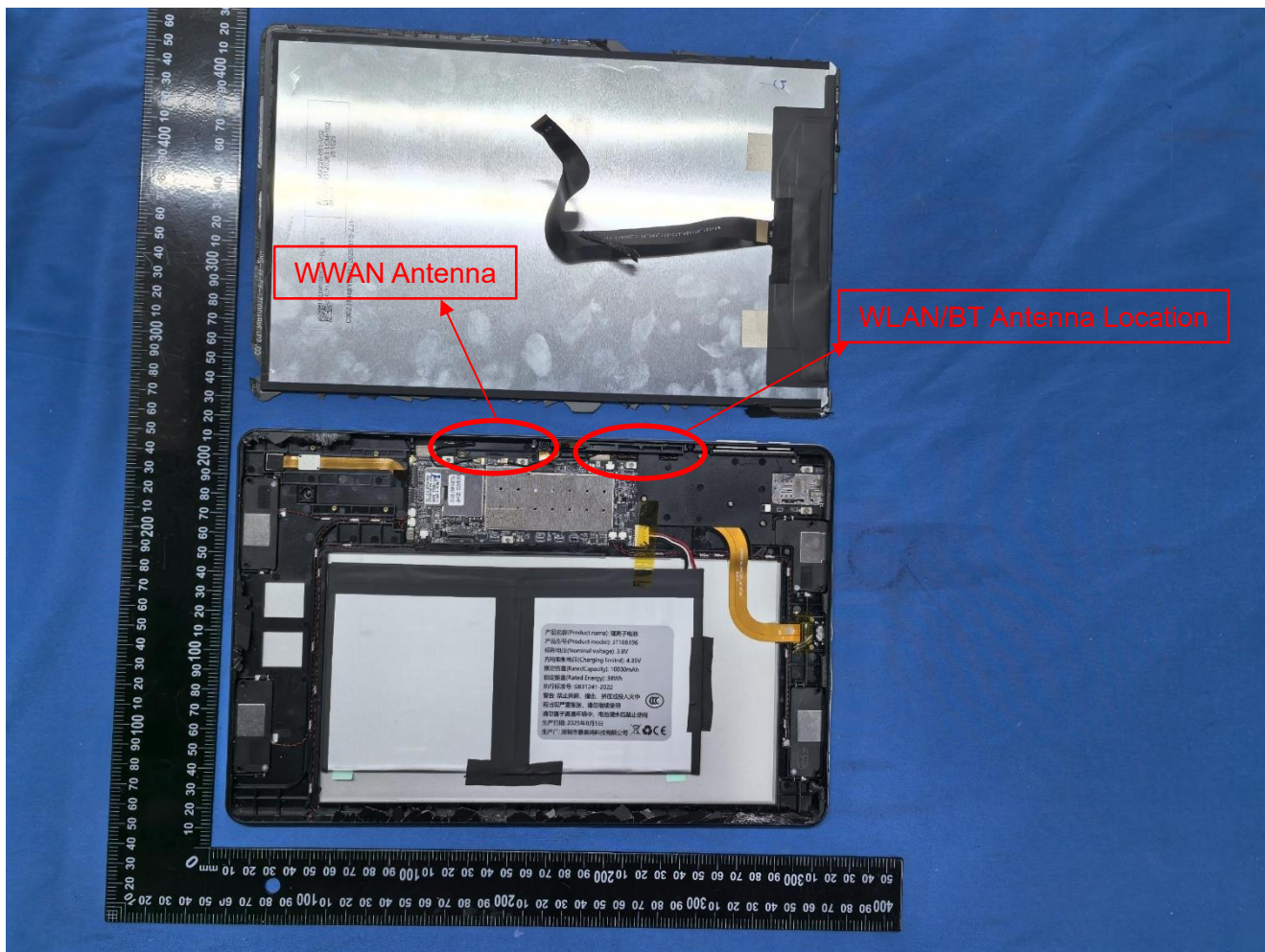
When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.



7. EUT Antenna Location Sketch

It is a Smart Tablet, support LTE/WLAN/BT mode.

Top side



Bottom side
(Front view)

Antenna Separation Distance(mm)					
ANT	Back Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	≤5	170	80	≤5	180
WWAN	≤5	90	150	≤5	180

Note 1: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.



7.1 SAR test exclusion consider table

The WWAN/WLAN/BT SAR evaluation of Maximum power (dBm) summing tolerance.

Exposure Position	Wireless Interface	LTE Band 2	LTE Band 5	LTE Band 7
	Calculated Frequency (MHz)	1880	844	2560
	Maximum Turn-up power (dBm)	23	23	23
	Maximum rated power(mW)	199.53	199.53	199.53
Back Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	10.94	16.33	9.38
	Testing required?	YES	YES	YES
Left Edge	Separation distance (mm)	90	90	90
	exclusion threshold(mW)	509.40	388.34	493.75
	Testing required?	NO	NO	NO
Right Edge	Separation distance (mm)	150	150	150
	exclusion threshold(mW)	1109.40	1163.28	1093.75
	Testing required?	NO	NO	NO
Top Edge	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	10.94	16.33	9.38
	Testing required?	YES	YES	YES
Bottom Edge	Separation distance (mm)	180	180	180
	exclusion threshold(mW)	1409.40	894.74	1393.75
	Testing required?	NO	NO	NO



Exposure Position	Wireless Interface	BT	2.4G WLAN	5.2G WLAN	5.8G WLAN
	Calculated Frequency (MHz)	2402	2412	5240	5755
	Maximum Turn-up power (dBm)	5.5	16.8	13	10.5
	Maximum rated power(mW)	3.55	47.86	19.95	11.22
Back Side	Separation distance (mm)	5	5	5	5
	exclusion threshold(mW)	9.68	9.66	6.55	6.25
	Testing required?	NO	YES	YES	YES
Left Edge	Separation distance (mm)	170	170	170	170
	exclusion threshold(mW)	1296.78	1296.58	1265.53	1262.53
	Testing required?	NO	NO	NO	NO
Right Edge	Separation distance (mm)	80	80	80	80
	exclusion threshold(mW)	396.78	396.58	365.53	362.53
	Testing required?	NO	NO	NO	NO
Top Edge	Separation distance (mm)	5	5	5	5
	exclusion threshold(mW)	9.68	9.66	6.55	6.25
	Testing required?	NO	YES	YES	YES
Bottom Edge	Separation distance (mm)	180	180	180	180
	exclusion threshold(mW)	1396.78	1396.58	1365.53	1362.53
	Testing required?	NO	NO	NO	NO

Note:

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. per KDB 447498 D01, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <25mm, 25mm is user to determine SAR exclusion threshold
4. per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance $\leq 50\text{mm}$ are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, } f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation.}$$

The result is rounded to one decimal place for comparison

For <50mm distance, we just calculate mW of the exclusion threshold value(3.0) to do compare



5. per KDB 447498 D01, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
 - a) [threshold at 50mm in step 1]+(test separation distance -50mm)*(f (MHz)/150)]mW, at 100 MHz to 1500 MHz
 - b) [threshold at 50mm in step1]+(test separation distance -50mm) *10]mW at > 1500MHz and ≤ 6GHz
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8.for each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode, thus the SAR can be excluded.
7. Per KDB 616217 D04, SAR evaluation for the front surface of tablet display screens are generally not necessary.

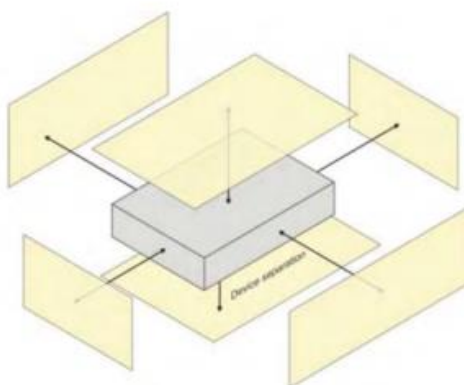


8. EUT Test Position

This EUT was tested in Back Side and Top Edge.

8.1 Body-worn Position Conditions

- 1) To position the EUT parallel to the phantom surface.
- 2) To adjust the EUT parallel to the flat phantom.
- 3) To adjust the distance between the EUT surface and the flat phantom to 0mm.





9. Uncertainty

9.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2013. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Uncertainty Component	Tol (+/- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+/-%)	10g Ui (+/-%)	vi
Measurement System								
Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
Axial Isotropy	3.5	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	1.43	1.43	∞
Hemispherical Isotropy	5.9	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	2.41	2.41	∞
Boundary effect	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	4.7	R	$\sqrt{3}$	1	1	2.71	2.71	∞
System detection limits	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Readout Electronics	0.5	N	1	1	1	0.50	0.50	∞
Response Time	0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
Integration Time	1.4	R	$\sqrt{3}$	1	1	1.81	1.81	∞
RF ambient conditions-Noise	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation, Interpolation and Integration Algorithms for Max, SAR	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
Test sample Related								
Test sample positioning	2.6	N	1	1	1	2.60	2.60	11
Device holder uncertainty	3	N	1	1	1	3.00	3.00	7
Output Power Variation - SAR Drift Measurement	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
SAR scaling	2	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and tissue parameters								
Phantom uncertainty (shape and thickness uncertainty)	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	2	N	1	1	0.84	2.00	1.68	∞
Liquid Conductivity - Measurement Uncertainty)	4	N	1	0.78	0.71	3.12	2.84	5
Liquid Permittivity - Measurement Uncertainty	5	N	1	0.23	0.26	1.15	1.30	5
Liquid Conductivity (Temperature Uncertainty)	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid Permittivity (Temperature Uncertainty)	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Combined Standard Uncertainty		RSS				10.47	10.34	
Expanded Uncertainty (95% Confidence interval)		K				20.95	20.69	



9.2 System validation Uncertainty

Uncertainty Component	Tol (+/- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+/-%)	10g Ui (+/-%)	vi
Measurement System								
Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
Axial Isotropy	3.5	R	$\sqrt{3}$	1	1	2.02	2.02	∞
Hemispherical Isotropy	5.9	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Boundary effect	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	4.7	R	$\sqrt{3}$	1	1	0.71	0.71	∞
System detection limits	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	0	N	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	0.5	N	1	1	1	0.50	0.50	∞
Response Time	0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Integration Time	1.4	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation, Interpolation and Integration Algorithms for Max, SAR	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞
Dipole								
Deviation of Experimental Source from Numerical Source	5	N	1	1	1	5.00	5.00	∞
Input Power and SAR Drift Measurement	0.5	R	$\sqrt{3}$	1	1	0.29	0.29	∞
Dipole Axis to Liquid Distance	2	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and Tissue Parameters								
Phantom uncertainty (shape and thickness uncertainty)	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	2	N	1	1	0.84	2.00	1.68	∞
Liquid Conductivity - Measurement Uncertainty)	4	N	1	0.78	0.71	3.12	2.84	5
Liquid Permittivity - Measurement Uncertainty	5	N	1	0.23	0.26	1.15	1.30	5
Liquid Conductivity (Temperature Uncertainty)	2.5	R	$\sqrt{3}$	0.78	0.71	1.13	1.02	∞
Liquid Permittivity (Temperature Uncertainty)	2.5	R	$\sqrt{3}$	0.23	0.26	0.33	0.38	∞
Combined Standard Uncertainty		RSS				10.16	10.03	
Expanded Uncertainty (95% Confidence interval)		K				20.32	20.06	



10. Conducted Power Measurement

10.1 Test Result

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11b	1	2412	16.15	41.21
	6	2437	15.37	34.43
	11	2462	14.67	29.31
802.11g	1	2412	16.57	45.39
	6	2437	16.02	39.99
	11	2462	15.92	39.08
802.11 n-HT20	1	2412	15.96	39.45
	6	2437	15.7	37.15
	11	2462	15.23	33.34
802.11 n-HT40	3	2422	13	19.95
	6	2437	13.49	22.34
	9	2452	13.46	22.18

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	4.08	2.56
	39	2441	3.47	2.22
	78	2480	2.97	1.98
$\pi/4$ -QPSK(2Mbps)	0	2402	4.97	3.14
	39	2441	4.36	2.73
	78	2480	3.89	2.45
8DPSK(3Mbps)	0	2402	5.33	3.41
	39	2441	4.72	2.96
	78	2480	4.26	2.67



WLAN (5.2Gband)

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	8.155	6.54
	40	5200	9.827	9.61
	48	5240	12.111	16.26
802.11 n-HT20	36	5180	8.688	7.39
	40	5200	9.924	9.83
	48	5240	12.547	17.98
802.11 n-HT40	38	5190	6.2	4.17
	46	5230	7.576	5.72
802.11ac-VHT20	36	5180	6.434	4.40
	40	5200	8.595	7.24
	48	5240	9.988	9.97
802.11ac-VHT40	38	5190	12.562	18.04
	46	5230	6.164	4.13
802.11ac-VHT80	42	5210	7.671	5.85

WLAN (5.8G band)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	7.823	6.06
	157	5785	7.401	5.50
	165	5825	9.611	9.14
802.11 n-HT20	149	5745	7.622	5.78
	157	5785	7.585	5.73
	165	5825	9.817	9.59
802.11 n-HT40	151	5755	5.203	3.31
	159	5795	4.84	3.05
802.11ac-VHT20	149	5745	5.666	3.69
	157	5785	8.36	6.85
	165	5825	8.143	6.52
802.11ac-VHT40	151	5755	10.205	10.48
	159	5795	4.986	3.15
802.11ac-VHT80	155	5775	4.765	3.00



LTE Conducted Power

General Note:

1. CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.



Average Conducted Power						
Band	LTE Band 2			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	18607/1850.7	18900/1880	19193/1909.3
1.4MHz	QPSK	1	0	22.77	22.71	22.83
		1	3	22.01	22.28	22.32
		1	5	22.05	22.36	22.3
		3	0	21.99	22.31	22.3
		3	2	22	22.33	22.27
		3	3	22	22.36	22.24
		6	0	21.01	21.33	21.36
	16QAM	1	0	22.1	22.06	22.89
		1	3	21.98	22.43	22.22
		1	5	22.08	22.41	22.68
		3	0	22.18	22.37	22.58
		3	2	22.22	22.39	22.55
		3	3	22.21	22.22	22.34
		6	0	21.27	21.03	21.27
Bandwidth	Modulation	RB size	RB offset	18615/1851.5	18900/1880	19185/1908.5
3MHz	QPSK	1	0	22.18	22.31	22.33
		1	7	22.21	22.5	22.46
		1	14	22.13	22.43	22.21
		8	0	22.26	22.42	22.41
		8	4	22.23	22.47	22.45
		8	7	22.22	22.49	22.4
		15	0	21.18	21.43	21.45
	16QAM	1	0	22.47	22.34	22.56
		1	7	22.57	22.52	22.02
		1	14	22.51	22.47	22.5
		8	0	22.38	22.52	22.42
		8	4	22.45	22.58	22.48
		8	7	22.46	22.36	22.27
		15	0	22.25	22.15	22.17
Bandwidth	Modulation	RB size	RB offset	18625/1852.5	18900/1880	19175/1907.5
5MHz	QPSK	1	0	22.3	22.27	22.35
		1	12	22.35	22.51	22.44
		1	24	22.15	22.56	22.36
		12	0	22.2	22.27	22.21
		12	6	22.26	22.44	22.36
		12	13	22.15	22.4	22.35
		25	0	21.13	21.34	21.26
	16QAM	1	0	22.63	22.5	22.4
		1	12	22.63	22.63	22.58
		1	24	22.51	22.01	22.52
		12	0	22.19	22.48	22.41
		12	6	22.32	22.06	22.48
		12	13	22.16	22.44	22.31



		25	0	21.32	21.26	21.12
Average Conducted Power						
Band	LTE Band 2			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	18650/1855	18900/1880	19150/1905
10MHz	QPSK	1	0	22.16	21.96	22.67
		1	24	21.98	22.31	22.13
		1	49	22.58	22.36	22.22
		25	0	21.89	21.93	22.59
		25	12	22.18	22.22	22.04
		25	25	22.62	22.17	22.01
		50	0	21.21	20.99	21.83
	16QAM	1	0	22.34	22.07	21.98
		1	24	22.23	22.37	22.45
		1	49	21.89	22.45	22.49
Bandwidth	Modulation	RB size	RB offset	18675/1857.5	18900/1880	19125/1902.5
15MHz	QPSK	1	0	22.1	21.94	22.05
		1	37	22.48	22.12	22.08
		1	74	22.44	22.53	22.34
		36	0	22.01	22.13	22.13
		36	18	21.84	22.42	22.46
		36	38	22.56	22.48	22.14
		75	0	21.64	21.21	21.08
	16QAM	1	0	22.36	22.11	22.17
		1	38	22.06	21.98	22.19
		1	74	22.01	22.03	22.55
Bandwidth	Modulation	RB size	RB offset	18700/1860	18900/1880	19100/1900
20MHz	QPSK	1	0	22.15	22.59	22.5
		1	49	22.54	22.44	21.94
		1	99	22.45	22.18	22.21
		50	0	22.53	22.44	22.54
		50	25	21.72	22.24	22.53
		50	50	22.31	22.28	21.96
		100	0	21.65	21.84	21.63
	16QAM	1	0	22.16	21.74	22.31
		1	49	22.57	22.55	22.6
		1	99	22.53	22.48	22.25



Average Conducted Power						
Band	LTE Band 5			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20407/824.7	20525/836.5	20643/848.3
1.4MHz	QPSK	1	0	22.79	22.76	22.82
		1	3	22.63	21.94	22.68
		1	5	22.42	22.47	22.55
		3	0	22.46	22.65	22.47
		3	2	22.55	22.2	22.52
		3	3	22.64	22.61	22.59
		6	0	22.13	22.1	22.43
	16QAM	1	0	22.22	22.4	22
		1	2	22.61	22.44	22.35
		1	5	22.47	22.26	22.63
		3	0	22.73	22.48	22.32
		3	1	22.65	22.63	22.59
		3	3	22.66	22.37	22.52
		6	0	22	22.31	22.35
Bandwidth	Modulation	RB size	RB offset	20415/825.5	20525/836.5	20635/847.5
3MHz	QPSK	1	0	22.02	21.98	22.17
		1	7	22.42	22.32	22.17
		1	14	22.05	22.45	22.41
		8	0	22.04	22.28	21.93
		8	4	22.42	22.23	22.44
		8	7	22.11	22.39	22.39
		15	0	22.45	22.4	22.76
	16QAM	1	0	22.62	22.62	22.19
		1	8	22.1	21.99	22.27
		1	14	21.99	22.61	22.74
		8	0	22.69	22.12	22.63
		8	4	22.38	22.65	22.43
		8	7	22.21	22.4	22.44
		15	0	22.55	22.31	22.2
Bandwidth	Modulation	RB size	RB offset	20425/826.5	20525/836.5	20625/846.5
5MHz	QPSK	1	0	21.92	22.34	22.42
		1	12	22.21	22.29	22.05
		1	24	22.58	22.51	22.68
		12	0	22.46	21.9	22.28
		12	6	22.04	21.92	22.15
		12	13	22.38	22.66	22.41
		25	0	22.18	22.66	22.02
	16QAM	1	0	22.52	22.57	22.1
		1	12	21.96	22.26	22.32
		1	24	22.53	22.45	22.06
		12	0	22.53	22.59	22.11
		12	6	22.37	22.71	22.25
		12	13	22.59	22.32	21.85



		25	0	22.34	22.44	21.99
Average Conducted Power						
Band	LTE Band 5			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20450/829	20525/836.5	20600/844
10MHz	QPSK	1	0	22.11	22.19	22.19
		1	24	22.22	22.32	22.43
		1	49	22.02	22.27	22.53
		25	0	22.21	22.12	22.11
		25	12	22.38	21.9	22.57
		25	25	22.5	22.51	22.11
		50	0	22.05	22.11	22.31
	16QAM	1	0	21.94	22.07	22.61
		1	24	22.61	22.53	22.6
		1	49	22.04	22.28	22.4



Average Conducted Power(dBm)						
Band	LTE Band 7			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20775/2502.5	21100/2535.0	21425/2567.5
5MHz	QPSK	1	0	22.35	22.32	22.33
		1	12	22.69	22.62	22.72
		1	24	22.32	22.32	22.33
		12	0	21.36	21.28	21.45
		12	6	21.47	21.33	21.44
		12	13	21.38	21.28	21.41
		25	0	21.41	21.28	21.42
	16QAM	1	0	21.42	21.31	21.61
		1	12	21.73	21.73	21.9
		1	24	21.39	21.28	21.59
		12	0	20.52	20.39	20.43
		12	6	20.63	20.43	20.42
		12	13	20.58	20.24	20.24
		25	0	20.46	20.18	20.34
Bandwidth	Modulation	RB size	RB offset	20800/2505.0	21100/2535.0	21400/2565.0
10MHz	QPSK	1	0	22.45	22.45	22.4
		1	24	22.48	22.45	22.58
		1	49	22.38	22.28	22.44
		25	0	21.31	21.41	21.54
		25	12	21.41	21.33	21.47
		25	25	21.42	21.35	21.44
		50	0	21.33	21.34	21.47
	16QAM	1	0	21.63	21.41	21.34
		1	24	21.72	21.53	21.55
		1	49	21.56	21.41	21.43
Average Conducted Power(dBm)						
Band	LTE Band 7			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20825/2507.5	21100/2535.0	21375/2562.5
15MHz	QPSK	1	0	22.39	22.36	22.42
		1	38	22.67	22.64	22.8
		1	74	22.24	22.18	22.38
		38	0	21.42	21.64	21.57
		38	18	21.51	21.51	21.56
		38	37	21.47	21.44	21.5
		75	0	21.46	21.53	21.57
	16QAM	1	0	21.52	21.19	21.32
		1	38	21.79	21.51	21.64
		1	74	21.36	21.15	21.28
Bandwidth	Modulation	RB size	RB offset	20850/2510.0	21100/2535.0	21350/2560.0
20MHz	QPSK	1	0	22.18	22.22	22.13
		1	49	22.51	22.44	22.53
		1	99	22.13	22.04	22.2



		50	0	21.21	21.37	21.49
		50	25	21.38	21.31	21.45
		50	50	21.18	21.37	21.29
		100	0	21.26	21.36	21.42
	16QAM	1	0	21.16	21.1	21.28
		1	49	21.46	21.42	21.59
		1	99	20.98	21.09	21.27



10.2 Tune up power

Mode	BT
GFSK	3.5±1dBm
$\pi/4$ -DQPSK	4±1dBm
8DPSK	4.5±1dBm

Mode	2.4G WLAN
802.11b	15.5±1dBm
802.11g	15.8±1dBm
802.11n(HT20)	15±1dBm
802.11n(HT40)	12.5±1dBm

Mode	5.2G WLAN
802.11a	11.2±1dBm
802.11 ac-VHT20	11.6±1dBm
802.11 ac-VHT40	7±1dBm
802.11 ac-VHT80	6±1dBm
802.11 n-HT20	8±1dBm
	9±1dBm
	12±1dBm
802.11 n-HT40	7±1dBm

Mode	5.8G WLAN
802.11a	9±1dBm
802.11 ac-VHT20	9±1dBm
802.11 ac-VHT40	4.5±1dBm
802.11 ac-VHT80	5±1dBm
802.11 n-HT20	9.5±1dBm
802.11 n-HT40	4±1dBm

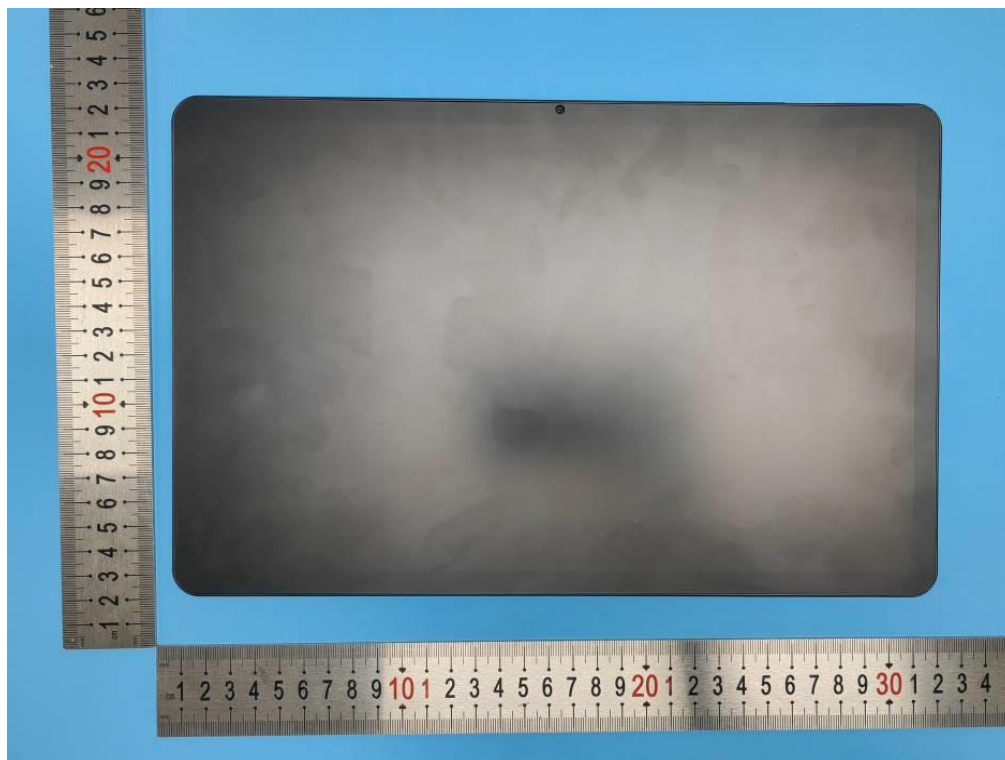


BW[MHz]	RB Size	Mode	Band 2	Band 5	Band 7
1.4	1	QPSK	22±1dBm	22±1dBm	N/A
1.4	3		21.5±1dBm	21.8±1dBm	N/A
1.4	6		20.5±1dBm	21.5±1dBm	N/A
1.4	1	16- QAM	22±1dBm	21.8±1dBm	N/A
1.4	3		21.8±1dBm	22±1dBm	N/A
1.4	6		20.5±1dBm	21.5±1dBm	N/A
3	1	QPSK	21.6±1dBm	21.5±1dBm	N/A
3	8		21.5±1dBm	21.5±1dBm	N/A
3	15		20.5±1dBm	22±1dBm	N/A
3	1	16- QAM	21.8±1dBm	22±1dBm	N/A
3	8		21.8±1dBm	21.8±1dBm	N/A
3	15		21.5±1dBm	21.6±1dBm	N/A
5	1	QPSK	21.8±1dBm	21.8±1dBm	22±1dBm
5	12		21.5±1dBm	21.8±1dBm	20.5±1dBm
5	25		20.5±1dBm	21.8±1dBm	20.5±1dBm
5	1	16- QAM	21.8±1dBm	21.6±1dBm	21±1dBm
5	12		21.5±1dBm	22±1dBm	20±1dBm
5	25		20.5±1dBm	21.5±1dBm	19.5±1dBm
10	1	QPSK	21.8±1dBm	22±1dBm	21.6±1dBm
10	25		21.8±1dBm	21.6±1dBm	21±1dBm
10	50		21±1dBm	21.5±1dBm	20.5±1dBm
10	1	16- QAM	21.5±1dBm	22±1dBm	21±1dBm
15	1	QPSK	21.6±1dBm	N/A	22±1dBm
15	36		21.6±1dBm	N/A	21±1dBm
15	75		21±1dBm	N/A	21±1dBm
15	1	16- QAM	21.6±1dBm	N/A	21±1dBm
20	1	QPSK	22±1dBm	N/A	22±1dBm
20	50		21.6±1dBm	N/A	20.5±1dBm
20	100		21±1dBm	N/A	20.5±1dBm
20	1	16- QAM	21.7±1dBm	N/A	21±1dBm

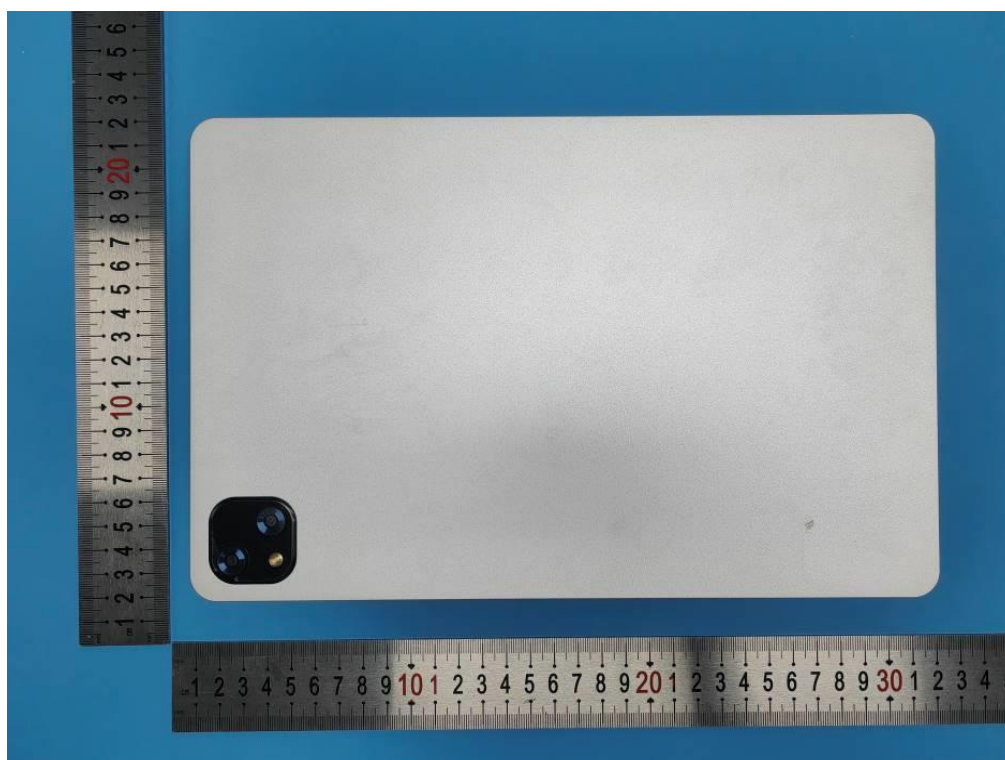
11. EUT and Test Setup Photo

11.1 EUT Photos

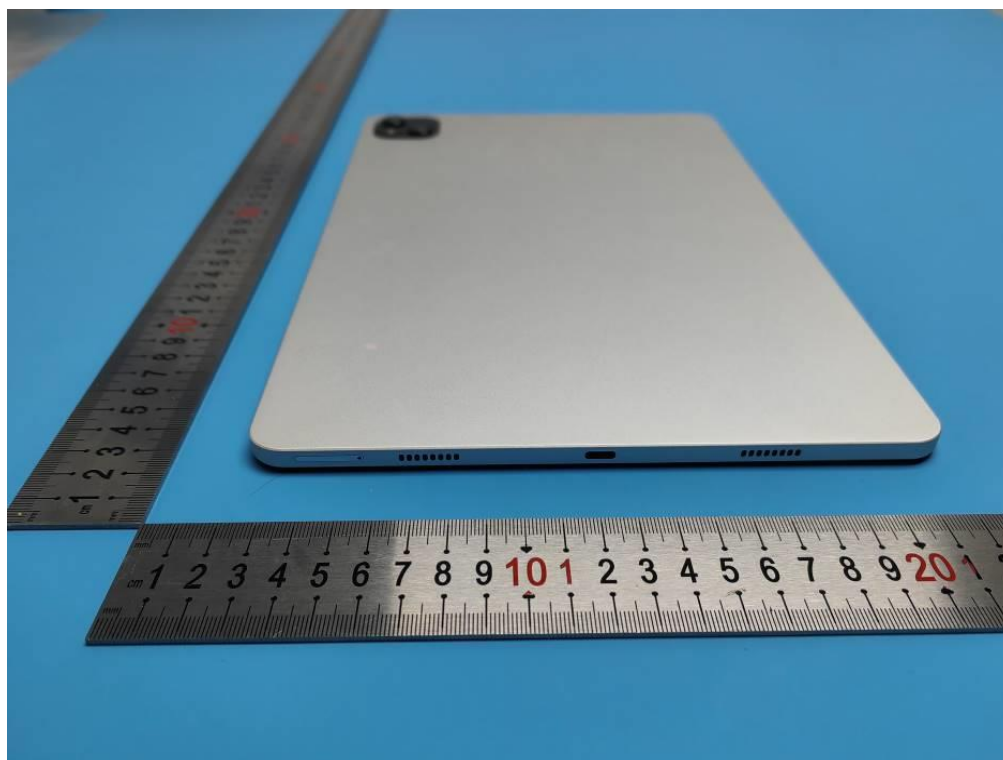
Front side



Back side



Right Edge

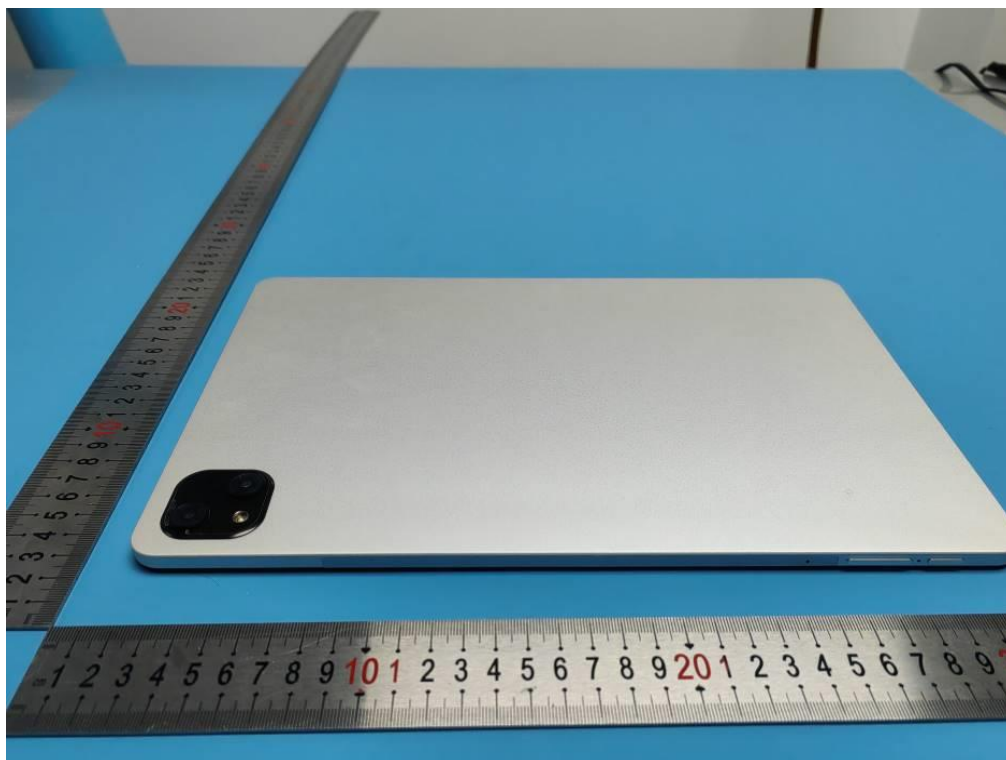


Left Edge





Top Edge



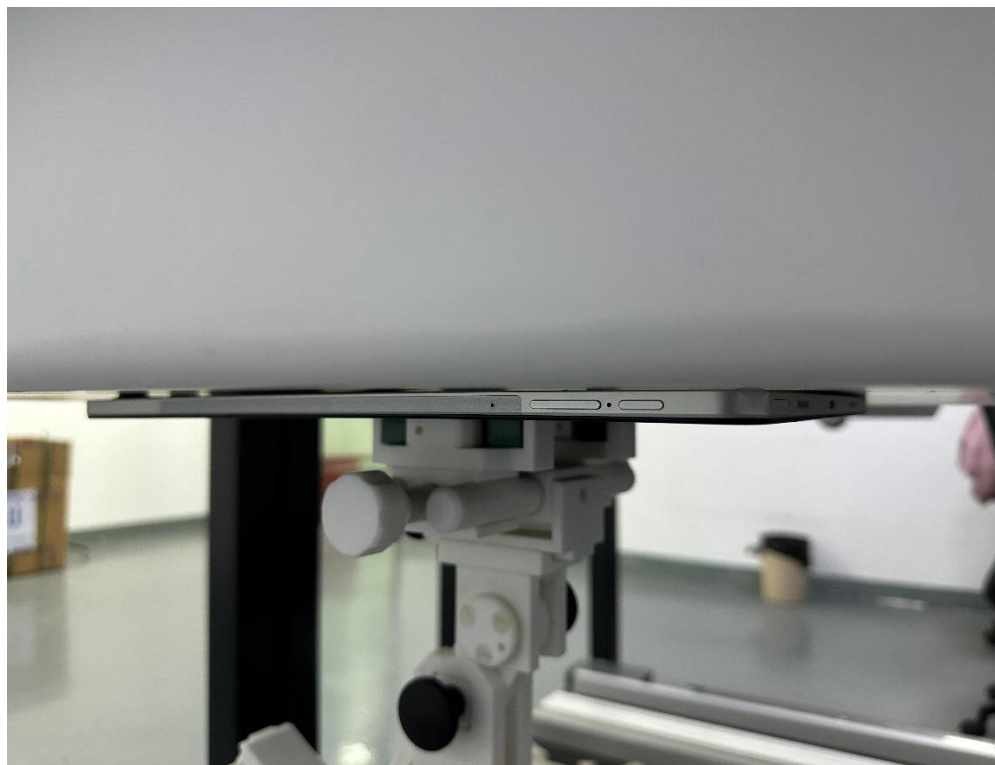
Bottom Edge



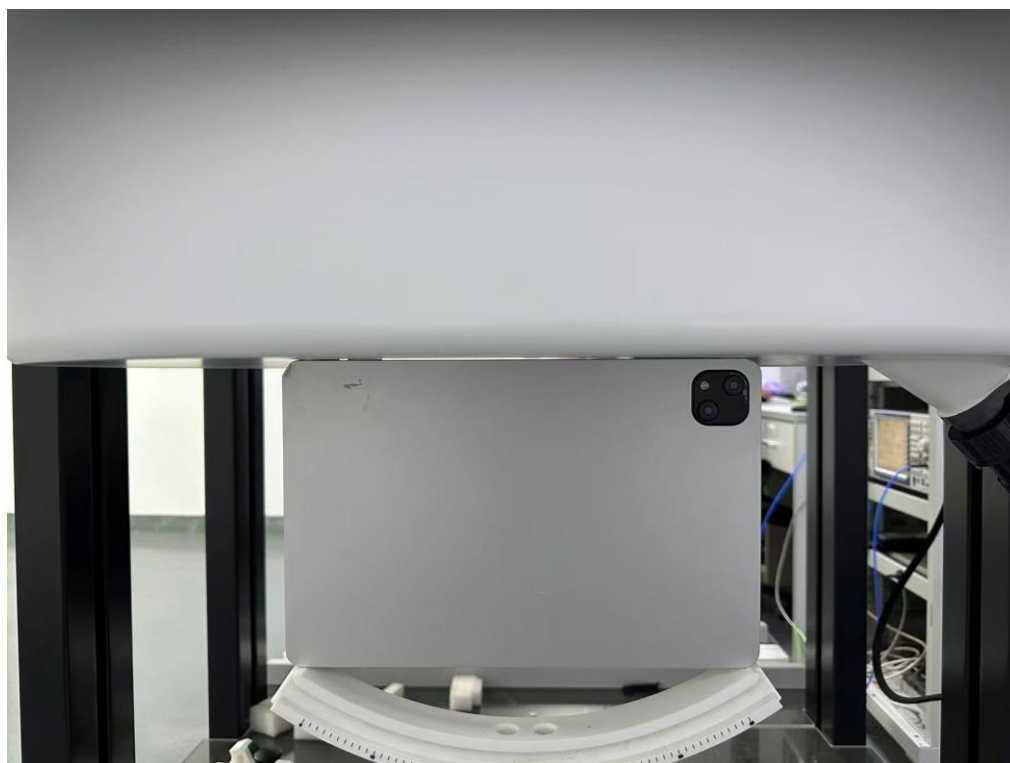


11.2 Setup Photos

Body Back side (separation distance 0mm)



Body Top Edge (separation distance is 0mm)





12. SAR Result Summary

12.1 Body-worn and Hotspot SAR

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift (%)	Max. Turn- up Power (dBm)	Meas. Output Power (dBm)	Scaling Factor	Scaled SAR (W/Kg)	Meas. No.
2.4GHz WLAN	802.11b	Back Side	2412	0.523	-3.10	16.50	16.15	1.084	0.567	1
		Top Side	2412	0.496	2.61	16.50	16.15	1.084	0.538	/
5.2GHz WLAN	802.11n- HT20	Back Side	5240	0.629	-1.34	13.00	12.562	1.056	0.664	/
		Top Side	5180	0.509	1.25	9.00	8.595	1.080	0.550	/
		Top Side	5200	0.525	1.14	10.00	9.988	1.056	0.554	/
		Top Side	5240	0.684	-1.17	13.00	12.562	1.080	0.739	2
5.8GHz WLAN	802.11n- HT20	Back Side	5825	0.364	0.39	10.50	10.03	1.116	0.406	/
		Top Side	5825	0.411	-1.94	10.50	10.03	1.116	0.459	3

Band	BW (MHz)	Mod.	RB Size	RB off set	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn- up Power (dBm)	Meas. Output Power (dBm)	Scaling Factor	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Back Side	1880	0.633	-0.73	23.00	22.59	1.099	0.696	4
			50	0	Back Side	1900	0.562	2.58	22.60	22.54	1.014	0.570	/
			1	0	Top Side	1880	0.497	-1.75	23.00	22.59	1.099	0.546	/
			50	0	Top Side	1900	0.433	-0.62	22.60	22.54	1.014	0.439	/
LTE Band 5	10M	QPSK	1	0	Back Side	844	0.248	-2.02	23.00	22.53	1.114	0.276	5
			25	0	Back Side	844	0.224	-3.02	22.60	22.57	1.007	0.226	/
			1	0	Top Side	844	0.145	-1.10	23.00	22.53	1.114	0.162	/
			25	0	Top Side	844	0.138	-0.92	22.60	22.57	1.007	0.139	/
LTE Band 7	20M	QPSK	1	0	Back Side	2560	0.380	2.69	23.00	22.53	1.114	0.423	6
			50	0	Back Side	2560	0.331	3.37	21.50	21.49	1.002	0.332	/
			1	0	Top Side	2560	0.289	2.35	23.00	22.53	1.114	0.322	/
			50	0	Top Side	2560	0.252	1.65	21.50	21.49	1.002	0.253	/

Note:

- The test separation of all above table is 0mm.
- Per KDB 447498 D01, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor
- When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.



12.2 Simultaneous Multi-band Transmission Evaluation

Application Simultaneous Transmission information:

Position	Simultaneous State
Body	1. LTE + 2.4GHz WLAN/5G WLAN
	2. LTE + Bluetooth

NOTE:

1. Bluetooth and WLAN can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
4. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
 - a) $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f} \text{ (GHz)} / x] \text{ W/kg}$ for test separation distances $\leq 50 \text{ mm}$;
Where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.
 - b) 0.4 W/Kg for 1-g SAR and 1.0 W/Kg for 10-g SAR, when the separation distance is $>50 \text{ mm}$.

Estimated SAR		Maximum Turn-up Power		Antenna to user(mm)	Frequency (GHz)	Stand Alone SAR(1g) [W/kg]
		dBm	mW			
BT	Body	5.5	3.548	5	2.402	0.147

Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
LTE + 2.4G WLAN	Body	LTE	0.696	1.263
		2.4G WLAN	0.567	
LTE + Bluetooth	Body	LTE	0.696	0.843
		BT	0.147	
LTE + 5G WLAN	Body	LTE	0.696	1.435
		5G WLAN	0.739	

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 SPLSR.



13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
835MHz Dipole	MVG	DIP0G835	SN 06/22 DIP0G835-639	2025.05.20	2028.05.19
1900MHz Dipole	MVG	DIP1G900	SN 06/22 DIP1G900-641	2025.05.20	2028.05.19
2450MHz Dipole	MVG	DIP2G450	SN 06/22 DIP2G450-645	2025.05.20	2028.05.19
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2025.05.20	2028.05.19
5000MHz Dipole	MVG	DIP5G000	SN 06/22 DIP5G000-653	2025.05.22	2028.05.21
E-Field Probe	MVG	SSE2	2225-EPGO-450	2025.06.06	2026.06.05
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2025.06.02	2026.06.01
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop positioner	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	ZVL	R&S	116184	2026.03.03	2027.03.02
Multi Meter	DMM6500	Keithley	4527252	2026.03.03	2027.03.02
Signal Generator	Keysight	N5182B	MY59100717	2026.03.03	2027.03.02
Wireless Communication Test Set	R&S	CMW500	137737	2026.03.02	2027.03.01
Power Sensor	R&S	Z11	116184	2026.03.03	2027.03.02
Electronic Temperature hygrometer	N/A	ST-W2318	N/A	2026.03.05	2027.03.04
Temperature hygrometer	N/A	TP101	N/A	2026.03.05	2027.03.04



Appendix A. System Validation Plots

System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

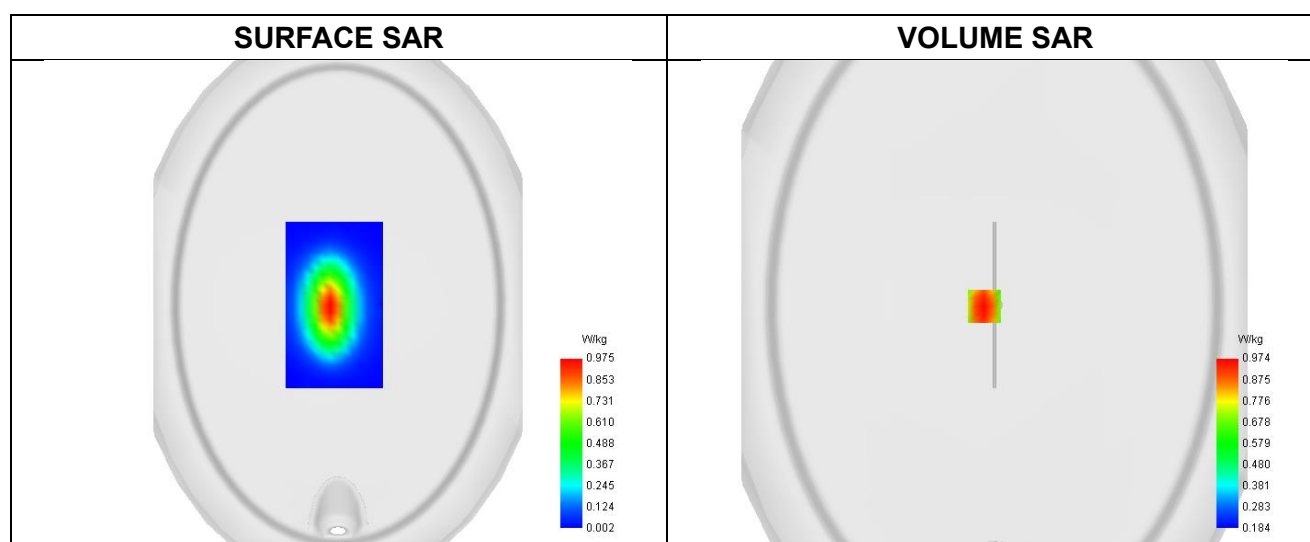
Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2026-03-31

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	42.34
Conductivity (S/m)	0.94
Probe	2225-EPGO-450
ConvF	1.02
Crest factor:	1:1

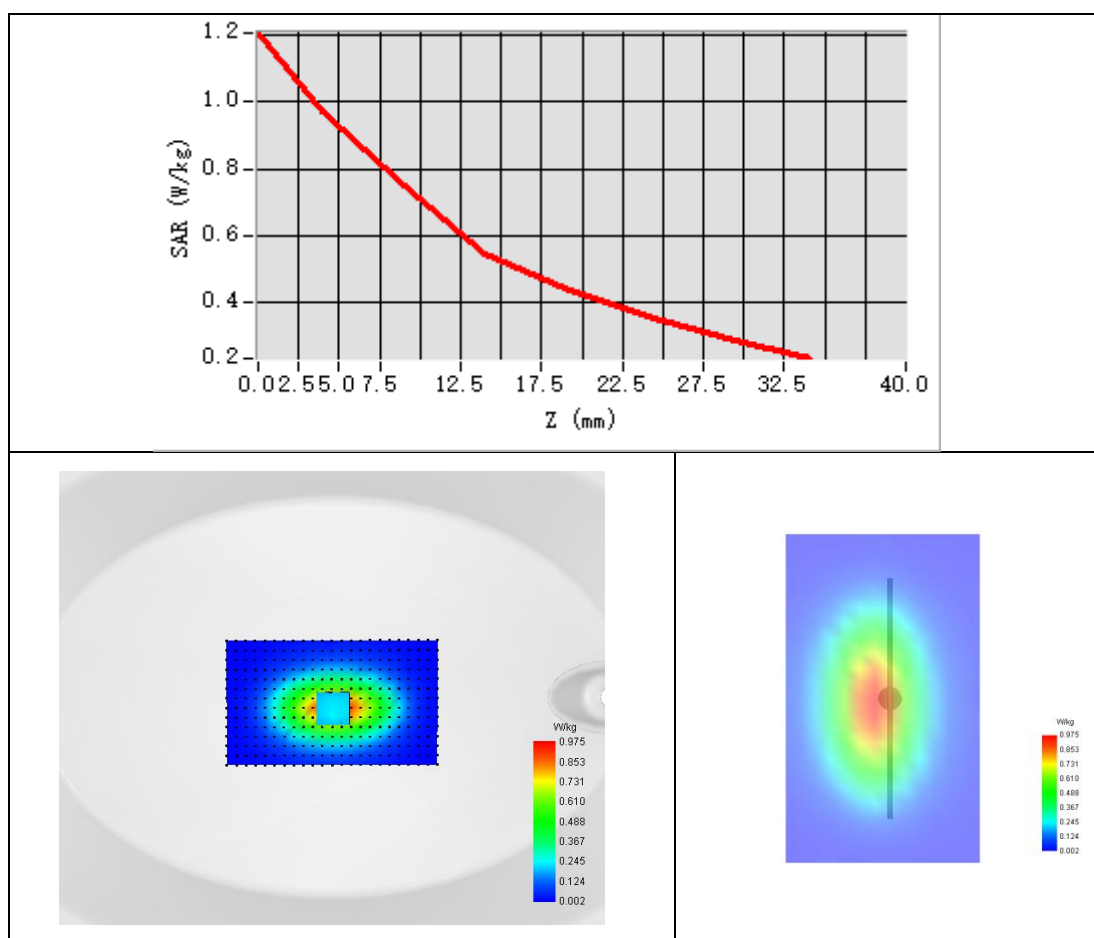


Maximum location: X=-10.00, Y=-1.00 ; SAR Peak: 1.23 W/kg

SAR 10g (W/Kg)	0.610
SAR 1g (W/Kg)	0.972



Z Axis Scan





System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)

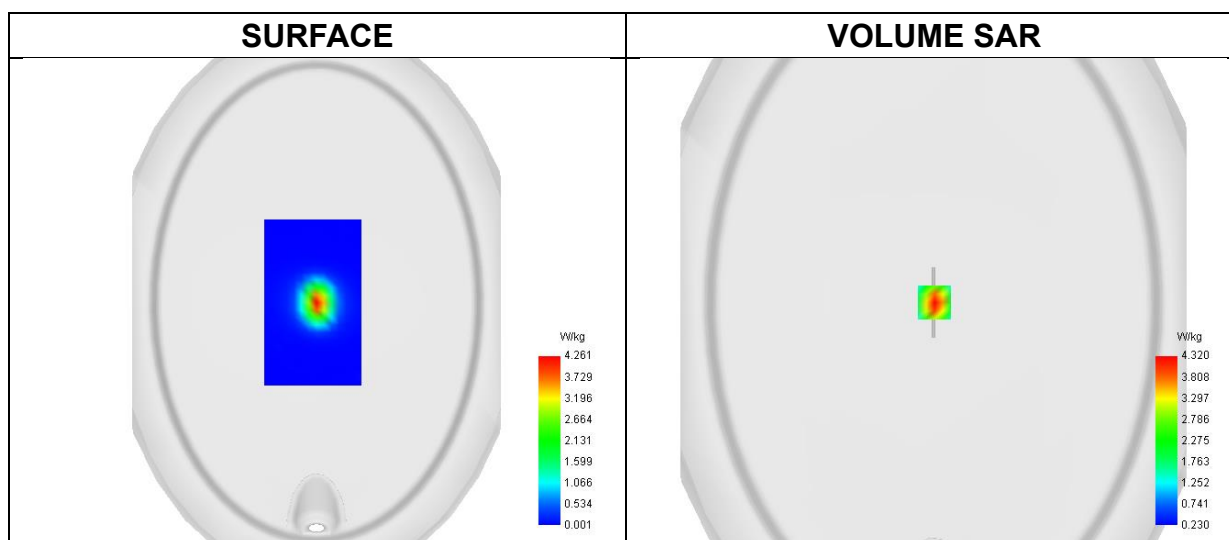
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement:2026-03-31

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	41.38
Conductivity (S/m)	1.37
Probe	2225-EPGO-450
ConvF	1.34
Crest factor:	1:1

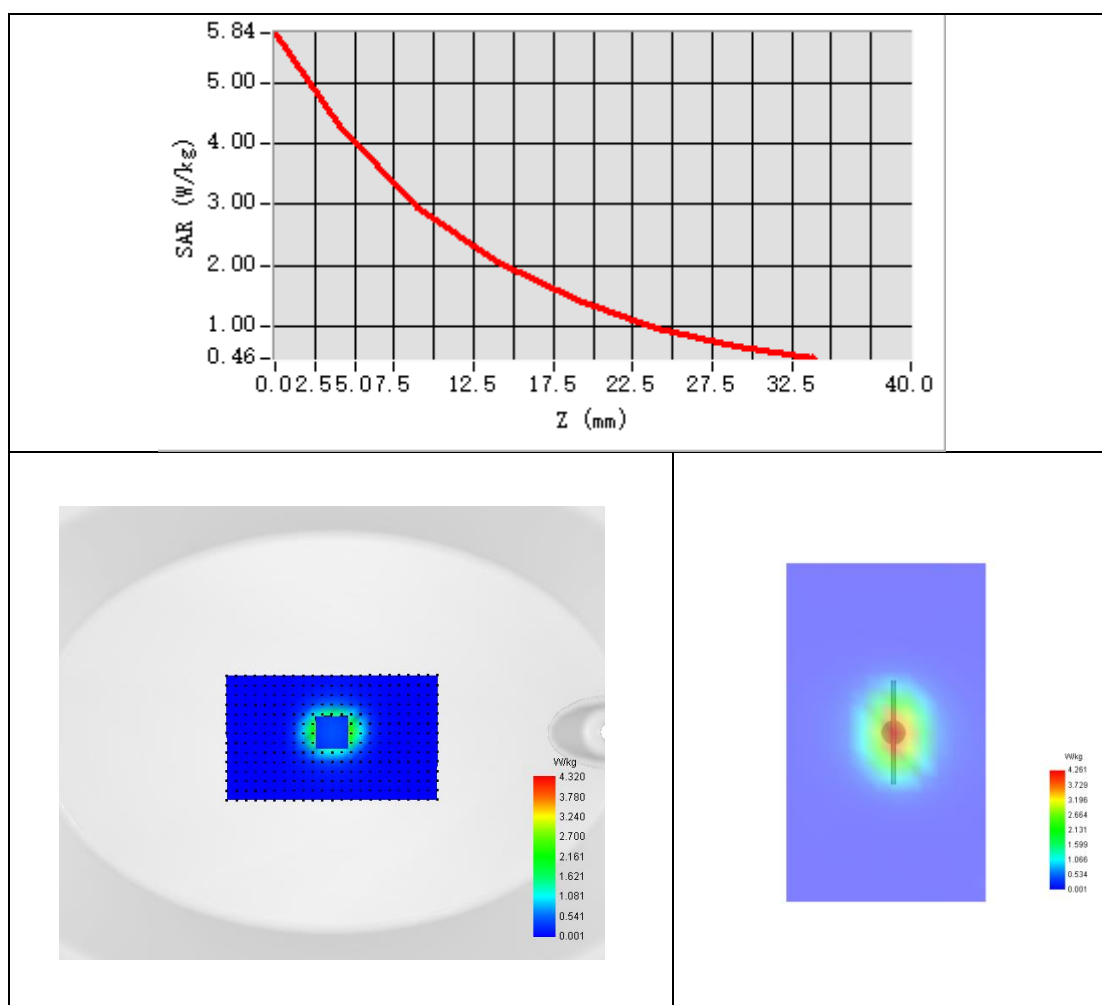


Maximum location: X=1.00, Y=0.00 ; SAR Peak: 5.84 W/kg

SAR 10g (W/Kg)	2.121
SAR 1g (W/Kg)	4.030



Z Axis Scan





System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

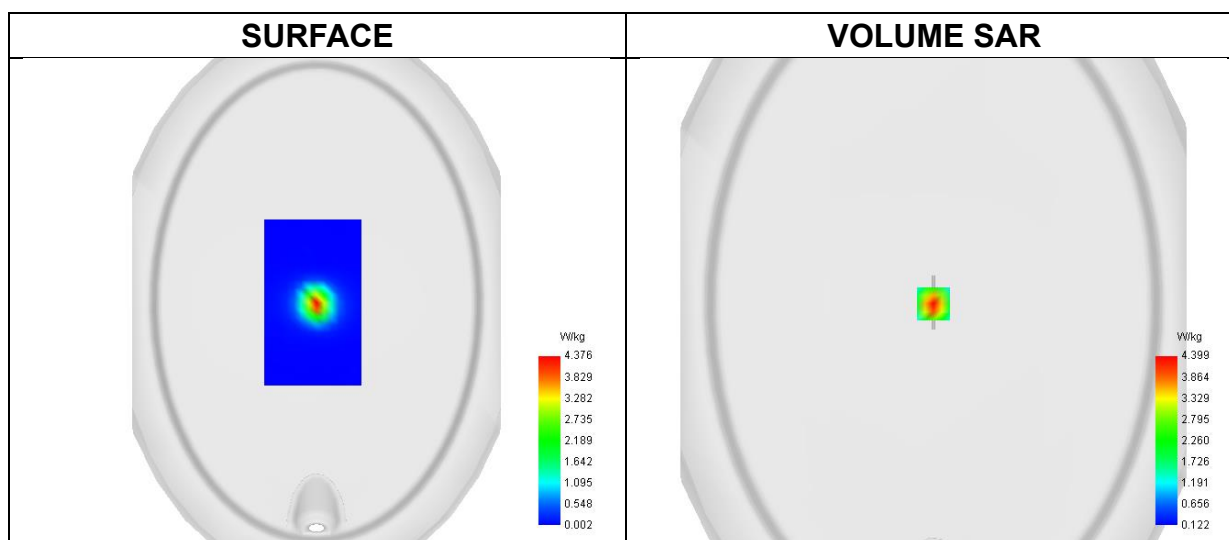
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement:2026-03-25

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	39.95
Conductivity (S/m)	1.76
Probe	2225-EPGO-450
ConvF	1.51
Crest factor:	1:1

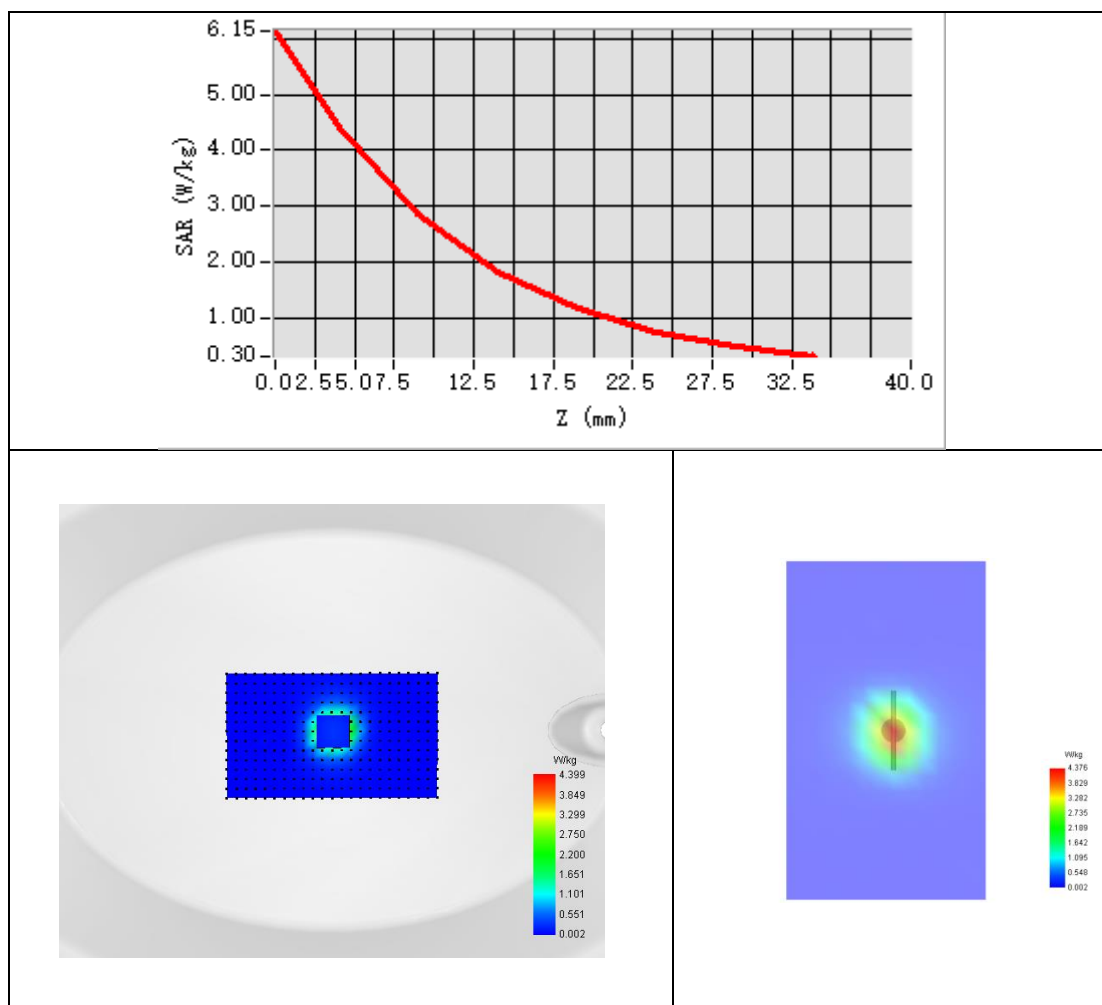


Maximum location: X=0.00, Y=-1.00 ; SAR Peak: 6.15 W/kg

SAR 10g (W/Kg)	2.436
SAR 1g (W/Kg)	5.274



Z Axis Scan





System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)

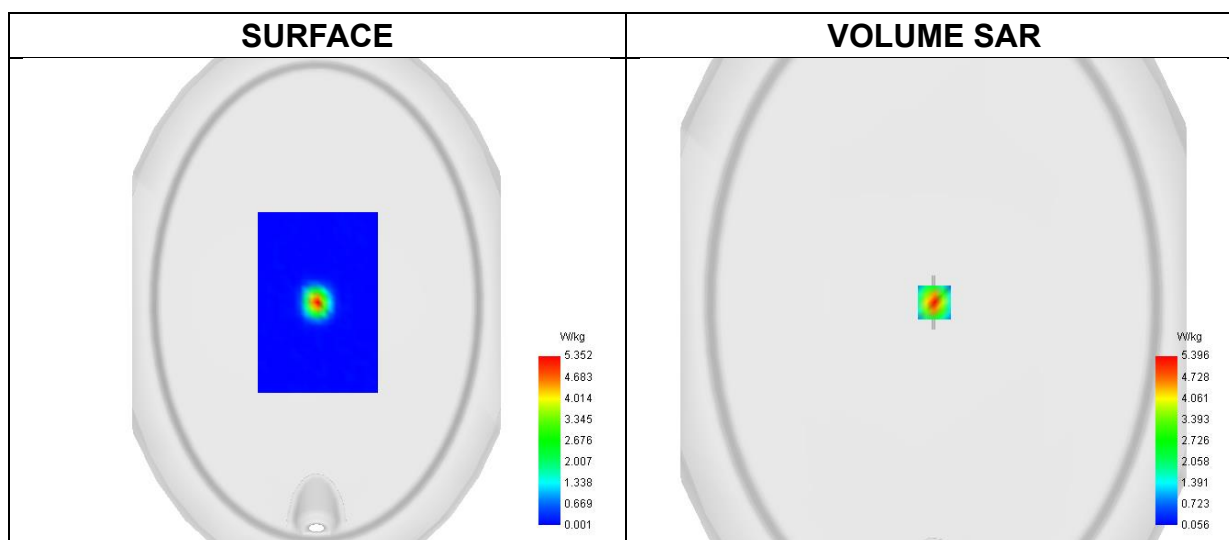
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement:2026-03-25

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	39.27
Conductivity (S/m)	2.02
Probe	2225-EPGO-450
ConvF	1.44
Crest factor:	1:1

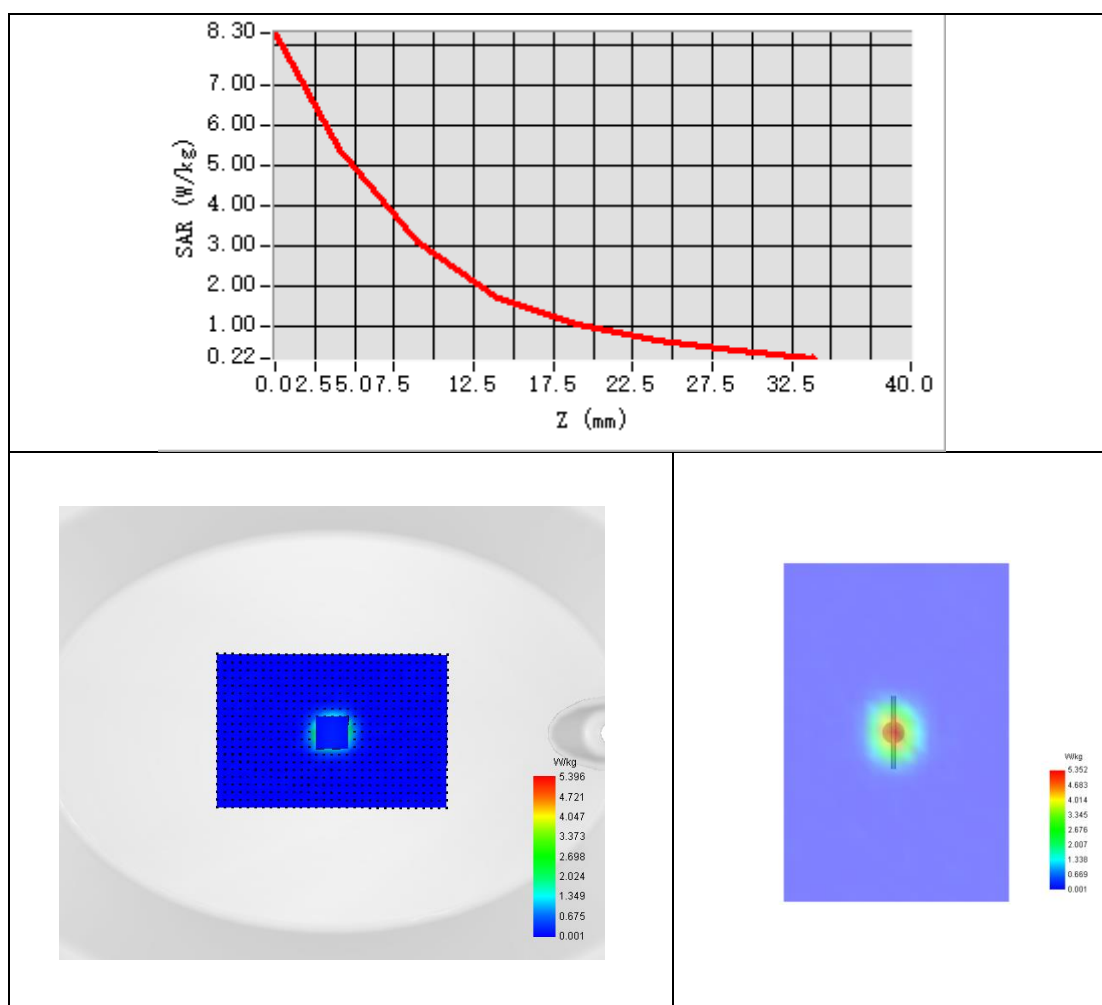


Maximum location: X=1.00, Y=0.00 ; SAR Peak: 8.26 W/kg

SAR 10g (W/Kg)	2.535
SAR 1g (W/Kg)	5.635



Z Axis Scan





System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)

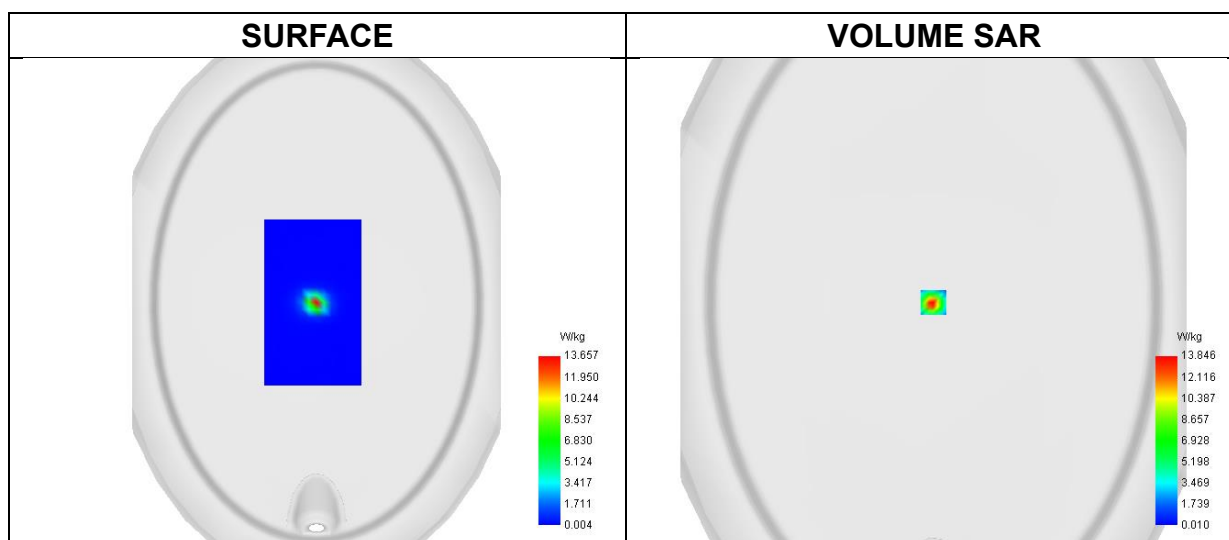
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement:2026-03-25

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.65
Conductivity (S/m)	4.60
Probe	2225-EPGO-450
ConvF	1.58
Crest factor:	1:1

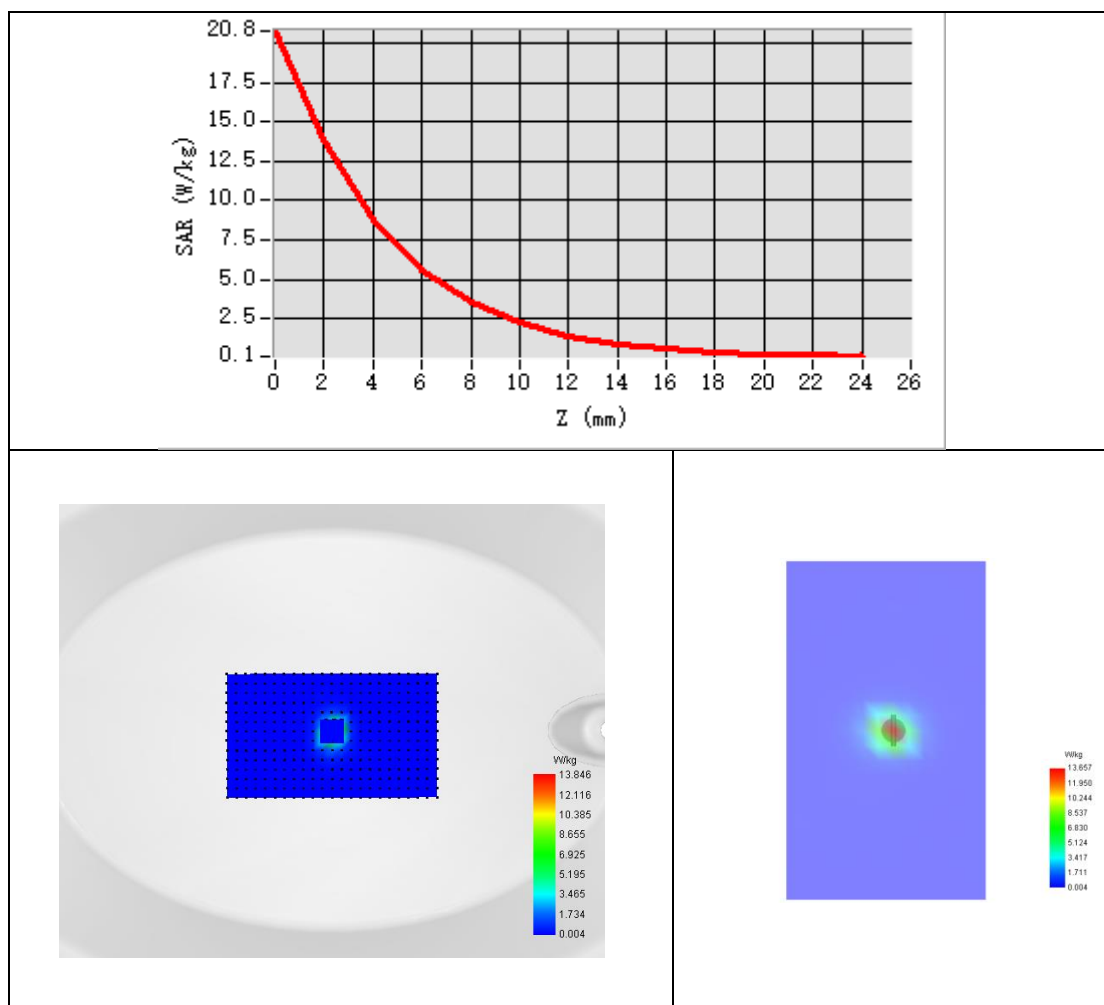


Maximum location: X=0.00, Y=0.00 ; SAR Peak: 21.63 W/kg

SAR 10g (W/Kg)	2.278
SAR 1g (W/Kg)	7.796



Z Axis Scan





System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)

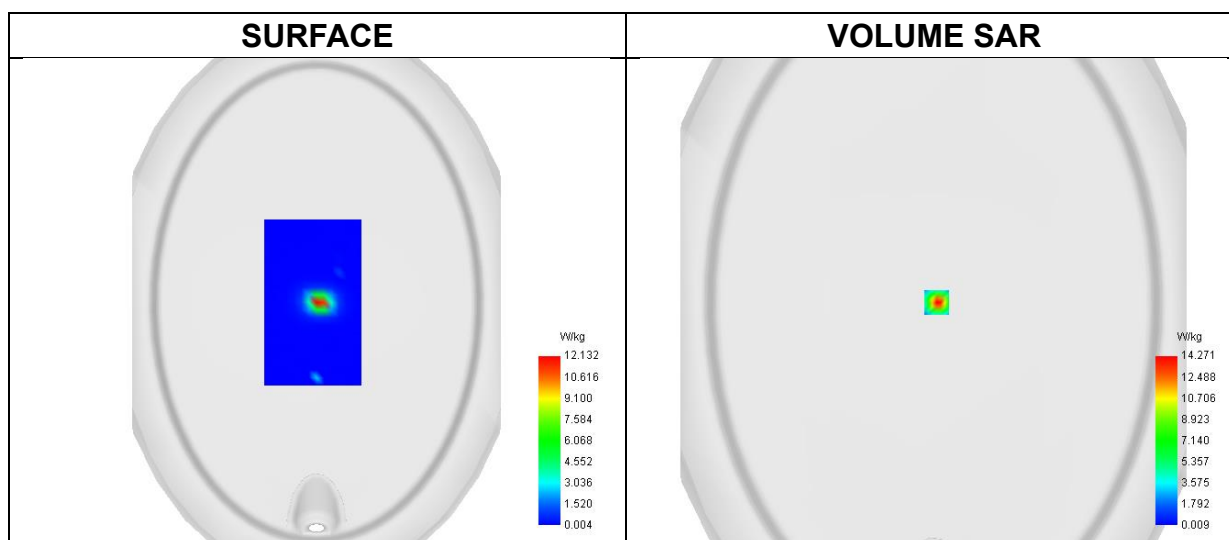
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement:2026-03-25

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.58
Conductivity (S/m)	5.22
Probe	2225-EPGO-450
ConvF	1.62
Crest factor:	1:1

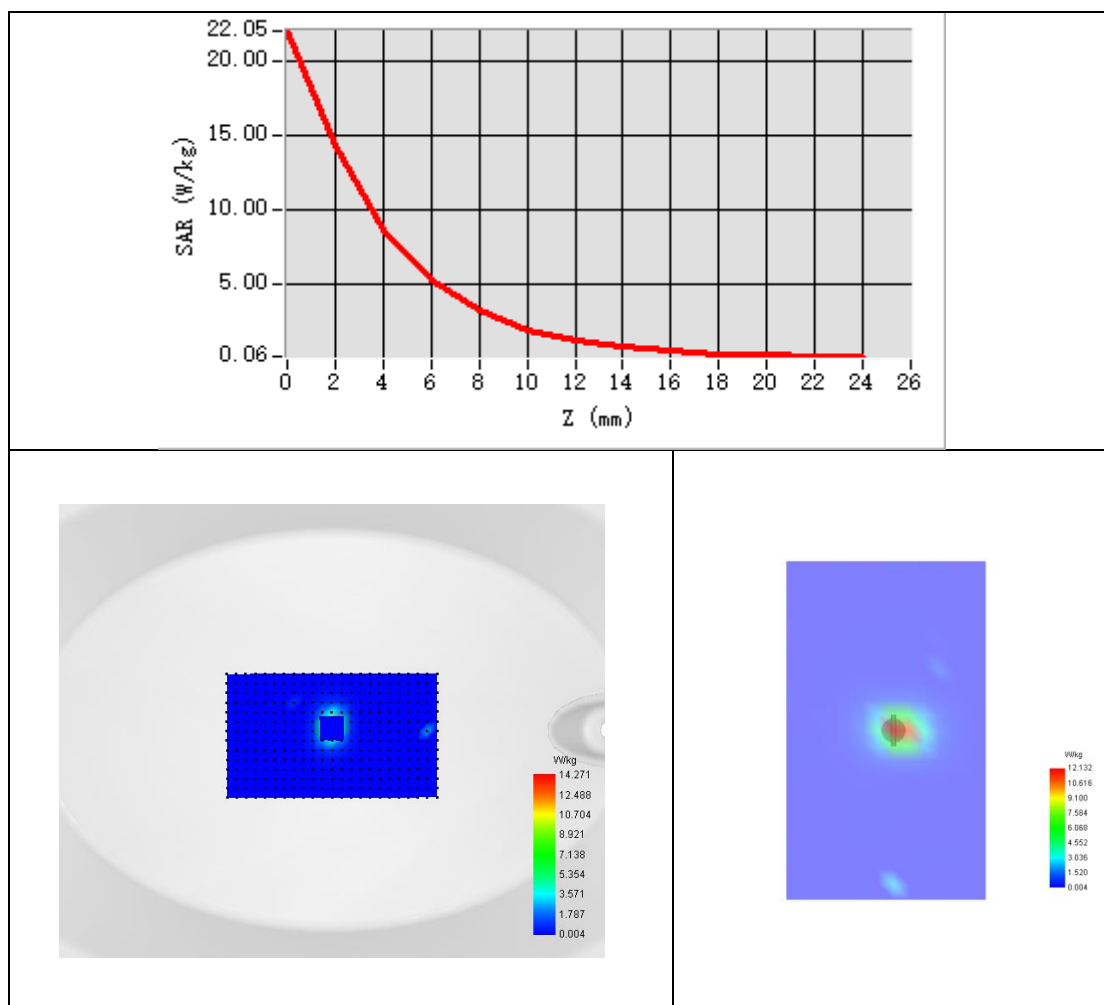


Maximum location: X=3.00, Y=0.00 ; SAR Peak: 22.97 W/kg

SAR 10g (W/Kg)	2.341
SAR 1g (W/Kg)	8.064



Z Axis Scan



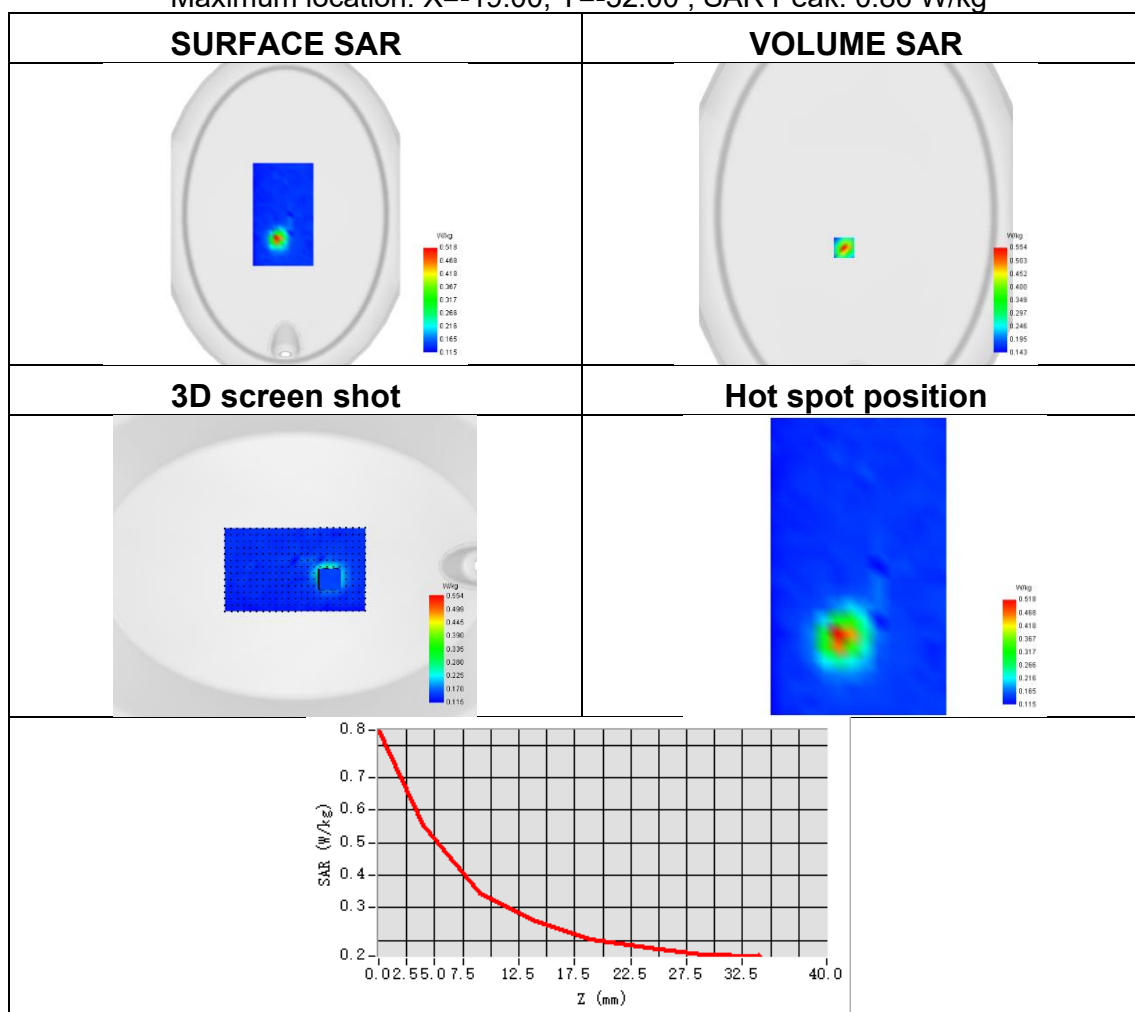


Appendix B. SAR Test Plots

Plot 1:

Test Date	2026-03-25
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	ISM
Signal	IEEE 802.11b
Frequency	2412
SAR 10g (W/Kg)	0.311
SAR 1g (W/Kg)	0.523
ConvF	1.51
Relative permittivity	39.95
Conductivity (S/m)	1.76

Maximum location: X=-19.00, Y=-52.00 ; SAR Peak: 0.86 W/kg

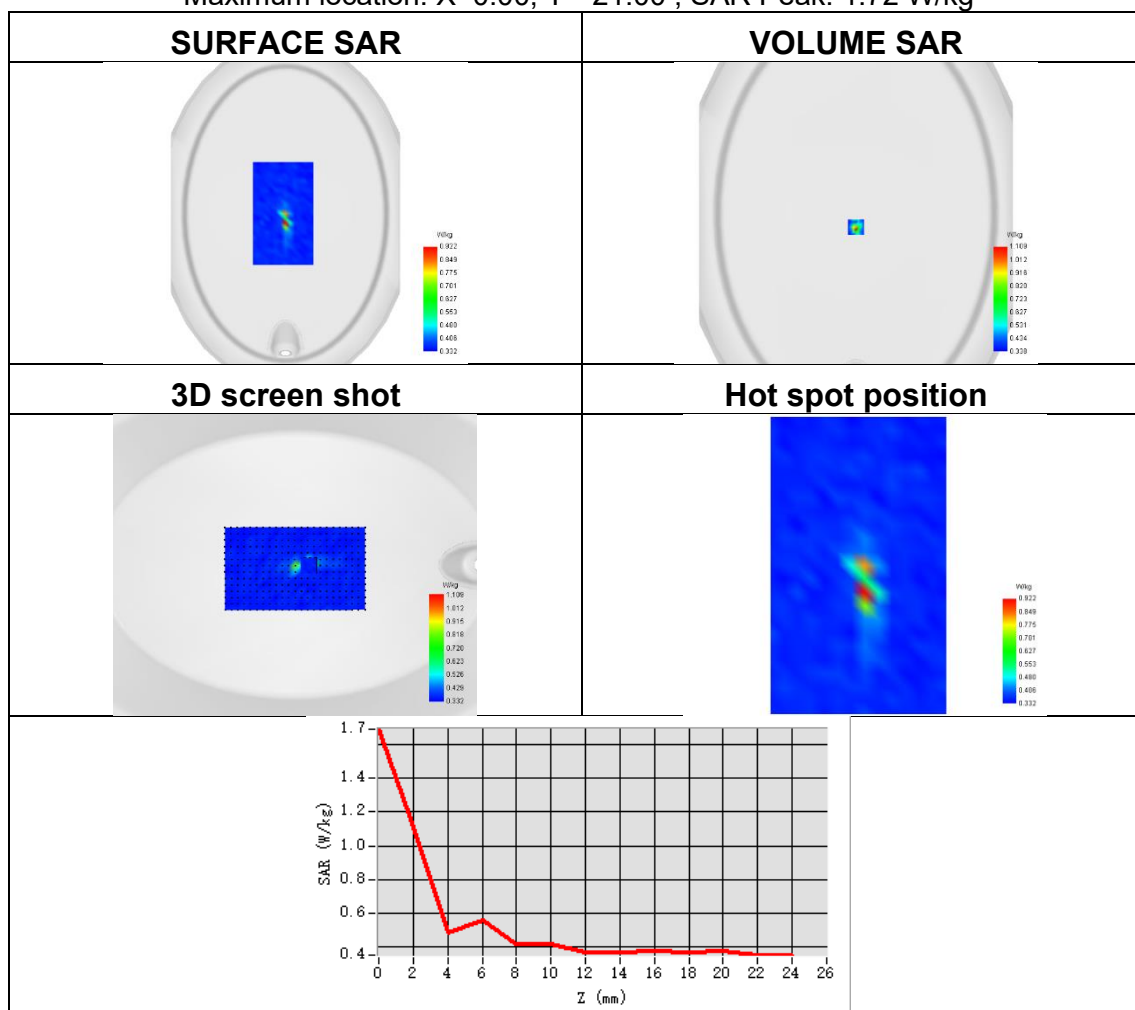




Plot 2:

Test Date	2026-03-25
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Top Side
Band	U-NII-1
Signal	IEEE 802.11n
Frequency	5240
SAR 10g (W/Kg)	0.391
SAR 1g (W/Kg)	0.684
ConvF	1.58
Relative permittivity	36.65
Conductivity (S/m)	4.60

Maximum location: X=0.00, Y=-21.00 ; SAR Peak: 1.72 W/kg

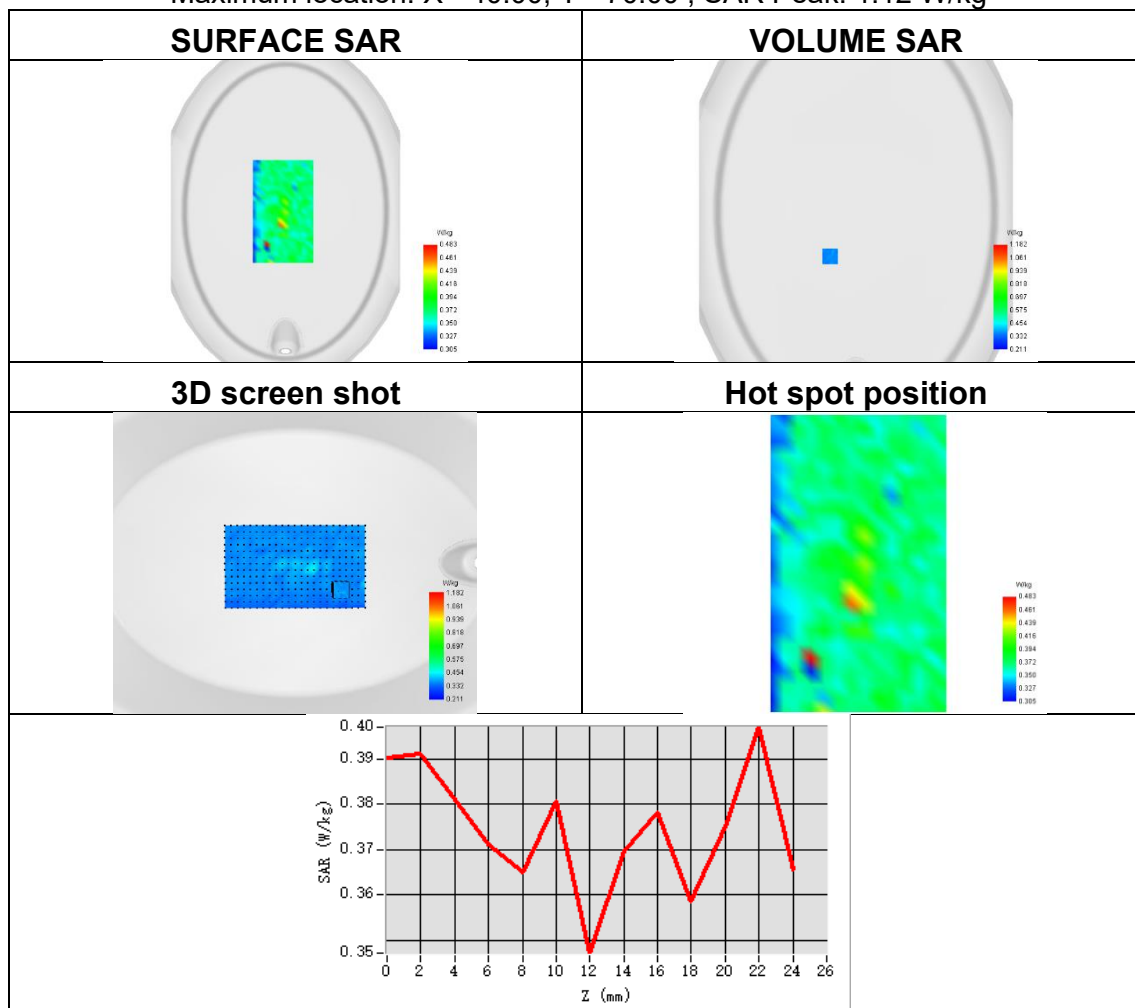




Plot 3:

Test Date	2026-03-25
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Top Side
Band	U-NII-3
Signal	IEEE 802.11n
Frequency	5825
SAR 10g (W/Kg)	0.250
SAR 1g (W/Kg)	0.411
ConvF	1.62
Relative permittivity	36.58
Conductivity (S/m)	5.22

Maximum location: X=-40.00, Y=-70.00 ; SAR Peak: 1.12 W/kg

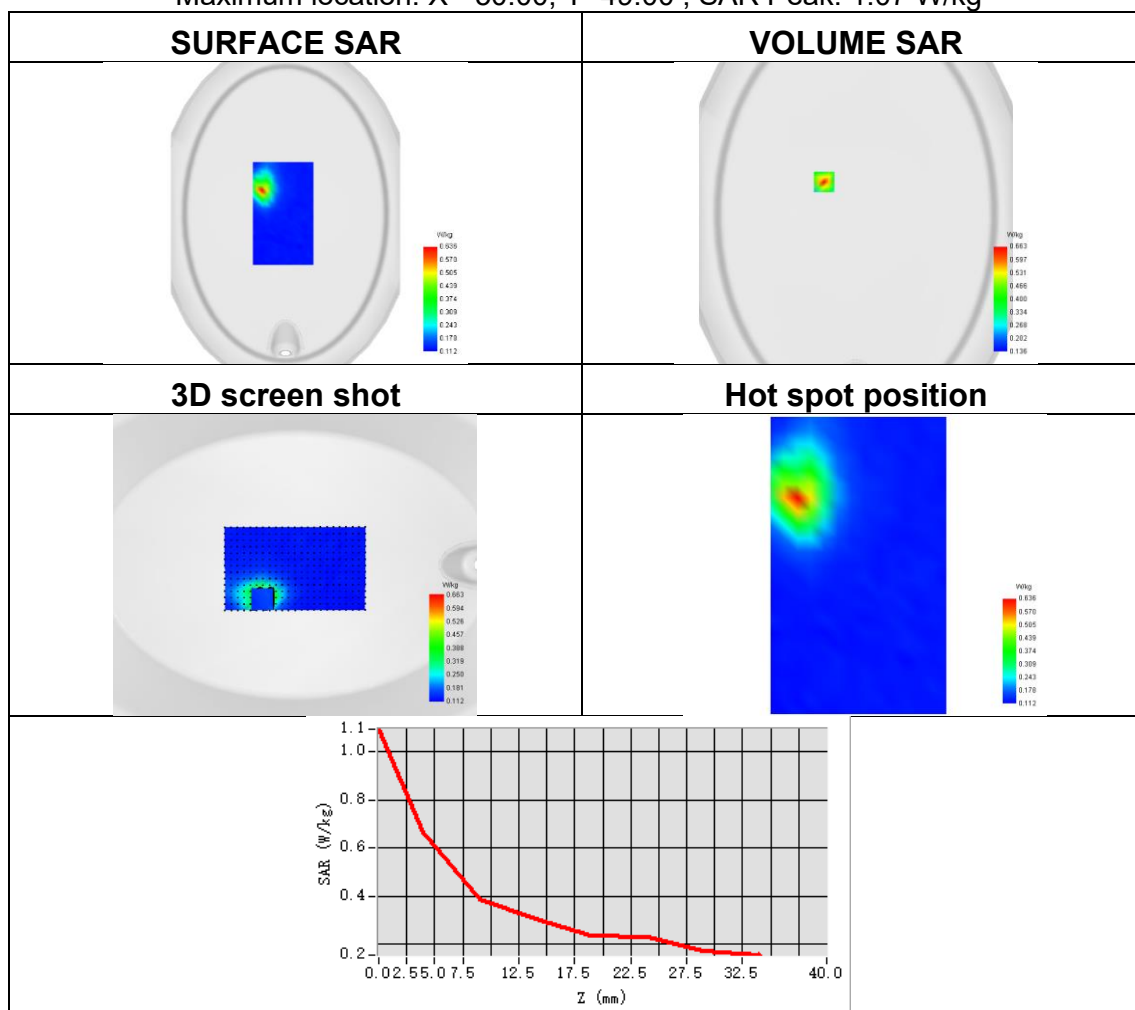




Plot 4:

Test Date	2026-03-31
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 2
Signal	LTE FDD
Frequency	1880
SAR 10g (W/Kg)	0.389
SAR 1g (W/Kg)	0.633
ConvF	2.25
Relative permittivity	41.38
Conductivity (S/m)	1.37

Maximum location: X=-50.00, Y=49.00 ; SAR Peak: 1.07 W/kg

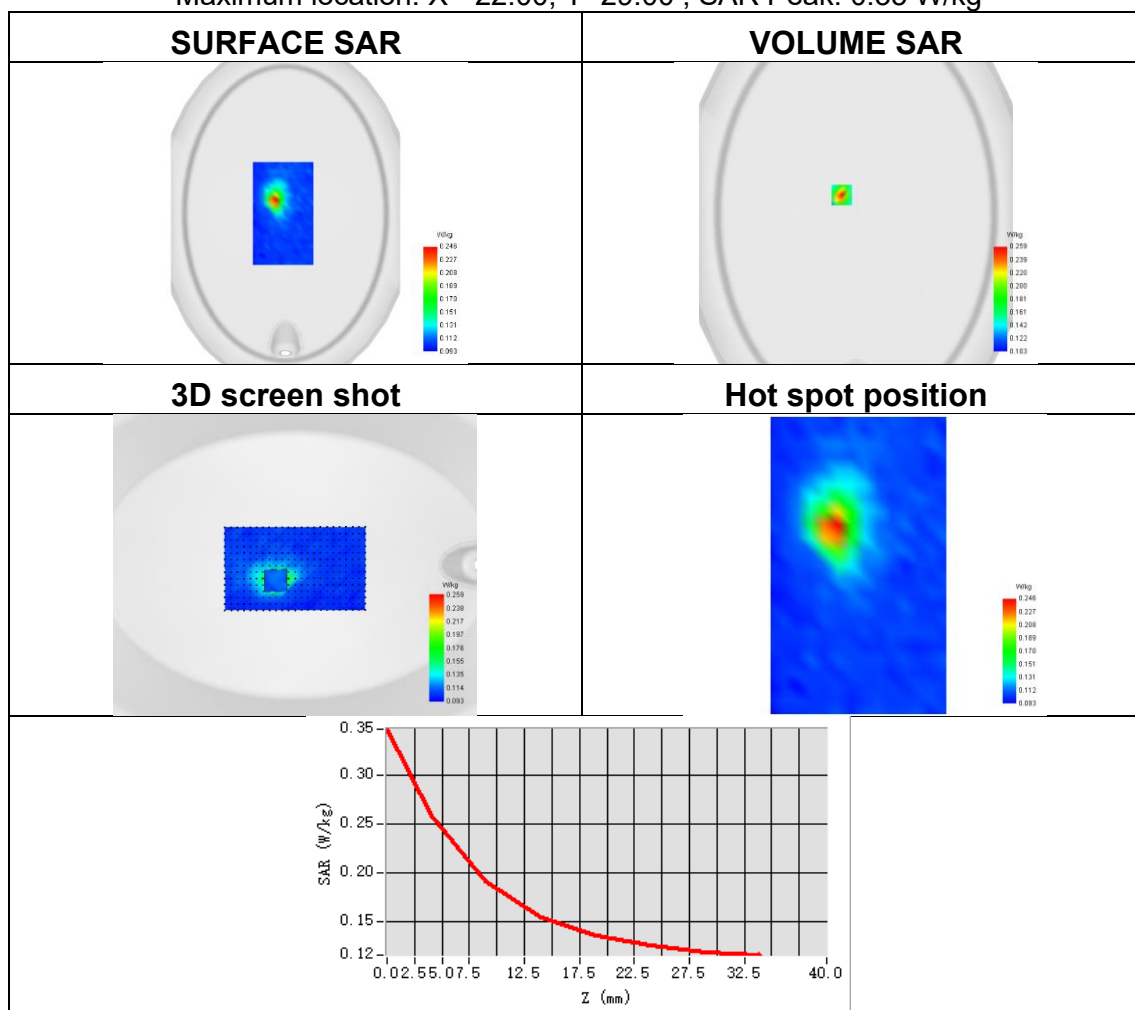




Plot 5:

Test Date	2026-03-31
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 5
Signal	LTE FDD
Frequency	844
SAR 10g (W/Kg)	0.176
SAR 1g (W/Kg)	0.248
ConvF	1.72
Relative permittivity	42.34
Conductivity (S/m)	0.94

Maximum location: X=-22.00, Y=29.00 ; SAR Peak: 0.35 W/kg

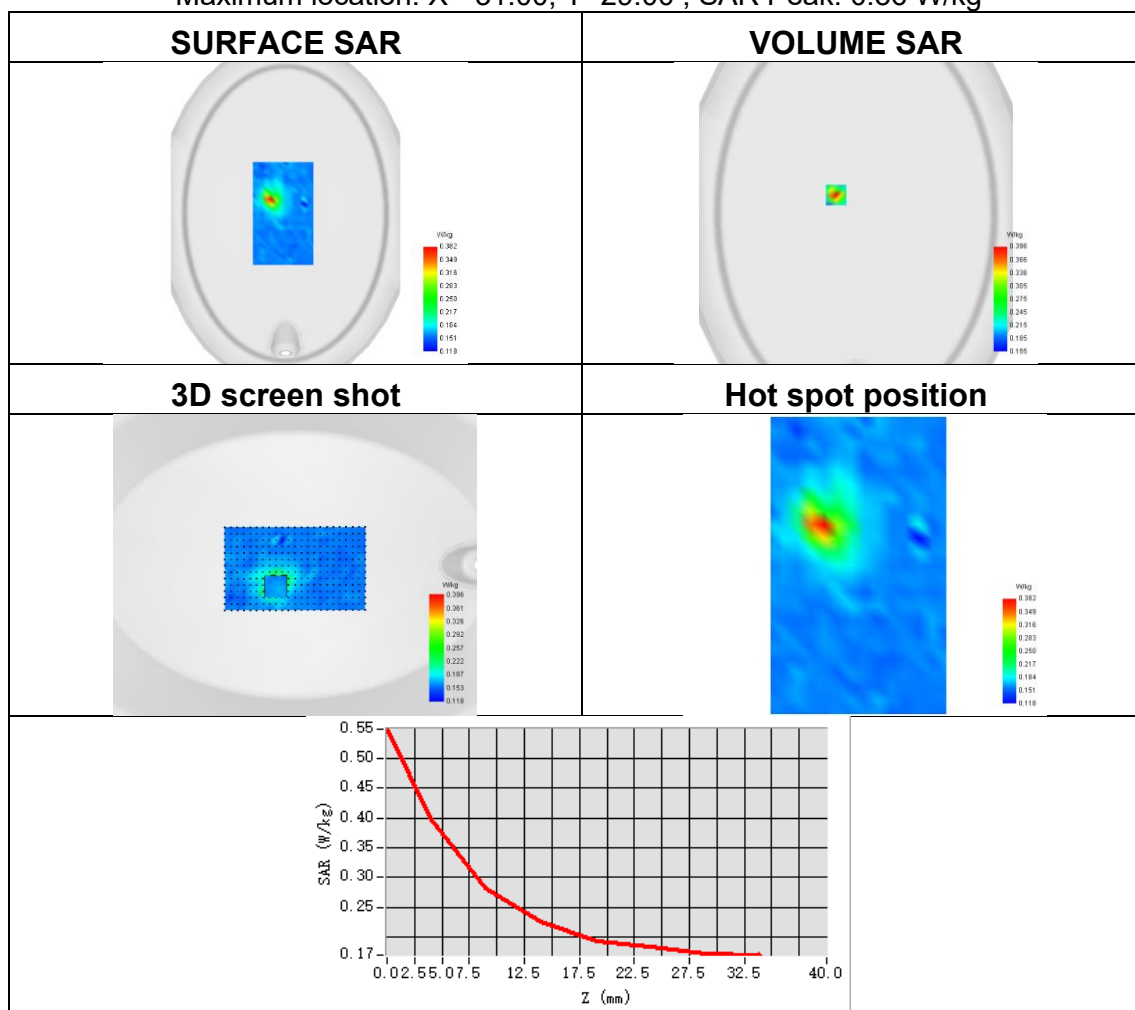




Plot 6:

Test Date	2026-03-25
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 7
Signal	LTE FDD
Frequency	2560
SAR 10g (W/Kg)	0.256
SAR 1g (W/Kg)	0.380
ConvF	2.37
Relative permittivity	39.27
Conductivity (S/m)	2.02

Maximum location: X=-31.00, Y=29.00 ; SAR Peak: 0.56 W/kg





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※