SAR TEST REPORT

Product Name: Tablet

Model Name: Vortex BTAB10

FCC ID: 2ADLJ-BTAB10

Issued For : Xwireless LLC

11565 0ld Georgetown Road, Rockville, MD, USA

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

Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China

Report Number:	LGT23H049HA01
Sample Received Date:	Aug. 21, 2023
Date of Test:	Aug. 22, 2023 ~ Sept. 09, 2023
Date of Issue:	Sept. 19, 2023
Max. SAR (1g):	Body: 1.242 W/kg

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Revision History

Rev.	Issue Date	Contents
00	Sept. 19, 2023	Initial Issue

TEST REPORT CERTIFICATION

Applicant	Xwireless LLC
Address	11565 0ld Georgetown Road, Rockville, MD, USA
Manufacture	Xwireless LLC
Address	11565 0ld Georgetown Road, Rockville, MD, USA
Product Name	Tablet
Trademark	N/A
Model Name	Vortex BTAB10
Sample number	LGT2308044-2

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

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Manager

1. General Information

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

1.1 EUT Description

Product Name	Tablet
Trademark	N/A
Model Name	Vortex BTAB10
Series Model	N/A
Model Difference	N/A
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	P612K_MB_V1
Software Version	N/A
Frequency Range	GSM 850: 824 ~ 849 MHz PCS 1900: 1850 ~ 1910 MHz WCDMA Band II: 1850 ~ 1910 MHz WCDMA Band IV:1710 ~ 1755 MHz WCDMA Band V: 824 ~ 849 MHz LTE Band 2:1850 ~1910MHz LTE Band 4:1710 ~1755MHz LTE Band 5:824 ~ 849MHz LTE Band 12:699 ~ 716MHz LTE Band 13:777 ~ 787MHz LTE Band 25:1850 ~ 1915MHz LTE Band 26:814 ~ 824MHz/ 824 ~ 849 MHz LTE Band 41:2496 ~ 2690MHz LTE Band 66:1710 ~1780MHz LTE Band 71:663 ~ 698MHz 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: 0mm	Mode	Body Worn and Hotspot(W/kg))
	GSM 850	0.914
	PCS 1900	1.141
	WCDMA Band II	1.119
	WCDMA Band IV	0.626
	WCDMA Band V	0.580
	LTE Band 2	1.190
	LTE Band 4	0.689
	LTE Band 5	0.695
	LTE Band 12	0.563
	LTE Band 13	1.085
	LTE Band 25	1.242
	LTE Band 26	0.461
	LTE Band 41	1.031
	LTE Band 66	0.685
	LTE Band 71	0.445
	2.4G WLAN	0.201
	Bluetooth	0.035
	5.2G WLAN	0.295
	5.3G WLAN	0.334
	5.6G WLAN	0.352
	5.8G WLAN	0.314
1-g Sum SAR		1.594
Battery	Rated Voltage:3.7V Capacity: 5000mAh	
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 trans mitting at the same time	
Hotspot Mode	Support	
DTM Mode	Not Support	

1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China
Accreditation Certificate	FCC Registration No.: 746540
	A2LA Certificate No.: 6727.01
	IC Registration No.: CN0136

2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices
11	FCC KDB 616217 D04 SAR for laptop and tablets v01r02	SAR Evaluation Considerations For Laptop, Notebook, Netbook And Tablet Computers

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

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

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

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

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

Population/Uncontrolled Environments:
Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

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

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

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

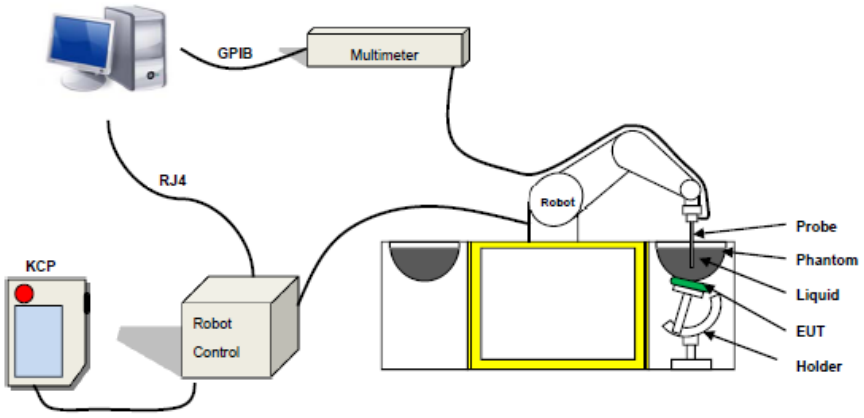
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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

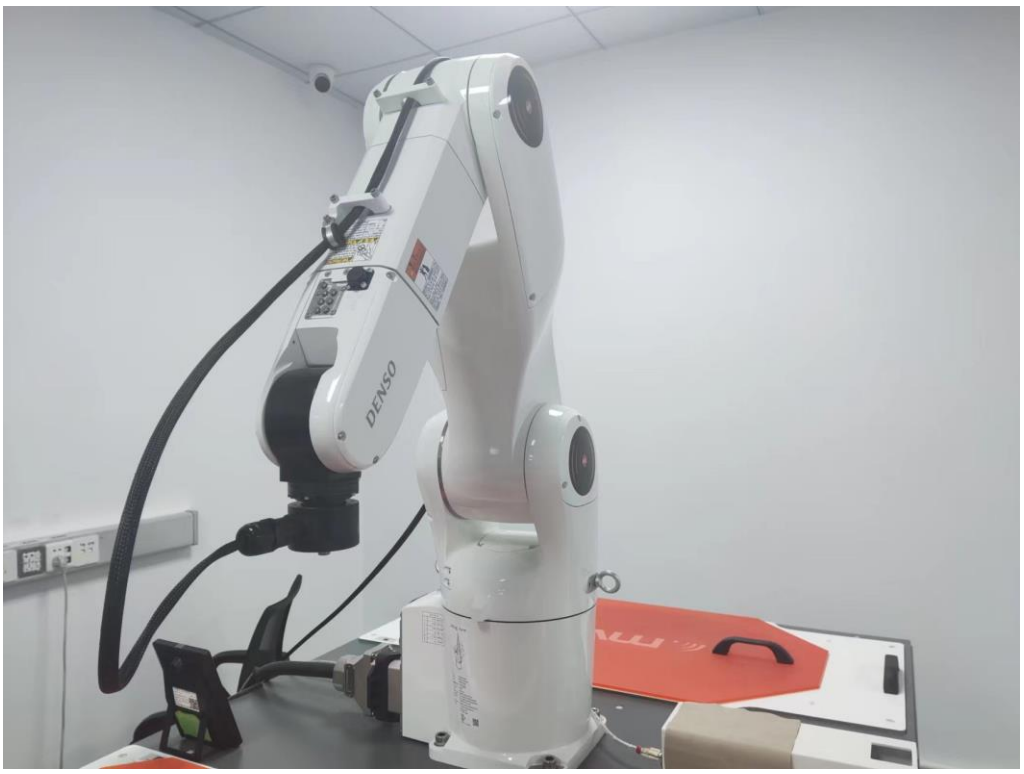
3.2 SAR System

MVG SAR System Diagram:



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

The following figure shows the system.



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

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 04/22 EPGO364 with following specifications is used
- Probe Length: 330 mm
- Length of Individual Dipoles: 2mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: ＜0.10 dB
- Spherical Isotropy: ＜0.10 dB
- Calibration range: 600 MHz to 6 GHz for head & body simulating liquid.
-Angle between probe axis (evaluation axis) and surface normal line: less than 30°

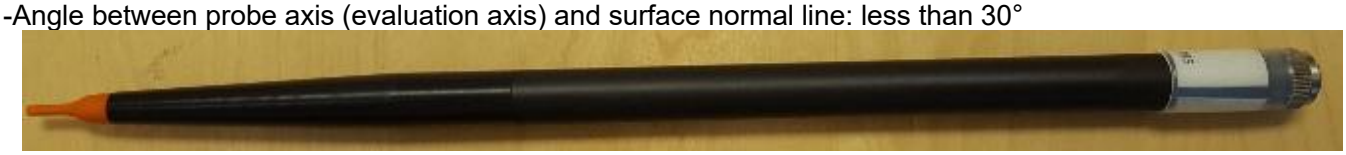


Figure 1-MVG COMOSAR Dosimetric E field Probe

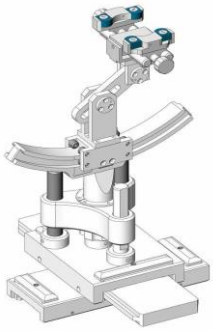
3.2.2 Phantom

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

Figure-SN 06/22 SAM 148

Figure-SN 06/22 ELLI 51

3.2.3 Device Holder



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

4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

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

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

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

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

Frequency	εr	σ 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

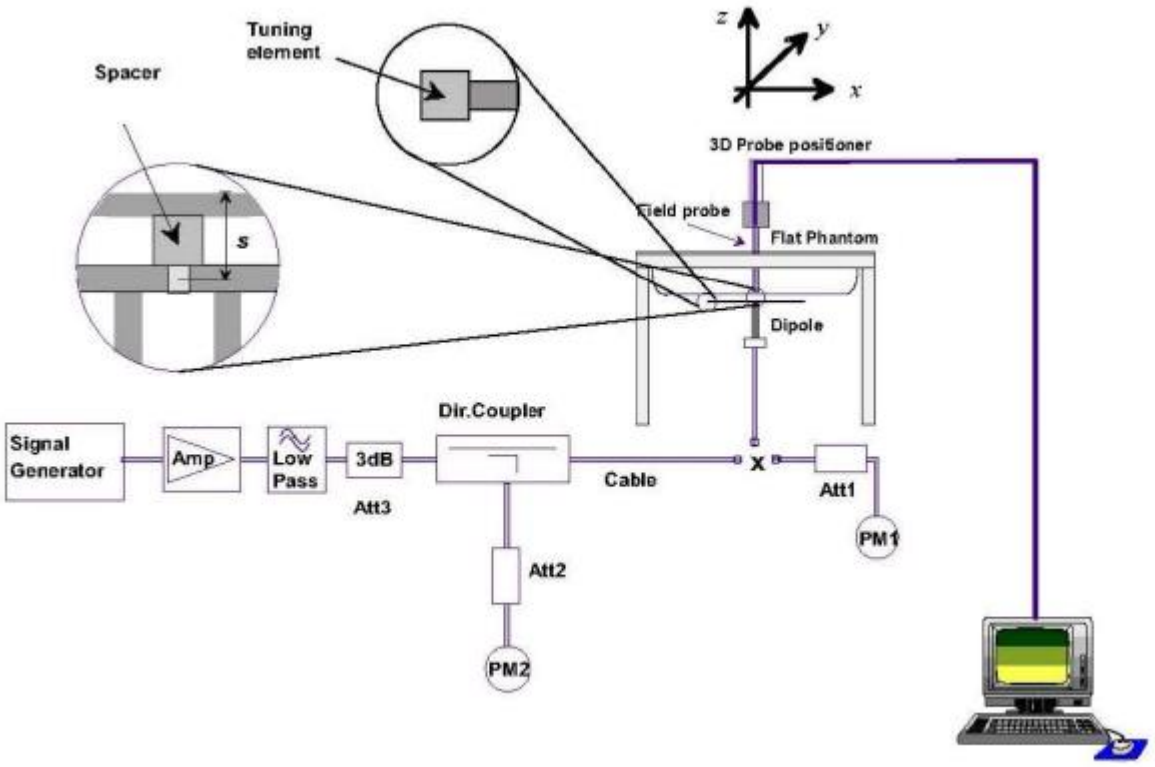
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2023-08-22	21.1	50	750	20.8	Permittivity	41.90	42.43	1.26	±5
					Conductivity	0.89	0.88	-1.12	±5
2023-08-23	23.9	51	835	23.6	Permittivity	41.50	41.57	0.17	±5
					Conductivity	0.90	0.93	3.33	±5
2023-08-24	21.8	50	1800	21.6	Permittivity	40.00	40.82	2.05	±5
					Conductivity	1.40	1.44	2.86	±5
2023-08-25	21.3	48	1900	20.9	Permittivity	40.00	40.57	1.43	±5
					Conductivity	1.40	1.39	-0.71	±5
2023-08-28	21.6	59	1900	21.4	Permittivity	40.00	40.34	0.85	±5
					Conductivity	1.40	1.36	-2.86	±5
2023-08-29	20.2	51	2450	19.8	Permittivity	39.20	40.27	2.73	±5
					Conductivity	1.80	1.82	1.11	±5
2023-08-30	22.5	55	2600	22.2	Permittivity	39.00	38.86	-0.36	±5
					Conductivity	1.96	2.00	2.04	±5
2023-08-31	23.3	51	5200	23.1	Permittivity	36.00	36.67	1.86	±5
					Conductivity	4.66	4.63	-0.64	±5
2023-09-05	21.1	59	5400	20.8	Permittivity	35.80	36.59	2.21	±5
					Conductivity	4.86	4.89	0.62	±5
2023-09-06	20.3	52	5600	20	Permittivity	35.55	36.59	2.93	±5
					Conductivity	5.07	5.10	0.69	±5
2023-09-08	20.1	52	5800	19.8	Permittivity	35.30	36.57	3.60	±5
					Conductivity	5.27	5.19	-1.52	±5

5. SAR System Validation

5.1 Validation System

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

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



5.2 Validation Result

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

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2023-08-22	750	100	0.860	8.60	8.27	3.99	10
2023-08-23	835	100	0.971	9.71	9.75	-0.41	10
2023-08-24	1800	100	3.559	35.59	39.06	-8.88	10
2023-08-25	1900	100	3.909	39.09	40.85	-4.31	10
2023-08-28	1900	100	4.064	40.64	40.85	-0.51	10
2023-08-29	2450	100	5.505	55.05	54.28	1.42	10
2023-08-30	2600	100	5.714	57.14	56.58	0.99	10
2023-08-31	5200	100	7.416	74.16	77.64	-4.48	10
2023-09-05	5300	100	8.442	84.42	80.27	5.17	10
2023-09-06	5600	100	8.079	80.79	78.35	3.11	10
2023-09-08	5800	100	7.827	78.27	74.92	4.47	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.

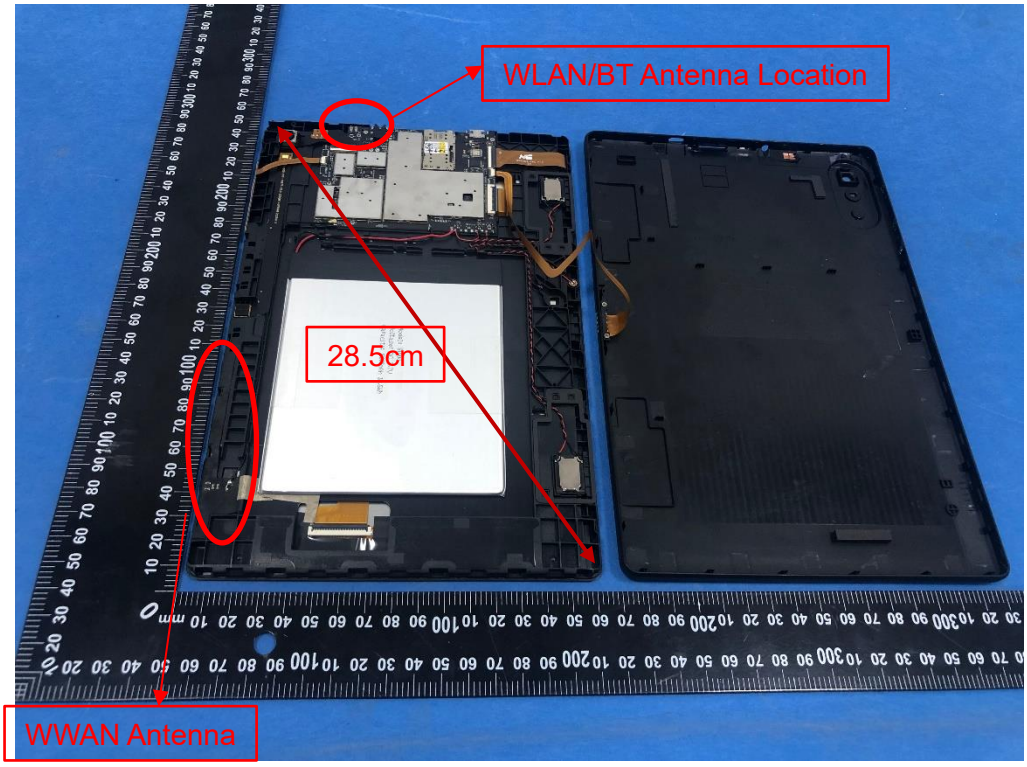
When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7. EUT Antenna Location Sketch

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

Right side

Top side



Bottom side

Left side
(Back view)

Antenna Separation Distance(cm)						
ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	≤0.5	≤0.5	22.5	≤0.5	4.2	11.2
WWAN	≤0.5	≤0.5	1.5	14.5	≤0.5	14.2

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

7.1 SAR test exclusion consider table

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

Exposure Position	Wireless Interface	GSM850	PCS1900	WCDMA II	WCDMA IV	WCDMA V
	Calculated Frequency(GHz)	0.8242	1.8502	1.8524	1.74	0.8466
	Maximum Turn-up power (dBm)	32.5	30	22.5	24	23.5
	Maximum rated power(mW)	1778.28	1000.00	177.83	251.19	223.87
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	9.42	3.44	3.43	3.61	9.07
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	14.5	14.5	14.5	14.5	14.5
	exclusion threshold(mW)	1069.95	1692.69	1692.55	1699.97	1092.87
	Testing required?	YES	NO	NO	NO	NO
Right Edge	Separation distance (cm)	1.5	1.5	1.5	1.5	1.5
	exclusion threshold(mW)	44.11	25.97	25.95	26.88	43.30
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	9.42	3.44	3.43	3.61	9.07
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (cm)	14.2	14.2	14.2	14.2	14.2
	exclusion threshold(mW)	1038.97	1628.78	1628.63	1636.23	1060.84
	Testing required?	YES	NO	NO	NO	NO

Exposure Position	Wireless Interface	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 12	LTE Band 13
	Calculated Frequency (GHz)	1.9	1.745	0.8365	0.704	0.782
	Maximum Turn-up power (dBm)	24.5	25.5	24.5	24.5	24
	Maximum rated power(mW)	281.84	354.81	281.84	281.84	251.19
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	3.60	9.22	11.75	10.14
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	14.5	14.5	14.5	14.5	14.5
	exclusion threshold(mW)	1689.56	1699.63	1082.55	944.60	1026.41
	Testing required?	NO	NO	NO	NO	NO
Right Edge	Separation distance (cm)	1.5	1.5	1.5	1.5	1.5
	exclusion threshold(mW)	25.59	26.84	43.66	49.16	45.73
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	3.60	9.22	11.75	10.14
	Testing required?	YES	YES	YES	YES	YES
Bottom Edge	Separation distance (cm)	14.2	14.2	14.2	14.2	14.2
	exclusion threshold(mW)	1625.56	1635.88	1050.99	919.21	997.40
	Testing required?	NO	NO	NO	NO	NO

Exposure Position	Wireless Interface	LTE Band 25	LTE Band 26	LTE Band 41	LTE Band 66	LTE Band 71
	Calculated Frequency (GHz)	1.905	0.8415	2.506	1.745	0.673
	Maximum Turn-up power (dBm)	24.2	24.2	24.8	25.5	24.5
	Maximum rated power(mW)	263.03	263.03	302.00	354.81	281.84
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	9.15	2.69	3.60	12.51
	Testing required?	YES	YES	YES	YES	YES
Left Edge	Separation distance (cm)	14.5	14.5	14.5	14.5	14.5
	exclusion threshold(mW)	1689.25	1087.67	1657.21	1699.63	911.56
	Testing required?	NO	NO	NO	NO	NO
Right Edge	Separation distance (cm)	1.5	1.5	1.5	1.5	1.5
	exclusion threshold(mW)	25.55	43.48	21.90	26.84	50.70
	Testing required?	YES	YES	YES	YES	YES
Top Edge	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	3.36	5170.60	2.69	3.60	5781.85
	Testing required?	YES	NO	YES	YES	NO
Bottom Edge	Separation distance (cm)	14.2	14.2	14.2	14.2	14.2
	exclusion threshold(mW)	1625.24	1055.87	1592.44	1635.88	887.61
	Testing required?	NO	NO	NO	NO	NO

Exposure Position	Wireless Interface	BT	2.4G WLAN	5.2G WLAN
	Calculated Frequency (GHz)	2.441	2.437	5.2
	Maximum Turn-up power (dBm)	4.5	15	7.5
	Maximum rated power(mW)	2.82	31.62	5.62
Back Side	Separation distance (cm)	0.5	0.5	0.5
	exclusion threshold(mW)	2.75	2.76	1.50
	Testing required?	YES	YES	YES
Left Edge	Separation distance (cm)	0.5	0.5	0.5
	exclusion threshold(mW)	2.75	2.76	1.50
	Testing required?	YES	YES	YES
Right Edge	Separation distance (cm)	22.5	22.5	22.5
	exclusion threshold(mW)	3828.08	3827.91	3902.84
	Testing required?	NO	NO	NO
Top Edge	Separation distance (cm)	4.2	4.2	4.2
	exclusion threshold(mW)	157.41	157.49	121.82
	Testing required?	NO	NO	NO
Bottom Edge	Separation distance (cm)	11.2	11.2	11.2
	exclusion threshold(mW)	1016.10	1016.31	923.82
	Testing required?	NO	NO	NO

Exposure Position	Wireless Interface	5.3G WLAN	5.6G WLAN	5.8G WLAN
	Calculated Frequency (GHz)	5.3	5.7	5.745
	Maximum Turn-up power (dBm)	7	7.6	8
	Maximum rated power(mW)	5.01	5.75	6.31
Back Side	Separation distance (cm)	0.5	0.5	0.5
	exclusion threshold(mW)	1.48	1.40	1.39
	Testing required?	YES	YES	YES
Left Edge	Separation distance (cm)	0.5	0.5	0.5
	exclusion threshold(mW)	1.48	1.40	1.39
	Testing required?	YES	YES	YES
Right Edge	Separation distance (cm)	22.5	22.5	22.5
	exclusion threshold(mW)	3904.74	3912.01	3912.80
	Testing required?	NO	NO	NO
Top Edge	Separation distance (cm)	4.2	4.2	4.2
	exclusion threshold(mW)	121.04	118.09	117.77
	Testing required?	NO	NO	NO
Bottom Edge	Separation distance (cm)	11.2	11.2	11.2
	exclusion threshold(mW)	921.60	913.20	912.30
	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 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, if the maximum time-averaged power available does not exceed 1 mW. This stand-alone SAR exemption test.

4. Per KDB 447498 D04, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

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

Where

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

and

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

d = the separation distance (cm);

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

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

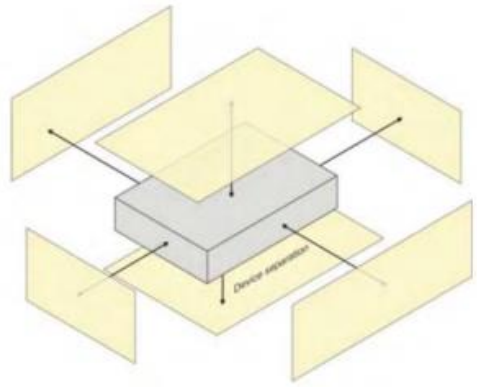
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8.for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than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

8.1 Body-worn Position Conditions

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



9. Uncertainty

9.1 Measurement Uncertainty

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

Symbol	Uncertainty Component	Prob. Dist.	Unc. $a(x_i)$	Div. q_i	$u(x_i) = a(x_i)/q_i$	C_i	$u(y) = C_i * u(x_i)$	v_i
Measurement system errors								
CF	Probe calibration	N (k = 2)	5.8	2	2.90	1	2.90	∞
CF_{drift}	Probe calibration drift	R	0.12	√3	0.07	1	0.07	∞
LIN	Probe linearity and detection limit	R	1.91	√3	1.10	1	1.10	∞
BBS	Broadband signal	R	0.15	√3	0.09	1	0.09	∞
ISO	Probe isotropy	R	0.18	√3	0.10	1	0.10	∞
DAE	Other probe and data acquisition errors	N	2.7	1	2.70	1	2.70	∞
AMB	RF ambient and noise	N	1.73	1	1.73	1	1.73	∞
Δ_{xyz}	Probe positioning errors	N	0.81	1	0.81	2/δ	0.81	
DAT	Data processing errors	N	2.5	1	2.50	1	2.50	∞
Phantom and device (DUT or validation antenna) errors								
LIQ(σ)	Measurement of phantom conductivity(σ)	N	4.4	1	4.4	cε, cσ	4.40	∞
$LIQ(T_c)$	Temperature effects (medium)	R	2.9	√3	1.67	cε, cσ	1.67	∞
EPS	Shell permittivity	R	3.4	√3	1.96	See 8.4.2.3	0.49	∞
DIS	Distance between the radiating element of the DUT and the phantom medium	N	0.8	1	0.8	2	1.60	∞
D_{xyz}	Repeatability of positioning the DUT or source against the phantom	N	1.5	1	1.5	1	1.50	5
H	Device holder effects	N	3	1	3	1	3.00	
MOD	Effect of operating mode on probe sensitivity	R	3.59	√3	2.07	1	2.07	∞
TAS	Time-average SAR	R	1.73	√3	1.00	1	1.00	∞
RF_{drift}	Variation in SAR due to drift in output of DUT	N	2.89	1	2.89	1	2.89	
VAL	Validation antenna uncertainty (validation measurement only)	N	1.45	1	1.45	1	1.45	
P_{in}	Uncertainty in accepted power (validation measurement only)	N	2.5	1	2.5	1	2.50	
Corrections to the SAR result (if applied)								
$C(\varepsilon', \sigma)$	Phantom deviation from target (ε', σ)	N	2.31	1	2.31	1	2.31	
C(R)	SAR scaling	R	1.15	√3	0.66	1	0.66	
u(ΔSAR)	Combined uncertainty						9.53	
U	Expanded uncertainty and effective degrees of freedom					U =	19.06	

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
GPRS (GMSK, 1-Slot)	32.12	31.86	31.99	28.60	28.85	29.15
GPRS (GMSK, 2-Slot)	30.96	30.62	30.68	27.45	27.71	28.03
GPRS (GMSK, 3-Slot)	28.33	26.85	27.83	25.12	25.39	25.81
GPRS (GMSK, 4-Slot)	27.12	26.59	26.59	24.01	24.28	24.64
EGPRS (8PSK, 1-Slot)	31.08	30.93	31.00	30.18	30.06	29.86
EGPRS (8PSK, 2-Slot)	31.15	30.77	30.88	29.97	29.96	29.70
EGPRS (8PSK, 3-Slot)	30.91	30.60	30.56	29.60	29.51	29.47
EGPRS (8PSK, 4-Slot)	30.73	30.43	30.63	29.38	29.20	29.07
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
GPRS (GMSK, 1-Slot)	23.09	22.83	22.96	19.57	19.82	20.12
GPRS (GMSK, 2-Slot)	24.94	24.60	24.66	21.43	21.69	22.01
GPRS (GMSK, 3-Slot)	24.07	22.59	23.57	20.86	21.13	21.55
GPRS (GMSK, 4-Slot)	24.11	23.58	23.58	21.00	21.27	21.63
EGPRS (8PSK, 1-Slot)	22.05	21.90	21.97	21.15	21.03	20.83
EGPRS (8PSK, 2-Slot)	25.13	24.75	24.86	23.95	23.94	23.68
EGPRS (8PSK, 3-Slot)	26.65	26.34	26.30	25.34	25.25	25.21
EGPRS (8PSK, 4-Slot)	27.72	27.42	27.62	26.37	26.19	26.06
Remark: 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst - averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						

WCDMA

Band	WCDMA Band 2			WCDMA Band 4			WCDMA Band 5		
Channel	9262	9400	9538	9262	9400	9538	9262	9400	9538
Frequency (MHz)	1852.4	1880	1907.6	1852.4	1880	1907.6	1852.4	1880	1907.6
RMC 12.2Kbps	22.44	22.38	22.43	23.92	23.94	23.82	23.17	23.14	23.36
HSDPA Subtest-1	21.55	21.48	21.49	23.03	23.07	22.95	22.24	22.23	22.38
HSDPA Subtest-2	21.06	21.00	21.13	22.50	22.53	22.56	21.67	21.73	21.90
HSDPA Subtest-3	19.98	19.93	19.48	21.04	21.71	21.39	20.59	20.79	21.06
HSDPA Subtest-4	19.91	19.98	19.68	21.19	21.69	21.12	20.89	20.91	21.11
HSUPA Subtest-1	20.16	21.25	21.26	22.24	22.82	22.76	20.82	22.05	22.16
HSUPA Subtest-2	21.45	21.36	21.36	22.85	22.92	22.80	22.15	22.13	22.27
HSUPA Subtest-3	19.75	20.20	20.22	21.45	21.75	21.60	20.52	20.90	21.15
HSUPA Subtest-4	21.52	21.50	21.49	23.03	23.03	22.86	22.23	22.22	22.39
HSUPA Subtest-5	19.84	20.71	20.80	21.28	22.39	22.25	20.77	21.57	21.70

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	14.70	29.51
	6	2437	14.93	31.12
	11	2462	14.80	30.20
802.11g	1	2412	17.67	58.48
	6	2437	17.78	59.98
	11	2462	17.63	57.94
802.11 n-HT20	1	2412	17.58	57.28
	6	2437	17.70	58.88
	11	2462	17.47	55.85
802.11 n-HT40	3	2422	18.02	63.39
	6	2437	12.63	18.32
	9	2452	17.72	59.16

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	4.09	2.56
	39	2441	4.11	2.58
	78	2480	2.98	1.99
π/4-QPSK(2Mbps)	0	2402	2.98	1.99
	39	2441	3.32	2.15
	78	2480	2.28	1.69
8DPSK(3Mbps)	0	2402	3.15	2.07
	39	2441	3.20	2.09
	78	2480	2.42	1.75

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	2.79	1.90
	19	2440	2.78	1.90
	39	2480	1.96	1.57

WLAN (5.2Gband)

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	6.63	4.60
	40	5200	7.02	5.04
	48	5240	7.00	5.01
802.11 n-HT20	36	5180	6.47	4.44
	40	5200	6.73	4.71
	48	5240	6.67	4.65
802.11 n-HT40	38	5190	6.70	4.68
	46	5230	6.68	4.66
802.11ac-VHT80	42	5210	6.57	4.54

WLAN (5.3G band)

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	52	5260	6.89	4.89
	60	5300	6.99	5.00
	64	5320	6.99	5.00
802.11 n-HT20	52	5260	6.69	4.67
	60	5300	6.89	4.89
	64	5320	6.81	4.80
802.11 n-HT40	54	5270	6.76	4.74
	62	5310	6.66	4.63
802.11ac-VHT80	58	5290	6.45	4.42

WLAN (5.6G band)

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	100	5500	6.83	4.82
	116	5580	7.03	5.05
	140	5700	7.57	5.71
802.11 n-HT20	100	5500	6.71	4.69
	116	5580	6.89	4.89
	140	5700	7.39	5.48
802.11 n-HT40	102	5510	6.51	4.48
	110	5550	6.74	4.72
	134	5670	7.13	5.16
802.11ac-VHT80	106	5530	6.39	4.36
	122	5610	6.89	4.89

WLAN (5.8G band)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	7.74	5.94
	157	5785	7.49	5.61
	165	5825	7.60	5.75
802.11 n-HT20	149	5745	7.57	5.71
	157	5785	7.33	5.41
	165	5825	7.32	5.40
802.11 n-HT40	151	5755	7.54	5.68
	159	5795	7.28	5.35
802.11ac-VHT80	155	5775	7.27	5.33

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 ≤ 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 ≤ 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 ≤ 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	23.7	23.51	23.83
1.4	1	2		23.9	23.64	23.97
1.4	1	5		23.75	23.56	23.78
1.4	3	0		23.89	23.57	23.8
1.4	3	1		23.84	23.6	23.79
1.4	3	2		23.88	23.57	23.82
1.4	6	0		22.78	22.5	22.78
1.4	1	0	16-QAM	22.89	22.33	22.9
1.4	1	2		22.98	22.45	23.04
1.4	1	5		22.95	22.38	22.89
1.4	3	0		23	22.68	22.97
1.4	3	1		23.04	22.65	22.99
1.4	3	2		23.04	22.71	22.99
1.4	6	0		21.93	21.7	21.94
3	1	0	QPSK	23.87	23.58	23.87
3	1	7		24.2	23.86	24.17
3	1	14		23.96	23.53	23.9
3	8	0		22.85	22.6	22.9
3	8	4		22.88	22.62	22.9
3	8	7		22.9	22.61	22.86
3	15	0		22.85	22.58	22.82
3	1	0	16-QAM	22.74	23.03	23.02
3	1	7		22.96	23.33	23.27
3	1	14		22.71	22.97	23.01
3	8	0		21.84	21.67	21.91
3	8	4		21.88	21.64	21.91
3	8	7		21.89	21.64	21.87
3	15	0		21.94	21.64	21.83

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.7	23.43	23.62
5	1	12		24	23.83	24.02
5	1	24		23.7	23.48	23.65
5	12	0		22.73	22.54	22.87
5	12	6		22.81	22.56	22.83
5	12	11		22.78	22.48	22.68
5	25	0		22.78	22.55	22.76
5	1	0	16-QAM	23.16	22.82	23.01
5	1	12		23.54	23.29	23.39
5	1	24		23.21	22.8	22.99
5	12	0		21.78	21.49	21.85
5	12	6		21.9	21.55	21.89
5	12	11		21.79	21.47	21.72
5	25	0		21.79	21.59	21.77
10	1	0	QPSK	23.76	23.57	23.7
10	1	24		23.91	23.79	23.9
10	1	49		23.78	23.6	23.75
10	25	0		22.82	22.62	22.81
10	25	12		22.84	22.59	22.86
10	25	24		22.83	22.59	22.7
10	50	0		22.82	22.59	22.79
10	1	0	16-QAM	22.91	22.42	23.11
10	1	24		23.03	22.6	23.28
10	1	49		22.95	22.42	23.15
10	25	0		21.83	21.68	21.89
10	25	12		21.85	21.65	21.89
10	25	24		21.85	21.64	21.8
10	50	0		21.9	21.63	21.83

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.71	23.34	23.57
15	1	37		24.15	23.72	23.99
15	1	74		23.57	23.37	23.65
15	36	0		22.88	22.6	22.7
15	36	18		22.86	22.59	22.81
15	36	39		22.79	22.56	22.77
15	75	0		22.81	22.62	22.73
15	1	0	16-QAM	22.76	22.79	22.67
15	1	38		23.21	23.2	23.06
15	1	75		22.71	22.81	22.81
15	36	0		21.82	21.62	21.78
15	36	18		21.8	21.61	21.87
15	36	39		21.76	21.58	21.83
15	75	0		21.85	21.57	21.74
20	1	0	QPSK	23.52	23.23	23.35
20	1	49		23.91	23.66	23.92
20	1	99		23.4	23.31	23.57
20	50	0		22.89	22.62	22.81
20	50	24		22.84	22.57	22.79
20	50	49		22.71	22.5	22.74
20	100	0		22.83	22.57	22.74
20	1	0	16-QAM	22.72	22.61	22.61
20	1	49		23.12	22.96	23.11
20	1	99		22.67	22.67	22.85
20	50	0		21.94	21.65	21.86
20	50	24		21.86	21.66	21.76
20	50	49		21.83	21.6	21.75
20	100	0		21.87	21.65	21.83

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.86	24.71	24.73
1.4	1	2		24.99	24.86	24.86
1.4	1	5		24.84	24.73	24.71
1.4	3	0		24.75	24.87	24.66
1.4	3	1		24.76	24.81	24.69
1.4	3	2		24.79	24.82	24.65
1.4	6	0		23.88	23.75	23.73
1.4	1	0	16-QAM	23.8	23.94	23.42
1.4	1	2		23.9	24.02	23.56
1.4	1	5		23.8	23.91	23.46
1.4	3	0		23.89	24.04	23.74
1.4	3	1		23.9	24.05	23.77
1.4	3	2		23.86	24.05	23.79
1.4	6	0		22.9	22.95	22.82
3	1	0	QPSK	24.86	24.83	24.89
3	1	7		25.12	25.04	25.15
3	1	14		24.8	24.89	24.89
3	8	0		23.9	23.86	23.82
3	8	4		23.91	23.93	23.87
3	8	7		23.89	23.92	23.82
3	15	0		23.8	23.88	23.76
3	1	0	16-QAM	24.16	23.99	23.58
3	1	7		24.31	24.39	23.81
3	1	14		24.09	24.11	23.51
3	8	0		22.85	22.86	22.75
3	8	4		22.85	22.89	22.76
3	8	7		22.8	22.88	22.72
3	15	0		22.8	22.84	22.79

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.7	24.65	24.56
5	1	12		25.02	25.14	24.93
5	1	24		24.63	24.8	24.54
5	12	0		23.76	23.73	23.69
5	12	6		23.81	23.83	23.75
5	12	11		23.66	23.84	23.67
5	25	0		23.71	23.8	23.67
5	1	0	16-QAM	24.07	23.99	23.83
5	1	12		24.38	24.39	24.14
5	1	24		24.05	24.08	23.83
5	12	0		22.64	22.68	22.71
5	12	6		22.73	22.81	22.75
5	12	11		22.67	22.73	22.64
5	25	0		22.65	22.84	22.63
10	1	0	QPSK	24.79	24.78	24.74
10	1	24		24.87	25.01	24.89
10	1	49		24.68	24.87	24.62
10	25	0		23.81	23.82	23.83
10	25	12		23.76	23.88	23.75
10	25	24		23.75	23.93	23.75
10	50	0		23.79	23.88	23.76
10	1	0	16-QAM	23.81	23.55	24.11
10	1	24		23.92	23.75	24.17
10	1	49		23.79	23.7	23.99
10	25	0		22.78	22.81	22.84
10	25	12		22.74	22.87	22.73
10	25	24		22.73	22.95	22.73
10	50	0		22.81	22.88	22.78

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.73	24.47	24.66
15	1	37		24.99	24.99	24.92
15	1	74		24.61	24.64	24.5
15	36	0		23.83	23.79	23.88
15	36	18		23.82	23.88	23.89
15	36	39		23.76	23.91	23.84
15	75	0		23.82	23.88	23.87
15	1	0	16-QAM	23.65	23.91	23.86
15	1	38		23.97	24.47	24.11
15	1	75		23.68	24.11	23.66
15	36	0		22.67	22.74	22.86
15	36	18		22.68	22.85	22.82
15	36	39		22.64	22.87	22.78
15	75	0		22.73	22.85	22.78
20	1	0	QPSK	24.49	24.36	24.56
20	1	49		24.78	24.84	25.02
20	1	99		24.51	24.59	24.52
20	50	0		23.72	23.73	23.79
20	50	24		23.7	23.82	23.81
20	50	49		23.7	23.94	23.72
20	100	0		23.72	23.84	23.81
20	1	0	16-QAM	23.63	23.69	23.79
20	1	49		24	24.18	24.08
20	1	99		23.77	23.9	23.58
20	50	0		22.75	22.79	22.77
20	50	24		22.7	22.87	22.78
20	50	49		22.76	22.98	22.71
20	100	0		22.72	22.88	22.78

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.76	23.7	23.99
1.4	1	2		23.92	23.87	24.15
1.4	1	5		23.75	23.69	23.94
1.4	3	0		23.72	23.8	23.88
1.4	3	1		23.71	23.81	23.91
1.4	3	2		23.71	23.77	23.92
1.4	6	0		22.66	22.75	22.97
1.4	1	0	16-QAM	22.79	22.82	22.53
1.4	1	2		22.95	22.93	22.68
1.4	1	5		22.8	22.88	22.68
1.4	3	0		22.88	22.87	22.85
1.4	3	1		22.9	22.91	22.91
1.4	3	2		22.87	22.93	22.95
1.4	6	0		21.86	21.95	22.04
3	1	0	QPSK	23.76	23.86	24
3	1	7		24.01	24.13	24.14
3	1	14		23.67	23.94	23.96
3	8	0		22.72	22.74	22.96
3	8	4		22.72	22.85	23.04
3	8	7		22.68	22.83	23.01
3	15	0		22.65	22.79	22.88
3	1	0	16-QAM	22.92	22.53	23.12
3	1	7		23.13	22.85	23.36
3	1	14		22.85	22.66	23.26
3	8	0		21.75	21.71	21.86
3	8	4		21.76	21.79	21.94
3	8	7		21.67	21.81	21.96
3	15	0		21.65	21.81	21.88

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.58	23.62	23.67
5	1	12		23.93	24.09	24.19
5	1	24		23.56	23.72	23.78
5	12	0		22.68	22.49	22.81
5	12	6		22.64	22.7	22.86
5	12	11		22.52	22.71	22.97
5	25	0		22.67	22.67	22.88
5	1	0	16-QAM	23.09	22.78	22.96
5	1	12		23.4	23.18	23.19
5	1	24		23	22.97	23.03
5	12	0		21.7	21.45	21.81
5	12	6		21.65	21.64	21.82
5	12	11		21.57	21.69	21.92
5	25	0		21.66	21.68	21.83
10	1	0	QPSK	23.61	23.67	23.79
10	1	24		23.73	24.01	24
10	1	49		23.65	23.93	23.92
10	25	0		22.7	22.5	23.25
10	25	12		22.62	22.73	22.94
10	25	24		22.68	22.78	23.08
10	50	0		22.75	22.61	23.13
10	1	0	16-QAM	22.76	22.33	23.19
10	1	24		22.84	22.65	23.3
10	1	49		22.69	22.74	23.19
10	25	0		21.75	21.47	22.28
10	25	12		21.62	21.69	21.95
10	25	24		21.68	21.81	22.09
10	50	0		21.75	21.59	22.19

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.9	23.7	23.86
1.4	1	2		24.07	23.84	23.93
1.4	1	5		23.93	23.68	23.82
1.4	3	0		23.87	23.8	23.87
1.4	3	1		23.84	23.81	23.9
1.4	3	2		23.91	23.78	23.81
1.4	6	0		22.89	22.74	22.87
1.4	1	0	16-QAM	23	22.93	22.72
1.4	1	2		23.09	23.06	22.79
1.4	1	5		23.01	22.91	22.68
1.4	3	0		23.07	23.02	23.05
1.4	3	1		23.11	23.02	23.02
1.4	3	2		23.09	23.02	23.04
1.4	6	0		22.04	21.9	22.06
3	1	0	QPSK	23.91	23.84	23.85
3	1	7		24.2	24.18	24.17
3	1	14		23.9	23.89	23.84
3	8	0		22.91	22.82	22.98
3	8	4		22.95	22.86	22.98
3	8	7		22.95	22.81	22.91
3	15	0		22.93	22.82	22.92
3	1	0	16-QAM	23.14	22.71	23.33
3	1	7		23.61	23.05	23.63
3	1	14		23.11	22.76	23.31
3	8	0		21.92	21.84	21.99
3	8	4		21.98	21.84	22
3	8	7		21.96	21.81	21.92
3	15	0		21.89	21.89	21.94

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.74	23.65	23.59
5	1	12		24.13	24.01	24.03
5	1	24		23.71	23.68	23.67
5	12	0		22.73	22.75	22.76
5	12	6		22.85	22.81	22.85
5	12	11		22.81	22.8	22.7
5	25	0		22.76	22.78	22.71
5	1	0	16-QAM	23.29	23	22.93
5	1	12		23.62	23.4	23.3
5	1	24		23.3	23	23.06
5	12	0		21.73	21.73	21.79
5	12	6		21.85	21.75	21.9
5	12	11		21.83	21.73	21.71
5	25	0		21.77	21.85	21.72
10	1	0	QPSK	23.76	23.79	23.69
10	1	24		23.96	23.89	23.88
10	1	49		23.76	23.84	23.81
10	25	0		22.77	22.99	22.72
10	25	12		22.85	22.82	22.86
10	25	24		22.74	23.02	22.78
10	50	0		22.76	23.02	22.75
10	1	0	16-QAM	22.99	22.64	23.1
10	1	24		23.14	22.86	23.33
10	1	49		22.97	22.69	23.22
10	25	0		21.77	22.01	21.78
10	25	12		21.86	21.83	21.88
10	25	24		21.73	22.03	21.81
10	50	0		21.79	22.03	21.78

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.59	23.59	23.45
5	1	12		23.88	23.98	23.84
5	1	24		23.54	23.49	23.44
5	12	0		22.67	22.64	22.63
5	12	6		22.75	22.69	22.65
5	12	11		22.6	22.59	22.55
5	25	0		22.7	22.65	22.58
5	1	0	16-QAM	23.09	22.91	22.83
5	1	12		23.49	23.35	23.21
5	1	24		23.14	22.87	22.83
5	12	0		21.7	21.58	21.64
5	12	6		21.75	21.62	21.67
5	12	11		21.62	21.56	21.59
5	25	0		21.7	21.67	21.56
10	1	0	QPSK	/	23.6	/
10	1	24		/	23.76	/
10	1	49		/	23.61	/
10	25	0		/	22.81	/
10	25	12		/	22.7	/
10	25	24		/	22.65	/
10	50	0		/	22.76	/
10	1	0	16-QAM	/	22.77	/
10	1	24		/	23.02	/
10	1	49		/	22.81	/
10	25	0		/	21.81	/
10	25	12		/	21.75	/
10	25	24		/	21.69	/
10	50	0		/	21.8	/

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.71	23.31	23.23
1.4	1	2		23.85	23.49	23.31
1.4	1	5		23.69	23.28	23.13
1.4	3	0		23.64	23.45	23.19
1.4	3	1		23.66	23.46	23.18
1.4	3	2		23.69	23.43	23.15
1.4	6	0		22.61	22.33	22.12
1.4	1	0	16-QAM	22.75	22.5	21.93
1.4	1	2		22.88	22.67	22.09
1.4	1	5		22.78	22.53	21.89
1.4	3	0		22.81	22.62	22.26
1.4	3	1		22.82	22.66	22.3
1.4	3	2		22.79	22.66	22.27
1.4	6	0		21.81	21.53	21.31
3	1	0	QPSK	23.71	23.51	23.17
3	1	7		24.01	23.79	23.48
3	1	14		23.72	23.58	23.18
3	8	0		22.7	22.45	22.27
3	8	4		22.75	22.49	22.23
3	8	7		22.75	22.43	22.2
3	15	0		22.71	22.4	22.2
3	1	0	16-QAM	22.87	22.33	22.59
3	1	7		23.13	22.66	22.8
3	1	14		22.87	22.33	22.5
3	8	0		21.72	21.43	21.27
3	8	4		21.8	21.47	21.29
3	8	7		21.72	21.43	21.21
3	15	0		21.7	21.53	21.23

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.29	22.74	23
5	1	12		23.55	23.09	23.4
5	1	24		23.16	22.83	23.06
5	12	0		22.08	21.9	22.16
5	12	6		22.41	22.01	22.2
5	12	11		22.29	22.14	22.04
5	25	0		22.2	22.34	22.14
5	1	0	16-QAM	22.34	22.63	22.56
5	1	12		22.81	22.99	22.94
5	1	24		22.42	22.67	22.51
5	12	0		21.06	21.41	21.19
5	12	6		21.2	21.46	21.23
5	12	11		21.38	21.43	21.07
5	25	0		21.36	21.43	21.17
10	1	0	QPSK	23.2	22.8	23.12
10	1	24		23.46	23.04	23.31
10	1	49		23.17	22.94	23.12
10	25	0		22.36	22	22.37
10	25	12		22.29	22.01	22.18
10	25	24		22.41	21.97	22.09
10	50	0		22.3	22.1	22.27
10	1	0	16-QAM	22	22.3	22.33
10	1	24		22.21	22.53	22.49
10	1	49		22.06	22.35	22.25
10	25	0		21.26	21.04	21.4
10	25	12		21.31	21.02	21.25
10	25	24		21.3	21.06	21.12
10	50	0		21.2	21.04	21.33

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.03	22.75	22.92
15	1	37		23.41	23.12	23.35
15	1	74		22.98	22.87	22.96
15	36	0		22.23	21.97	22.15
15	36	18		22.22	21.98	22.22
15	36	39		22.15	21.96	22.08
15	75	0		22.22	21.96	22.15
15	1	0	16-QAM	22.15	21.88	22.31
15	1	38		22.65	22.22	22.8
15	1	75		22.14	21.93	22.35
15	36	0		21.3	20.89	21.18
15	36	18		21.3	20.95	21.25
15	36	39		21.21	20.95	21.08
15	75	0		21.19	20.99	21.17
20	1	0	QPSK	22.84	22.59	22.79
20	1	49		23.29	23	23.32
20	1	99		22.77	22.75	22.96
20	50	0		22.27	22.02	22.03
20	50	24		22.13	21.96	22.14
20	50	49		22.13	21.96	21.87
20	100	0		22.25	22.02	21.97
20	1	0	16-QAM	22.1	21.98	22.04
20	1	49		22.52	22.34	22.45
20	1	99		22.04	22.12	22.13
20	50	0		21.36	21.08	21.05
20	50	24		21.22	21.04	21.2
20	50	49		21.21	21.04	20.9
20	100	0		21.26	21.06	21.01

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.92	23.67	23.51
1.4	1	2		24.13	23.84	23.36
1.4	1	5		23.95	23.54	23.2
1.4	3	0		23.86	23.62	23.24
1.4	3	1		23.85	23.52	23.26
1.4	3	2		23.86	23.56	23.2
1.4	6	0		22.86	22.58	22.14
1.4	1	0	16-QAM	22.87	22.6	22.07
1.4	1	2		22.97	22.75	22.2
1.4	1	5		22.84	22.5	22.05
1.4	3	0		22.92	22.78	22.44
1.4	3	1		22.96	22.76	22.38
1.4	3	2		22.89	22.9	22.42
1.4	6	0		21.96	21.75	21.38
3	1	0	QPSK	23.36	23.27	23.25
3	1	7		23.59	23.55	23.56
3	1	14		23.29	23.23	23.33
3	8	0		22.36	22.25	22.25
3	8	4		22.43	22.28	22.25
3	8	7		22.44	22.28	22.17
3	15	0		22.33	22.26	22.24
3	1	0	16-QAM	22.77	22.44	22.19
3	1	7		22.93	22.63	22.59
3	1	14		22.6	22.47	22.13
3	8	0		21.38	21.3	21.29
3	8	4		21.43	21.31	21.29
3	8	7		21.42	21.32	21.24
3	15	0		21.41	21.24	21.33

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.73	23.16	23
5	1	12		23.99	23.46	23.46
5	1	24		23.36	23.07	23.01
5	12	0		22.41	22.01	22.2
5	12	6		22.29	22.29	22.28
5	12	11		22.49	22.14	22.01
5	25	0		22.42	22.14	22.15
5	1	0	16-QAM	22.7	22.37	22.4
5	1	12		22.97	22.77	22.55
5	1	24		22.66	22.47	22.45
5	12	0		21.08	20.96	21.24
5	12	6		21.25	21.21	21.28
5	12	11		21.34	21.19	21.1
5	25	0		21.26	21.17	21.19
10	1	0	QPSK	N/A	23.76	N/A
10	1	24		N/A	23.84	N/A
10	1	49		N/A	23.63	N/A
10	25	0		N/A	22.31	N/A
10	25	12		N/A	22.67	N/A
10	25	24		N/A	22.52	N/A
10	50	0		N/A	22.38	N/A
10	1	0	16-QAM	N/A	22.43	N/A
10	1	24		N/A	22.59	N/A
10	1	49		N/A	22.37	N/A
10	25	0		N/A	20.96	N/A
10	25	12		N/A	21.25	N/A
10	25	24		N/A	21.27	N/A
10	50	0		N/A	21.13	N/A

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.1	23.2	23.4
1.4	1	2		23.26	23.37	23.58
1.4	1	5		23.09	23.22	23.39
1.4	3	0		23.22	23.24	23.33
1.4	3	1		23.2	23.25	23.34
1.4	3	2		23.18	23.24	23.37
1.4	6	0		22.12	22.23	22.41
1.4	1	0	16-QAM	22.36	22.01	22.32
1.4	1	2		22.46	22.15	22.5
1.4	1	5		22.38	22.06	22.48
1.4	3	0		22.49	22.32	22.47
1.4	3	1		22.48	22.34	22.51
1.4	3	2		22.45	22.39	22.51
1.4	6	0		21.34	21.4	21.5
3	1	0	QPSK	23.22	23.26	23.39
3	1	7		23.47	23.61	23.71
3	1	14		23.18	23.35	23.41
3	8	0		22.18	22.25	22.45
3	8	4		22.21	22.32	22.47
3	8	7		22.16	22.32	22.54
3	15	0		22.17	22.28	22.39
3	1	0	16-QAM	22.45	22.05	22.66
3	1	7		22.73	22.34	22.93
3	1	14		22.36	22.17	22.8
3	8	0		21.25	21.25	21.38
3	8	4		21.21	21.31	21.46
3	8	7		21.18	21.32	21.5
3	15	0		21.15	21.35	21.39

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.02	23.04	23.12
5	1	12		23.24	23.54	23.43
5	1	24		23	23.14	23.23
5	12	0		22.16	22	22.26
5	12	6		22.15	22.24	22.34
5	12	11		22.04	22.24	22.46
5	25	0		22.14	22.2	22.41
5	1	0	16-QAM	22.66	22.28	22.51
5	1	12		22.87	22.79	22.7
5	1	24		22.5	22.53	22.53
5	12	0		21.22	20.98	21.28
5	12	6		21.17	21.2	21.34
5	12	11		21.09	21.21	21.48
5	25	0		21.15	21.18	21.38
10	1	0	QPSK	23.08	22.98	23.26
10	1	24		23.17	23.32	23.54
10	1	49		23.05	23.31	23.46
10	25	0		22.17	22	22.66
10	25	12		22.09	22.26	22.37
10	25	24		22.22	22.25	22.64
10	50	0		22.25	22.14	22.63
10	1	0	16-QAM	22.56	22.14	22.14
10	1	24		22.61	22.48	22.34
10	1	49		22.41	22.47	22.19
10	25	0		21.24	21.04	21.74
10	25	12		21.13	21.29	21.49
10	25	24		21.25	21.31	21.65
10	50	0		21.26	21.21	21.64

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.92	22.86	23.03
15	1	37		23.22	23.39	23.57
15	1	74		23.07	23.19	23.38
15	36	0		22.06	22.01	22.21
15	36	18		22.18	22.24	22.36
15	36	39		22.37	22.13	22.41
15	75	0		22.28	22.05	22.3
15	1	0	16-QAM	22.45	22.04	22.04
15	1	38		22.62	22.54	22.7
15	1	75		22.52	22.43	22.33
15	36	0		21.07	21.01	21.18
15	36	18		21.16	21.27	21.29
15	36	39		21.36	21.21	21.36
15	75	0		21.25	21.05	21.34

LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest1	Lowest2	Middle	Highest 1	Highest 2
5	1	0	QPSK	23.78	23.25	23.09	23.06	23.36
5	1	12		24.05	23.13	23.34	22.78	23.78
5	1	24		23.76	22.82	22.99	22.63	23.63
5	12	0		23.78	23.45	23.13	22.57	23.57
5	12	6		23.81	22.92	23.14	23.39	23.69
5	12	11		23.79	23.33	23.04	22.63	23.63
5	25	0		23.77	23.24	23.09	22.61	23.61
5	1	0	16-QAM	24.26	23.95	23.33	22.67	23.67
5	1	12		24.51	23.96	23.56	23.04	24.04
5	1	24		24.26	23.77	23.23	22.92	23.92
5	12	0		23.68	23.38	23.06	23.18	23.48
5	12	6		23.79	23.47	23.09	23.33	23.63
5	12	11		23.74	23.42	22.96	22.57	23.57
5	25	0		23.70	23.18	23.10	23.24	23.54
10	1	0	QPSK	23.82	23.27	23.25	22.35	23.35
10	1	24		23.97	23.36	23.33	22.74	23.74
10	1	49		23.69	23.34	23.02	22.76	23.76
10	25	0		23.85	23.52	23.26	22.48	23.48
10	25	12		23.81	23.43	23.21	23.29	23.59
10	25	24		23.79	23.22	23.13	23.32	23.62
10	50	0		23.76	23.41	23.19	23.24	23.54
10	1	0	16-QAM	24.23	23.59	23.37	22.20	23.20
10	1	24		24.37	23.97	23.42	22.61	23.61
10	1	49		24.09	23.54	23.11	22.63	23.63
10	25	0		23.83	23.21	23.23	23.14	23.44
10	25	12		23.81	23.26	23.19	23.22	23.52
10	25	24		23.78	23.48	23.10	22.59	23.59
10	50	0		23.77	23.15	23.19	22.46	23.46

LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest1	Lowest2	Middle	Highest 1	Highest 2
15	1	0	QPSK	23.64	22.94	23.20	22.11	23.11
15	1	37		23.97	23.20	23.37	22.76	23.76
15	1	74		23.45	23.02	22.83	23.42	23.72
15	36	0		23.87	23.30	23.27	22.35	23.35
15	36	18		23.86	22.98	23.23	23.22	23.52
15	36	39		23.74	23.34	23.06	23.34	23.64
15	75	0		23.80	23.43	23.14	23.19	23.49
15	1	0	16-QAM	24.05	23.73	23.27	22.21	23.21
15	1	38		24.35	24.01	23.44	23.52	23.82
15	1	75		23.87	23.11	22.93	22.76	23.76
15	36	0		23.80	23.12	23.25	22.24	23.24
15	36	18		23.79	22.89	23.23	23.10	23.40
15	36	39		23.67	23.33	23.04	22.49	23.49
15	75	0		23.72	23.37	23.10	23.17	23.47
20	1	0	QPSK	23.60	23.24	23.11	22.09	23.09
20	1	49		23.87	23.30	23.25	23.22	23.52
20	1	99		23.22	22.71	22.65	22.56	23.56
20	50	0		23.71	22.84	23.23	22.21	23.21
20	50	24		23.64	22.91	23.12	22.99	23.29
20	50	49		23.43	23.13	22.97	22.41	23.41
20	100	0		23.59	22.96	23.11	23.05	23.35
20	1	0	16-QAM	23.66	23.14	23.33	22.20	23.20
20	1	49		23.97	23.23	23.48	23.30	23.60
20	1	99		23.37	22.69	22.91	22.61	23.61
20	50	0		23.73	23.30	23.27	22.15	23.15
20	50	24		23.66	23.27	23.19	22.97	23.27
20	50	49		23.50	22.97	23.01	23.07	23.37
20	100	0		23.61	22.90	23.12	23.00	23.30

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.84	24.83	24.62
1.4	1	2		24.92	25.01	24.74
1.4	1	5		24.8	24.82	24.6
1.4	3	0		24.76	24.76	24.73
1.4	3	1		24.73	24.78	24.72
1.4	3	2		24.73	24.8	24.69
1.4	6	0		23.83	23.82	23.68
1.4	1	0	16-QAM	23.5	23.85	23.76
1.4	1	2		23.65	23.98	23.91
1.4	1	5		23.5	23.86	23.79
1.4	3	0		23.83	23.96	23.86
1.4	3	1		23.83	23.95	23.89
1.4	3	2		23.85	23.91	23.9
1.4	6	0		22.9	22.88	22.78
3	1	0	QPSK	24.92	24.84	24.74
3	1	7		25.23	25.12	25.1
3	1	14		24.93	24.81	24.77
3	8	0		23.89	23.86	23.76
3	8	4		23.87	23.87	23.82
3	8	7		23.82	23.89	23.81
3	15	0		23.79	23.83	23.75
3	1	0	16-QAM	23.63	24.2	23.91
3	1	7		24	24.44	24.13
3	1	14		23.57	24.17	23.9
3	8	0		22.77	22.84	22.74
3	8	4		22.81	22.88	22.8
3	8	7		22.75	22.84	22.76
3	15	0		22.82	22.83	22.7

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.65	24.67	24.55
5	1	12		24.95	25.14	25.02
5	1	24		24.6	24.71	24.56
5	12	0		23.71	23.75	23.65
5	12	6		23.75	23.86	23.75
5	12	11		23.66	23.76	23.64
5	25	0		23.66	23.76	23.68
5	1	0	16-QAM	24.03	23.96	23.84
5	1	12		24.36	24.34	24.23
5	1	24		24.01	23.98	23.88
5	12	0		22.63	22.66	22.63
5	12	6		22.68	22.76	22.73
5	12	11		22.58	22.69	22.63
5	25	0		22.62	22.76	22.63
10	1	0	QPSK	24.8	24.74	24.64
10	1	24		24.93	24.89	24.83
10	1	49		24.76	24.68	24.67
10	25	0		23.77	23.84	23.77
10	25	12		23.73	23.84	23.76
10	25	24		23.71	23.83	23.75
10	50	0		23.72	23.84	23.73
10	1	0	16-QAM	23.52	24.14	23.72
10	1	24		23.64	24.23	23.93
10	1	49		23.48	24.01	23.81
10	25	0		22.73	22.81	22.73
10	25	12		22.7	22.86	22.69
10	25	24		22.68	22.82	22.7
10	50	0		22.71	22.8	22.77

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.57	24.63	24.56
15	1	37		24.96	24.96	25.05
15	1	74		24.48	24.56	24.63
15	36	0		23.81	23.84	23.83
15	36	18		23.78	23.93	23.82
15	36	39		23.73	23.86	23.79
15	75	0		23.81	23.85	23.77
15	1	0	16-QAM	23.89	23.79	23.47
15	1	38		24.23	24.23	24.01
15	1	75		23.9	23.67	23.7
15	36	0		22.69	22.84	22.65
15	36	18		22.73	22.86	22.7
15	36	39		22.69	22.81	22.63
15	75	0		22.73	22.79	22.75
20	1	0	QPSK	24.55	24.47	24.31
20	1	49		24.84	24.96	24.83
20	1	99		24.49	24.45	24.44
20	50	0		23.71	23.79	23.69
20	50	24		23.67	23.8	23.64
20	50	49		23.65	23.76	23.63
20	100	0		23.65	23.73	23.65
20	1	0	16-QAM	23.57	23.74	23.46
20	1	49		23.94	24.15	23.97
20	1	99		23.72	23.61	23.74
20	50	0		22.68	22.77	22.68
20	50	24		22.6	22.78	22.66
20	50	49		22.6	22.75	22.64
20	100	0		22.67	22.73	22.63

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.77	23.81	23.75
5	1	12		24.23	24.15	24.05
5	1	24		23.85	23.88	23.39
5	12	0		22.67	22.93	22.93
5	12	6		22.95	22.99	22.96
5	12	11		22.9	23	22.87
5	25	0		22.78	22.99	22.84
5	1	0	16-QAM	23.32	23.08	22.9
5	1	12		23.7	23.48	23.07
5	1	24		23.37	23.06	22.74
5	12	0		21.55	21.8	22
5	12	6		21.87	21.91	22
5	12	11		21.89	21.91	21.89
5	25	0		21.74	22	21.89
10	1	0	QPSK	23.78	23.88	23.77
10	1	24		24.07	23.95	23.85
10	1	49		23.88	23.84	23.44
10	25	0		22.76	22.98	23.01
10	25	12		22.97	22.98	22.99
10	25	24		23.01	23.07	22.86
10	50	0		22.86	23.01	22.91
10	1	0	16-QAM	22.78	22.71	23.03
10	1	24		23.24	22.63	23.03
10	1	49		22.87	22.55	22.85
10	25	0		21.59	21.99	22.03
10	25	12		21.82	21.96	22.02
10	25	24		21.88	22.06	21.89
10	50	0		21.78	22.04	22

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.77	23.56	23.63
15	1	37		24.14	24.04	23.99
15	1	74		23.81	23.65	23.57
15	36	0		22.89	22.91	23.05
15	36	18		22.98	23.01	23.06
15	36	39		22.97	23.06	22.86
15	75	0		22.96	22.97	23.03
15	1	0	16-QAM	22.59	23.01	22.72
15	1	38		23.06	23.15	23.14
15	1	75		22.75	22.94	22.57
15	36	0		21.69	21.93	22.05
15	36	18		21.74	22.05	22.08
15	36	39		21.84	22.09	21.96
15	75	0		21.74	22	22.02
20	1	0	QPSK	23.56	23.28	23.33
20	1	49		23.98	23.78	23.86
20	1	99		23.74	23.43	23.28
20	50	0		22.73	22.87	22.89
20	50	24		22.88	23	22.99
20	50	49		23.02	23.05	22.88
20	100	0		22.84	22.96	22.97
20	1	0	16-QAM	22.57	22.47	22.44
20	1	49		23.01	22.83	23.06
20	1	99		22.74	22.54	22.5
20	50	0		21.5	21.78	21.99
20	50	24		21.91	21.99	22.05
20	50	49		22.07	22.07	21.89
20	100	0		21.88	21.96	21.97

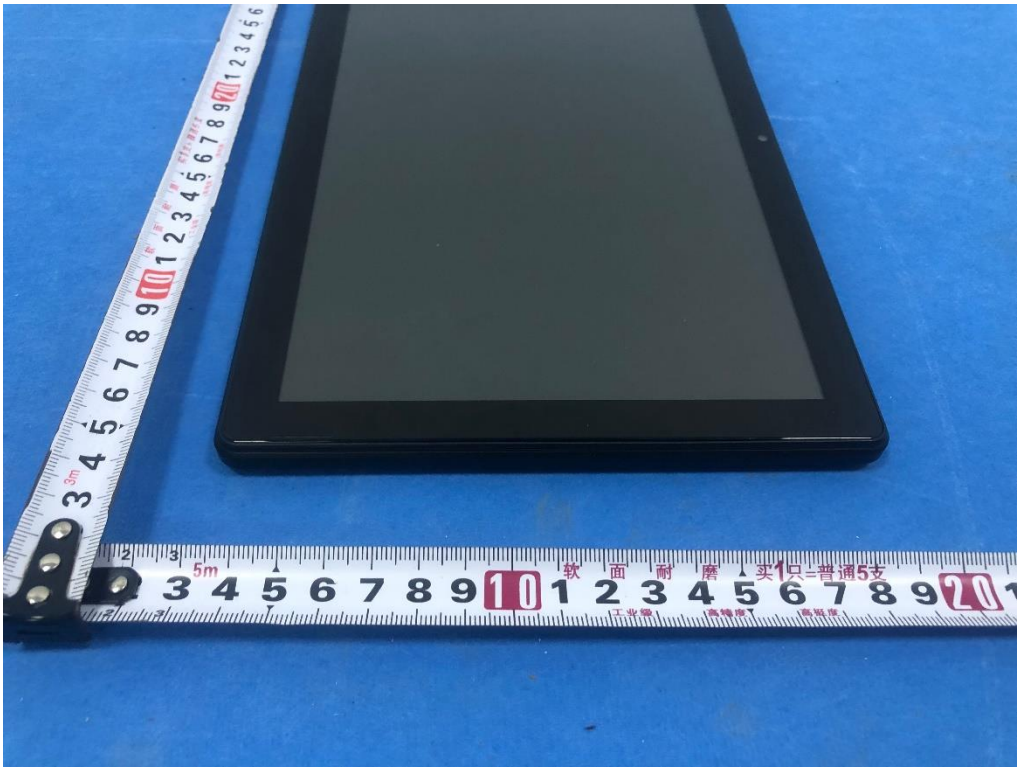
11. EUT and Test Setup Photo

11.1 EUT Photos

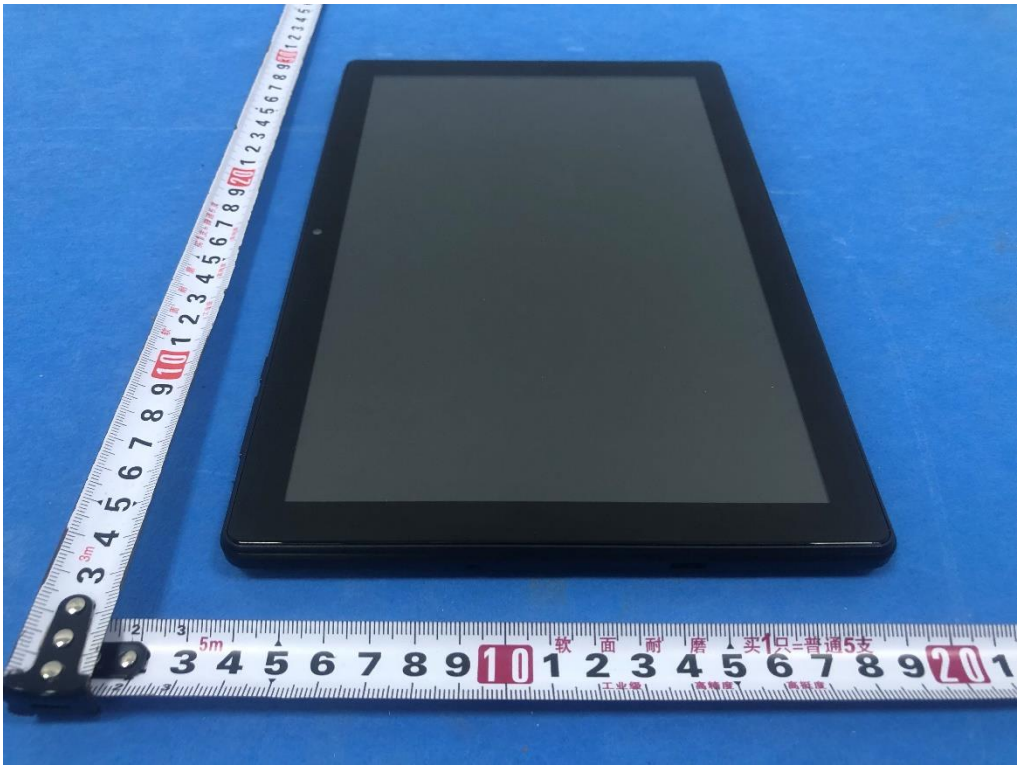
Front side

Back side

Right Edge

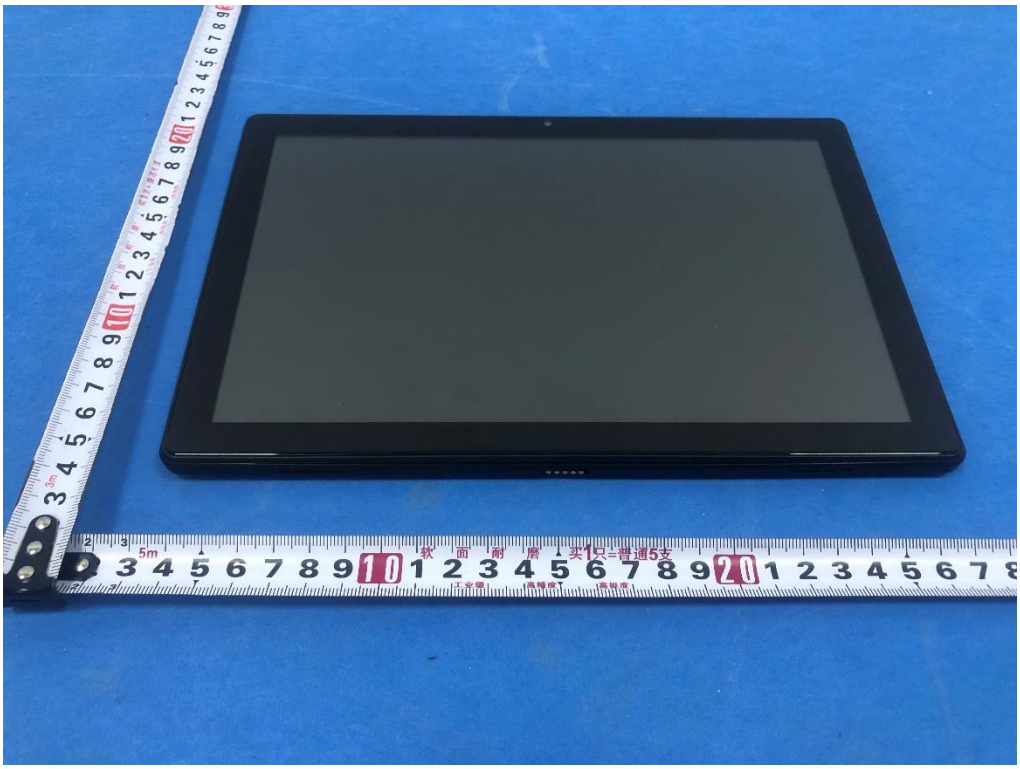


Left Edge



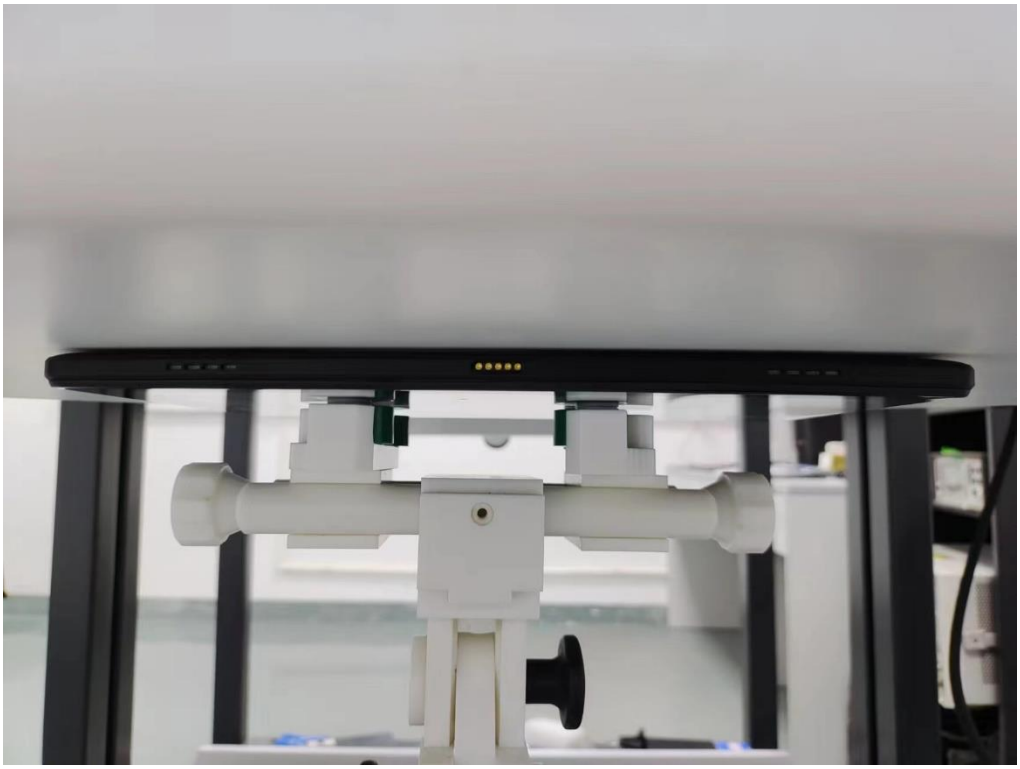
Top Edge

Bottom Edge

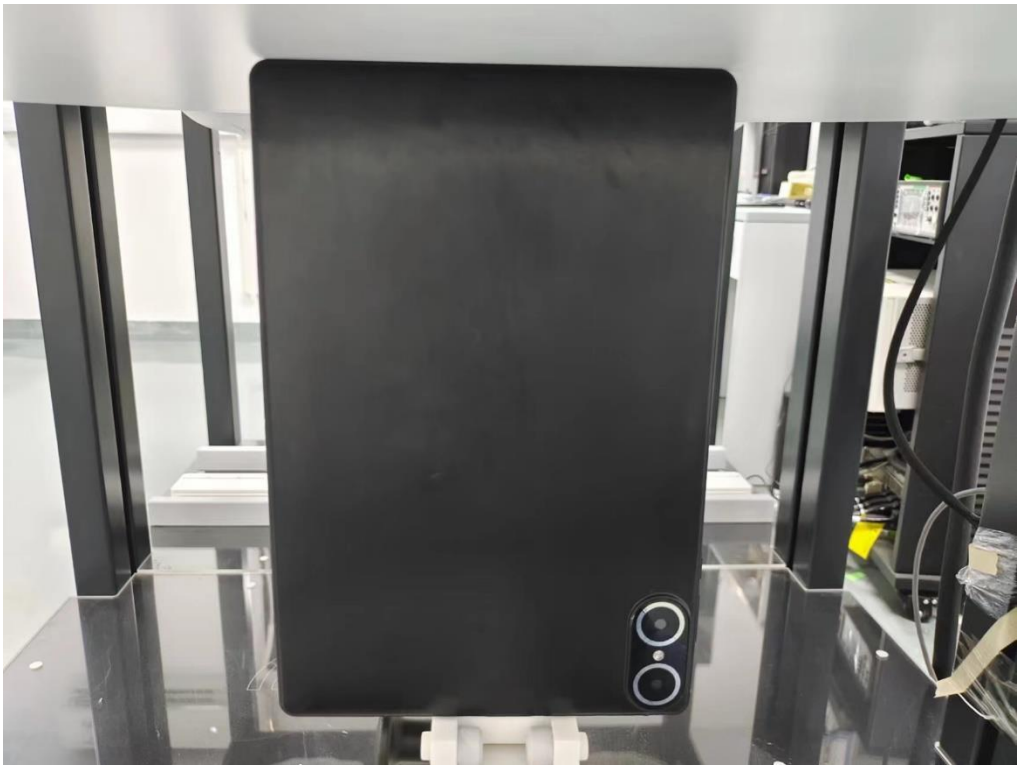


11.2 Setup Photos

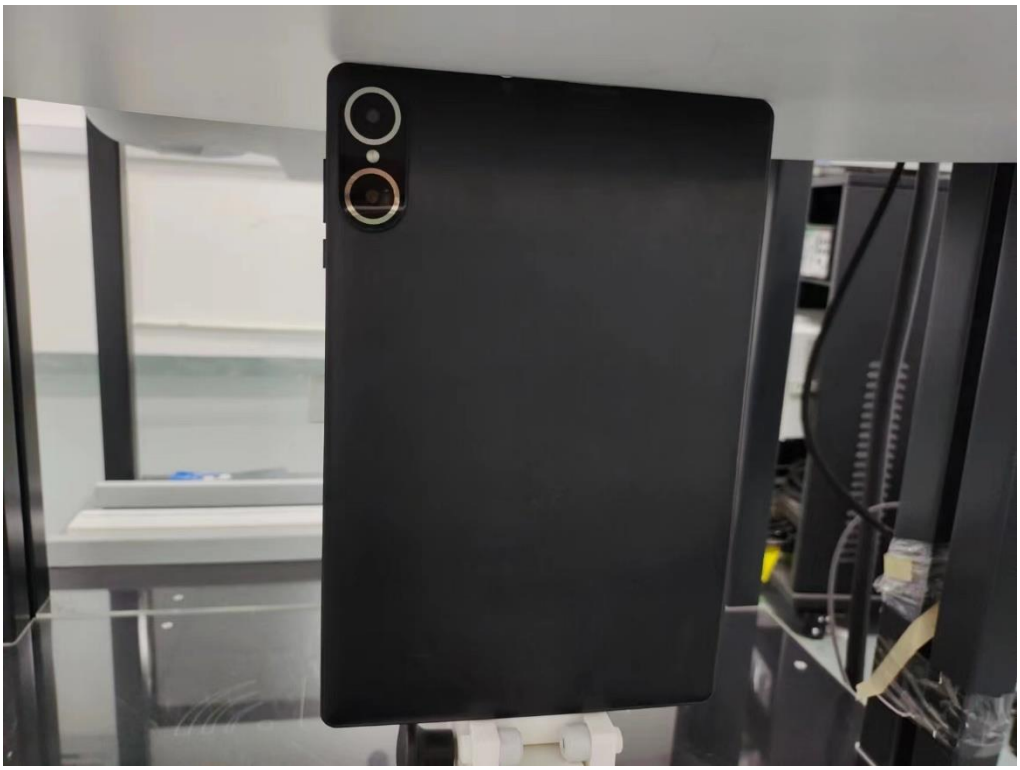
Body Back side (separation distance 0mm)



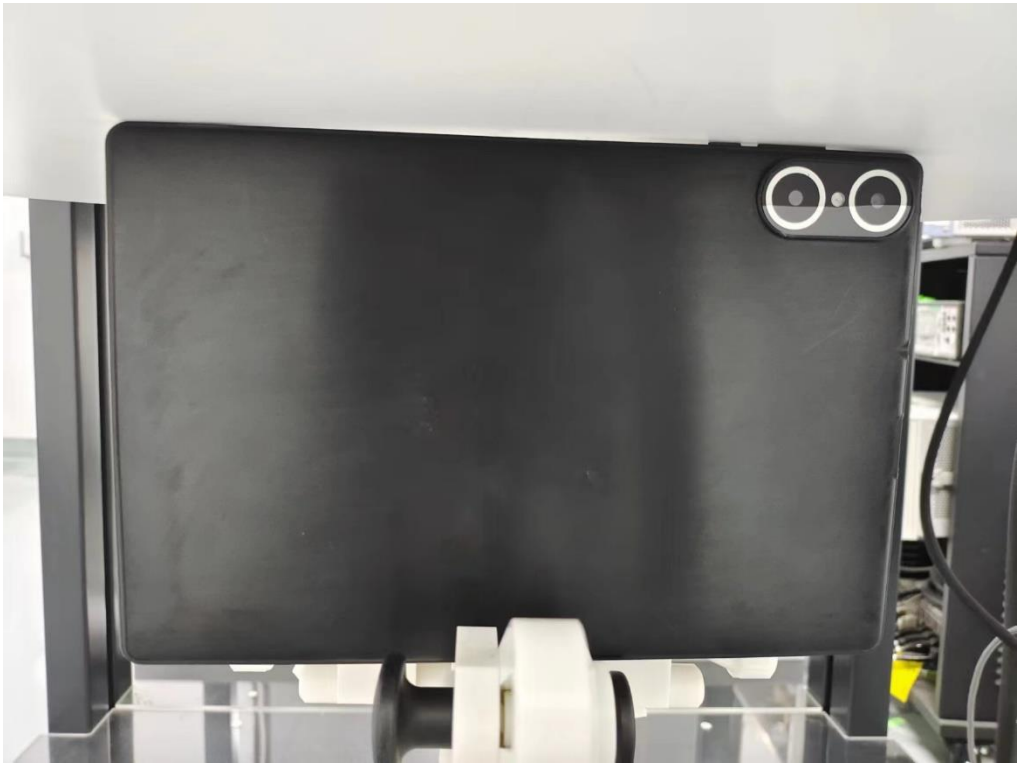
Body Left side (separation distance is 0mm)



Body Right side (separation distance is 0mm)

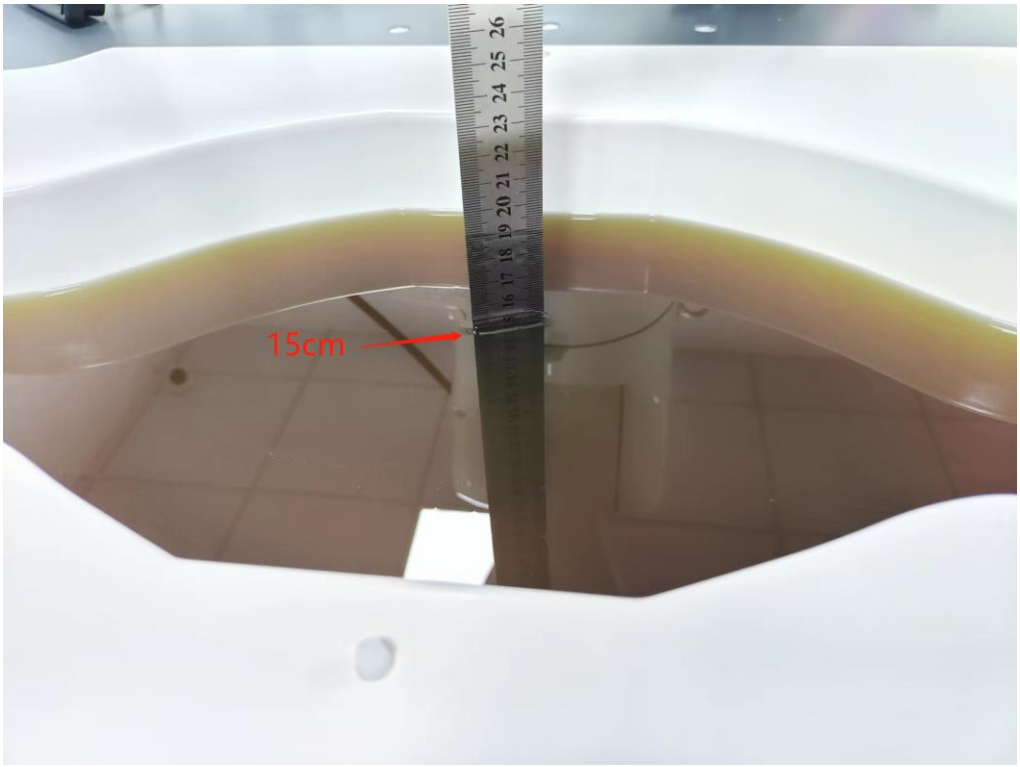


Body Top side (separation distance is 0mm)



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	EGPRS Data-4 Slot	Back Side	824.2	0.859	-1.87	31.00	30.73	**0.914**	**1**
		Left Side	824.2	0.156	3.57	31.00	30.73	0.166	/
		Right Side	824.2	0.359	-1.78	31.00	30.73	0.382	/
		Top Side	824.2	0.253	-3.81	31.00	30.73	0.269	/
		Bottom Side	824.2	0.104	-0.41	31.00	30.73	0.111	/
PCS 1900	EGPRS Data-4 Slot	Back Side	1850.2	1.110	1.05	29.50	29.38	**1.141**	**2**
		Back Side	1880	1.023	-3.28	29.50	29.20	1.096	/
		Back Side	1909.8	0.895	-1.57	29.50	29.07	0.988	/
		Right Side	1850.2	0.570	-1.27	29.50	29.38	0.586	/
		Top Side	1850.2	0.108	-1.50	29.50	29.38	0.111	/
WCDMA Band II	RMC	Back Side	1852.4	1.104	0.25	22.50	22.44	**1.119**	**3**
		Back Side	1880	0.962	3.43	22.50	22.38	0.989	/
		Back Side	1907.6	0.833	-0.68	22.50	22.43	0.847	/
		Right Side	1852.4	0.554	-3.68	22.50	22.44	0.562	/
		Top Side	1852.4	0.321	3.02	23.00	22.44	0.365	/
WCDMA Band IV	RMC	Back Side	1740	0.617	-0.84	24.00	23.94	**0.626**	**4**
		Right Side	1740	0.313	0.69	24.00	23.94	0.317	/
		Top Side	1740	0.248	-3.66	24.00	23.94	0.251	/
WCDMA Band V	RMC	Back Side	846.6	0.562	2.86	23.50	23.36	**0.580**	**5**
		Right Side	846.6	0.297	1.49	23.50	23.36	0.307	/
		Top Side	846.6	0.508	-1.93	23.50	23.36	0.525	/

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	0.956	2.91	24.5	23.91	1.095	/
			1	0	Back Side	1880	0.818	3.95	24.5	23.66	0.993	/
			1	0	Back Side	1900	1.041	1.00	24.5	23.92	**1.190**	**6**
			50	0	Back Side	1860	0.783	1.90	23	22.89	0.803	/
			50	0	Back Side	1880	0.631	-2.86	23	22.62	0.689	/
			50	0	Back Side	1900	0.725	-3.97	23	22.81	0.757	/
			100	0	Back Side	1900	0.574	-2.44	23	22.83	0.597	/
			1	0	Right Side	1900	0.663	2.23	24.5	23.92	0.758	/
			50	0	Right Side	1860	0.542	3.23	23	22.89	0.556	/
			1	0	Top Side	1900	0.321	1.39	24.5	23.92	0.367	/
			50	0	Top Side	1860	0.227	1.81	23	22.89	0.233	/

LTE Band 4	20M	QPSK	1	0	Back Side	1745	0.617	-3.85	25.5	25.02	**0.689**	**7**
			50	0	Back Side	1732.5	0.468	0.86	24	23.94	0.475	/
			1	0	Right Side	1900	0.390	1.81	24.5	23.92	0.446	/
			50	0	Right Side	1860	0.306	-0.42	23	22.89	0.314	/
			1	0	Top Side	1745	0.248	1.04	25.5	25.02	0.277	/
			50	0	Top Side	1732.5	0.175	2.40	24	23.94	0.177	/
LTE Band 5	10M	QPSK	1	0	Back Side	836.5	0.621	-0.14	24.5	24.01	**0.695**	**8**
			25	0	Back Side	829	0.299	1.55	23.5	23.25	0.317	/
			1	0	Right Side	836.5	0.233	3.55	24.5	24.01	0.261	/
			25	0	Right Side	829	0.136	3.51	23.5	23.25	0.144	/
			1	0	Top Side	836.5	0.530	-2.95	24.5	24.01	0.593	/
			25	0	Top Side	829	0.068	1.04	23.5	23.25	0.072	/
LTE Band 12	10M	QPSK	1	0	Back Side	704	0.497	-2.27	24.5	23.96	**0.563**	**9**
			25	0	Back Side	707.5	0.268	0.73	23.5	23.02	0.299	/
			1	0	Right Side	704	0.209	-0.68	24.5	23.96	0.237	/
			25	0	Right Side	707.5	0.123	3.20	23.5	23.02	0.137	/
			1	0	Top Side	704	0.209	2.70	24.5	23.96	0.237	/
			25	0	Top Side	707.5	0.109	0.63	23.5	23.02	0.122	/
LTE Band 13	10M	QPSK	1	0	Back Side	782	1.027	-0.32	24	23.76	**1.085**	**10**
			25	0	Back Side	782	0.728	2.72	23	22.81	0.761	/
			1	0	Right Side	782	0.432	3.61	24	23.76	0.457	/
			25	0	Right Side	782	0.218	-2.79	23	22.81	0.228	/
			1	0	Top Side	782	0.647	2.57	24	23.76	0.684	/
			25	0	Top Side	782	0.334	-2.34	23	22.81	0.349	/

LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.846	3.96	24.2	23.29	1.043	/
			1	0	Back Side	1882.5	0.718	0.52	24.2	23	0.947	/
			1	0	Back Side	1905	1.014	-3.70	24.2	23.32	**1.242**	**11**
			50	0	Back Side	1860	0.791	-2.33	22.5	22.27	0.834	/
			50	0	Back Side	1882.5	0.629	-2.23	22.5	22.02	0.703	/
			50	0	Back Side	1905	0.706	-0.67	22.5	22.14	0.767	/
			100	0	Back Side	1860	0.556	-4.00	22.5	22.25	0.589	/
			1	0	Right Side	1860	0.623	0.51	24.2	23.29	0.768	/
			1	0	Right Side	1882.5	0.601	3.97	24.2	23	0.792	/
			1	0	Right Side	1905	0.672	-2.96	24.2	23.32	0.823	/
			50	0	Right Side	1860	0.541	-3.43	22.5	22.27	0.570	/
			1	0	Top Side	1905	0.358	-0.85	24.2	23.32	0.438	/
			50	0	Top Side	1860	0.261	3.83	22.5	22.27	0.275	/
LTE Band 26	15M	QPSK	1	0	Back Side	841.5	0.388	2.68	24.2	23.57	0.449	/
			36	0	Back Side	841.5	0.295	1.53	23	22.41	0.338	/
			1	0	Right Side	841.5	0.245	-1.81	24.2	23.57	0.283	/
			36	0	Right Side	841.5	0.193	-1.57	23	22.41	0.221	/
			1	0	Top Side	841.5	0.399	2.77	24.2	23.57	**0.461**	**12**
			36	0	Top Side	841.5	0.202	-2.87	23	22.41	0.231	/
LTE Band 41	20M	QPSK	1	0	Back Side	2506	0.832	3.68	24.8	23.87	**1.031**	**13**
			1	0	Back Side	2549.5	0.667	-1.92	24.8	23.3	0.942	/
			1	0	Back Side	2593	0.615	0.39	24.8	23.25	0.879	/
			1	0	Back Side	2636.5	0.612	-3.69	24.8	23.22	0.881	/
			1	0	Back Side	2680	0.687	1.54	24.8	23.56	0.914	/
			50	0	Back Side	2506	0.614	1.06	24	23.71	0.656	/
			50	0	Back Side	2506	0.614	1.06	24	23.71	0.656	/
			1	0	Right Side	2506	0.526	-1.52	24.8	23.87	0.652	/
			50	0	Right Side	2506	0.407	-3.44	24	23.71	0.435	/
			1	0	Top Side	2506	0.191	-0.57	24.8	23.87	0.237	/
			50	0	Top Side	2506	0.128	0.62	24	23.71	0.137	/
LTE Band 66	20M	QPSK	1	0	Back Side	1745	0.605	0.10	25.5	24.96	**0.685**	**14**
			50	0	Back Side	1745	0.457	-2.48	24	23.80	0.479	/
			1	0	Right Side	1745	0.390	0.88	25.5	24.96	0.442	/

			50	0	Right Side	1745	0.307	2.56	24	23.80	0.321	/
			1	0	Top Side	1745	0.206	2.36	25.5	24.96	0.233	/
			50	0	Top Side	1745	0.141	-3.64	24	23.80	0.148	/
LTE Band 71	20M	QPSK	1	0	Back Side	673	0.395	-2.15	24.5	23.98	**0.445**	**15**
			50	0	Back Side	683	0.198	0.54	23.5	23.05	0.220	/
			1	0	Right Side	673	0.177	-3.00	24.5	23.98	0.200	/
			50	0	Right Side	683	0.091	3.83	23.5	23.05	0.101	/
			1	0	Top Side	673	0.171	-2.85	24.5	23.98	0.193	/
			50	0	Top Side	683	0.101	1.12	23.5	23.05	0.112	/

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
2.4GHz WLAN	802.11b	Back Side	2437	0.198	2.51	15.00	14.93	**0.201**	**16**
		Left Side	2437	0.118	-2.87	15.00	14.93	0.120	/
BT	GFSK	Back Side	2440	0.032	2.91	4.50	4.11	**0.035**	**17**
		Left Side	2440	0.021	-1.90	4.50	4.11	0.023	/
5.2GHz WLAN	802.11a	Back Side	5200	0.264	3.35	7.50	7.02	**0.295**	**18**
		Left Side	5200	0.140	3.47	7.50	7.02	0.156	/
5.3GHz WLAN	802.11a	Back Side	5300	0.333	1.31	7.00	6.99	**0.334**	**19**
		Left Side	5300	0.186	0.83	7.00	6.99	0.186	/
5.6GHz WLAN	802.11a	Back Side	5700	0.350	-2.03	7.60	7.57	**0.352**	**20**
		Left Side	5700	0.192	-1.48	7.60	7.57	0.193	/
5.8GHz WLAN	802.11a	Back Side	5745	0.296	0.19	8.00	7.74	**0.314**	**21**
		Left Side	5745	0.166	-1.79	8.00	7.74	0.176	/

Note:

1. The test separation of all above table is 0mm.
2. Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor
3. When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The “Portable Hotspot” feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.

Repeated SAR

Band	Mode	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)
GSM 850	GPRS Data-4 Slot	Back Side	824.2	0.854	-1.79	31.00	30.73	0.909
GSM1900	GPRS Data-4 Slot	Back Side	1850.2	1.078	1.24	29.50	29.38	1.108
		Back Side	1880	1.007	3.45	29.50	29.20	1.079
		Back Side	1909.8	0.873	1.06	29.50	29.07	0.964
WCDMA Band II	RMC	Back Side	1852.4	1.073	1.26	22.50	22.44	1.088
		Back Side	1880	0.949	2.17	22.50	22.38	0.976
		Back Side	1907.6	0.817	-2.24	22.50	22.43	0.830

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	0.910	-0.89	24.50	23.91	1.042
			1	0	Back Side	1880	0.813	0.54	24.50	23.66	0.986
			1	0	Back Side	1900	0.998	2.96	24.50	23.92	1.140
			50	0	Back Side	1860	0.750	-1.65	23.00	22.89	0.769
LTE Band 13	10M	QPSK	1	0	Back Side	1720	0.999	0.99	24.00	23.76	1.056
LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.814	-1.60	24.20	23.29	1.004
			1	0	Back Side	1882.5	0.713	-0.19	24.20	23.00	0.939
			1	0	Back Side	1905	0.966	2.15	24.20	23.32	1.182
			50	0	Back Side	1860	0.780	3.74	22.50	22.27	0.823
			1	0	Right Side	1860	0.662	3.74	24.20	23.32	0.810
LTE Band 41	20M	QPSK	1	0	Back Side	2506	0.828	0.43	24.80	23.87	1.026
			1	0	Back Side	2549.3	0.601	0.58	24.80	23.30	0.849
			1	0	Back Side	2593	0.593	-3.72	24.80	23.25	0.847
			1	0	Back Side	2636.5	0.589	1.57	24.80	23.22	0.847
			1	0	Back Side	2680	0.658	-0.94	24.80	23.56	0.875

Repeated SAR measurement

Band	Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
GSM 850	GPRS Data-4 Slot	Back Side	824.2	0.859	0.854	1.006
GSM1900	GPRS Data-4 Slot	Back Side	1850.2	1.11	1.078	1.030
		Back Side	1880	1.023	1.007	1.016
		Back Side	1909.8	0.895	0.873	1.025
WCDMA Band II	RMC	Back Side	1852.4	1.104	1.073	1.029
		Back Side	1880	0.962	0.949	1.014
		Back Side	1907.6	0.833	0.817	1.020

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g(W/kg) 1g (W/Kg)	1 st Repeated SAR 1g	Ratio
LTE Band 2	20M	QPSK	1	0	Back Side	1860	0.956	0.910	1.051
			1	0	Back Side	1880	0.818	0.813	1.006
			1	0	Back Side	1900	1.041	0.998	1.043
			50	0	Back Side	1860	0.783	0.750	1.044
LTE Band 13	10M	QPSK	1	0	Back Side	782	1.027	0.999	1.028
LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.846	0.814	1.039
			1	0	Back Side	1882.5	0.718	0.713	1.007
			1	0	Back Side	1905	1.014	0.966	1.050
			50	0	Back Side	1860	0.791	0.780	1.014
			1	0	Right Side	1905	0.672	0.662	1.015
LTE Band 41	20M	QPSK	1	0	Back Side	2506	0.832	0.828	1.005
			1	0	Back Side	2549.3	0.667	0.601	1.110
			1	0	Back Side	2593	0.615	0.593	1.037
			1	0	Back Side	2636.5	0.612	0.589	1.039
			1	0	Back Side	2680	0.687	0.658	1.044

Note:

1. Per KDB 865664 D01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is≥0.8W/Kg.
2. Per KDB 865664 D01,if the ratio of largest to smallest SAR for the original and first repeated measurement is≤1.2 and the measured SAR＜1.45W/Kg, only one repeated measurement is required.
3. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is＞1.20 or when the original or repeated measurement is ≥1.45W/Kg.
4. The ratio is the difference in percentage between original and repeated measured SAR.

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

Position	Simultaneous State
Body	1. GSM + 2.4GHz WLAN/5G WLAN
	2. GSM + Bluetooth
	3. WCDMA + 2.4GHz WLAN/5G WLAN
	4. WCDMA + Bluetooth
	5. LTE + 2.4GHz WLAN/5G WLAN
	6. LTE + Bluetooth

NOTE:
1. Bluetooth and WLAN can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
4. KDB 447498 Appendix E, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
   SAR_{est} =1.6 · Pant / Pth [W/kg].
   Pant is maximum time-averaged power or effective radiated power (ERP), whichever is greater, and *Pth* is defined in Formula KDB 447498 (B.2).

Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + 2.4G WLAN	Body	GSM	1.141	1.342
		2.4G WLAN	0.201	
GSM + Bluetooth	Body	GSM	1.141	1.176
		Bluetooth	0.035	
GSM + 5G WLAN	Body	GSM	1.141	1.493
		5G WLAN	0.352	
WCDMA + 2.4G WLAN	Body	WCDMA	1.119	1.320
		2.4G WLAN	0.201	
WCDMA + Bluetooth	Body	WCDMA	1.119	1.154
		Bluetooth	0.035	
WCDMA + 5G WLAN	Body	WCDMA	1.119	1.471
		5G WLAN	0.352	
LTE + 2.4G WLAN	Body	LTE	1.242	1.443
		2.4G WLAN	0.201	
LTE + Bluetooth	Body	LTE	1.242	1.277
		Bluetooth	0.035	
LTE + 5G WLAN	Body	LTE	1.242	1.594
		5G WLAN	0.352	

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
750MHz Dipole	MVG	DIP0G750	SN 06/22 DIP0G750-638	2022.02.11	2025.02.10
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	2023.02.10	2024.02.09
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2023.02.10	2024.02.09
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop holder	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	Agilent	E5071C	MY46418070	2023.03.27	2024.03.26
Multi Meter	Keithley	DMM6500	DMM6500	2023.03.27	2024.03.26
Signal Generator	Keithley	N5182B	MY59100717	2023.04.07	2024.04.06
Wireless Communication Test Set	R&S	CMW500	137737	2023.04.14	2024.04.13
Power Sensor	R&S	Z11	116184	2023.03.27	2024.03.26
Temperature hygrometer	N/A	ST-W2318	N/A	2023.04.24	2024.04.23
Thermograph	N/A	TP101	N/A	2023.04.25	2024.04.24

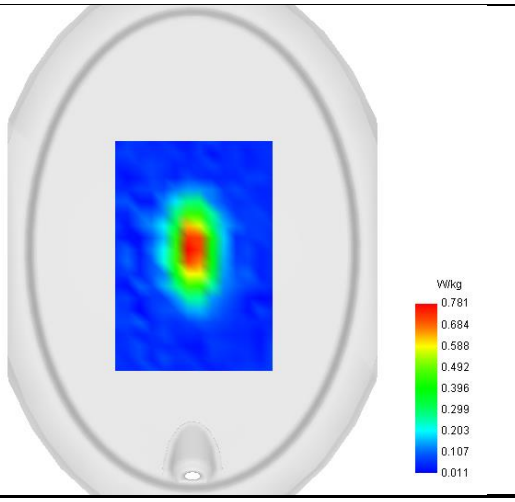
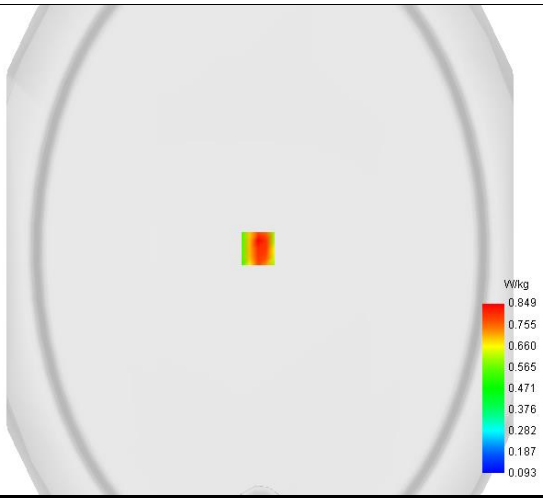
Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-22

Experimental conditions.

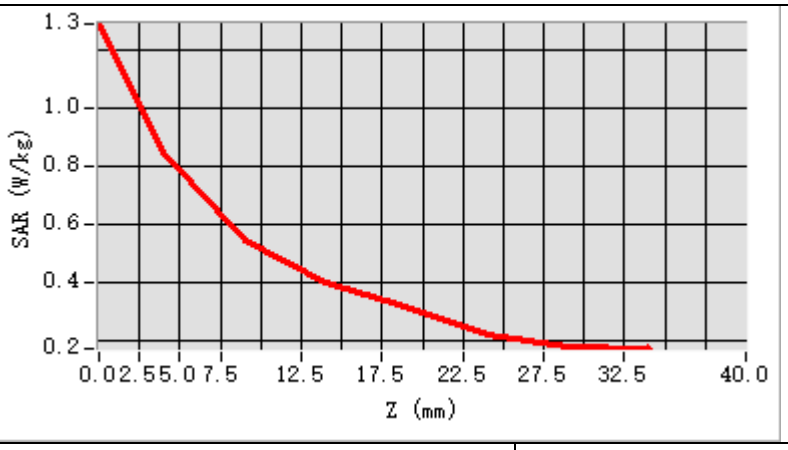
Phantom	ELLI
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	42.43
Conductivity (S/m)	0.88
Probe	SN 04/22 EPGO364
ConvF	1.69
Crest factor:	1:1

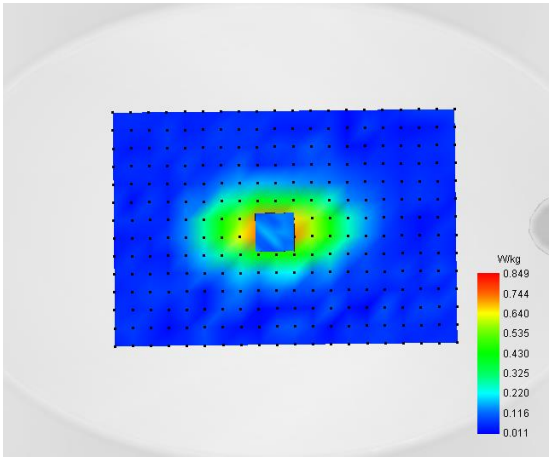
SURFACE SAR	VOLUME SAR
	

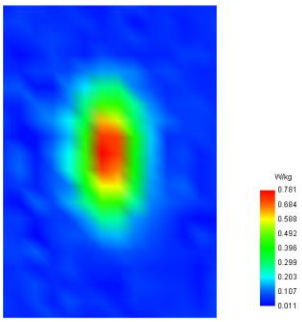
Maximum location: X=-2.00, Y=1.00 ; SAR Peak: 1.22 W/kg

SAR 10g (W/Kg)	0.529
SAR 1g (W/Kg)	0.860

Z Axis Scan


1.3
1.0
0.8
0.6
0.4
0.2
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
0.849
0.744
0.640
0.535
0.430
0.325
0.220
0.116
0.011

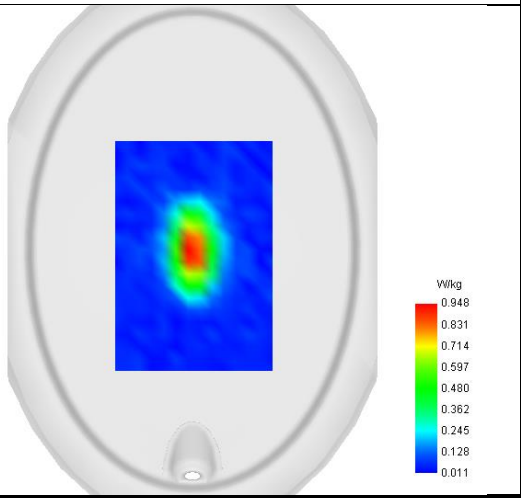
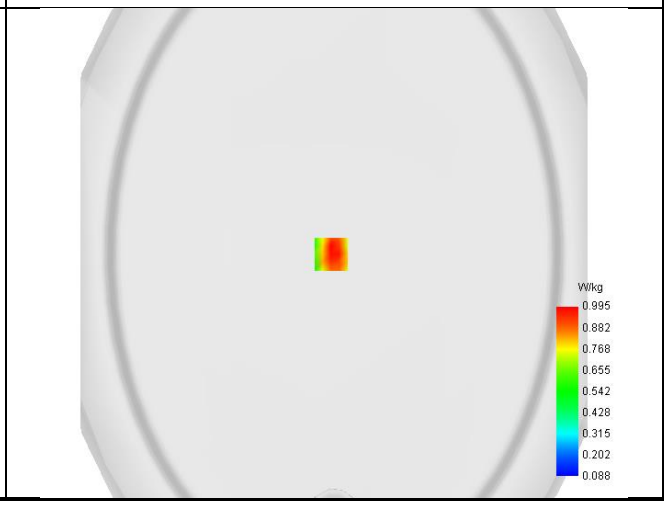


System Performance Check Data (835MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-23

Experimental conditions.

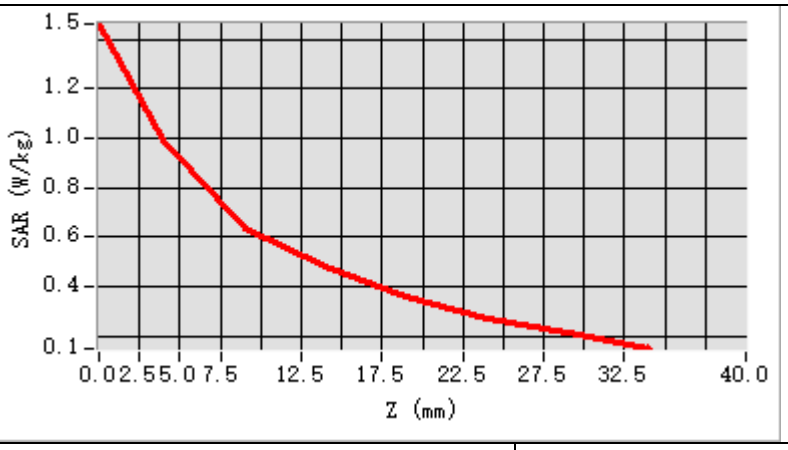
Phantom	ELLI
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	41.57
Conductivity (S/m)	0.93
Probe	SN 04/22 EPGO364
ConvF	1.72
Crest factor:	1:1

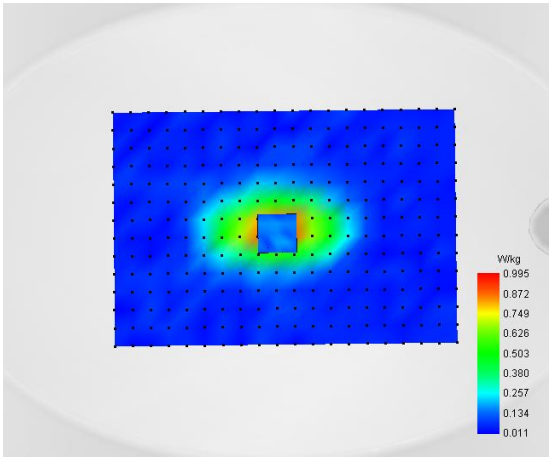
SURFACE SAR	VOLUME SAR
	

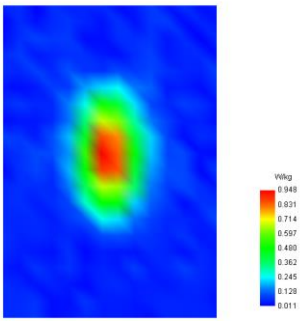
Maximum location: X=-3.00, Y=-1.00 ; SAR Peak: 1.40 W/kg

SAR 10g (W/Kg)	0.639
SAR 1g (W/Kg)	0.971

Z Axis Scan


1.5
1.2
1.0
0.8
0.6
0.4
0.1
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
0.995
0.872
0.749
0.626
0.503
0.380
0.257
0.134
0.011

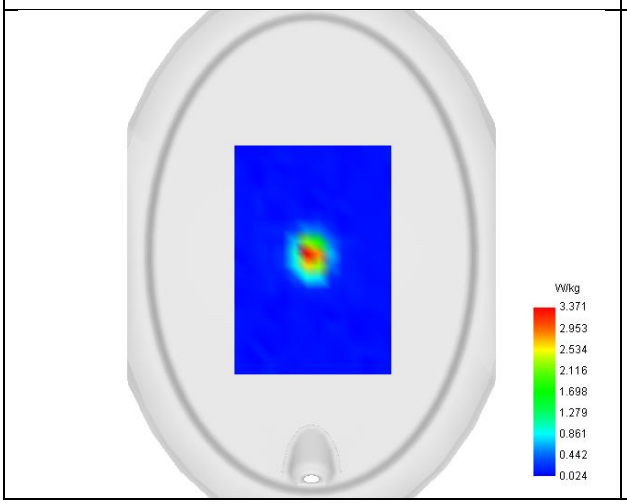
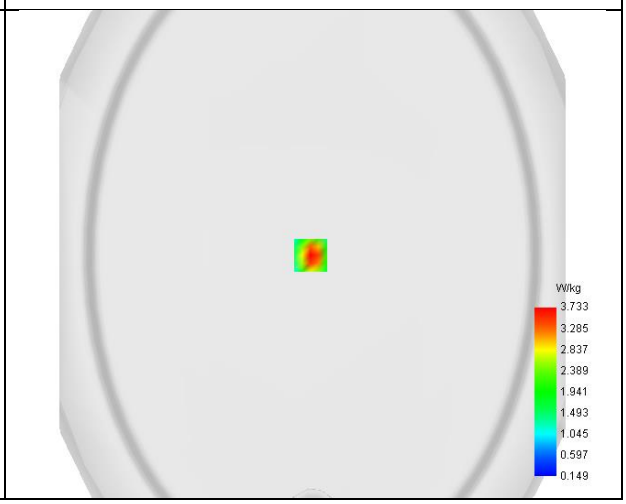


System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-24

Experimental conditions.

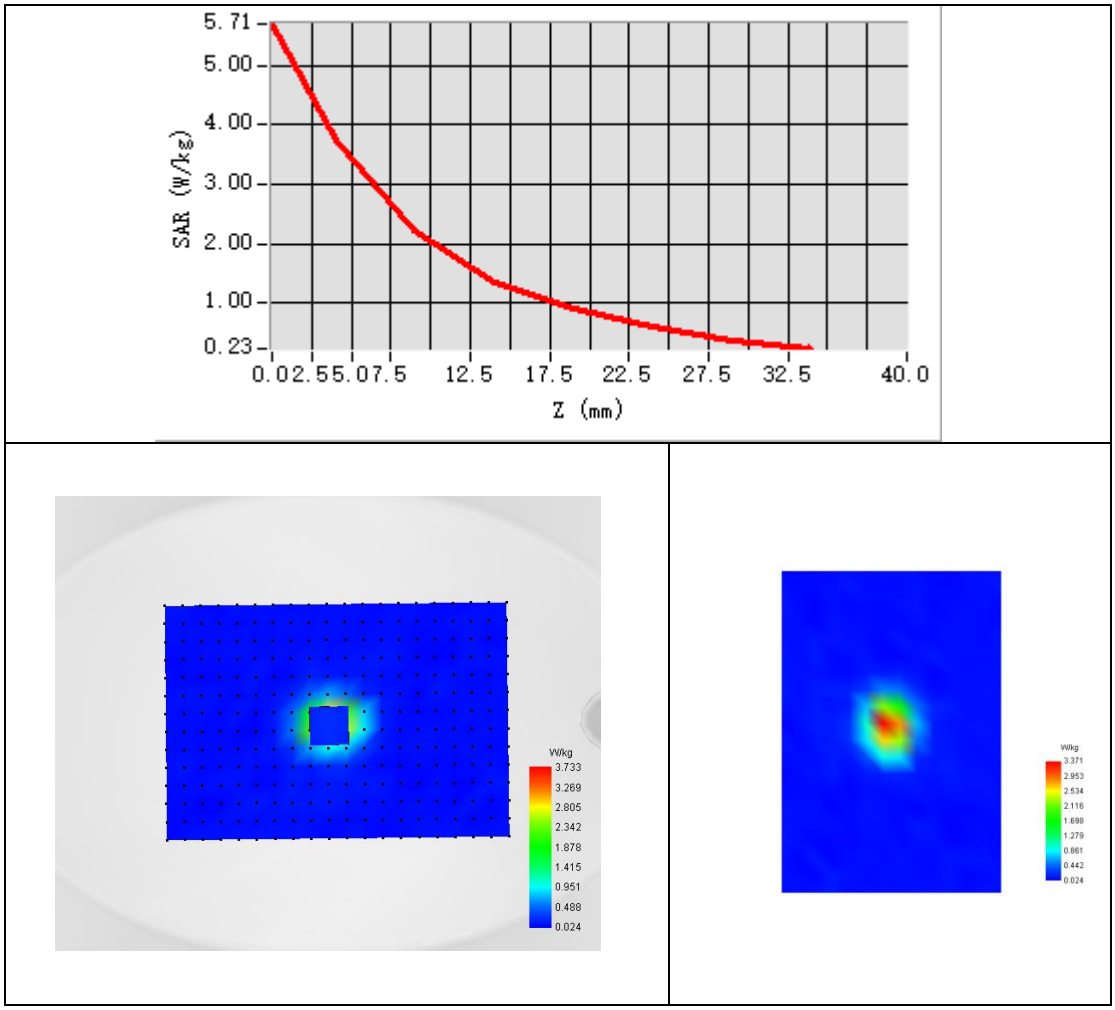
Phantom	ELLI
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.82
Conductivity (S/m)	1.44
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=-2.00, Y=-1.00 ; SAR Peak: 5.74 W/kg

SAR 10g (W/Kg)	2.008
SAR 1g (W/Kg)	3.599

Z Axis Scan

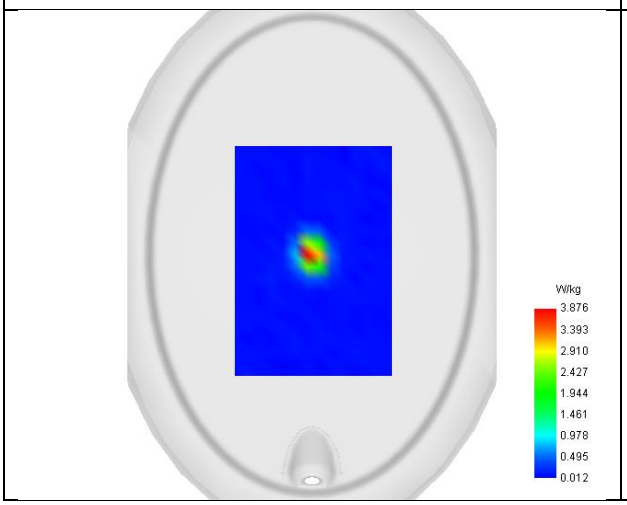
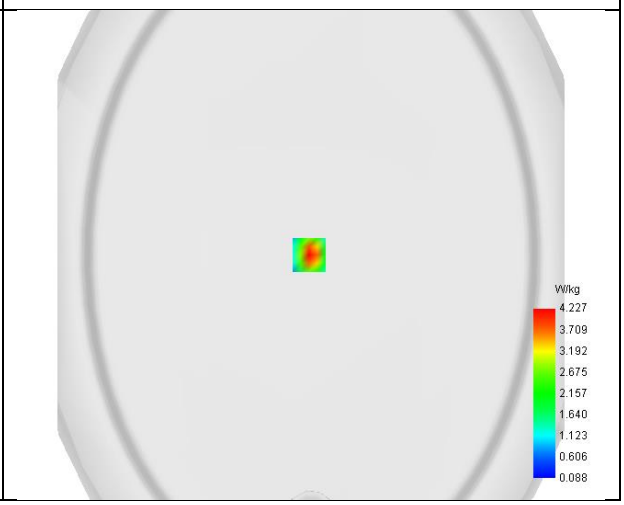

5.71
5.00
4.00
3.00
2.00
1.00
0.23
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
3.733
3.269
2.805
2.342
1.878
1.415
0.951
0.488
0.024
W/kg
3.371
2.953
2.534
2.116
1.698
1.279
0.861
0.442
0.024

System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-25

Experimental conditions.

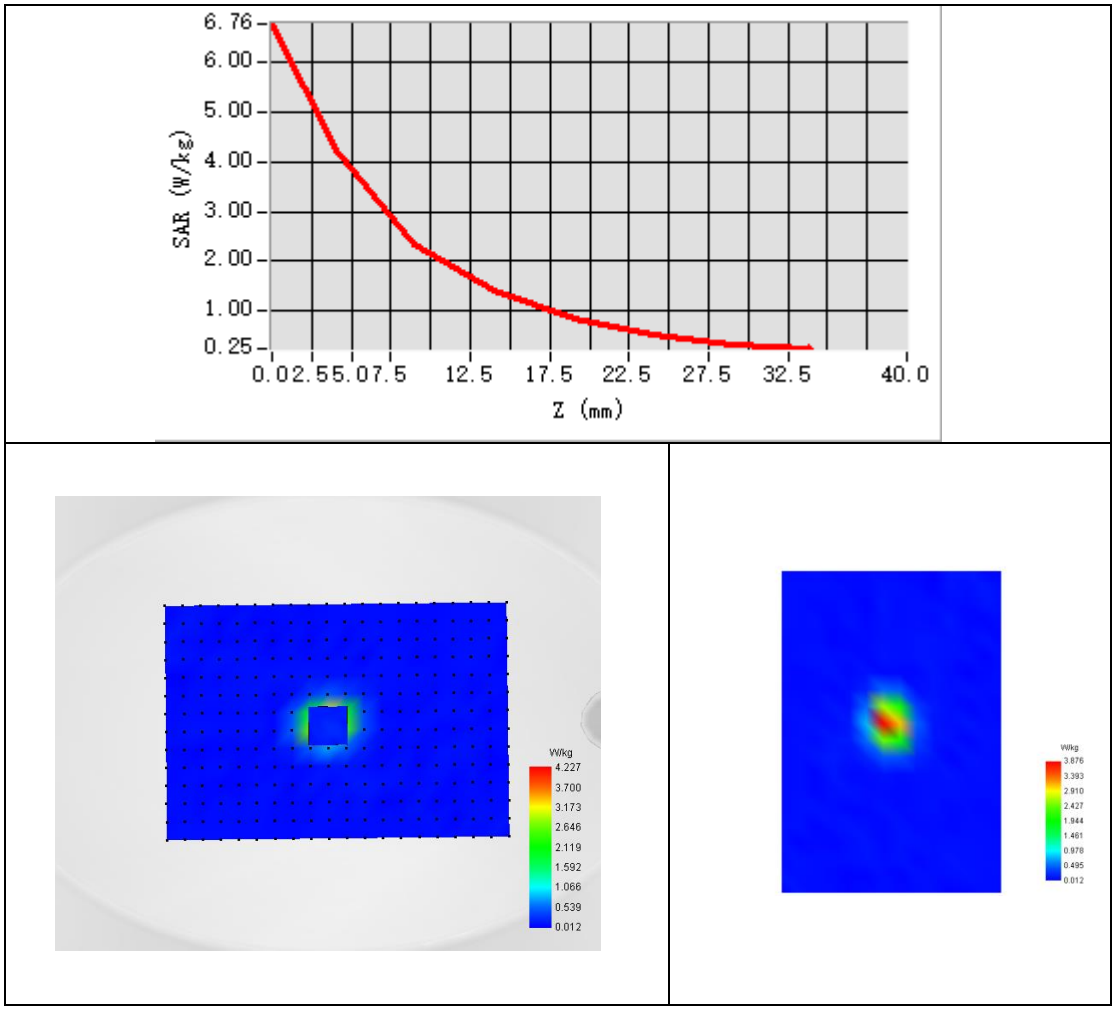
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.57
Conductivity (S/m)	1.39
Probe	SN 04/22 EPGO364
ConvF	2.25
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=-2.00, Y=0.00 ; SAR Peak: 6.85 W/kg

SAR 10g (W/Kg)	2.074
SAR 1g (W/Kg)	3.909

Z Axis Scan

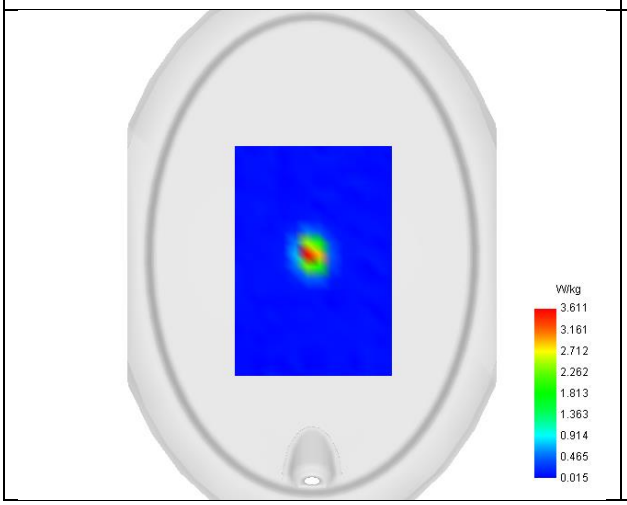
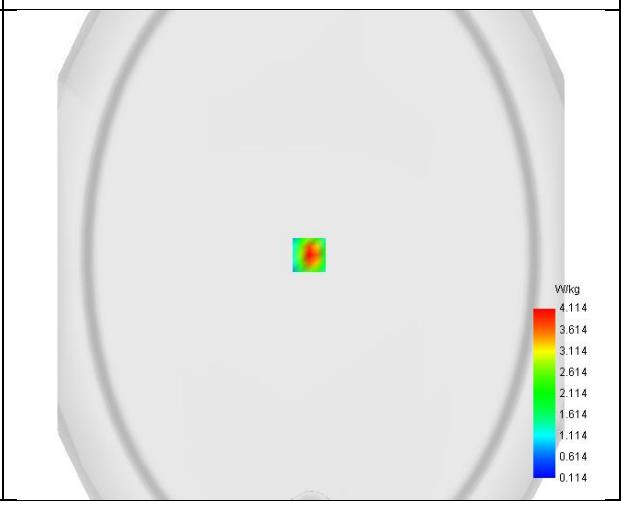

6.76
6.00
5.00
4.00
3.00
2.00
1.00
0.25
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
4.227
3.700
3.173
2.646
2.119
1.592
1.066
0.539
0.012
W/kg
3.876
3.393
2.910
2.427
1.944
1.461
0.978
0.495
0.012

System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-28

Experimental conditions.

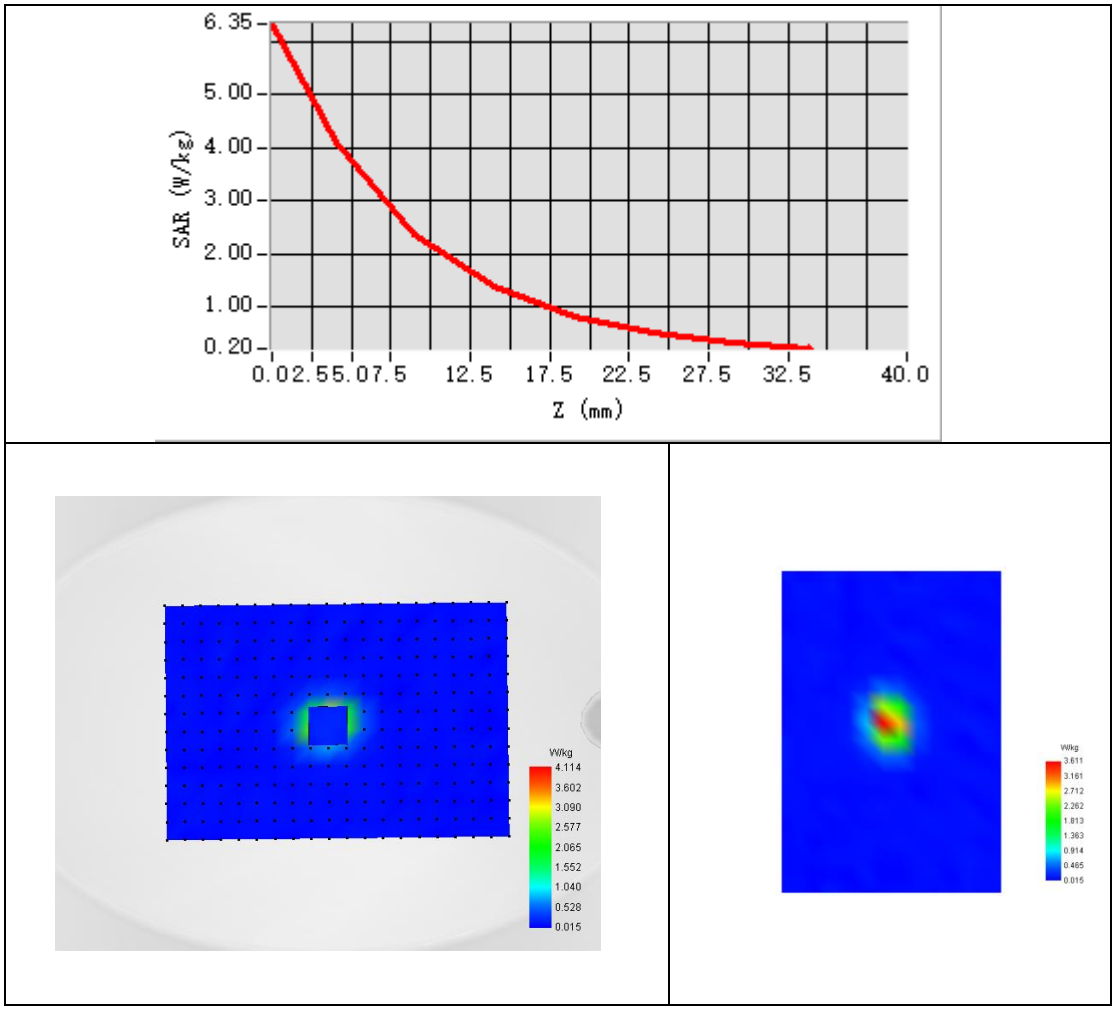
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.34
Conductivity (S/m)	1.36
Probe	SN 04/22 EPGO364
ConvF	2.25
Crest factor:	1:1

SURFACE	VOLUME SAR
	

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

SAR 10g (W/Kg)	2.121
SAR 1g (W/Kg)	4.064

Z Axis Scan

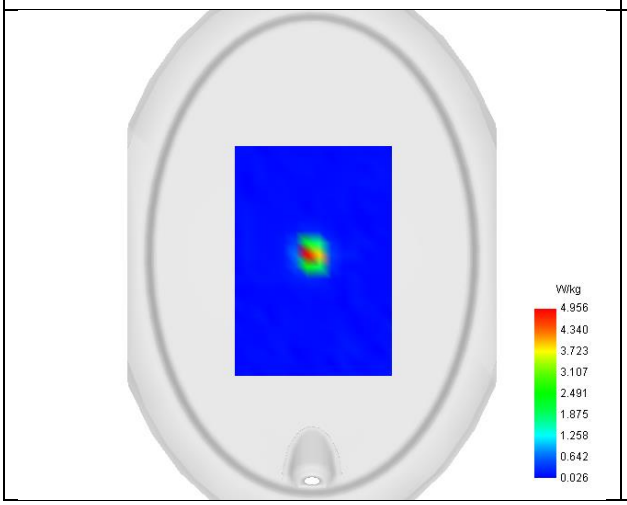
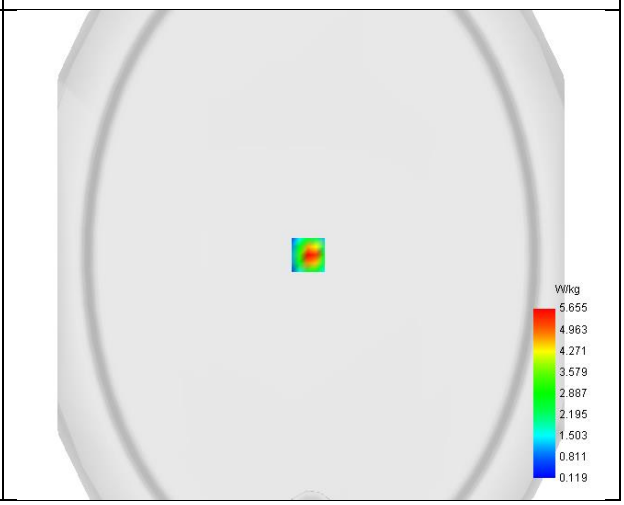

6.35
5.00
4.00
3.00
2.00
1.00
0.20
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
4.114
3.602
3.090
2.577
2.065
1.552
1.040
0.528
0.015
W/kg
3.611
3.161
2.712
2.262
1.813
1.363
0.914
0.465
0.015

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: 2023-08-29

Experimental conditions.

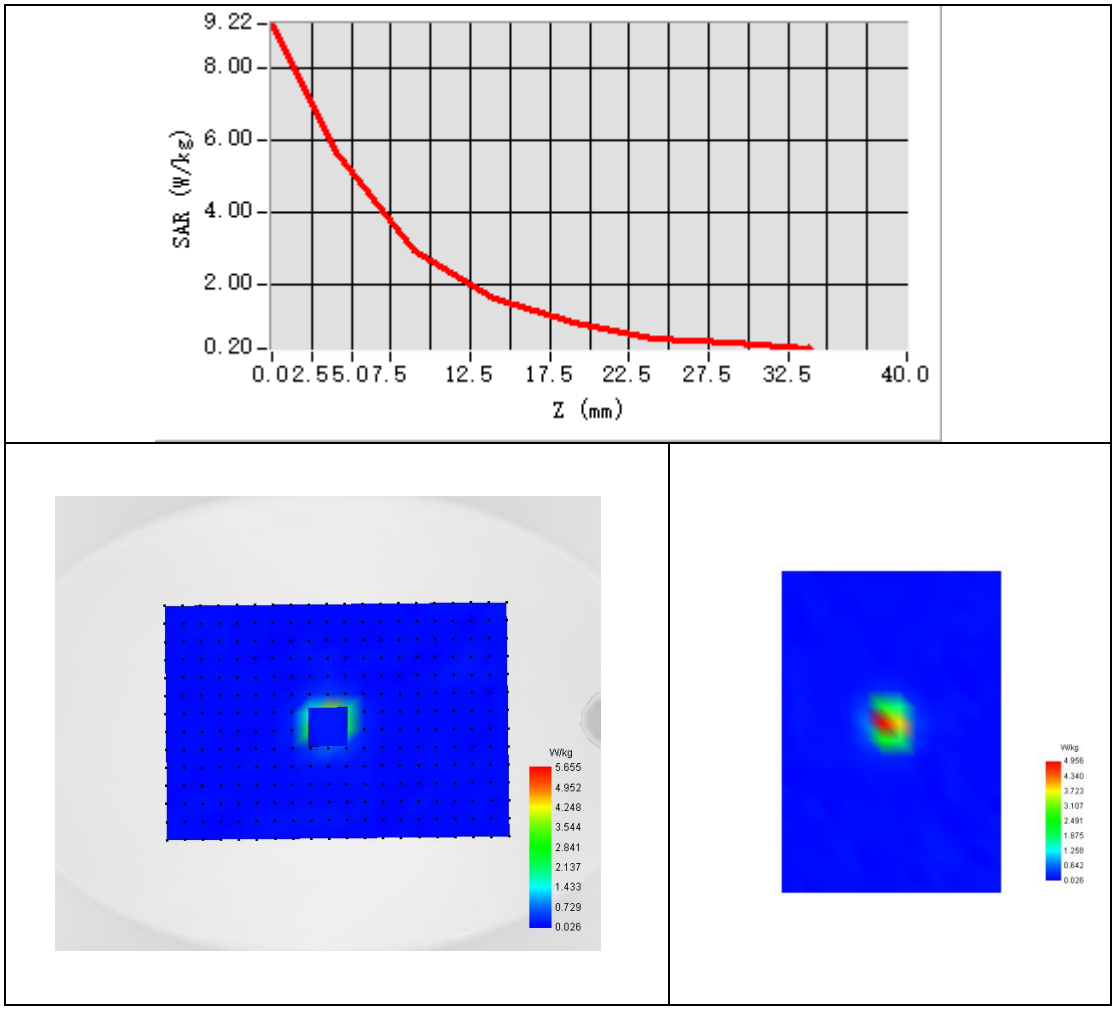
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	40.27
Conductivity (S/m)	1.82
Probe	SN 04/22 EPGO364
ConvF	2.33
Crest factor:	1:1

SURFACE	VOLUME SAR
	

Maximum location: X=-3.00, Y=0.00 ; SAR Peak: 9.74 W/kg

SAR 10g (W/Kg)	2.606
SAR 1g (W/Kg)	5.505

Z Axis Scan

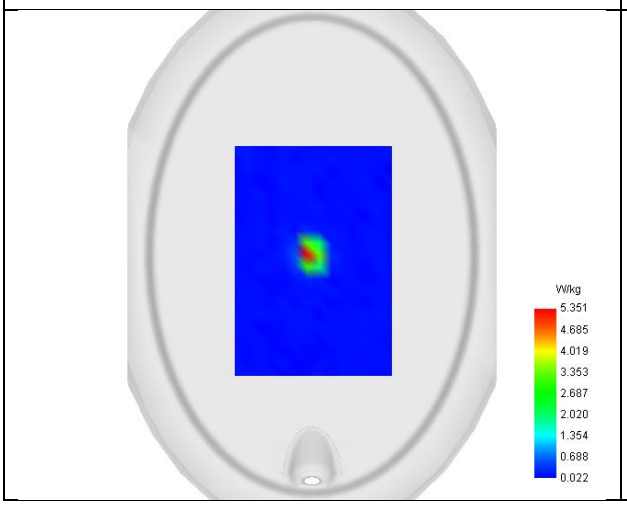
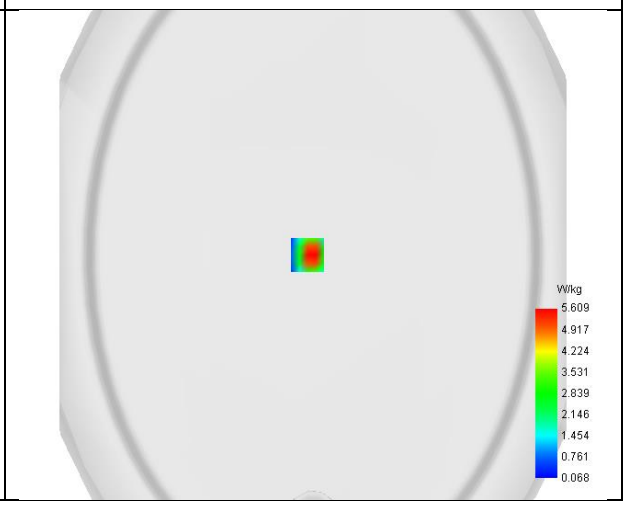

9.22
8.00
6.00
4.00
2.00
0.20
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
5.655
4.952
4.248
3.544
2.841
2.137
1.433
0.729
0.026

System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2023-08-30

Experimental conditions.

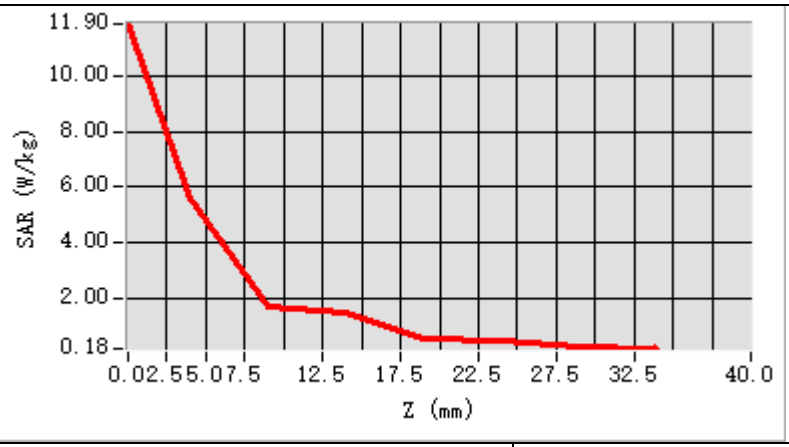
Phantom	ELLI
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	38.86
Conductivity (S/m)	2.00
Probe	SN 04/22 EPGO364
ConvF	2.36
Crest factor:	1:1

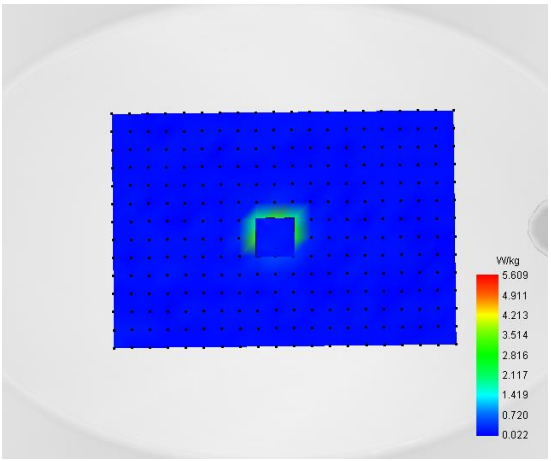
SURFACE	VOLUME SAR
	

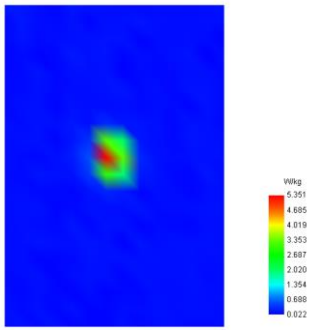
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 10.29 W/kg

SAR 10g (W/Kg)	2.660
SAR 1g (W/Kg)	5.714

Z Axis Scan


11.90
10.00
8.00
6.00
4.00
2.00
0.18
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)


W/kg
5.609
4.911
4.213
3.514
2.816
2.117
1.419
0.720
0.022

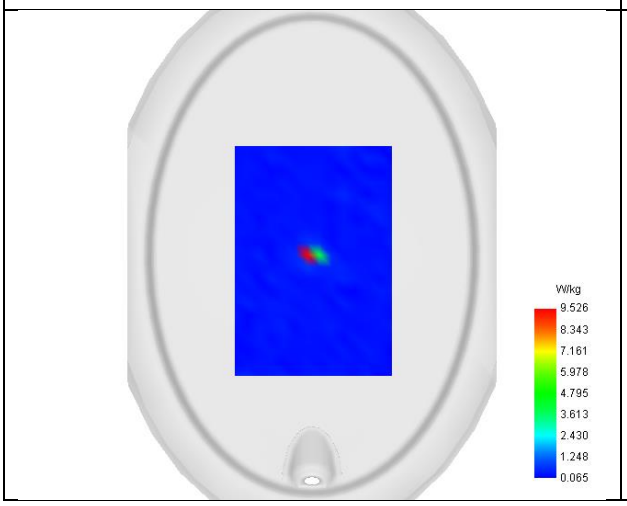
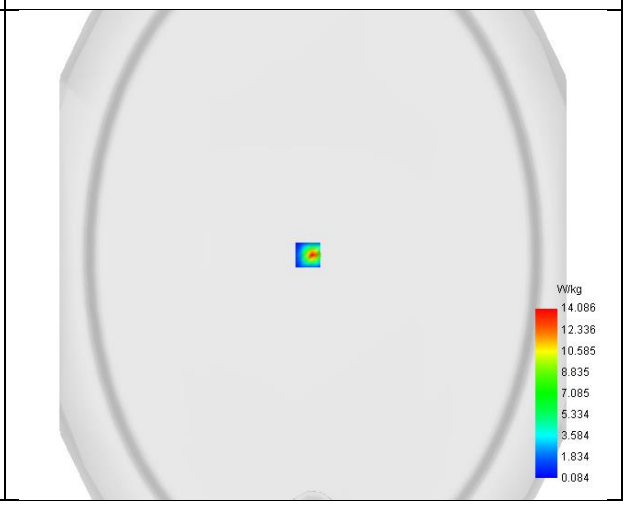

W/kg
5.351
4.685
4.019
3.353
2.687
2.020
1.354
0.688
0.022

System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2023-08-31

Experimental conditions.

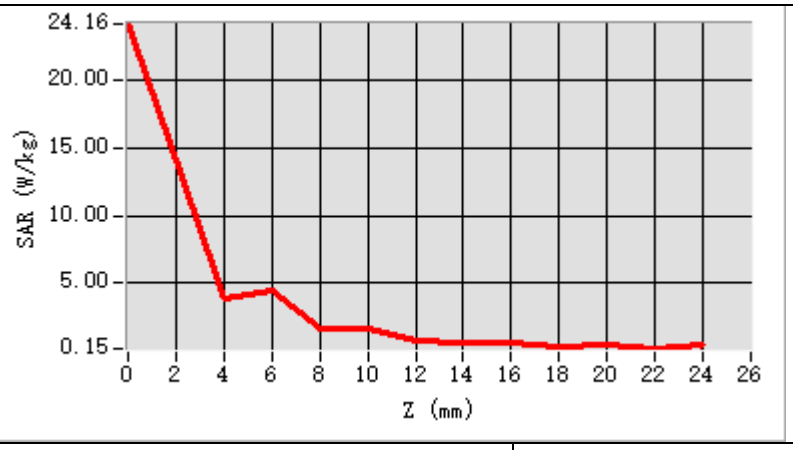
Phantom	ELLI
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.67
Conductivity (S/m)	4.63
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

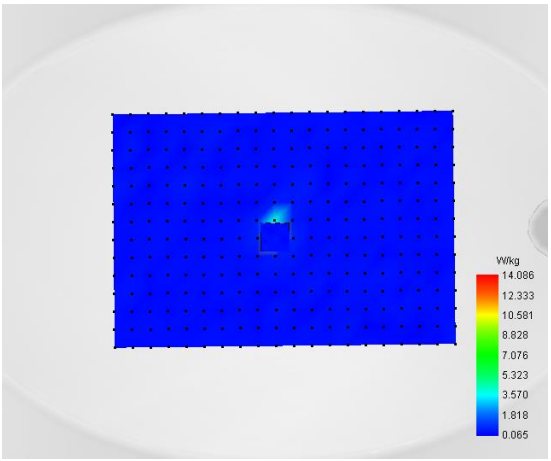
SURFACE	VOLUME SAR
	

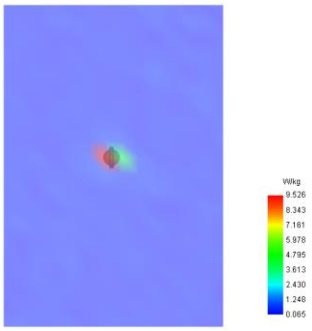
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 24.16 W/kg

SAR 10g (W/Kg)	2.016
SAR 1g (W/Kg)	7.416

Z Axis Scan


24.16
20.00
15.00
10.00
5.00
0.15
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
14.086
12.333
10.581
8.828
7.076
5.323
3.570
1.818
0.065

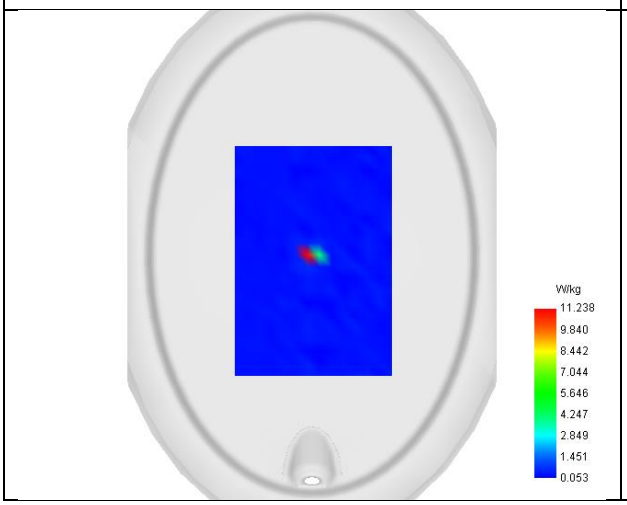
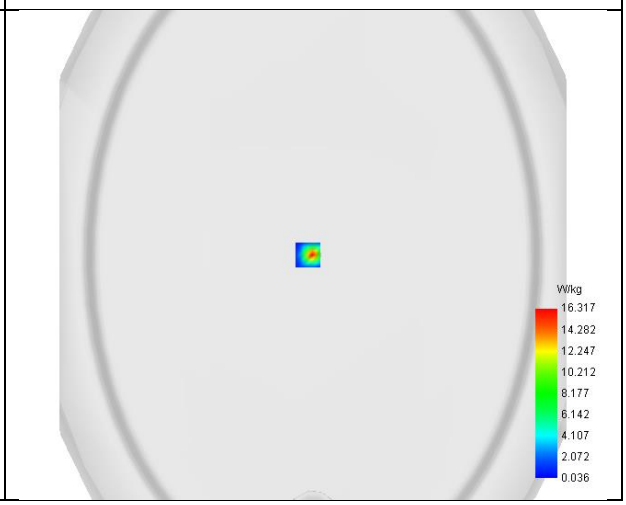

W/kg
9.526
8.343
7.161
5.978
4.795
3.613
2.430
1.248
0.065

System Performance Check Data (5400MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2023-09-05

Experimental conditions.

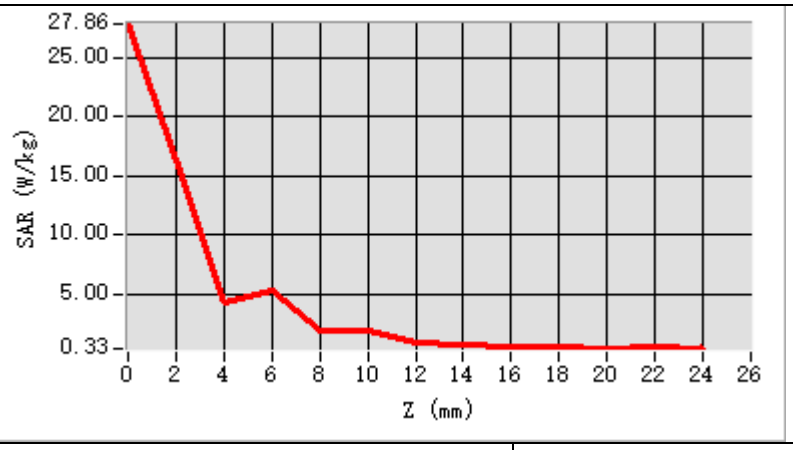
Phantom	ELLI
Device Position	Dipole
Band	CW5400
Channels	Middle
Signal	CW
Frequency (MHz)	5400.000
Relative permittivity	36.59
Conductivity (S/m)	4.89
Probe	SN 04/22 EPGO364
ConvF	1.85
Crest factor:	1:1

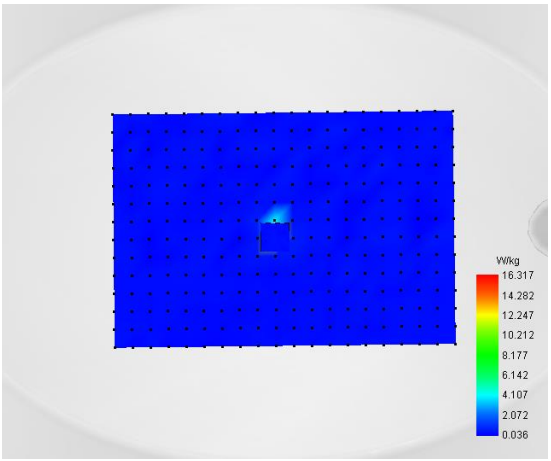
SURFACE	VOLUME SAR
	

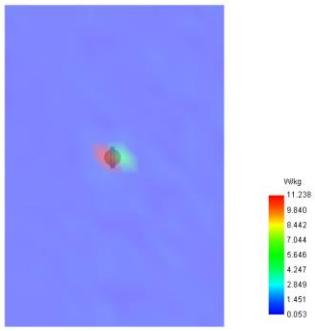
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 26.67 W/kg

SAR 10g (W/Kg)	2.262
SAR 1g (W/Kg)	8.442

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
14.282
12.247
10.212
8.177
6.142
4.107
2.072
0.036

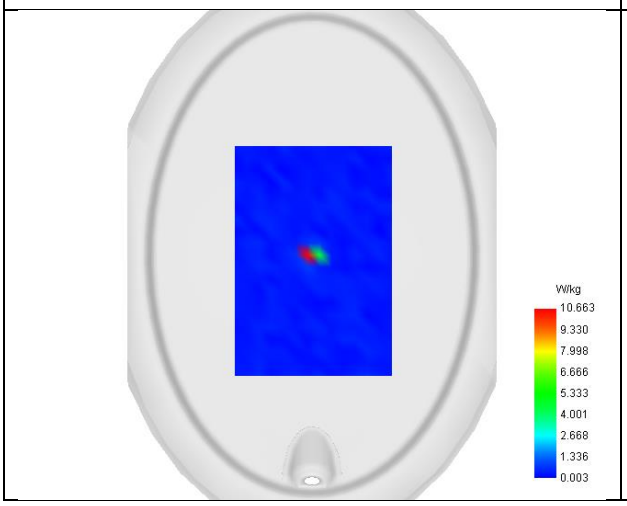
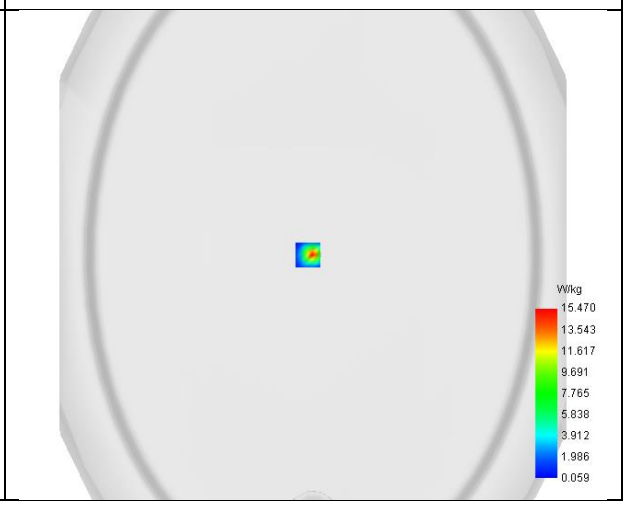

W/kg
11.238
9.840
8.442
7.044
5.646
4.247
2.849
1.451
0.053

System Performance Check Data (5600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2023-09-06

Experimental conditions.

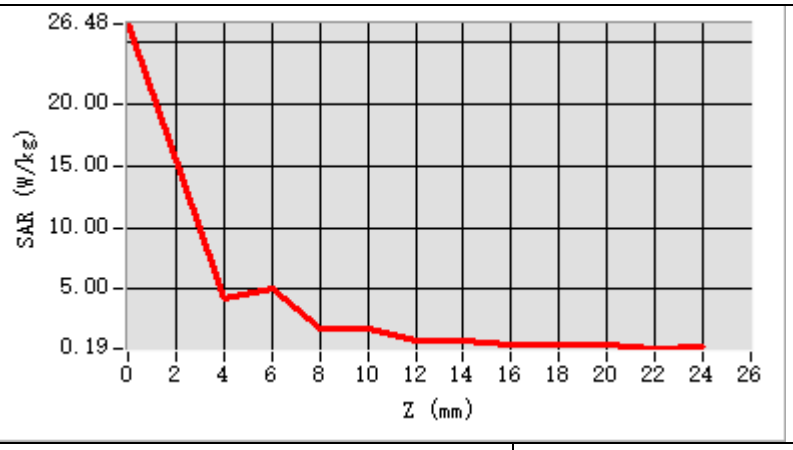
Phantom	ELLI
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW
Frequency (MHz)	5600.000
Relative permittivity	36.59
Conductivity (S/m)	5.10
Probe	SN 04/22 EPGO364
ConvF	1.86
Crest factor:	1:1

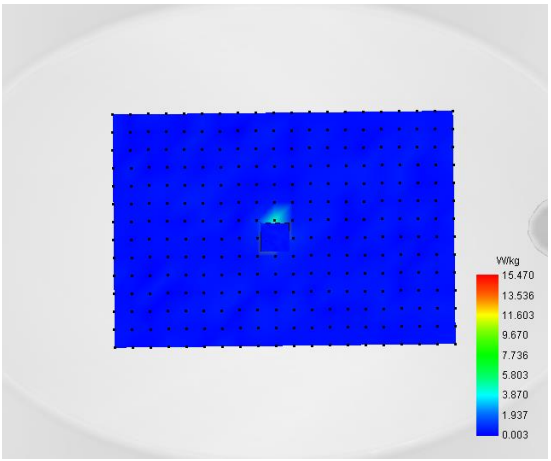
SURFACE	VOLUME SAR
	

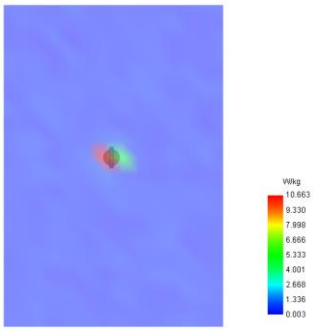
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 26.39 W/kg

SAR 10g (W/Kg)	2.219
SAR 1g (W/Kg)	8.079

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

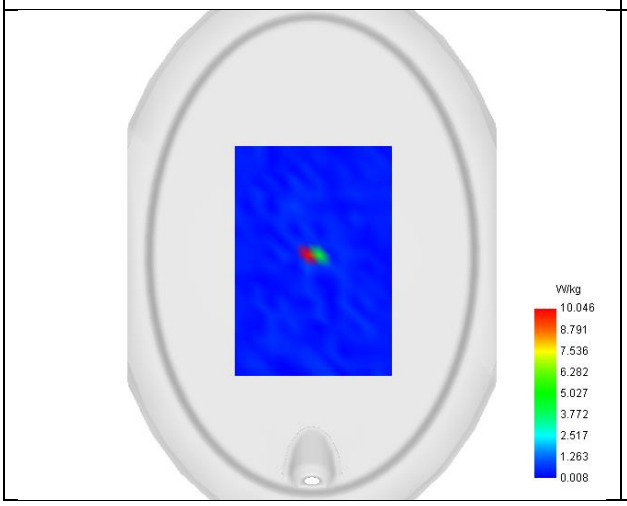
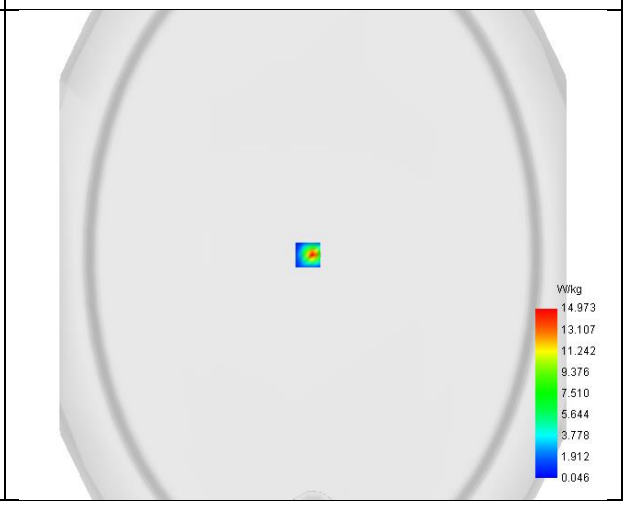

W/kg
10.663
9.330
7.998
6.666
5.333
4.001
2.668
1.336
0.003

System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm
Date of measurement: 2023-09-08

Experimental conditions.

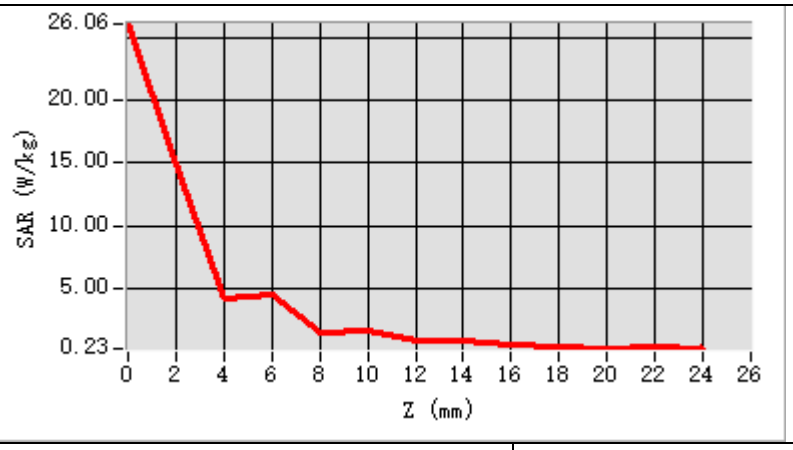
Phantom	ELLI
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.57
Conductivity (S/m)	5.19
Probe	SN 04/22 EPGO364
ConvF	1.73
Crest factor:	1:1

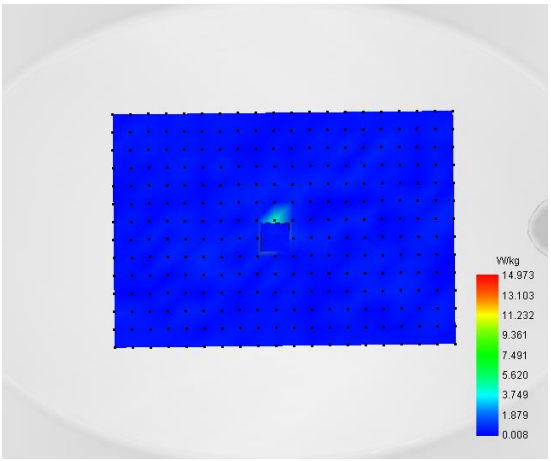
SURFACE	VOLUME SAR
	

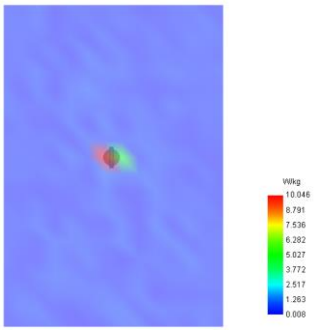
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 25.86 W/kg

SAR 10g (W/Kg)	2.158
SAR 1g (W/Kg)	7.827

Z Axis Scan


26.06
20.00
15.00
10.00
5.00
0.23
SAR (W/kg)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
Z (mm)


W/kg
14.973
13.103
11.232
9.361
7.491
5.620
3.749
1.879
0.008

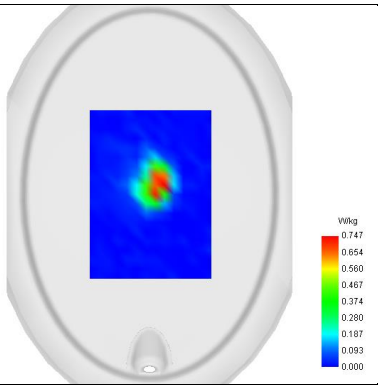
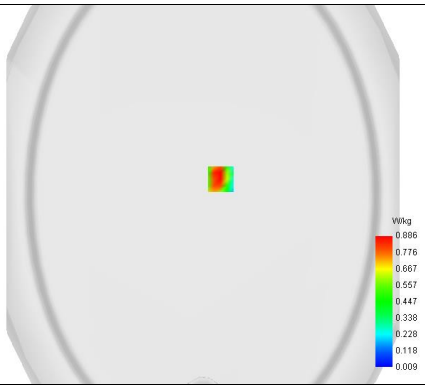
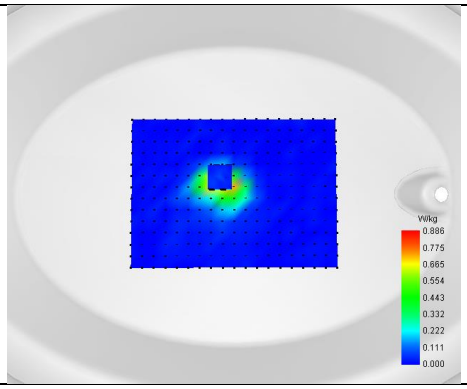
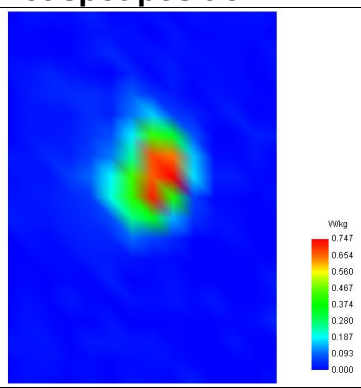
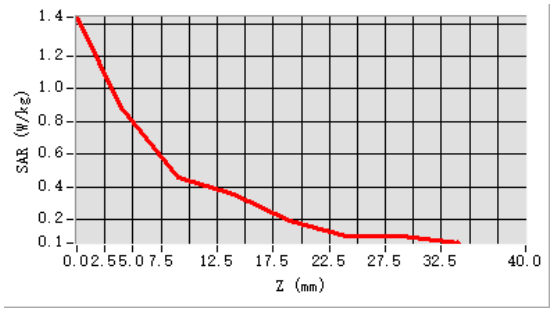

W/kg
10.046
8.791
7.536
6.282
5.027
3.772
2.517
1.263
0.008

Appendix B. SAR Test Plots

Plot 1:

Test Date	2023-08-23
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	GPRS850
Signal	TDMA (GPRS)
Frequency	824.2
SAR 10g (W/Kg)	0.484
SAR 1g (W/Kg)	0.859

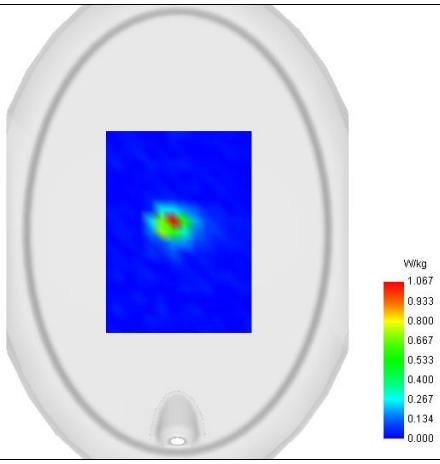
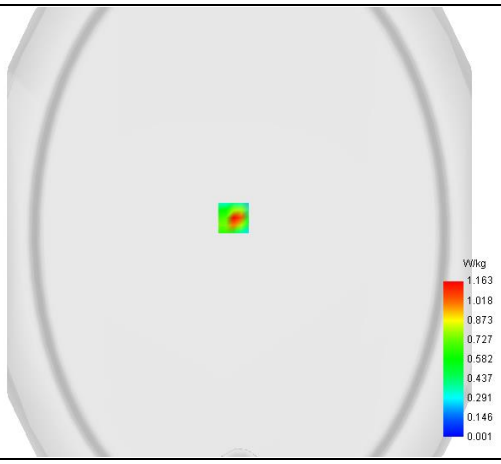
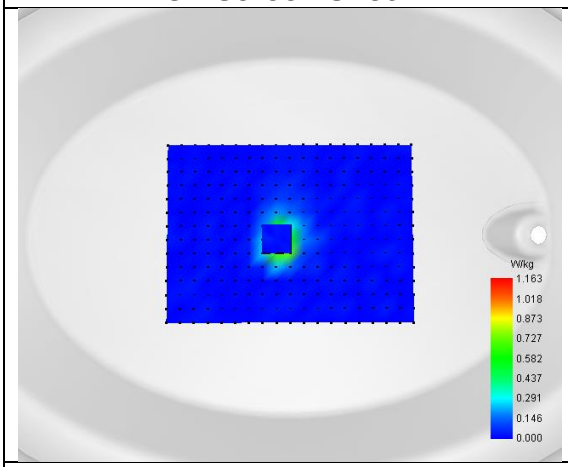
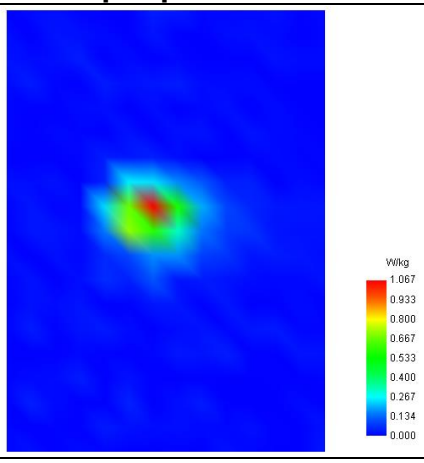
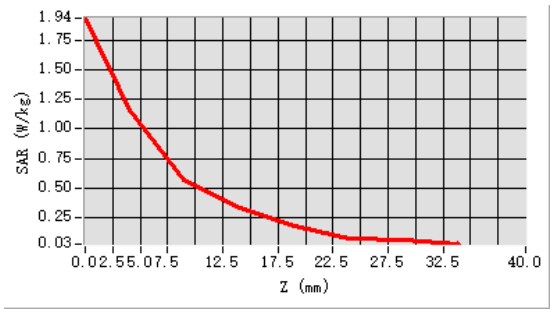
Maximum location: X=22.00, Y=19.00 ; SAR Peak: 1.38 W/kg

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

Plot 2:

Test Date	2023-08-24
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	GPRS1900
Signal	TDMA (GPRS)
Frequency	1850.2
SAR 10g (W/Kg)	0.521
SAR 1g (W/Kg)	1.110

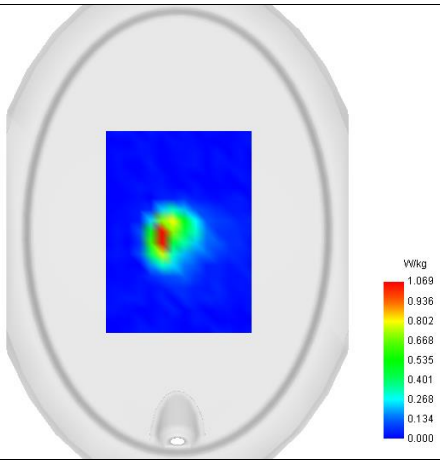
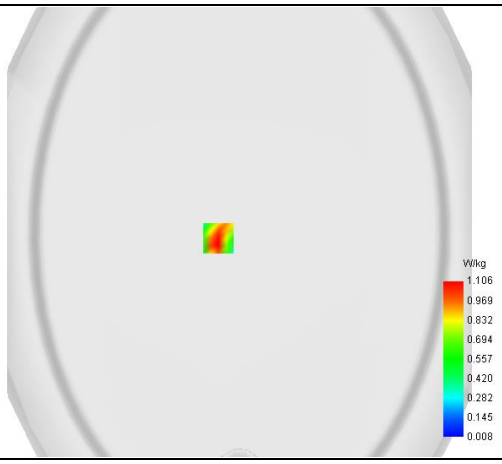
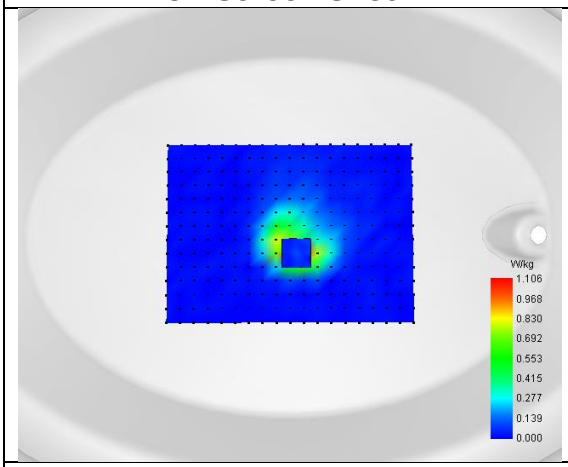
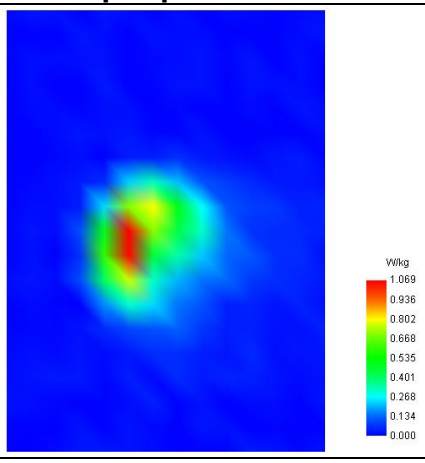
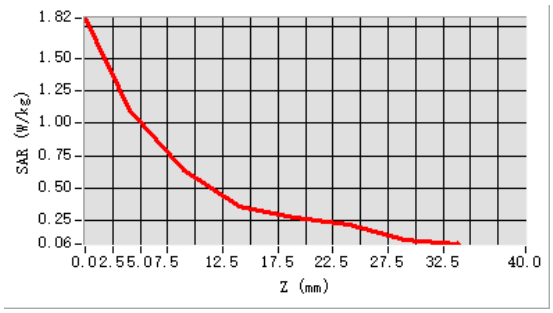
Maximum location: X=-6.00, Y=15.00 ; SAR Peak: 1.98 W/kg

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

Plot 3:

Test Date	2023-08-24
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Band 2 (1900)
Signal	WCDMA
Frequency	1852.4
SAR 10g (W/Kg)	0.597
SAR 1g (W/Kg)	1.104

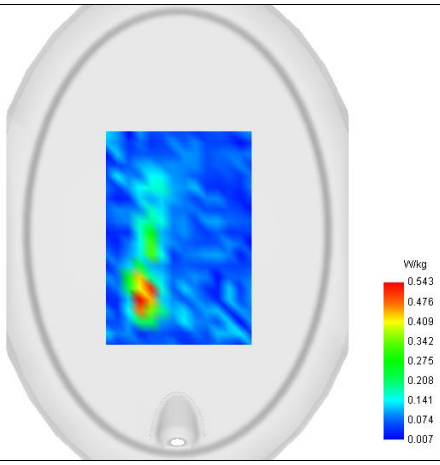
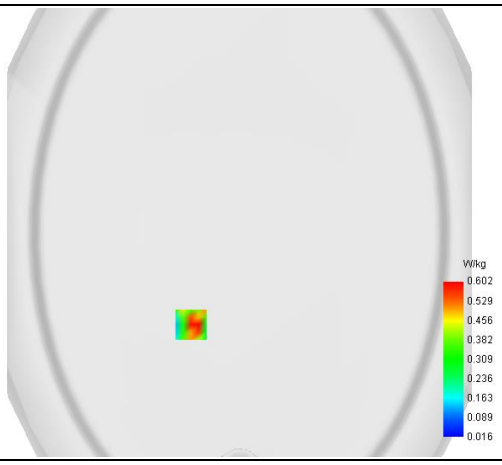
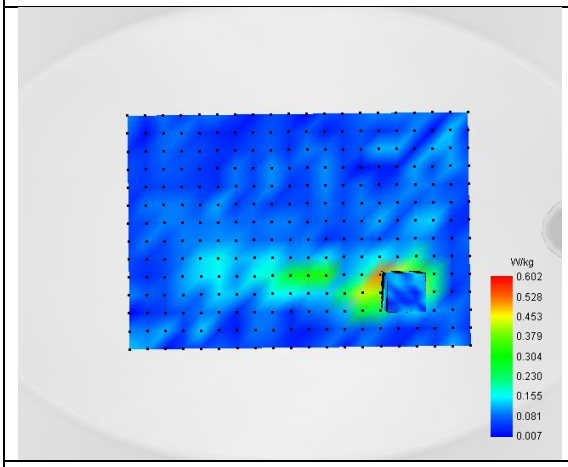
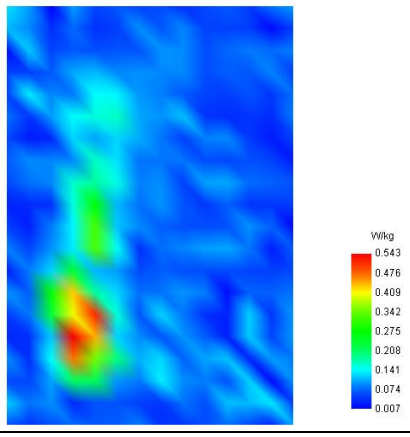
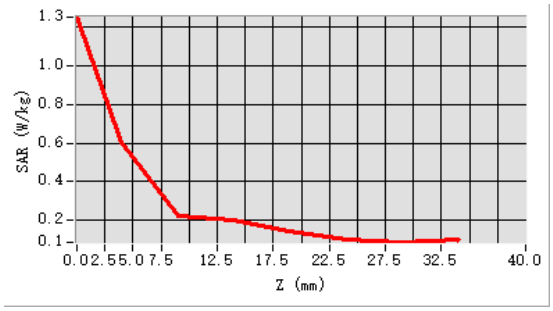
Maximum location: X=-22.00, Y=-7.00 ; SAR Peak: 1.89 W/kg

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

Plot 4:

Test Date	2023-08-24
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Band 4 (1700)
Signal	WCDMA
Frequency	1740
SAR 10g (W/Kg)	0.304
SAR 1g (W/Kg)	0.617

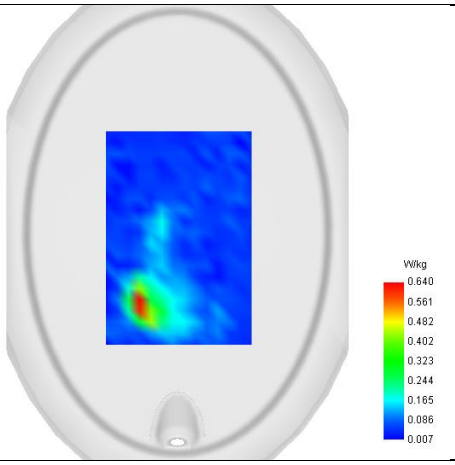
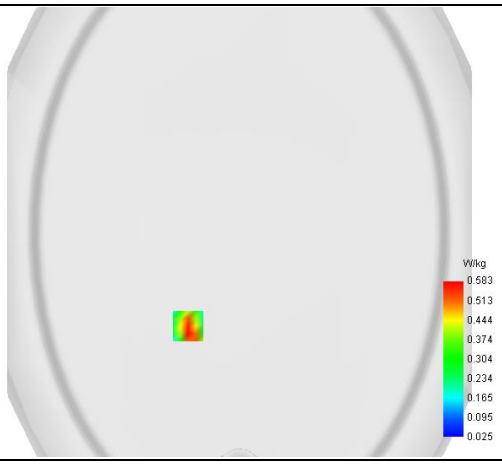
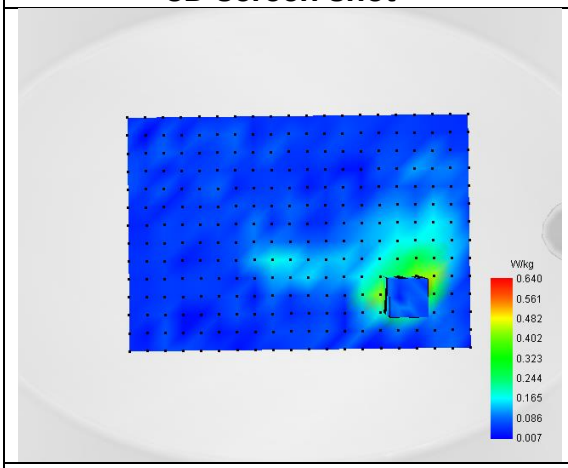
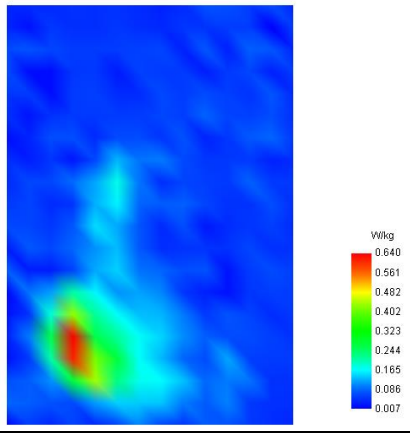
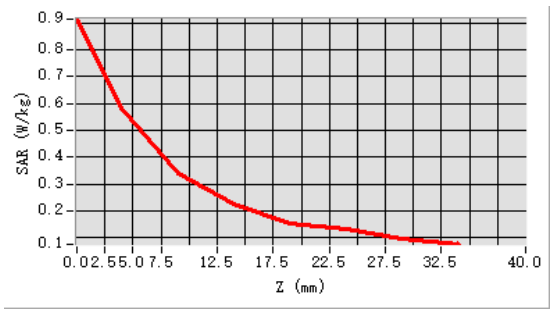
Maximum location: X=-51.00, Y=-97.00 ; SAR Peak: 1.15 W/kg

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

Plot 5:

Test Date	2023-08-23
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Band 5 (850)
Signal	WCDMA
Frequency	846.6
SAR 10g (W/Kg)	0.307
SAR 1g (W/Kg)	0.562

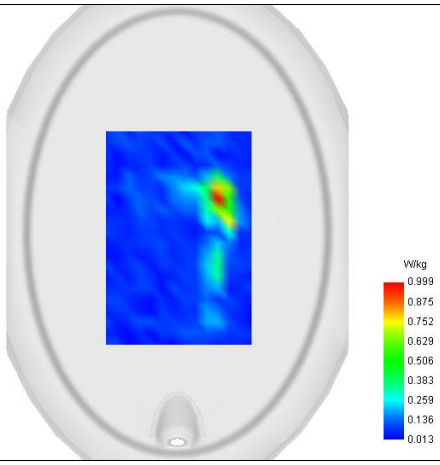
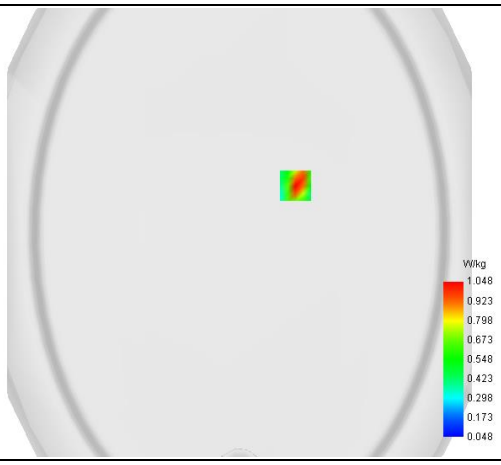
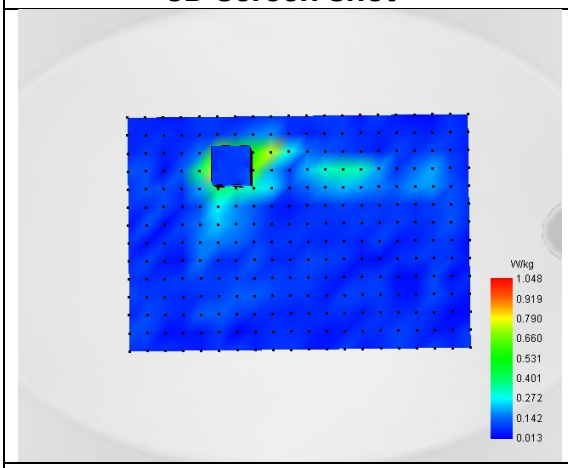
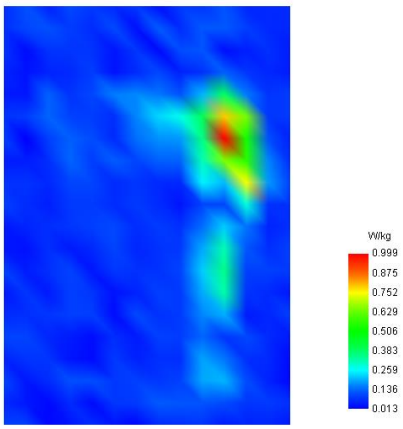
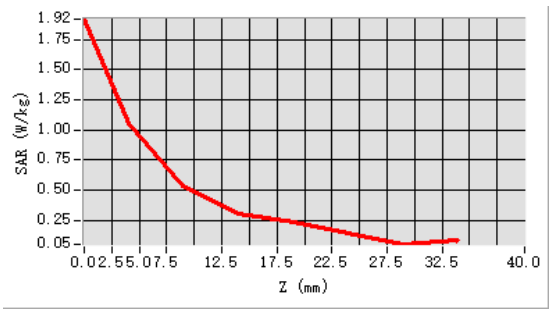
Maximum location: X=-54.00, Y=-99.00 ; SAR Peak: 0.93 W/kg

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

Plot 6:

Test Date	2023-08-28
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 2
Signal	LTE FDD
Frequency	1900
SAR 10g (W/Kg)	0.524
SAR 1g (W/Kg)	1.041

Maximum location: X=59.00, Y=49.00 ; SAR Peak: 1.90 W/kg

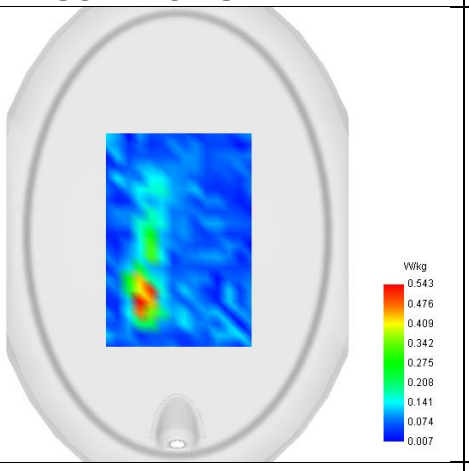
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	
	

Plot 7:

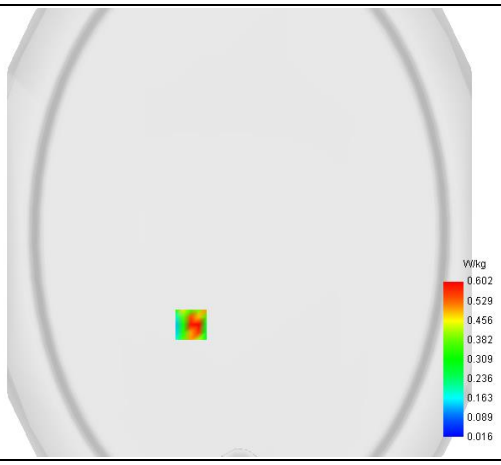
Test Date	2023-08-24
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 4
Signal	LTE FDD
Frequency	1745
SAR 10g (W/Kg)	0.304
SAR 1g (W/Kg)	0.617

Maximum location: X=-51.00, Y=-97.00 ; SAR Peak: 1.15 W/kg

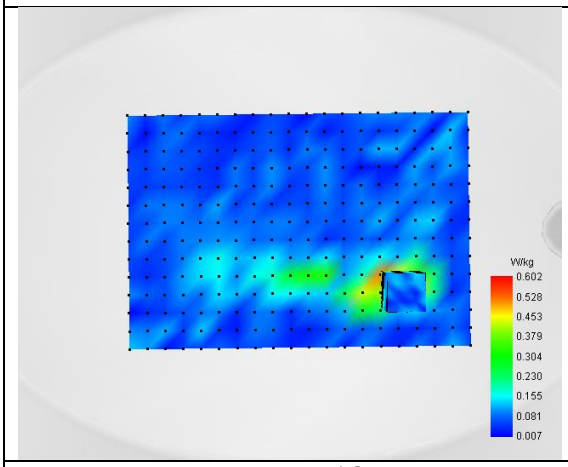
SURFACE SAR



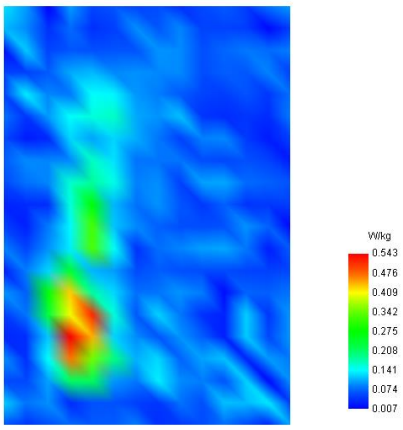
VOLUME SAR

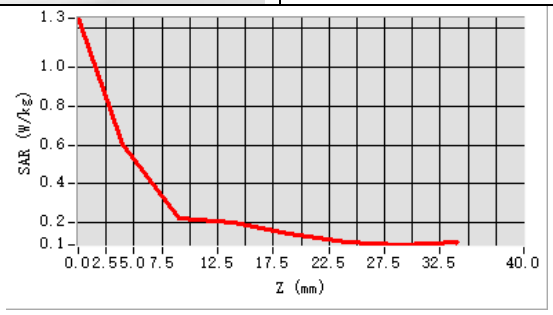


3D screen shot



Hot spot position



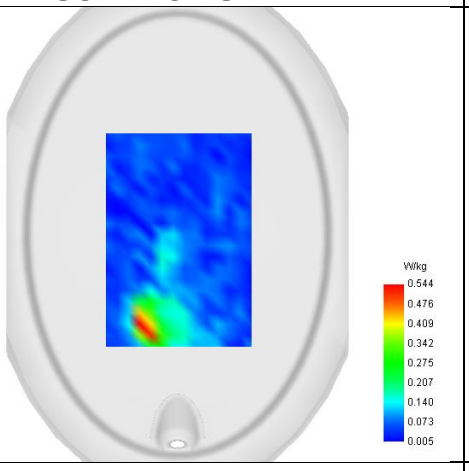


Plot 8:

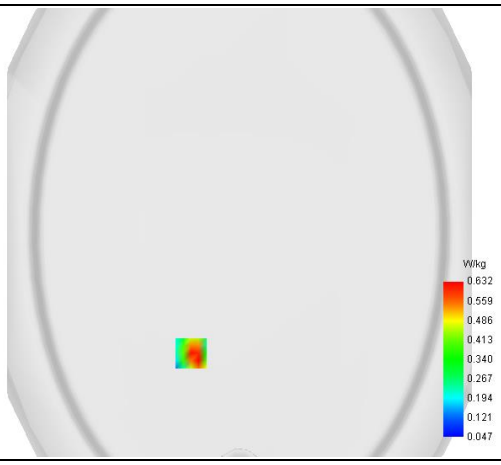
Test Date	2023-08-23
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 5
Signal	LTE FDD
Frequency	836.5
SAR 10g (W/Kg)	0.339
SAR 1g (W/Kg)	0.621

Maximum location: X=-51.00, Y=-127.00 ; SAR Peak: 1.08 W/kg

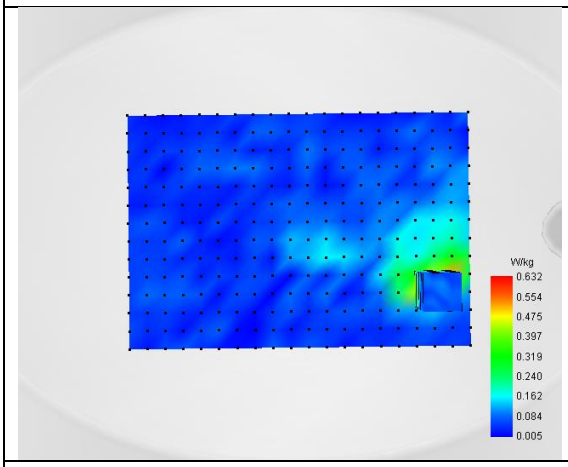
SURFACE SAR



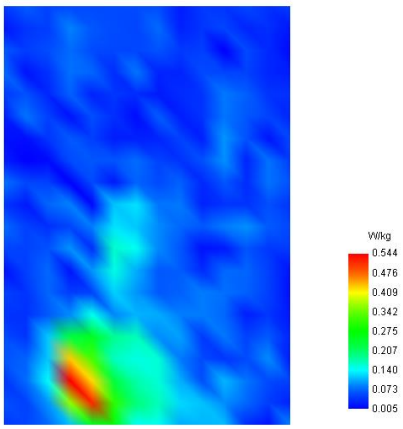
VOLUME SAR

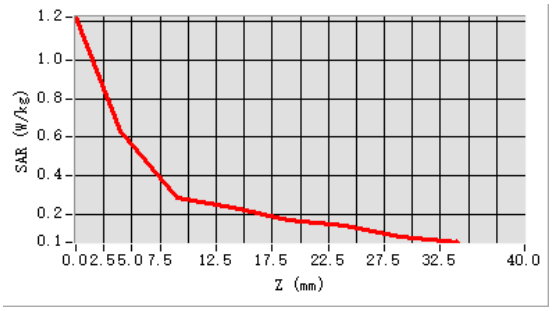


3D screen shot



Hot spot position

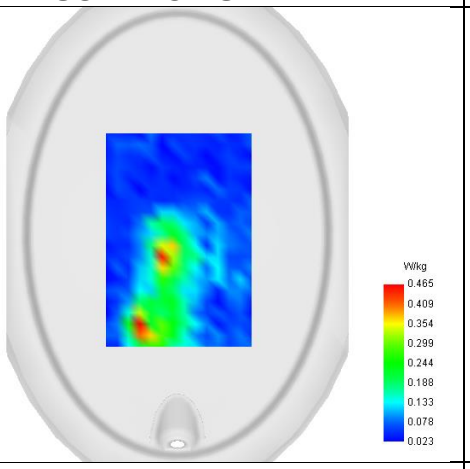
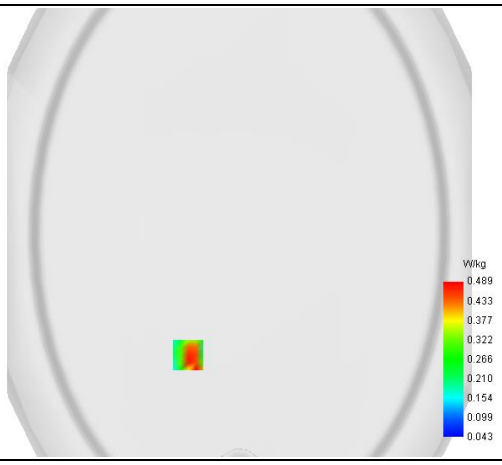
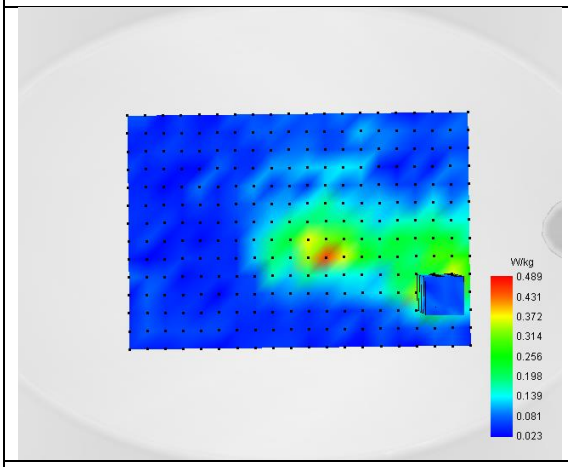
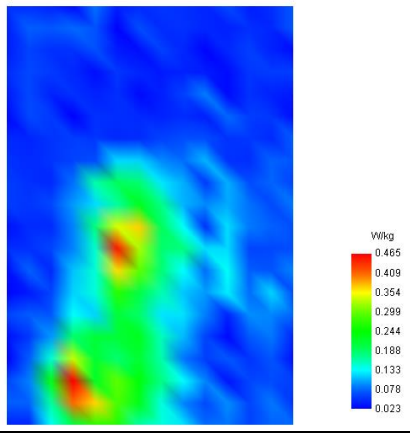
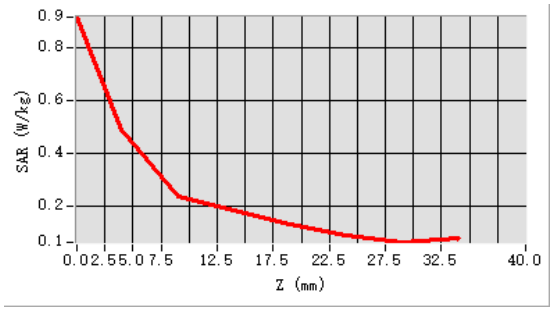




Plot 9:

Test Date	2023-08-22
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 12
Signal	LTE FDD
Frequency	704
SAR 10g (W/Kg)	0.279
SAR 1g (W/Kg)	0.497

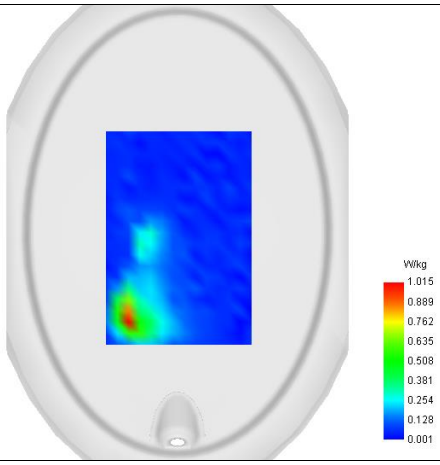
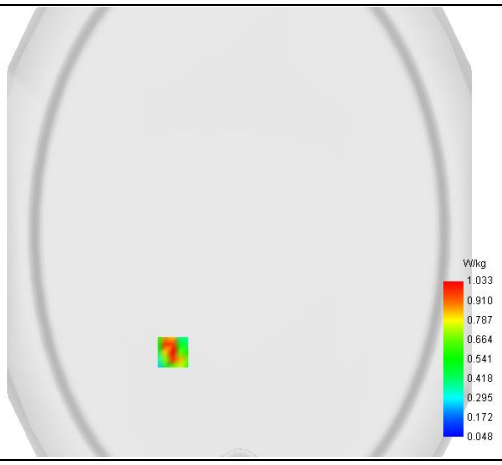
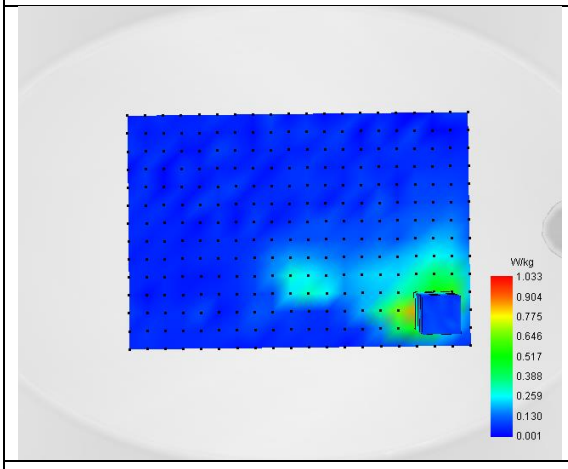
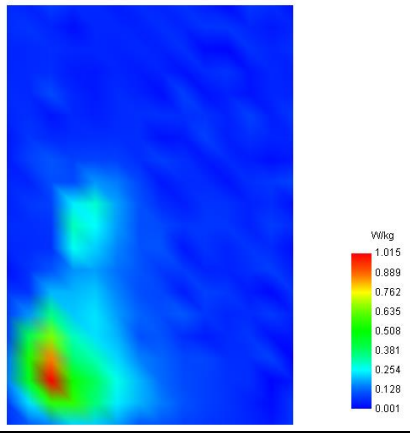
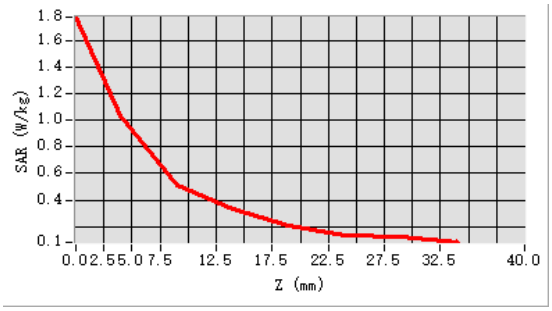
Maximum location: X=-54.00, Y=-129.00 ; SAR Peak: 0.75 W/kg

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

Plot 10:

Test Date	2023-08-22
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 13
Signal	LTE FDD
Frequency	782
SAR 10g (W/Kg)	0.520
SAR 1g (W/Kg)	1.027

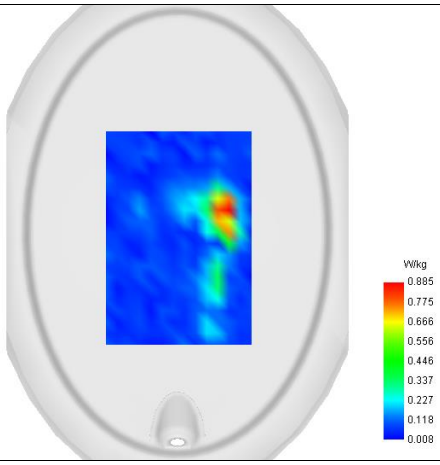
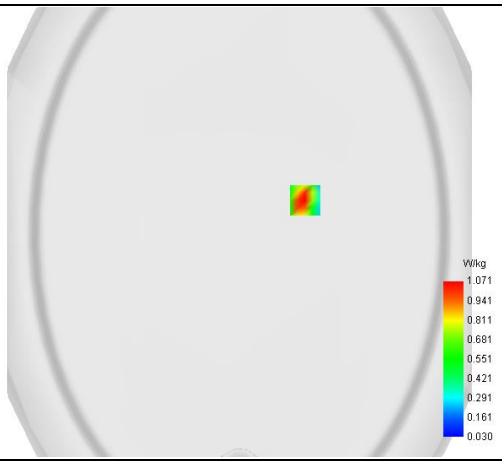
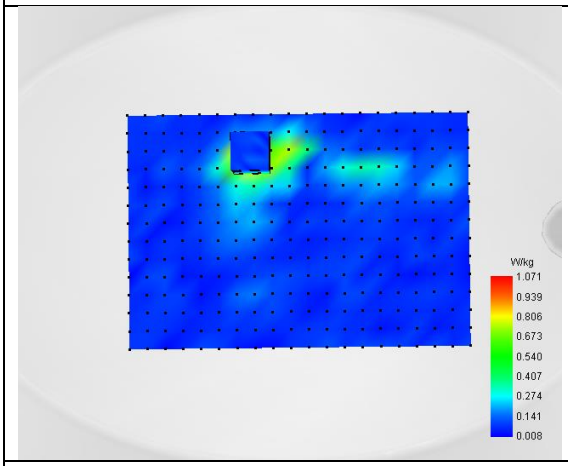
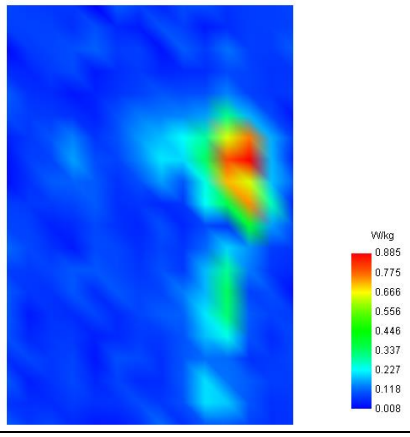
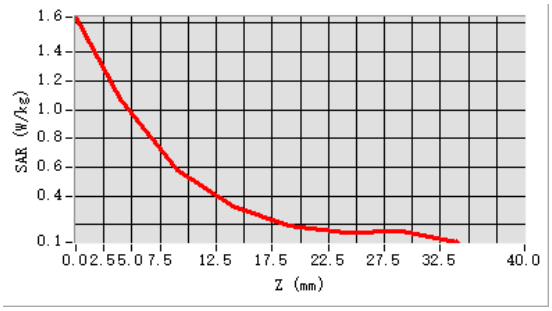
Maximum location: X=-70.00, Y=-126.00 ; SAR Peak: 1.79 W/kg

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

Plot 11:

Test Date	2023-08-28
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 25
Signal	LTE FDD
Frequency	1905
SAR 10g (W/Kg)	0.516
SAR 1g (W/Kg)	1.014

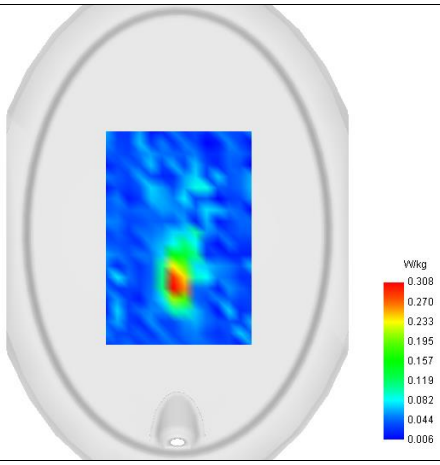
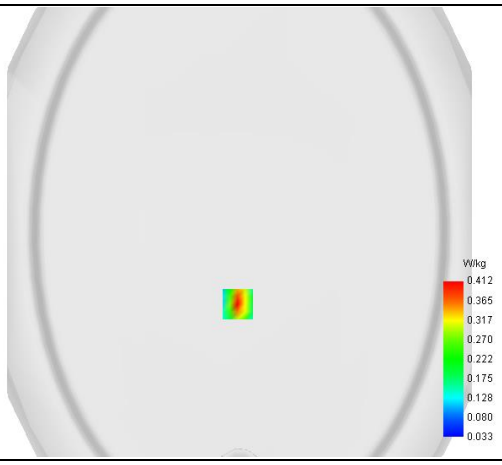
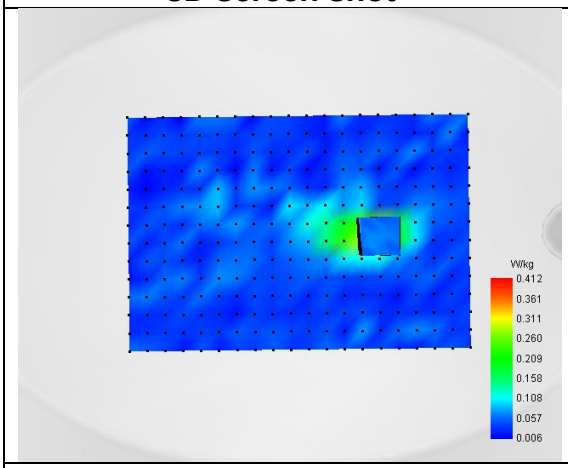
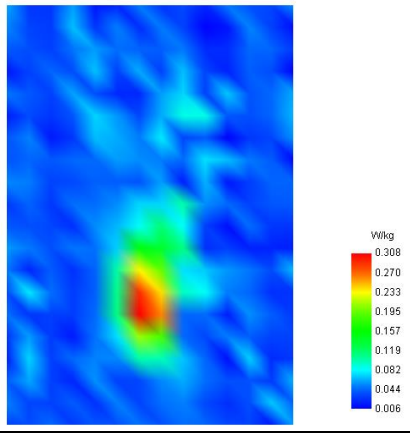
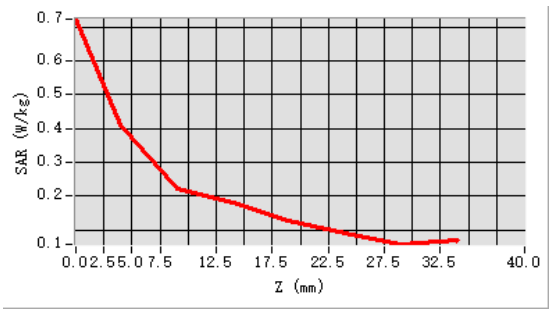
Maximum location: X=69.00, Y=33.00 ; SAR Peak: 1.83 W/kg

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

Plot 12:

Test Date	2023-08-23
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Top Side
Band	LTE band 26
Signal	LTE FDD
Frequency	841.5
SAR 10g (W/Kg)	0.221
SAR 1g (W/Kg)	0.399

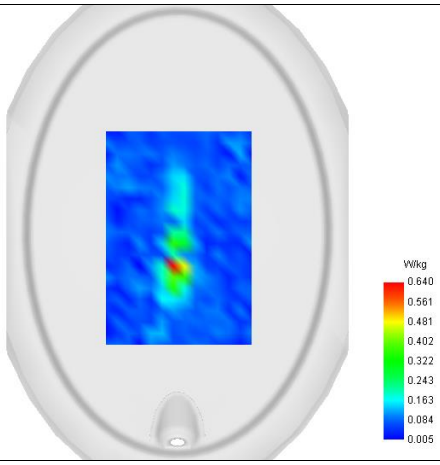
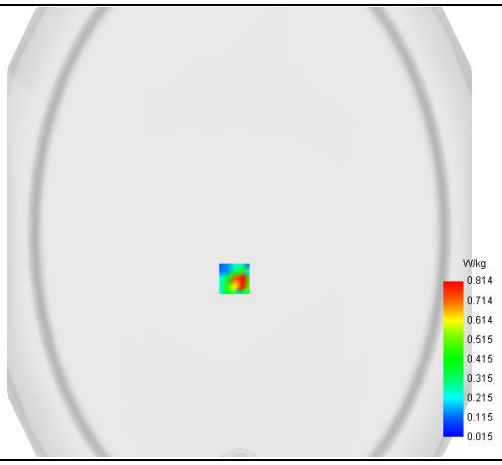
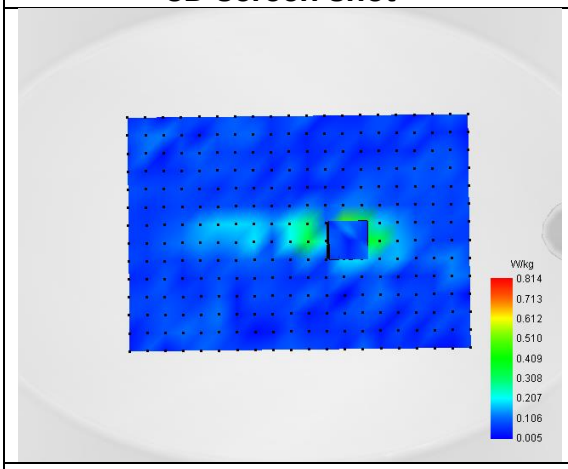
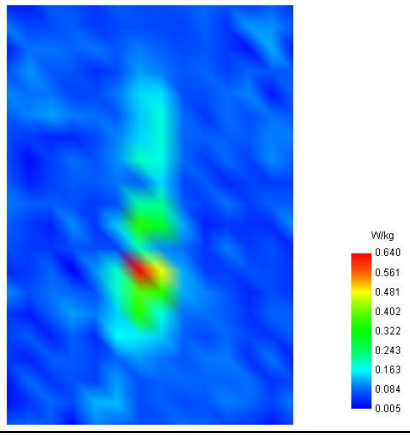
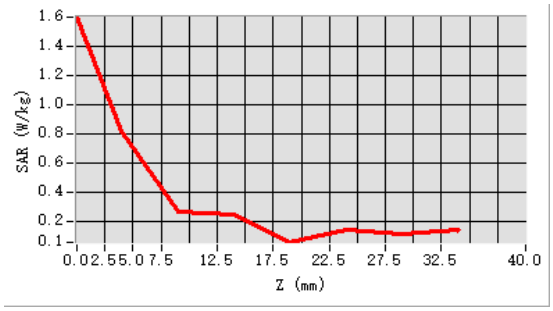
Maximum location: X=-2.00, Y=-76.00 ; SAR Peak: 0.70 W/kg

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

Plot 13:

Test Date	2023-08-30
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 41
Signal	LTE TDD
Frequency	2506
SAR 10g (W/Kg)	0.350
SAR 1g (W/Kg)	0.832

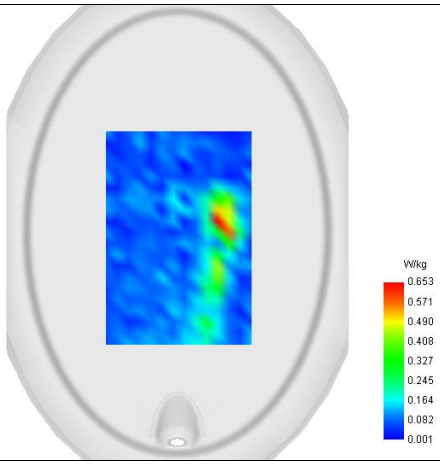
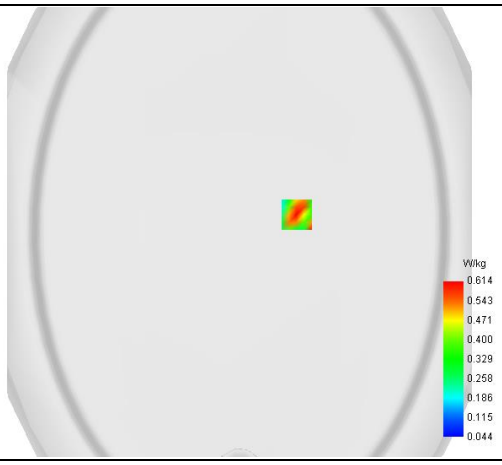
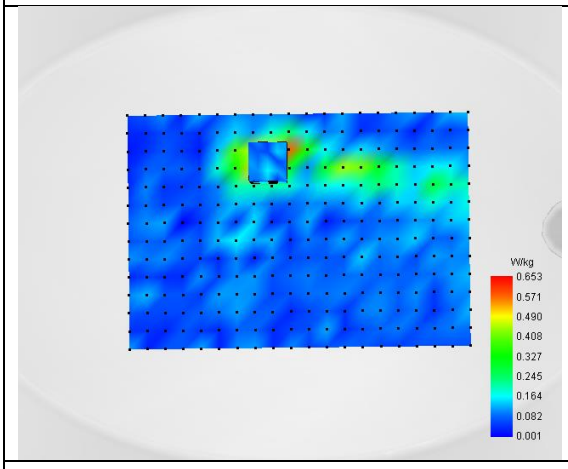
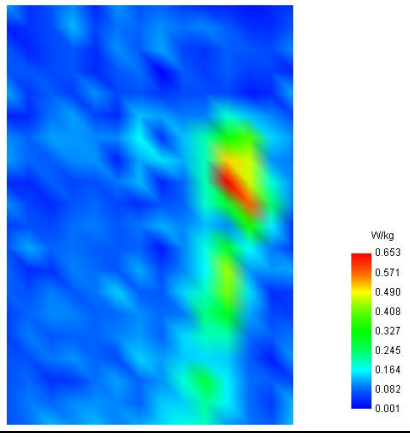
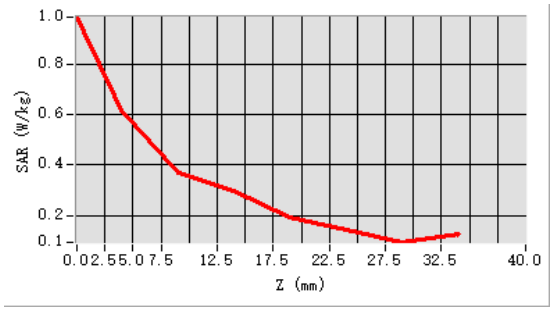
Maximum location: X=-5.00, Y=-49.00 ; SAR Peak: 1.69 W/kg

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

Plot 14:

Test Date	2023-08-24
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 66
Signal	LTE FDD
Frequency	1745
SAR 10g (W/Kg)	0.337
SAR 1g (W/Kg)	0.605

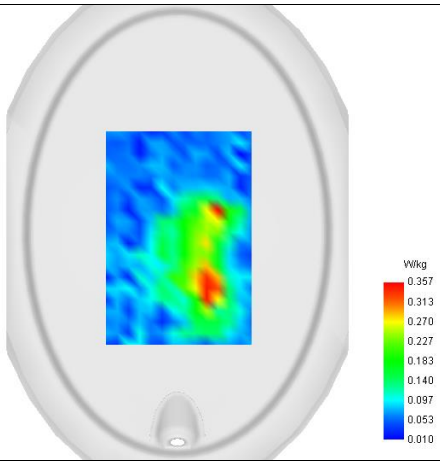
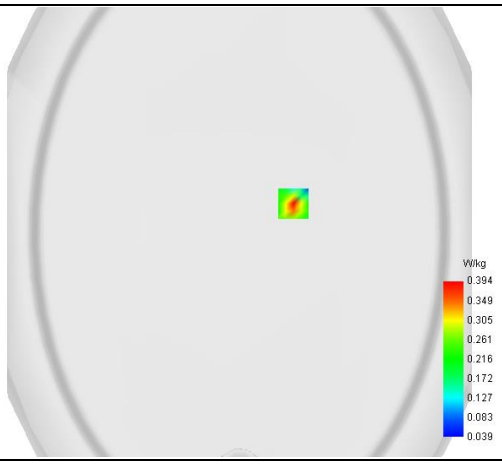
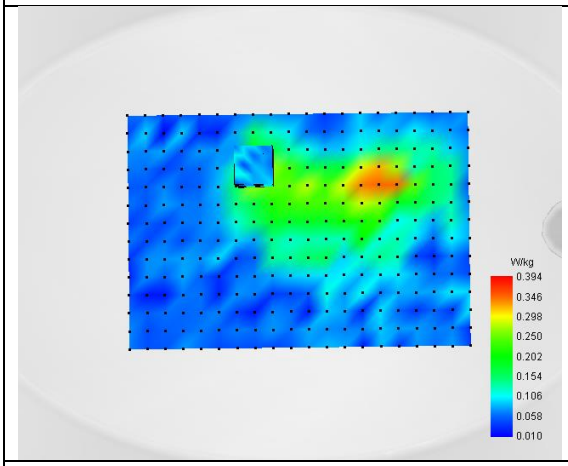
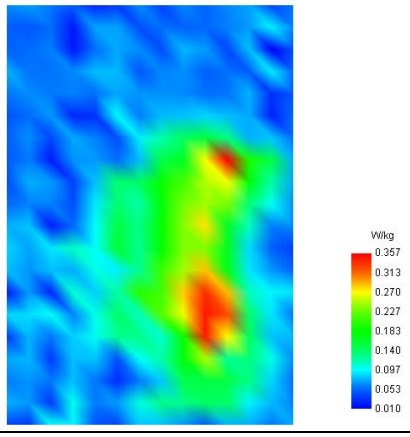
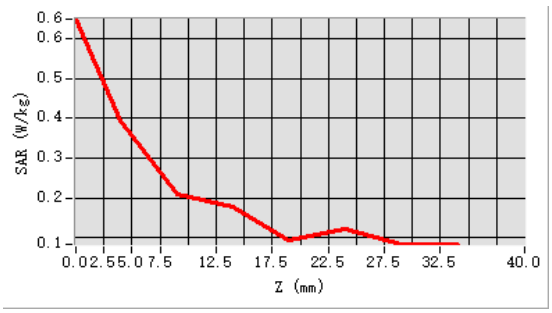
Maximum location: X=60.00, Y=18.00 ; SAR Peak: 1.03 W/kg

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

Plot 15:

Test Date	2023-08-22
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	LTE band 71
Signal	LTE FDD
Frequency	673
SAR 10g (W/Kg)	0.222
SAR 1g (W/Kg)	0.395

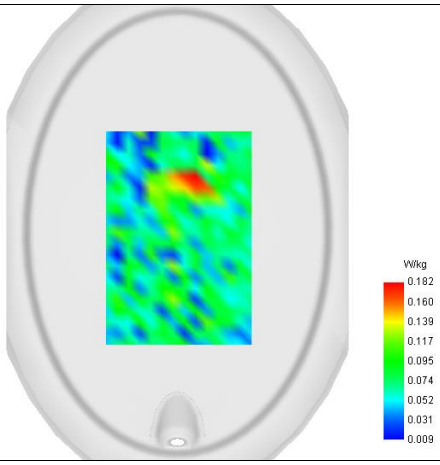
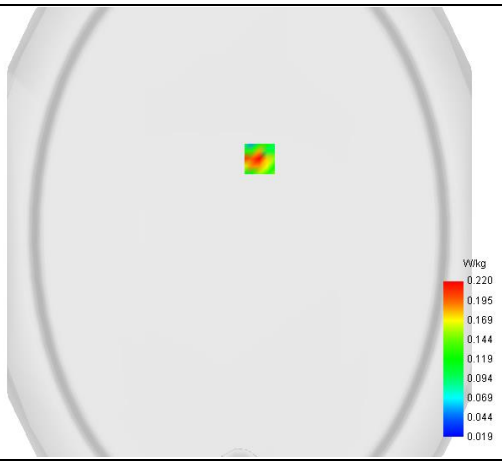
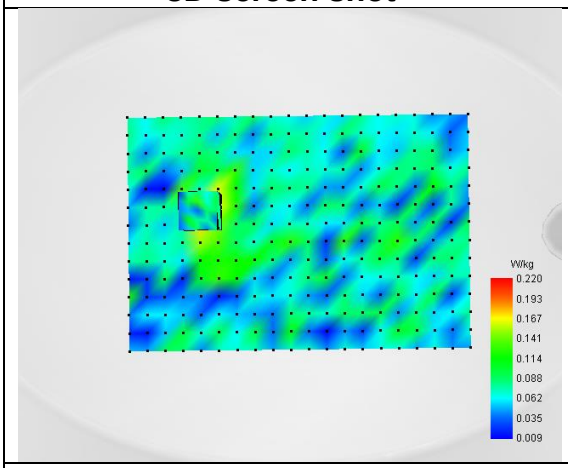
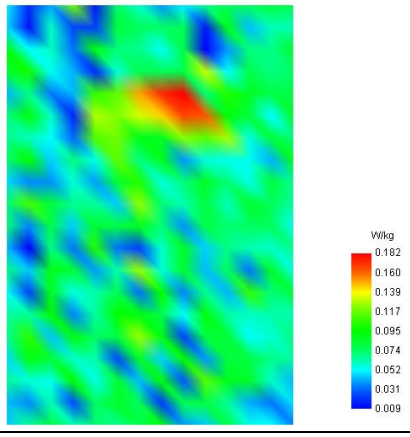
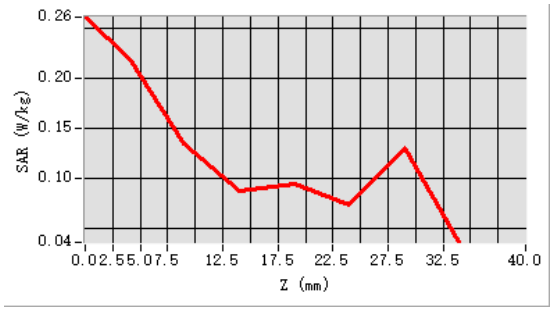
Maximum location: X=57.00, Y=30.00 ; SAR Peak: 0.64 W/kg

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

Plot 16:

Test Date	2023-08-29
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	ISM
Signal	IEEE 802.11 b
Frequency	2437
SAR 10g (W/Kg)	0.105
SAR 1g (W/Kg)	0.198

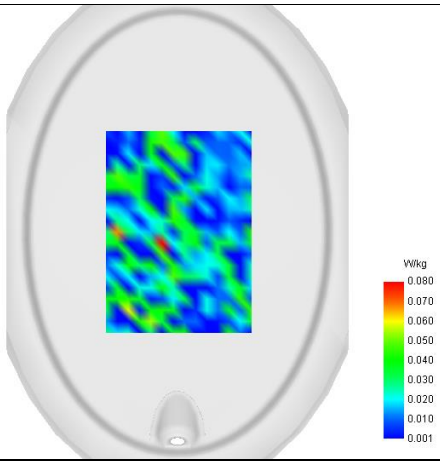
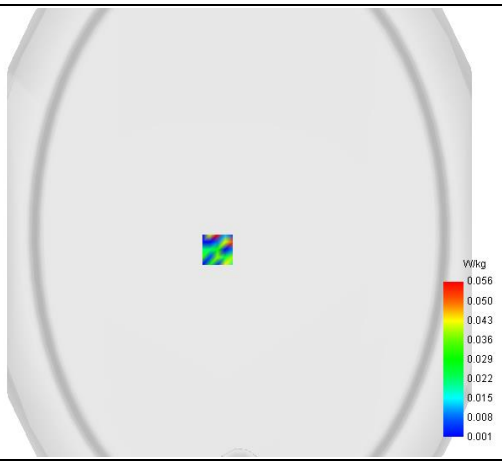
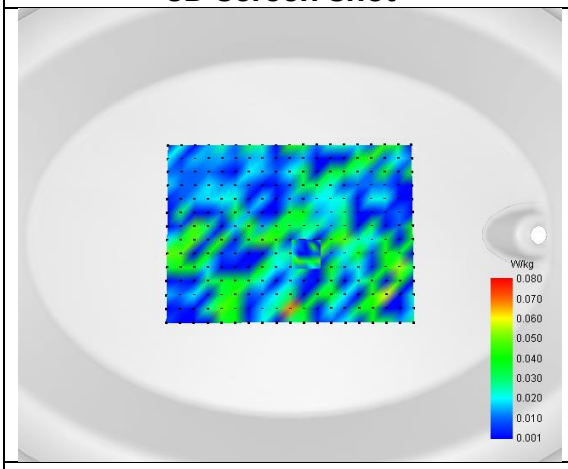
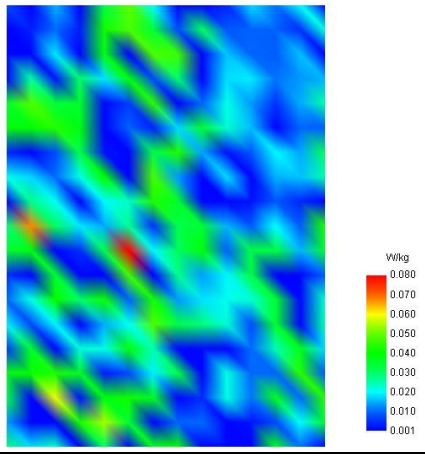
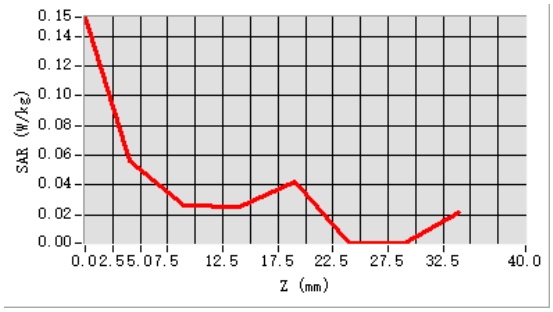
Maximum location: X=21.00, Y=77.00 ; SAR Peak: 0.41 W/kg

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

Plot 17:

Test Date	2023-08-29
Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	ELLI
Device Position	Back Side
Band	Bluetooth
Signal	Bluetooth
Frequency	2440
SAR 10g (W/Kg)	0.018
SAR 1g (W/Kg)	0.032

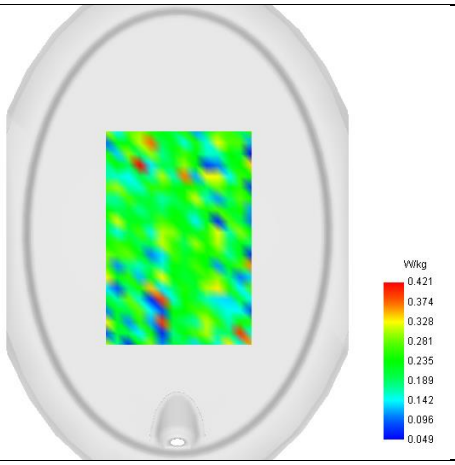
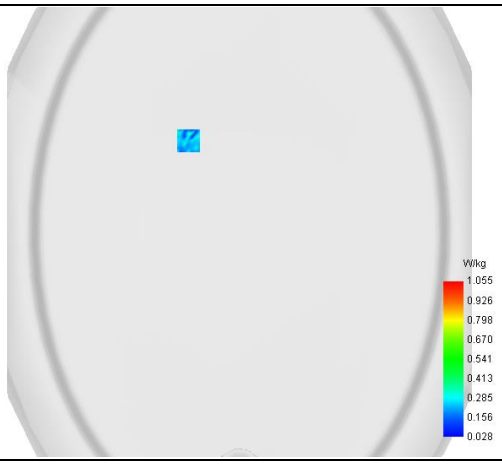
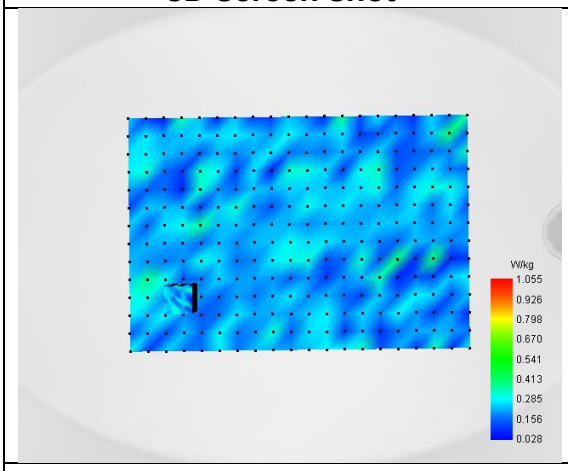
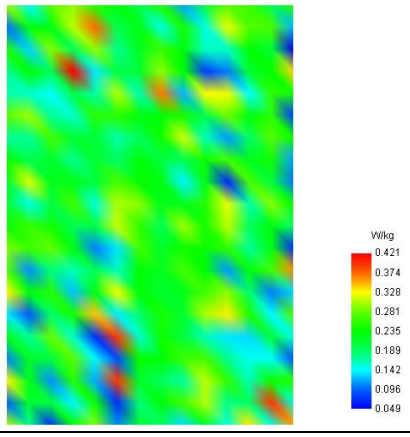
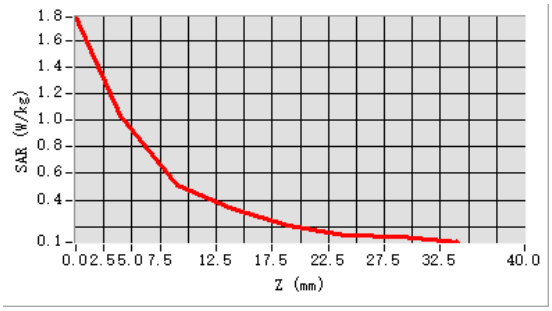
Maximum location: X=-23.00, Y=-18.00 ; SAR Peak: 0.17 W/kg

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

Plot 18:

Test Date	2023-08-31
Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Back Side
Band	U-NII-2a
Signal	IEEE 802.11 a
Frequency	5200
SAR 10g (W/Kg)	0.173
SAR 1g (W/Kg)	0.264

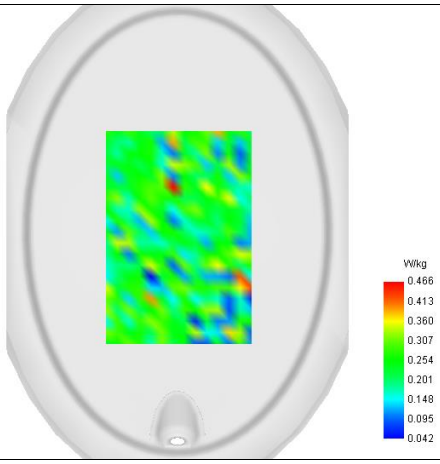
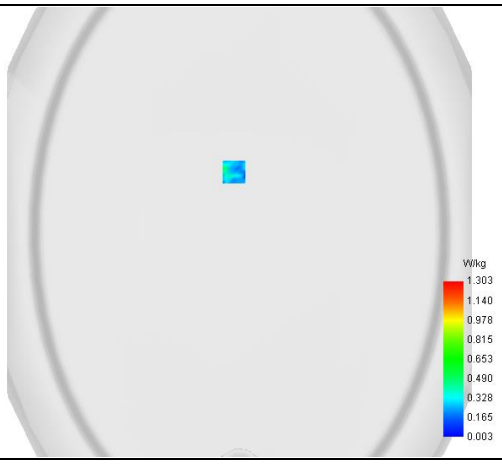
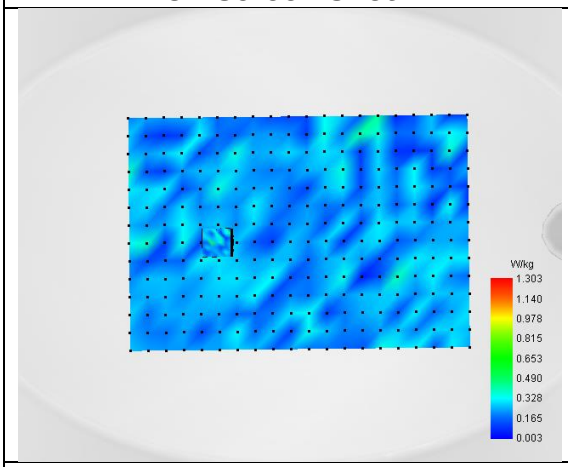
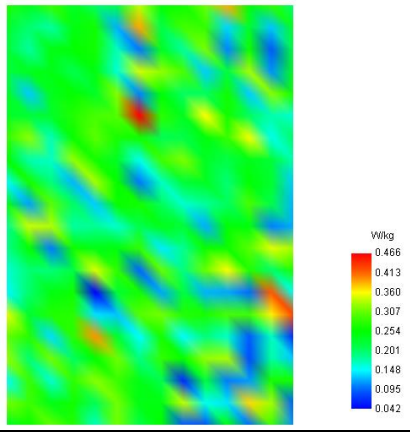
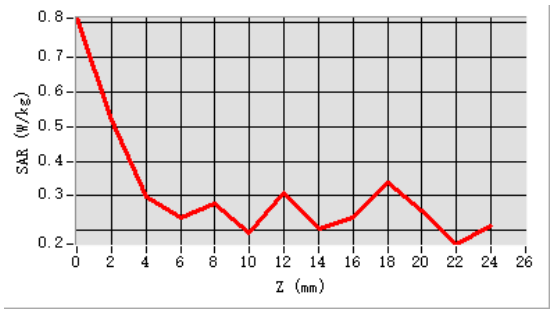
Maximum location: X=-54.00, Y=96.00 ; SAR Peak: 1.22 W/kg

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

Plot 19:

Test Date	2023-09-05
Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Back Side
Band	U-NII-2a
Signal	IEEE 802.11 a
Frequency	5300
SAR 10g (W/Kg)	0.183
SAR 1g (W/Kg)	0.333

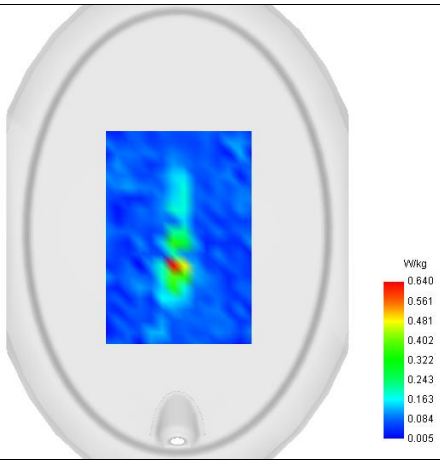
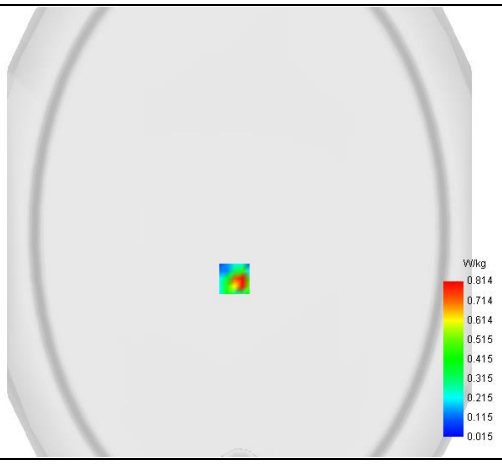
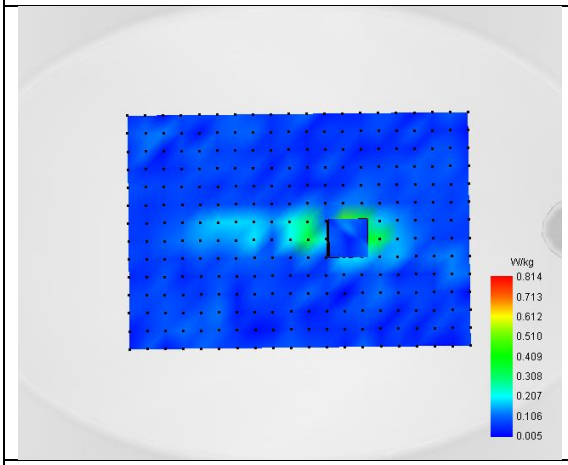
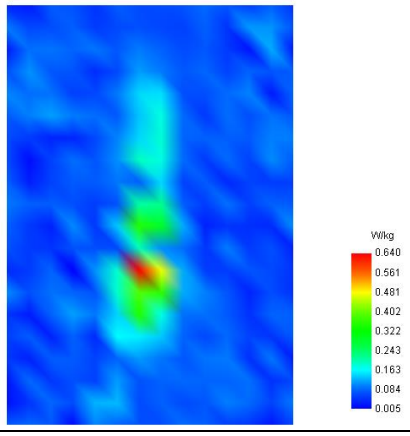
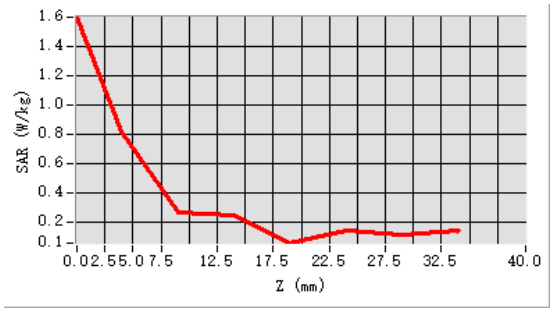
Maximum location: X=-6.00, Y=63.00 ; SAR Peak: 1.16 W/kg

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

Plot 20:

Test Date	2023-09-06
Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Back Side
Band	U-NII-2a
Signal	IEEE 802.11 a
Frequency	5700
SAR 10g (W/Kg)	0.350
SAR 1g (W/Kg)	0.832

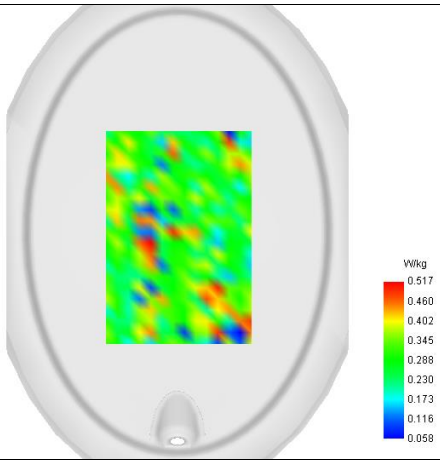
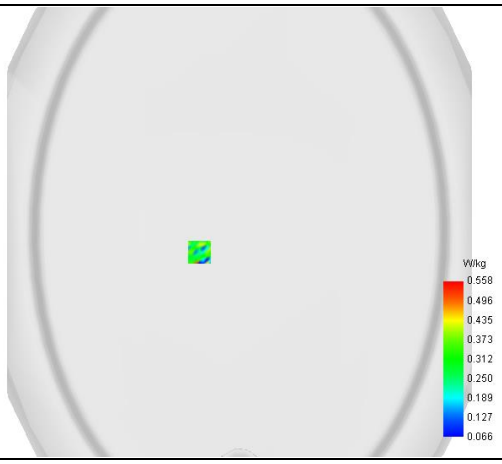
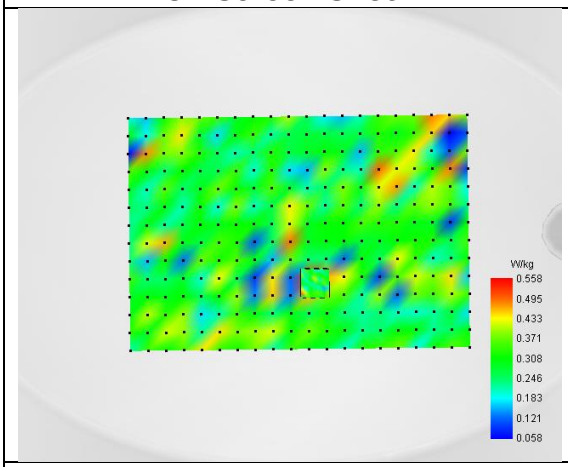
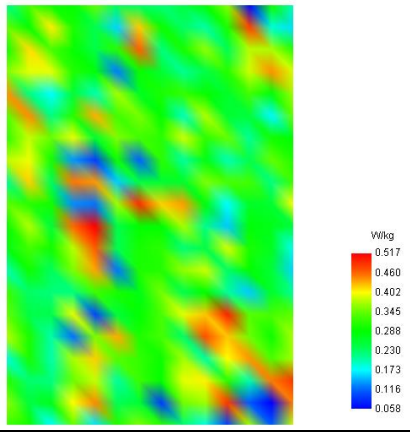
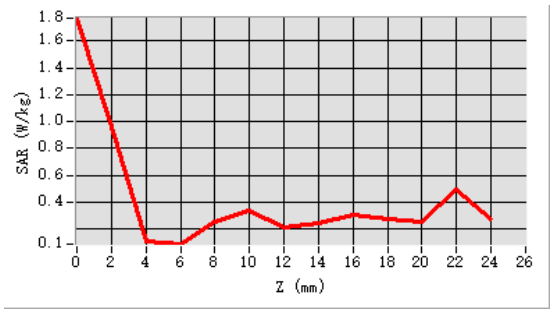
Maximum location: X=-5.00, Y=-49.00 ; SAR Peak: 1.69 W/kg

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

Plot 21:

Test Date	2023-09-08
Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	ELLI
Device Position	Back Side
Band	U-NII-2a
Signal	IEEE 802.11 a
Frequency	5745
SAR 10g (W/Kg)	0.192
SAR 1g (W/Kg)	0.296

Maximum location: X=-80.00, Y=-32.00 ; SAR Peak: 2.87 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※※※※※