SAR TEST REPORT

Product Name: TABLET

Model Name: T107, T108

FCC ID: 2A9SN-T107

Issued For	:	INOI Limited Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China
Issued By	:	Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China

Report Number:	LGT23A058HA01
Sample Received Date:	Jan. 29, 2023
Date of Test:	Feb. 02, 2023~ Mar. 04, 2023
Date of Issue:	Mar. 11, 2023
Max. SAR (1g):	Body:1.409 W/kg

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Revision History

Rev.	Issue Date	Contents
00	Mar. 11, 2023	Initial Issue

TEST REPORT CERTIFICATION

Applicant	INOI Limited
Address	Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China
Manufacture	INOI Limited
Address	Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China
Product Name	TABLET
Trademark	INOI
Model Name	T107, T108
Sample number	LGT22L012031

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
ANSI/IEEE Std. C95.1-1992 FCC 47 CFR Part 2 (2.1093) IEEE 1528: 2013	PASS

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Manager

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	TABLET	
Trademark	INOI	
Model Name	T107	
Series Model	T108	
Model Difference	multimodel only the memory differs. T107: 128+4GB，T108：64+3GB	
Device Category	Portable	
Product stage	Production unit	
RF Exposure Environment	General Population / Uncontrolled	
IMEI	IMEI 1: 350077920037193 IMEI 2: 350077920037201	
Hardware Version	T30-T618-V1.0-220305-G	
Software Version	N/A	
Frequency Range	GSM 850: 824 MHz ~ 849 MHz PCS 1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV:1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2:1850 MHz ~1910MHz LTE Band 4:1710 MHz ~1755MHz LTE Band 5:824 MHz ~ 849MHz LTE Band 7:2500 MHz ~ 2570MHz LTE Band 40:2305 MHz ~2315MHz/2350-2360MHz LTE Band 41:2555 MHz ~2655MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 MHz ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 MHz ~ 5850 MHz Bluetooth: 2402 MHz ~ 2480 MHz	
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance:0mm	Mode	Body Worn and Hotspot(W/kg))
	GSM 850	0.902
	PCS 1900	0.891
	WCDMA Band II	0.286
	WCDMA Band IV	0.479
	WCDMA Band V	1.154
	LTE Band 2	0.247
	LTE Band 4	0.270
	LTE Band 5	1.001
	LTE Band 7	0.212
	LTE Band 40	0.119
	LTE Band 41	0.511
	2.4G WLAN	0.227
	Bluetooth	0.050
	5.2G WLAN	0.255
	5.8G WLAN	0.090

1-g Sum SAR	1.409
Battery	Rated Voltage:3.8V Capacity: 6000mAh
Operating Mode:	GSM: GSM Voice; GPRS/EGPRS Class 12 WCDMA: RMC, HSDPA, HSUPA Release 6 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	GSM/WCDMA/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

1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (℃)	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, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China
Accreditation Certificate	FCC Registration No.: 746540
	A2LA Certificate No.: 6727.01
	IC Registration No.: 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. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	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 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
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 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices

(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:

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

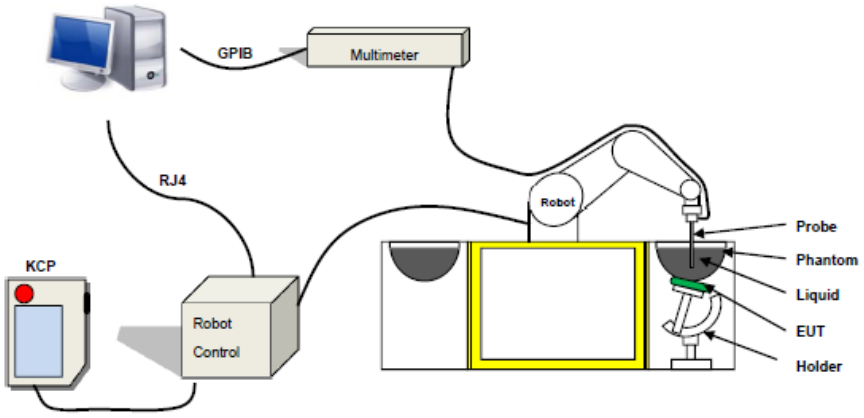
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue;
ρ is the mass density of the tissue and E is the RMS electrical field strength.

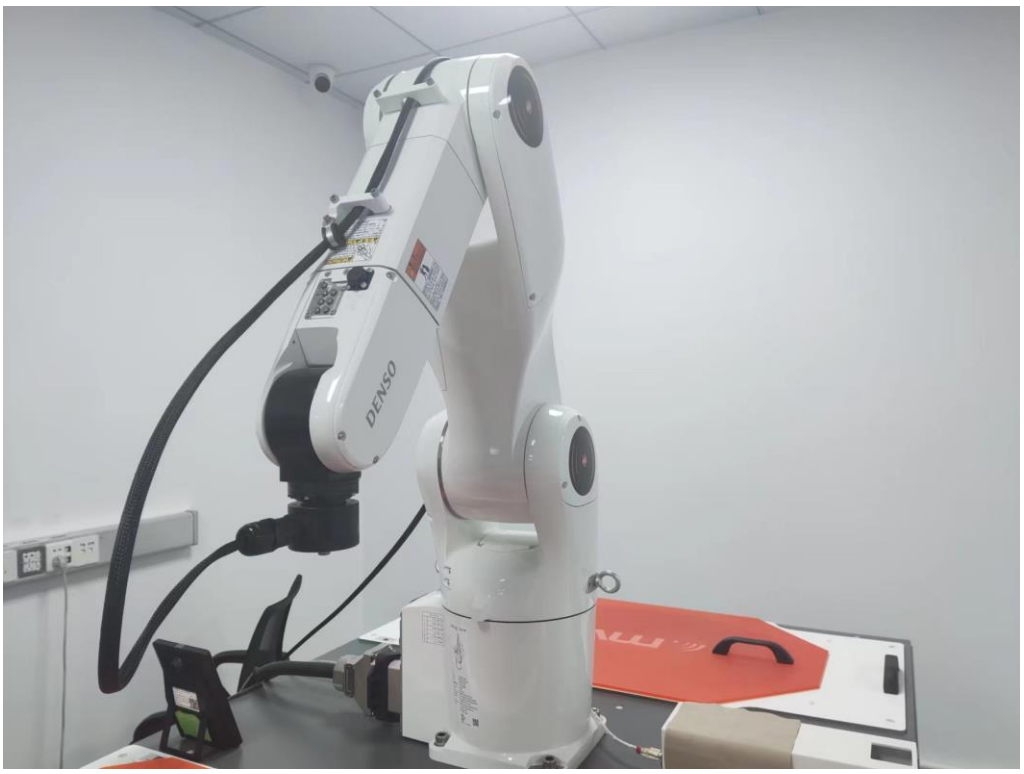
3.2 SAR System

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 SN 04/22 EPGO364 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: 600 MHz to 6 GHz for head & body simulating liquid.
-Angle between probe axis (evaluation axis) and surface normal line: less than 30°

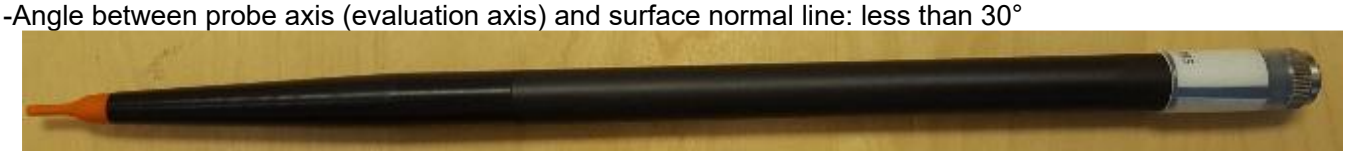


Figure 1-MVG COMOSAR Dosimetric E field Probe

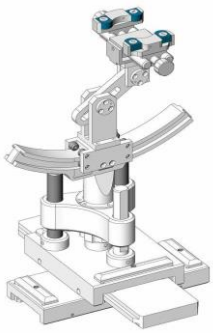
3.2.2 Phantom

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 of 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	εr		σ 1g S/m	
	Head	Body	Head	Body
300	45.3	45.3	0.87	0.87
450	43.5	43.5	0.87	0.87
900	41.5	41.5	0.97	0.97
1450	40.5	40.5	1.20	1.20
1800	40.0	40.0	1.40	1.40
2450	39.2	39.2	1.80	1.80
3000	38.5	38.5	2.40	2.40
5200	36.0	36.0	4.70	4.70

LIQUID MEASUREMENT RESULTS

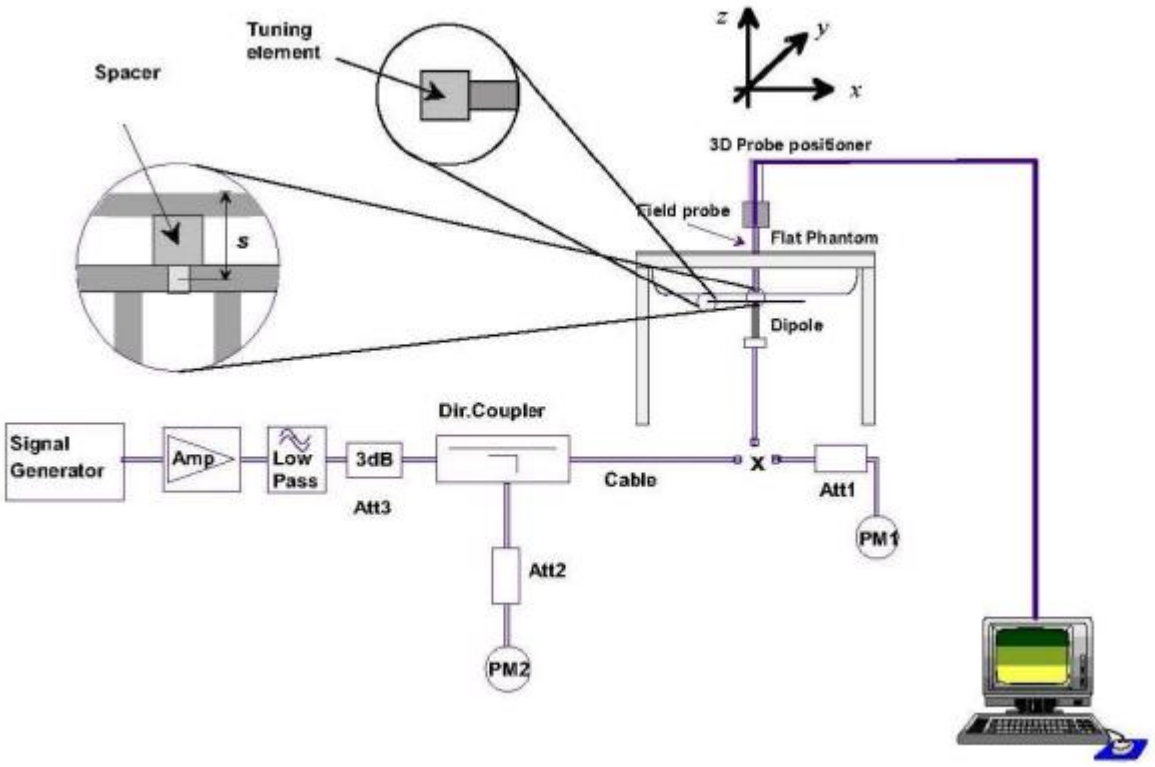
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2023-02-02	23.7	60	835	23.3	Permittivity	41.50	41.64	0.34	±5
					Conductivity	0.90	0.92	2.22	±5
2023-03-03	20.3	44	1800	20.0	Permittivity	40.00	40.84	2.10	±5
					Conductivity	1.40	1.41	0.71	±5
2023-03-03	20.4	44	1900	20.1	Permittivity	40.00	40.24	0.60	±5
					Conductivity	1.40	1.44	2.86	±5
2023-03-04	22.1	59	2300	21.8	Permittivity	39.47	40.46	2.52	±5
					Conductivity	1.67	1.66	-0.40	±5
2023-03-04	22.1	59	2450	21.8	Permittivity	39.20	40.16	2.45	±5
					Conductivity	1.80	1.82	1.11	±5
2023-02-28	20.1	50	2600	19.8	Permittivity	39.00	39.92	2.36	±5
					Conductivity	1.96	1.98	1.02	±5
2023-02-14	21.5	47	5200	21.2	Permittivity	36.00	36.71	1.97	±5
					Conductivity	4.66	4.60	-1.29	±5
2023-02-14	21.6	47	5800	21.3	Permittivity	35.30	35.65	0.99	±5
					Conductivity	5.27	5.25	-0.38	±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 ±10 %.

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2023-02-02	835	100	0.955	9.55	9.75	-2.05	10
2023-03-03	1800	100	3.661	36.61	39.06	-6.27	10
2023-03-03	1900	100	3.732	37.32	40.85	-8.64	10
2023-03-04	2300	100	4.765	47.65	50.94	-6.46	10
2023-03-04	2450	100	5.096	50.96	54.28	-6.12	10
2023-02-28	2600	100	5.179	51.79	56.58	-8.47	10
2023-02-14	5200	100	7.586	75.86	77.64	-2.29	10
2023-02-14	5800	100	8.114	81.14	74.92	8.30	10

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

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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 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.

- 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

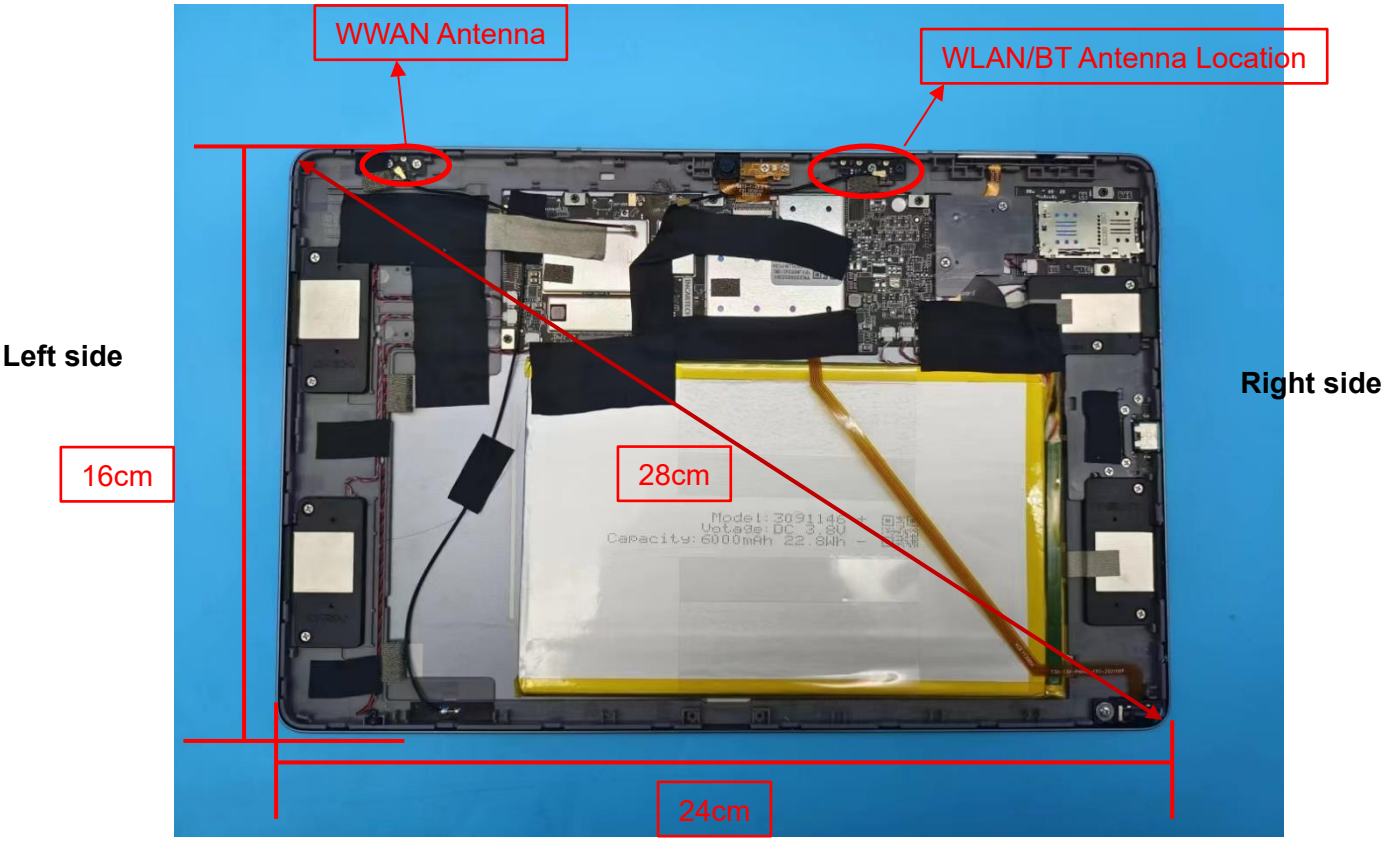
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan 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 TABLET CON CHIP (4G), support GSM/WCDMA/LTE/WLAN/BT mode.

Top side



Bottom side
(Front view)

Antenna Separation Distance(cm)						
ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	0.5	0.5	15.1	7	0.5	15
WWAN	0.5	0.5	1.6	23	0.5	15

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	GSM850	PCS1900	WCDMA II	WCDMA IV	WCDMA V
	Calculated Frequency (GHz)	0.8242	1.9098	1.88	1.7126	0.8466
	Maximum Turn-up power (dBm)	33.5	29.5	22.5	22.5	23.5
	Maximum rated power(mW)	2238.72	891.25	177.83	177.83	223.87
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	9.42	3.35	3.39	3.66	9.07
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	9.42	3.35	3.39	3.66	9.07
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	1.6	1.6	1.6	1.6	1.6
	exclusion threshold(mW)	48.30	28.74	28.99	30.52	47.47
	Testing required?	YES	YES	YES	YES	YES
Right Edge	Separation distance (cm)	23	23	23	23	23
	exclusion threshold(mW)	2046.33	3961.82	3959.93	3948.74	2107.08
	Testing required?	YES	NO	NO	NO	NO
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	9.42	3.35	3.39	3.66	9.07
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (cm)	15	15	15	15	15
	exclusion threshold(mW)	1122.17	1798.15	1799.92	1810.44	1146.89
	Testing required?	YES	NO	NO	NO	NO

Exposure Position	Wireless Interface	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 40
	Calculated Frequency (GHz)	1.9	1.745	0.8365	2.56	2.35
	Maximum Turn-up power (dBm)	23.5	23.5	24	22	13
	Maximum rated power(mW)	223.87	223.87	251.19	158.49	19.95
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	3.60	9.22	2.65	2.84
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	3.60	9.22	2.65	2.84
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	1.6	1.6	1.6	1.6	1.6
	exclusion threshold(mW)	28.83	30.20	47.84	24.48	25.65
	Testing required?	YES	YES	YES	YES	NO
Right Edge	Separation distance (cm)	23	23	23	23	23
	exclusion threshold(mW)	3961.20	3950.99	2079.67	3997.21	3986.84
	Testing required?	NO	NO	NO	NO	NO
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	3.60	9.22	2.65	2.84
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (cm)	15	15	15	15	15
	exclusion threshold(mW)	1798.73	1808.32	1135.76	1765.54	1775.00
	Testing required?	NO	NO	NO	NO	NO

Exposure Position	Wireless Interface	LTE Band 41	BT	2.4G WLAN	5.2G WLAN	5.8G WLAN
	Calculated Frequency (GHz)	2.593	2.44	2.437	5.18	5.745
	Maximum Turn-up power (dBm)	22.5	8.5	21.5	18	17
	Maximum rated power(mW)	177.83	7.08	141.25	63.10	50.12
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.62	2.75	2.76	1.51	1.39
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.62	2.75	2.76	1.51	1.39
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	1.6	15.1	15.1	15.1	15.1
	exclusion threshold(mW)	24.31	1793.35	1793.49	1712.83	1702.04
	Testing required?	YES	NO	NO	NO	NO
Right Edge	Separation distance (cm)	23	7	7	7	7
	exclusion threshold(mW)	3998.76	415.79	415.91	350.22	342.05
	Testing required?	NO	NO	NO	NO	NO
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.62	2.75	2.76	1.51	1.39
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (cm)	15	15	15	15	15
	exclusion threshold(mW)	1764.13	1770.84	1770.98	1689.49	1678.60
	Testing required?	NO	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 D04, 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 D04, if the maximum time-averaged power available does not exceed 1 mW. This stand-alone SAR exemption test.
4. Per KDB 447498 D04, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

5. Per KDB 447498 D04, An alternative to the SAR-based exemption is using below table and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in below table to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF Source frequency (MHz)	Threshold ERP(watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

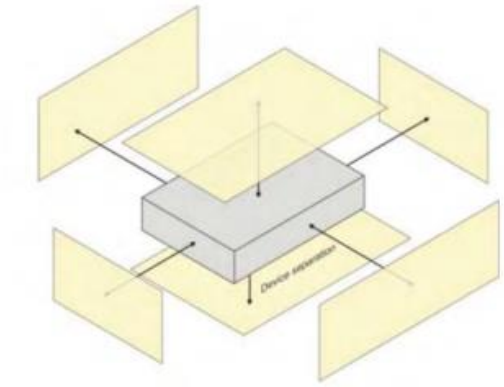
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8.for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.

8. EUT Test Position

This EUT was tested in Back Side, Left Side and Top Side.

8.1 Body-worn Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing function, the relevant hand and body exposure condition 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 surface and edges with a transmitting antenna located within 25 mm form that surface or edge. When form factor of a handset is smaller than 9cm x 5cm, a test separation distance of 5mm (instead of 10mm) is required for testing hotspot mode. When the separate 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).



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	√3	√0.5	√0.5	1.43	1.43	∞
Hemispherical Isotropy	5.9	R	√3	√0.5	√0.5	2.41	2.41	∞
Boundary effect	1	R	√3	1	1	0.58	0.58	∞
Linearity	4.7	R	√3	1	1	2.71	2.71	∞
System detection limits	1	R	√3	1	1	0.58	0.58	∞
Modulation response	3	R	√3	1	1	1.73	1.73	∞
Readout Electronics	0.5	N	1	1	1	0.50	0.50	∞
Response Time	0	R	√3	1	1	0.00	0.00	∞
Integration Time	1.4	R	√3	1	1	1.81	1.81	∞
RF ambient conditions-Noise	3	R	√3	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3	R	√3	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	√3	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	∞
Extrapolation, Interpolation and Integration Algoritms for Max, SAR	2.3	R	√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	√3	1	1	2.89	2.89	∞
SAR scaling	2	R	√3	1	1	1.15	1.15	∞
Phantom and tissue parameters								
Phantom uncertainty (shape and thickness uncertainty)	4	R	√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	√3	0.78	0.71	1.13	1.02	∞
Liquid Permittivity (Temperature Uncertainty)	2.5	R	√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 Algoritms 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:

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM (GMSK, 1-Slot)	33.29	33.2	33.23	28.83	28.86	29.06
GPRS (GMSK, 1-Slot)	33.25	33.25	33.24	28.99	29.07	29.07
GPRS (GMSK, 2-Slot)	31.13	31.03	31.36	26.37	26.69	26.83
GPRS (GMSK, 3-Slot)	29.23	29.21	29.48	25.13	25.12	25.27
GPRS (GMSK, 4-Slot)	27.24	26.92	27.23	23.13	22.63	22.64
EGPRS (8PSK, 1-Slot)	26.1	25.19	25.24	27.91	27.09	27.5
EGPRS (8PSK, 2-Slot)	24.82	24.15	24.42	25.81	25.98	26.03
EGPRS (8PSK, 3-Slot)	22.74	22.23	22.67	23.64	23.51	24.29
EGPRS (8PSK, 4-Slot)	20.61	20.15	20.49	22.51	22.35	21.85
Remark: GPRS, CS4 coding scheme. EGPRS, MCS5 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Frame- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM (GMSK, 1-Slot)	24.26	24.17	24.20	19.80	19.83	20.03
GPRS (GMSK, 1-Slot)	24.22	24.22	24.21	19.96	20.04	20.04
GPRS (GMSK, 2-Slot)	25.11	25.01	25.34	20.35	20.67	20.81
GPRS (GMSK, 3-Slot)	24.97	24.95	25.22	20.87	20.86	21.01
GPRS (GMSK, 4-Slot)	24.23	23.91	24.22	20.12	19.62	19.63
EGPRS (8PSK, 1-Slot)	17.07	16.16	16.21	18.88	18.06	18.47
EGPRS (8PSK, 2-Slot)	18.80	18.13	18.40	19.79	19.96	20.01
EGPRS (8PSK, 3-Slot)	18.48	17.97	18.41	19.38	19.25	20.03
EGPRS (8PSK, 4-Slot)	17.60	17.14	17.48	19.50	19.34	18.84
Remark: 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst - averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						

WCDMA

Band	WCDMA Band 2			WCDMA Band 4			WCDMA Band 5		
Channel	9262	9400	9538	9262	9400	9538	9262	9400	9538
Frequency (MHz)	1852.4	1880	1907.6	1852.4	1880	1907.6	1852.4	1880	1907.6
RMC 12.2Kbps	22.22	22.27	22.25	22.22	22.15	22.22	22.77	22.78	22.9
HSDPA Subtest-1	22.1	21.78	22.16	20.81	21.91	21.33	22.14	22.4	22.33
HSDPA Subtest-2	21.68	21.43	21.91	20.31	21.64	20.98	21.94	22.14	22.12
HSDPA Subtest-3	21.35	21.21	21.51	20.16	21.74	20.76	21.64	22.07	21.96
HSDPA Subtest-4	21.38	20.81	21.48	19.66	21.23	20.71	21.43	21.66	21.45
HSUPA Subtest-1	21.89	21.6	21.86	20.52	21.77	21.25	22.12	22.25	22.36
HSUPA Subtest-2	21.98	21.74	22.06	20.73	21.82	21.2	22.09	22.34	22.36
HSUPA Subtest-3	21.59	20.89	21.69	20.18	21.45	20.62	21.68	22.34	22.05
HSUPA Subtest-4	21.97	21.73	22.07	20.65	21.91	21.3	22.07	22.44	22.29
HSUPA Subtest-5	21.64	21.34	21.93	20.33	21.59	21.02	21.83	22.38	22.04

According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1A: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM (db)	MPR (db)
For all combinations of ,DPDCH,DPCCH HS-DPDCH,E-DPDCH and E-DPCCH	0≤ CM≤3.5	MAX(CM-1,0)
Note: CM=1 for βc/βd=12/15, βhs/ βc=24/15.For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.		

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done .However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensation for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11b	1	2412	16.25	42.17
	6	2437	18.57	71.94
	11	2462	15.31	33.96
802.11g	1	2412	18.73	74.64
	6	2437	20.91	123.31
	11	2462	17.85	60.95
802.11 n-HT20	1	2412	18.94	78.34
	6	2437	21.26	133.66
	11	2462	18.16	65.46

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	3.64	2.31
	39	2441	5.97	3.95
	78	2480	3.99	2.51
π/4-QPSK(2Mbps)	0	2402	5.35	3.43
	39	2441	7.65	5.82
	78	2480	5.72	3.73
8DPSK(3Mbps)	0	2402	5.71	3.72
	39	2441	7.92	6.19
	78	2480	5.90	3.89

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	7.12	5.15
	19	2440	7.94	6.22
	39	2480	6.40	4.37
GFSK(2Mbps)	0	2402	7.04	5.06
	19	2440	7.82	6.05
	39	2480	6.30	4.27

WLAN (5.2Gband)

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	15.47	35.24
	40	5200	15.58	36.14
	48	5240	15.27	33.65
802.11 n-HT20	36	5180	15.78	37.84
	40	5200	15.60	36.31
	48	5240	15.39	34.59
802.11 n-HT40	38	5190	14.76	29.92
	46	5230	14.46	27.93
802.11ac-VHT20	36	5180	15.67	36.90
	40	5200	15.83	38.28
	48	5240	15.55	35.89
802.11ac-VHT40	38	5190	14.89	30.83
	46	5230	14.65	29.17
802.11ac-VHT80	42	5210	14.34	27.16

WLAN (5.8G band)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	13.60	22.91
	157	5785	13.13	20.56
	165	5825	13.02	20.04
802.11 n-HT20	149	5745	14.50	28.18
	157	5785	13.96	24.89
	165	5825	13.76	23.77
802.11 n-HT40	151	5755	13.28	21.28
	159	5795	12.96	19.77
802.11ac-VHT20	149	5745	14.60	28.84
	157	5785	14.09	25.64
	165	5825	13.93	24.72
802.11ac-VHT40	151	5755	13.55	22.65
	159	5795	13.11	20.46
802.11ac-VHT80	155	5775	12.94	19.68

LTE Conducted Power

General Note:

1. Anritsu 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 $\leqslant$ 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 ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is $\leqslant$ 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 ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is $\leqslant$ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.56	22.35	22.49
1.4	1	2		22.56	22.38	22.47
1.4	1	5		22.58	22.42	22.52
1.4	3	0		22.46	22.48	22.49
1.4	3	1		22.43	22.55	22.51
1.4	3	2		22.44	22.51	22.47
1.4	6	0		21.38	21.47	21.48
1.4	1	0	16-QAM	22.40	21.67	21.82
1.4	1	2		22.39	21.66	21.91
1.4	1	5		22.37	21.57	21.92
1.4	3	0		21.64	21.58	21.92
1.4	3	1		21.69	21.57	21.95
1.4	3	2		21.69	21.52	21.96
1.4	6	0		20.44	20.62	20.78
3	1	0	QPSK	22.25	22.39	22.46
3	1	7		22.29	22.35	22.56
3	1	14		22.31	22.38	22.51
3	8	0		21.38	21.52	21.56
3	8	4		21.49	21.50	21.44
3	8	7		21.52	21.54	21.49
3	15	0		21.44	21.48	21.57
3	1	0	16-QAM	22.53	21.58	21.76
3	1	7		22.49	21.62	21.87
3	1	14		22.50	21.59	21.91
3	8	0		20.44	20.70	20.62
3	8	4		20.46	20.75	20.65
3	8	7		20.40	20.66	20.62
3	15	0		20.53	20.47	20.67

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.24	22.49	22.42
5	1	12		22.31	22.52	22.34
5	1	24		22.36	22.54	22.39
5	12	0		21.49	21.43	21.49
5	12	6		21.35	21.50	21.40
5	12	11		21.54	21.49	21.44
5	25	0		21.38	21.51	21.49
5	1	0	16-QAM	21.71	21.24	22.12
5	1	12		21.66	21.20	22.07
5	1	24		21.68	21.18	22.07
5	12	0		20.37	20.44	20.55
5	12	6		20.39	20.48	20.59
5	12	11		20.49	20.50	20.59
5	25	0		20.50	20.63	20.69
10	1	0	QPSK	22.37	22.57	22.41
10	1	24		22.41	22.51	22.46
10	1	49		22.43	22.49	22.60
10	25	0		21.41	21.50	21.53
10	25	12		21.39	21.52	21.59
10	25	24		21.56	21.53	21.59
10	50	0		21.49	21.48	21.55
10	1	0	16-QAM	22.56	21.66	21.65
10	1	24		22.64	21.65	21.56
10	1	49		22.67	21.62	21.56
10	25	0		20.50	20.65	20.55
10	25	12		20.49	20.67	20.59
10	25	24		20.48	20.63	20.68
10	50	0		20.52	20.70	20.59

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.35	22.55	22.41
15	1	37		22.42	22.50	22.40
15	1	74		22.48	22.42	22.49
15	36	0		21.53	21.54	21.47
15	36	18		21.55	21.55	21.46
15	36	39		21.46	21.50	21.54
15	75	0		21.48	21.52	21.46
15	1	0	16-QAM	22.57	21.64	22.34
15	1	38		22.65	21.64	22.26
15	1	75		22.75	21.58	22.37
15	36	0		20.54	20.85	20.49
15	36	18		20.61	20.76	20.54
15	36	39		20.63	20.71	20.53
15	75	0		20.63	20.60	20.63
20	1	0	QPSK	22.42	22.59	22.61
20	1	49		22.46	22.58	22.57
20	1	99		22.64	22.65	22.76
20	50	0		21.45	21.53	21.51
20	50	24		21.49	21.65	21.43
20	50	49		21.60	21.56	21.45
20	100	0		21.55	21.59	21.52
20	1	0	16-QAM	21.14	21.14	21.43
20	1	49		21.20	21.37	21.36
20	1	99		21.30	21.32	21.62
20	50	0		20.68	20.62	20.52
20	50	24		20.69	20.70	20.57
20	50	49		20.77	20.59	20.59
20	100	0		20.52	20.57	20.58

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.62	22.14	22.65
1.4	1	2		22.64	22.23	22.60
1.4	1	5		22.61	22.25	22.67
1.4	3	0		22.41	22.25	22.46
1.4	3	1		22.49	22.31	22.52
1.4	3	2		22.45	22.23	22.45
1.4	6	0		21.45	21.29	21.43
1.4	1	0	16-QAM	22.58	21.95	21.04
1.4	1	2		22.65	21.98	21.01
1.4	1	5		22.59	22.00	21.03
1.4	3	0		21.75	21.43	21.38
1.4	3	1		21.70	21.46	21.40
1.4	3	2		21.69	21.39	21.44
1.4	6	0		20.70	20.27	20.52
3	1	0	QPSK	22.42	22.15	22.72
3	1	7		22.36	22.23	22.63
3	1	14		22.29	22.25	22.68
3	8	0		21.48	21.33	21.46
3	8	4		21.41	21.20	21.49
3	8	7		21.43	21.33	21.45
3	15	0		21.52	21.34	21.47
3	1	0	16-QAM	22.74	21.96	22.05
3	1	7		22.68	21.96	22.14
3	1	14		22.63	22.06	22.01
3	8	0		20.42	20.62	20.62
3	8	4		20.42	20.65	20.61
3	8	7		20.39	20.60	20.60
3	15	0		20.67	20.45	20.58

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.39	22.21	22.34
5	1	12		22.29	22.22	22.31
5	1	24		22.13	22.33	22.31
5	12	0		21.43	21.24	21.48
5	12	6		21.37	21.21	21.51
5	12	11		21.34	21.34	21.37
5	25	0		21.41	21.25	21.39
5	1	0	16-QAM	21.80	20.95	21.77
5	1	12		21.62	21.00	21.68
5	1	24		21.45	21.04	21.67
5	12	0		20.50	20.22	20.56
5	12	6		20.38	20.25	20.58
5	12	11		20.34	20.20	20.56
5	25	0		20.59	20.41	20.51
10	1	0	QPSK	22.43	22.30	22.62
10	1	24		22.27	22.36	22.57
10	1	49		22.22	22.47	22.54
10	25	0		21.40	21.18	21.45
10	25	12		21.36	21.25	21.54
10	25	24		21.31	21.41	21.45
10	50	0		21.45	21.29	21.43
10	1	0	16-QAM	22.69	21.27	21.82
10	1	24		22.58	21.34	21.77
10	1	49		22.47	21.49	21.80
10	25	0		20.39	20.35	20.59
10	25	12		20.35	20.43	20.56
10	25	24		20.25	20.47	20.65
10	50	0		20.43	20.45	20.50

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.97	22.71	23.01
15	1	37		22.78	22.81	23.14
15	1	74		22.65	23.02	23.16
15	36	0		21.28	21.20	21.45
15	36	18		21.28	21.34	21.48
15	36	39		21.12	21.36	21.59
15	75	0		21.35	21.37	21.52
15	1	0	16-QAM	23.12	21.74	22.59
15	1	38		22.87	21.86	22.73
15	1	75		22.83	22.05	22.78
15	36	0		20.51	20.41	20.66
15	36	18		20.41	20.55	20.59
15	36	39		20.39	20.55	20.55
15	75	0		20.45	20.47	20.66
20	1	0	QPSK	22.96	22.73	22.87
20	1	49		22.73	22.73	23.10
20	1	99		22.78	22.97	23.16
20	50	0		21.31	21.15	21.39
20	50	24		21.26	21.37	21.44
20	50	49		21.20	21.35	21.42
20	100	0		21.32	21.36	21.58
20	1	0	16-QAM	21.68	21.90	22.07
20	1	49		21.38	21.95	22.26
20	1	99		21.49	22.11	22.28
20	50	0		20.45	20.33	20.52
20	50	24		20.44	20.44	20.72
20	50	49		20.42	20.47	20.78
20	100	0		20.36	20.42	20.66

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.15	22.93	23.14
1.4	1	2		23.15	23.08	23.15
1.4	1	5		23.16	23.03	23.22
1.4	3	0		23.00	23.12	23.14
1.4	3	1		23.07	23.13	23.21
1.4	3	2		23.02	23.10	23.12
1.4	6	0		22.51	22.09	22.20
1.4	1	0	16-QAM	23.45	23.06	23.19
1.4	1	2		23.39	22.67	23.13
1.4	1	5		23.36	22.70	23.18
1.4	3	0		22.68	22.18	22.58
1.4	3	1		22.60	22.17	22.55
1.4	3	2		22.60	22.14	22.59
1.4	6	0		21.47	21.09	21.31
3	1	0	QPSK	22.92	22.99	23.13
3	1	7		22.93	23.03	23.17
3	1	14		22.93	23.03	23.21
3	8	0		22.38	22.62	22.14
3	8	4		22.45	22.09	22.08
3	8	7		21.98	22.11	22.11
3	15	0		22.39	22.18	22.21
3	1	0	16-QAM	23.19	23.01	23.12
3	1	7		23.19	22.68	23.15
3	1	14		22.88	22.69	23.05
3	8	0		21.34	21.68	21.14
3	8	4		21.29	21.33	21.07
3	8	7		20.94	21.31	21.10
3	15	0		21.40	21.10	21.12

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.89	22.93	23.00
5	1	12		22.86	23.01	23.10
5	1	24		22.95	23.16	23.06
5	12	0		22.51	22.38	22.08
5	12	6		22.01	22.16	22.15
5	12	11		22.00	22.20	22.16
5	25	0		22.05	22.24	22.24
5	1	0	16-QAM	22.60	22.16	22.07
5	1	12		22.20	21.90	22.14
5	1	24		22.64	21.76	22.18
5	12	0		21.25	21.42	21.58
5	12	6		20.85	21.00	21.10
5	12	11		21.00	20.98	21.10
5	25	0		20.94	21.18	21.11
10	1	0	QPSK	22.96	23.07	23.08
10	1	24		22.99	23.26	22.99
10	1	49		23.01	23.23	23.18
10	25	0		22.01	22.38	22.03
10	25	12		22.39	22.06	22.49
10	25	24		22.10	22.16	22.13
10	50	0		22.40	22.06	22.56
10	1	0	16-QAM	23.43	21.99	22.08
10	1	24		23.49	22.08	22.58
10	1	49		23.43	22.68	22.11
10	25	0		21.00	21.50	21.08
10	25	12		21.39	21.17	21.57
10	25	24		21.36	21.13	21.25
10	50	0		21.37	21.19	21.60

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.10	21.02	21.00
5	1	12		21.10	20.94	20.96
5	1	24		21.04	20.97	21.08
5	12	0		20.03	20.14	20.21
5	12	6		19.99	20.10	20.10
5	12	11		20.08	20.12	20.22
5	25	0		20.05	20.04	20.14
5	1	0	16-QAM	20.46	19.86	20.47
5	1	12		20.38	19.80	20.34
5	1	24		20.42	19.77	20.48
5	12	0		18.98	18.99	19.38
5	12	6		18.95	18.98	19.29
5	12	11		19.05	19.05	19.23
5	25	0		19.20	19.16	19.21
10	1	0	QPSK	20.94	21.13	21.38
10	1	24		20.94	21.04	21.27
10	1	49		21.12	20.99	21.33
10	25	0		20.13	20.16	20.17
10	25	12		20.21	19.98	20.33
10	25	24		20.23	20.01	20.22
10	50	0		20.10	20.02	20.24
10	1	0	16-QAM	21.11	21.00	20.39
10	1	24		21.20	20.84	20.38
10	1	49		21.28	20.77	20.37
10	25	0		19.18	19.27	19.40
10	25	12		19.20	19.20	19.36
10	25	24		19.33	19.18	19.34
10	50	0		19.27	19.26	19.31

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	20.98	21.19	21.23
15	1	37		21.08	21.04	21.29
15	1	74		21.23	21.01	21.36
15	36	0		20.04	20.21	20.25
15	36	18		20.26	20.04	20.30
15	36	39		20.24	20.04	20.27
15	75	0		20.12	19.98	20.22
15	1	0	16-QAM	21.30	20.29	20.94
15	1	38		21.41	20.00	21.06
15	1	75		21.63	20.08	20.97
15	36	0		19.24	19.38	19.33
15	36	18		19.25	19.20	19.32
15	36	39		19.35	19.27	19.35
15	75	0		19.33	19.21	19.36
20	1	0	QPSK	20.96	21.39	21.34
20	1	49		21.12	21.13	21.42
20	1	99		21.25	21.13	21.48
20	50	0		20.16	20.11	20.20
20	50	24		20.31	20.04	20.28
20	50	49		20.29	19.97	20.17
20	100	0		20.20	20.04	20.15
20	1	0	16-QAM	19.94	20.56	20.08
20	1	49		20.03	20.14	20.20
20	1	99		20.25	20.12	20.23
20	50	0		19.29	19.29	19.28
20	50	24		19.45	19.21	19.32
20	50	49		19.57	19.16	19.34
20	100	0		19.27	19.20	19.26

(2305-2315)

LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	12.57	12.42	12.39
5	1	12		12.58	12.32	12.32
5	1	24		12.50	12.32	12.44
5	12	0		11.56	11.63	11.59
5	12	6		11.62	11.63	11.51
5	12	11		11.71	11.57	11.50
5	25	0		11.48	11.61	11.46
5	1	0	16-QAM	11.41	11.09	11.51
5	1	12		11.35	11.30	11.48
5	1	24		11.51	11.20	11.39
5	12	0		10.50	10.46	10.49
5	12	6		10.62	10.46	10.47
5	12	11		10.71	10.41	10.47
5	25	0		10.64	10.75	10.73
10	1	0	QPSK	/	12.68	/
10	1	24		/	12.65	/
10	1	49		/	12.61	/
10	25	0		/	11.55	/
10	25	12		/	11.65	/
10	25	24		/	11.65	/
10	50	0		/	11.62	/
10	1	0	16-QAM	/	11.85	/
10	1	24		/	11.88	/
10	1	49		/	11.72	/
10	25	0		/	10.44	/
10	25	12		/	10.54	/
10	25	24		/	10.55	/
10	50	0		/	10.62	/

(2350-2560)

LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	12.47	12.53	12.52
5	1	12		12.59	12.39	12.62
5	1	24		12.47	12.48	12.41
5	12	0		11.65	11.57	11.56
5	12	6		11.74	11.47	11.55
5	12	11		11.61	11.49	11.53
5	25	0		11.71	11.49	11.44
5	1	0	16-QAM	11.19	11.44	11.16
5	1	12		11.25	11.36	11.22
5	1	24		11.22	11.55	11.11
5	12	0		10.59	10.49	10.43
5	12	6		10.64	10.34	10.45
5	12	11		10.54	10.42	10.30
5	25	0		10.65	10.54	10.63
10	1	0	QPSK	/	12.65	/
10	1	24		/	12.56	/
10	1	49		/	12.63	/
10	25	0		/	11.60	/
10	25	12		/	11.51	/
10	25	24		/	11.54	/
10	50	0		/	11.46	/
10	1	0	16-QAM	/	11.93	/
10	1	24		/	11.91	/
10	1	49		/	11.74	/
10	25	0		/	10.51	/
10	25	12		/	10.41	/
10	25	24		/	10.48	/
10	50	0		/	10.47	/

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.49	21.71	21.80
5	1	12		21.59	21.73	21.72
5	1	24		21.59	21.83	21.79
5	12	0		20.50	20.94	20.75
5	12	6		20.71	20.93	20.72
5	12	11		20.64	20.86	20.66
5	25	0		20.58	20.90	20.71
5	1	0	16-QAM	20.26	21.20	20.39
5	1	12		20.29	21.24	20.36
5	1	24		20.36	21.20	20.41
5	12	0		19.57	20.01	19.80
5	12	6		19.61	19.99	19.75
5	12	11		19.56	20.01	19.73
5	25	0		19.86	20.06	20.00
10	1	0	QPSK	21.69	21.89	21.78
10	1	24		21.74	22.00	21.69
10	1	49		21.73	22.17	21.71
10	25	0		20.50	20.95	20.76
10	25	12		20.55	20.96	20.81
10	25	24		20.58	21.02	20.78
10	50	0		20.60	20.95	20.68
10	1	0	16-QAM	21.07	20.13	20.98
10	1	24		21.22	20.20	21.32
10	1	49		21.17	20.35	21.29
10	25	0		19.64	19.88	19.90
10	25	12		19.72	19.95	19.82
10	25	24		19.67	19.98	19.79
10	50	0		19.69	19.99	19.80

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.64	21.86	21.65
15	1	37		21.71	21.92	21.61
15	1	74		21.60	22.00	21.58
15	36	0		20.68	20.87	20.71
15	36	18		20.63	20.85	20.78
15	36	39		20.63	20.99	20.70
15	75	0		20.57	20.94	20.68
15	1	0	16-QAM	21.06	20.23	20.92
15	1	38		20.97	20.20	20.82
15	1	75		21.20	20.21	20.76
15	36	0		19.66	20.07	19.80
15	36	18		19.78	20.21	19.75
15	36	39		19.75	20.25	19.80
15	75	0		19.68	20.10	19.99
20	1	0	QPSK	21.46	21.64	21.66
20	1	49		21.59	21.98	21.76
20	1	99		21.41	21.95	21.82
20	50	0		20.51	20.82	20.74
20	50	24		20.59	20.96	20.75
20	50	49		20.57	20.98	20.77
20	100	0		20.46	20.83	20.73
20	1	0	16-QAM	20.24	20.41	20.74
20	1	49		20.24	20.58	20.08
20	1	99		20.19	20.50	20.36
20	50	0		19.84	19.87	19.94
20	50	24		19.92	19.93	19.93
20	50	49		19.72	20.05	19.96
20	100	0		19.65	20.05	19.89

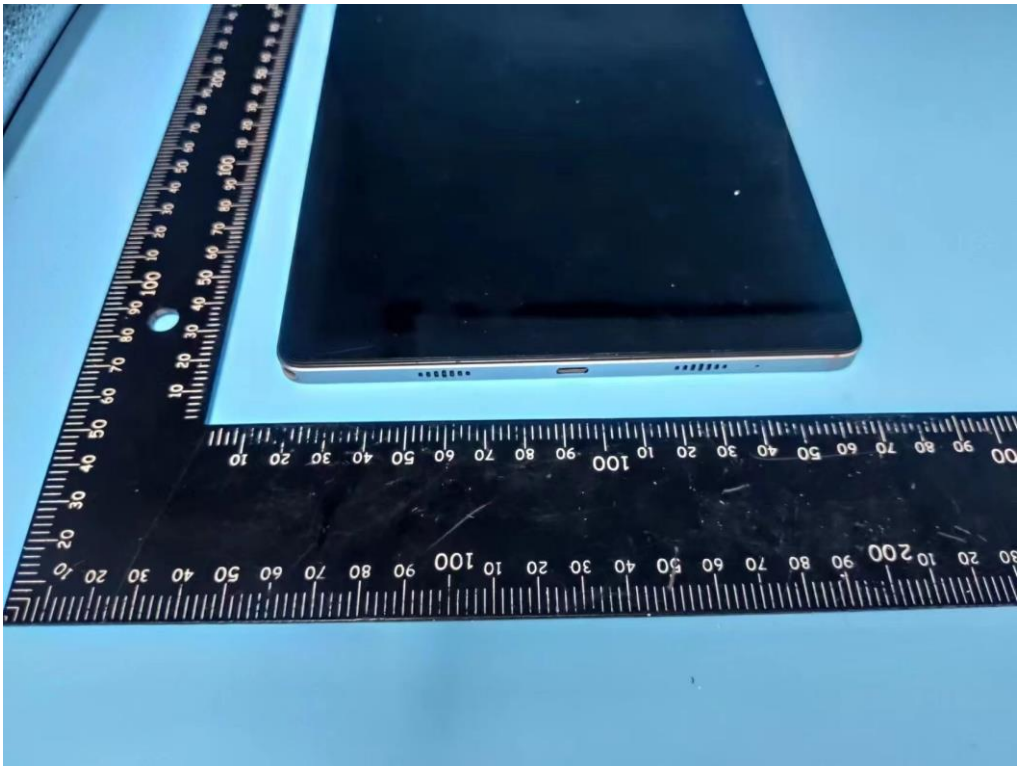
11. EUT and Test Setup Photo

11.1 EUT Photos

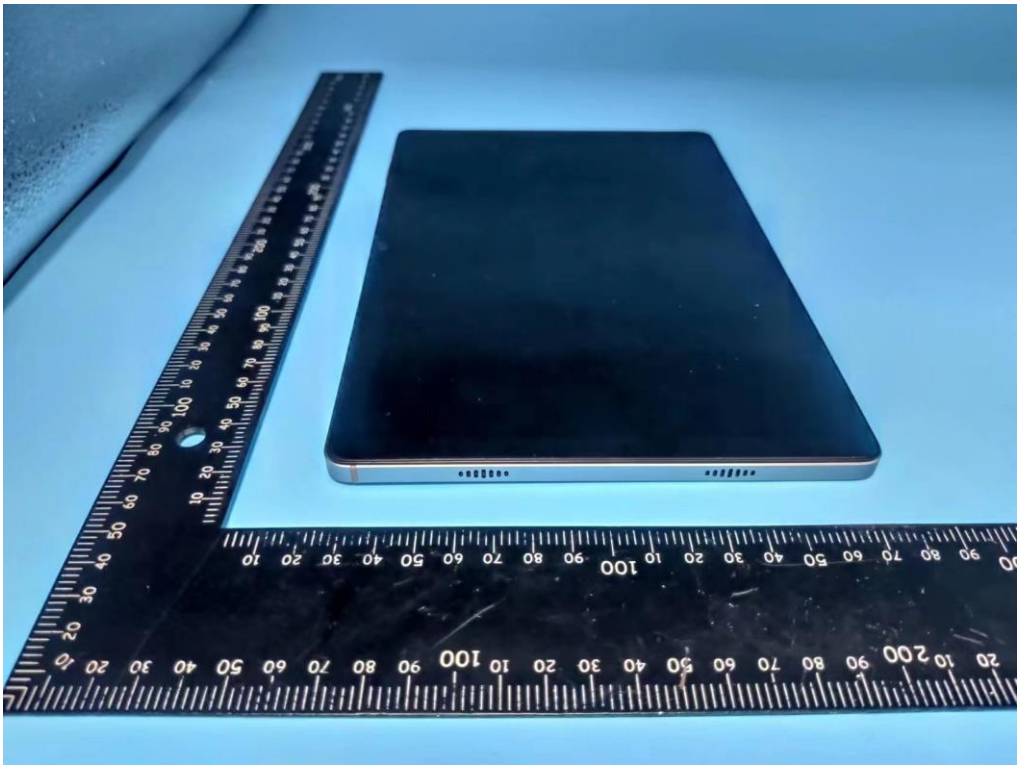
Front side

Back side

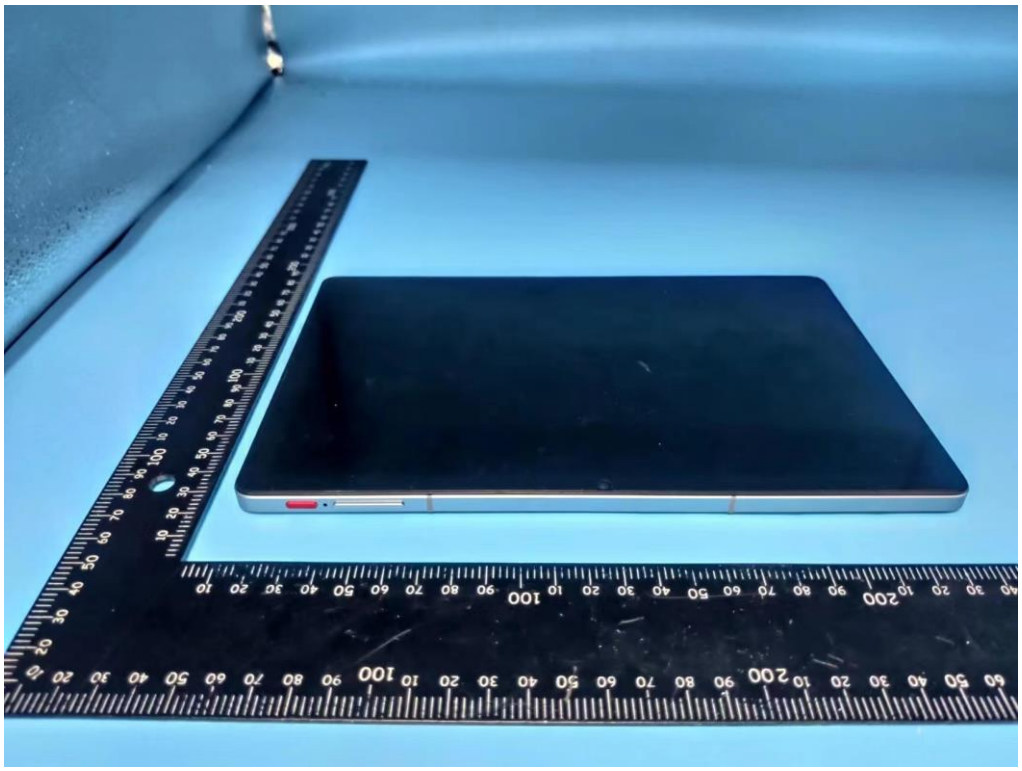
Right Edge



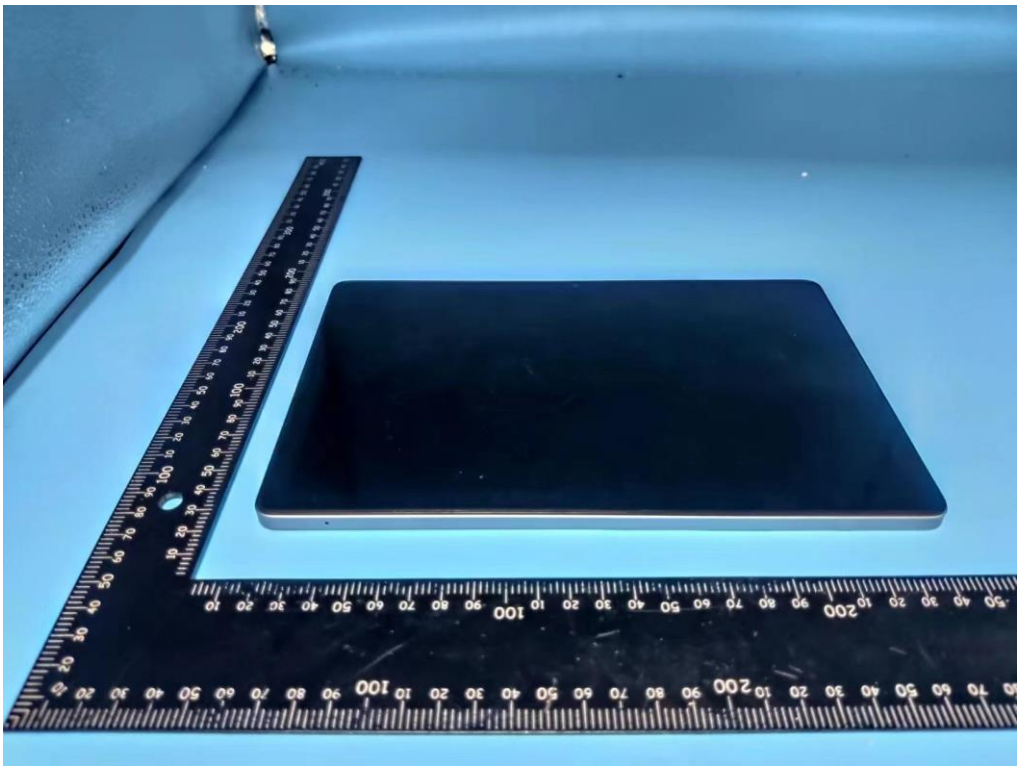
Left Edge



Top Edge

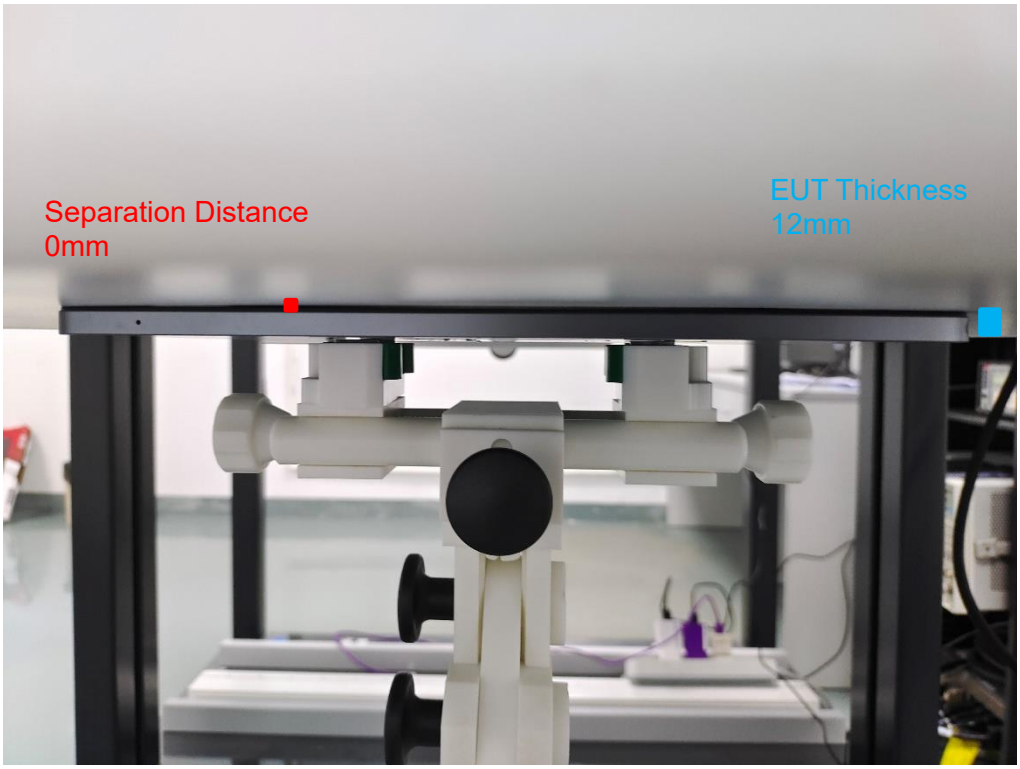


Bottom Edge

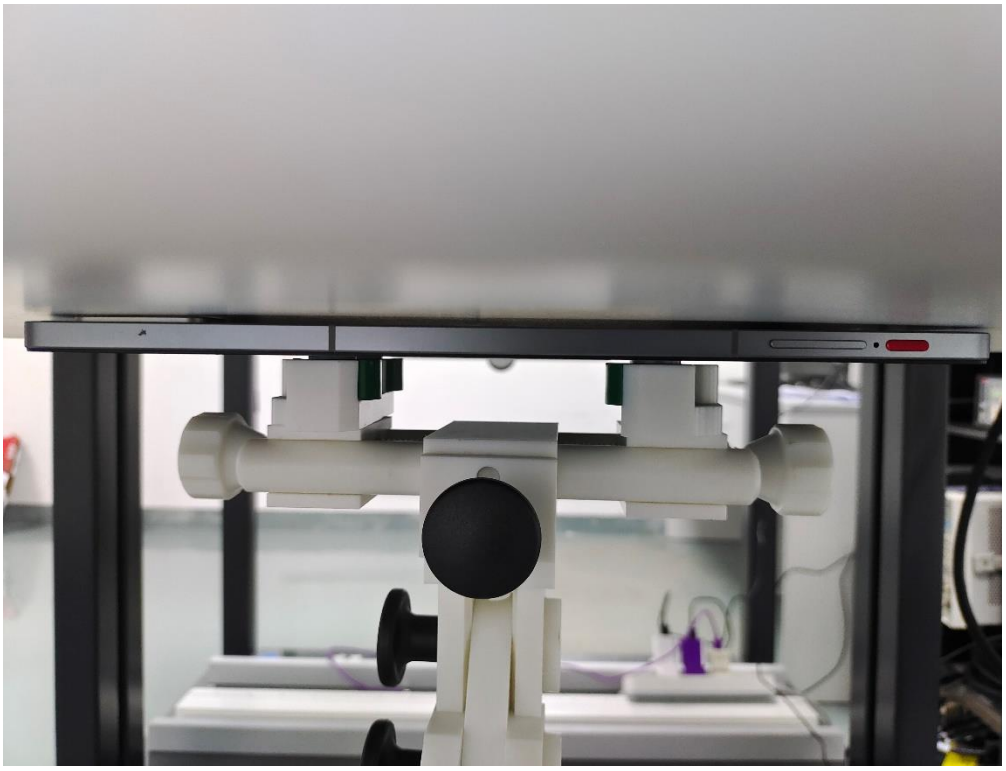


11.2 Setup Photos

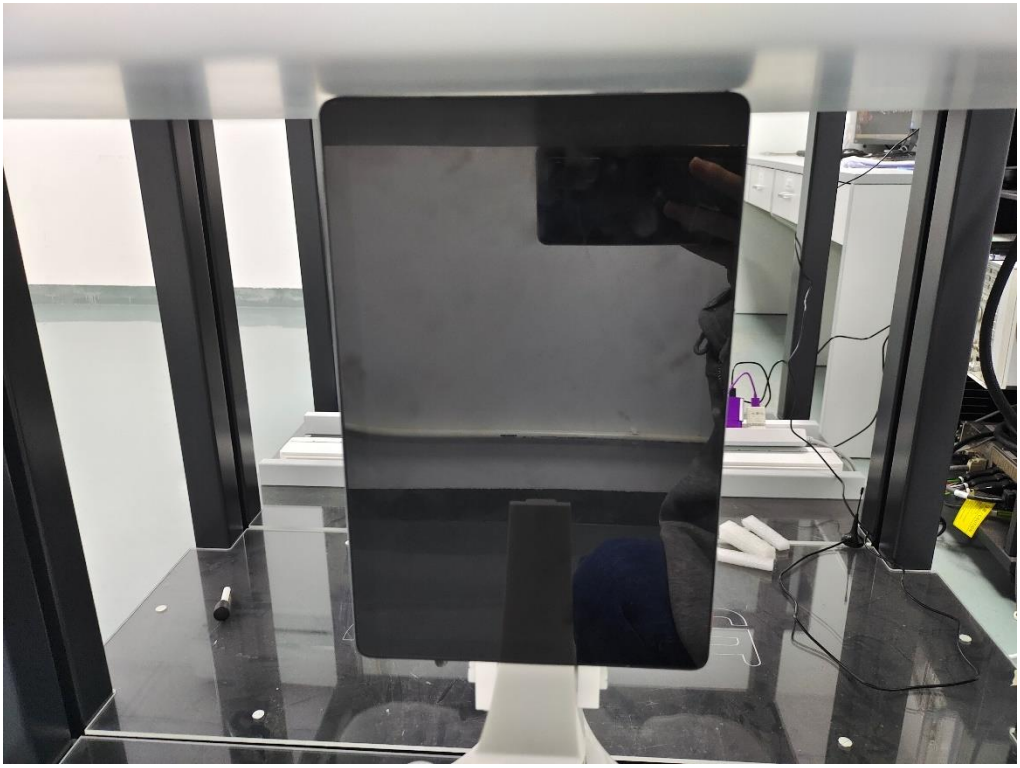
Body Front side (separation distance is 0mm)



Body Back side (separation distance 0mm)

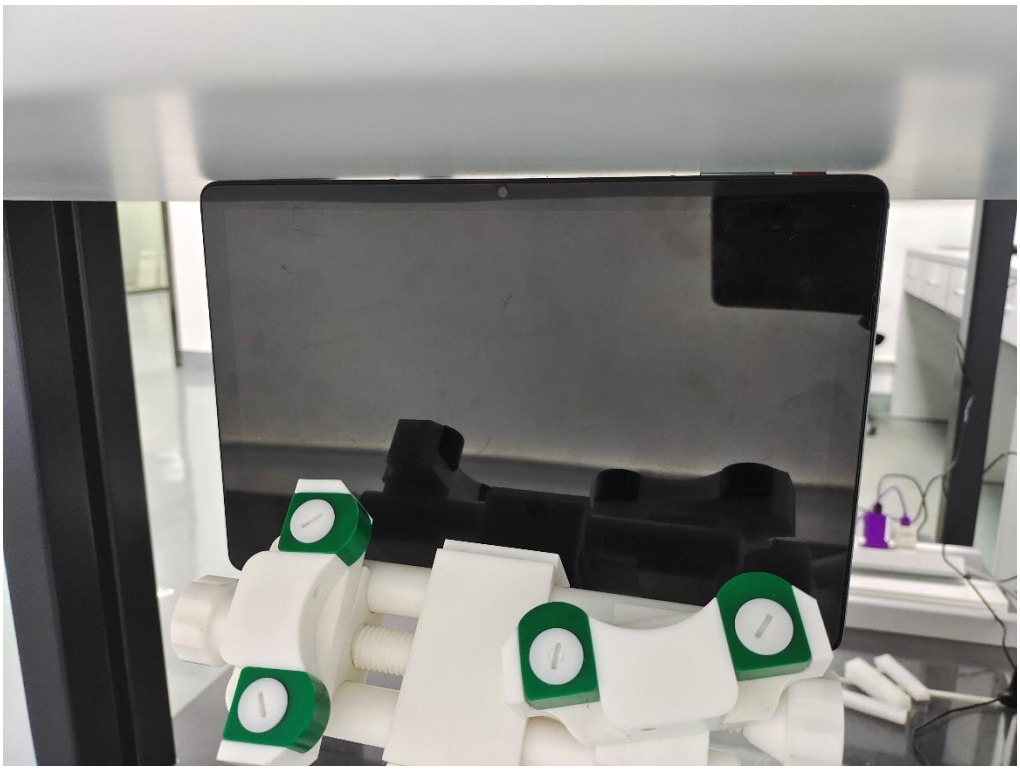


Body Left side (separation distance is 0mm)

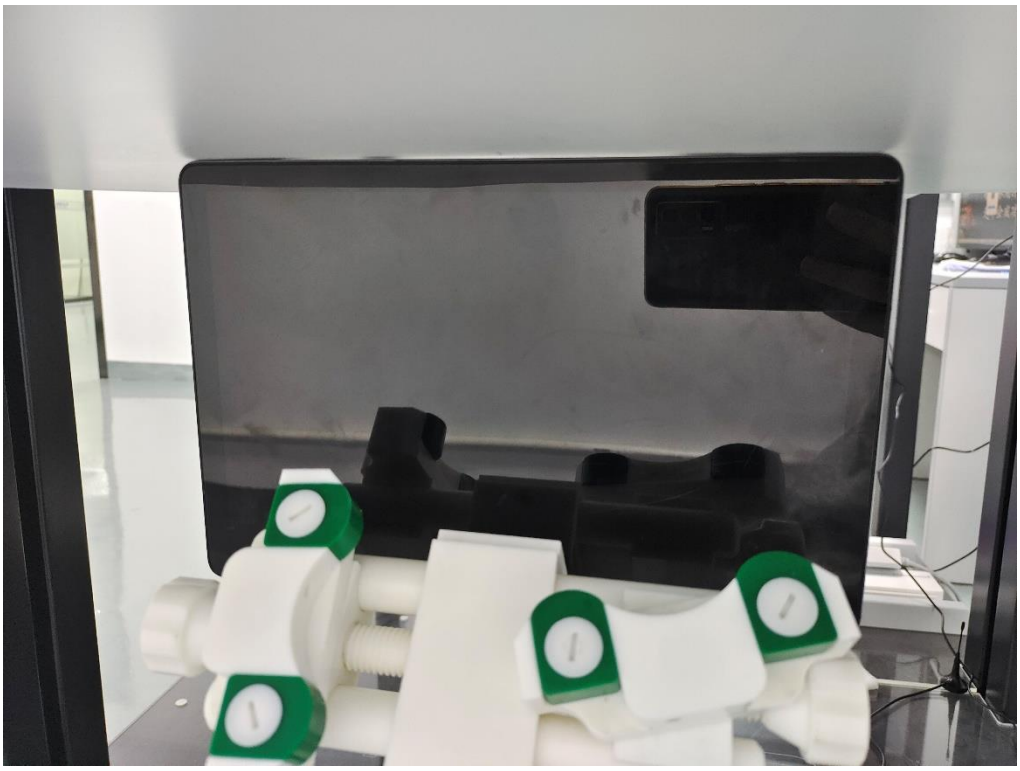


Body Right side (separation distance is 0mm)

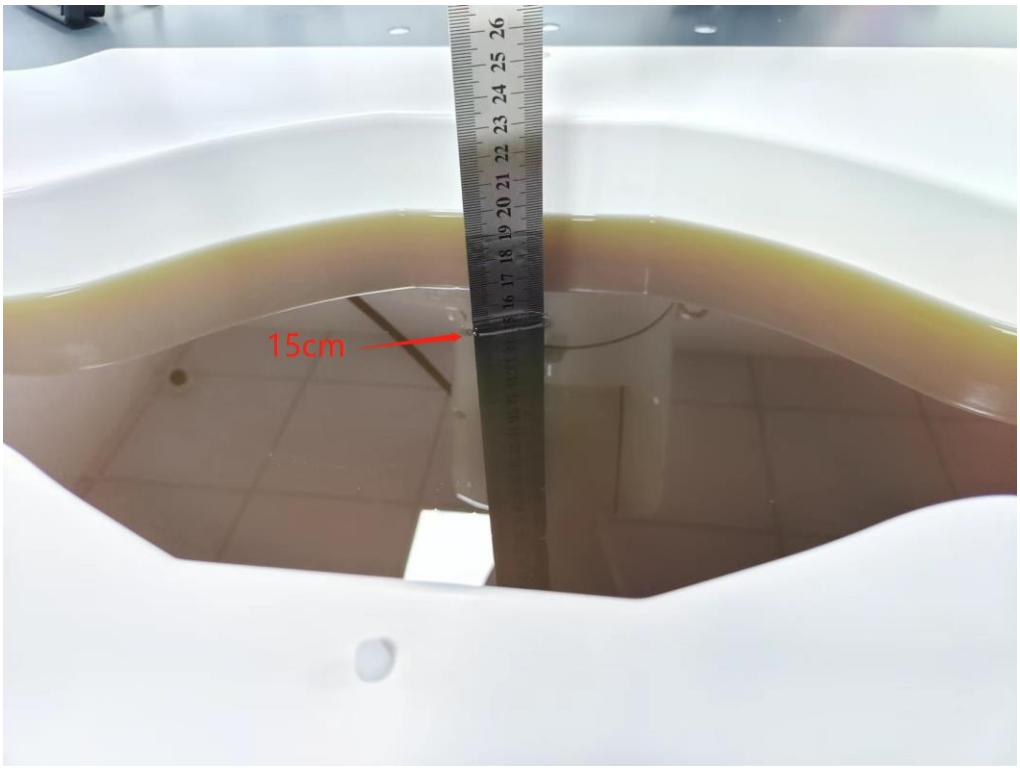
Body Top side (separation distance is 0mm)



Body Bottom side (separation distance is 0mm)



Liquid depth (15 cm)



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)	Scaled SAR (W/Kg)	Meas. No.
GSM850	GSM	Front Side	824.2	0.561	2.67	33.50	33.29	0.589	/
		Back Side	824.2	0.859	-2.83	33.50	33.29	**0.902**	**1**
		Back Side	836.6	0.719	-2.16	33.50	33.20	0.770	/
		Back Side	848.8	0.735	0.75	33.50	33.23	0.782	/
		Left Side	824.2	0.326	2.26	33.50	33.29	0.342	/
		Right Side	824.2	0.082	-2.50	33.50	33.29	0.086	/
		Top Side	824.2	0.714	-0.28	33.50	33.29	0.749	/
		Bottom Side	824.2	0.103	3.47	33.50	33.29	0.108	/
PCS 1900	GSM	Front Side	1909.8	0.423	-3.37	29.50	29.06	0.114	/
		Back Side	1909.8	0.593	4.00	29.50	29.06	0.656	/
		Left Side	1850.2	0.669	-3.47	29.50	28.83	0.781	/
		Left Side	1880	0.725	-1.00	29.50	28.86	0.840	/
		Left Side	1909.8	0.805	-3.95	29.50	29.06	**0.891**	**2**
		Top Side	1909.8	0.245	-1.68	29.50	29.06	0.271	/
WCDMA Band II	RMC	Front Side	1880	0.115	-3.87	22.50	22.27	0.121	/
		Back Side	1880	0.164	-0.27	22.50	22.27	0.173	/
		Left Side	1880	0.271	-1.83	22.50	22.27	**0.286**	**3**
		Top Side	1880	0.064	0.56	22.50	22.27	0.067	/
WCDMA Band IV	RMC	Front Side	1712.6	0.219	1.95	22.50	22.22	0.234	/
		Back Side	1712.6	0.338	1.82	22.50	22.22	0.361	/
		Left Side	1712.6	0.449	-1.91	22.50	22.22	**0.479**	**4**
		Top Side	1712.6	0.132	0.94	22.50	22.22	0.141	/
WCDMA Band V	RMC	Front Side	846.6	0.672	0.83	23.50	22.90	0.772	/
		Back Side	826.4	0.826	0.47	23.50	22.77	0.977	/
		Back Side	836.4	0.902	2.60	23.50	22.78	1.065	/
		Back Side	846.6	1.005	-2.81	23.50	22.90	**1.154**	**5**
		Left Side	846.6	0.320	-0.93	23.50	22.90	0.367	/
		Top Side	846.6	0.676	-2.01	23.50	22.90	0.776	/

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1900	0.168	2.10	23.5	22.76	0.199	/
			50	0	Front side	1880	0.132	3.13	22	21.65	0.143	/
			1	0	Back Side	1860	0.136	3.24	23.5	22.76	0.161	/
			50	0	Back Side	1840	0.101	-0.79	22	21.65	0.109	/
			1	0	Left Side	1820	0.208	-3.40	23.5	22.76	**0.247**	**6**
			50	0	Left Side	1800	0.184	-0.25	22	21.65	0.199	/
			1	0	Top Side	1740	0.074	-3.45	23.5	22.76	0.088	/
			50	0	Top Side	1720	0.058	-2.77	22	21.65	0.063	/
LTE Band 4	20M	QPSK	1	0	Front side	1745	0.195	0.23	23.5	23.16	0.211	/
			50	0	Front side	1745	0.162	2.29	22	21.44	0.184	/
			1	0	Back Side	1745	0.232	-1.20	23.5	23.16	0.251	/
			50	0	Back Side	1745	0.190	-2.48	22	21.44	0.216	/
			1	0	Left Side	1745	0.250	-2.28	23.5	23.16	**0.270**	**7**
			50	0	Left Side	1745	0.211	-2.48	22	21.44	0.240	/
			1	0	Top Side	1745	0.078	-0.60	23.5	23.16	0.084	/
			50	0	Top Side	1745	0.063	0.23	22	21.44	0.072	/
LTE Band 5	10M	QPSK	1	0	Front side	836.5	0.483	3.32	24	23.26	0.573	/
			25	0	Front side	844	0.329	2.57	23	22.49	0.370	/
			1	0	Back Side	829	0.657	3.94	24	23.01	0.825	/
			1	0	Back Side	836.5	0.844	-0.14	24	23.26	**1.001**	**8**
			1	0	Back Side	844	0.786	2.68	24	23.18	0.949	/
			25	0	Back Side	844	0.701	1.38	23	22.49	0.788	/
			1	0	Left Side	829	0.594	0.88	24	23.01	0.746	
			1	0	Left Side	836.5	0.678	2.94	24	23.26	0.804	/
			1	0	Left Side	844	0.623	1.76	24	23.18	0.752	
			25	0	Left Side	844	0.528	2.05	23	22.49	0.594	/
			1	0	Top Side	836.5	0.625	3.15	24	23.26	0.741	/
			25	0	Top Side	844	0.485	-1.39	23	22.49	0.545	/

LTE Band 7	20M	QPSK	1	0	Front side	2560	0.065	0.59	22	21.48	0.073	/
			50	0	Front side	2510	0.052	-0.27	21	20.31	0.061	/
			1	0	Back Side	2560	0.084	-3.35	22	21.48	0.095	/
			50	0	Back Side	2510	0.071	-1.18	21	20.31	0.083	/
			1	0	Left Side	2560	0.188	0.67	22	21.48	**0.212**	**9**
			50	0	Left Side	2510	0.153	1.63	21	20.31	0.179	/
			1	0	Top Side	2560	0.039	3.74	22	21.48	0.044	/
			50	0	Top Side	2510	0.025	1.37	21	20.31	0.029	/
LTE Band 40	20M	QPSK	1	0	Front side	2350	0.100	3.93	13	12.68	0.108	/
			50	0	Front side	2350	0.084	-2.65	12	11.65	0.091	/
			1	0	Back Side	2350	0.111	3.42	13	12.68	**0.119**	**10**
			50	0	Back Side	2350	0.097	2.27	12	11.65	0.105	/
			1	0	Top Side	2350	0.040	1.29	13	12.68	0.043	/
			50	0	Top Side	2350	0.021	3.84	12	11.65	0.023	/
LTE Band 41	20M	QPSK	1	0	Front side	2593	0.048	-1.11	22.5	21.98	0.054	/
			50	0	Front side	2593	0.032	-1.81	21.5	20.98	0.036	/
			1	0	Back Side	2593	0.453	2.81	22.5	21.98	**0.511**	**11**
			50	0	Back Side	2593	0.357	-3.24	21.5	20.98	0.402	/
			1	0	Left Side	2593	0.412	-3.18	22.5	21.98	0.464	/
			50	0	Left Side	2593	0.273	-1.33	21.5	20.98	0.308	/
			1	0	Top Side	2593	0.130	-1.91	22.5	21.98	0.147	/
			50	0	Top Side	2593	0.085	-0.55	21.5	20.98	0.096	/

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
2.4GHz WLAN	802.11n(HT20)	Front Side	2437	0.157	-3.57	21.50	21.26	0.166	/
		Back Side	2437	0.215	-0.75	21.50	21.26	**0.227**	**12**
		Top Side	2437	0.133	-0.82	21.50	21.26	0.141	/
BLE	GFSK	Front Side	2440	0.026	-2.02	8.50	7.94	0.030	/
		Back Side	2440	0.044	-1.97	8.50	7.94	**0.050**	**13**
		Top Side	2440	0.032	1.00	8.50	7.94	0.036	/
5.2GHz WLAN	802.11ac-VHT20	Front Side	5200	0.172	1.18	16.00	15.83	0.179	/
		Back Side	5200	0.245	-0.52	16.00	15.83	**0.255**	**14**
		Top Side	5200	0.100	-3.15	16.00	15.83	0.104	/
5.8GHz WLAN	802.11ac-VHT20	Front Side	5745	0.049	2.98	15.00	14.60	0.054	/
		Back Side	5745	0.065	-1.63	15.00	14.60	0.071	/
		Top Side	5745	0.082	-0.23	15.00	14.60	**0.090**	**15**

Note:

1. The test separation of all above table is 0mm.
2. Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. 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.
   b. Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor
3. 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.

Repeated SAR

Band	Mode	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	GSM	Back Side	826.4	0.835	-3.67	33.5	33.29	0.876	-
PCS 1900	GSM	Left Side	1850.2	0.717	1.47	29.5	28.86	0.831	-
		Left Side	1880	0.780	-2.66	29.5	29.06	0.863	-
WCDMA Band V	RMC	Back Side	826.4	0.804	-2.58	23.50	22.77	0.951	-
		Back Side	836.4	0.865	-3.77	23.50	22.78	1.020	-
		Back Side	846.6	0.960	2.21	23.50	22.90	1.102	-

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 5	10M	QPSK	1	0	Back Side	829	0.655	3.82	24	23.01	0.822	-
			1	0	Back Side	836.5	0.834	0.76	24	23.26	0.989	-
			1	0	Back Side	844	0.784	-3.83	24	23.18	0.947	-
			1	0	Left Side	829	0.673	0.52	24	24.08	0.708	-

Repeated SAR measurement

Band	Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
GSM 850	GSM	Back Side	826.4	0.859	0.835	1.029
PCS 1900	GSM	Left Side	1850.2	0.725	0.717	1.011
		Left Side	1880	0.805	0.780	1.032
WCDMA Band V	RMC	Back Side	826.4	0.826	0.804	1.027
		Back Side	836.4	0.902	0.865	1.043
		Back Side	846.6	1.005	0.960	1.047

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
LTE Band 5	10M	QPSK	1	0	Back Side	829	0.657	0.655	1.004
			1	0	Back Side	836.5	0.844	0.834	1.012
			1	0	Back Side	844	0.786	0.784	1.002
			1	0	Left Side	829	0.678	0.673	1.008

Note:

1. Per KDB 865664 D01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is≥0.8W/Kg.
2. Per KDB 865664 D01,if the ratio of largest to smallest SAR for the original and first repeated measurement is≤1.2 and the measured SAR＜1.45W/Kg, only one repeated measurement is required.
3. Perform a second repeated measurement only 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 ≥1.45W/Kg.
4. The ratio is the difference in percentage between original and repeated measured SAR.

Simultaneous Multi-band Transmission Evaluation:
Application Simultaneous Transmission information:

Position	Simultaneous State
Body	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. 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 Appendix E, 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:
   SAR_{est} =1.6 · Pant / Pth [W/kg].
   Pant is maximum time-averaged power or effective radiated power (ERP), whichever is greater, and *Pth* is defined in Formula KDB 447498 (B.2).

Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + 2.4G WLAN	Body	GSM	0.902	1.129
		2.4G WLAN	0.227	
GSM + Bluetooth	Body	GSM	0.902	0.952
		Bluetooth	0.050	
GSM + 5G WLAN	Body	GSM	0.902	1.157
		5G WLAN	0.255	
WCDMA + 2.4G WLAN	Body	WCDMA	1.154	1.381
		2.4G WLAN	0.227	
WCDMA + Bluetooth	Body	WCDMA	1.154	1.204
		Bluetooth	0.050	
WCDMA + 5G WLAN	Body	WCDMA	1.154	1.409
		5G WLAN	0.255	
LTE + 2.4G WLAN	Body	LTE	1.048	1.275
		2.4G WLAN	0.227	
LTE + Bluetooth	Body	LTE	1.048	1.098
		Bluetooth	0.050	
LTE + 5G WLAN	Body	LTE	1.048	1.303
		5G WLAN	0.255	

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	2022.02.11	2025.02.10
1800MHz Dipole	MVG	DIP1G800	SN 06/22 DIP1G800-640	2022.02.11	2025.02.10
1900MHz Dipole	MVG	DIP1G900	SN 06/22 DIP1G900-641	2022.02.11	2025.02.10
2300MHz Dipole	MVG	DIP2G300	SN 06/22 DIP2G100-644	2022.02.11	2025.02.10
2450MHz Dipole	MVG	GIP2G450	SN 06/22 DIP2G450-645	2022.02.11	2025.02.10
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2022.02.11	2025.02.10
5000MHz Dipole	MVG	GIP5G000	SN 06/22 DIP5G00-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2022.02.11	2025.02.10
Dielectric Probe Kit	MVG	OCPG 87	SN 06/22 OCPG87	2022.02.11	2025.02.10
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 holder	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	Agilent	E5071C	MY46418070	2022.03.28	2023.03.27
Multi Meter	Keithley	DMM6500	DMM6500	2022.05.05	2023.05.04
Signal Generator	Keithley	N5182B	MY59100717	2022.04.29	2023.04.28
Wireless Communication Test Set	R&S	CMW500	137737	2022.04.29	2023.04.28
Power Sensor	R&S	Z11	116184	2022.03.28	2023.03.27
Temperature hygrometer	N/A	ST-W2318	N/A	2022.05.05	2023.05.04
Thermograph	N/A	TP101	N/A	2022.05.05	2023.05.04

Appendix A. System Validation Plots

System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

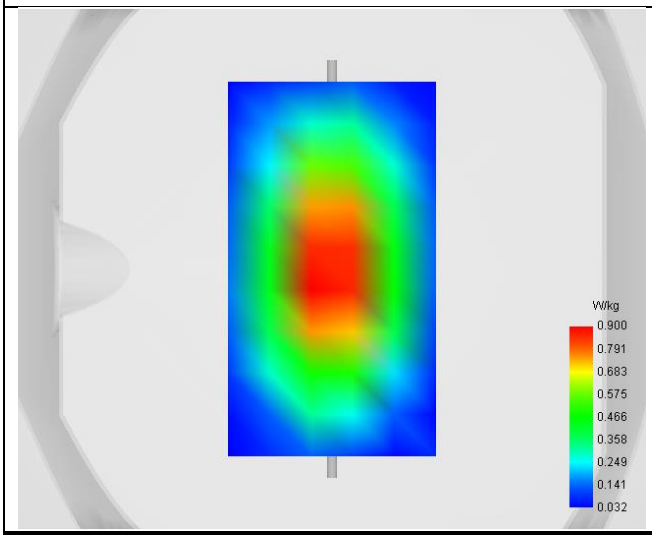
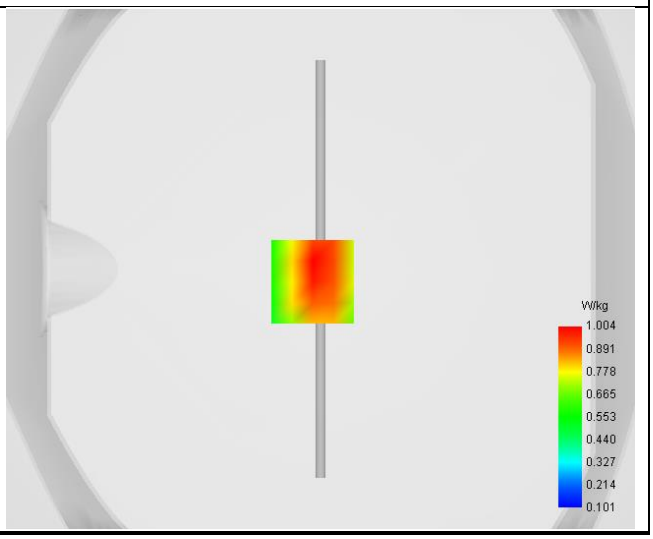
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2023-02-02

Experimental conditions.

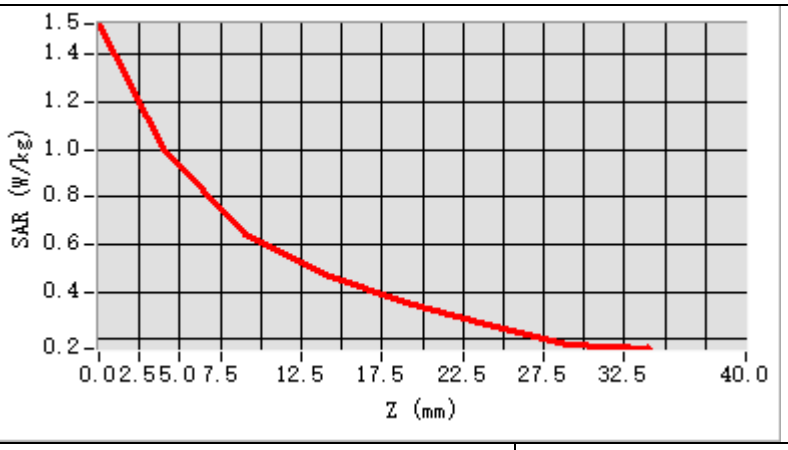
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	41.64
Conductivity (S/m)	0.92
Probe	SN 04/22 EPGO364
ConvF	1.72
Crest factor:	1:1

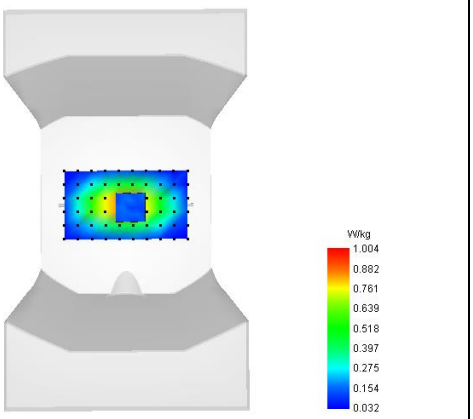
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-3.00, Y=-5.00 ; SAR Peak: 1.39 W/kg

SAR 10g (W/Kg)	0.634
SAR 1g (W/Kg)	0.955

Z Axis Scan


SAR (W/kg)
1.5
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
1.004
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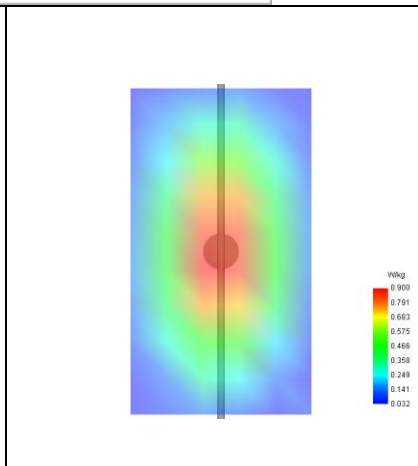
0.761
0.639
0.518
0.397
0.275
0.154
0.032

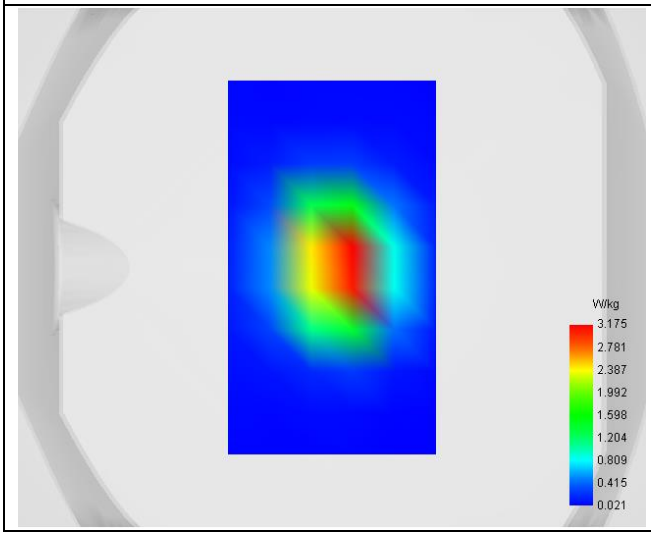
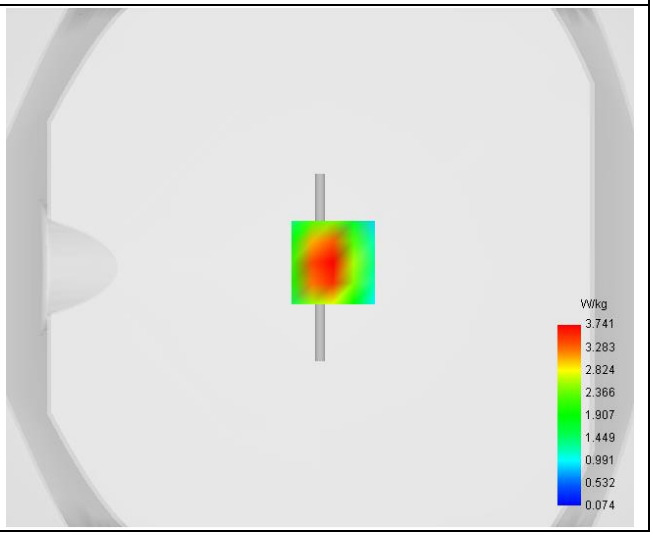


System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement:2023-03-03

Experimental conditions.

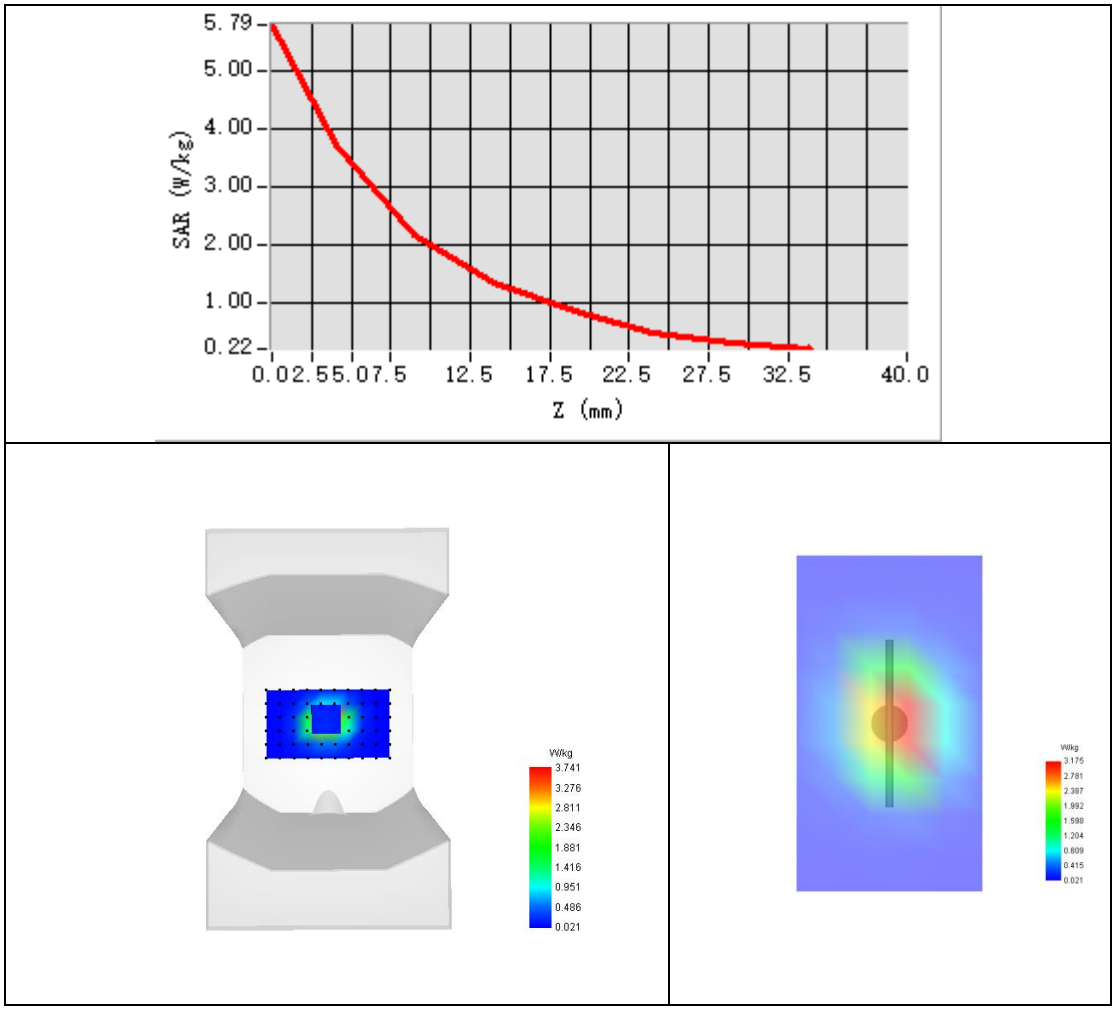
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.84
Conductivity (S/m)	1.41
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=2.00 ; SAR Peak: 5.81 W/kg

SAR 10g (W/Kg)	1.965
SAR 1g (W/Kg)	3.661

Z Axis Scan

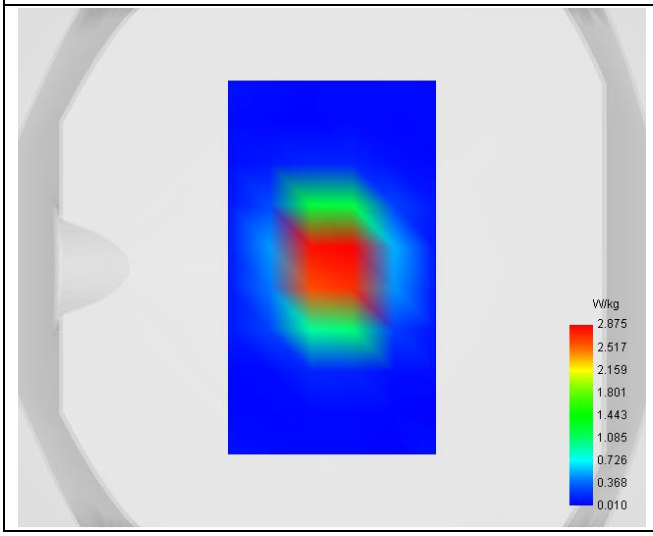
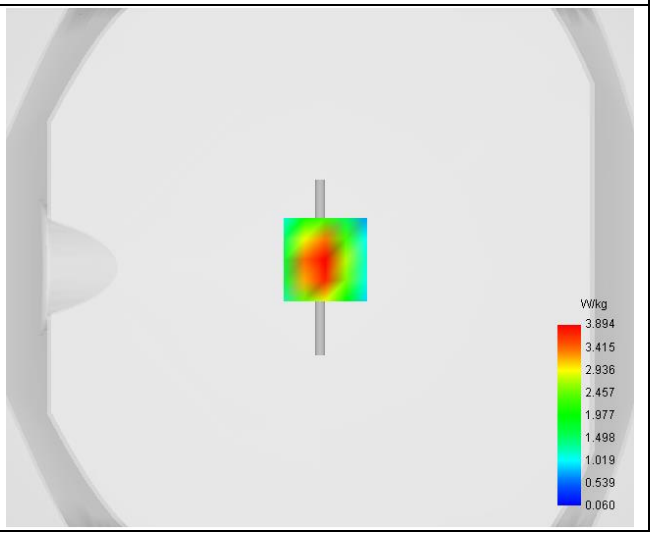

5.79
5.00
4.00
3.00
2.00
1.00
0.22
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
3.741
3.276
2.811
2.346
1.881
1.416
0.951
0.486
0.021
W/kg
3.175
2.781
2.387
1.992
1.598
1.204
0.809
0.415
0.021

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:2023-03-03

Experimental conditions.

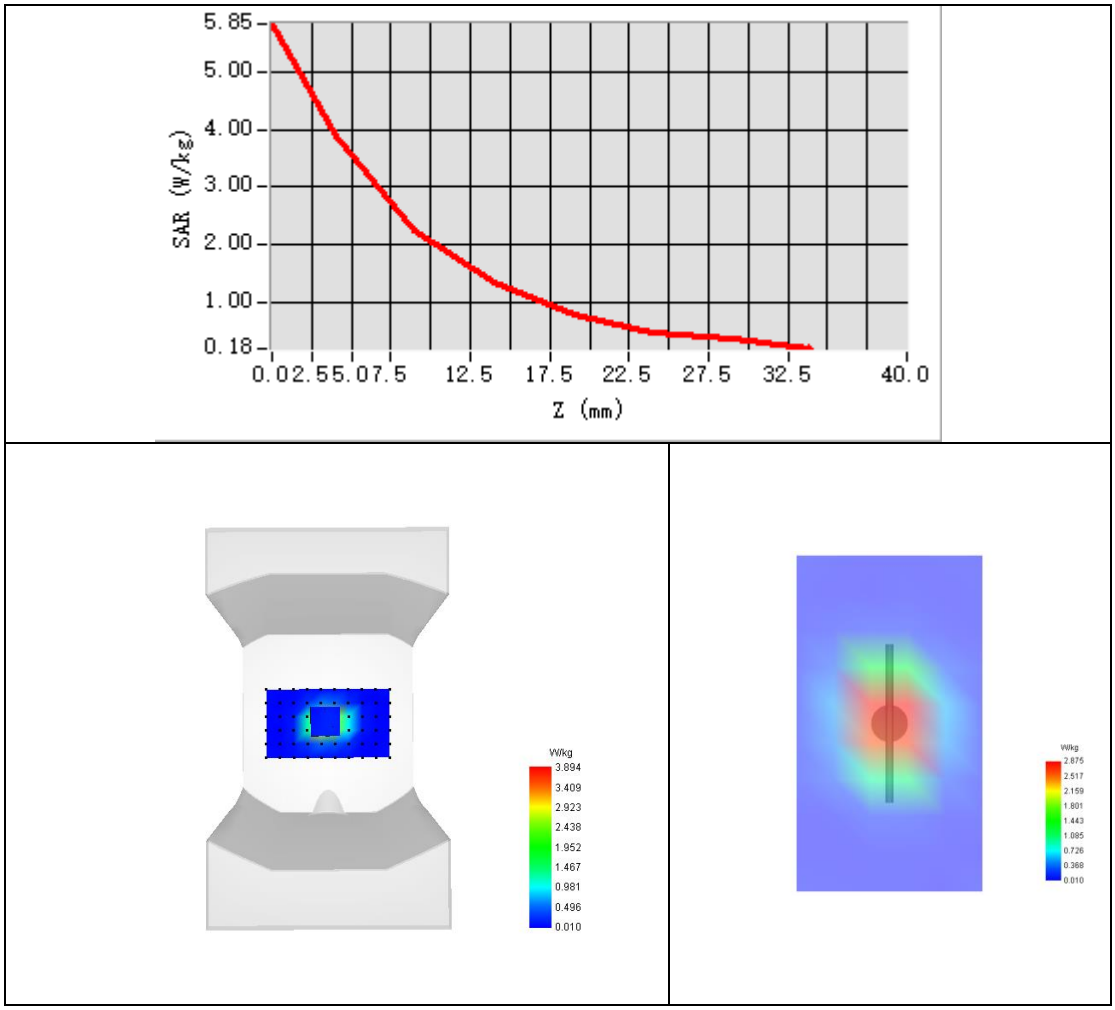
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.24
Conductivity (S/m)	1.44
Probe	SN 04/22 EPGO364
ConvF	2.25
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=2.00, Y=3.00 ; SAR Peak: 6.08 W/kg

SAR 10g (W/Kg)	1.973
SAR 1g (W/Kg)	3.732

Z Axis Scan

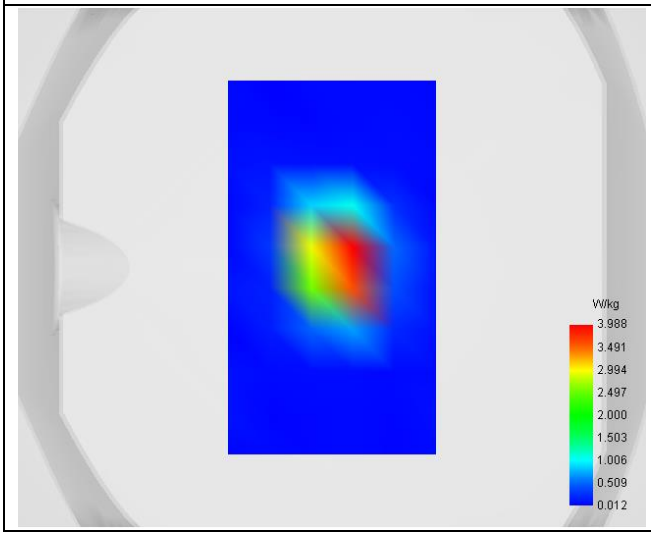
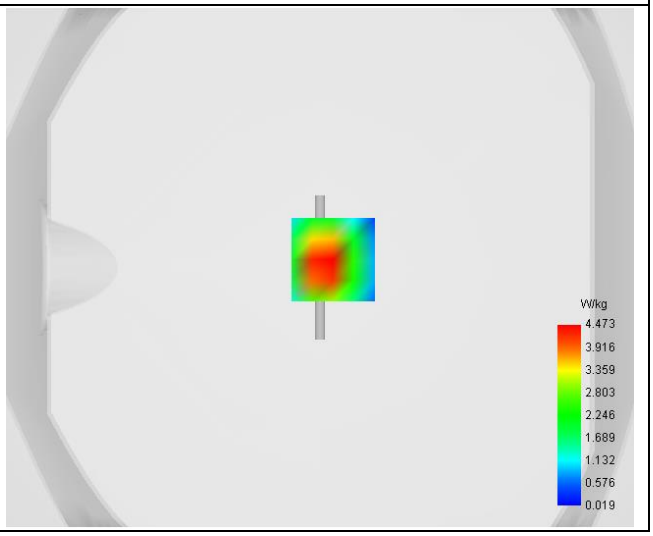

5.85
5.00
4.00
3.00
2.00
1.00
0.18
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
3.894
3.409
2.923
2.438
1.952
1.467
0.981
0.496
0.010
W/kg
2.875
2.517
2.159
1.801
1.443
1.085
0.726
0.368
0.010

System Performance Check Data (2300MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement:2023-03-04

Experimental conditions.

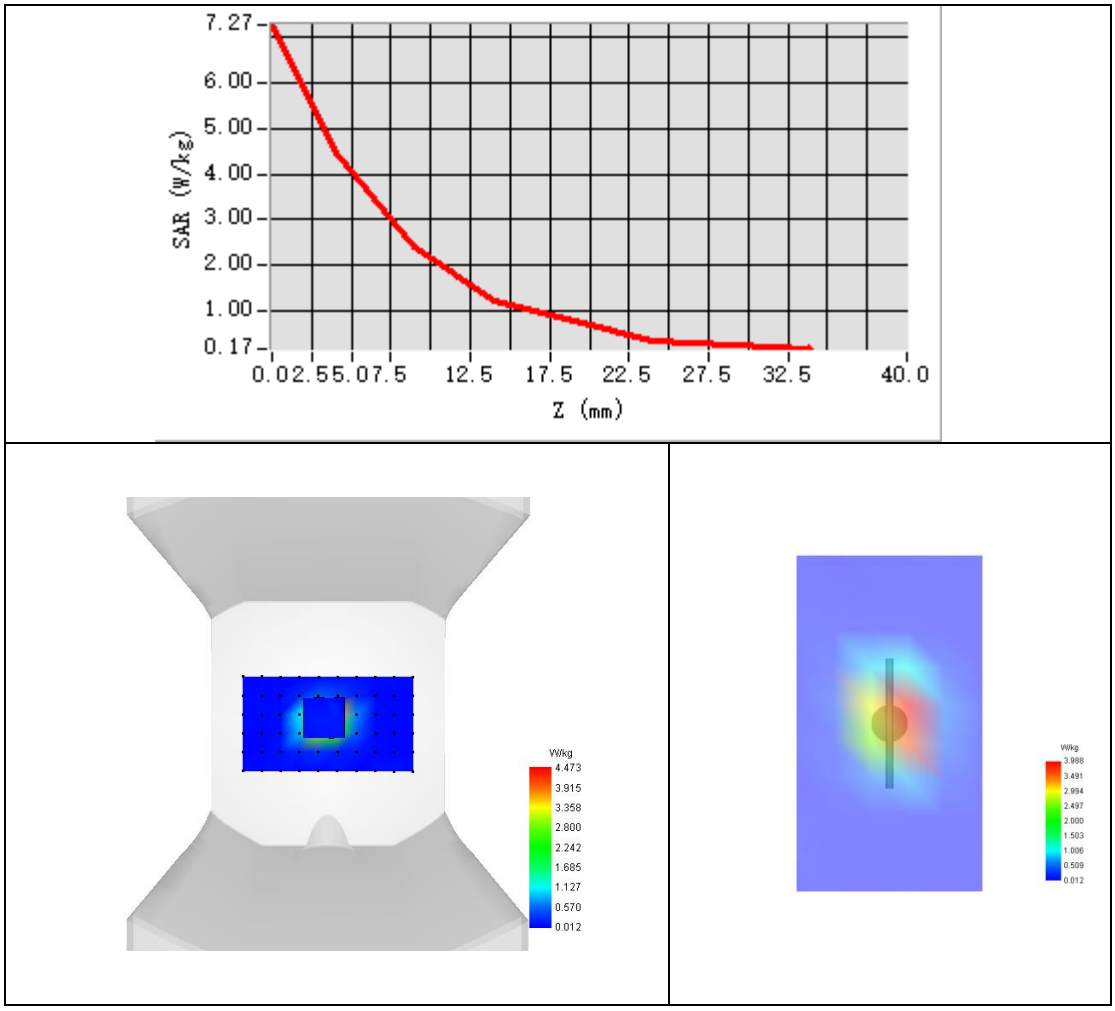
Phantom	Validation plane
Device Position	Dipole
Band	CW2300
Channels	Middle
Signal	CW
Frequency (MHz)	2300.000
Relative permittivity	40.46
Conductivity (S/m)	1.66
Probe	SN 04/22 EPGO364
ConvF	2.32
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00 ; SAR Peak: 7.92 W/kg

SAR 10g (W/Kg)	2.120
SAR 1g (W/Kg)	4.765

Z Axis Scan

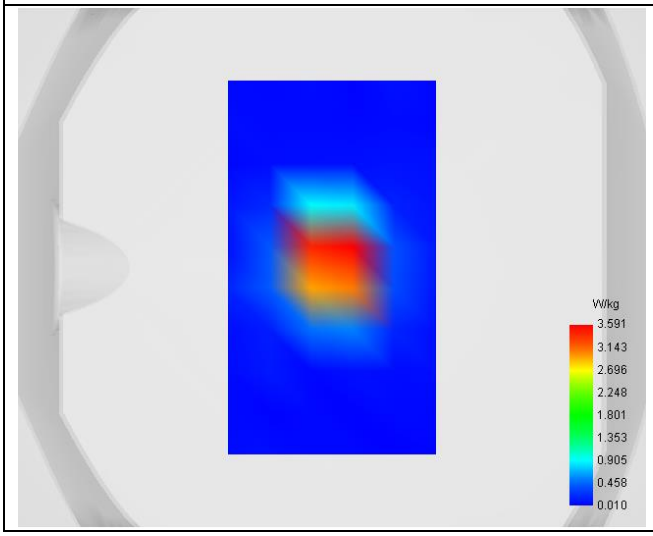
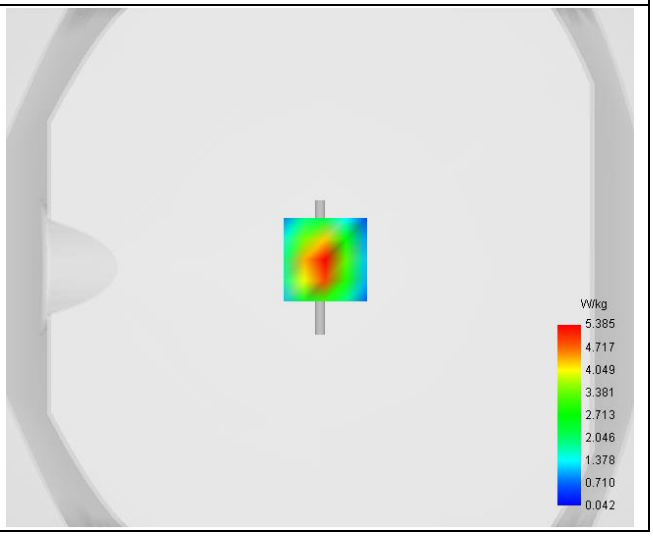

7.27
6.00
5.00
4.00
3.00
2.00
1.00
0.17
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
4.473
3.915
3.358
2.800
2.242
1.685
1.127
0.570
0.012
W/kg
3.988
3.491
2.994
2.497
2.000
1.503
1.006
0.509
0.012

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:2023-03-04

Experimental conditions.

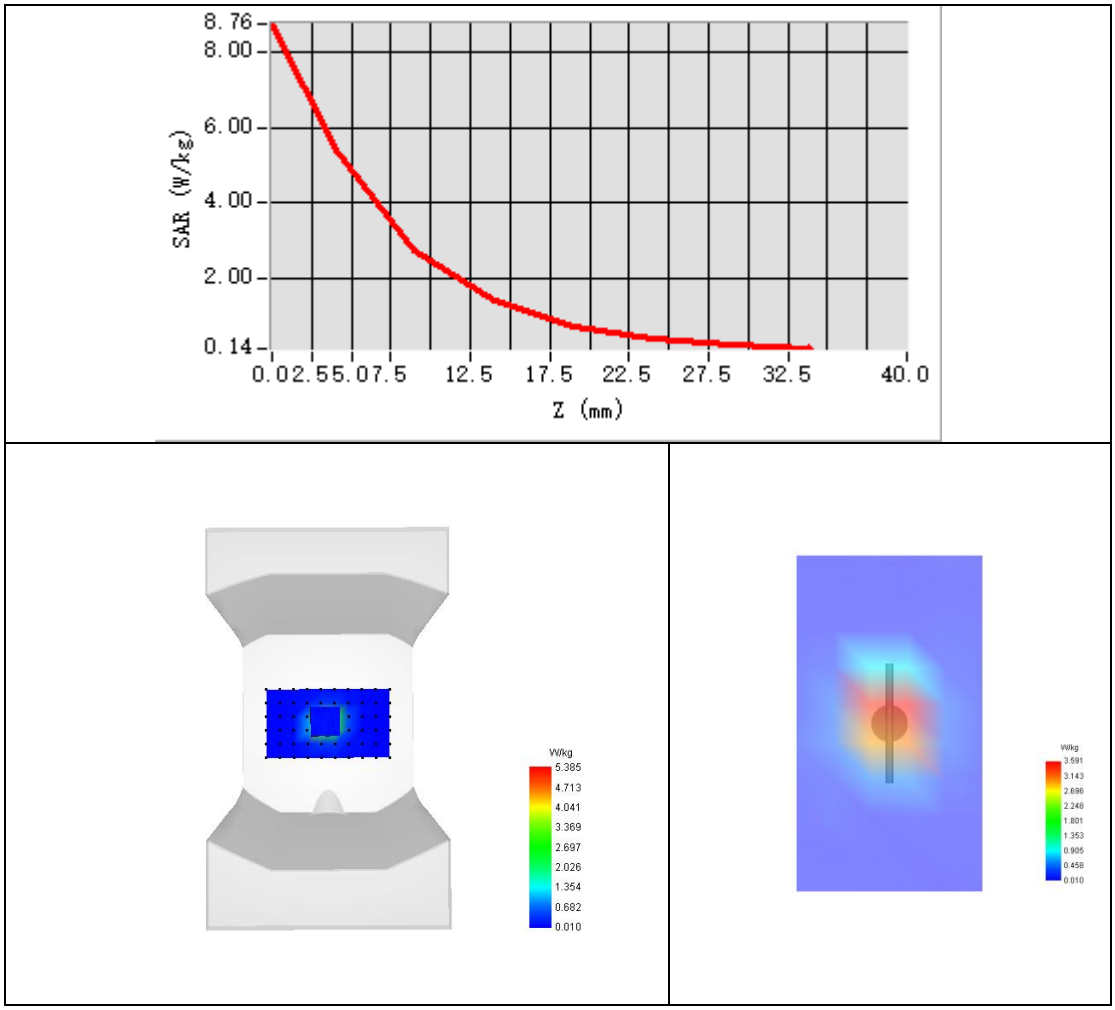
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	40.16
Conductivity (S/m)	1.82
Probe	SN 04/22 EPGO364
ConvF	2.33
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=2.00, Y=3.00 ; SAR Peak: 9.04 W/kg

SAR 10g (W/Kg)	2.362
SAR 1g (W/Kg)	5.096

Z Axis Scan

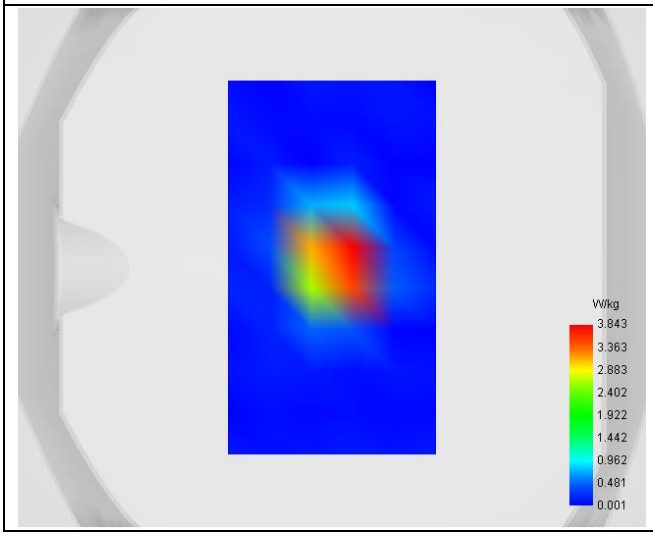
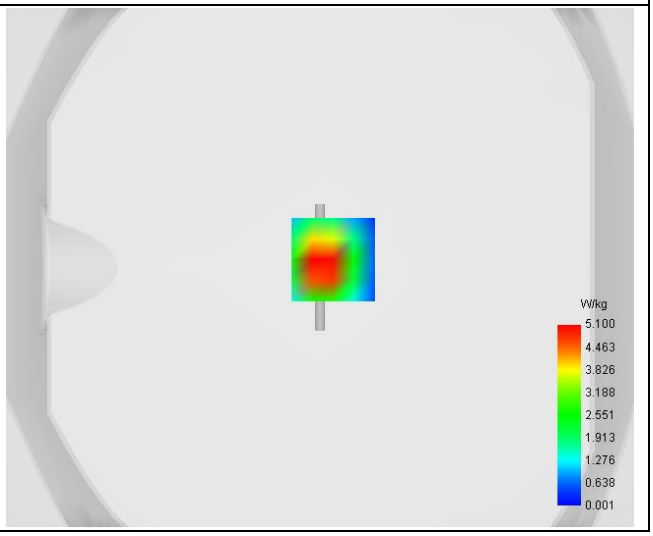

8.76
8.00
6.00
4.00
2.00
0.14
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.385
4.713
4.041
3.369
2.697
2.026
1.354
0.682
0.010
W/kg
3.591
3.143
2.696
2.248
1.801
1.353
0.905
0.458
0.010

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:2023-02-28

Experimental conditions.

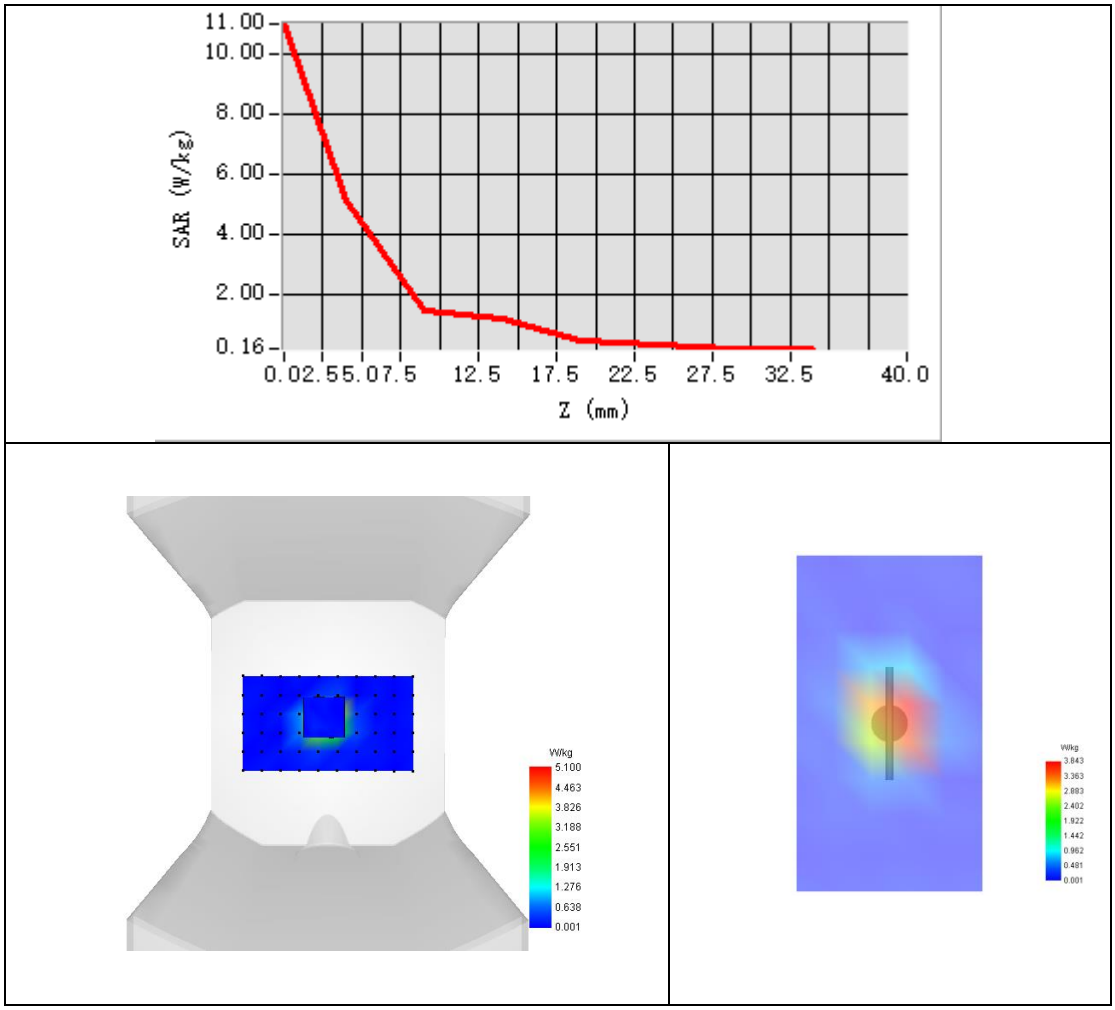
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	39.92
Conductivity (S/m)	1.98
Probe	SN 04/22 EPGO364
ConvF	2.36
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=3.00 ; SAR Peak: 9.68 W/kg

SAR 10g (W/Kg)	2.306
SAR 1g (W/Kg)	5.179

Z Axis Scan

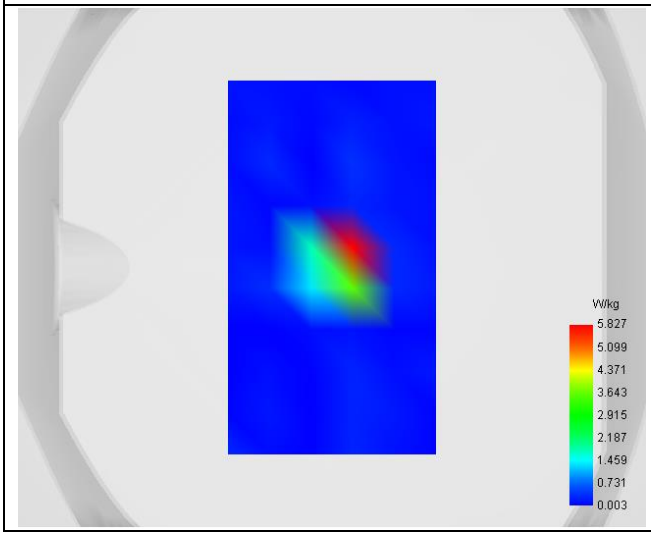
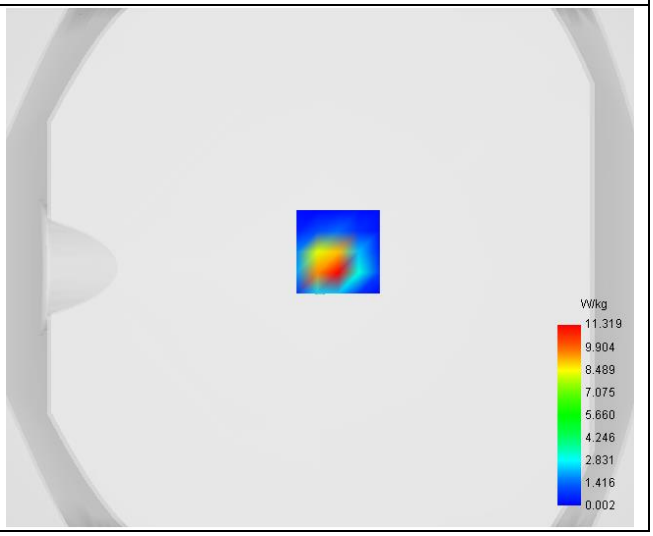

11.00
10.00
8.00
6.00
4.00
2.00
0.16
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.100
4.463
3.826
3.188
2.551
1.913
1.276
0.638
0.001
W/kg
3.843
3.363
2.883
2.402
1.922
1.442
0.962
0.481
0.001

System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement:2023-02-14

Experimental conditions.

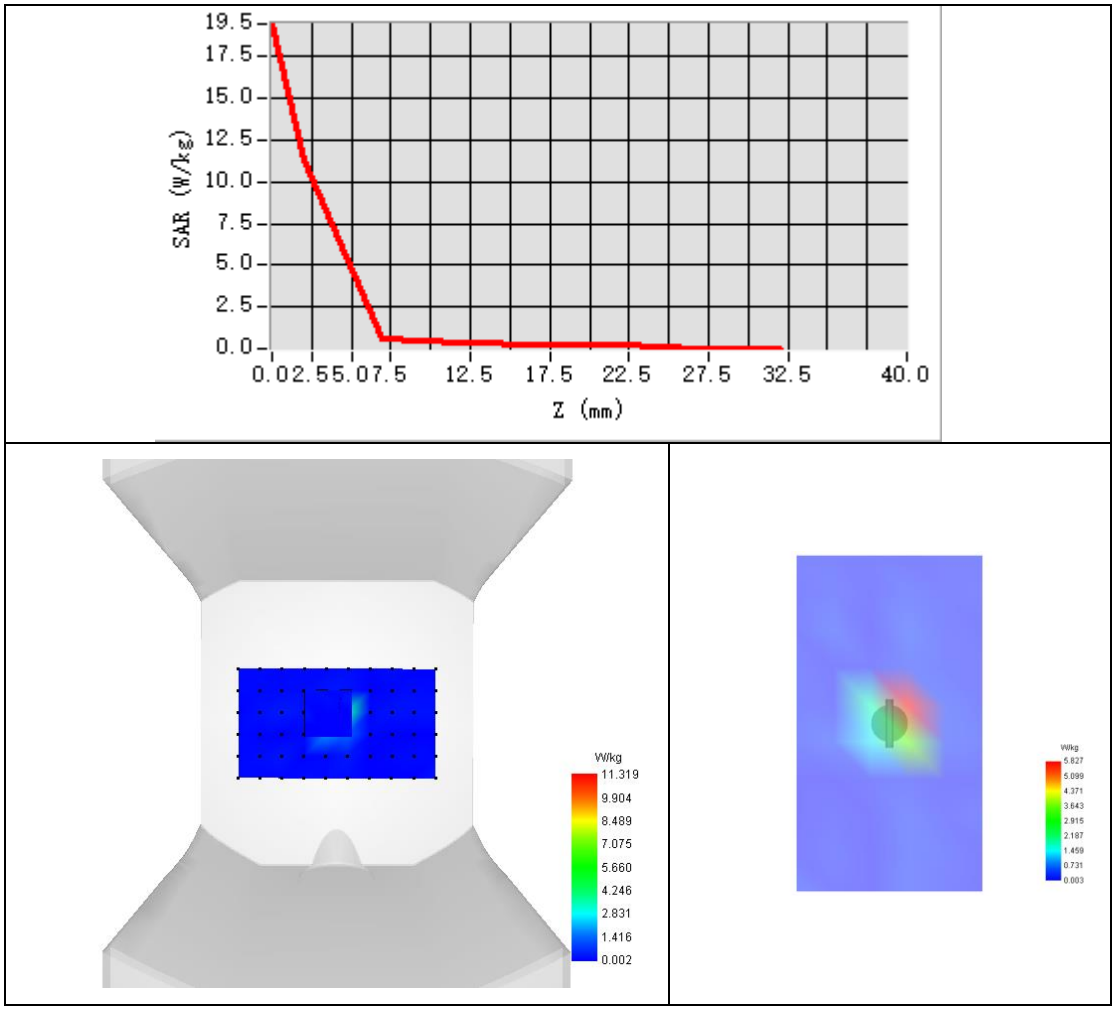
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.71
Conductivity (S/m)	4.60
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=7.00, Y=6.00 ; SAR Peak: 21.79 W/kg

SAR 10g (W/Kg)	1.997
SAR 1g (W/Kg)	7.586

Z Axis Scan

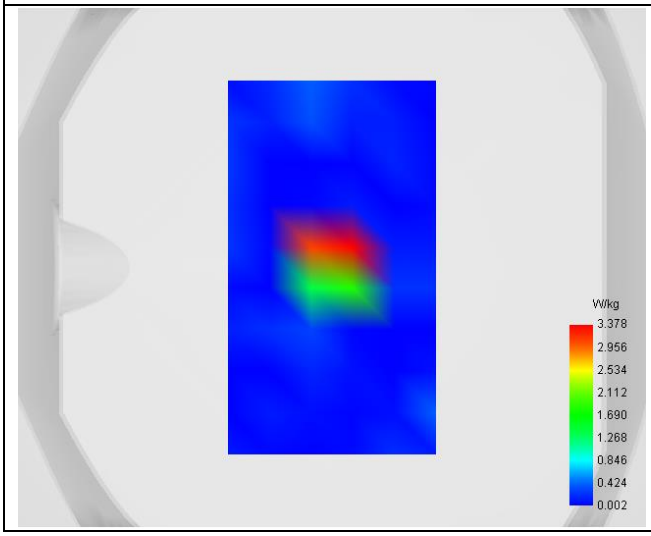
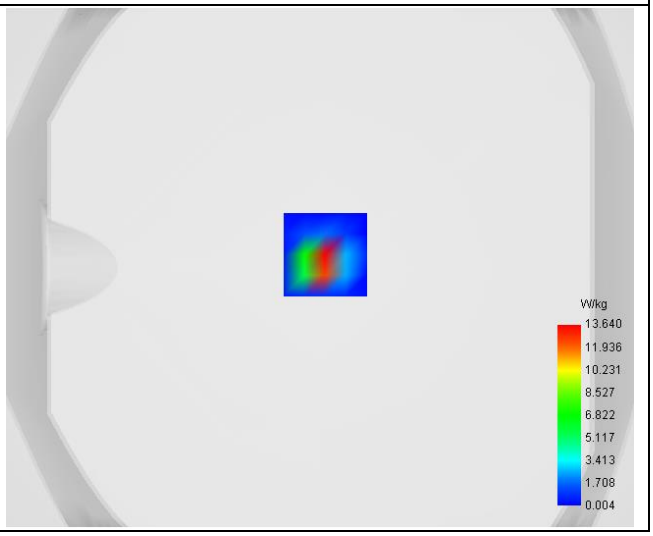

SAR (W/kg)
19.5
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
11.319
9.904
8.489
7.075
5.660
4.246
2.831
1.416
0.002

System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement:2023-02-14

Experimental conditions.

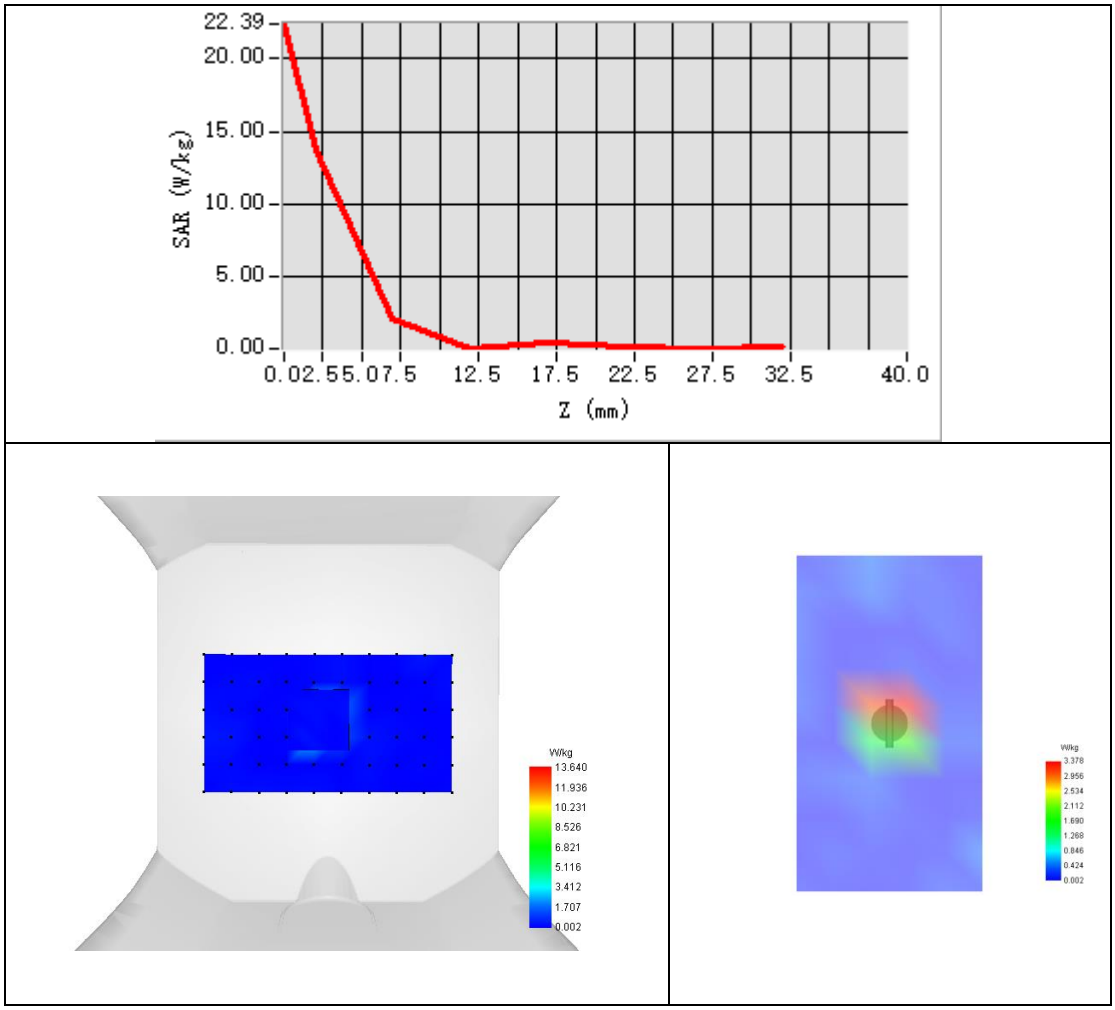
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	35.65
Conductivity (S/m)	5.25
Probe	SN 04/22 EPGO364
ConvF	1.73
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=5.00, Y=6.00 ; SAR Peak: 25.18 W/kg

SAR 10g (W/Kg)	1.986
SAR 1g (W/Kg)	8.114

Z Axis Scan


22.39
20.00
15.00
10.00
5.00
0.00
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
13.640
11.936
10.231
8.526
6.821
5.116
3.412
1.707
0.002
W/kg
3.378
2.956
2.534
2.112
1.690
1.268
0.846
0.424
0.002

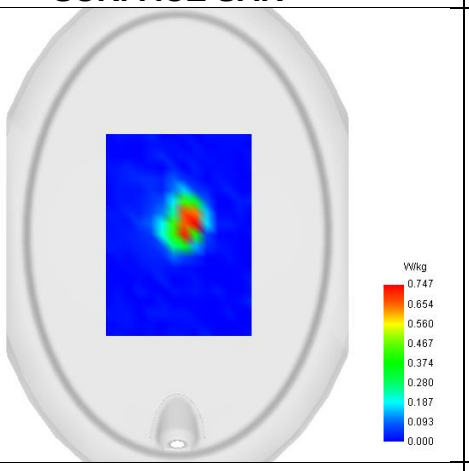
Appendix B. SAR Test Plots

Plot 1:

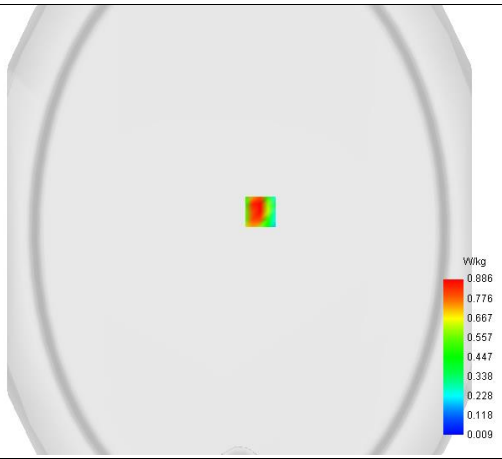
Test Date	2023-02-02
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	GSM850
Signal	TDMA (GSM)
Frequency	824.2
SAR 10g (W/Kg)	0.484
SAR 1g (W/Kg)	0.859

Maximum location: X=22.00, Y=19.00 ; SAR Peak: 1.38 W/kg

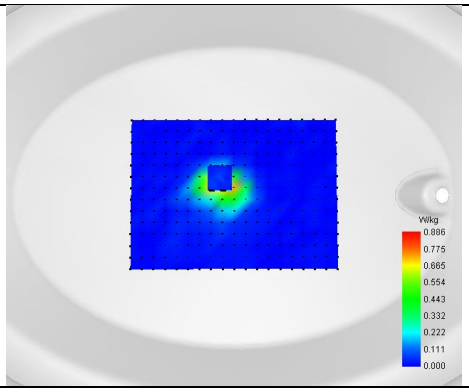
SURFACE SAR



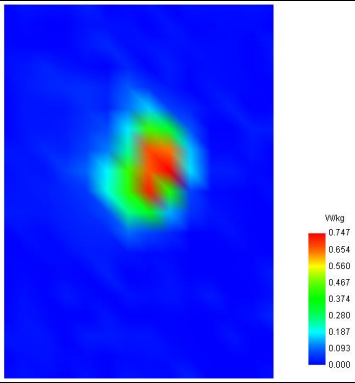
VOLUME SAR

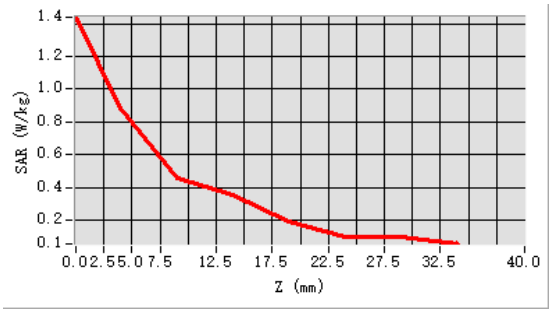


3D screen shot



Hot spot position

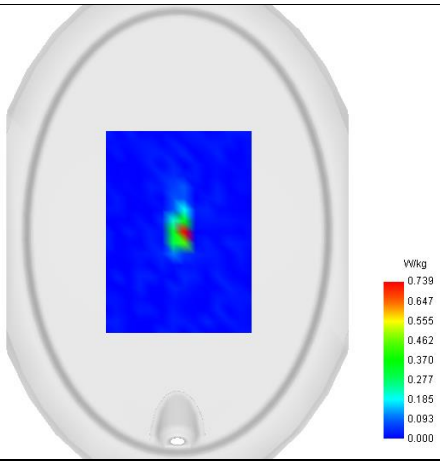
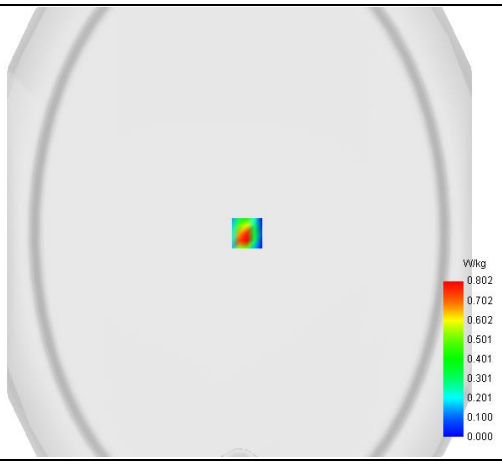
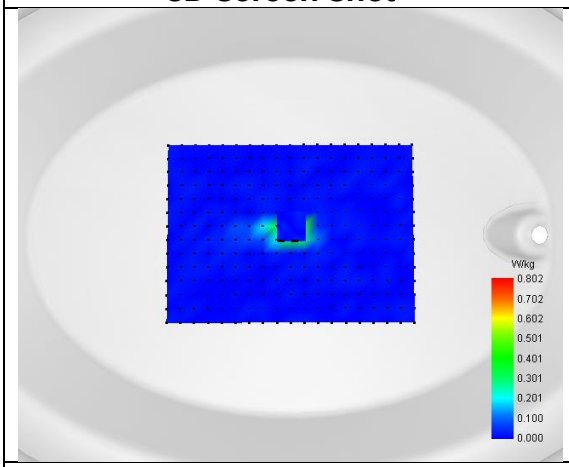
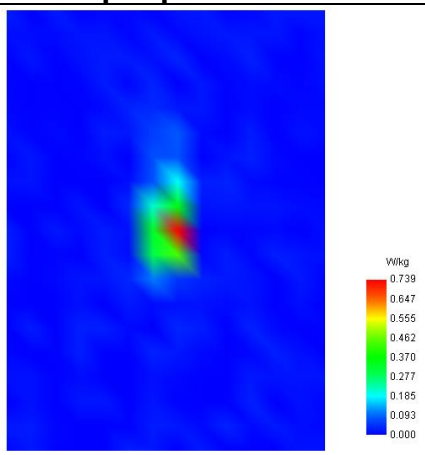
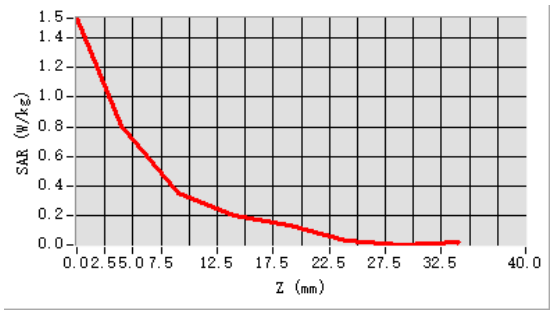




Plot 2:

Test Date	2023-03-03
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	GSM1900
Signal	TDMA (GSM)
Frequency	1909.8
SAR 10g (W/Kg)	0.336
SAR 1g (W/Kg)	0.805

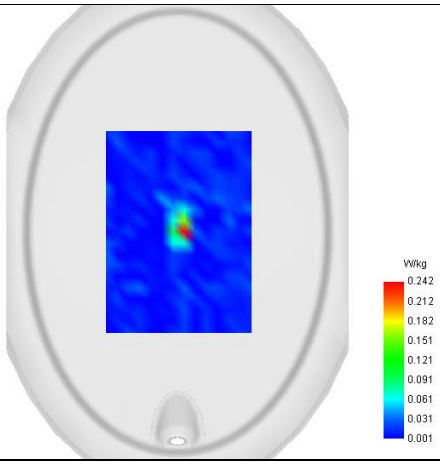
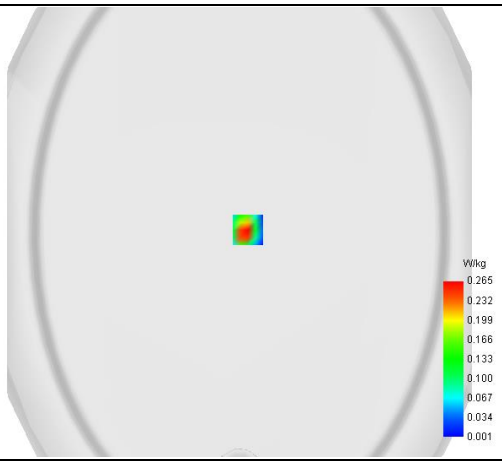
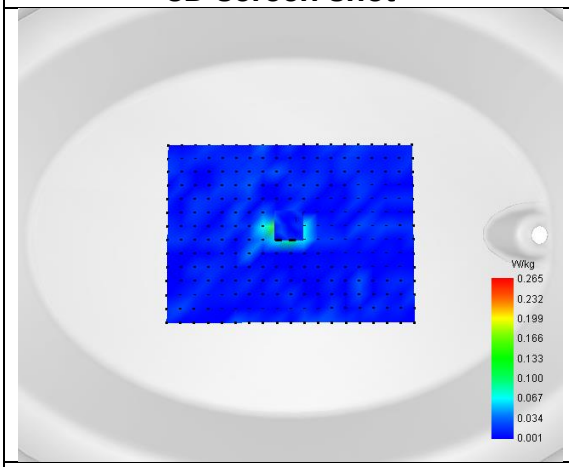
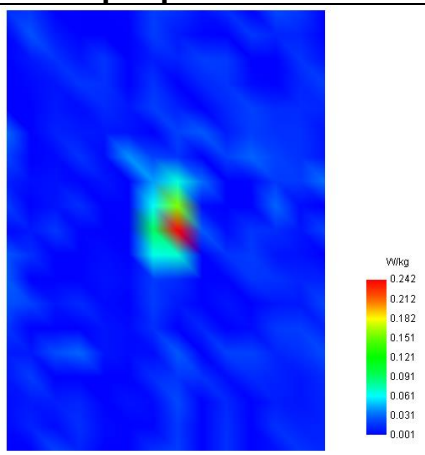
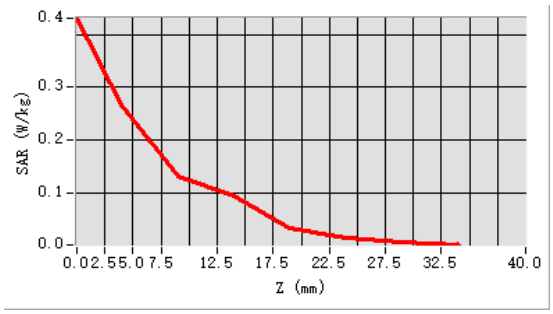
Maximum location: X=8.00, Y=-1.00 ; SAR Peak: 1.56 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 3:

Test Date	2023-03-03
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	Band 2 (1900)
Signal	WCDMA
Frequency	1880
SAR 10g (W/Kg)	0.120
SAR 1g (W/Kg)	0.271

Maximum location: X=9.00, Y=2.00 ; SAR Peak: 0.54 W/kg

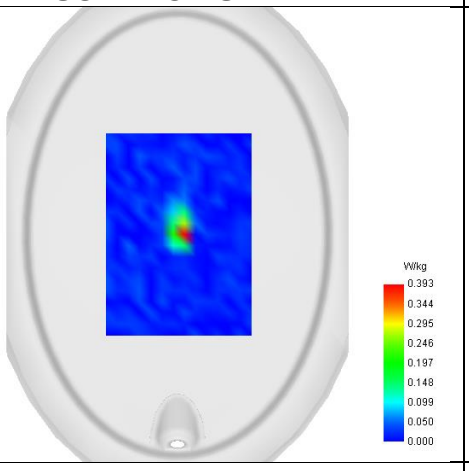
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 4:

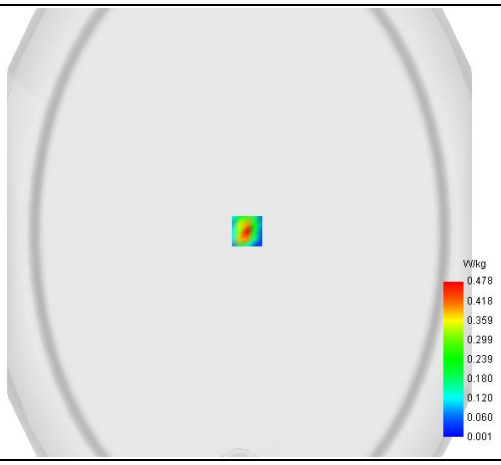
Test Date	2023-03-03
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	Band 4 (1700)
Signal	WCDMA
Frequency	1712.6
SAR 10g (W/Kg)	0.192
SAR 1g (W/Kg)	0.449

Maximum location: X=8.00, Y=1.00 ; SAR Peak: 0.95 W/kg

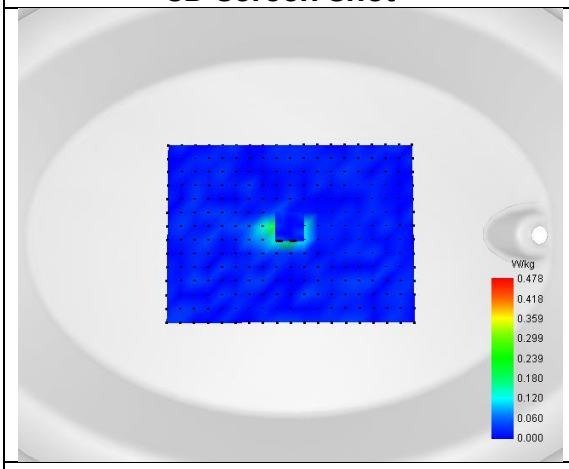
SURFACE SAR



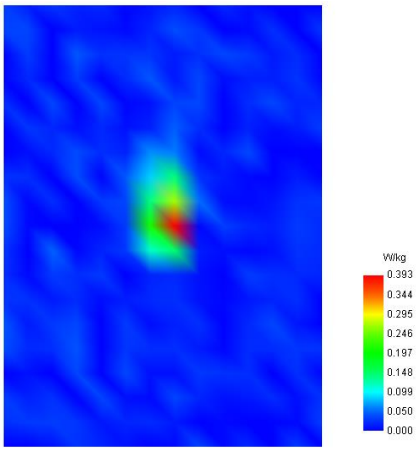
VOLUME SAR

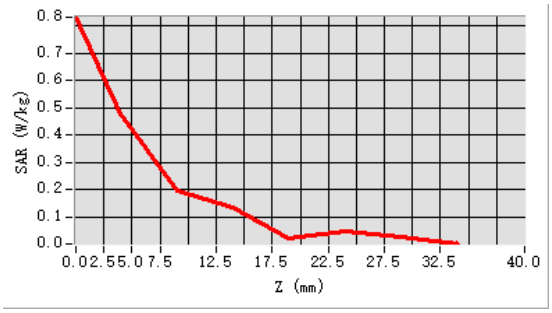


3D screen shot



Hot spot position

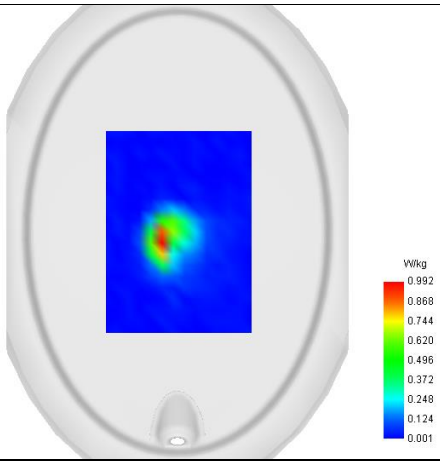
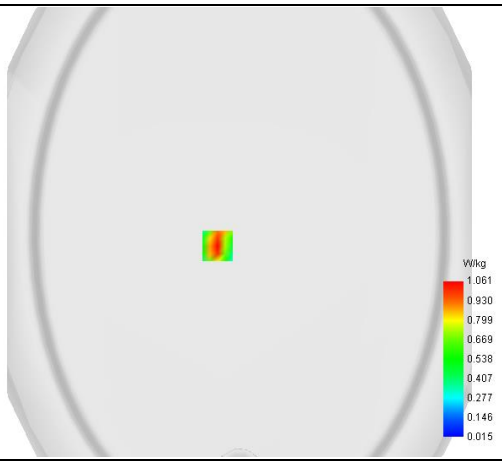
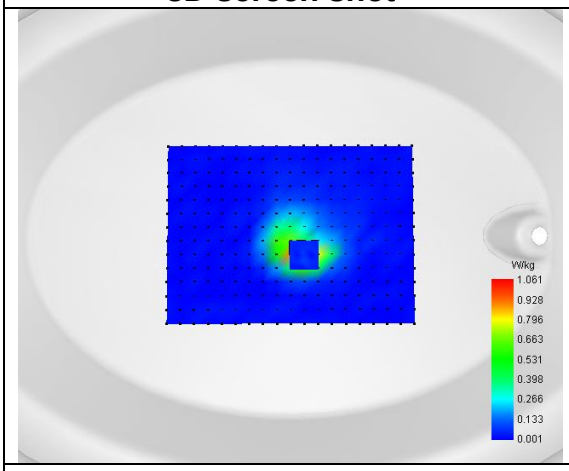
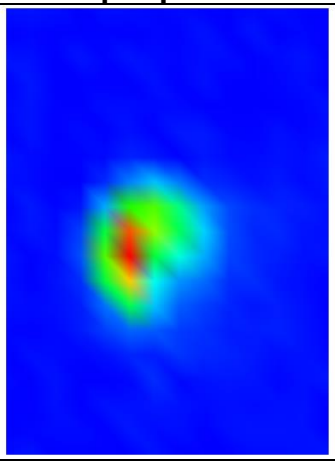
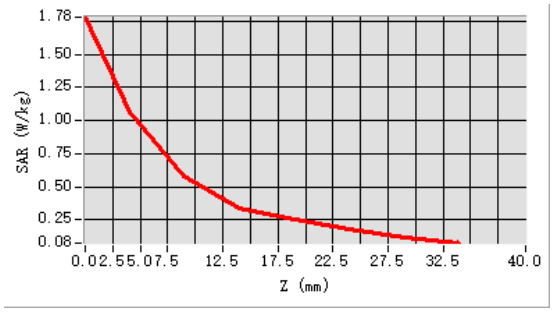




Plot 5:

Test Date	2023-02-02
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Band 5 (850)
Signal	WCDMA
Frequency	846.6
SAR 10g (W/Kg)	0.548
SAR 1g (W/Kg)	1.005

Maximum location: X=-23.00, Y=-15.00 ; SAR Peak: 1.76 W/kg

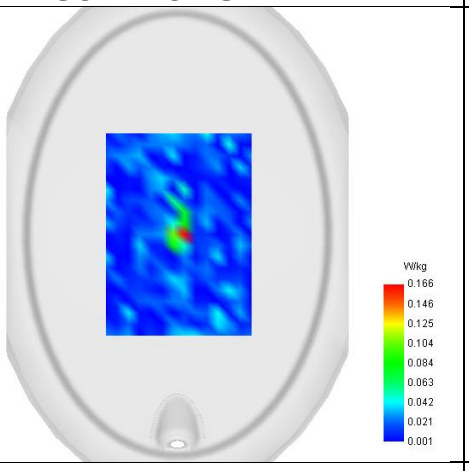
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 6:

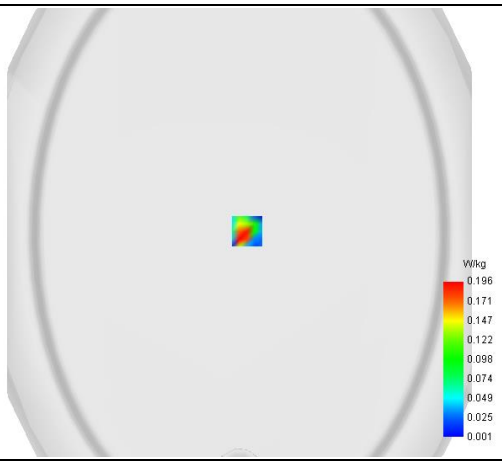
Test Date	2023-03-03
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	LTE band 2
Signal	LTE FDD
Frequency	1820
SAR 10g (W/Kg)	0.090
SAR 1g (W/Kg)	0.208

Maximum location: X=8.00, Y=1.00 ; SAR Peak: 0.45 W/kg

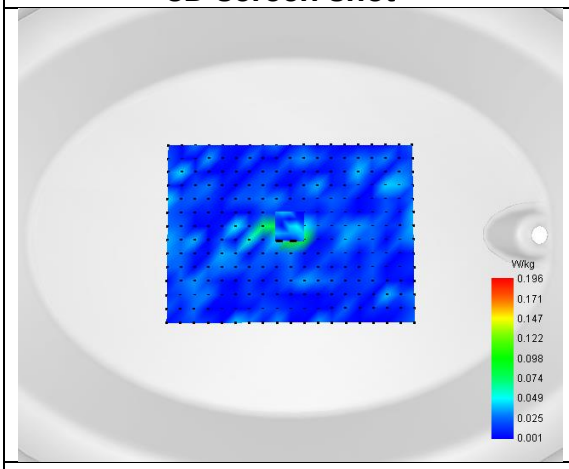
SURFACE SAR



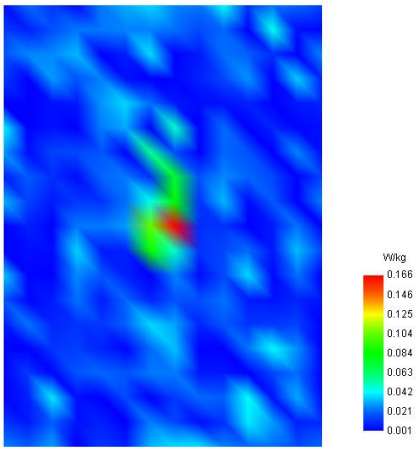
VOLUME SAR

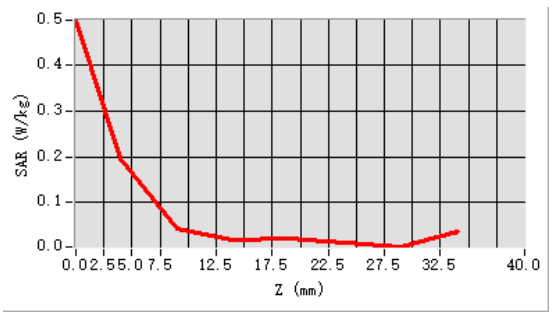


3D screen shot



Hot spot position



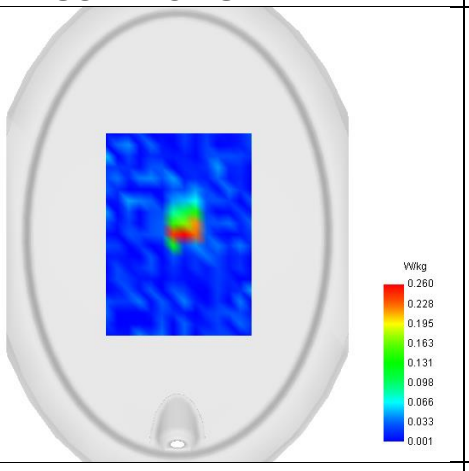


Plot 7:

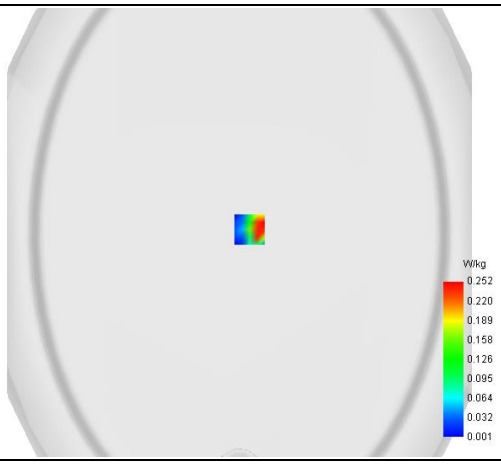
Test Date	2023-03-03
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	LTE band 4
Signal	LTE FDD
Frequency	1745
SAR 10g (W/Kg)	0.108
SAR 1g (W/Kg)	0.250

Maximum location: X=11.00, Y=3.00 ; SAR Peak: 0.52 W/kg

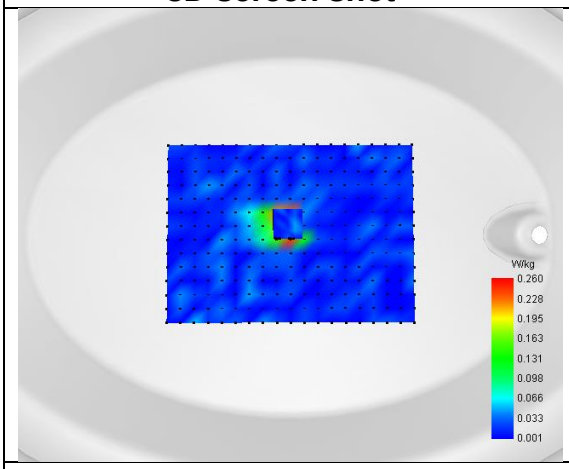
SURFACE SAR



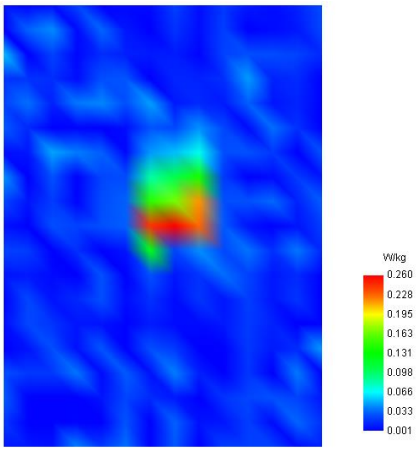
VOLUME SAR

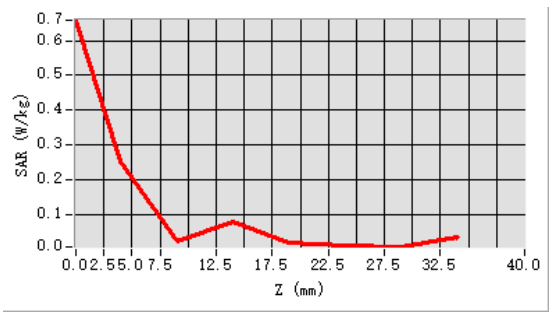


3D screen shot



Hot spot position



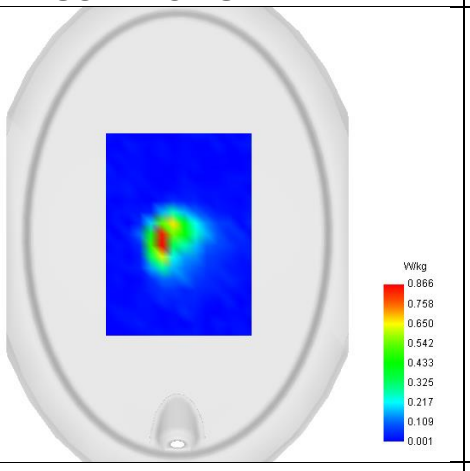


Plot 8:

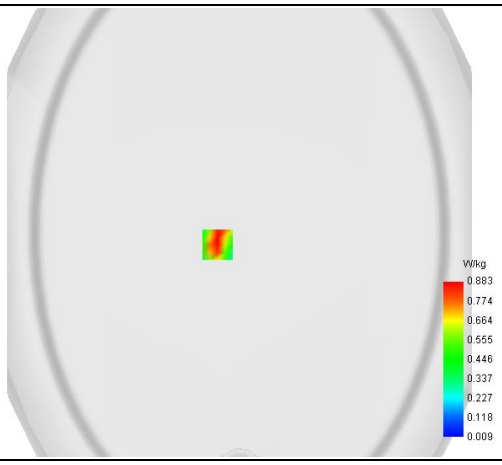
Test Date	2023-02-02
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 5
Signal	LTE FDD
Frequency	836.5
SAR 10g (W/Kg)	0.479
SAR 1g (W/Kg)	0.844

Maximum location: X=-23.00, Y=-13.00 ; SAR Peak: 1.46 W/kg

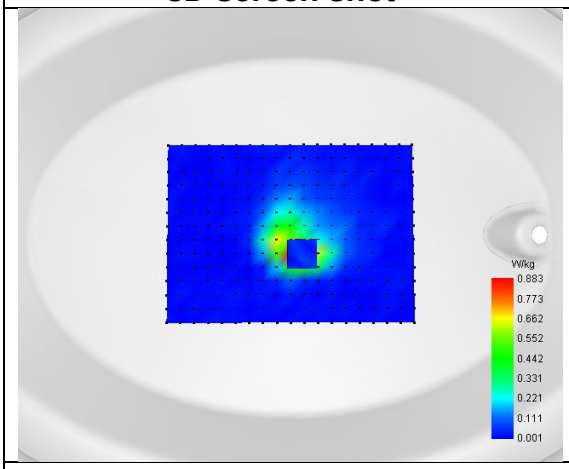
SURFACE SAR



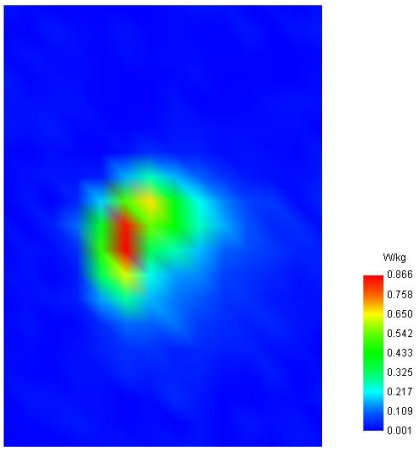
VOLUME SAR

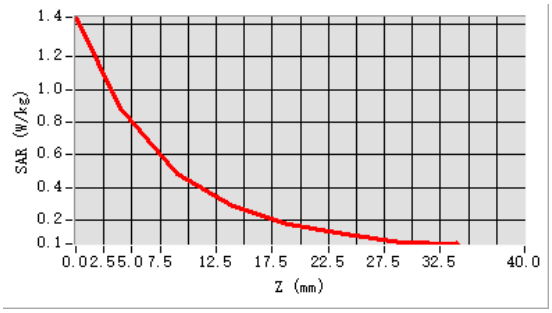


3D screen shot



Hot spot position



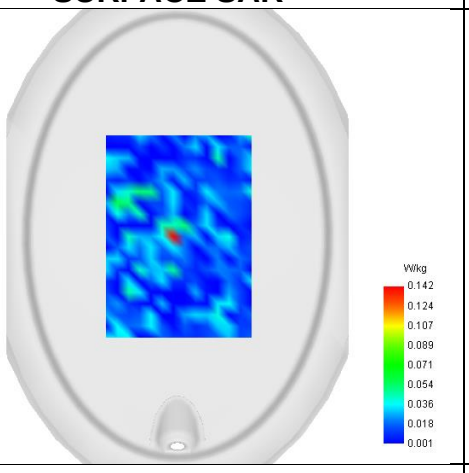


Plot 9:

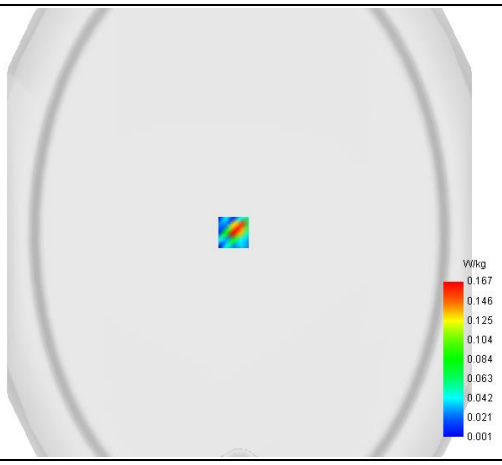
Test Date	2023-02-28
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Left Side
Band	LTE band 7
Signal	LTE FDD
Frequency	2560
SAR 10g (W/Kg)	0.061
SAR 1g (W/Kg)	0.188

Maximum location: X=-6.00, Y=0.00 ; SAR Peak: 0.47 W/kg

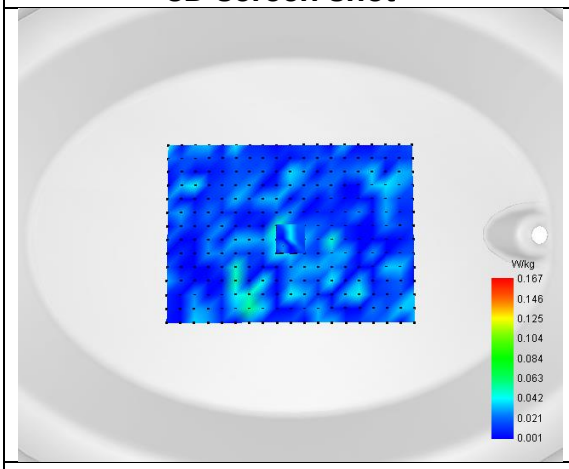
SURFACE SAR



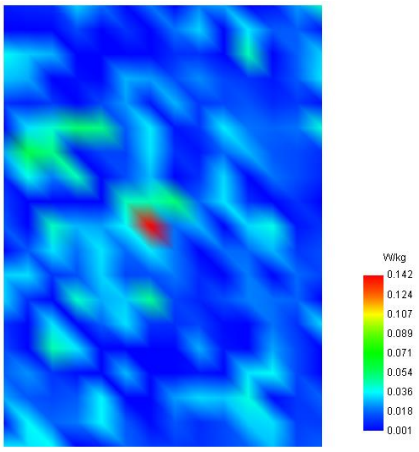
VOLUME SAR

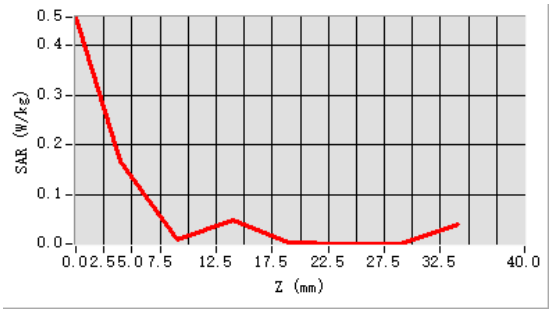


3D screen shot



Hot spot position

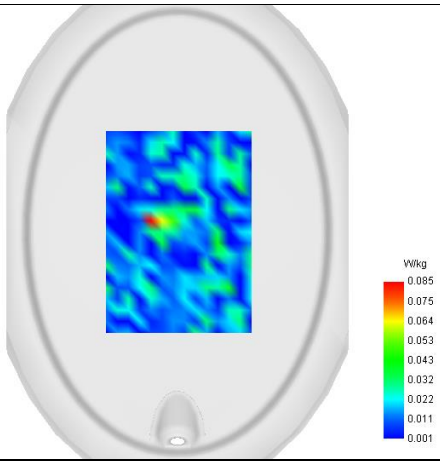
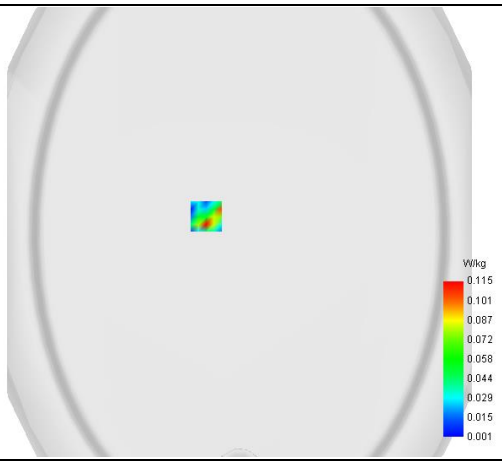
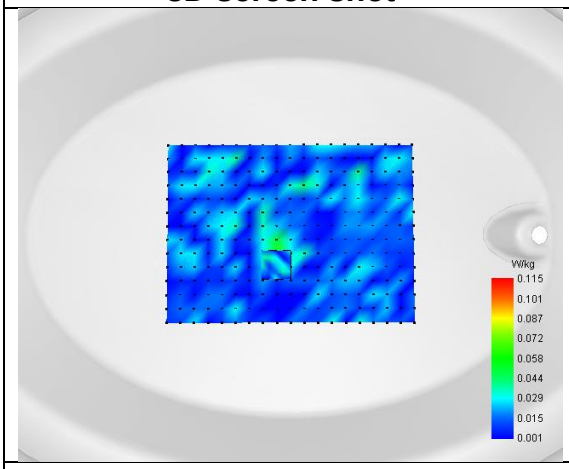
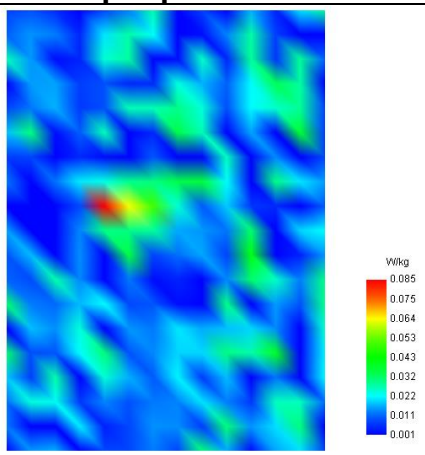
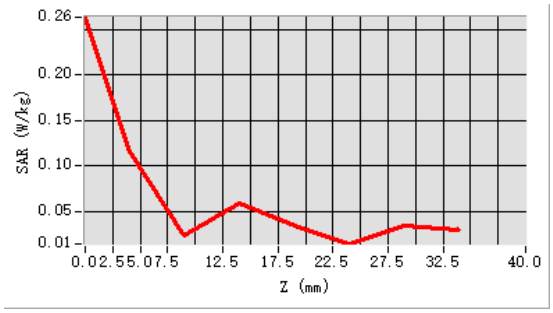




Plot 10:

Test Date	2023-03-04
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 40
Signal	LTE TDD
Frequency	2350
SAR 10g (W/Kg)	0.045
SAR 1g (W/Kg)	0.111

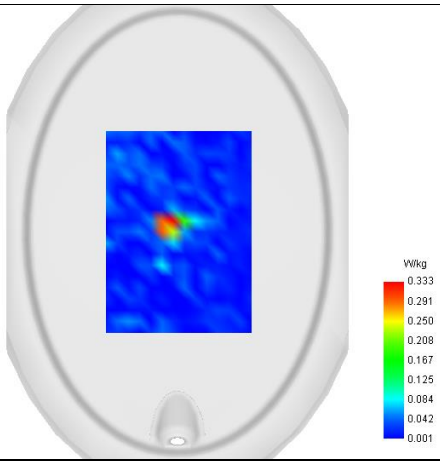
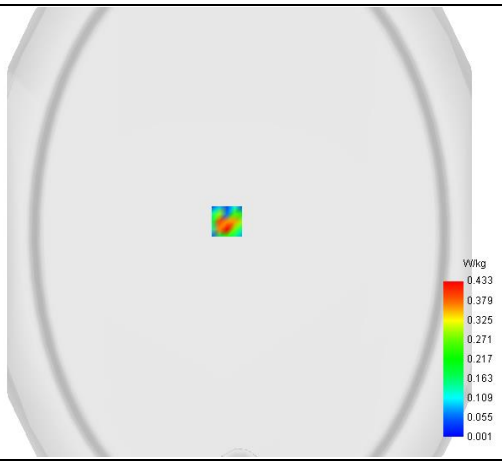
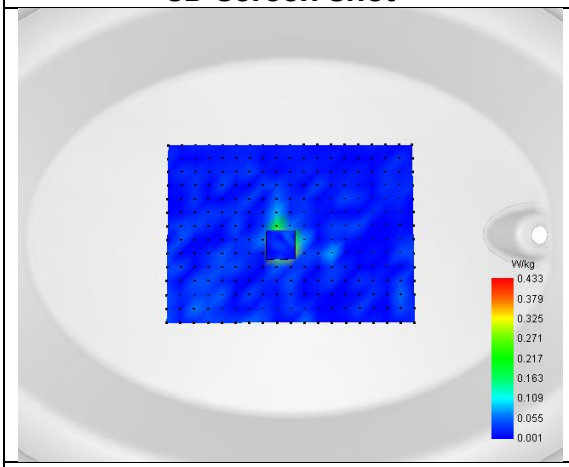
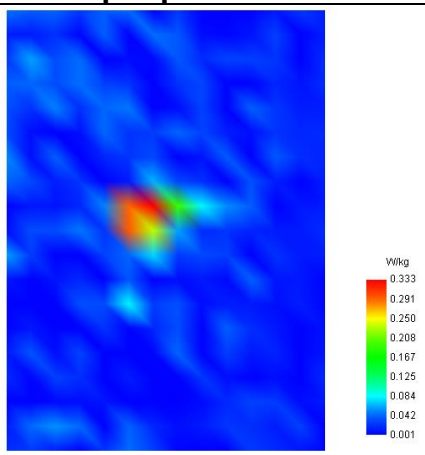
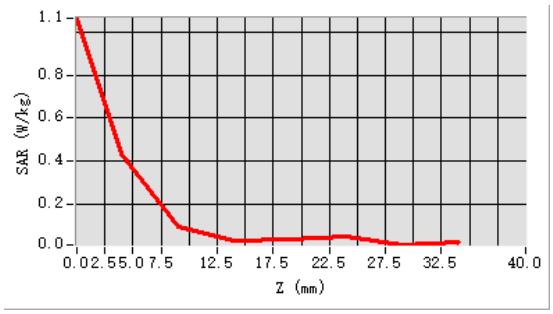
Maximum location: X=-35.00, Y=16.00 ; SAR Peak: 0.25 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 11:

Test Date	2023-02-28
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 41
Signal	LTE TDD
Frequency	2593
SAR 10g (W/Kg)	0.175
SAR 1g (W/Kg)	0.453

Maximum location: X=-13.00, Y=11.00 ; SAR Peak: 1.09 W/kg

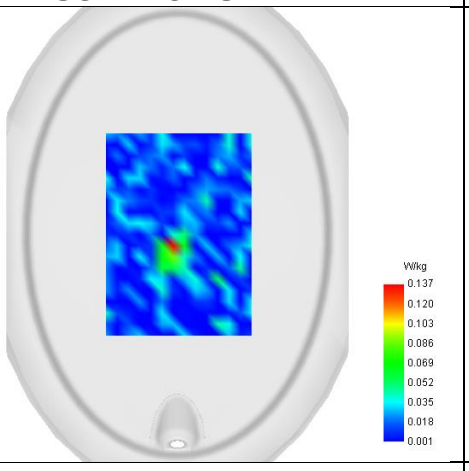
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 12:

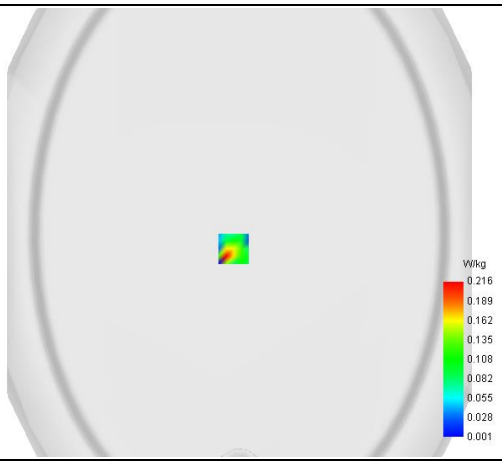
Test Date	2023-03-04
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	IEEE 802.11n ISM
Signal	IEEE 802.11
Frequency	2437
SAR 10g (W/Kg)	0.079
SAR 1g (W/Kg)	0.215

Maximum location: X=-6.00, Y=-17.00 ; SAR Peak: 0.54 W/kg

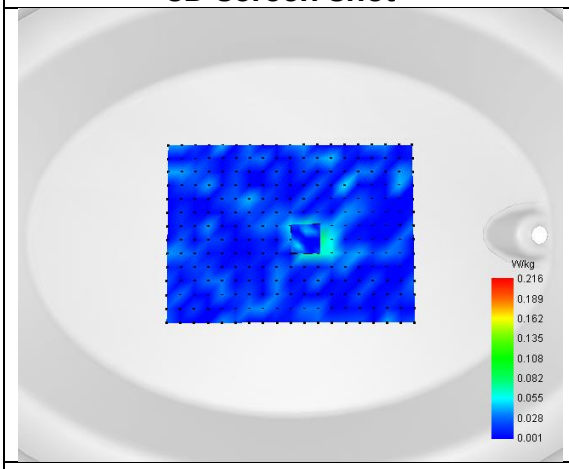
SURFACE SAR



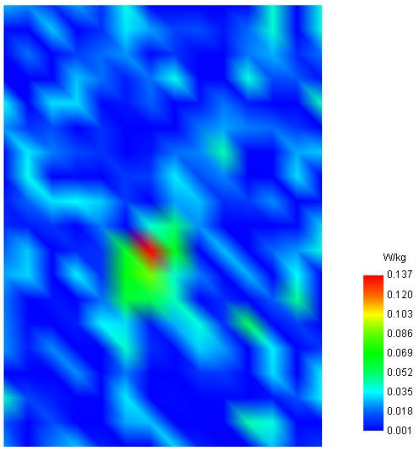
VOLUME SAR

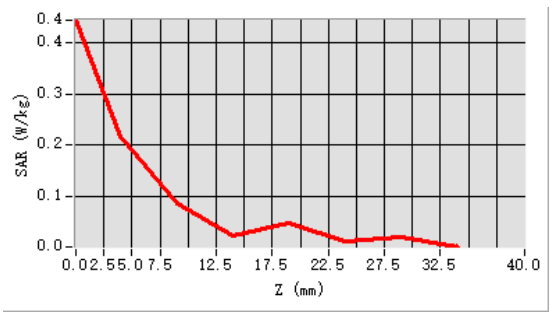


3D screen shot



Hot spot position

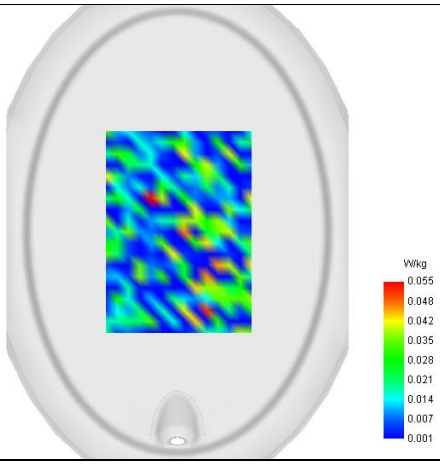
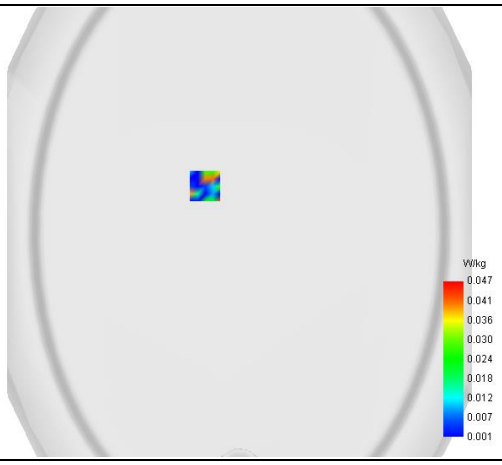
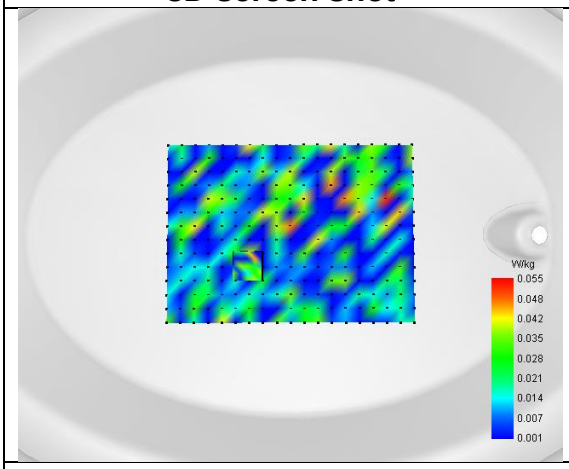
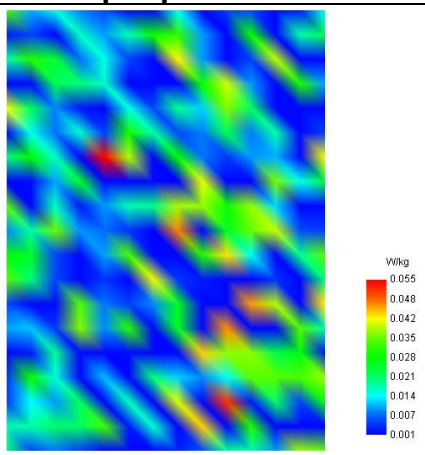
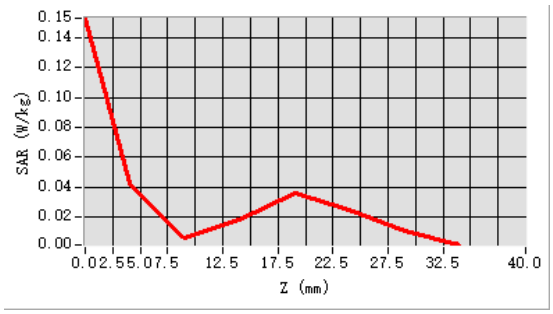




Plot 13:

Test Date	2023-03-04
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Bluetooth
Signal	GFSK
Frequency	2440
SAR 10g (W/Kg)	0.019
SAR 1g (W/Kg)	0.044

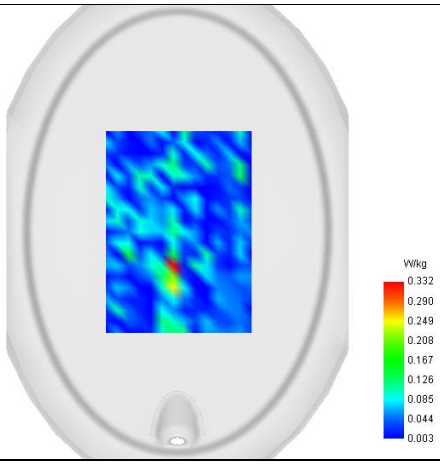
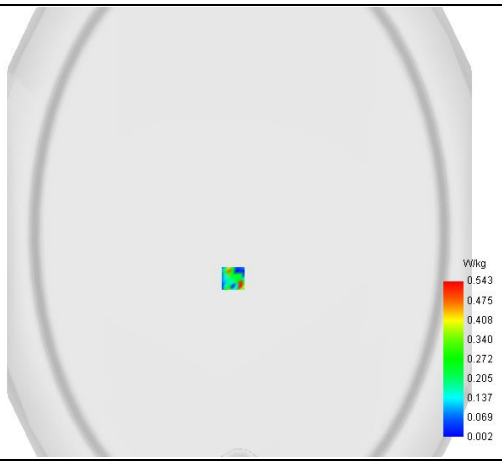
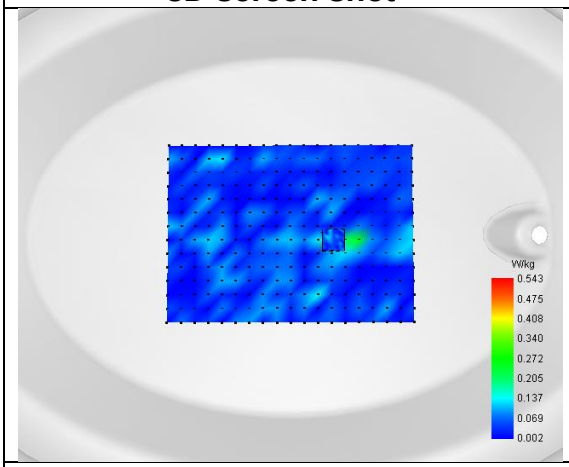
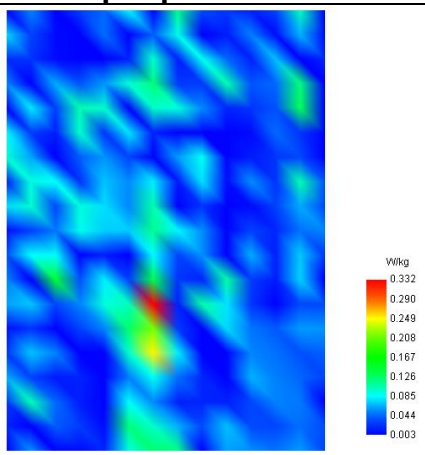
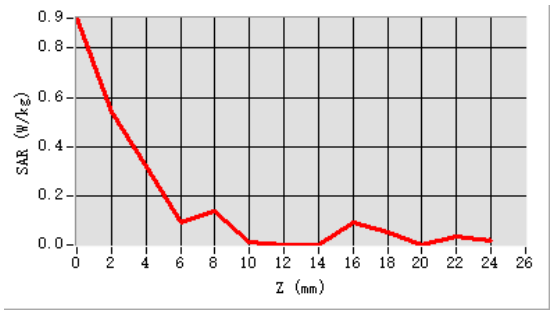
Maximum location: X=-36.00, Y=48.00 ; SAR Peak: 0.12 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 14:

Test Date	2023-02-14
Area Scan	dx=16mm dy=16mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Back Side
Band	IEEE 802.11ac U-NII
Signal	802.11ac-VHT20
Frequency	5200
SAR 10g (W/Kg)	0.105
SAR 1g (W/Kg)	0.245

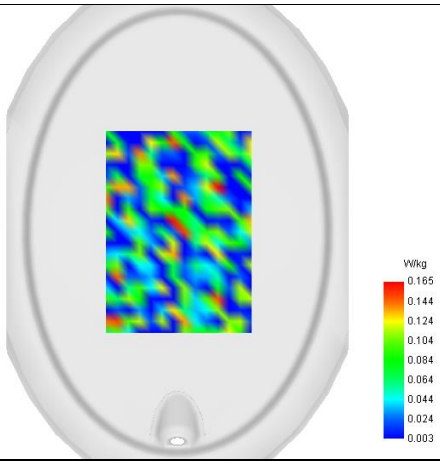
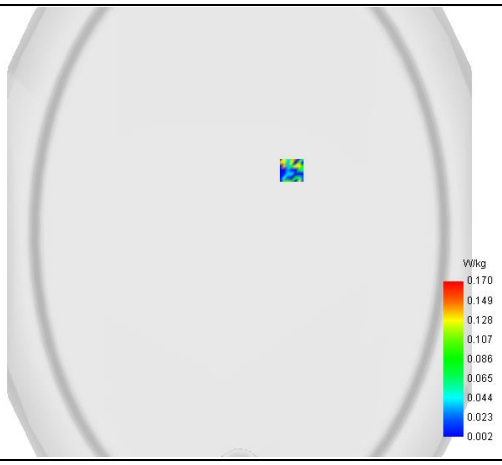
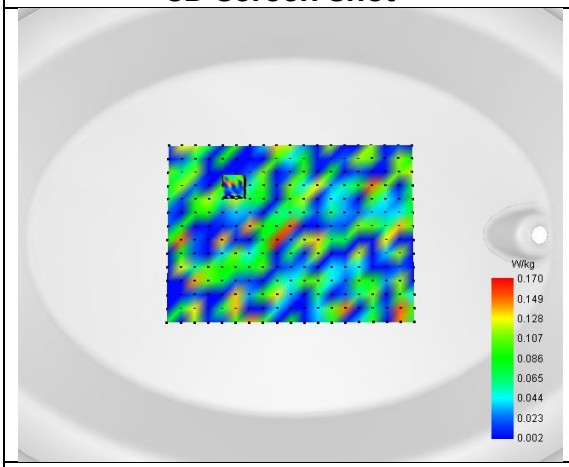
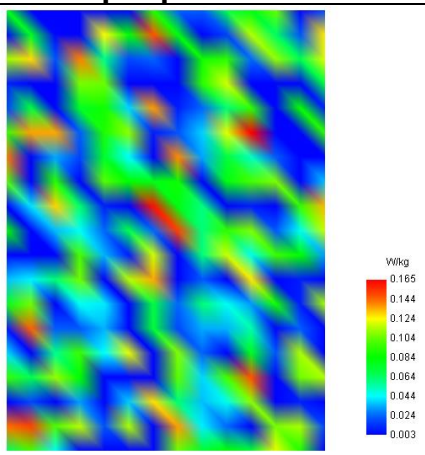
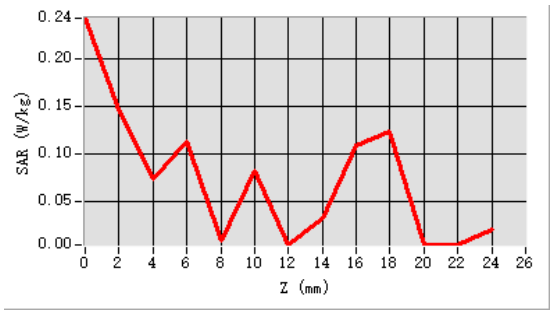
Maximum location: X=-7.00, Y=-49.00 ; SAR Peak: 1.22 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 15:

Test Date	2023-02-14
Area Scan	dx=16mm dy=16mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Top Side
Band	IEEE 802.11ac U-NII
Signal	802.11ac-VHT20
Frequency	5745
SAR 10g (W/Kg)	0.062
SAR 1g (W/Kg)	0.082

Maximum location: X=55.00, Y=65.00 ; SAR Peak: 0.35 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※