SAR TEST REPORT

Product Name: TABLET

Model Name: AS11L

FCC ID: 2AZYA-AS11L

Issued For	:	Senwa Global International, S.A. de C.V Carretera Mexico-Toluca No. 5324 PB, Colonia El Yaqui Del. Cuajimalpa de Morelos, C.P. 05320 Ciudad de Mexico, Mexico
Issued By	:	Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number:	LGT25A072HA01
Sample Received Date:	Jan. 05, 2025
Date of Test:	Jan. 05, 2025 ~ Jan. 21, 2025
Date of Issue:	Mar. 19, 2025
Max. SAR (1g):	Body: 1.223W/kg

Table of Contents

Revision History

Rev.	Issue Date	Contents
00	Mar. 19, 2025	Initial Issue

TEST REPORT CERTIFICATION

Applicant	Senwa Global International, S.A. de C.V
Address	Carretera Mexico-Toluca No. 5324 PB, Colonia El Yaqui Del. Cuajimalpa de Morelos, C.P. 05320 Ciudad de Mexico, Mexico
Manufacture	Senwa Global International, S.A. de C.V
Address	Carretera Mexico-Toluca No. 5324 PB, Colonia El Yaqui Del. Cuajimalpa de Morelos, C.P. 05320 Ciudad de Mexico, Mexico
Product Name	TABLET
Trademark	ACER
Model Name	AS11L
Sample number	LGT2501095-4

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

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SHENZHEN LGT TEST SERVICE CO., LTD.

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	ACER	
Model Name	AS11L	
Series Model	N/A	
Model Difference	N/A	
Device Category	Portable	
Product stage	Production unit	
RF Exposure Environment	General Population / Uncontrolled	
Hardware Version	S31CU_V1.1X	
Software Version	Acer_AS11L_Ver01_250220	
Frequency Range	GSM 850: 824 ~ 849 MHz PCS 1900: 1850 ~ 1910 MHz WCDMA Band II: 1850 ~ 1910 MHz WCDMA Band V: 824 ~ 849 MHz LTE Band 2:1850 ~1910MHz LTE Band 4:1710 ~1755MHz LTE Band 5:824 ~ 849MHz LTE Band 7:2500 ~ 2570MHz LTE Band 13:777~787MHz LTE Band 66:1710~1780MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11n40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5470 ~ 5725 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz Bluetooth: 2402 ~ 2480 MHz	
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Body:0mm	Mode	Body Worn and Hotspot (W/ kg)
	GSM 850	0.896
	PCS 1900	1.143
	WCDMA Band II	0.965
	WCDMA Band V	1.063
	LTE Band 2	1.223
	LTE Band 4	1.182
	LTE Band 5	0.937
	LTE Band 7	1.106
	LTE Band 13	1.040
	LTE Band 66	1.098
	2.4G WLAN	0.311
	5.2G WLAN	0.307
	5.3G WLAN	0.213
	5.6G WLAN	0.193
	5.8G WLAN	0.214

	BT[Note]	0.166
1-g Sum SAR		1.534
Battery	Rated Voltage:4.35V Capacity: 8000mAh	
Description test modes	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested.	
Operating Mode:	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: FPC Antenna Bluetooth: FPC Antenna WLAN: FPC Antenna	
Operating Mode	Maximum continuous output	
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time	
Hotspot Mode	Support	
DTM Mode	Not Support	
Note 1: The BT value was Estimated.		

1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	FCC Registration No.: 746540
	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. C95.1-2019	IEEE Approved Draft Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic and Electromagnetic Fields, 0 Hz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 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 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	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:

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

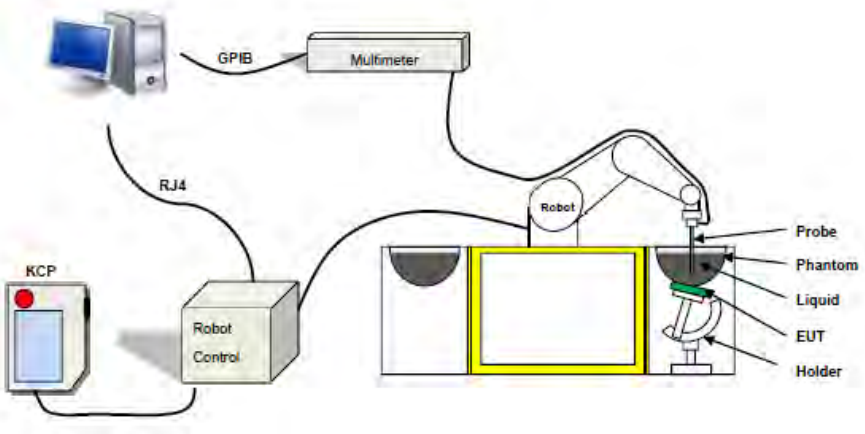
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:
- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.

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

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe 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°

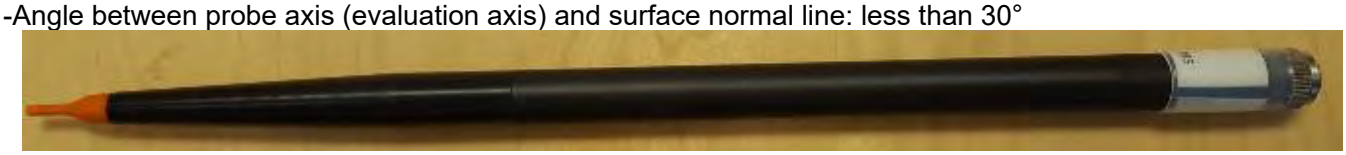


Figure 1-MVG COMOSAR Dosimetric E field Probe

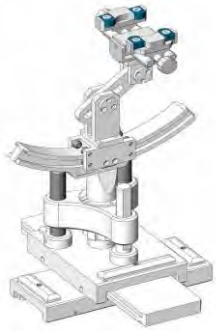
3.2.2 Phantom

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

LIQUID MEASUREMENT RESULTS

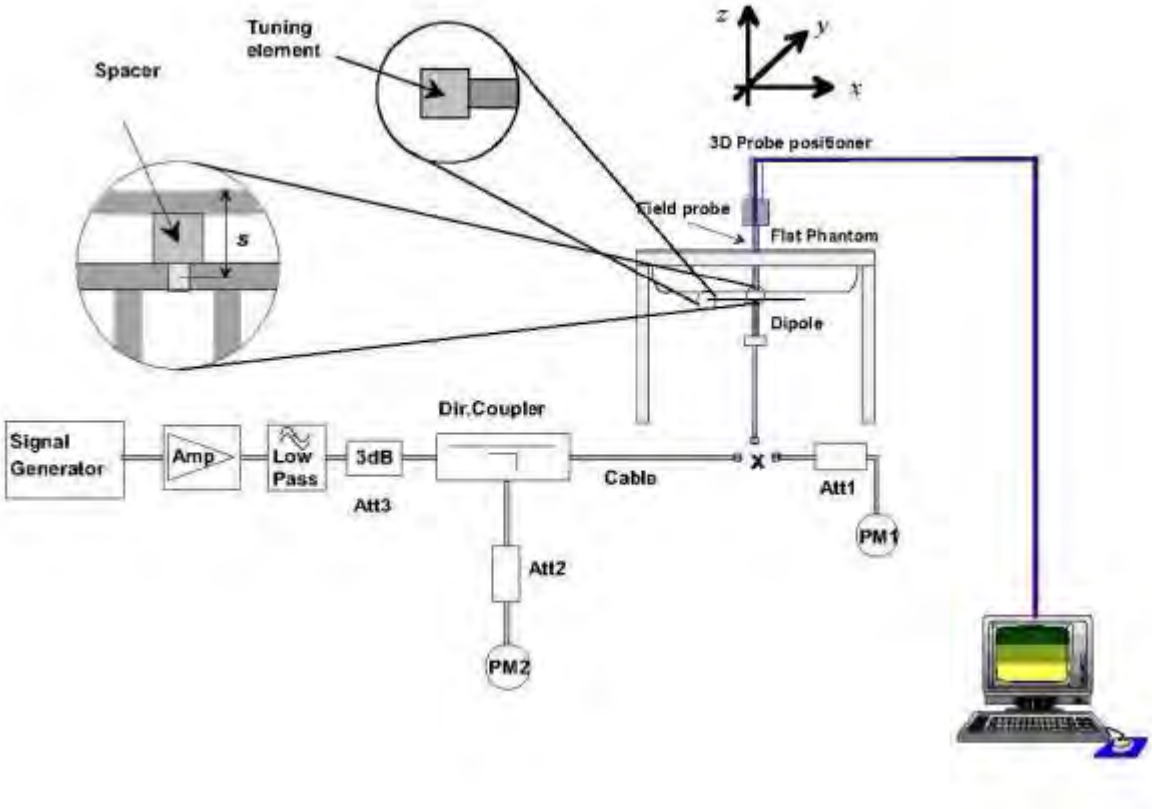
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2025-01-19	21.6	54	835	21.3	Permittivity	41.50	42.42	2.22	±5
					Conductivity	0.90	0.89	-1.11	±5
2025-01-21	23.8	48	1800	23.5	Permittivity	40.00	41.10	2.75	±5
					Conductivity	1.40	1.38	-1.43	±5
2025-01-08	22.8	59	1900	22.4	Permittivity	40.00	40.87	2.17	±5
					Conductivity	1.40	1.36	-2.86	±5
2025-01-16	20.8	54	2450	20.4	Permittivity	39.20	40.33	2.88	±5
					Conductivity	1.80	1.75	-2.78	±5
2025-01-09	20.9	58	2600	20.6	Permittivity	39.00	39.42	1.08	±5
					Conductivity	1.96	1.95	-0.51	±5
2025-01-18	20.8	60	5200	20.5	Permittivity	36.00	36.52	1.44	±5
					Conductivity	4.66	4.59	-1.50	±5
2025-01-05	20.6	56	5400	20.3	Permittivity	35.80	36.54	2.07	±5
					Conductivity	4.86	4.84	-0.41	±5
2025-01-05	20.6	60	5600	20.3	Permittivity	35.55	36.35	2.25	±5
					Conductivity	5.07	5.03	-0.69	±5
2025-01-18	21.1	42	5800	20.9	Permittivity	35.30	36.49	3.37	±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)	(%)	(%)
2025-01-19	835	100	0.962	9.62	9.75	-1.33	10
2025-01-21	1800	100	3.905	39.05	39.06	-0.03	10
2025-03-08	1900	100	4.065	40.65	40.85	-0.49	10
2025-01-16	2450	100	5.448	54.48	54.28	0.37	10
2025-01-09	2600	100	5.663	56.63	56.58	0.09	10
2025-01-18	5200	100	8.107	81.07	80.97	0.12	10
2025-01-05	5400	100	8.439	84.39	84.61	-0.26	10
2025-01-05	5600	100	8.082	80.82	80.96	-0.17	10
2025-01-18	5800	100	8.185	81.85	81.67	0.22	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.

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

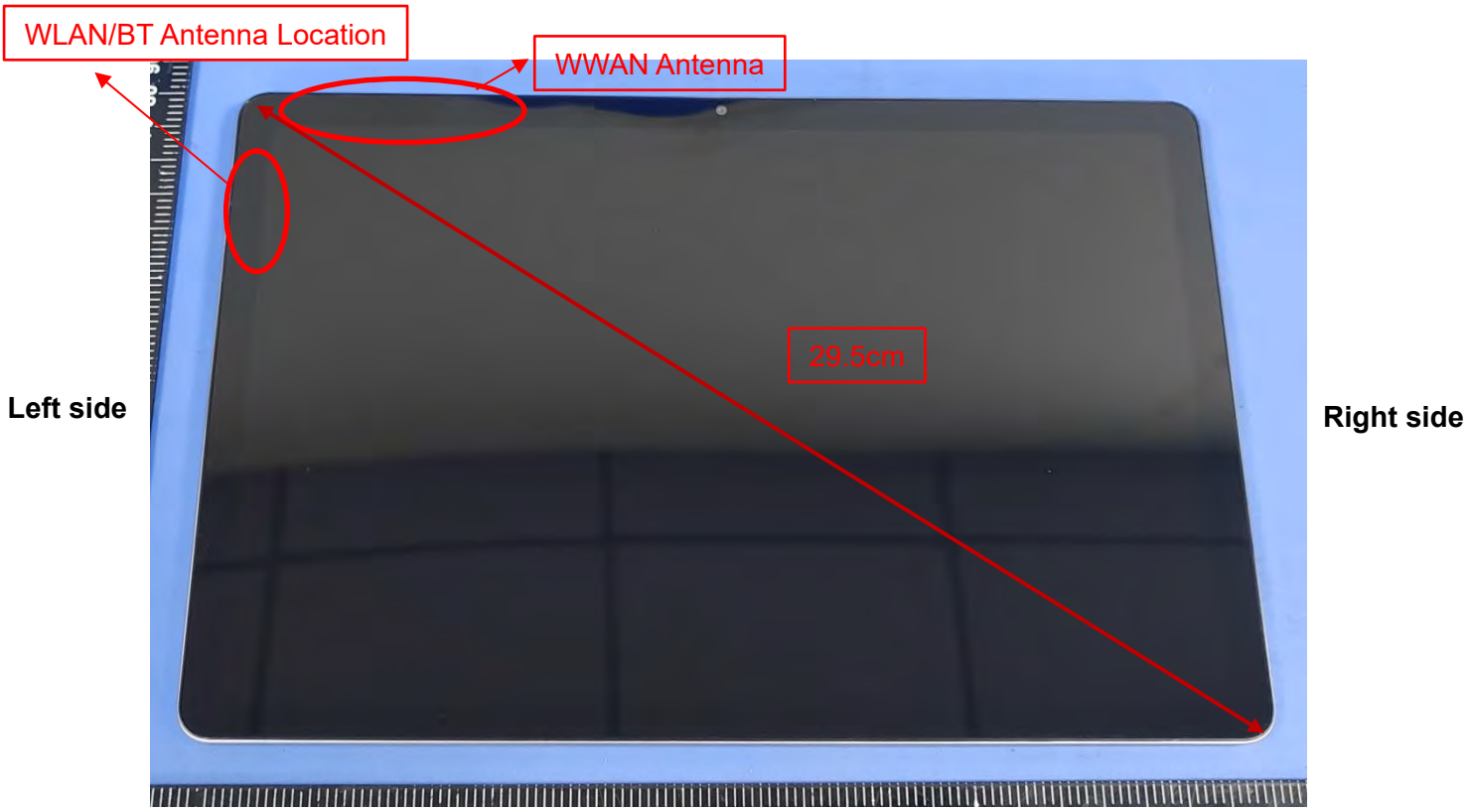
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan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

Top side



Bottom side
(Front view)

Antenna Separation Distance(mm)					
ANT	Back Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	≤5	≤5	250	≤5	145
WWAN	≤5	≤5	240	≤5	160

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 V	LTE Band 2
	Calculated Frequency (MHz)	848.8	1850.2	1907.6	846.6	1900
	Maximum Turn-up power (dBm)	29.8	25.3	24.5	24.5	20.8
	Maximum rated power(mW)	954.99	338.84	281.84	281.84	120.23
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.28	11.03	10.86	16.30	10.88
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.28	11.03	10.86	16.30	10.88
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	1492.60	2010.28	2008.60	1489.36	2008.82
	Testing required?	NO	NO	NO	NO	NO
Right Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.28	11.03	10.86	16.30	10.88
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	160	160	160	160	160
	exclusion threshold(mW)	1039.91	1210.28	1208.60	1037.84	1208.82
	Testing required?	NO	NO	NO	NO	NO

Exposure Position	Wireless Interface	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 13	LTE Band 66
	Calculated Frequency (MHz)	1720	844	2510	782	1720
	Maximum Turn-up power (dBm)	17.5	23	19.5	22.5	17.2
	Maximum rated power(mW)	56.23	199.53	89.13	177.83	52.48
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.44	16.33	9.47	16.96	11.44
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.44	16.33	9.47	16.96	11.44
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	2014.37	1485.54	1994.68	1394.76	2014.37
	Testing required?	NO	NO	NO	NO	NO
Right Edge	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.44	16.33	9.47	16.96	11.44
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (mm)	160	160	160	160	160
	exclusion threshold(mW)	1214.37	1035.41	1194.68	977.69	1214.37
	Testing required?	NO	NO	NO	NO	NO

Exposure Position	Wireless Interface	BT	2.4G WLAN	5.2G WLAN
	Calculated Frequency (MHz)	2402	2462	5180
	Maximum Turn-up power (dBm)	6	16	16.5
	Maximum rated power(mW)	3.98	39.81	44.67
Back Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	9.68	9.56	6.59
	Testing required?	NO	YES	YES
Front Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	9.68	9.56	6.59
	Testing required?	NO	YES	YES
Left Edge	Separation distance (mm)	250	250	250
	exclusion threshold(mW)	2096.78	2095.60	2065.91
	Testing required?	NO	NO	NO
Right Edge	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	9.68	9.56	6.59
	Testing required?	NO	YES	YES
Top Edge	Separation distance (mm)	145	145	145
	exclusion threshold(mW)	1046.78	1045.60	1015.91
	Testing required?	NO	NO	NO

Exposure Position	Wireless Interface	5.3G WLAN	5.6G WLAN	5.8G WLAN
	Calculated Frequency (MHz)	5260	5580	5745
	Maximum Turn-up power (dBm)	16	16.5	16.5
	Maximum rated power(mW)	39.81	44.67	44.67
Back Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.54	6.35	6.26
	Testing required?	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.54	6.35	6.26
	Testing required?	YES	YES	YES
Left Edge	Separation distance (mm)	250	250	250
	exclusion threshold(mW)	2065.40	2063.50	2062.58
	Testing required?	NO	NO	NO
Right Edge	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.54	6.35	6.26
	Testing required?	YES	YES	YES
Top Edge	Separation distance (mm)	145	145	145
	exclusion threshold(mW)	1015.40	1013.50	1012.58
	Testing required?	NO	NO	NO

Note：

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. per KDB 447498 D01, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <25mm,25mm is user to determine SAR exclusion threshold
4. per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance ≤50mm are determined by:
   [(max.power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]*[√f(GHz）)≤3.0 for 1-g SAR and≤7.5 for10-g extremity SAR ,f(GHz) is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation.
   The result is rounded to one decimal place for comparison

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

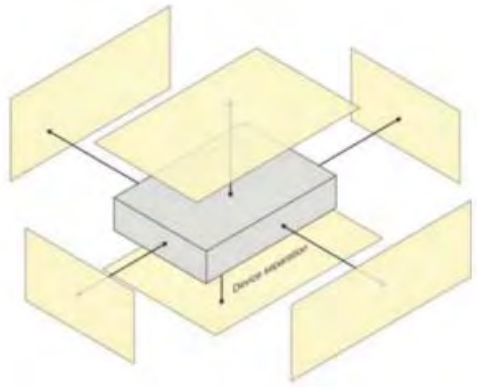
5. per KDB 447498 D01, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
   a)[threshold at 50mm in step 1]+(test separation distance -50mm)*(f (MHz)/150)]mW, at 100 MHz to 1500 MHz
   b) [threshold at 50mm in step1]+(test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

8. EUT Test Position

This EUT was tested in Back Side and Top Side.

8.1 Hotspot mode exposure position condition

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

9.2 System validation Uncertainty

Uncertainty Component	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System								
Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
Axial Isotropy	3.5	R	$\sqrt{3}$	1	1	2.02	2.02	∞
Hemispherical Isotropy	5.9	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Boundary effect	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	4.7	R	$\sqrt{3}$	1	1	0.71	0.71	∞
System detection limits	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation response	0	N	$\sqrt{3}$	0	0	0.00	0.00	∞
Readout Electronics	0.5	N	1	1	1	0.50	0.50	∞
Response Time	0	R	$\sqrt{3}$	0	0	0.00	0.00	∞
Integration Time	1.4	R	$\sqrt{3}$	0	0	0.00	0.00	∞
RF ambient conditions-Noise	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF ambient conditions-reflections	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation, Interpolation and Integration 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)	31.18	30.96	31.33	27.16	27.07	26.42
GPRS (GMSK, 1-Slot)	31.23	30.98	31.34	27.16	27.04	26.41
GPRS (GMSK, 2-Slot)	29.35	29.12	29.51	25.01	24.99	24.37
GPRS (GMSK, 3-Slot)	27.31	27.12	27.46	23.06	23.06	22.52
GPRS (GMSK, 4-Slot)	25.23	25.09	25.42	20.95	21.04	20.53
EGPRS (8PSK, 1-Slot)	23.78	23.57	23.42	22.26	22.98	23.29
EGPRS (8PSK, 2-Slot)	21.44	21.46	21.21	19.92	19.77	20.21
EGPRS (8PSK, 3-Slot)	19.1	19	18.44	16.43	16.53	17.21
EGPRS (8PSK, 4-Slot)	17.03	16.45	16.35	13.14	13.03	13.44
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)	22.15	21.93	22.30	18.13	18.04	17.39
GPRS (GMSK, 1-Slot)	22.20	21.95	22.31	18.13	18.01	17.38
GPRS (GMSK, 2-Slot)	23.33	23.10	23.49	18.99	18.97	18.35
GPRS (GMSK, 3-Slot)	23.05	22.86	23.20	18.80	18.80	18.26
GPRS (GMSK, 4-Slot)	22.22	22.08	22.41	17.94	18.03	17.52
EGPRS (8PSK, 1-Slot)	14.75	14.54	14.39	13.23	13.95	14.26
EGPRS (8PSK, 2-Slot)	15.42	15.44	15.19	13.90	13.75	14.19
EGPRS (8PSK, 3-Slot)	14.84	14.74	14.18	12.17	12.27	12.95
EGPRS (8PSK, 4-Slot)	14.02	13.44	13.34	10.13	10.02	10.43
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 5		
Channel	9262	9400	9538	4132	4182	4233
Frequency (MHz)	1852.4	1880	1907.6	826.4	836.4	846.6
RMC 12.2Kbps	24.06	24.2	24.34	23.85	24.05	24.2
HSDPA Subtest-1	23.84	23.85	23.89	23.67	23.49	23.4
HSDPA Subtest-2	23.39	23.57	23.78	23.39	23.44	23.41
HSDPA Subtest-3	23.08	23.33	23.39	22.85	23.06	23.13
HSDPA Subtest-4	22.93	23.14	23.22	22.74	23.07	22.58
HSUPA Subtest-1	23.65	23.57	23.77	23.63	23.39	23.21
HSUPA Subtest-2	23.63	23.69	23.77	23.55	23.47	23.41
HSUPA Subtest-3	23.16	23.27	23.47	23.22	22.94	23
HSUPA Subtest-4	23.58	23.72	23.87	23.52	23.47	23.53
HSUPA Subtest-5	23.39	23.56	23.63	23.25	23.03	23.27

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	15.2	33.11
	7	2437	15.13	32.58
	11	2462	15.77	37.76
802.11g	1	2412	14.42	27.67
	7	2437	14.65	29.17
	11	2462	14.6	28.84
802.11 n-HT20	1	2412	13.59	22.86
	7	2437	13.78	23.88
	11	2462	13.87	24.38
802.11 n-HT40	3	2422	12.71	18.66
	6	2437	13.39	21.83
	9	2452	12.68	18.54

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	5.35	3.43
	39	2441	4.37	2.74
	78	2480	3.69	2.34
π/4-QPSK(2Mbps)	0	2402	5.51	3.56
	39	2441	5.04	3.19
	78	2480	3.96	2.49
8DPSK(3Mbps)	0	2402	5.68	3.70
	39	2441	5.16	3.28
	78	2480	4.11	2.58

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	1.5	1.41
	19	2440	0.64	1.16
	39	2480	0.07	1.02
GFSK(2Mbps)	0	2402	1.21	1.32
	19	2440	0.34	1.08
	39	2480	-0.17	0.96

WLAN (5.2Gband)

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	16.05	40.27
	40	5200	15.07	32.14
	48	5240	15.65	36.73
802.11 n-HT20	36	5180	13.82	24.10
	40	5200	13.41	21.93
	48	5240	13.04	20.14
802.11 n-HT40	38	5190	13.73	23.60
	46	5230	13.6	22.91
802.11ac-VHT20	36	5180	13.13	20.56
	40	5200	12.95	19.72
	48	5240	12.62	18.28
802.11ac-VHT40	38	5190	13.05	20.18
	46	5230	10.71	11.78
802.11ac-VHT80	42	5210	11.94	15.63

WLAN (5.3G band)

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	52	5260	15.98	39.63
	60	5300	15.72	37.33
	64	5320	15.56	35.97
802.11 n-HT20	52	5260	13.53	22.54
	60	5300	13.78	23.88
	64	5320	13.22	20.99
802.11 n-HT40	54	5270	14.38	27.42
	62	5310	14.41	27.61
802.11ac-VHT20	52	5260	13.38	21.78
	60	5300	13.44	22.08
	64	5320	13.17	20.75
802.11ac-VHT40	54	5270	13.41	21.93
	62	5310	13.17	20.75
802.11ac-VHT80	58	5290	12.6	18.20

WLAN (5.6G band)

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	100	5500	16.32	42.85
	116	5580	16.45	44.16
	140	5700	16.26	42.27
802.11 n-HT20	100	5500	14.36	27.29
	116	5580	14.52	28.31
	140	5700	14.18	26.18
802.11 n-HT40	102	5510	14.11	25.76
	110	5550	14.26	26.67
	134	5670	14.16	26.06
802.11ac-VHT20	100	5500	14.34	27.16
	116	5580	14.46	27.93
	140	5700	14.17	26.12
802.11ac-VHT40	102	5510	13.85	24.27
	110	5550	14.45	27.86
	134	5670	14.25	26.61
802.11ac-VHT80	106	5530	13.15	20.65
	122	5610	11.71	14.83
	100	5690	16.32	42.85

WLAN (5.8G band)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	16.42	43.85
	157	5785	16.09	40.64
	165	5825	15.99	39.72
802.11 n-HT20	149	5745	14.15	26.00
	157	5785	13.84	24.21
	165	5825	13.8	23.99
802.11 n-HT40	151	5755	14.16	26.06
	159	5795	13.64	23.12
802.11ac-VHT20	149	5745	14.27	26.73
	157	5785	13.89	24.49
	165	5825	13.56	22.70
802.11ac-VHT40	151	5755	14.21	26.36
	159	5795	13.93	24.72
802.11ac-VHT80	155	5775	11.25	13.34

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	17.86	18.17	18.83
1.4	1	2		18.14	18.4	19.08
1.4	1	5		18.07	18.23	18.96
1.4	3	0		17.95	18.28	18.93
1.4	3	1		18.06	18.35	19.02
1.4	3	2		18.07	18.31	19
1.4	6	0		17.03	17.22	17.97
1.4	1	0	16-QAM	17.07	17.31	17.73
1.4	1	2		17.36	17.55	18.04
1.4	1	5		17.27	17.39	17.87
1.4	3	0		17.21	17.51	18.16
1.4	3	1		17.32	17.6	18.25
1.4	3	2		17.33	17.56	18.25
1.4	6	0		16.19	16.42	17.19
3	1	0	QPSK	17.74	18.15	18.71
3	1	7		18.22	18.4	19.02
3	1	14		18.27	18.33	19.03
3	8	0		17.06	17.24	17.86
3	8	4		17.23	17.32	17.95
3	8	7		17.35	17.33	18.01
3	15	0		17.18	17.28	17.93
3	1	0	16-QAM	17.27	17.3	17.68
3	1	7		17.74	17.56	17.94
3	1	14		17.79	17.49	17.98
3	8	0		16.1	16.27	16.89
3	8	4		16.27	16.35	16.99
3	8	7		16.38	16.36	17.05
3	15	0		16.25	16.27	17.05

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	17.48	17.77	18.29
5	1	12		18.45	18.37	18.84
5	1	24		18.18	18.06	18.61
5	12	0		17.09	17.11	17.65
5	12	6		17.46	17.33	17.85
5	12	11		17.49	17.27	17.83
5	25	0		17.3	17.2	17.77
5	1	0	16-QAM	17.12	17.09	17.68
5	1	12		18.08	17.71	18.25
5	1	24		17.8	17.4	18.02
5	12	0		16.1	16.1	16.75
5	12	6		16.47	16.32	16.95
5	12	11		16.52	16.27	16.92
5	25	0		16.27	16.24	16.77
10	1	0	QPSK	17.09	18.1	19.2
10	1	24		18.07	18.36	18.83
10	1	49		18.29	19.16	19.44
10	25	0		16.92	17.21	18.03
10	25	12		17.25	17.4	17.92
10	25	24		17.47	17.78	18.15
10	50	0		17.19	17.48	18.06
10	1	0	16-QAM	16.66	17.17	18.09
10	1	24		17.68	17.53	17.73
10	1	49		17.85	18.25	18.37
10	25	0		16.01	16.22	17.08
10	25	12		16.34	16.42	16.96
10	25	24		16.55	16.79	17.17
10	50	0		16.25	16.53	17.1

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	17.36	18.44	19.69
15	1	37		18.07	18.32	18.2
15	1	74		17.82	19.18	18.33
15	36	0		17.15	17.34	18.28
15	36	18		17.26	17.36	17.59
15	36	39		17.23	17.79	17.39
15	75	0		17.15	17.54	17.84
15	1	0	16-QAM	16.98	17.49	18.95
15	1	38		17.68	17.43	17.51
15	1	75		17.48	18.25	17.6
15	36	0		16.26	16.4	17.29
15	36	18		16.38	16.4	16.53
15	36	39		16.33	16.84	16.31
15	75	0		16.23	16.5	16.85
20	1	0	QPSK	18.08	19.25	20.64
20	1	49		18.2	18.33	18.77
20	1	99		18.12	20.11	18.69
20	50	0		17.47	17.62	19.14
20	50	24		17.33	17.47	18.09
20	50	49		17.25	18.16	17.6
20	100	0		17.32	17.88	18.43
20	1	0	16-QAM	17.37	18.34	19.98
20	1	49		17.57	17.52	18.14
20	1	99		17.39	19.18	18.01
20	50	0		16.57	16.68	18.19
20	50	24		16.42	16.49	17.13
20	50	49		16.35	17.21	16.6
20	100	0		16.38	16.96	17.44

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	16.18	16.31	15.84
1.4	1	2		16.4	16.55	15.99
1.4	1	5		16.21	16.38	15.74
1.4	3	0		16.17	16.42	15.87
1.4	3	1		16.25	16.5	15.91
1.4	3	2		16.2	16.46	15.81
1.4	6	0		15.61	15.42	15.04
1.4	1	0	16-QAM	15.79	15.49	14.91
1.4	1	2		15.97	15.74	15.08
1.4	1	5		15.79	15.59	14.84
1.4	3	0		15.87	15.69	15.29
1.4	3	1		15.95	15.78	15.33
1.4	3	2		15.89	15.75	15.25
1.4	6	0		14.9	14.6	14.27
3	1	0	QPSK	16.07	16.23	16.06
3	1	7		16.28	16.55	16.1
3	1	14		16.1	16.47	15.78
3	8	0		15.65	15.42	15.24
3	8	4		15.72	15.53	15.23
3	8	7		15.7	15.56	15.11
3	15	0		15.67	15.51	15.2
3	1	0	16-QAM	15.97	15.43	15.15
3	1	7		16.22	15.77	15.2
3	1	14		16.04	15.69	14.89
3	8	0		14.76	14.43	14.3
3	8	4		14.83	14.53	14.29
3	8	7		14.8	14.56	14.17
3	15	0		14.8	14.47	14.33

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	15.77	15.77	15.81
5	1	12		16.32	16.54	16.16
5	1	24		15.77	16.19	15.41
5	12	0		15.57	15.27	15.31
5	12	6		15.76	15.54	15.39
5	12	11		15.6	15.5	15.12
5	25	0		15.6	15.42	15.24
5	1	0	16-QAM	15.82	15.15	15.39
5	1	12		16.42	15.91	15.77
5	1	24		15.85	15.59	15.02
5	12	0		14.67	14.25	14.42
5	12	6		14.85	14.5	14.47
5	12	11		14.7	14.48	14.2
5	25	0		14.64	14.43	14.26
10	1	0	QPSK	15.92	15.68	16.38
10	1	24		16.23	16.53	16.36
10	1	49		16.48	16.92	16.13
10	25	0		15.51	15.24	15.65
10	25	12		15.62	15.59	15.6
10	25	24		15.77	15.91	15.55
10	50	0		15.64	15.6	15.61
10	1	0	16-QAM	15.65	14.93	15.46
10	1	24		16.06	15.73	15.46
10	1	49		16.28	16.16	15.25
10	25	0		14.62	14.28	14.75
10	25	12		14.72	14.59	14.65
10	25	24		14.87	14.95	14.62
10	50	0		14.73	14.66	14.69

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	16.2	15.69	16.53
15	1	37		16.17	16.49	16.22
15	1	74		16.67	16.8	15.7
15	36	0		15.64	15.22	15.56
15	36	18		15.61	15.54	15.32
15	36	39		15.84	15.84	15.12
15	75	0		15.73	15.55	15.35
15	1	0	16-QAM	15.93	14.92	15.69
15	1	38		15.99	15.7	15.43
15	1	75		16.45	16.02	14.89
15	36	0		14.77	14.25	14.5
15	36	18		14.72	14.57	14.27
15	36	39		14.95	14.88	14.04
15	75	0		14.81	14.5	14.33
20	1	0	QPSK	16.42	15.84	17.01
20	1	49		16.09	16.57	16.39
20	1	99		17.37	17.16	16.27
20	50	0		15.64	15.29	15.88
20	50	24		15.61	15.62	15.59
20	50	49		16.17	16.02	15.49
20	100	0		15.9	15.67	15.69
20	1	0	16-QAM	16.08	15.14	16.3
20	1	49		15.81	15.84	15.75
20	1	99		17.08	16.44	15.58
20	50	0		14.71	14.26	14.89
20	50	24		14.7	14.59	14.61
20	50	49		15.24	15	14.48
20	100	0		14.93	14.66	14.66

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.21	22.3	22.54
1.4	1	2		22.07	22.42	22.65
1.4	1	5		22.29	22.59	22.76
1.4	3	0		21.22	21.76	21.63
1.4	3	1		21.27	21.41	21.75
1.4	3	2		21.31	21.66	21.75
1.4	6	0		21.16	21.46	21.66
1.4	1	0	16-QAM	23.03	22.48	22.39
1.4	1	2		22.75	22.61	22.41
1.4	1	5		22.77	22.78	22.54
1.4	3	0		20.25	20.94	20.64
1.4	3	1		20.24	20.48	20.72
1.4	3	2		20.29	20.54	20.73
1.4	6	0		20.27	20.44	20.67
3	1	0	QPSK	22.28	22.46	22.74
3	1	7		22.24	22.6	22.69
3	1	14		22.45	22.66	22.86
3	8	0		21.74	21.9	21.63
3	8	4		21.58	21.61	21.64
3	8	7		21.4	21.57	21.68
3	15	0		21.73	21.47	21.74
3	1	0	16-QAM	23.13	22.23	22.2
3	1	7		23.09	22.05	22.22
3	1	14		22.73	22.04	22.31
3	8	0		20.51	20.92	20.7
3	8	4		20.53	20.46	20.67
3	8	7		20.02	20.45	20.78
3	15	0		20.7	20.42	20.75

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.22	22.34	22.5
5	1	12		22.11	22.48	22.49
5	1	24		22.23	22.62	22.62
5	12	0		21.6	21.82	21.71
5	12	6		21.18	21.48	21.72
5	12	11		21.32	21.49	21.64
5	25	0		21.31	21.5	21.67
5	1	0	16-QAM	22.32	22.29	22.68
5	1	12		21.82	22.02	22.64
5	1	24		21.9	22.02	22.79
5	12	0		20.65	20.71	20.7
5	12	6		20.14	20.27	20.58
5	12	11		20.12	20.33	20.63
5	25	0		20.31	20.5	20.73
10	1	0	QPSK	22.44	22.5	22.75
10	1	24		22.35	22.64	22.88
10	1	49		22.32	22.64	22.58
10	25	0		22.27	22.27	22.71
10	25	12		22.22	22.3	22.79
10	25	24		22.29	22.51	22.77
10	50	0		21.48	21.53	21.64
10	1	0	16-QAM	23.13	22.37	22.26
10	1	24		23.18	22.1	22.26
10	1	49		23.16	22.05	22.32
10	25	0		21.92	21.55	21.54
10	25	12		21.73	21.62	21.58
10	25	24		21.98	21.51	21.63
10	50	0		20.86	20.62	20.77

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	17.53	17.82	17.39
5	1	12		17.87	18.13	17.76
5	1	24		17.34	17.44	17.08
5	12	0		16.9	17.11	16.56
5	12	6		16.99	17.17	16.65
5	12	11		16.8	16.93	16.41
5	25	0		16.91	17.01	16.55
5	1	0	16-QAM	16.97	17.18	16.89
5	1	12		17.34	17.53	17.3
5	1	24		16.81	16.83	16.6
5	12	0		15.97	16.15	15.62
5	12	6		16.06	16.22	15.72
5	12	11		15.89	15.97	15.49
5	25	0		16.02	16.05	15.55
10	1	0	QPSK	17.78	18.18	17.79
10	1	24		17.96	18.13	17.91
10	1	49		18.69	18.02	17.85
10	25	0		16.94	17.26	16.79
10	25	12		17.08	17.19	16.81
10	25	24		17.45	17.17	16.82
10	50	0		17.25	17.18	16.84
10	1	0	16-QAM	17.22	17.35	16.51
10	1	24		17.44	17.31	16.7
10	1	49		18.17	17.21	16.58
10	25	0		16.19	16.29	15.82
10	25	12		16.31	16.2	15.85
10	25	24		16.71	16.22	15.87
10	50	0		16.46	16.33	15.85

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	17.97	18.61	17.84
15	1	37		18.13	18.05	17.66
15	1	74		19.21	17.69	17.25
15	36	0		17.06	17.48	16.84
15	36	18		17.26	17.14	16.64
15	36	39		17.87	16.97	16.54
15	75	0		17.51	17.19	16.69
15	1	0	16-QAM	17.43	17.79	16.95
15	1	38		17.61	17.26	16.74
15	1	75		18.69	16.9	16.38
15	36	0		16.26	16.54	15.96
15	36	18		16.48	16.21	15.78
15	36	39		17.07	16.04	15.7
15	75	0		16.69	16.25	15.9
20	1	0	QPSK	17.89	19.28	18.2
20	1	49		18.13	18.15	17.77
20	1	99		19.39	18.15	17.57
20	50	0		17.04	17.79	17.12
20	50	24		17.41	17.25	16.84
20	50	49		18.21	17.12	16.78
20	100	0		17.62	17.43	16.9
20	1	0	16-QAM	17.39	18.53	17.5
20	1	49		17.57	17.41	16.99
20	1	99		18.9	17.41	16.86
20	50	0		16.16	16.77	16.34
20	50	24		16.54	16.25	16.06
20	50	49		17.3	16.12	16.01
20	100	0		16.74	16.49	16.18

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.08	21.88	21.89
5	1	12		22	21.86	21.91
5	1	24		22.05	21.92	21.96
5	12	0		21.11	21.36	21.5
5	12	6		21.52	21.54	21.55
5	12	11		21.47	21.54	21.65
5	25	0		21.57	21.62	21.57
5	1	0	16-QAM	20.75	22.05	21.57
5	1	12		21.12	22.11	21.54
5	1	24		21.19	22.14	21.63
5	12	0		20.52	21.41	20.21
5	12	6		20.7	21.42	20.44
5	12	11		20.37	21.21	20.41
5	25	0		20.5	21.26	20.27
10	1	0	QPSK	/	22.22	/
10	1	24		/	21.97	/
10	1	49		/	22.13	/
10	25	0		/	21.54	/
10	25	12		/	21.46	/
10	25	24		/	21.47	/
10	50	0		/	21.44	/
10	1	0	16-QAM	/	22.1	/
10	1	24		/	22.62	/
10	1	49		/	22.68	/
10	25	0		/	21.23	/
10	25	12		/	21.15	/
10	25	24		/	21.29	/
10	50	0		/	21.24	/

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	16.17	15.92	15.36
1.4	1	2		16.38	16.11	15.51
1.4	1	5		16.19	15.89	15.22
1.4	3	0		16.16	16.02	15.4
1.4	3	1		16.24	16.08	15.44
1.4	3	2		16.19	16	15.31
1.4	6	0		15.03	14.9	14.3
1.4	1	0	16-QAM	15.15	15.01	14.19
1.4	1	2		15.37	15.2	14.33
1.4	1	5		15.19	15.01	14.05
1.4	3	0		15.28	15.18	14.53
1.4	3	1		15.35	15.25	14.57
1.4	3	2		15.3	15.18	14.47
1.4	6	0		14.31	14.04	13.49
3	1	0	QPSK	16.09	16.02	15.65
3	1	7		16.32	16.16	15.67
3	1	14		16.13	15.92	15.3
3	8	0		15.11	15.01	14.59
3	8	4		15.17	15.04	14.55
3	8	7		15.14	14.98	14.41
3	15	0		15.12	15.01	14.51
3	1	0	16-QAM	15.43	15.12	14.5
3	1	7		15.66	15.25	14.51
3	1	14		15.49	15.04	14.13
3	8	0		14.23	13.97	13.57
3	8	4		14.3	13.99	13.54
3	8	7		14.26	13.92	13.39
3	15	0		14.27	13.94	13.61

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	15.8	15.71	15.5
5	1	12		16.37	16.16	15.76
5	1	24		15.82	15.54	14.92
5	12	0		15.05	14.96	14.69
5	12	6		15.22	15.06	14.71
5	12	11		15.06	14.87	14.42
5	25	0		15.07	14.94	14.57
5	1	0	16-QAM	15.29	15	14.84
5	1	12		15.87	15.4	15.07
5	1	24		15.31	14.83	14.29
5	12	0		14.15	13.88	13.69
5	12	6		14.32	13.98	13.72
5	12	11		14.17	13.8	13.41
5	25	0		14.11	13.91	13.56
10	1	0	QPSK	15.81	15.95	15.78
10	1	24		16.13	16.15	16.12
10	1	49		16.4	16	15.69
10	25	0		15	15.11	15.03
10	25	12		15.1	15.12	15.02
10	25	24		15.23	15.16	14.95
10	50	0		15.11	15.14	15
10	1	0	16-QAM	15.11	15.14	14.74
10	1	24		15.52	15.24	14.94
10	1	49		15.71	15.2	14.64
10	25	0		14.13	14.07	13.98
10	25	12		14.21	14.07	13.99
10	25	24		14.37	14.11	13.91
10	50	0		14.24	14.14	13.97

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	16.12	16.24	15.75
15	1	37		16.09	16.13	16.22
15	1	74		16.6	15.71	15.66
15	36	0		15.15	15.23	15.09
15	36	18		15.1	15.08	15.21
15	36	39		15.32	14.92	15.09
15	75	0		15.22	15.08	15.08
15	1	0	16-QAM	15.45	15.27	14.81
15	1	38		15.48	15.21	15.36
15	1	75		15.95	14.75	14.74
15	36	0		14.24	14.26	14.03
15	36	18		14.19	14.1	14.14
15	36	39		14.4	13.93	14.04
15	75	0		14.27	14.04	14.09
20	1	0	QPSK	16.07	16.8	15.86
20	1	49		15.84	16.21	16.18
20	1	99		17.05	16.04	16.01
20	50	0		15.01	15.46	14.96
20	50	24		14.96	15.17	15.16
20	50	49		15.5	15.05	15.29
20	100	0		15.24	15.25	15.12
20	1	0	16-QAM	15.42	15.86	15.03
20	1	49		15.13	15.36	15.42
20	1	99		16.41	15.11	15.19
20	50	0		14.08	14.43	14
20	50	24		14.04	14.1	14.19
20	50	49		14.59	14	14.33
20	100	0		14.29	14.15	14.14

10.2 Tune up Power

Mode	GSM850	GSM1900
GSM/PCS	30.5±1dBm	26.3±1dBm
GPRS (1 Slot)	30.5±1dBm	26.3±1dBm
GPRS (2 Slot)	28.8±1dBm	24.3±1dBm
GPRS (3 Slot)	26.5±1dBm	22.5±1dBm
GPRS (4 Slot)	24.5±1dBm	20.5±1dBm
EDGE (1 Slot)	23±1dBm	22.5±1dBm
EDGE (2 Slot)	20.5±1dBm	19.5±1dBm
EDGE (3 Slot)	18.5±1dBm	16.5±1dBm
EDGE (4 Slot)	16.5±1dBm	12.5±1dBm

Mode	WCDMA Band II	WCDMA Band V
RMR	23.5±1dBm	23.5±1dBm
HSDPA Subtest-1	23±1dBm	23±1dBm
HSDPA Subtest-2	23±1dBm	22.5±1dBm
HSDPA Subtest-3	22.5±1dBm	22.5±1dBm
HSDPA Subtest-4	22.5±1dBm	22.5±1dBm
HSUPA Subtest-1	23±1dBm	23±1dBm
HSUPA Subtest-2	23±1dBm	23±1dBm
HSUPA Subtest-3	22.5±1dBm	22.5±1dBm
HSUPA Subtest-4	23±1dBm	23±1dBm
HSUPA Subtest-5	23±1dBm	22.5±1dBm

Mode	BT
GFSK	4.5±1dBm
π/4-DQPSK	5±1dBm
8DPSK	5±1dBm

Mode	BLE
GFSK(1Mbps)	1±1dBm
GFSK(2Mbps)	0.5±1dBm

BW[MHz]	RB Size	Mode	Band 2	Band 4	Band 5	Band 7	Band 13	Band 66
1.4	1	QPSK	18.5±1dBm	16±1dBm	22±1dBm	N/A	N/A	15.5±1dBm
1.4	3		18.5±1dBm	16±1dBm	21±1dBm	N/A	N/A	15.5±1dBm
1.4	6		17±1dBm	15±1dBm	21±1dBm	N/A	N/A	14.5±1dBm
1.4	1	16-QAM	17.5±1dBm	15±1dBm	22.5±1dBm	N/A	N/A	14.5±1dBm
1.4	3		17.5±1dBm	15±1dBm	20±1dBm	N/A	N/A	14.5±1dBm
1.4	6		16.5±1dBm	14±1dBm	20±1dBm	N/A	N/A	13.5±1dBm
3	1	QPSK	18.5±1dBm	16±1dBm	22±1dBm	N/A	N/A	15.5±1dBm
3	8		17.5±1dBm	15±1dBm	21±1dBm	N/A	N/A	14.5±1dBm
3	15		17±1dBm	15±1dBm	21±1dBm	N/A	N/A	14.5±1dBm
3	1	16-QAM	17±1dBm	15.5±1dBm	22.5±1dBm	N/A	N/A	15±1dBm
3	8		16.5±1dBm	14±1dBm	20±1dBm	N/A	N/A	13.5±1dBm
3	15		16.5±1dBm	14±1dBm	20±1dBm	N/A	N/A	13.5±1dBm
5	1	QPSK	18±1dBm	16±1dBm	22±1dBm	17..5±1dBm	21.5±1dBm	15.5±1dBm
5	12		17±1dBm	15±1dBm	21±1dBm	16.5±1dBm	21±1dBm	14.5±1dBm
5	25		17±1dBm	15±1dBm	21±1dBm	16.5±1dBm	21±1dBm	14.5±1dBm
5	1	16-QAM	17.5±1dBm	15.5±1dBm	22±1dBm	17±1dBm	21.5±1dBm	15±1dBm
5	12		16±1dBm	14±1dBm	20±1dBm	15.5±1dBm	20.5±1dBm	13.5±1dBm
5	25		16±1dBm	14±1dBm	20±1dBm	15.5±1dBm	20.5±1dBm	13.5±1dBm
10	1	QPSK	18.5±1dBm	16±1dBm	22±1dBm	18±1dBm	21.5±1dBm	15.5±1dBm
10	25		17.5±1dBm	15±1dBm	22±1dBm	16.5±1dBm	20.8±1dBm	14.5±1dBm
10	50		17.5±1dBm	15±1dBm	21±1dBm	16.5±1dBm	20.5±1dBm	14.5±1dBm
10	1	16-QAM	17.5±1dBm	15.5±1dBm	22.2±1dBm	17.5±1dBm	21.8±1dBm	15±1dBm
10	25		16.5±1dBm	14±1dBm	21±1dBm	16±1dBm	20.5±1dBm	13.5±1dBm
10	50		16.5±1dBm	14±1dBm	20±1dBm	16±1dBm	20.5±1dBm	13.5±1dBm
15	1	QPSK	19±1dBm	16±1dBm	N/A	18.5±1dBm	N/A	16±1dBm
15	36		17.5±1dBm	15±1dBm	N/A	17±1dBm	N/A	14.5±1dBm
15	75		17±1dBm	15±1dBm	N/A	17±1dBm	N/A	14.5±1dBm
15	1	16-QAM	18±1dBm	15.5±1dBm	N/A	18±1dBm	N/A	15±1dBm
15	36		16.5±1dBm	14±1dBm	N/A	16.5±1dBm	N/A	13.5±1dBm
15	75		16±1dBm	14±1dBm	N/A	16±1dBm	N/A	13.5±1dBm
20	1	QPSK	19.8±1dBm	16.5±1dBm	N/A	18.5±1dBm	N/A	16.2±1dBm
20	50		18.2±1dBm	15.2±1dBm	N/A	17.3±1dBm	N/A	14.8±1dBm
20	100		17.5±1dBm	15±1dBm	N/A	16.8±1dBm	N/A	14.5±1dBm
20	1	16-QAM	19±1dBm	16.5±1dBm	N/A	18±1dBm	N/A	15.5±1dBm
20	50		17.5±1dBm	14.5±1dBm	N/A	16.5±1dBm	N/A	14±1dBm
20	100		16.5±1dBm	14±1dBm	N/A	16±1dBm	N/A	13.5±1dBm

Mode	BT
GFSK	4.5±1dBm
π/4-DQPSK	5±1dBm
8DPSK	5±1dBm

Mode	BLE
GFSK(1Mbps)	1±1dBm
GFSK(2Mbps)	0.5±1dBm

Mode	2.4G WLAN
802.11b	15±1dBm
802.11g	14±1dBm
802.11n(HT20)	13±1dBm
802.11n(HT40)	12.5±1dBm

Mode	5.2G WLAN
802.11a	15.5±1dBm
802.11 n-HT20	13±1dBm
802.11 n-HT40	13±1dBm
802.11 ac-VHT20	12.5±1dBm
802.11 ac-VHT40	12.5±1dBm
802.11 ac-VHT80	11±1dBm

Mode	5.3G WLAN
802.11a	15±1dBm
802.11 n-HT20	13±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	12.5±1dBm
802.11 ac-VHT40	12.5±1dBm
802.11 ac-VHT80	12±1dBm

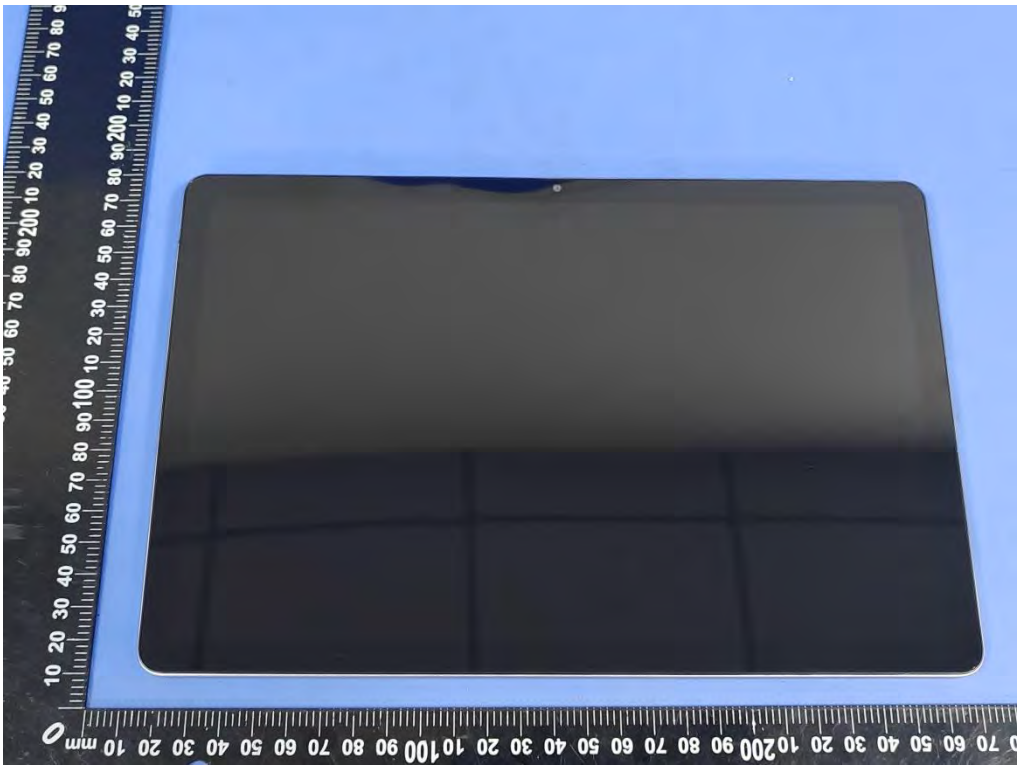
Mode	5.6G WLAN
802.11a	15.5±1dBm
802.11 n-HT20	14±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13.5±1dBm
802.11 ac-VHT40	13.5±1dBm
802.11 ac-VHT80	11±1dBm

Mode	5.8G WLAN
802.11a	15.5±1dBm
802.11 n-HT20	13.5±1dBm
802.11 n-HT40	13.5±1dBm
802.11 ac-VHT20	13.5±1dBm
802.11 ac-VHT40	13.5±1dBm
802.11 ac-VHT80	10.5±1dBm

11. EUT and Test Setup Photo

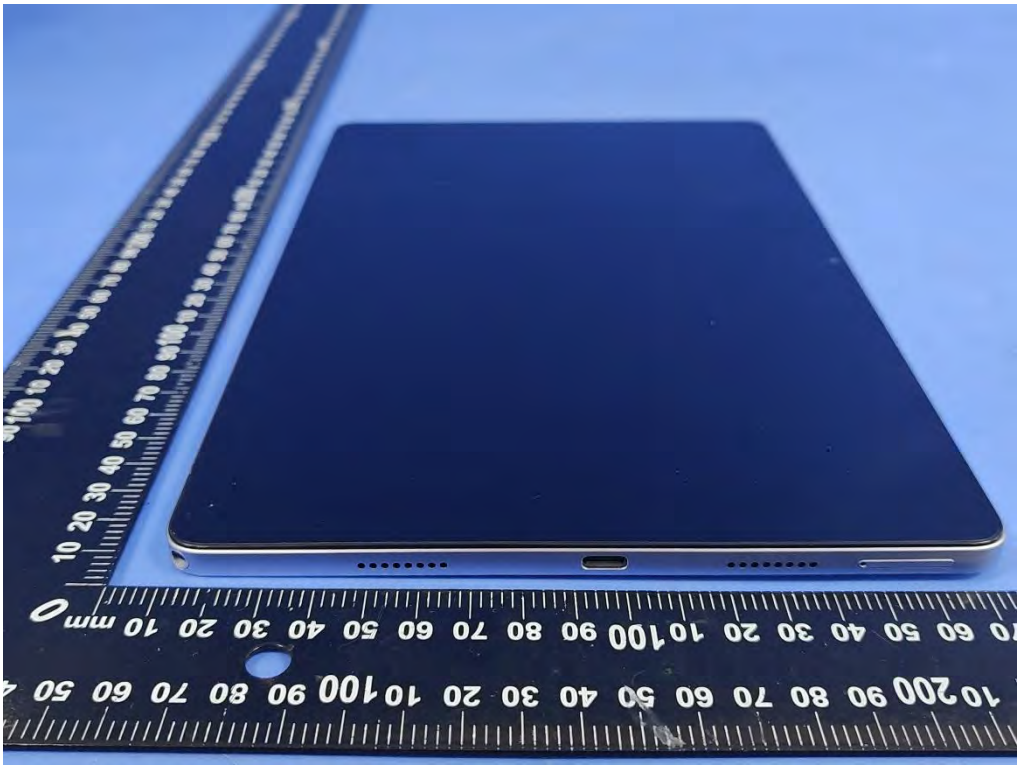
11.1 EUT Photos

Front side

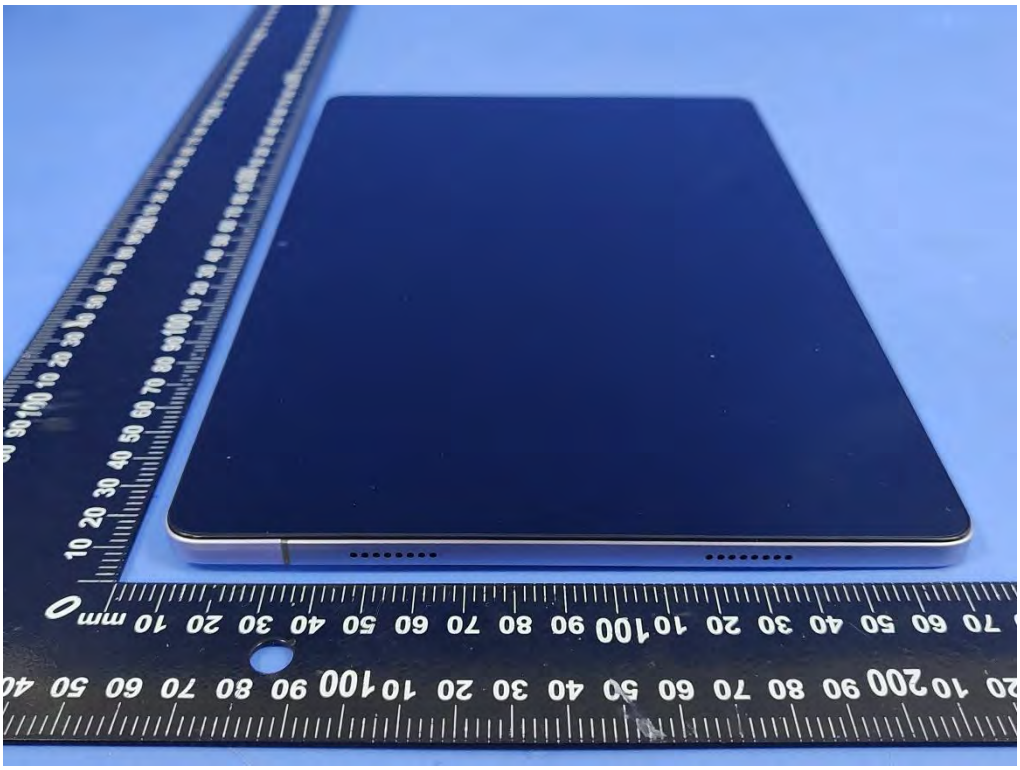


Back side

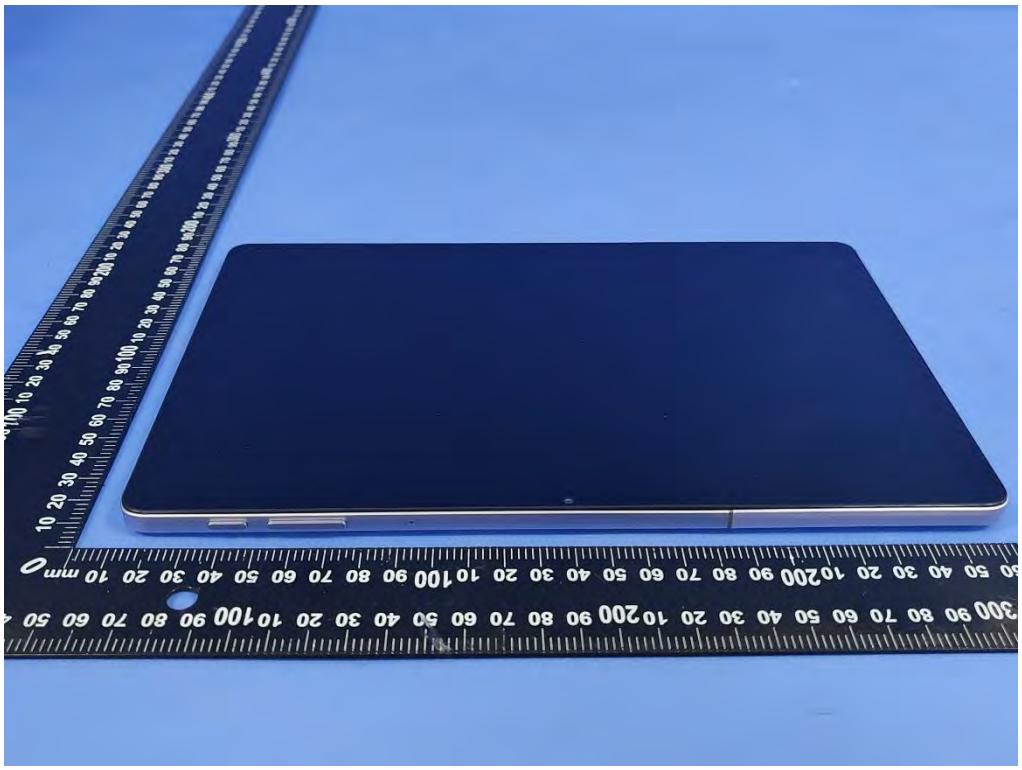
Right Edge



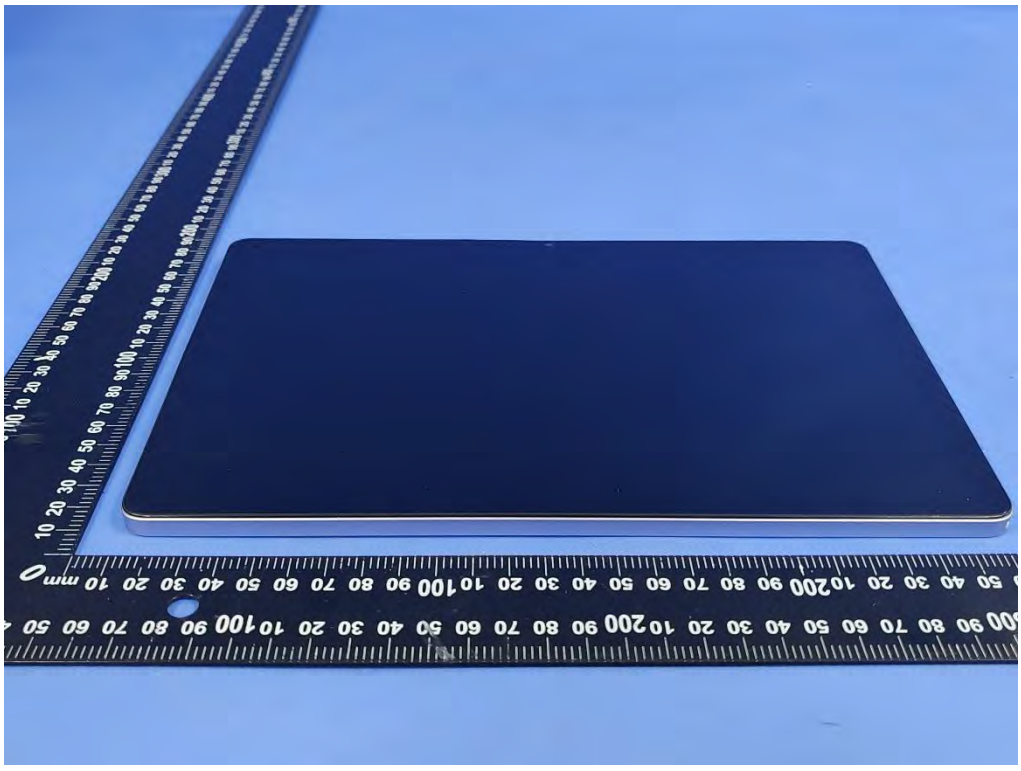
Left Edge



Top Edge

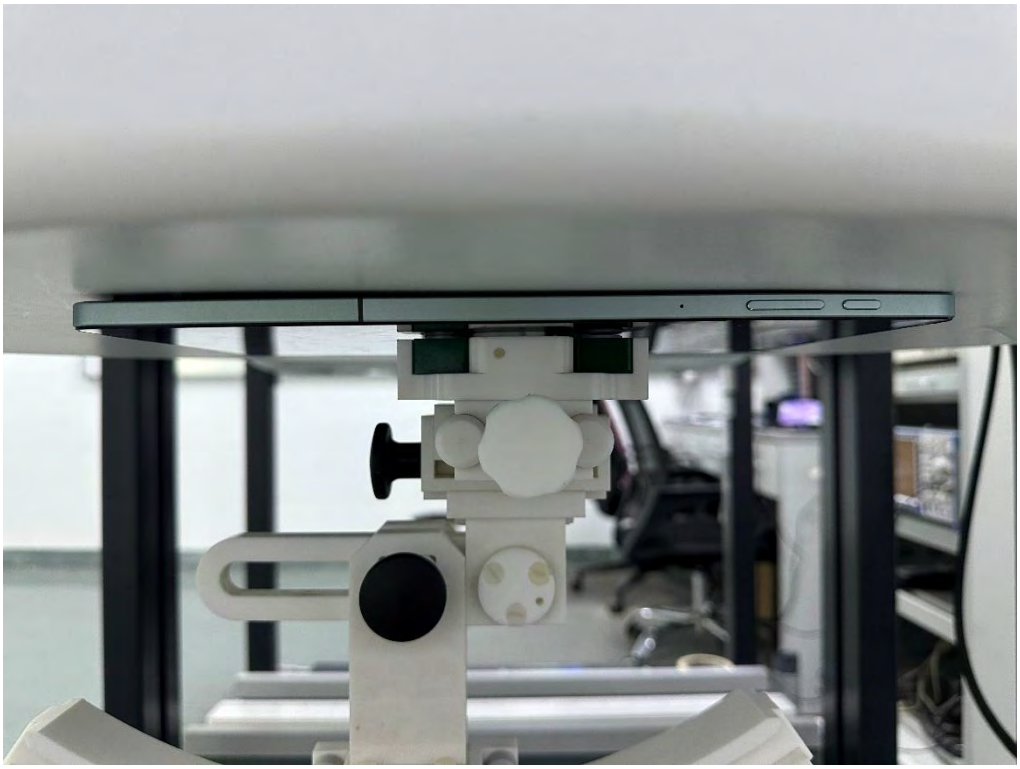


Bottom Edge



11.2 Setup Photos

Body Back side (separation distance is 0mm)



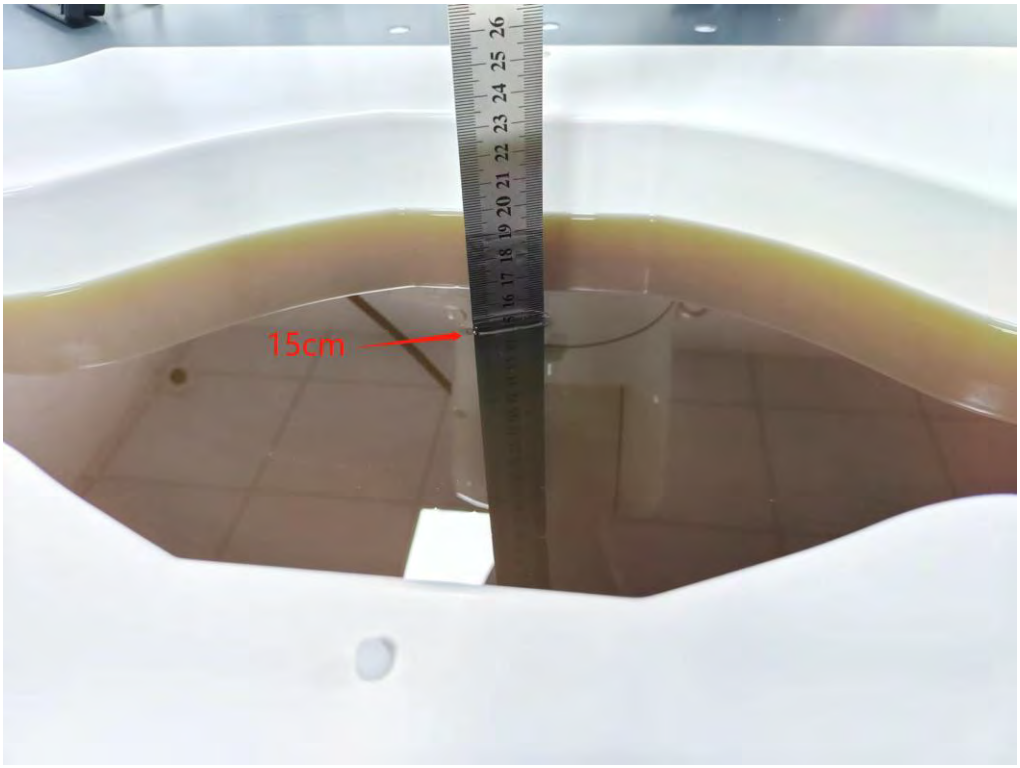
Body Left side (separation distance is 0mm)

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	Back Side	824.2	0.792	-3.90	29.80	29.35	0.878	/
		Back Side	836.6	0.722	-1.94	29.80	29.12	0.844	/
		Back Side	848.8	0.838	-3.31	29.80	29.51	**0.896**	**1**
		Left Side	848.8	0.071	-3.50	29.80	29.51	0.076	/
		Top Side	848.8	0.278	-0.51	29.80	29.51	0.297	/
PCS 1900	GSM	Back Side	1850.2	1.069	0.77	25.30	25.01	**1.143**	**2**
		Back Side	1880	0.975	-0.84	25.30	24.99	1.047	/
		Back Side	1909.8	0.863	-0.01	25.30	24.37	1.069	/
		Left Side	1850.2	0.09	2.15	25.30	25.01	0.096	/
		Top Side	1850.2	0.353	-3.37	25.30	25.01	0.377	/
WCDMA Band II	RMC	Back Side	1852.4	0.814	3.70	24.50	24.06	0.901	/
		Back Side	1880	0.874	-3.00	24.50	24.20	0.937	/
		Back Side	1907.6	0.930	-1.48	24.50	24.34	**0.965**	**3**
		Left Side	1907.6	0.076	1.14	24.50	24.34	0.079	/
		Top Side	1907.6	0.307	-1.08	24.50	24.34	0.319	/
WCDMA Band V	RMC	Back Side	826.4	0.833	-3.03	24.50	23.85	0.967	/
		Back Side	836.4	0.915	-0.23	24.50	24.05	1.015	/
		Back Side	846.6	0.992	-0.46	24.50	24.20	**1.063**	**4**
		Left Side	846.6	0.081	1.92	24.50	24.20	0.087	/
		Top Side	846.6	0.326	-0.24	24.50	24.20	0.349	/
2.4GHz WLAN	802.11b	Back Side	2462	0.270	2.70	16.00	15.77	0.285	/
		Left Side	2462	0.295	-1.62	16.00	15.77	**0.311**	**5**
		Top Side	2462	0.279	-2.56	16.00	15.77	0.294	/
5.2GHz WLAN	802.11a	Back Side	5180	0.173	-3.10	16.50	16.05	0.192	/
		Left Side	5180	0.277	-3.22	16.50	16.05	**0.307**	**6**
		Top Side	5180	0.088	2.88	16.50	16.05	0.098	/
5.3GHz WLAN	802.11a	Back Side	5260	0.132	0.47	16.00	15.98	0.133	/
		Left Side	5260	0.212	2.68	16.00	15.98	**0.213**	**7**
		Top Side	5260	0.067	-2.38	16.00	15.98	0.067	/
5.6GHz WLAN	802.11a	Back Side	5580	0.12	0.70	16.50	16.45	0.121	/
		Left Side	5580	0.191	2.94	16.50	16.45	**0.193**	**8**
		Top Side	5580	0.062	-0.85	16.50	16.45	0.063	/
5.8GHz WLAN	802.11a	Back Side	5745	0.131	1.46	16.50	16.42	0.133	/
		Left Side	5745	0.210	-3.48	16.50	16.42	**0.214**	**9**
		Top Side	5745	0.075	-0.77	16.50	16.42	0.076	/

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	Back Side	1860	0.627	1.98	20.80	18.20	1.141	/
			1	0	Back Side	1880	0.908	3.06	20.80	20.11	1.064	/
			1	0	Back Side	1900	1.179	-2.94	20.80	20.64	**1.223**	**10**
			50	0	Back Side	1860	0.628	0.67	19.20	17.47	0.935	/
			50	0	Back Side	1880	0.764	2.51	19.20	18.16	0.971	/
			50	0	Back Side	1900	0.976	-2.07	19.20	19.14	0.990	/
			100	0	Back Side	1900	0.782	1.15	18.50	18.43	0.795	/
			1	0	Left Side	1900	0.098	-2.74	20.80	20.64	0.102	/
			50	0	Left Side	1900	0.086	-1.28	19.20	19.14	0.087	/
			1	0	Top Side	1900	0.390	-1.29	20.80	20.64	0.405	/
			50	0	Top Side	1900	0.336	2.85	19.20	19.14	0.341	/
LTE Band 4	20M	QPSK	1	0	Back Side	1720	1.147	3.10	17.50	17.37	**1.182**	**11**
			1	0	Back Side	1732.5	0.987	2.93	17.50	17.16	1.067	/
			1	0	Back Side	1745	0.995	2.84	17.50	17.01	1.114	/
			50	0	Back Side	1720	0.899	-1.99	16.20	16.17	0.905	/
			50	0	Back Side	1732.5	0.843	-2.60	16.20	16.02	0.879	/
			50	0	Back Side	1745	0.796	-3.73	16.20	15.88	0.857	/
			100	0	Back Side	1745	0.743	-0.18	16.00	15.69	0.798	/
			1	0	Left Side	1720	0.668	1.33	17.50	17.37	0.688	/
			50	0	Left Side	1720	0.543	0.67	16.20	16.17	0.547	/
			1	0	Top Side	1720	0.669	3.24	17.50	17.37	0.689	/
			50	0	Top Side	1720	0.376	-0.53	16.20	16.17	0.379	/

LTE Band 5	10M	QPSK	1	0	Back Side	829	0.798	0.22	23.00	22.44	0.908	/
			1	0	Back Side	836.5	0.865	-2.30	23.00	22.64	0.940	/
			1	0	Back Side	844	0.911	-3.07	23.00	22.88	**0.937**	**12**
			25	0	Back Side	829	0.658	-1.06	23.00	22.29	0.775	/
			25	0	Back Side	836.5	0.712	3.10	23.00	22.51	0.797	/
			25	0	Back Side	844	0.782	1.41	23.00	22.79	0.821	/
			50	0	Back Side	844	0.673	3.93	22.00	21.64	0.731	/
			1	0	Left Side	844	0.073	2.55	23.00	22.88	0.075	/
			25	0	Left Side	844	0.061	0.68	23.00	22.79	0.064	/
			1	0	Top Side	844	0.303	1.54	23.00	22.88	0.311	/
			25	0	Top Side	844	0.260	-2.17	23.00	22.79	0.273	/
LTE Band 7	20M	QPSK	1	0	Back Side	2510	1.078	2.16	19.50	19.39	**1.106**	**13**
			1	0	Back Side	2535	0.810	-0.57	19.50	19.28	0.852	/
			1	0	Back Side	2560	0.697	3.85	19.50	18.20	0.940	/
			50	0	Back Side	2510	0.928	-2.84	18.30	18.21	0.947	/
			50	0	Back Side	2535	0.821	-1.63	18.30	17.79	0.923	/
			50	0	Back Side	2560	0.706	2.55	18.30	17.12	0.926	/
			100	0	Back Side	2510	0.756	-2.48	17.80	17.62	0.788	/
			1	0	Left Side	2510	0.090	3.27	19.50	19.39	0.092	/
			50	0	Left Side	2510	0.081	-1.71	18.30	18.21	0.083	/
			1	0	Top Side	2510	0.357	-0.55	19.50	19.39	0.366	/
			50	0	Top Side	2510	0.305	-1.78	18.30	18.21	0.311	/
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.975	-1.81	22.50	22.22	**1.040**	**14**
			25	0	Back Side	782	0.792	3.19	21.80	21.54	0.841	/
			50	0	Back Side	782	0.746	-1.32	21.50	21.44	0.756	/
			1	0	Left Side	782	0.078	0.75	22.50	22.22	0.083	/
			25	0	Left Side	782	0.069	2.91	21.80	21.54	0.073	/
			1	0	Top Side	782	0.322	1.28	22.50	22.22	0.343	/
			25	0	Top Side	782	0.280	-0.45	21.80	21.54	0.297	/

LTE Band 66	20M	QPSK	1	0	Back Side	1720	1.061	3.61	17.20	17.05	**1.098**	**15**
			1	0	Back Side	1755	0.931	-3.84	17.20	16.80	1.021	/
			1	0	Back Side	1770	0.826	-3.97	17.20	16.18	1.045	/
			50	0	Back Side	1720	0.864	-3.20	15.80	15.50	0.926	/
			50	0	Back Side	1755	0.823	3.95	15.80	15.46	0.890	/
			50	0	Back Side	1770	0.807	3.12	15.80	15.29	0.908	/
			100	0	Back Side	1720	0.749	1.98	15.50	15.24	0.795	/
			100	0	Back Side	1755	0.768	-1.11	15.50	15.25	0.814	/
			100	0	Back Side	1770	0.711	-2.47	15.50	15.12	0.776	/
			1	0	Left Side	1720	0.088	-0.58	17.20	17.05	0.091	/
			50	0	Left Side	1720	0.075	-3.60	15.80	15.50	0.080	/
			1	0	Top Side	1720	0.351	-0.69	17.20	17.05	0.363	/
			50	0	Top Side	1720	0.302	0.39	15.80	15.50	0.324	/

Note:

1. The test separation of all above table is 0mm.
2. Per KDB 447498 D01, 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.

12.2 Repeated SAR

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR(W/Kg)
GSM 850	GPRS Data-2 Slot	Back Side	824.2	0.773	1.52	29.80	29.35	0.857
		Back Side	836.6	0.721	-1.06	29.80	29.12	0.843
		Back Side	848.8	0.800	-2.41	29.80	29.51	0.855
PCS 1900	GPRS Data-2 Slot	Back Side	1850.2	1.063	1.82	25.30	25.01	1.136
		Back Side	1880	0.970	-3.02	25.30	24.99	1.042
		Back Side	1909.8	0.832	3.18	25.30	24.37	1.031
WCDMA Band II	RMC	Back Side	1852.4	0.811	3.26	24.50	24.06	0.898
		Back Side	1880	0.862	-2.21	24.50	24.20	0.924
		Back Side	1907.6	0.884	-0.30	24.50	24.34	0.917
WCDMA Band V	RMC	Back Side	826.4	0.812	-0.51	24.50	23.85	0.944
		Back Side	836.4	0.874	-3.56	24.50	24.05	0.969
		Back Side	846.6	0.959	-2.61	24.50	24.20	1.028

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)
LTE Band 2	20M	QPSK	1	0	Back Side	1860	0.599	3.98	20.80	18.20	1.089
			1	0	Back Side	1880	0.886	-0.40	20.80	20.11	1.039
			1	0	Back Side	1900	1.121	-2.80	20.80	20.64	1.163
			50	0	Back Side	1860	0.624	-1.64	19.20	17.47	0.930
			50	0	Back Side	1880	0.745	-3.88	19.20	18.16	0.946
			50	0	Back Side	1900	0.948	-1.23	19.20	19.14	0.961

LTE Band 4	20M	QPSK	1	0	Back Side	1720	1.121	-2.18	17.50	17.37	1.156
			1	0	Back Side	1732.5	0.961	-2.63	17.50	17.16	1.039
			1	0	Back Side	1745	0.979	2.50	17.50	17.01	1.096
			50	0	Back Side	1720	0.875	-2.53	16.20	16.17	0.881
			50	0	Back Side	1732.5	0.830	2.66	16.20	16.02	0.865
			50	0	Back Side	1745	0.761	3.95	16.20	15.88	0.819
LTE Band 5	10M	QPSK	1	0	Back Side	829	0.774	-2.53	23.00	22.44	0.880
			1	0	Back Side	836.5	0.857	-2.63	23.00	22.64	0.931
			1	0	Back Side	844	0.896	3.21	23.00	22.88	0.921
			25	0	Back Side	844	0.745	-3.29	23.00	22.79	0.782
LTE Band 7	20M	QPSK	1	0	Back Side	2510	1.075	2.57	19.50	19.39	1.102
			1	0	Back Side	2535	0.773	-0.03	19.50	19.28	0.813
			1	0	Back Side	2560	0.672	3.29	19.50	18.20	0.906
			50	0	Back Side	2510	0.891	0.41	18.30	18.21	0.909
			50	0	Back Side	2535	0.821	-2.77	18.30	17.79	0.923
			50	0	Back Side	2560	0.672	1.56	18.30	17.12	0.882
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.960	1.38	22.50	22.22	1.024
			25	0	Back Side	782	0.771	0.75	21.80	21.54	0.818
LTE Band 66	20M	QPSK	1	0	Back Side	1720	1.052	0.53	17.20	17.05	1.089
			1	0	Back Side	1755	0.900	-0.93	17.20	16.80	0.987
			1	0	Back Side	1770	0.809	0.01	17.20	16.18	1.024
			50	0	Back Side	1720	0.863	-2.69	15.80	15.50	0.924
			50	0	Back Side	1755	0.794	2.83	15.80	15.46	0.858
			50	0	Back Side	1770	0.793	2.93	15.80	15.29	0.892
			100	0	Back Side	1755	0.734	0.61	15.50	15.25	0.778

12.3 Repeated SAR measurement

Band	Mode	Test Position	Ch.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
GSM 850	GPRS Data-2 Slot	Back Side	824.2	0.792	0.773	1.025
		Back Side	836.6	0.722	0.721	1.002
		Back Side	848.8	0.838	0.800	1.048
PCS 1900	GPRS Data-2 Slot	Back Side	1850.2	1.069	1.063	1.006
		Back Side	1880	0.975	0.970	1.005
		Back Side	1909.8	0.863	0.832	1.037
WCDMA Band II	RMC	Back Side	1852.4	0.814	0.811	1.004
		Back Side	1880	0.874	0.862	1.014
		Back Side	1907.6	0.930	0.884	1.053
WCDMA Band V	RMC	Back Side	826.4	0.833	0.812	1.025
		Back Side	836.4	0.915	0.874	1.047
		Back Side	846.6	0.992	0.959	1.034

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 2	20M	QPSK	1	0	Back Side	1860	0.627	0.599	1.048
			1	0	Back Side	1880	0.908	0.886	1.025
			1	0	Back Side	1900	1.179	1.121	1.052
			50	0	Back Side	1860	0.628	0.624	1.006
			50	0	Back Side	1880	0.764	0.745	1.026
			50	0	Back Side	1900	0.976	0.948	1.030
LTE Band 4	20M	QPSK	1	0	Back Side	1720	1.147	1.121	1.023
			1	0	Back Side	1732.5	0.987	0.961	1.027
			1	0	Back Side	1745	0.995	0.979	1.017
			50	0	Back Side	1720	0.899	0.875	1.027
			50	0	Back Side	1732.5	0.843	0.830	1.016
			50	0	Back Side	1745	0.796	0.761	1.046
LTE Band 5	10M	QPSK	1	0	Back Side	829	0.798	0.774	1.031
			1	0	Back Side	836.5	0.865	0.857	1.010
			1	0	Back Side	844	0.911	0.896	1.017
			25	0	Back Side	844	0.782	0.745	1.049

LTE Band 7	20M	QPSK	1	0	Back Side	2510	1.078	1.075	1.003
			1	0	Back Side	2535	0.810	0.773	1.048
			1	0	Back Side	2560	0.697	0.672	1.038
			50	0	Back Side	2510	0.928	0.891	1.042
			50	0	Back Side	2535	0.821	0.821	1.001
			50	0	Back Side	2560	0.706	0.672	1.050
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.975	0.960	1.015
			25	0	Back Side	782	0.792	0.771	1.027
LTE Band 66	20M	QPSK	1	0	Back Side	1720	1.061	1.052	1.008
			1	0	Back Side	1755	0.931	0.900	1.034
			1	0	Back Side	1770	0.826	0.809	1.021
			50	0	Back Side	1720	0.864	0.863	1.002
			50	0	Back Side	1755	0.823	0.794	1.037
			50	0	Back Side	1770	0.807	0.793	1.017
			100	0	Back Side	1755	0.768	0.734	1.046

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.

12.4 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 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
a) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f (GHz) /x] W/kg for test separation distances≤ 50 mm;
Where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is >50mm.

Estimated SAR		Maximum Turn-up Power		Antenna to user(mm)	Frequency(GHz)	Stand Alone SAR(1g) [W/kg]
		dBm	mW			
BT	Body	6	3.981	5	2.441	0.166

Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + 2.4G WLAN	Body	GSM	1.143	1.454
		2.4G WLAN	0.311	
GSM + 5G WLAN	Body	GSM	1.143	1.450
		5G WLAN	0.307	
WCDMA + 2.4G WLAN	Body	WCDMA	1.063	1.374
		2.4G WLAN	0.311	
WCDMA + 5G WLAN	Body	WCDMA	1.063	1.370
		5G WLAN	0.307	
LTE + 2.4G WLAN	Body	LTE	1.223	1.534
		2.4G WLAN	0.311	
LTE + 5G WLAN	Body	LTE	1.223	1.530
		5G WLAN	0.307	

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
2450MHz Dipole	MVG	DIP2G450	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	DIP5G000	SN 06/22 DIP5G000-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2024.02.07	2025.02.06
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2024.02.07	2025.02.06
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop positioner	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	ZVL	R&S	116184-HC	2024.03.25	2025.03.24
Multi Meter	DMM6500	Keithley	4527252	2024.03.15	2025.03.14
Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Wireless Communication Test Set	R&S	CMW500	137737	2024.03.09	2025.03.08
Power Sensor	R&S	Z11	116184	2024.02.23	2025.02.22
Electronic Temperature hygrometer	N/A	ST-W2318	N/A	2024.03.11	2025.03.10
Temperature hygrometer	N/A	TP101	N/A	2024.03.11	2025.03.10

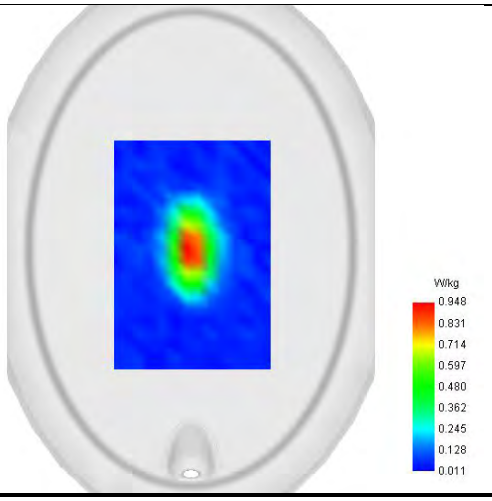
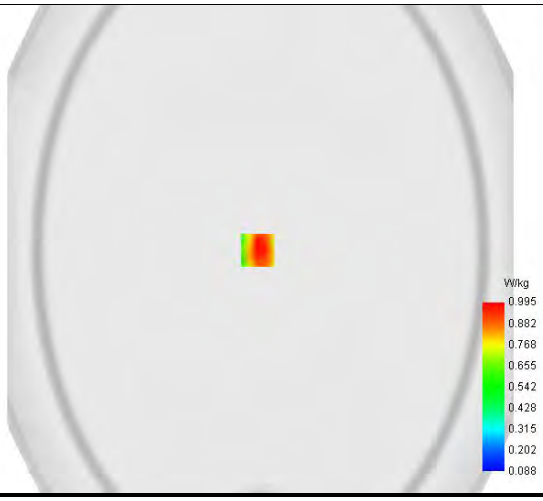
Appendix A. System Validation Plots

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: 2025-01-19

Experimental conditions.

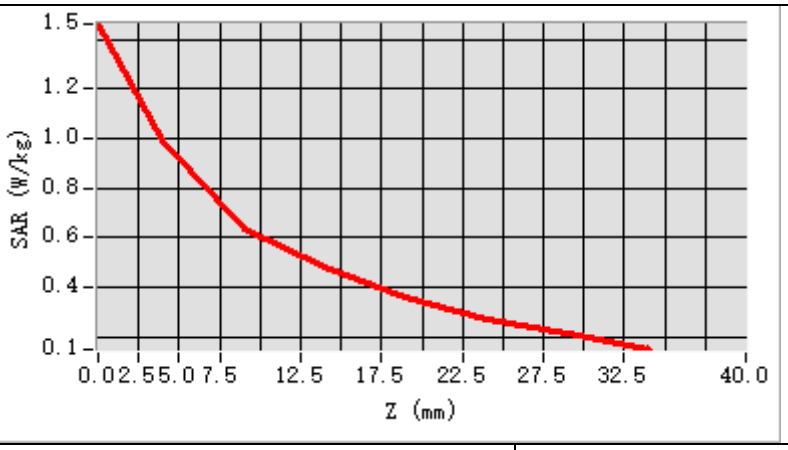
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	42.42
Conductivity (S/m)	0.89
Probe	SN 04/22 EPGO364
ConvF	1.70
Crest factor:	1:1

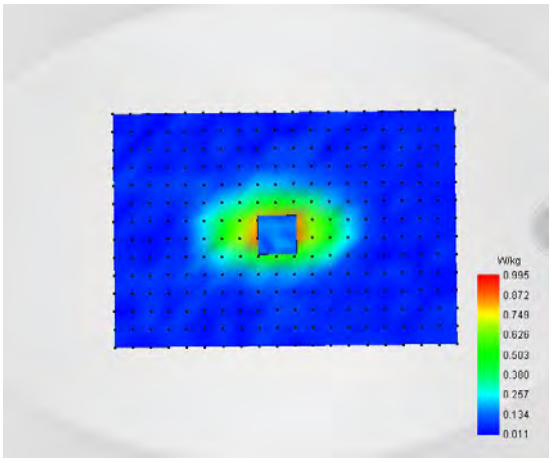
SURFACE SAR	VOLUME SAR
	

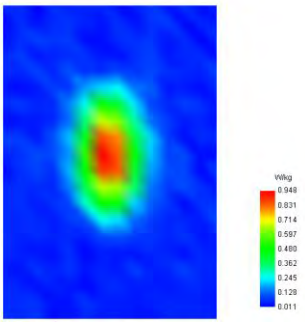
Maximum location: X=3.00, Y=1.00 ; SAR Peak: 1.40 W/kg

SAR 10g (W/Kg)	0.623
SAR 1g (W/Kg)	0.962

Z Axis Scan


SAR (W/kg)
1.5
1.2
1.0
0.8
0.6
0.4
0.1
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
0.995
0.872
0.748
0.626
0.503
0.380
0.257
0.134
0.011

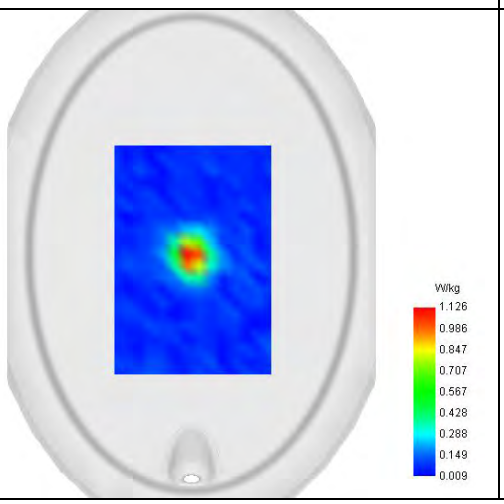
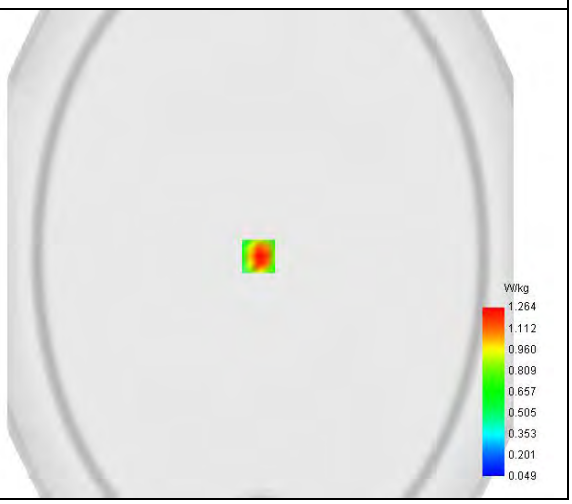

W/kg
0.948
0.831
0.714
0.597
0.480
0.362
0.245
0.128
0.011

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: 2025-01-21

Experimental conditions.

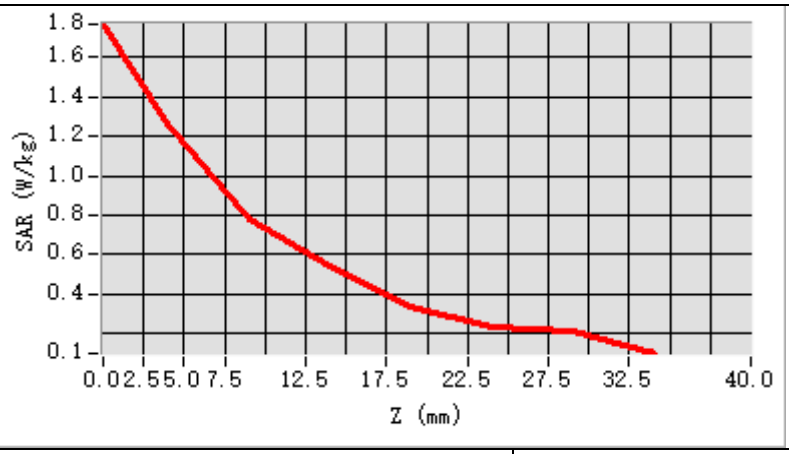
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	41.10
Conductivity (S/m)	1.38
Probe	SN 04/22 EPGO364
ConvF	1.91
Crest factor:	1:1

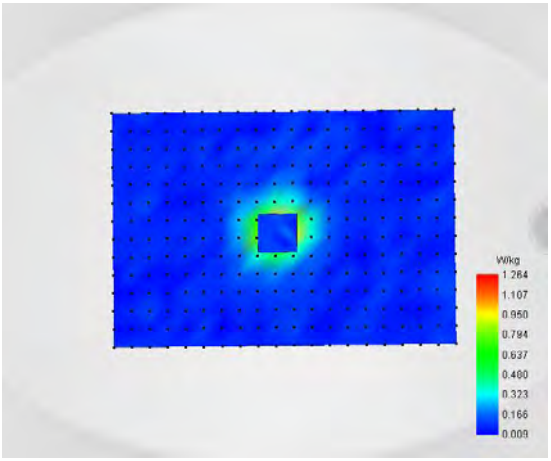
SURFACE	VOLUME SAR
	

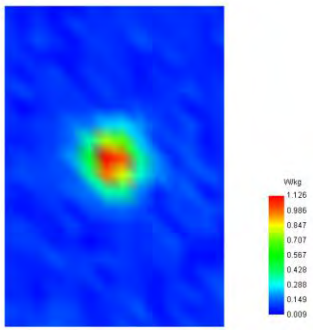
Maximum location: X=2.00, Y=2.00 ; SAR Peak: 1.88 W/kg

SAR 10g (W/Kg)	3.905
SAR 1g (W/Kg)	2.023

Z Axis Scan


SAR (W/kg)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.1
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
1.264
1.107
0.950
0.794
0.637
0.480
0.323
0.166
0.009

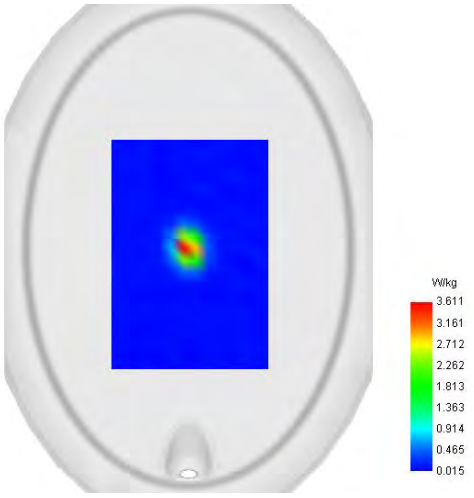
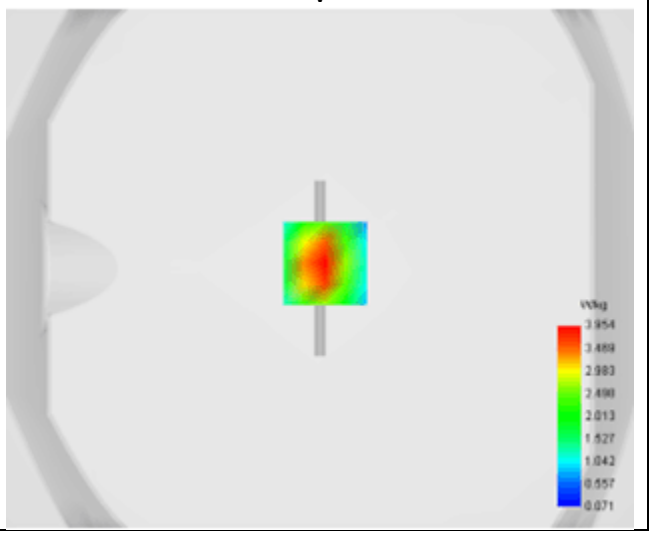

W/kg
1.126
0.986
0.847
0.707
0.567
0.428
0.288
0.149
0.009

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: 2025-01-08

Experimental conditions.

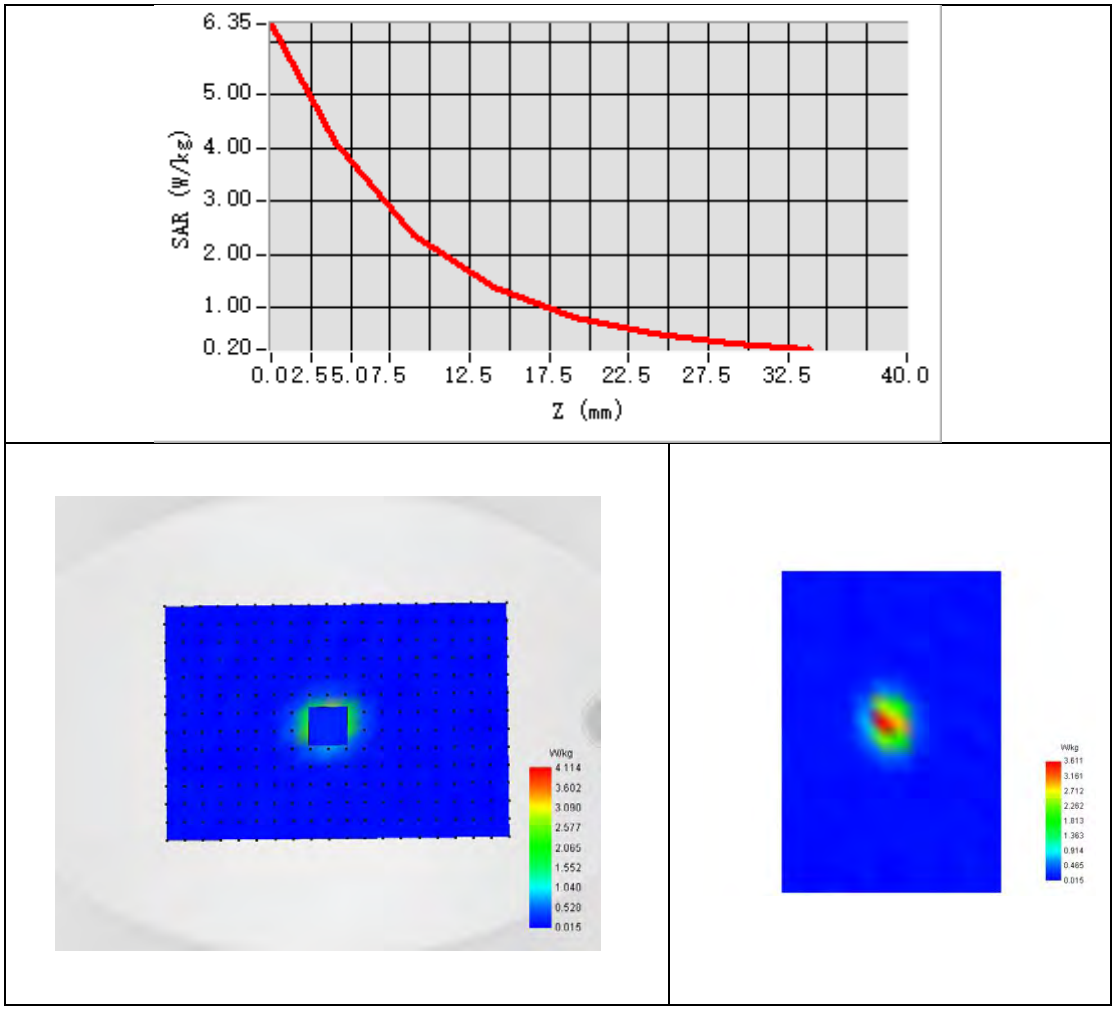
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.87
Conductivity (S/m)	1.36
Probe	SN 04/22 EPGO364
ConvF	2.24
Crest factor:	1:1

SURFACE	VOLUME SAR
	V 

Maximum location: X=2.00, Y=0.00 ; SAR Peak: 6.43 W/kg

SAR 10g (W/Kg)	2.063
SAR 1g (W/Kg)	4.065

Z Axis Scan

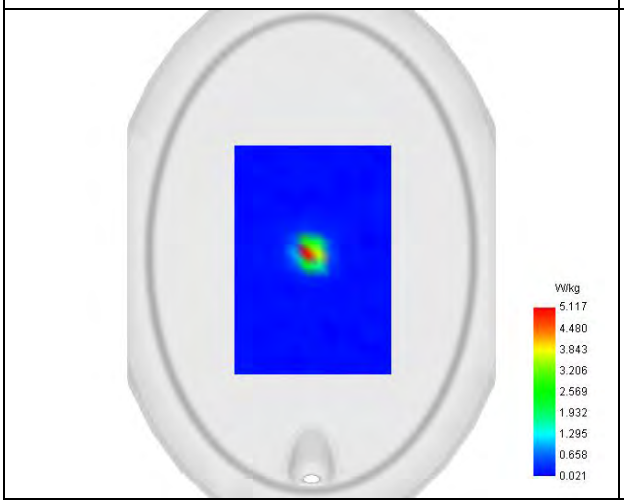
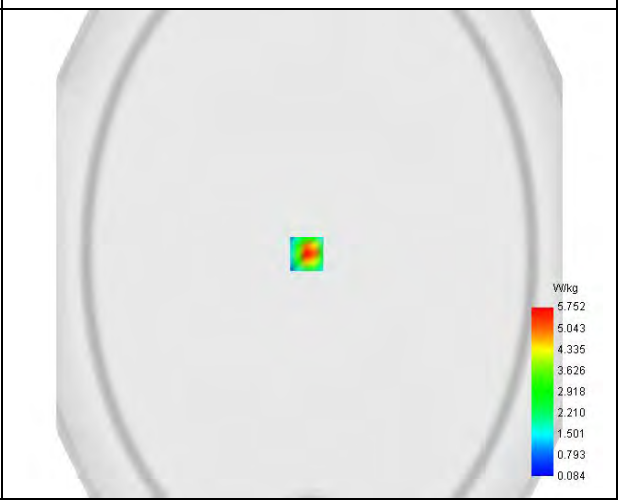

6.35
5.00
4.00
3.00
2.00
1.00
0.20
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
4.114
3.602
3.090
2.577
2.065
1.552
1.040
0.528
0.015
W/kg
3.611
3.161
2.712
2.262
1.813
1.363
0.914
0.465
0.015

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: 2025-01-16

Experimental conditions.

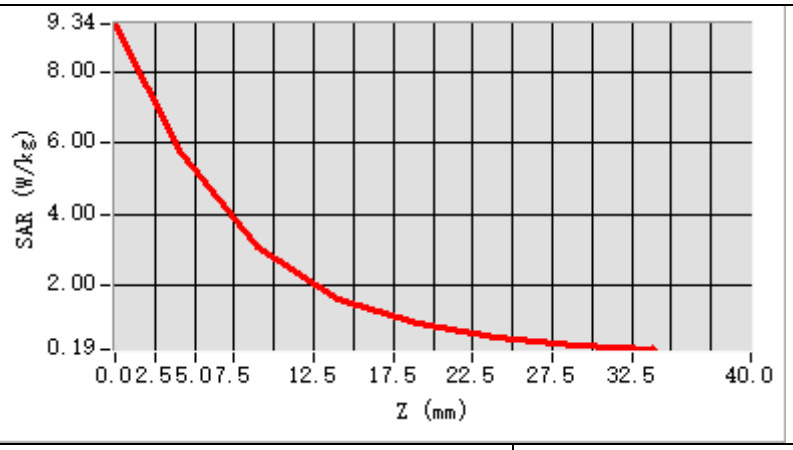
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	39.67
Conductivity (S/m)	1.79
Probe	SN 04/22 EPGO364
ConvF	2.30
Crest factor:	1:1

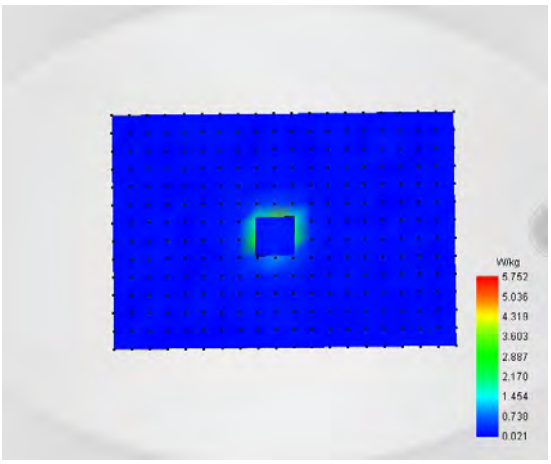
SURFACE	VOLUME SAR
	

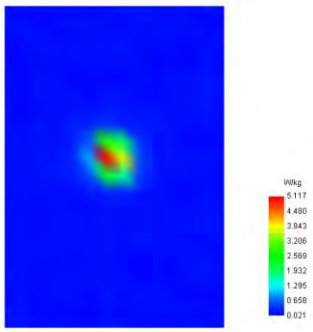
Maximum location: X=3.00, Y=0.00 ; SAR Peak: 9.55 W/kg

SAR 10g (W/Kg)	2.325
SAR 1g (W/Kg)	5.448

Z Axis Scan


9.34
8.00
6.00
4.00
2.00
0.19
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
5.752
5.036
4.319
3.603
2.887
2.170
1.454
0.738
0.021

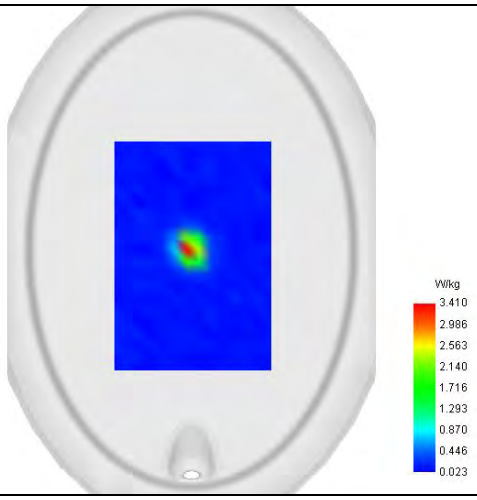
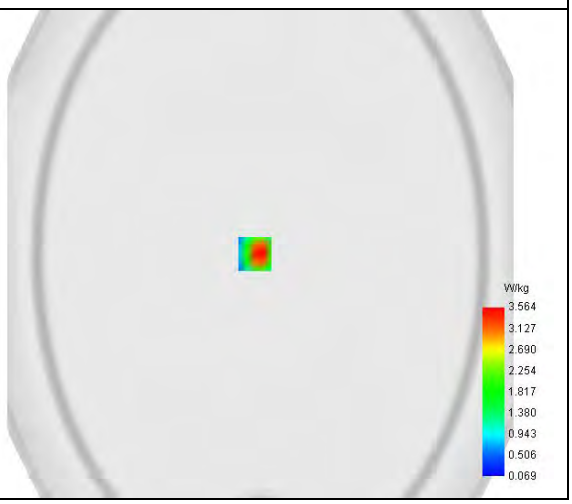

W/kg
5.117
4.480
3.843
3.206
2.569
1.932
1.295
0.658
0.021

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: 2025-01-09

Experimental conditions.

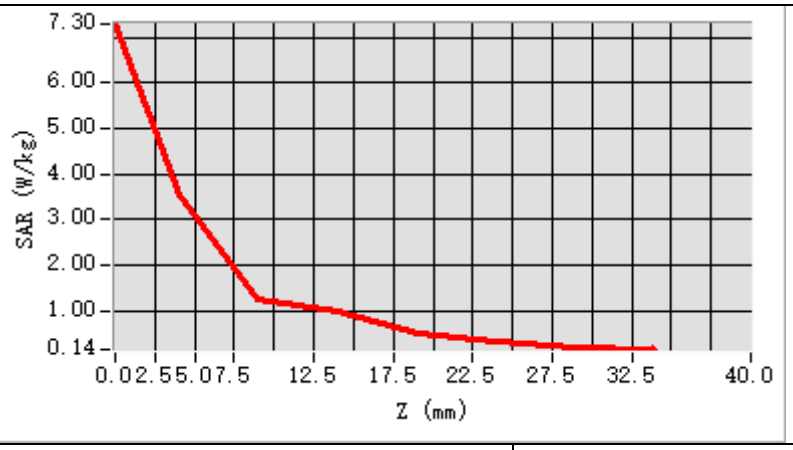
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	39.42
Conductivity (S/m)	1.95
Probe	SN 04/22 EPGO364
ConvF	2.35
Crest factor:	1:1

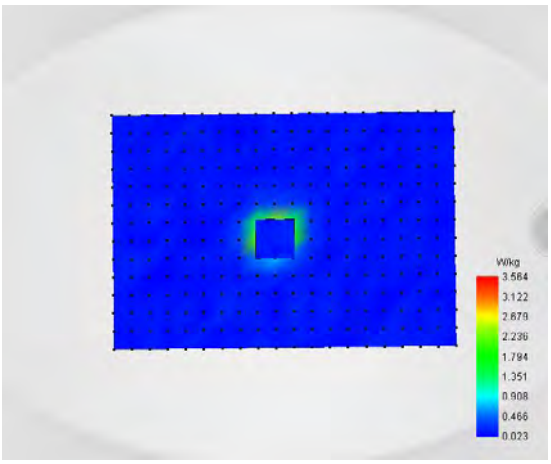
SURFACE	VOLUME SAR
	

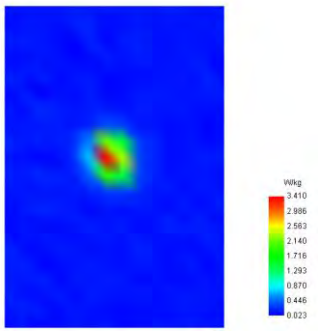
Maximum location: X=5.00, Y=0.00 ; SAR Peak: 6.19 W/kg

SAR 10g (W/Kg)	2.418
SAR 1g (W/Kg)	5.663

Z Axis Scan


7.30
6.00
5.00
4.00
3.00
2.00
1.00
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
3.564
3.122
2.679
2.236
1.794
1.351
0.908
0.466
0.023

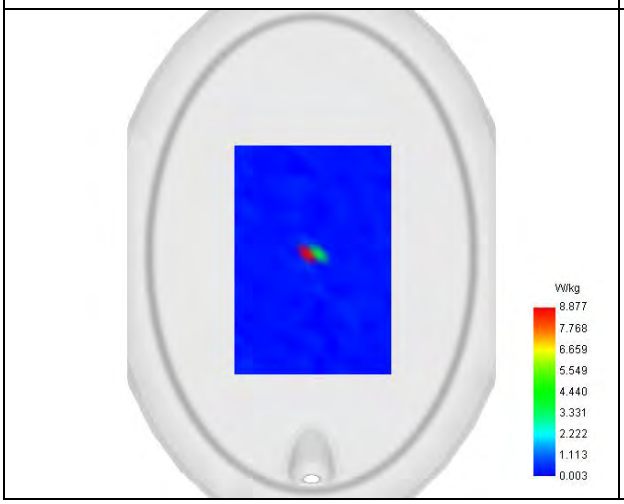
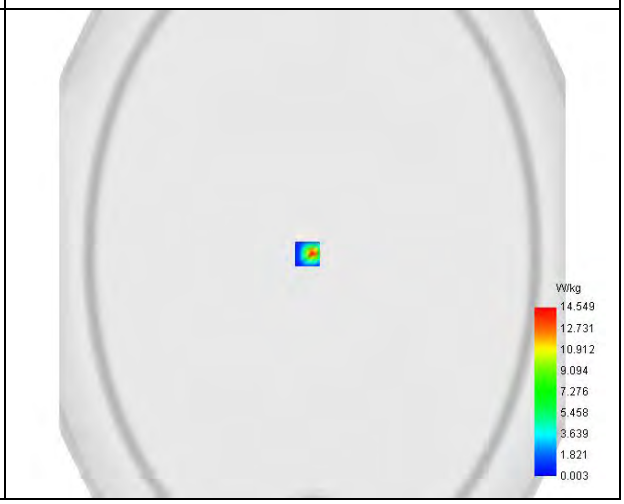

W/kg
3.410
2.986
2.563
2.140
1.716
1.293
0.870
0.446
0.023

System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=4mm, dy=4mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2025-01-18

Experimental conditions.

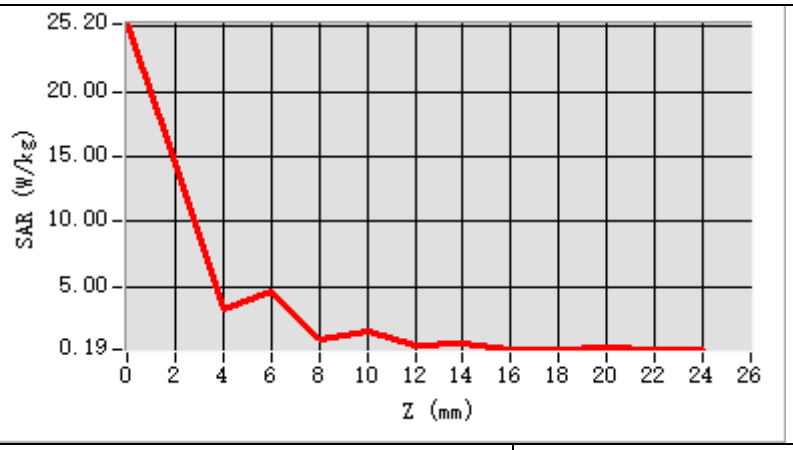
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.52
Conductivity (S/m)	4.59
Probe	SN 04/22 EPGO364
ConvF	1.98
Crest factor:	1:1

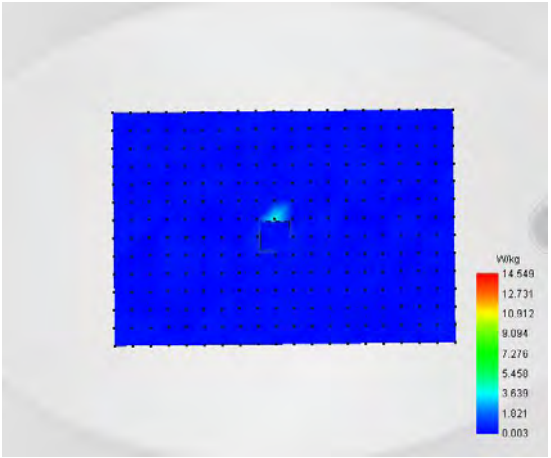
SURFACE	VOLUME SAR
	

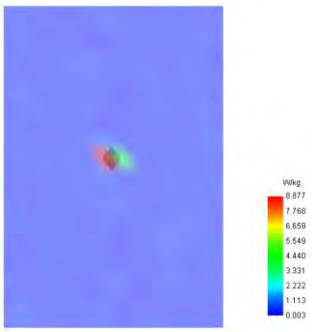
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 24.50 W/kg

SAR 10g (W/Kg)	2.312
SAR 1g (W/Kg)	8.107

Z Axis Scan


25.20
20.00
15.00
10.00
5.00
0.19
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
14.549
12.731
10.912
9.094
7.276
5.458
3.639
1.821
0.003

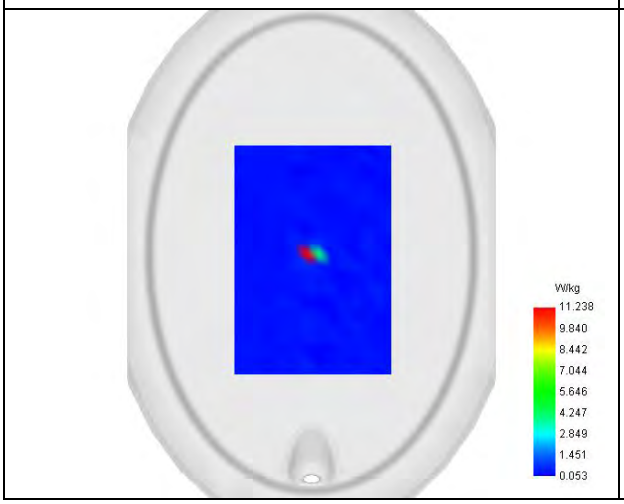
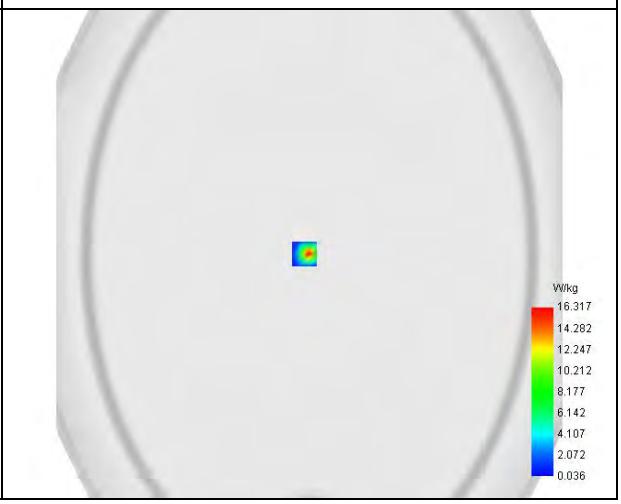

W/kg
8.877
7.768
6.659
5.549
4.440
3.331
2.222
1.113
0.003

System Performance Check Data (5400MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-05

Experimental conditions.

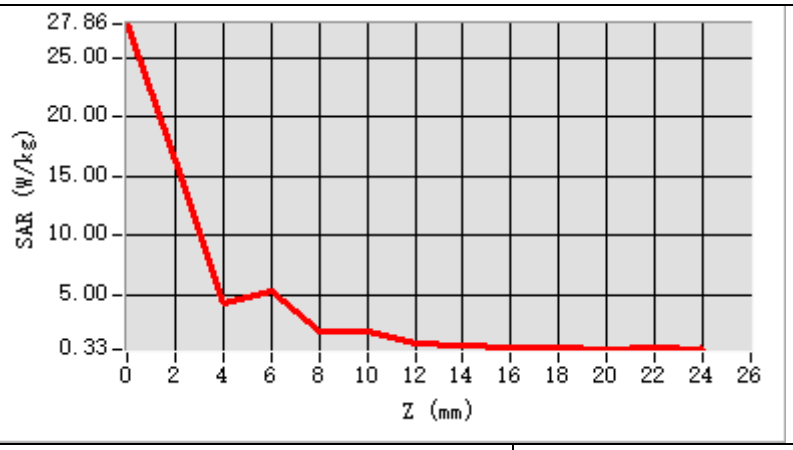
Phantom	Validation plane
Device Position	Dipole
Band	CW5400
Channels	Middle
Signal	CW
Frequency (MHz)	5400.000
Relative permittivity	36.54
Conductivity (S/m)	4.84
Probe	SN 04/22 EPGO364
ConvF	1.83
Crest factor:	1:1

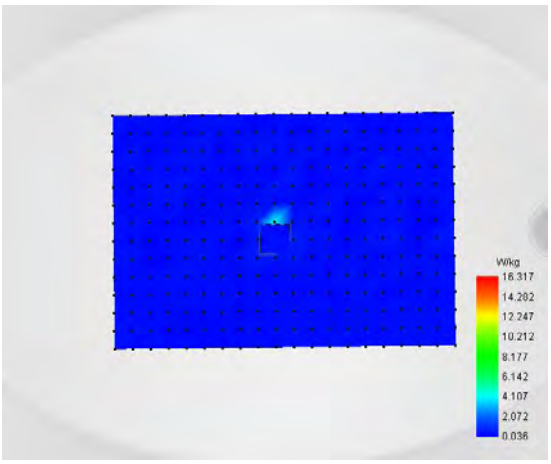
SURFACE	VOLUME SAR
	

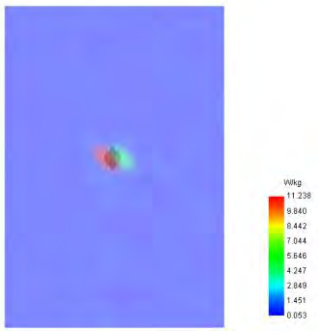
Maximum location: X=5.00, Y=0.00 ; SAR Peak: 26.67 W/kg

SAR 10g (W/Kg)	2.431
SAR 1g (W/Kg)	8.439

Z Axis Scan


27.86
25.00
20.00
15.00
10.00
5.00
0.33
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
16.317
14.202
12.247
10.212
8.177
6.142
4.107
2.072
0.036

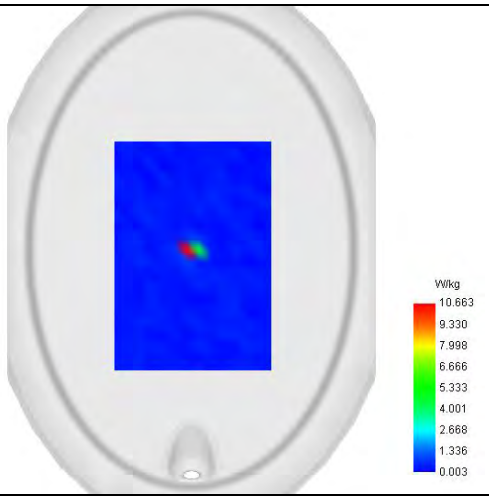
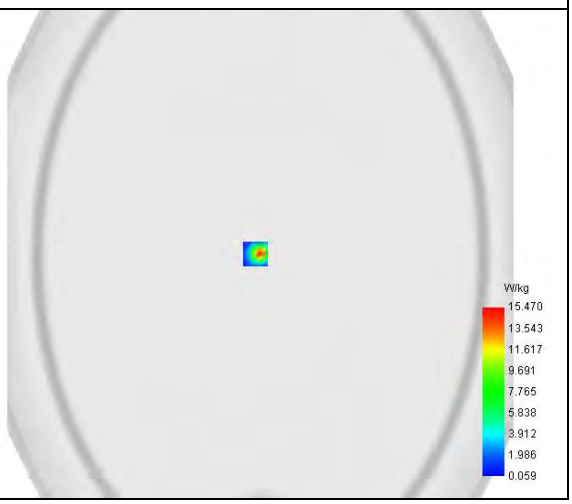

W/kg
11.238
9.840
8.442
7.044
5.646
4.247
2.849
1.451
0.053

System Performance Check Data (5600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-05

Experimental conditions.

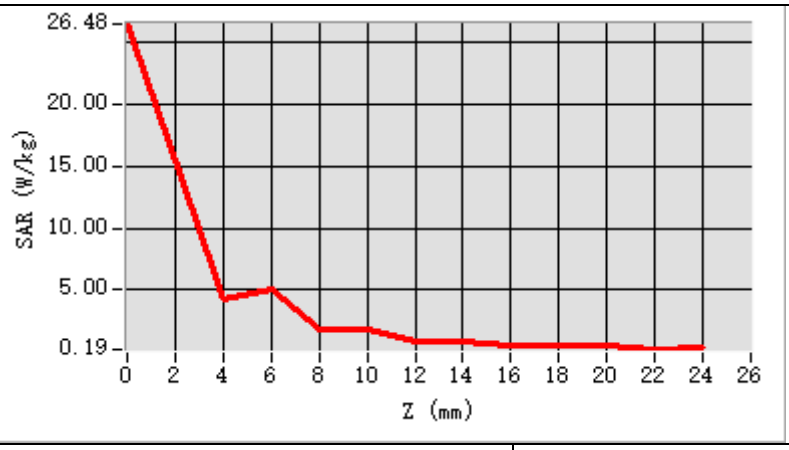
Phantom	Validation plane
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW
Frequency (MHz)	5600.000
Relative permittivity	36.35
Conductivity (S/m)	5.03
Probe	SN 04/22 EPGO364
ConvF	1.86
Crest factor:	1:1

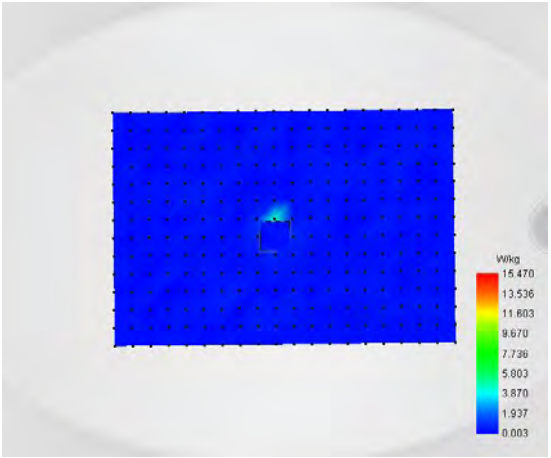
SURFACE	VOLUME SAR
	

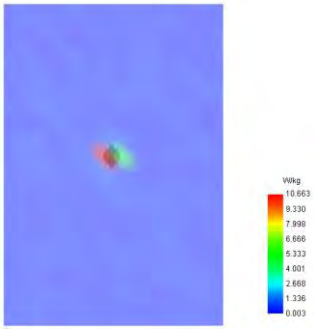
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 26.39 W/kg

SAR 10g (W/Kg)	2.335
SAR 1g (W/Kg)	8.082

Z Axis Scan


26.48
20.00
15.00
10.00
5.00
0.19
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
15.470
13.536
11.603
9.670
7.736
5.803
3.870
1.937
0.003

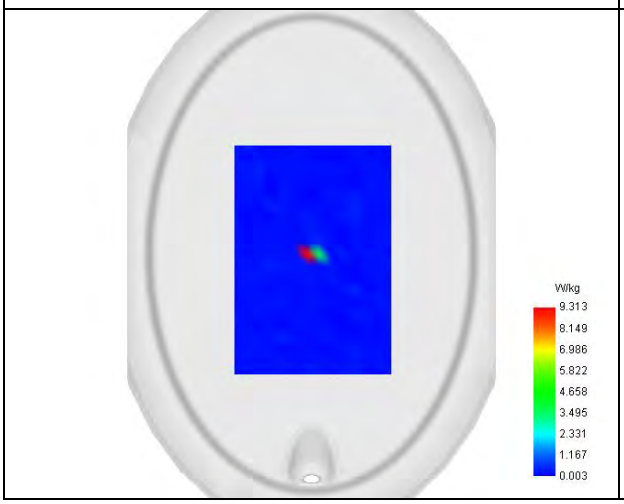
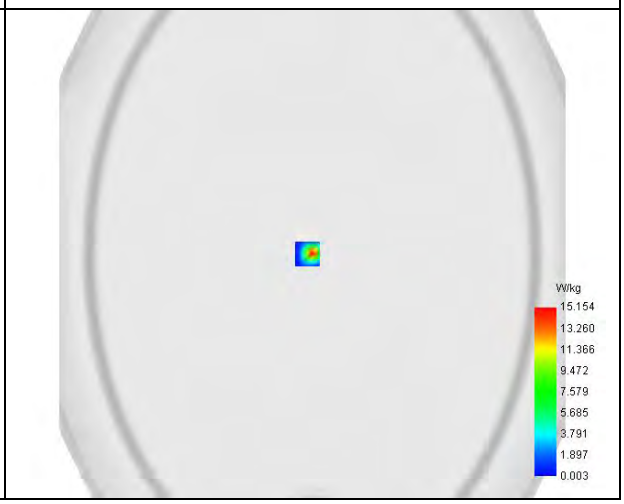

W/kg
10.663
9.330
7.998
6.666
5.333
4.001
2.668
1.336
0.003

System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=4mm, dy=4mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2025-01-18

Experimental conditions.

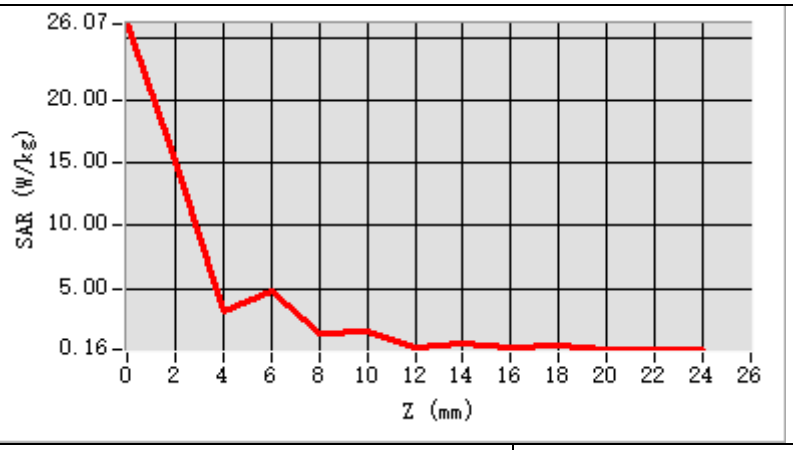
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.49
Conductivity (S/m)	5.25
Probe	SN 04/22 EPGO364
ConvF	1.71
Crest factor:	1:1

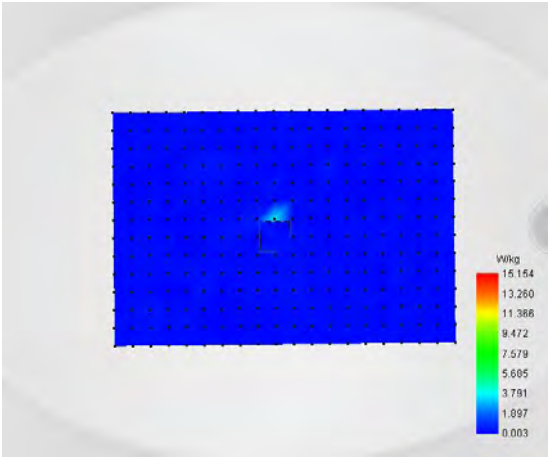
SURFACE	VOLUME SAR
	

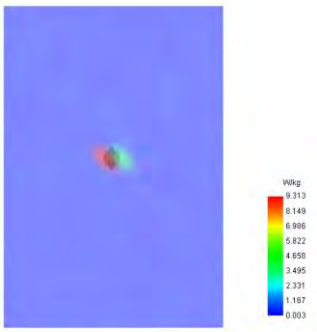
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 26.20 W/kg

SAR 10g (W/Kg)	2.354
SAR 1g (W/Kg)	8.185

Z Axis Scan


26.07
20.00
15.00
10.00
5.00
0.16
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
15.154
13.260
11.366
9.472
7.579
5.685
3.791
1.897
0.003

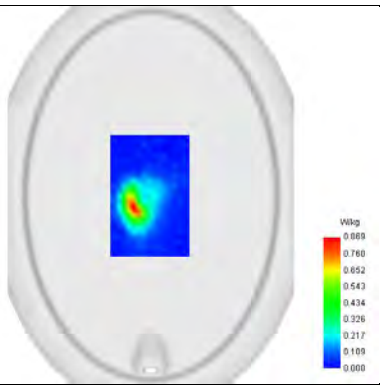
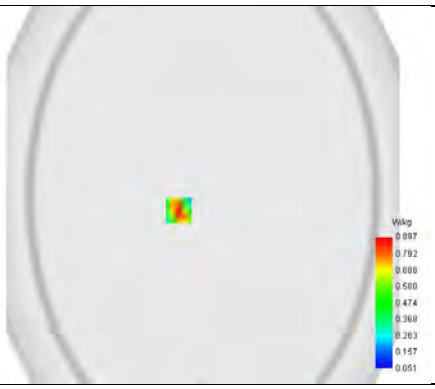
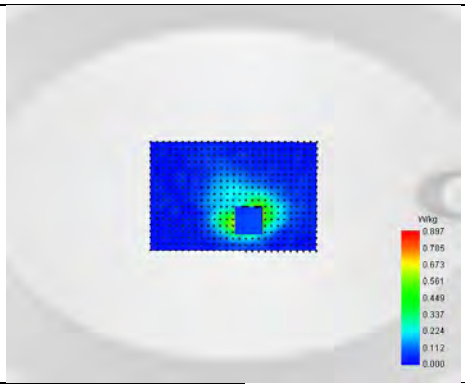
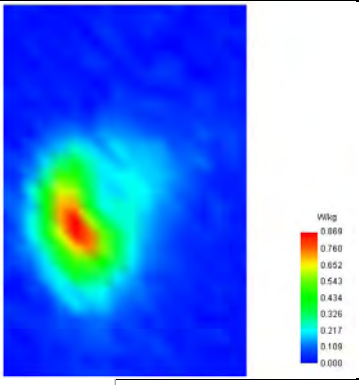
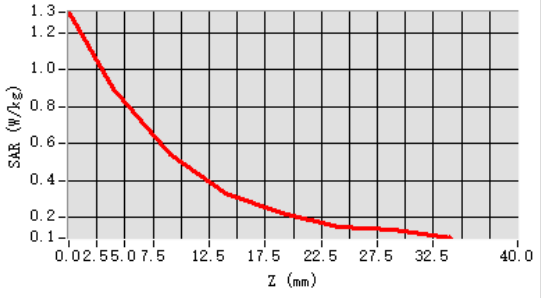

W/kg
9.313
8.149
6.986
5.822
4.658
3.495
2.331
1.167
0.003

Appendix B. SAR Test Plots

Plot 1:

Test Date	2025-01-19
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GSM850
Signal	TDMA (GSM)
Frequency	848.8
SAR 10g (W/Kg)	0.473
SAR 1g (W/Kg)	0.838
ConvF	1.70
Relative permittivity	42.42
Conductivity (S/m)	0.89

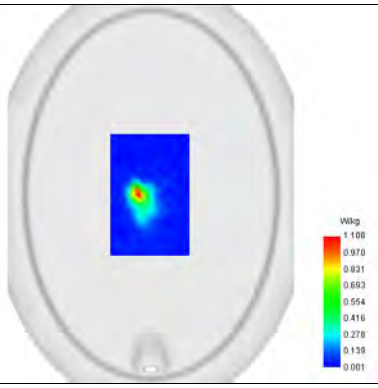
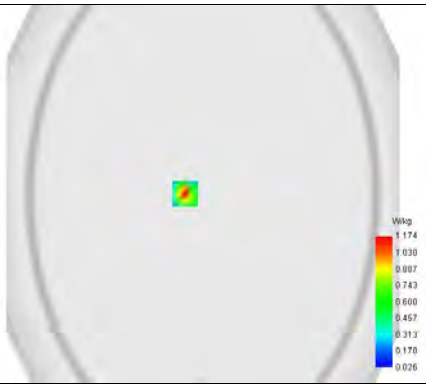
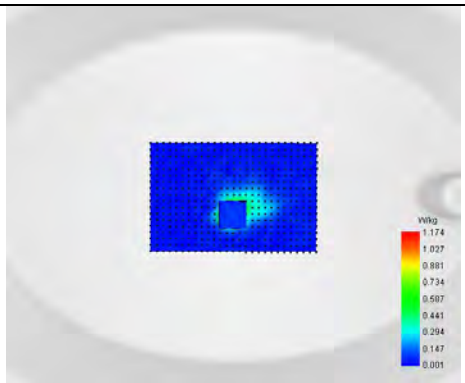
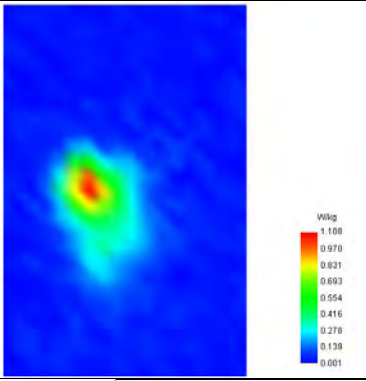
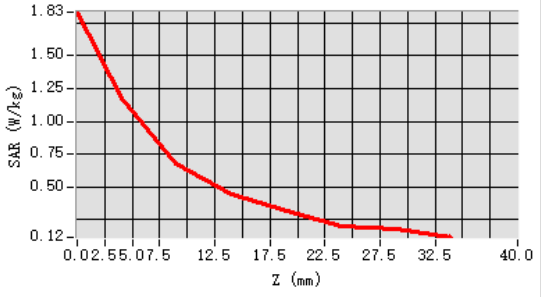
Maximum location: X=-30.00, Y=-18.00 ; SAR Peak: 1.40 W/kg

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

Plot 2:

Test Date	2025-01-08
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GPRS1900
Signal	TDMA (GSM)
Frequency	1850.2
SAR 10g (W/Kg)	0.559
SAR 1g (W/Kg)	1.069
ConvF	2.24
Relative permittivity	40.87
Conductivity (S/m)	1.36

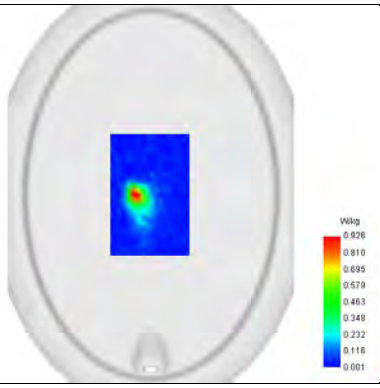
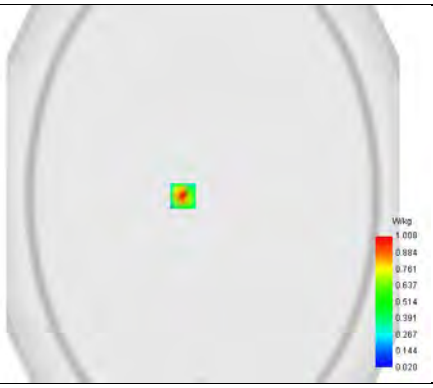
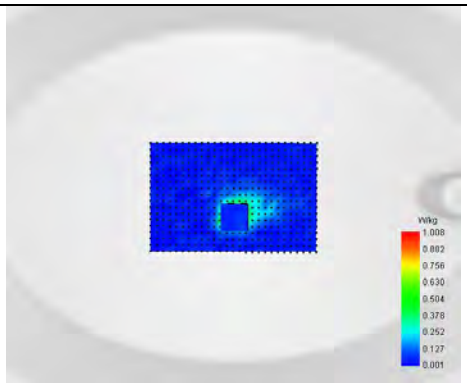
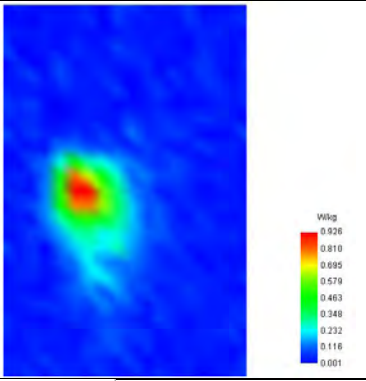
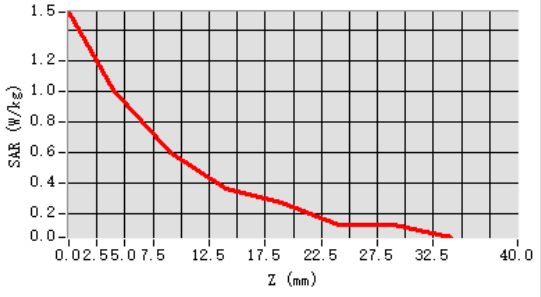
Maximum location: X=-22.00, Y=1.00 ; SAR Peak: 1.82 W/kg

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

Plot 3:

Test Date	2025-01-08
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	Band 2 (1900)
Signal	WCDMA
Frequency	1907.6
SAR 10g (W/Kg)	0.500
SAR 1g (W/Kg)	0.930
ConvF	2.24
Relative permittivity	40.87
Conductivity (S/m)	1.36

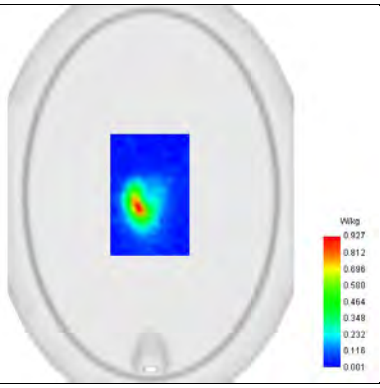
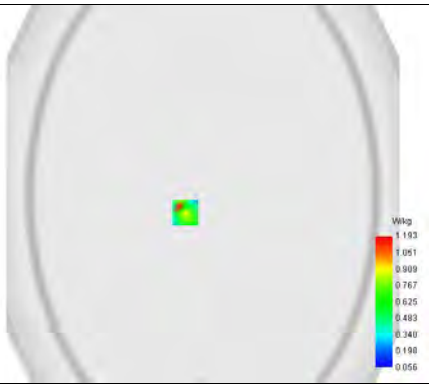
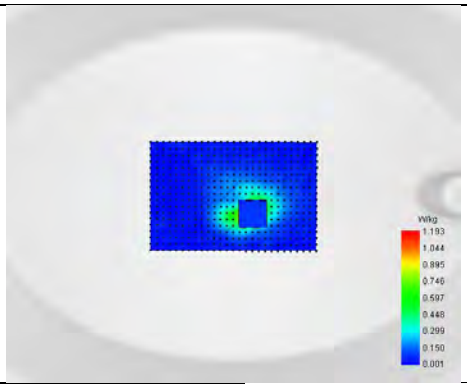
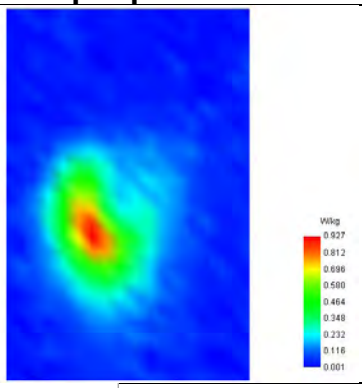
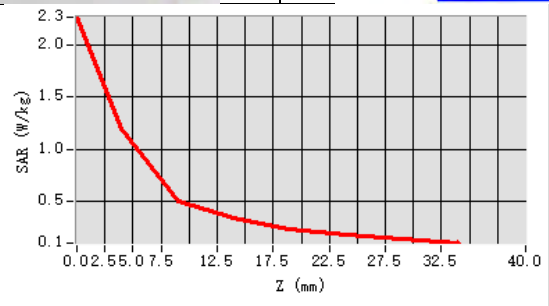
Maximum location: X=-25.00, Y=-1.00 ; SAR Peak: 1.51 W/kg

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

Plot 4:

Test Date	2025-01-19
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	Band 5 (850)
Signal	WCDMA
Frequency	846.6
SAR 10g (W/Kg)	0.367
SAR 1g (W/Kg)	0.992
ConvF	1.70
Relative permittivity	42.42
Conductivity (S/m)	0.89

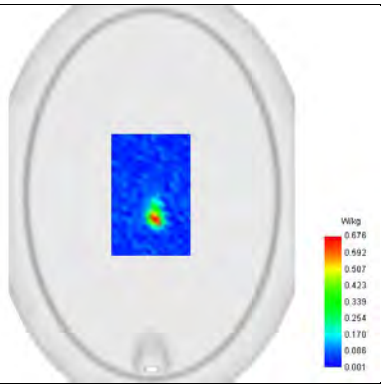
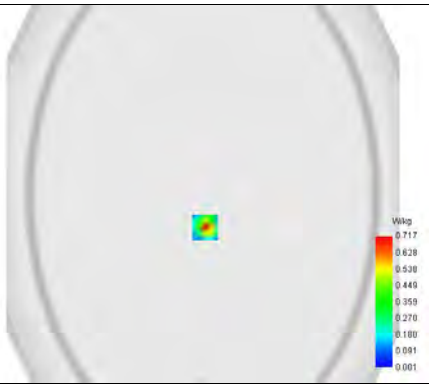
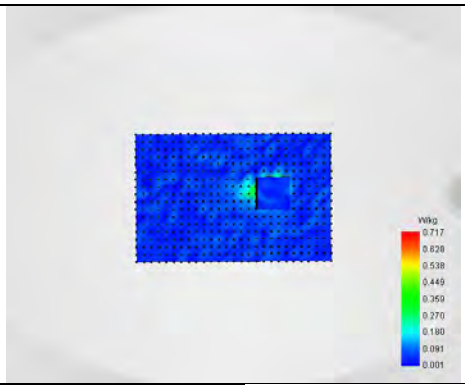
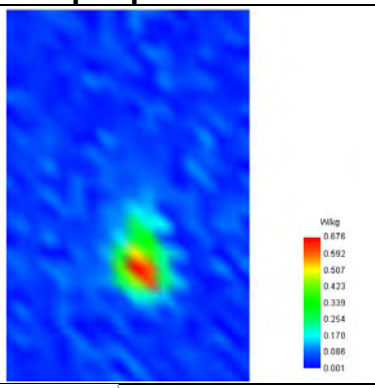
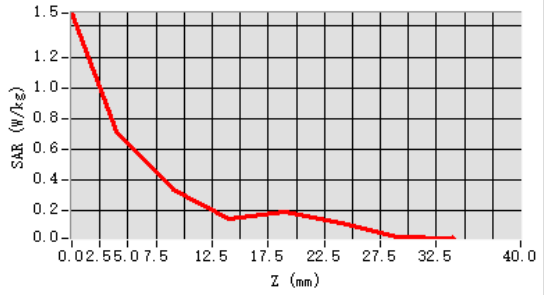
Maximum location: X=-22.00, Y=-23.00 ; SAR Peak: 2.24 W/kg

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

Plot 5:

Test Date	2025-01-16
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	ISM
Signal	IEEE 802.11b
Frequency	2462
SAR 10g (W/Kg)	0.294
SAR 1g (W/Kg)	0.683
ConvF	2.30
Relative permittivity	40.33
Conductivity (S/m)	1.75

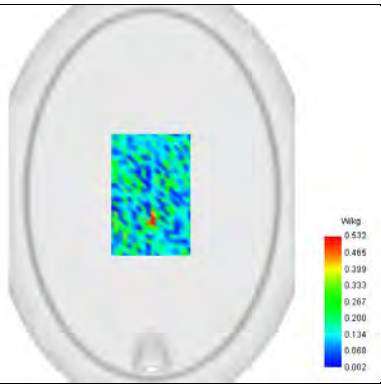
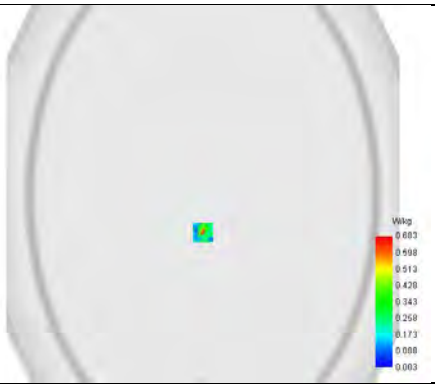
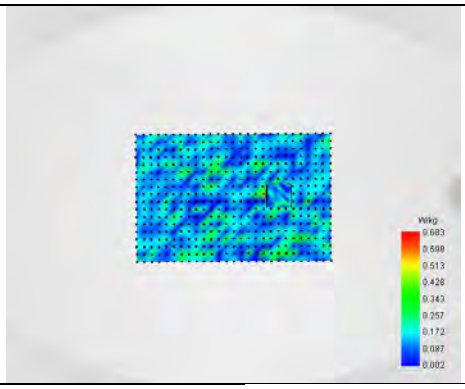
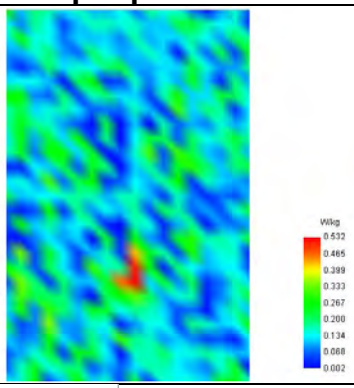
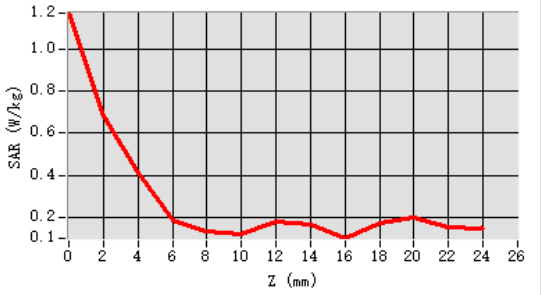
Maximum location: X=3.00, Y=-40.00 ; SAR Peak: 1.44 W/kg

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

Plot 6:

Test Date	2025-01-18
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Back Side
Band	U-NII-1
Signal	IEEE 802.11a
Frequency	5180
SAR 10g (W/Kg)	0.135
SAR 1g (W/Kg)	0.277
ConvF	1.98
Relative permittivity	36.52
Conductivity (S/m)	4.59

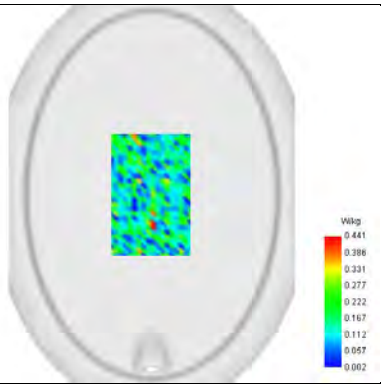
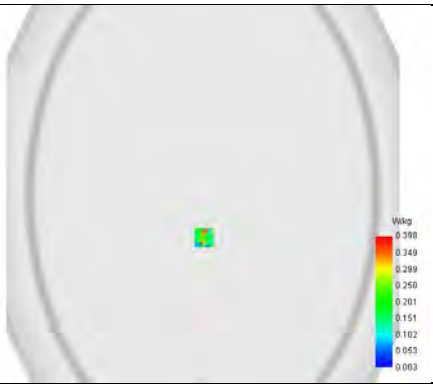
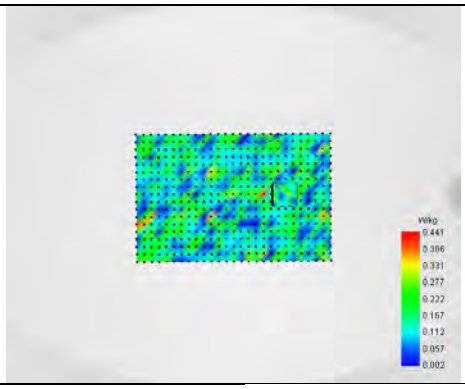
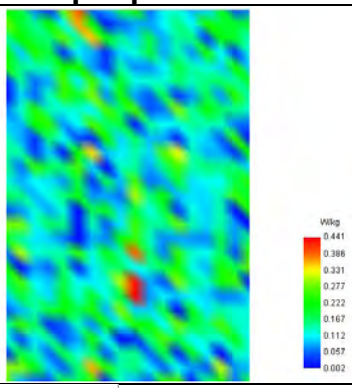
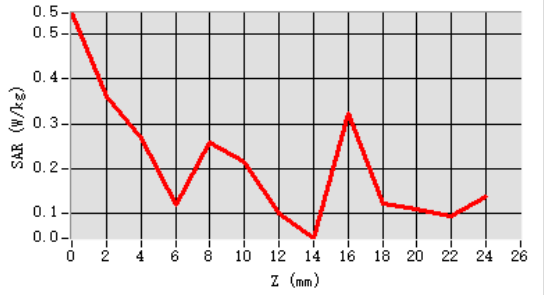
Maximum location: X=0.00, Y=-47.00 ; SAR Peak: 1.37 W/kg

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

Plot 7:

Test Date	2025-01-05
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Back Side
Band	U-NII-2a
Signal	IEEE 802.11a
Frequency	5260
SAR 10g (W/Kg)	0.116
SAR 1g (W/Kg)	0.212
ConvF	1.83
Relative permittivity	36.54
Conductivity (S/m)	4.84

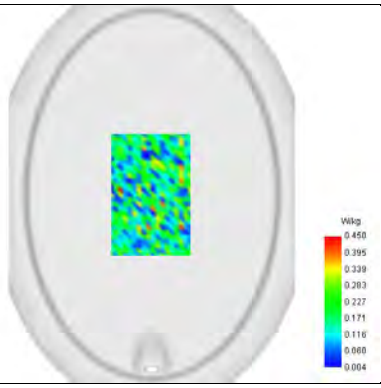
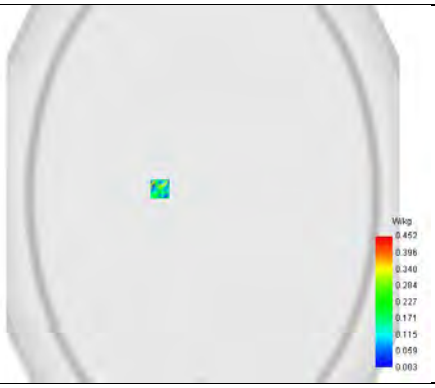
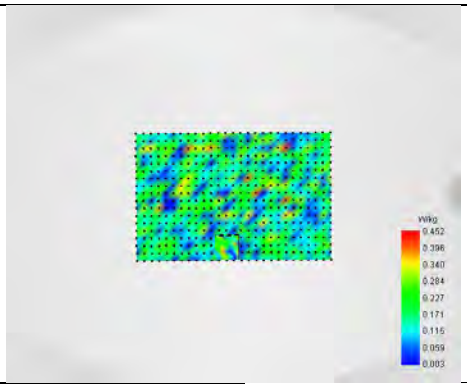
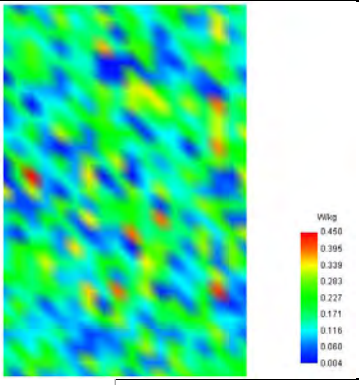
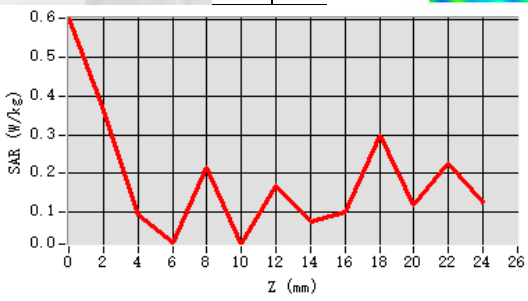
Maximum location: X=1.00, Y=-53.00 ; SAR Peak: 1.22 W/kg

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

Plot 8:

Test Date	2025-01-05
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Back Side
Band	U-NII-2c
Signal	IEEE 802.11a
Frequency	5580
SAR 10g (W/Kg)	0.131
SAR 1g (W/Kg)	0.191
ConvF	1.86
Relative permittivity	36.35
Conductivity (S/m)	5.03

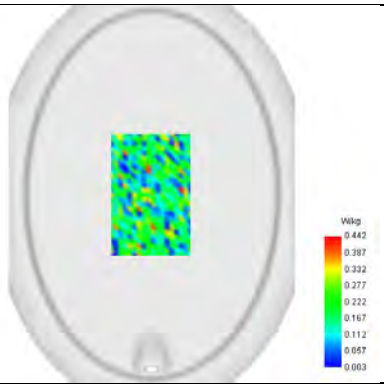
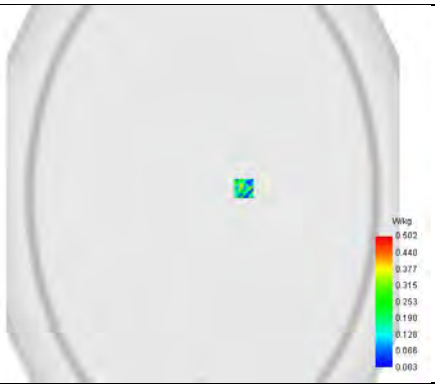
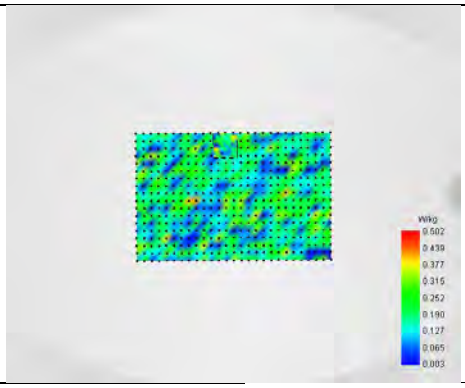
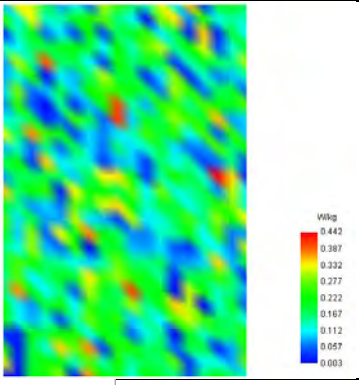
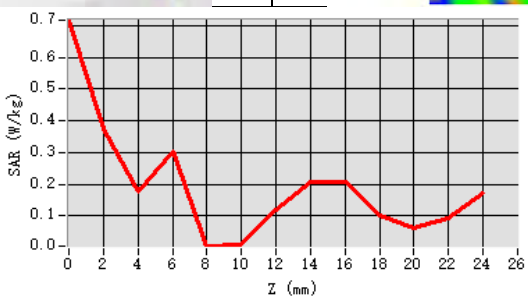
Maximum location: X=-54.00, Y=7.00 ; SAR Peak: 1.91 W/kg

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

Plot 9:

Test Date	2025-01-18
Area Scan	dx=8mm dy=8mm
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Back Side
Band	U-NII-3
Signal	IEEE 802.11a
Frequency	5745
SAR 10g (W/Kg)	0.122
SAR 1g (W/Kg)	0.210
ConvF	1.71
Relative permittivity	36.49
Conductivity (S/m)	5.25

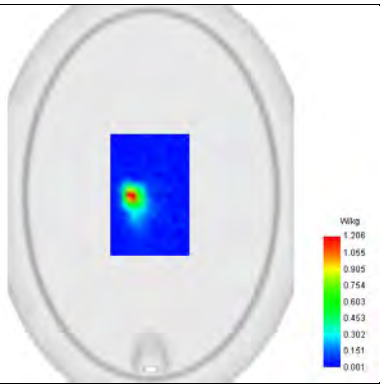
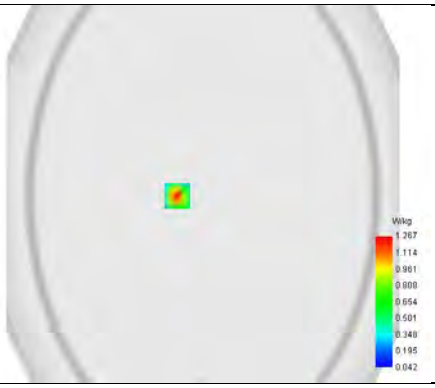
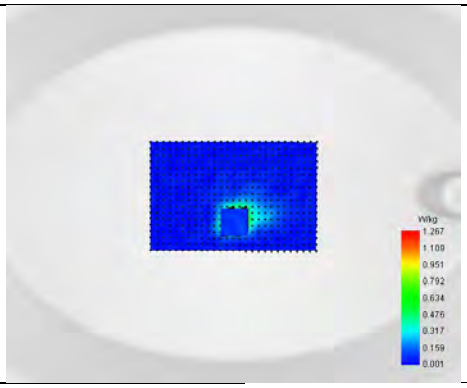
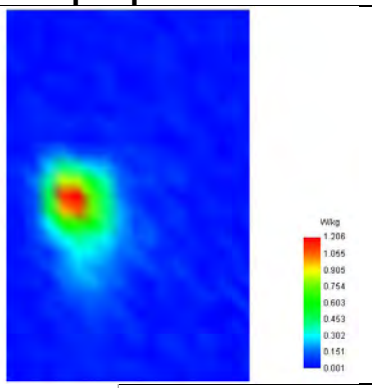
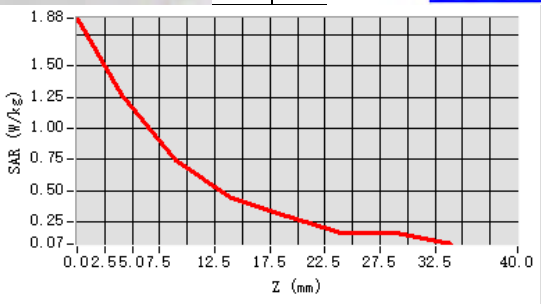
Maximum location: X=51.00, Y=8.00 ; SAR Peak: 1.27 W/kg

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

Plot 10:

Test Date	2025-01-08
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 2
Signal	LTE FDD
Frequency	1900
SAR 10g (W/Kg)	0.615
SAR 1g (W/Kg)	1.179
ConvF	2.24
Relative permittivity	40.87
Conductivity (S/m)	1.36

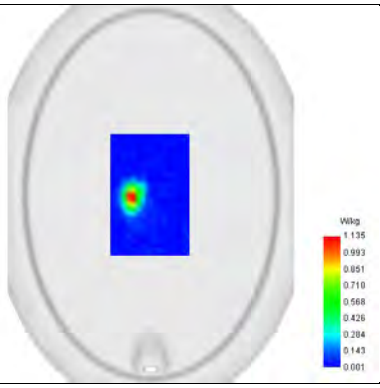
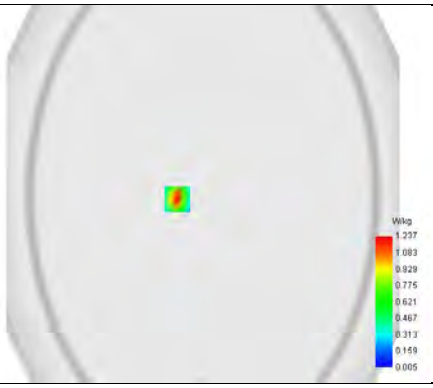
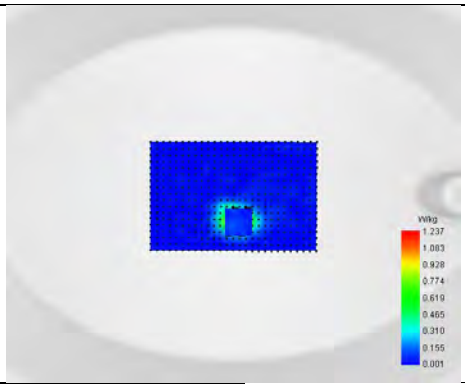
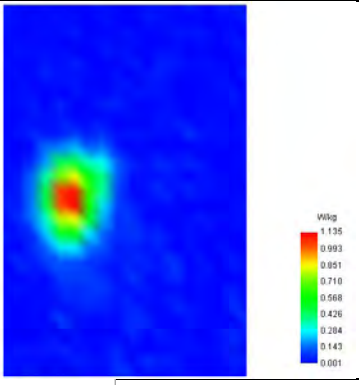
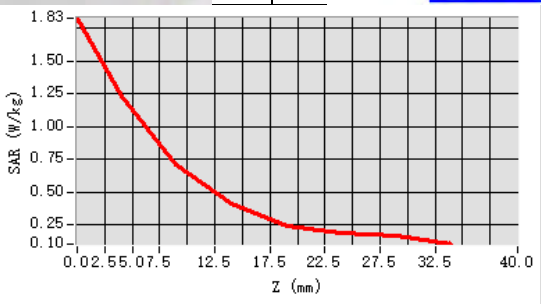
Maximum location: X=-32.00, Y=-1.00 ; SAR Peak: 1.94 W/kg

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

Plot 11:

Test Date	2025-01-21
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 4
Signal	LTE FDD
Frequency	1720
SAR 10g (W/Kg)	0.597
SAR 1g (W/Kg)	1.147
ConvF	1.91
Relative permittivity	41.10
Conductivity (S/m)	1.38

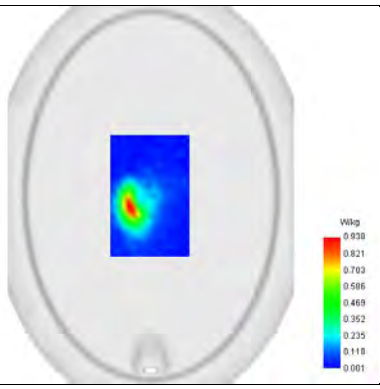
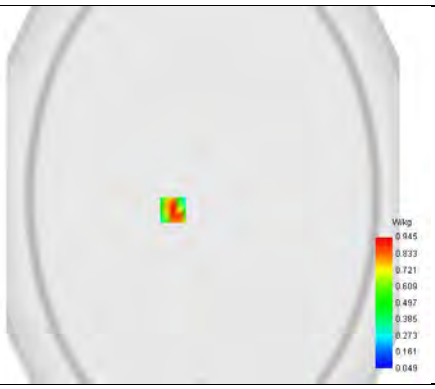
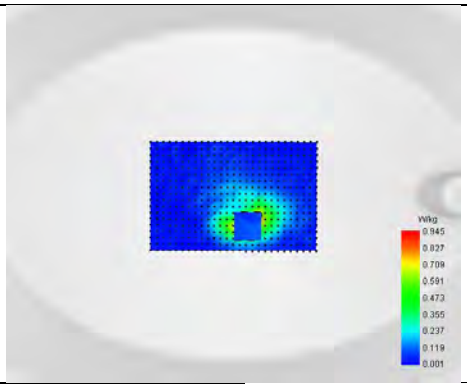
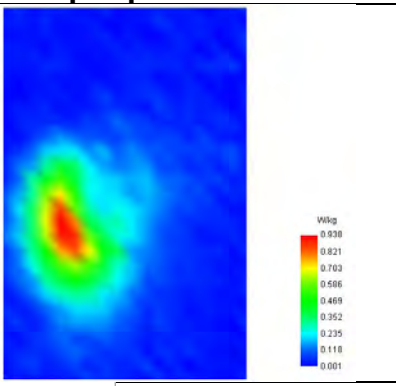
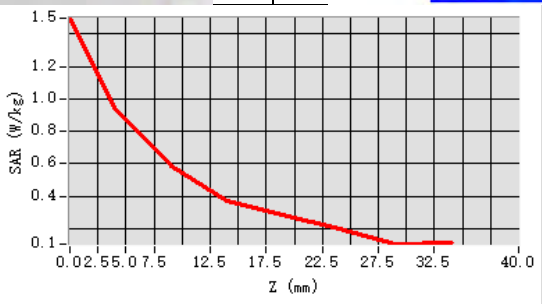
Maximum location: X=-32.00, Y=-6.00 ; SAR Peak: 1.96 W/kg

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

Plot 12:

Test Date	2025-01-19
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 5
Signal	LTE FDD
Frequency	844
SAR 10g (W/Kg)	0.511
SAR 1g (W/Kg)	0.911
ConvF	1.70
Relative permittivity	42.42
Conductivity (S/m)	0.89

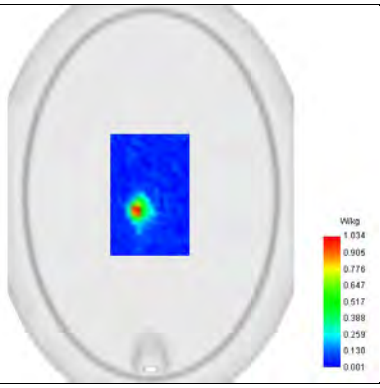
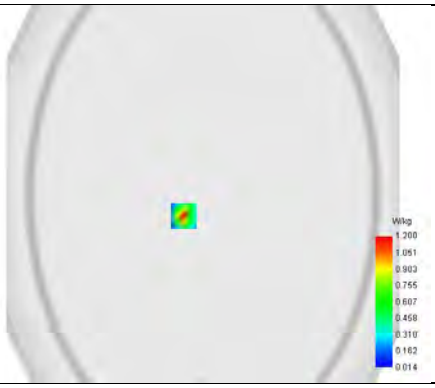
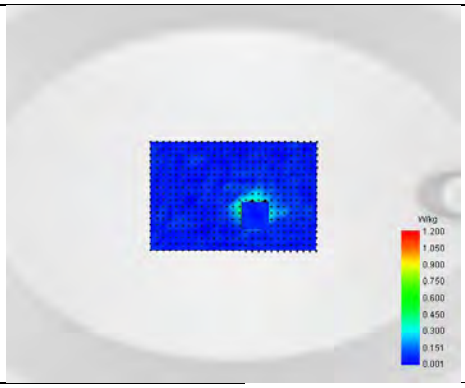
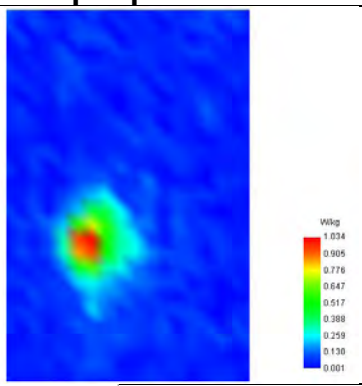
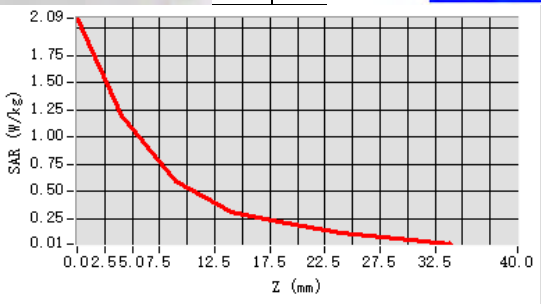
Maximum location: X=-37.00, Y=-17.00 ; SAR Peak: 1.49 W/kg

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

Plot 13:

Test Date	2025-01-09
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 7
Signal	LTE FDD
Frequency	2510
SAR 10g (W/Kg)	0.472
SAR 1g (W/Kg)	1.078
ConvF	2.35
Relative permittivity	39.42
Conductivity (S/m)	1.95

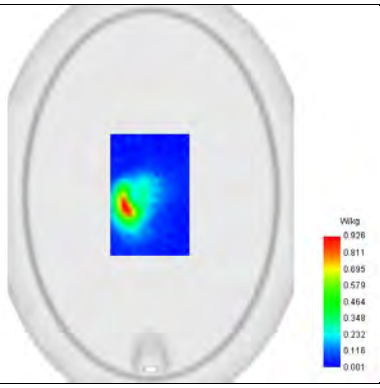
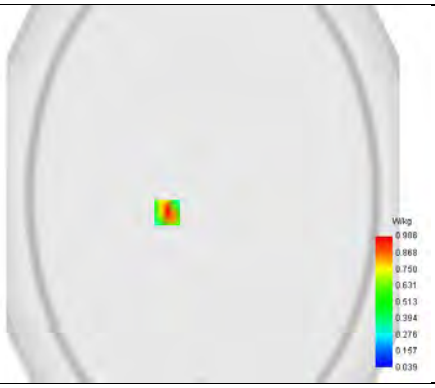
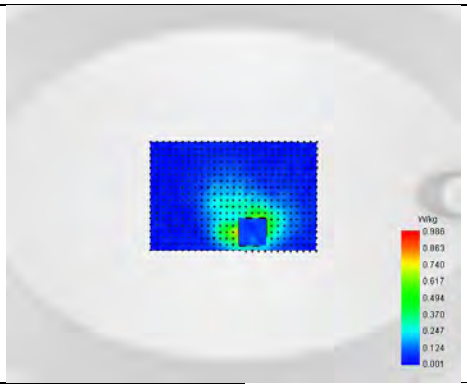
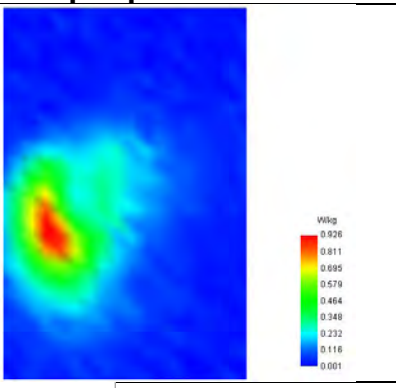
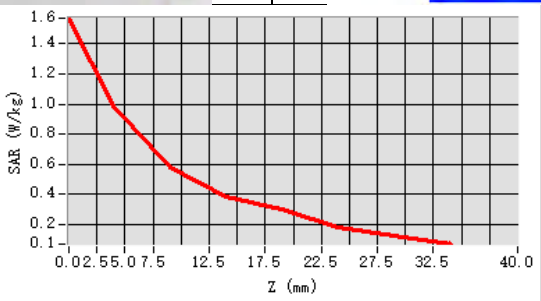
Maximum location: X=-24.00, Y=-26.00 ; SAR Peak: 2.10 W/kg

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

Plot 14:

Test Date	2025-01-19
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 13
Signal	LTE FDD
Frequency	782
SAR 10g (W/Kg)	0.551
SAR 1g (W/Kg)	0.975
ConvF	1.68
Relative permittivity	42.42
Conductivity (S/m)	0.89

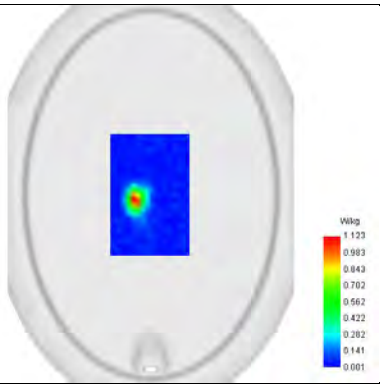
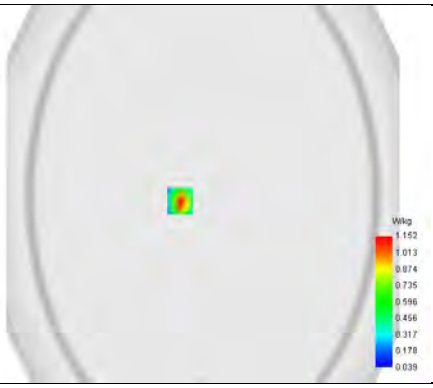
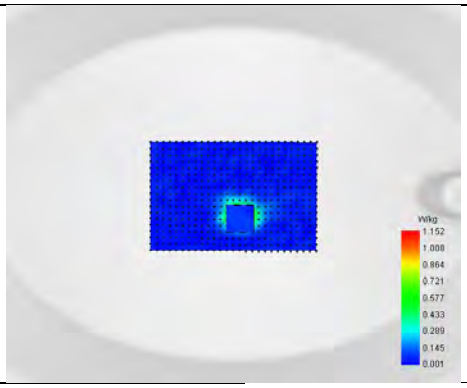
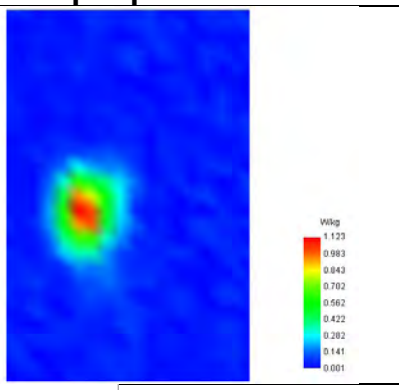
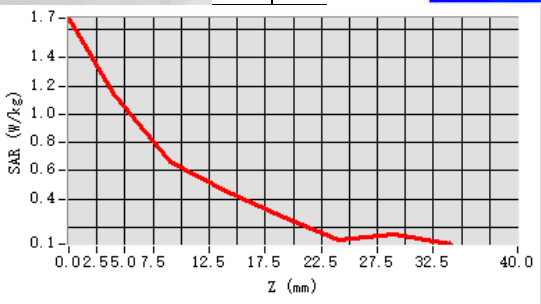
Maximum location: X=-44.00, Y=-23.00 ; SAR Peak: 1.56 W/kg

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

Plot 15:

Test Date	2025-01-21
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 66
Signal	LTE FDD
Frequency	1720
SAR 10g (W/Kg)	0.565
SAR 1g (W/Kg)	1.061
ConvF	1.91
Relative permittivity	41.10
Conductivity (S/m)	1.38

Maximum location: X=-28.00, Y=-8.00 ; SAR Peak: 1.74 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※※※※※