SAR TEST REPORT

Product Name: 4G Tablet

Model Name: OB-P08, TANK Pad E

FCC ID: 2BAVY-OBP08

Issued For : Shenzhen OBLUE Communication Technology Co.,Ltd.

Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China

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

Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number:	LGT25A017HA03
Sample Received Date:	Jan. 03, 2025
Date of Test:	Jan. 05, 2025 ~ Jan. 20, 2025
Date of Issue:	Jan. 22, 2025
Max. SAR (1g):	Body: 0.958W/kg

The test report is effective only with both signature and specialized stamp. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report only apply to the tested sample.

Table of Contents

1. General Information **5**

1.1 EUT Description 5

1.3 Test Factory 8

2. Test Standards and Limits **9**

3. SAR Measurement System **10**

3.1 Definition of Specific Absorption Rate (SAR) 10

3.2 SAR System 10

4. Tissue Simulating Liquids **13**

4.1 Simulating Liquids Parameter Check 13

5. SAR System Validation **15**

5.1 Validation System 15

5.2 Validation Result 16

6. SAR Evaluation Procedures **17**

7. EUT Antenna Location Sketch **18**

7.1 SAR test exclusion consider table 19

8. EUT Test Position **26**

8.1 Body-worn Position Conditions 26

9. Uncertainty **27**

9.1 Measurement Uncertainty 27

9.2 System validation Uncertainty 28

10. Conducted Power Measurement **29**

10.1 Test Result 29

10.2 Tune up Power 65

11. EUT and Test Setup Photo **70**

11.1 EUT Photos 70

11.2 Setup Photos 73

12. SAR Result Summary **76**

12.1 Body-worn and Hotspot SAR 76

12.2 Repeated SAR 79

12.3 Repeated SAR measurement 80

12.4 Simultaneous Multi-band Transmission Evaluation 81

13. Equipment List **83**

Appendix A. System Validation Plots **84**

Appendix B. SAR Test Plots **100**

Appendix C. Probe Calibration and Dipole Calibration Report **125**

Revision History

Rev.	Issue Date	Contents
00	Jan. 22, 2025	Initial Issue

TEST REPORT CERTIFICATION

Applicant	Shenzhen OBLUE Communication Technology Co.,Ltd.
Address	Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China
Manufacture	Shenzhen OBLUE Communication Technology Co.,Ltd.
Address	Room 702, Hepingdayou industrial and trade industrial park, No. 41, Yonghe Road, Heping Community, Fuhai Street, Baoan District, Shenzhen City,China
Product Name	4G Tablet
Trademark	8849, Unihertz, iHunt
Model Name	OB-P08, TANK Pad E
Sample number	LGT2501020-3

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

Prepared by:

Della He

Della He
Engineer

Approved by:

Vita Li
Manager

SHENZHEN LGT TEST SERVICE CO., LTD.
LGT
领冠检测

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	4G Tablet
Trademark	8849, Unihertz, iHunt
Model Name	OB-P08
Series Model	TANK Pad E
Model Difference	Market model differences only
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	G92_V1.2
Software Version	OB-P08_20250102
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 CDMA&EVDO: BC0: 824.70 MHz~ 848.31 MHz BC1: 1851.25 MHz~ 1908.75 MHz LTE Band 2:1850 ~1910MHz LTE Band 4:1710 ~1755MHz LTE Band 5:824 ~ 849MHz LTE Band 7:2500 ~ 2570MHz LTE Band 12:699~716MHz LTE Band 13:777~787MHz LTE Band 17:704 ~ 716MHz LTE Band 25:1850~1915MHz LTE Band 26: 824-849MHz LTE Band 38:2570~2620MHz LTE Band 40:2305~2315MHz/2350-2360MHz LTE Band 41:2555~2655MHz LTE Band 66:1710~1780MHz WLAN 802.11b/g/n/ac/ax20: 2412 MHz ~ 2462 MHz WLAN 802.11n/ac/ax40: 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 NFC:13.56MHz

	Mode	Body Worn(W/kg)
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: 0mm	GSM 850	0.958
	PCS 1900	0.561
	WCDMA Band II	0.887
	WCDMA Band IV	0.427
	WCDMA Band V	0.448
	CDMA BC0	0.111
	CDMA BC1	0.259
	LTE Band 2	0.851
	LTE Band 4	0.546
	LTE Band 5	0.536
	LTE Band 7	0.276
	LTE Band 12	0.438
	LTE Band 13	0.912
	LTE Band 17	0.551
	LTE Band 25	0.943
	LTE Band 26	0.596
	LTE Band 38	0.180
	LTE Band 40	0.387
	LTE Band 41	0.104
	LTE Band 66	0.842
	2.4G WLAN	0.341
	5.2G WLAN	0.472
	5.3G WLAN	0.503
	5.6G WLAN	0.379
	5.8G WLAN	0.548
	Bluetooth NOTE4	0.148
	NFC NOTE4	0.0000002
1-g Sum SAR		1.506
Battery	Rated Voltage:7.82V Capacity: 10550mAh	

Modulation Type:	GSM: GSM Voice; GPRS Class 12 WCDMA: RMC, HSDPA, HSUPA Release 6 LTE: QPSK, 16QAM 2.4G WLAN: 802.11b(DSSS): CCK, DQPSK, DBPSK 802.11n/g(OFDM): BPSK, QPSK,16-QAM,64-QAM 5G WLAN: 802.11a/n(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 NFC: FSK
Antenna Specification	GSM/WCDMA/CDMA/LTE: PIFA Antenna Bluetooth: PIFA Antenna WLAN: PIFA Antenna NFC: Coil Antenna
Operating Mode	Maximum continuous output
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot trans mitting at the same time
Hotspot Mode	Support
DTM Mode	Not Support

Note:
1. The dual SIM card mobile has 2 SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (Single active)
2. After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 card to perform all tests.
3. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power
4. The BT and NFC value was Estimated.

1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

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

2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	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 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices

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

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

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

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

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

Population/Uncontrolled Environments:

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

Occupational/Controlled Environments:

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

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

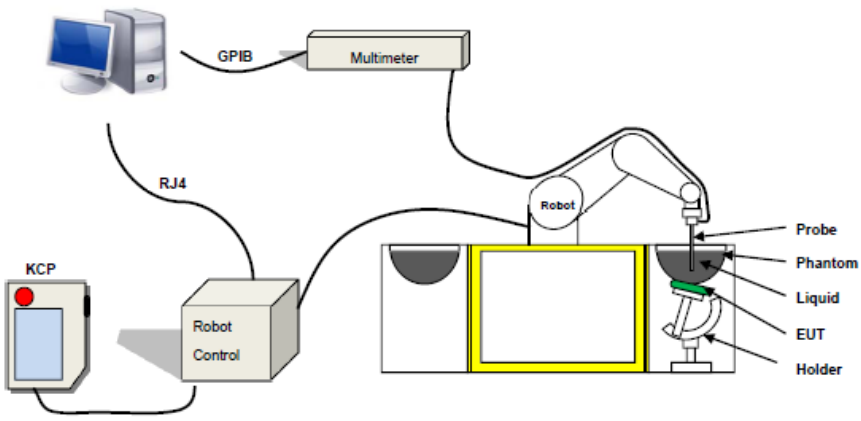
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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°

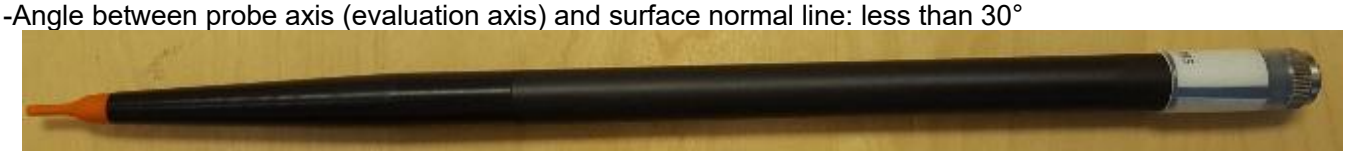


Figure 1-MVG COMOSAR Dosimetric E field Probe

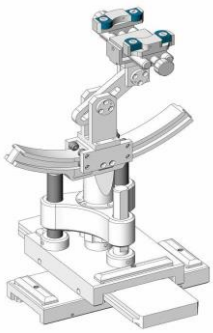
3.2.2 Phantom

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

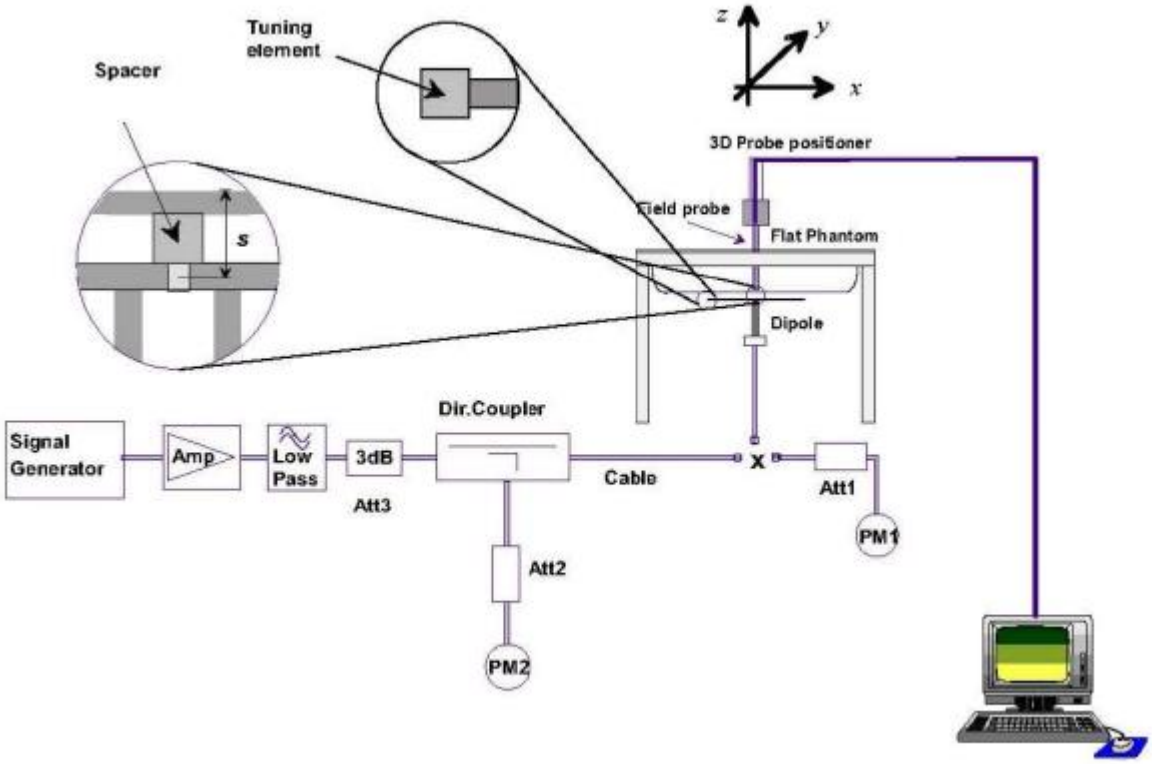
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2025-01-07	20.8	49	750	20.5	Permittivity	41.90	42.58	1.62	±5
					Conductivity	0.89	0.88	-1.12	±5
2025-01-06	22.2	46	835	21.9	Permittivity	41.50	41.69	0.46	±5
					Conductivity	0.90	0.91	1.11	±5
2025-01-12	22.3	56	1800	22.0	Permittivity	40.00	41.19	2.97	±5
					Conductivity	1.40	1.45	3.57	±5
2025-01-13	23.7	42	1900	23.5	Permittivity	40.00	40.36	0.90	±5
					Conductivity	1.40	1.43	2.14	±5
2025-01-16	21.4	41	2300	21.2	Permittivity	39.47	40.52	2.67	±5
					Conductivity	1.67	1.67	0.20	±5
2025-01-16	20.8	54	2450	20.4	Permittivity	39.20	40.33	2.88	±5
					Conductivity	1.80	1.75	-2.78	±5
2025-01-16	22.4	49	2600	22.1	Permittivity	39.00	39.49	1.26	±5
					Conductivity	1.96	1.95	-0.51	±5
2025-01-18	20.8	60	5200	20.5	Permittivity	36.00	36.52	1.44	±5
					Conductivity	4.66	4.59	-1.50	±5
2025-01-18	21.1	42	5800	20.9	Permittivity	35.30	36.49	3.37	±5
					Conductivity	5.27	5.25	-0.38	±5

5. SAR System Validation

5.1 Validation System

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

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



5.2 Validation Result

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

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2025-01-07	750	100	0.810	8.10	8.27	-2.06	10
2025-01-06	835	100	0.991	9.91	9.75	1.64	10
2025-01-12	1800	100	3.723	37.23	39.06	-4.69	10
2025-01-13	1900	100	4.050	40.50	40.85	-0.86	10
2025-01-16	2300	100	5.065	50.65	50.94	-0.57	10
2025-01-16	2450	100	5.448	54.48	54.28	0.37	10
2025-01-16	2600	100	5.650	56.50	56.58	-0.14	10
2025-01-18	5200	100	8.107	81.07	80.97	0.12	10
2025-01-18	5800	100	8.185	81.85	81.67	0.22	10

Note:

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

6. SAR Evaluation Procedures

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

The following steps are used for each test position

- Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface

- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.

- Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.

- Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

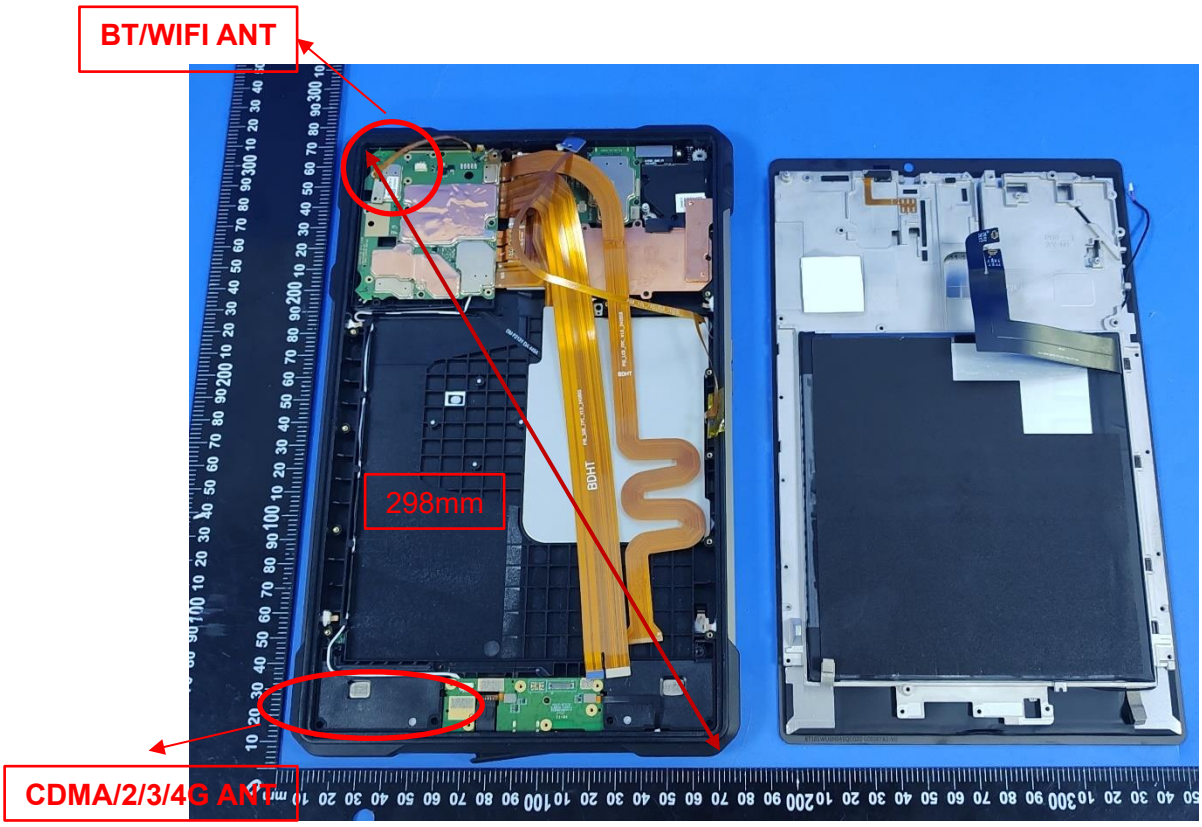
Area Scan& Zoom Scan

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01 quoted below.

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

7. EUT Antenna Location Sketch

It is a 4G Tablet, support GSM/WCDMA/CDMA/LTE/WLAN/BT mode.



(Front view)

ANT	Transmitting antenna located(mm)				
	Back Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	5	5	152	5	250
WWAN	5	5	94	240	5

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.

	Wireless Interface	GSM850	PCS1900	WCDMA II	WCDMA IV	WCDMA V
Exposure Position	Calculated Frequency	836.6	1880	1907.6	1712.6	846.6
	Maximum Turn-up power (dBm)	32.5	27	20	16	24.5
	Maximum rated power(mW)	1778.28	501.19	100.00	39.81	281.84
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	10.94	10.86	11.46	16.30
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	10.94	10.86	11.46	16.30
	Testing required?	YES	YES	YES	YES	YES
Right Side	Separation distance (mm)	94	94	94	94	94
	exclusion threshold(mW)	409.40	549.40	548.60	554.62	306.49
	Testing required?	YES	NO	NO	NO	NO
Top Side	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	1223.69	2009.40	2008.60	2014.62	1235.38
	Testing required?	YES	NO	NO	NO	NO
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.40	10.94	10.86	11.46	16.30
	Testing required?	YES	YES	YES	YES	YES

Exposure Position	Wireless Interface	CDMA BC0	CDMA BC1	LTE Band 2	LTE Band 4	LTE Band 5
	Calculated Frequency	848.31	1908.75	1860	1745	829
	Maximum Turn-up power (dBm)	24	24.5	20.5	17.5	25
	Maximum rated power(mW)	251.19	281.84	112.20	56.23	316.23
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.29	10.86	11.00	11.36	16.47
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.29	10.86	11.00	11.36	16.47
	Testing required?	YES	YES	YES	YES	YES
Right Side	Separation distance (mm)	94	94	94	94	94
	exclusion threshold(mW)	306.18	548.57	549.99	553.55	407.92
	Testing required?	NO	NO	NO	NO	NO
Top Side	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	1237.39	2008.57	2009.99	2013.55	1214.81
	Testing required?	NO	NO	NO	NO	NO
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.29	10.86	11.00	11.36	16.47
	Testing required?	YES	YES	YES	YES	YES

Exposure Position	Wireless Interface	LTE Band 7	LTE Band 12	LTE Band 13	LTE Band 17	LTE Band 25
	Calculated Frequency	2510	707.5	782	710	1860
	Maximum Turn-up power (dBm)	24.5	25	25	25	20.5
	Maximum rated power(mW)	281.84	316.23	316.23	316.23	112.20
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.47	17.83	16.96	17.80	11.00
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.47	17.83	16.96	17.80	11.00
	Testing required?	YES	YES	YES	YES	YES
Right Side	Separation distance (mm)	94	94	94	94	94
	exclusion threshold(mW)	534.68	385.86	399.01	386.28	549.99
	Testing required?	NO	NO	NO	NO	NO
Top Side	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	1994.68	1074.50	1160.16	1077.35	2465.99
	Testing required?	NO	NO	NO	NO	NO
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.47	17.83	16.96	17.80	11.00
	Testing required?	YES	YES	YES	YES	YES

Exposure Position	Wireless Interface	LTE Band 26	LTE Band 38	LTE Band 40	LTE Band 41	LTE Band 66
	Calculated Frequency	841.5	2610	2310	2680	1770
	Maximum Turn-up power (dBm)	24.5	25	15.5	25	19.5
	Maximum rated power(mW)	281.84	316.23	35.48	316.23	89.13
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.35	9.28	9.87	9.16	11.27
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.35	9.28	9.87	9.16	11.27
	Testing required?	YES	YES	YES	YES	YES
Right Side	Separation distance (mm)	94	94	94	94	94
	exclusion threshold(mW)	410.36	532.85	538.69	531.63	552.75
	Testing required?	NO	NO	NO	NO	NO
Top Side	Separation distance (mm)	240	240	240	240	240
	exclusion threshold(mW)	1229.42	1992.85	1998.69	1991.63	2012.75
	Testing required?	NO	NO	NO	NO	NO
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	16.35	9.28	9.87	9.16	11.27
	Testing required?	YES	YES	YES	YES	YES

Exposure Position	Wireless Interface	BT	2.4G WLAN	5.2G WLAN	5.3G WLAN
	Calculated Frequency	2441	2437	5200	5300
	Maximum Turn-up power (dBm)	5.5	16	11	11
	Maximum rated power(mW)	3.55	39.81	12.59	12.59
Back Side	Separation distance (mm)	5	5	5	5
	exclusion threshold(mW)	9.60	9.61	6.58	6.52
	Testing required?	NO	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5	5
	exclusion threshold(mW)	9.60	9.61	6.58	6.52
	Testing required?	NO	YES	YES	YES
Right Side	Separation distance (mm)	152	152	152	152
	exclusion threshold(mW)	1116.01	1116.09	1085.78	1085.16
	Testing required?	NO	NO	NO	NO
Top Side	Separation distance (mm)	5	5	5	5
	exclusion threshold(mW)	9.60	9.61	6.58	6.52
	Testing required?	NO	YES	YES	YES
Bottom Side	Separation distance (mm)	250	250	250	250
	exclusion threshold(mW)	2096.01	2096.09	2065.78	2065.16
	Testing required?	NO	NO	NO	NO

Exposure Position	Wireless Interface	5.6G WLAN	5.8G WLAN
	Calculated Frequency	5700	5825
	Maximum Turn-up power (dBm)	11.5	12
	Maximum rated power(mW)	14.13	15.85
Back Side	Separation distance (mm)	5	5
	exclusion threshold(mW)	6.28	6.22
	Testing required?	YES	YES
Left Side	Separation distance (mm)	5	5
	exclusion threshold(mW)	6.28	6.22
	Testing required?	YES	YES
Right Side	Separation distance (mm)	152	152
	exclusion threshold(mW)	1082.83	1082.15
	Testing required?	NO	NO
Top Side	Separation distance (mm)	5	5
	exclusion threshold(mW)	6.28	6.22
	Testing required?	YES	YES
Bottom Side	Separation distance (mm)	250	250
	exclusion threshold(mW)	2062.83	2062.15
	Testing required?	NO	NO

Note：

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

   [(max.power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]*[√f(GHz）)≤3.0 for 1-g SAR and≤7.5 for10-g extremity SAR ,f(GHz) is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation.

   The result is rounded to one decimal place for comparison

   For <50mm distance, we just calculate mW of the exclusion threshold value(3.0)to do compare
5. per KDB 447498 D01, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following

a)[threshold at 50mm in step 1]+(test separation distance -50mm)*(f (MHz)/150)]mW, at 100 MHz to 1500 MHz

b) [threshold at 50mm in step1]+(test separation distance -50mm) *10]mW at＞1500MHz and≤ 6GHz

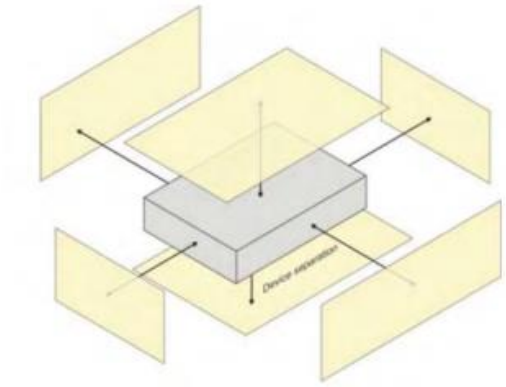
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8.for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.
7. Per KDB 616217 D04, SAR evaluation for the front surface of Tablet display screens are generally not necessary.

8. EUT Test Position

This EUT was tested in Back Side and Top Side.

8.1 Body-worn Position Conditions

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



9. Uncertainty

9.1 Measurement Uncertainty

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

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

9.2 System validation Uncertainty

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

10. Conducted Power Measurement

10.1 Test Result

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM (GMSK, 1-Slot)	31.69	32.03	31.75	26.35	26.50	26.01
GPRS (GMSK, 1-Slot)	31.67	32.03	31.78	26.35	26.48	25.99
GPRS (GMSK, 2-Slot)	30.91	31.25	31.00	25.99	26.12	25.64
GPRS (GMSK, 3-Slot)	29.19	29.60	29.31	25.02	25.13	24.64
GPRS (GMSK, 4-Slot)	28.31	28.72	28.40	24.40	24.49	24.00
Remark: GPRS, CS4 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Frame- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM (GMSK, 1-Slot)	22.66	23.00	22.72	17.32	17.47	16.98
GPRS (GMSK, 1-Slot)	22.64	23.00	22.75	17.32	17.45	16.96
GPRS (GMSK, 2-Slot)	24.89	25.23	24.98	19.97	20.10	19.62
GPRS (GMSK, 3-Slot)	24.93	25.34	25.05	20.76	20.87	20.38
GPRS (GMSK, 4-Slot)	25.30	25.71	25.39	21.39	21.48	20.99
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	1312	1450	1513	4132	4182	4233
Frequency (MHz)	1852.4	1880	1907.6	1712.6	1740	1752.4	826.4	836.4	846.6
RMC 12.2Kbps	19.7	19.67	19.72	15.88	15.77	15.73	23.94	23.85	24.1
HSDPA Subtest-1	18.7	18.74	18.78	14.93	14.84	14.8	23	22.92	23.16
HSDPA Subtest-2	18.21	18.3	18.19	14.58	14.23	14.23	22.5	22.34	22.57
HSDPA Subtest-3	17.2	17.22	17.1	13.51	13.03	13.36	21.85	21.82	21.4
HSDPA Subtest-4	17.08	17.28	17.45	13.85	13.44	13.22	21.2	21.46	21.78
HSUPA Subtest-1	17.77	18.44	18.55	14.55	14.66	14.55	21.76	22.76	22.86
HSUPA Subtest-2	18.61	18.54	18.54	14.78	14.69	14.65	22.84	22.72	22.98
HSUPA Subtest-3	16.85	17.04	17.23	13.39	13.42	13.14	21.07	21.45	21.98
HSUPA Subtest-4	18.67	18.67	18.73	14.91	14.82	14.79	23	22.9	23.18
HSUPA Subtest-5	17.43	18.15	17.98	13.49	14.24	14.13	21.3	22.29	22.53

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.

CDMA

CDMA BC0		
Mode	Frequency (MHz)	AVG Power
CDMA BC0	824.70	23.59
	836.52	23.49
	848.31	23.60
EVDO BC0	824.70	22.88
	836.52	23.39
	848.31	23.54

CDMA BC1		
Mode	Frequency (MHz)	AVG Power
CDMA BC1	1851.25	23.21
	1880.00	23.88
	1908.75	24.14
EVDO BC1	1851.25	23.09
	1880.00	23.86
	1908.75	23.50

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
802.11b	1	2412	15.11	32.43
	7	2437	15.92	39.08
	11	2462	15.53	35.73
802.11g	1	2412	14.23	26.49
	7	2437	14.90	30.90
	11	2462	14.52	28.31
802.11n-HT20	1	2412	13.61	22.96
	7	2437	14.39	27.48
	11	2462	13.98	25.00
802.11n-HT40	3	2422	14.42	27.67
	6	2437	14.67	29.31
	9	2452	14.63	29.04

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	2.54	1.79
	39	2441	5.32	3.40
	78	2480	3.84	2.42
π/4-QPSK(2Mbps)	0	2402	1.71	1.48
	39	2441	4.51	2.82
	78	2480	3.07	2.03
8DPSK(3Mbps)	0	2402	1.73	1.49
	39	2441	4.56	2.86
	78	2480	3.15	2.07

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	0.48	1.12
	19	2440	3.20	2.09
	39	2480	1.78	1.51
GFSK(2Mbps)	0	2402	0.67	1.17
	19	2440	3.15	2.07
	39	2480	1.67	1.47

WLAN (5.2Gband)

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	10.68	11.69
	40	5200	10.82	12.08
	48	5240	10.86	12.19
802.11n-HT20	36	5180	8.43	6.97
	40	5200	8.56	7.18
	48	5240	8.54	7.14
802.11n-HT40	38	5190	8.60	7.24
	46	5230	8.57	7.19
802.11ac-VHT20	36	5180	8.26	6.70
	40	5200	8.50	7.08
	48	5240	8.48	7.05
802.11ac-VHT40	38	5190	8.51	7.10
	46	5230	8.49	7.06
802.11ac-VHT80	42	5210	8.44	6.98

WLAN (5.3G band)

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	52	5260	10.90	12.30
	60	5300	10.78	11.97
	64	5320	10.68	11.69
802.11n-HT20	52	5260	8.62	7.28
	60	5300	8.28	6.73
	64	5320	8.39	6.90
802.11n-HT40	54	5270	8.47	7.03
	62	5310	8.40	6.92
802.11ac-VHT20	52	5260	8.64	7.31
	60	5300	8.55	7.16
	64	5320	8.47	7.03
802.11ac-VHT40	54	5270	8.58	7.21
	62	5310	8.37	6.87
802.11ac-VHT80	58	5290	8.44	6.98

WLAN (5.6G band)

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	100	5500	10.14	10.33
	116	5580	10.67	11.67
	140	5700	11.45	13.96
802.11n-HT20	100	5500	8.33	6.81
	116	5580	8.51	7.10
	140	5700	9.15	8.22
802.11n-HT40	102	5510	8.13	6.50
	110	5550	8.32	6.79
	134	5670	8.90	7.76
802.11ac-VHT20	100	5500	8.59	7.23
	116	5580	8.68	7.38
	140	5700	9.02	7.98
802.11ac-VHT40	102	5510	8.10	6.46
	110	5550	8.13	6.50
	134	5670	8.87	7.71
802.11ac-VHT80	106	5530	8.08	6.43
	122	5610	8.47	7.03

WLAN (5.8G band)

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	11.23	13.27
	157	5785	11.44	13.93
	165	5825	11.55	14.29
802.11n-HT20	149	5745	9.11	8.15
	157	5785	9.17	8.26
	165	5825	9.14	8.20
802.11n-HT40	151	5755	9.08	8.09
	159	5795	9.17	8.26
802.11ac-VHT20	149	5745	9.03	8.00
	157	5785	9.20	8.32
	165	5825	9.21	8.34
802.11ac-VHT40	151	5755	9.12	8.17
	159	5795	9.23	8.38
802.11ac-VHT80	155	5775	9.09	8.11

NFC

Field strength(dBuV/m)	ERP(dBm)
51.61	-43.59

Note. The power of this EUT NFC is -43.59dBm (0.00004mW), this power is less than the defined low power exclusion level (Pmax: 39 mW), so NFC is exemption.

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	19.89	19.77	19.92
1.4	1	2		20.02	19.88	20.01
1.4	1	5		19.91	19.73	19.91
1.4	3	0		19.88	19.87	19.97
1.4	3	1		19.93	19.90	20.02
1.4	3	2		19.92	19.85	19.98
1.4	6	0		19.00	18.92	19.03
1.4	1	0	16-QAM	19.03	18.94	18.81
1.4	1	2		19.13	19.00	18.87
1.4	1	5		19.04	18.95	18.80
1.4	3	0		19.14	19.07	19.14
1.4	3	1		19.18	19.12	19.16
1.4	3	2		19.13	19.06	19.15
1.4	6	0		18.18	18.09	18.24
3	1	0	QPSK	19.64	19.63	19.73
3	1	7		19.78	19.75	19.79
3	1	14		19.70	19.65	19.70
3	8	0		18.83	18.77	18.94
3	8	4		18.91	18.85	19.02
3	8	7		18.88	18.82	18.95
3	15	0		18.84	18.81	18.93
3	1	0	16-QAM	18.85	18.57	19.20
3	1	7		18.98	18.61	19.26
3	1	14		18.89	18.52	19.13
3	8	0		17.87	17.77	17.93
3	8	4		17.94	17.84	18.00
3	8	7		17.90	17.81	17.93
3	15	0		17.82	17.84	17.96

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	19.93	19.88	20.00
5	1	12		20.02	19.92	20.07
5	1	24		19.98	19.79	20.00
5	12	0		18.92	18.85	18.96
5	12	6		19.01	18.91	19.08
5	12	11		18.97	18.88	18.98
5	25	0		18.98	18.87	18.95
5	1	0	16-QAM	19.31	19.25	19.51
5	1	12		19.40	19.30	19.66
5	1	24		19.32	19.21	19.54
5	12	0		17.88	17.89	17.93
5	12	6		17.95	17.97	18.06
5	12	11		17.95	17.89	17.97
5	25	0		17.98	17.86	17.98
10	1	0	QPSK	19.85	19.88	19.82
10	1	24		20.12	19.77	19.88
10	1	49		20.03	19.41	19.86
10	25	0		18.97	18.46	18.67
10	25	12		18.97	18.73	18.77
10	25	24		18.80	18.53	18.88
10	50	0		18.73	18.53	18.76
10	1	0	16-QAM	19.14	18.96	19.40
10	1	24		19.26	18.89	19.54
10	1	49		19.30	18.82	19.47
10	25	0		17.96	17.84	17.96
10	25	12		18.13	17.97	18.11
10	25	24		18.01	17.97	18.13
10	50	0		18.04	17.90	17.98

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	19.92	20.03	19.69
15	1	37		20.15	20.04	20.04
15	1	74		20.12	19.84	19.92
15	36	0		18.94	18.89	18.98
15	36	18		19.08	18.96	19.03
15	36	39		19.10	18.94	19.07
15	75	0		19.02	18.90	19.08
15	1	0	16-QAM	19.10	19.11	19.20
15	1	38		19.31	19.11	19.38
15	1	75		19.30	18.96	19.40
15	36	0		18.02	17.86	17.82
15	36	18		18.18	17.98	17.91
15	36	39		18.15	17.89	17.92
15	75	0		18.03	17.92	18.03
20	1	0	QPSK	20.01	20.04	20.00
20	1	49		20.12	20.06	20.12
20	1	99		20.18	19.97	20.07
20	50	0		18.97	18.84	18.87
20	50	24		19.07	18.97	19.03
20	50	49		19.04	18.96	19.08
20	100	0		19.04	18.93	19.03
20	1	0	16-QAM	19.09	19.25	19.08
20	1	49		19.11	18.91	19.02
20	1	99		18.83	18.75	18.90
20	50	0		17.60	17.55	17.71
20	50	24		17.73	17.68	17.51
20	50	49		17.72	17.62	17.76
20	100	0		17.70	17.51	17.67

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	16.82	16.60	16.73
1.4	1	2		16.90	16.68	16.82
1.4	1	5		16.79	16.61	16.72
1.4	3	0		16.89	16.64	16.70
1.4	3	1		16.95	16.65	16.75
1.4	3	2		16.86	16.62	16.71
1.4	6	0		15.92	15.73	15.81
1.4	1	0	16-QAM	15.96	15.46	15.83
1.4	1	2		16.06	15.56	15.89
1.4	1	5		15.98	15.49	15.81
1.4	3	0		16.10	15.80	15.90
1.4	3	1		16.18	15.84	15.90
1.4	3	2		16.13	15.80	15.90
1.4	6	0		15.10	14.88	14.98
3	1	0	QPSK	16.65	16.16	16.01
3	1	7		16.69	16.44	16.27
3	1	14		16.62	16.38	16.00
3	8	0		15.78	15.46	15.39
3	8	4		15.86	15.44	15.30
3	8	7		15.84	15.51	15.19
3	15	0		15.78	15.37	15.32
3	1	0	16-QAM	15.79	15.21	15.42
3	1	7		15.91	14.98	15.59
3	1	14		15.72	14.99	15.45
3	8	0		14.81	14.27	14.21
3	8	4		14.81	14.30	14.35
3	8	7		14.79	14.16	14.29
3	15	0		14.78	14.37	14.38

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	16.86	16.63	16.80
5	1	12		16.88	16.73	16.81
5	1	24		16.80	16.71	16.75
5	12	0		15.84	15.61	15.78
5	12	6		15.89	15.70	15.86
5	12	11		15.88	15.66	15.76
5	25	0		15.89	15.64	15.81
5	1	0	16-QAM	16.22	16.19	16.10
5	1	12		16.24	16.30	16.17
5	1	24		16.15	16.26	16.07
5	12	0		14.89	14.60	14.74
5	12	6		14.92	14.71	14.78
5	12	11		14.91	14.65	14.70
5	25	0		14.84	14.65	14.86
10	1	0	QPSK	17.00	16.67	16.82
10	1	24		16.97	16.77	16.88
10	1	49		16.82	16.82	16.83
10	25	0		15.79	15.65	15.79
10	25	12		15.88	15.74	15.87
10	25	24		15.75	15.72	15.78
10	50	0		15.81	15.68	15.79
10	1	0	16-QAM	15.83	16.09	15.99
10	1	24		15.83	16.19	16.03
10	1	49		15.66	16.22	15.95
10	25	0		14.80	14.66	14.76
10	25	12		14.88	14.78	14.85
10	25	24		14.77	14.74	14.77
10	50	0		14.77	14.71	14.84

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	16.89	16.62	16.74
15	1	37		16.89	16.79	16.88
15	1	74		16.67	16.82	16.75
15	36	0		15.77	15.62	15.79
15	36	18		15.77	15.73	15.85
15	36	39		15.70	15.75	15.79
15	75	0		15.76	15.70	15.86
15	1	0	16-QAM	16.05	15.72	16.20
15	1	38		16.02	15.92	16.31
15	1	75		15.85	15.91	16.17
15	36	0		14.85	14.60	14.80
15	36	18		14.84	14.69	14.87
15	36	39		14.76	14.72	14.80
15	75	0		14.73	14.72	14.84
20	1	0	QPSK	16.80	16.47	16.66
20	1	49		16.83	16.77	17.00
20	1	99		16.65	16.79	16.80
20	50	0		15.72	15.58	15.77
20	50	24		15.77	15.77	15.91
20	50	49		15.80	15.80	15.86
20	100	0		15.74	15.67	15.83
20	1	0	16-QAM	16.03	15.83	15.90
20	1	49		16.03	16.11	16.22
20	1	99		15.90	16.11	16.00
20	50	0		14.75	14.60	14.75
20	50	24		14.81	14.80	14.88
20	50	49		14.80	14.81	14.82
20	100	0		14.76	14.68	14.81

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.68	24.43	24.66
1.4	1	2		24.81	24.60	24.77
1.4	1	5		24.71	24.49	24.78
1.4	3	0		24.73	24.56	24.74
1.4	3	1		24.77	24.56	24.82
1.4	3	2		24.67	24.57	24.77
1.4	6	0		23.79	23.59	23.82
1.4	1	0	16-QAM	23.82	23.67	23.58
1.4	1	2		23.90	23.73	23.69
1.4	1	5		23.86	23.69	23.56
1.4	3	0		23.94	23.80	23.97
1.4	3	1		23.95	23.89	24.03
1.4	3	2		23.86	23.84	24.00
1.4	6	0		23.02	22.86	23.09
3	1	0	QPSK	24.46	24.31	24.48
3	1	7		24.52	24.44	24.61
3	1	14		24.39	24.32	24.62
3	8	0		23.59	23.49	23.69
3	8	4		23.65	23.53	23.82
3	8	7		23.66	23.57	23.76
3	15	0		23.63	23.48	23.74
3	1	0	16-QAM	23.91	23.54	23.43
3	1	7		23.98	23.65	23.46
3	1	14		23.86	23.52	23.48
3	8	0		22.72	22.60	22.76
3	8	4		22.73	22.62	22.86
3	8	7		22.70	22.61	22.78
3	15	0		22.75	22.50	22.85

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.70	24.54	24.57
5	1	12		24.74	24.63	24.78
5	1	24		24.66	24.55	24.77
5	12	0		23.64	23.51	23.75
5	12	6		23.76	23.62	23.87
5	12	11		23.64	23.71	23.70
5	25	0		23.60	23.64	23.83
5	1	0	16-QAM	24.26	23.90	23.90
5	1	12		24.31	24.01	24.16
5	1	24		24.24	23.97	24.13
5	12	0		22.72	22.41	22.81
5	12	6		22.83	22.56	22.80
5	12	11		22.72	22.68	22.77
5	25	0		22.70	22.57	22.79
10	1	0	QPSK	24.84	24.60	24.51
10	1	24		24.81	24.70	24.40
10	1	49		24.71	24.70	24.57
10	25	0		23.75	23.48	23.25
10	25	12		23.68	23.65	23.59
10	25	24		23.44	23.87	23.39
10	50	0		23.68	23.76	23.37
10	1	0	16-QAM	23.68	23.92	23.51
10	1	24		23.65	24.15	23.79
10	1	49		23.61	23.98	23.78
10	25	0		22.77	22.23	22.44
10	25	12		22.80	22.57	22.62
10	25	24		22.54	22.81	22.50
10	50	0		22.68	22.41	22.37

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.52	23.47	23.34
5	1	12		23.65	23.77	23.58
5	1	24		23.47	23.55	23.45
5	12	0		22.51	22.54	22.40
5	12	6		22.59	22.68	22.51
5	12	11		22.54	22.57	22.35
5	25	0		22.50	22.56	22.43
5	1	0	16-QAM	23.57	23.15	22.67
5	1	12		23.69	23.15	22.77
5	1	24		23.58	23.00	22.71
5	12	0		22.10	21.67	21.50
5	12	6		22.12	21.71	21.52
5	12	11		22.11	21.53	21.45
5	25	0		22.09	21.69	21.41
10	1	0	QPSK	23.67	23.61	23.44
10	1	24		23.69	23.74	23.52
10	1	49		23.61	23.75	23.50
10	25	0		22.62	22.57	22.48
10	25	12		22.67	22.64	22.47
10	25	24		22.64	22.61	22.43
10	50	0		22.68	22.65	22.48
10	1	0	16-QAM	22.82	22.43	22.81
10	1	24		22.82	22.53	22.89
10	1	49		22.80	22.51	22.90
10	25	0		21.63	21.58	21.52
10	25	12		21.65	21.61	21.49
10	25	24		21.65	21.64	21.48
10	50	0		21.66	21.62	21.46

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.64	23.52	23.38
15	1	37		23.70	23.65	23.49
15	1	74		23.55	23.58	23.47
15	36	0		22.58	22.61	22.50
15	36	18		22.61	22.72	22.54
15	36	39		22.60	22.66	22.47
15	75	0		22.63	22.69	22.51
15	1	0	16-QAM	22.71	22.90	22.52
15	1	38		22.79	23.04	22.69
15	1	75		22.61	22.98	22.57
15	36	0		21.47	21.60	21.48
15	36	18		21.59	21.72	21.53
15	36	39		21.53	21.62	21.52
15	75	0		21.60	21.61	21.46
20	1	0	QPSK	24.12	24.07	23.33
20	1	49		24.19	24.18	23.45
20	1	99		24.07	24.04	23.39
20	50	0		23.12	23.10	22.48
20	50	24		23.17	23.14	22.51
20	50	49		23.15	22.99	22.45
20	100	0		23.10	23.04	22.48
20	1	0	16-QAM	22.79	22.62	22.54
20	1	49		22.95	22.92	22.77
20	1	99		22.76	22.71	22.62
20	50	0		21.52	21.49	21.43
20	50	24		21.64	21.67	21.50
20	50	49		21.57	21.55	21.39
20	100	0		21.54	21.55	21.39

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.46	24.30	24.30
1.4	1	2		24.51	24.40	24.45
1.4	1	5		24.45	24.30	24.35
1.4	3	0		24.42	24.35	24.40
1.4	3	1		24.48	24.43	24.23
1.4	3	2		24.47	24.40	24.36
1.4	6	0		23.55	23.44	23.39
1.4	1	0	16-QAM	23.54	23.41	22.91
1.4	1	2		23.59	23.47	23.13
1.4	1	5		23.56	23.43	23.12
1.4	3	0		23.61	23.43	23.30
1.4	3	1		23.65	23.53	23.40
1.4	3	2		23.61	23.52	23.43
1.4	6	0		22.72	22.57	22.47
3	1	0	QPSK	24.20	24.15	24.10
3	1	7		24.34	24.22	24.22
3	1	14		24.35	24.10	24.10
3	8	0		23.40	23.37	23.35
3	8	4		23.50	23.50	23.43
3	8	7		23.42	23.40	23.37
3	15	0		23.43	23.38	23.36
3	1	0	16-QAM	23.15	23.47	23.27
3	1	7		23.16	23.57	23.34
3	1	14		23.02	23.57	23.32
3	8	0		22.36	22.34	22.35
3	8	4		22.45	22.43	22.34
3	8	7		22.38	22.41	22.28
3	15	0		22.49	22.34	22.25

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.38	24.45	24.34
5	1	12		24.48	24.48	24.47
5	1	24		24.41	24.46	24.45
5	12	0		23.41	23.47	23.34
5	12	6		23.53	23.50	23.43
5	12	11		23.41	23.52	23.30
5	25	0		23.39	23.48	23.35
5	1	0	16-QAM	23.80	23.76	23.71
5	1	12		23.76	23.90	23.72
5	1	24		23.63	23.98	23.69
5	12	0		22.41	22.42	22.28
5	12	6		22.55	22.47	22.37
5	12	11		22.41	22.46	22.22
5	25	0		22.37	22.45	22.39
10	1	0	QPSK	24.50	24.59	24.43
10	1	24		24.58	24.61	24.46
10	1	49		24.48	24.58	24.51
10	25	0		23.40	23.44	23.36
10	25	12		23.47	23.51	23.54
10	25	24		23.40	23.60	23.48
10	50	0		23.40	23.52	23.42
10	1	0	16-QAM	23.66	23.25	23.76
10	1	24		23.60	23.33	23.89
10	1	49		23.61	23.41	23.86
10	25	0		22.35	22.43	22.37
10	25	12		22.45	22.53	22.54
10	25	24		22.34	22.60	22.47
10	50	0		22.41	22.54	22.44

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.77	24.62	24.51
5	1	12		24.75	24.67	24.63
5	1	24		24.64	24.57	24.52
5	12	0		23.61	23.76	23.74
5	12	6		23.80	23.74	23.69
5	12	11		23.67	23.61	23.63
5	25	0		23.65	23.68	23.66
5	1	0	16-QAM	24.32	24.00	23.92
5	1	12		24.33	24.05	24.08
5	1	24		24.19	24.00	23.97
5	12	0		22.63	22.65	22.73
5	12	6		22.83	22.64	22.77
5	12	11		22.64	22.50	22.66
5	25	0		22.61	22.71	22.71
10	1	0	QPSK	/	24.85	/
10	1	24		/	24.77	/
10	1	49		/	24.68	/
10	25	0		/	23.62	/
10	25	12		/	23.74	/
10	25	24		/	23.52	/
10	50	0		/	23.67	/
10	1	0	16-QAM	/	23.69	/
10	1	24		/	23.59	/
10	1	49		/	23.68	/
10	25	0		/	22.67	/
10	25	12		/	22.82	/
10	25	24		/	22.52	/
10	50	0		/	22.58	/

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.53	24.48	24.42
5	1	12		24.57	24.53	24.46
5	1	24		24.50	24.51	24.45
5	12	0		23.54	23.45	23.41
5	12	6		23.56	23.57	23.58
5	12	11		23.49	23.61	23.41
5	25	0		23.50	23.55	23.43
5	1	0	16-QAM	23.83	23.73	23.78
5	1	12		23.94	23.86	23.77
5	1	24		24.00	23.83	23.70
5	12	0		22.47	22.44	22.45
5	12	6		22.53	22.50	22.54
5	12	11		22.43	22.55	22.39
5	25	0		22.49	22.59	22.40
10	1	0	QPSK	24.52	24.64	24.51
10	1	24		24.55	24.61	24.53
10	1	49		24.53	24.65	24.56
10	25	0		23.49	23.41	23.41
10	25	12		23.58	23.56	23.61
10	25	24		23.65	23.64	23.53
10	50	0		23.61	23.56	23.49
10	1	0	16-QAM	23.54	23.27	23.80
10	1	24		23.71	23.45	23.95
10	1	49		23.72	23.36	23.91
10	25	0		22.44	22.51	22.49
10	25	12		22.64	22.54	22.59
10	25	24		22.69	22.57	22.52
10	50	0		22.59	22.47	22.45

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	19.95	19.78	19.97
1.4	1	2		20.03	19.85	20.06
1.4	1	5		19.95	19.73	19.99
1.4	3	0		19.94	19.84	20.07
1.4	3	1		19.97	19.90	20.11
1.4	3	2		19.96	19.82	20.04
1.4	6	0		19.01	18.86	19.14
1.4	1	0	16-QAM	19.10	18.94	18.90
1.4	1	2		19.13	18.97	18.97
1.4	1	5		19.10	18.93	18.89
1.4	3	0		19.19	19.05	19.19
1.4	3	1		19.21	19.09	19.22
1.4	3	2		19.16	19.05	19.22
1.4	6	0		18.20	18.06	18.30
3	1	0	QPSK	19.73	19.61	19.83
3	1	7		19.84	19.68	19.91
3	1	14		19.81	19.58	19.83
3	8	0		18.90	18.78	19.02
3	8	4		18.97	18.87	19.10
3	8	7		18.90	18.87	19.05
3	15	0		18.95	18.78	19.03
3	1	0	16-QAM	18.66	19.07	19.04
3	1	7		18.75	19.11	19.10
3	1	14		18.69	19.04	19.04
3	8	0		17.88	17.83	18.04
3	8	4		17.97	17.88	18.10
3	8	7		17.91	17.84	18.01
3	15	0		18.00	17.80	18.03

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	19.95	19.92	20.08
5	1	12		20.05	19.94	20.12
5	1	24		19.99	19.87	20.10
5	12	0		19.00	18.95	19.21
5	12	6		19.05	18.95	19.14
5	12	11		19.09	18.94	19.06
5	25	0		19.04	18.94	19.15
5	1	0	16-QAM	19.34	19.45	19.38
5	1	12		19.41	19.53	19.47
5	1	24		19.40	19.42	19.45
5	12	0		18.02	17.92	18.19
5	12	6		18.10	17.93	18.10
5	12	11		18.09	17.97	18.02
5	25	0		18.00	17.90	18.17
10	1	0	QPSK	20.04	20.05	20.12
10	1	24		20.16	20.01	20.22
10	1	49		20.20	19.99	20.22
10	25	0		19.00	18.91	19.01
10	25	12		19.14	18.96	19.16
10	25	24		19.08	18.93	18.88
10	50	0		19.06	18.96	19.00
10	1	0	16-QAM	19.46	19.19	18.97
10	1	24		19.57	19.14	19.12
10	1	49		19.63	19.11	19.11
10	25	0		18.03	17.92	18.05
10	25	12		18.18	17.96	18.17
10	25	24		18.12	17.97	17.94
10	50	0		18.05	17.98	18.00

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	20.00	19.96	19.98
15	1	37		20.22	19.94	20.20
15	1	74		20.21	19.87	20.15
15	36	0		19.02	18.88	18.94
15	36	18		19.16	18.97	19.12
15	36	39		19.13	18.93	18.97
15	75	0		19.10	18.88	18.95
15	1	0	16-QAM	19.11	19.39	19.15
15	1	38		19.34	19.35	19.34
15	1	75		19.31	19.30	19.33
15	36	0		17.98	17.92	18.03
15	36	18		18.12	18.00	18.15
15	36	39		18.09	17.93	18.06
15	75	0		18.09	17.88	17.92
20	1	0	QPSK	20.00	19.96	19.98
20	1	49		20.22	19.94	20.20
20	1	99		20.21	19.87	20.15
20	50	0		19.02	18.88	18.94
20	50	24		19.16	18.97	19.12
20	50	49		19.13	18.93	18.97
20	100	0		19.10	18.88	18.95
20	1	0	16-QAM	19.11	19.39	19.15
20	1	49		19.34	19.35	19.34
20	1	99		19.31	19.30	19.33
20	50	0		17.98	17.92	18.03
20	50	24		18.12	18.00	18.15
20	50	49		18.09	17.93	18.06
20	100	0		18.09	17.88	17.92

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.02	23.79	23.93
1.4	1	2		24.08	23.85	24.04
1.4	1	5		24.02	23.76	24.01
1.4	3	0		24.02	23.85	24.08
1.4	3	1		24.01	23.86	24.06
1.4	3	2		24.02	23.81	24.05
1.4	6	0		23.14	22.89	23.06
1.4	1	0	16-QAM	23.13	23.05	22.85
1.4	1	2		23.22	23.02	22.97
1.4	1	5		23.16	22.98	22.85
1.4	3	0		23.28	23.13	23.21
1.4	3	1		23.33	23.14	23.33
1.4	3	2		23.24	23.14	23.23
1.4	6	0		22.34	22.11	22.36
3	1	0	QPSK	23.79	23.63	23.79
3	1	7		23.84	23.71	23.98
3	1	14		23.66	23.61	23.96
3	8	0		22.98	22.84	23.01
3	8	4		23.09	22.92	23.08
3	8	7		22.99	22.88	23.04
3	15	0		22.98	22.86	23.07
3	1	0	16-QAM	23.28	22.83	22.71
3	1	7		23.33	22.93	22.88
3	1	14		23.22	22.90	22.79
3	8	0		22.05	21.86	22.12
3	8	4		22.09	21.89	22.13
3	8	7		22.04	21.95	22.15
3	15	0		22.03	21.93	22.19

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.05	23.77	24.01
5	1	12		24.04	23.93	24.18
5	1	24		23.95	23.90	24.12
5	12	0		23.02	22.82	23.12
5	12	6		23.09	23.00	23.18
5	12	11		22.89	23.10	23.08
5	25	0		22.99	23.04	23.15
5	1	0	16-QAM	23.40	23.27	23.59
5	1	12		23.44	23.36	23.79
5	1	24		23.38	23.34	23.76
5	12	0		21.94	21.86	22.22
5	12	6		22.03	22.05	22.26
5	12	11		21.84	22.11	22.16
5	25	0		22.02	22.03	22.18
10	1	0	QPSK	24.00	23.86	23.88
10	1	24		24.03	23.97	24.03
10	1	49		24.07	24.02	24.21
10	25	0		23.10	22.99	22.78
10	25	12		23.03	22.93	23.08
10	25	24		23.02	23.11	22.99
10	50	0		23.08	23.00	22.92
10	1	0	16-QAM	23.36	22.87	23.45
10	1	24		23.32	22.97	23.57
10	1	49		23.22	22.95	23.68
10	25	0		22.10	21.93	22.06
10	25	12		22.09	22.06	22.22
10	25	24		21.78	22.23	22.05
10	50	0		22.06	22.10	22.04

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.13	23.89	23.94
15	1	37		24.05	24.00	24.10
15	1	74		24.05	24.03	24.25
15	36	0		23.10	22.95	22.98
15	36	18		23.04	23.05	23.12
15	36	39		22.80	23.25	22.96
15	75	0		22.99	23.12	22.98
15	1	0	16-QAM	23.19	23.36	23.04
15	1	38		23.19	23.49	23.26
15	1	75		23.21	23.50	23.42
15	36	0		22.08	22.02	21.88
15	36	18		22.02	22.07	22.17
15	36	39		22.06	22.19	22.15
15	75	0		22.12	22.05	21.95

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.32	24.34	24.46
5	1	12		24.46	24.42	24.59
5	1	24		24.32	24.35	24.51
5	12	0		23.39	23.33	23.47
5	12	6		23.44	23.39	23.56
5	12	11		23.46	23.36	23.50
5	25	0		23.43	23.35	23.52
5	1	0	16-QAM	23.67	23.91	23.70
5	1	12		23.79	24.01	23.81
5	1	24		23.65	23.92	23.75
5	12	0		22.44	22.32	22.43
5	12	6		22.47	22.43	22.50
5	12	11		22.47	22.36	22.45
5	25	0		22.39	22.39	22.57
10	1	0	QPSK	24.26	24.29	24.27
10	1	24		24.46	24.49	24.57
10	1	49		24.29	24.38	24.43
10	25	0		23.37	23.32	23.37
10	25	12		23.46	23.44	23.51
10	25	24		23.42	23.41	23.46
10	50	0		23.39	23.35	23.40
10	1	0	16-QAM	23.88	23.54	23.40
10	1	24		23.91	23.54	23.49
10	1	49		23.91	23.55	23.46
10	25	0		22.43	22.39	22.47
10	25	12		22.52	22.42	22.54
10	25	24		22.48	22.41	22.54
10	50	0		22.47	22.47	22.48

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.35	24.41	24.36
15	1	37		24.47	24.52	24.54
15	1	74		24.43	24.45	24.48
15	36	0		23.41	23.38	23.47
15	36	18		23.47	23.45	23.55
15	36	39		23.44	23.41	23.51
15	75	0		23.44	23.45	23.54
15	1	0	16-QAM	23.51	23.55	23.82
15	1	38		23.63	23.65	23.98
15	1	75		23.48	23.57	23.93
15	36	0		22.46	22.32	22.52
15	36	18		22.53	22.42	22.53
15	36	39		22.52	22.35	22.56
15	75	0		22.44	22.45	22.51
20	1	0	QPSK	24.39	24.43	24.49
20	1	49		24.46	24.42	24.59
20	1	99		24.42	24.43	24.59
20	50	0		23.41	23.34	23.44
20	50	24		23.50	23.40	23.53
20	50	49		23.44	23.37	23.51
20	100	0		23.48	23.41	23.49
20	1	0	16-QAM	23.53	23.47	23.40
20	1	49		23.75	23.64	23.69
20	1	99		23.54	23.54	23.58
20	50	0		22.43	22.32	22.41
20	50	24		22.51	22.45	22.56
20	50	49		22.50	22.41	22.49
20	100	0		22.39	22.36	22.45

LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	14.94	14.90	14.85
5	1	12		15.04	15.04	15.00
5	1	24		14.96	14.90	14.84
5	12	0		13.92	13.90	13.91
5	12	6		13.99	13.95	13.95
5	12	11		14.01	13.95	13.95
5	25	0		14.04	13.96	13.96
5	1	0	16-QAM	14.58	14.27	14.26
5	1	12		14.74	14.38	14.40
5	1	24		14.62	14.24	14.25
5	12	0		12.94	12.87	12.95
5	12	6		13.06	12.97	13.00
5	12	11		13.03	12.95	13.03
5	25	0		12.97	12.98	12.92
10	1	0	QPSK	/	14.91	/
10	1	24		/	15.06	/
10	1	49		/	14.95	/
10	25	0		/	13.93	/
10	25	12		/	14.01	/
10	25	24		/	14.01	/
10	50	0		/	14.03	/
10	1	0	16-QAM	/	14.48	/
10	1	24		/	14.55	/
10	1	49		/	14.47	/
10	25	0		/	13.00	/
10	25	12		/	13.06	/
10	25	24		/	13.08	/
10	50	0		/	13.01	/

LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	14.83	14.76	14.78
5	1	12		14.95	14.89	14.94
5	1	24		14.82	14.75	14.80
5	12	0		13.91	13.86	13.85
5	12	6		13.96	13.95	13.92
5	12	11		13.91	13.90	13.86
5	25	0		13.92	13.89	13.87
5	1	0	16-QAM	14.19	14.17	14.44
5	1	12		14.32	14.30	14.60
5	1	24		14.19	14.17	14.49
5	12	0		12.86	12.86	12.83
5	12	6		12.91	12.96	12.89
5	12	11		12.87	12.88	12.86
5	25	0		12.96	12.86	12.85
10	1	0	QPSK	/	14.88	/
10	1	24		/	14.97	/
10	1	49		/	14.90	/
10	25	0		/	13.89	/
10	25	12		/	13.96	/
10	25	24		/	13.94	/
10	50	0		/	13.93	/
10	1	0	16-QAM	/	13.85	/
10	1	24		/	13.92	/
10	1	49		/	13.89	/
10	25	0		/	12.89	/
10	25	12		/	12.94	/
10	25	24		/	12.92	/
10	50	0		/	12.89	/

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	23.90	23.44	23.79	23.33	24.35
5	1	12		23.98	23.51	23.91	23.45	24.49
5	1	24		23.91	23.44	23.84	23.38	24.35
5	12	0		22.90	22.46	22.89	22.44	23.34
5	12	6		22.95	22.51	22.94	22.50	23.42
5	12	11		22.90	22.45	22.92	22.46	23.34
5	25	0		22.96	22.51	22.91	22.45	23.39
5	1	0	16-QAM	23.18	22.73	23.13	22.68	23.83
5	1	12		23.28	22.83	23.26	22.81	23.99
5	1	24		23.17	22.72	23.18	22.72	23.86
5	12	0		21.90	21.47	21.90	21.47	22.35
5	12	6		21.95	21.52	21.97	21.55	22.39
5	12	11		21.86	21.44	21.91	21.48	22.33
5	25	0		21.98	21.55	21.92	21.50	22.32
10	1	0	QPSK	24.34	23.86	24.41	23.93	24.81
10	1	24		24.42	23.94	24.49	24.01	24.92
10	1	49		24.38	23.91	24.53	24.04	24.90
10	25	0		23.34	22.88	23.38	22.92	23.84
10	25	12		23.36	22.90	23.43	22.97	23.87
10	25	24		23.40	22.94	23.41	22.95	23.83
10	50	0		23.35	22.89	23.41	22.96	23.85
10	1	0	16-QAM	23.43	22.96	23.32	22.86	24.23
10	1	24		23.63	23.18	23.40	22.94	24.34
10	1	49		23.56	23.11	23.38	22.93	24.28
10	25	0		22.32	21.88	22.42	21.99	22.86
10	25	12		22.46	22.03	22.46	22.01	22.90
10	25	24		22.43	21.99	22.45	22.01	22.86
10	50	0		22.41	21.98	22.40	21.96	22.86

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	24.35	23.87	24.41	23.93	24.74
15	1	37		24.46	23.97	24.55	24.06	24.93
15	1	74		24.39	23.90	24.55	24.06	24.82
15	36	0		23.37	22.91	23.40	22.94	23.87
15	36	18		23.46	23.00	23.45	22.98	23.94
15	36	39		23.42	22.95	23.47	23.02	23.90
15	75	0		23.43	22.97	23.44	22.98	23.90
15	1	0	16-QAM	23.53	23.07	23.51	23.05	24.15
15	1	38		23.58	23.12	23.63	23.18	24.31
15	1	75		23.50	23.05	23.63	23.16	24.23
15	36	0		22.46	22.01	22.36	21.93	22.87
15	36	18		22.52	22.09	22.42	21.99	22.93
15	36	39		22.48	22.03	22.45	22.01	22.88
15	75	0		22.41	21.96	22.43	22.00	22.86
20	1	0	QPSK	24.30	23.83	24.27	23.80	24.65
20	1	49		24.51	24.03	24.51	24.03	24.99
20	1	99		24.40	23.93	24.46	23.98	24.83
20	50	0		23.35	22.89	23.32	22.87	23.79
20	50	24		23.45	22.99	23.43	22.97	23.92
20	50	49		23.45	22.99	23.42	22.97	23.82
20	100	0		23.35	22.90	23.36	22.90	23.77
20	1	0	16-QAM	23.49	23.03	23.39	22.93	23.80
20	1	49		23.65	23.19	23.61	23.15	24.12
20	1	99		23.52	23.06	23.56	23.10	24.00
20	50	0		22.35	21.91	22.37	21.93	22.84
20	50	24		22.47	22.04	22.50	22.06	22.94
20	50	49		22.43	21.99	22.49	22.05	22.83
20	100	0		22.38	21.94	22.37	21.93	22.78

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	18.99	18.80	19.07
1.4	1	2		19.02	18.85	19.17
1.4	1	5		18.98	18.76	19.09
1.4	3	0		18.90	18.86	19.11
1.4	3	1		18.93	18.90	19.17
1.4	3	2		18.91	18.83	19.10
1.4	6	0		18.02	17.93	18.22
1.4	1	0	16-QAM	18.03	17.96	17.93
1.4	1	2		18.09	18.01	17.99
1.4	1	5		18.06	17.96	17.97
1.4	3	0		18.09	18.05	18.23
1.4	3	1		18.14	18.11	18.28
1.4	3	2		18.07	18.04	18.27
1.4	6	0		17.21	17.15	17.43
3	1	0	QPSK	18.77	18.67	18.83
3	1	7		18.81	18.80	19.00
3	1	14		18.75	18.74	18.92
3	8	0		17.86	17.85	18.09
3	8	4		17.96	17.94	18.20
3	8	7		17.92	17.86	18.15
3	15	0		17.90	17.87	18.11
3	1	0	16-QAM	17.91	17.59	18.26
3	1	7		17.97	17.63	18.42
3	1	14		17.93	17.54	18.34
3	8	0		16.96	16.85	17.15
3	8	4		16.98	16.91	17.26
3	8	7		16.93	16.91	17.18
3	15	0		16.90	16.97	17.17

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	18.97	18.91	19.06
5	1	12		19.05	18.96	19.21
5	1	24		18.98	18.87	19.25
5	12	0		17.95	17.92	18.09
5	12	6		18.00	17.97	18.18
5	12	11		17.98	17.95	18.23
5	25	0		18.00	17.93	18.16
5	1	0	16-QAM	18.28	18.21	18.56
5	1	12		18.37	18.30	18.75
5	1	24		18.27	18.20	18.73
5	12	0		16.95	16.96	17.12
5	12	6		16.99	17.01	17.22
5	12	11		16.99	16.99	17.23
5	25	0		17.04	16.95	17.14
10	1	0	QPSK	18.95	18.89	18.92
10	1	24		18.96	19.05	19.17
10	1	49		18.78	18.97	19.30
10	25	0		17.89	17.93	17.97
10	25	12		17.94	18.04	18.09
10	25	24		17.85	17.99	18.24
10	50	0		17.91	17.99	18.13
10	1	0	16-QAM	18.44	18.11	17.92
10	1	24		18.46	18.20	18.04
10	1	49		18.30	18.12	18.20
10	25	0		16.97	16.97	17.06
10	25	12		17.10	17.05	17.16
10	25	24		16.99	17.04	17.24
10	50	0		16.93	17.03	17.09

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	18.95	18.89	18.92
15	1	37		18.96	19.05	19.17
15	1	74		18.78	18.97	19.30
15	36	0		17.89	17.93	17.97
15	36	18		17.94	18.04	18.09
15	36	39		17.85	17.99	18.24
15	75	0		17.91	17.99	18.13
15	1	0	16-QAM	18.35	18.04	17.94
15	1	38		18.36	18.16	18.23
15	1	75		18.20	18.06	18.35
15	36	0		16.96	17.02	16.96
15	36	18		17.00	17.14	17.09
15	36	39		16.90	17.08	17.20
15	75	0		16.90	16.98	17.16
20	1	0	QPSK	19.07	19.03	19.07
20	1	49		19.06	19.07	19.26
20	1	99		18.89	19.01	19.38
20	50	0		17.88	17.93	18.05
20	50	24		18.03	18.01	18.13
20	50	49		17.92	17.97	18.21
20	100	0		17.89	18.00	18.14
20	1	0	16-QAM	18.35	18.04	17.94
20	1	49		18.36	18.16	18.23
20	1	99		18.20	18.06	18.35
20	50	0		16.96	17.02	16.96
20	50	24		17.00	17.14	17.09
20	50	49		16.90	17.08	17.20
20	100	0		16.90	16.98	17.16

10.2 Tune up Power

Mode	GSM850	GSM1900
GSM	31.5±1dBm	26±1dBm
GPRS (1 Slot)	31.5±1dBm	25.5±1dBm
GPRS (2 Slot)	30.5±1dBm	25.5±1dBm
GPRS (3 Slot)	29±1dBm	24.5±1dBm
GPRS (4 Slot)	28±1dBm	23.5±1dBm

Mode	WCDMA Band II	WCDMA Band V	WCDMA Band IV
RMC	19±1dBm	15±1dBm	23.5±1dBm
HSDPA Subtest-1	18±1dBm	14±1dBm	23.5±1dBm
HSDPA Subtest-2	17.5±1dBm	14±1dBm	22±1dBm
HSDPA Subtest-3	16.5±1dBm	13±1dBm	21±1dBm
HSDPA Subtest-4	16.5±1dBm	13±1dBm	21±1dBm
HSUPA Subtest-1	18±1dBm	14±1dBm	22±1dBm
HSUPA Subtest-2	18±1dBm	14±1dBm	22±1dBm
HSUPA Subtest-3	16.5±1dBm	12.5±1dBm	21±1dBm
HSUPA Subtest-4	18±1dBm	14±1dBm	22.5±1dBm
HSUPA Subtest-5	17.5±1dBm	13.5±1dBm	22±1dBm

Mode	CDMA
CDMA BC0	23±1dBm
CDMA BC1	23.5±1dBm

Mode	NFC
NFC	-43±1dBm

BW[MHz]	RB Size	Mode	Band 2	Band 4	Band 5	Band 7	Band 12
1.4	1	QPSK	19.5±1dBm	16±1dBm	24±1dBm	N/A	24±1dBm
1.4	3		19.5±1dBm	16±1dBm	24±1dBm	N/A	23.5±1dBm
1.4	6		18.5±1dBm	15±1dBm	23±1dBm	N/A	23±1dBm
1.4	1	16- QAM	18.5±1dBm	15.5±1dBm	23±1dBm	N/A	23±1dBm
1.4	3		18.5±1dBm	15.5±1dBm	23.5±1dBm	N/A	23±1dBm
1.4	6		17.5±1dBm	14.5±1dBm	22.5±1dBm	N/A	22±1dBm
3	1	QPSK	19±1dBm	15.5±1dBm	24±1dBm	N/A	23.5±1dBm
3	8		18.5±1dBm	15±1dBm	23±1dBm	N/A	23±1dBm
3	15		18±1dBm	15±1dBm	23±1dBm	N/A	22.5±1dBm
3	1	16- QAM	18.5±1dBm	15±1dBm	23±1dBm	N/A	23±1dBm
3	8		17.5±1dBm	14±1dBm	22±1dBm	N/A	21.5±1dBm
3	15		17±1dBm	14±1dBm	22±1dBm	N/A	21.5±1dBm
5	1	QPSK	19.5±1dBm	16±1dBm	24±1dBm	23±1dBm	23.5±1dBm
5	12		18.5±1dBm	15±1dBm	23±1dBm	22±1dBm	23±1dBm
5	25		18±1dBm	15±1dBm	23±1dBm	22±1dBm	22.5±1dBm
5	1	16- QAM	19±1dBm	15.5±1dBm	23.5±1dBm	23±1dBm	23±1dBm
5	12		17.5±1dBm	14±1dBm	22±1dBm	21.5±1dBm	22±1dBm
5	25		17±1dBm	14±1dBm	22±1dBm	21.5±1dBm	21.5±1dBm
10	1	QPSK	19.5±1dBm	16.5±1dBm	24±1dBm	23±1dBm	24±1dBm
10	25		18±1dBm	15±1dBm	23±1dBm	22±1dBm	23±1dBm
10	50		18±1dBm	15±1dBm	23±1dBm	22±1dBm	23±1dBm
10	1	16- QAM	19±1dBm	15.5±1dBm	23.5±1dBm	22±1dBm	23±1dBm
10	25		17.5±1dBm	14±1dBm	22±1dBm	21±1dBm	22±1dBm
10	50		17.5±1dBm	14±1dBm	22±1dBm	21±1dBm	22±1dBm
15	1	QPSK	19.5±1dBm	16±1dBm	N/A	23±1dBm	N/A
15	36		18.5±1dBm	15±1dBm	N/A	22±1dBm	N/A
15	75		18.5±1dBm	15±1dBm	N/A	22±1dBm	N/A
15	1	16- QAM	18.5±1dBm	15.5±1dBm	N/A	22.5±1dBm	N/A
15	36		17.5±1dBm	14±1dBm	N/A	21±1dBm	N/A
15	75		17.5±1dBm	14±1dBm	N/A	21±1dBm	N/A
20	1	QPSK	19.5±1dBm	16.5±1dBm	N/A	23.5±1dBm	N/A
20	50		18.5±1dBm	15±1dBm	N/A	22.5±1dBm	N/A
20	100		18.5±1dBm	15±1dBm	N/A	22.5±1dBm	N/A
20	1	16- QAM	18.5±1dBm	15.5±1dBm	N/A	22±1dBm	N/A
20	50		17±1dBm	14±1dBm	N/A	21±1dBm	N/A
20	100		17±1dBm	14±1dBm	N/A	21±1dBm	N/A

BW[MHz]	RB Size	Mode	Band 13	Band 17	Band 25	Band 26	Band 38
1.4	1	QPSK	N/A	N/A	19.5±1dBm	23.5±1dBm	N/A
1.4	3		N/A	N/A	19.5±1dBm	23.5±1dBm	N/A
1.4	6		N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
1.4	1	16- QAM	N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
1.4	3		N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
1.4	6		N/A	N/A	17.5±1dBm	22.5±1dBm	N/A
3	1	QPSK	N/A	N/A	19±1dBm	23±1dBm	N/A
3	8		N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
3	15		N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
3	1	16- QAM	N/A	N/A	18.5±1dBm	22.5±1dBm	N/A
3	8		N/A	N/A	17.5±1dBm	21.5±1dBm	N/A
3	15		N/A	N/A	17.5±1dBm	21.5±1dBm	N/A
5	1	QPSK	24±1dBm	24±1dBm	19.5±1dBm	23.5±1dBm	24±1dBm
5	12		23±1dBm	23±1dBm	18.5±1dBm	22.5±1dBm	23±1dBm
5	25		23±1dBm	23±1dBm	18.5±1dBm	22.5±1dBm	23±1dBm
5	1	16- QAM	23.5±1dBm	23.5±1dBm	19±1dBm	23±1dBm	23.5±1dBm
5	12		22±1dBm	22±1dBm	17.5±1dBm	21.5±1dBm	22±1dBm
5	25		22±1dBm	22±1dBm	17.5±1dBm	21.5±1dBm	22±1dBm
10	1	QPSK	24±1dBm	24±1dBm	19.5±1dBm	23.5±1dBm	24±1dBm
10	25		23±1dBm	23±1dBm	18.5±1dBm	22.5±1dBm	23±1dBm
10	50		23±1dBm	23±1dBm	18.5±1dBm	22.5±1dBm	22.5±1dBm
10	1	16- QAM	23±1dBm	23±1dBm	19±1dBm	23±1dBm	23±1dBm
10	25		22±1dBm	22±1dBm	17.5±1dBm	21.5±1dBm	22±1dBm
10	50		22±1dBm	22±1dBm	17.5±1dBm	21.5±1dBm	21.5±1dBm
15	1	QPSK	N/A	N/A	19.5±1dBm	23.5±1dBm	24±1dBm
15	36		N/A	N/A	18.5±1dBm	22.5±1dBm	23±1dBm
15	75		N/A	N/A	18.5±1dBm	22.5±1dBm	23±1dBm
15	1	16- QAM	N/A	N/A	18.5±1dBm	23±1dBm	23±1dBm
15	36		N/A	N/A	17.5±1dBm	21.5±1dBm	22±1dBm
15	75		N/A	N/A	17.5±1dBm	21.5±1dBm	22±1dBm
20	1	QPSK	N/A	N/A	19.5±1dBm	N/A	24±1dBm
20	50		N/A	N/A	18.5±1dBm	N/A	23±1dBm
20	100		N/A	N/A	18.5±1dBm	N/A	22.5±1dBm
20	1	16- QAM	N/A	N/A	18.5±1dBm	N/A	23±1dBm
20	50		N/A	N/A	17.5±1dBm	N/A	22±1dBm
20	100		N/A	N/A	17.5±1dBm	N/A	21.5±1dBm

BW[MHz]	RB Size	Mode	Band 40 (2305-2315)	Band 40 (2350-2360)	Band 41	Band 66
1.4	1	QPSK	N/A	N/A	N/A	18.5±1dBm
1.4	3		N/A	N/A	N/A	18.5±1dBm
1.4	6		N/A	N/A	N/A	17.5±1dBm
1.4	1	16- QAM	N/A	N/A	N/A	17.5±1dBm
1.4	3		N/A	N/A	N/A	17.5±1dBm
1.4	6		N/A	N/A	N/A	16.5±1dBm
3	1	QPSK	N/A	N/A	N/A	18.5±1dBm
3	8		N/A	N/A	N/A	17.5±1dBm
3	15		N/A	N/A	N/A	17.5±1dBm
3	1	16- QAM	N/A	N/A	N/A	17.5±1dBm
3	8		N/A	N/A	N/A	16.5±1dBm
3	15		N/A	N/A	N/A	16.5±1dBm
5	1	QPSK	14.5±1dBm	14±1dBm	23.5±1dBm	18.5±1dBm
5	12		13.5±1dBm	13±1dBm	22.5±1dBm	17.5±1dBm
5	25		13.5±1dBm	13±1dBm	22.5±1dBm	17.5±1dBm
5	1	16- QAM	14±1dBm	14±1dBm	23±1dBm	18±1dBm
5	12		12.5±1dBm	12±1dBm	21.5±1dBm	16.5±1dBm
5	25		12±1dBm	12±1dBm	21.5±1dBm	16.5±1dBm
10	1	QPSK	14.5±1dBm	14±1dBm	24±1dBm	18.5±1dBm
10	25		13.5±1dBm	13±1dBm	23±1dBm	17.5±1dBm
10	50		13.5±1dBm	13±1dBm	23±1dBm	17.5±1dBm
10	1	16- QAM	14±1dBm	13±1dBm	23.5±1dBm	17.5±1dBm
10	25		12.5±1dBm	12±1dBm	22±1dBm	16.5±1dBm
10	50		12.5±1dBm	12±1dBm	22±1dBm	16.5±1dBm
15	1	QPSK	N/A	N/A	24±1dBm	18.5±1dBm
15	36		N/A	N/A	23±1dBm	17.5±1dBm
15	75		N/A	N/A	23±1dBm	17.5±1dBm
15	1	16- QAM	N/A	N/A	23.5±1dBm	17.5±1dBm
15	36		N/A	N/A	22±1dBm	16.5±1dBm
15	75		N/A	N/A	22±1dBm	16.5±1dBm
20	1	QPSK	N/A	N/A	24±1dBm	18.5±1dBm
20	50		N/A	N/A	23±1dBm	17.5±1dBm
20	100		N/A	N/A	23±1dBm	17.5±1dBm
20	1	16- QAM	N/A	N/A	23.5±1dBm	17.5±1dBm
20	50		N/A	N/A	22±1dBm	16.5±1dBm
20	100		N/A	N/A	22±1dBm	16.5±1dBm

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

Mode	BLE
GFSK(1Mbps)	2.5±1dBm
GFSK(2Mbps)	2.5±1dBm

Mode	2.4G WLAN
802.11b	15±1dBm
802.11g	14±1dBm
802.11n(HT20)	13.5±1dBm
802.11n(HT40)	14±1dBm

Mode	5.2G WLAN
802.11a	10±1dBm
802.11 n-HT20	8±1dBm
802.11 n-HT40	8±1dBm
802.11 ac-VHT20	8±1dBm
802.11 ac-VHT40	8±1dBm
802.11 ac-VHT80	8±1dBm

Mode	5.3G WLAN
802.11a	10±1dBm
802.11 n-HT20	8±1dBm
802.11 n-HT40	8±1dBm
802.11 ac-VHT20	8±1dBm
802.11 ac-VHT40	8±1dBm
802.11 ac-VHT80	8±1dBm

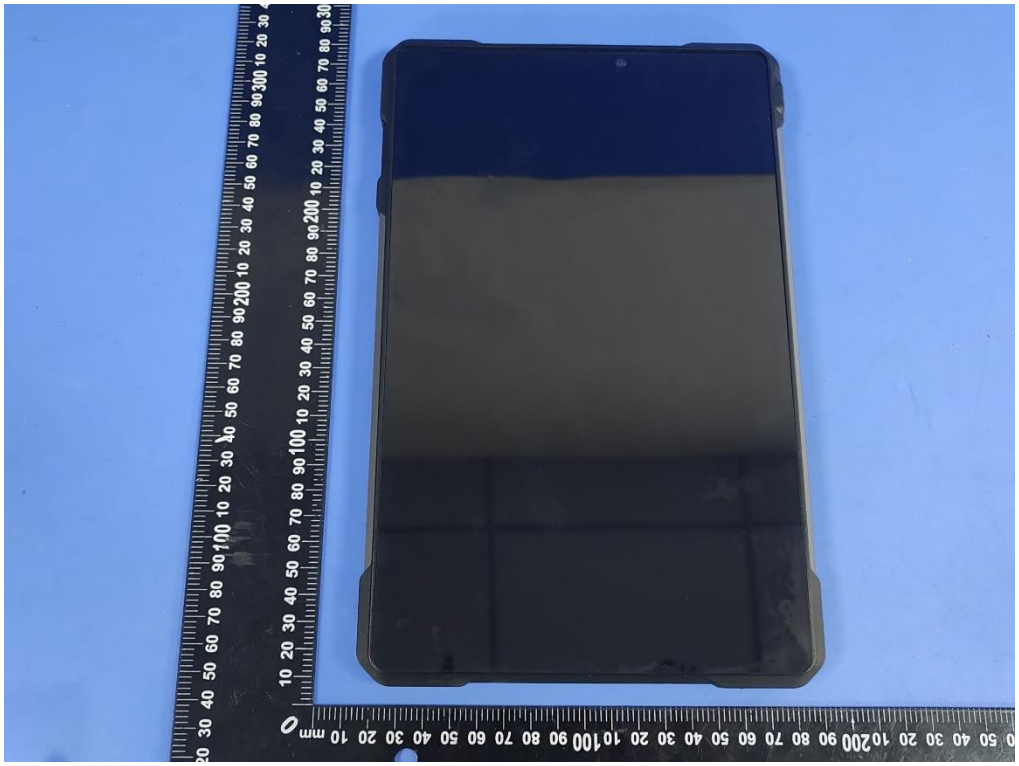
Mode	5.6G WLAN
802.11a	10.5±1dBm
802.11 n-HT20	8.5±1dBm
802.11 n-HT40	8±1dBm
802.11 ac-VHT20	8.5±1dBm
802.11 ac-VHT40	8±1dBm
802.11 ac-VHT80	8±1dBm

Mode	5.8G WLAN
802.11a	11±1dBm
802.11 n-HT20	8.5±1dBm
802.11 n-HT40	8.5±1dBm
802.11 ac-VHT20	8.5±1dBm
802.11 ac-VHT40	8.5±1dBm
802.11 ac-VHT80	8.5±1dBm

11. EUT and Test Setup Photo

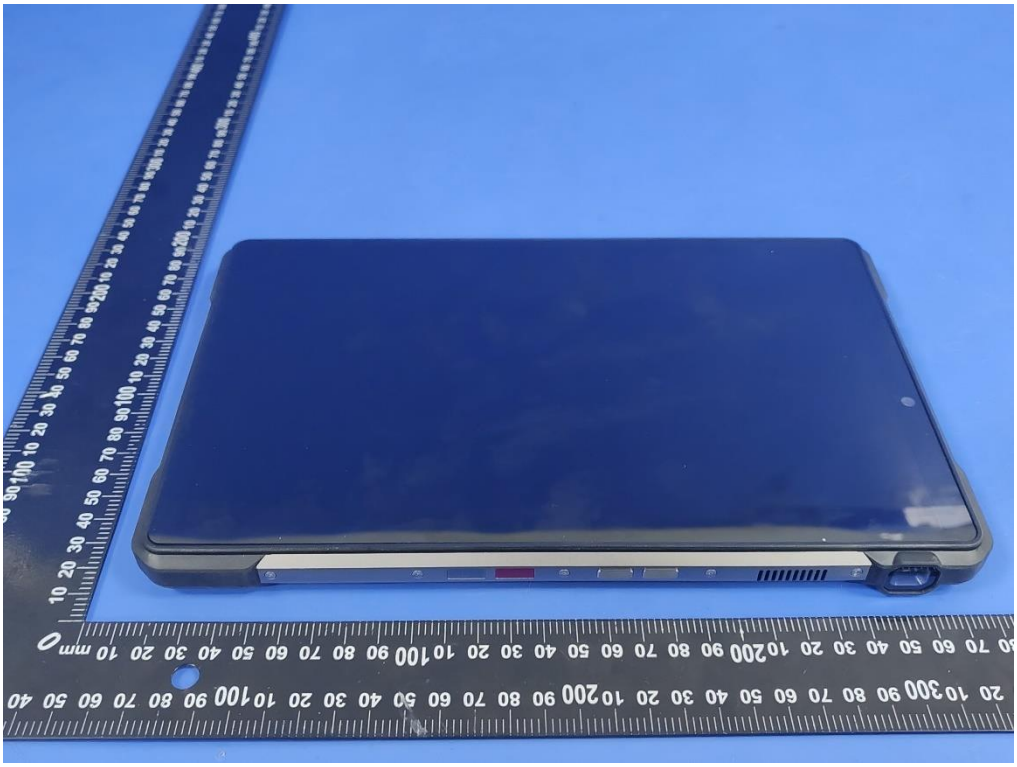
11.1 EUT Photos

Front side

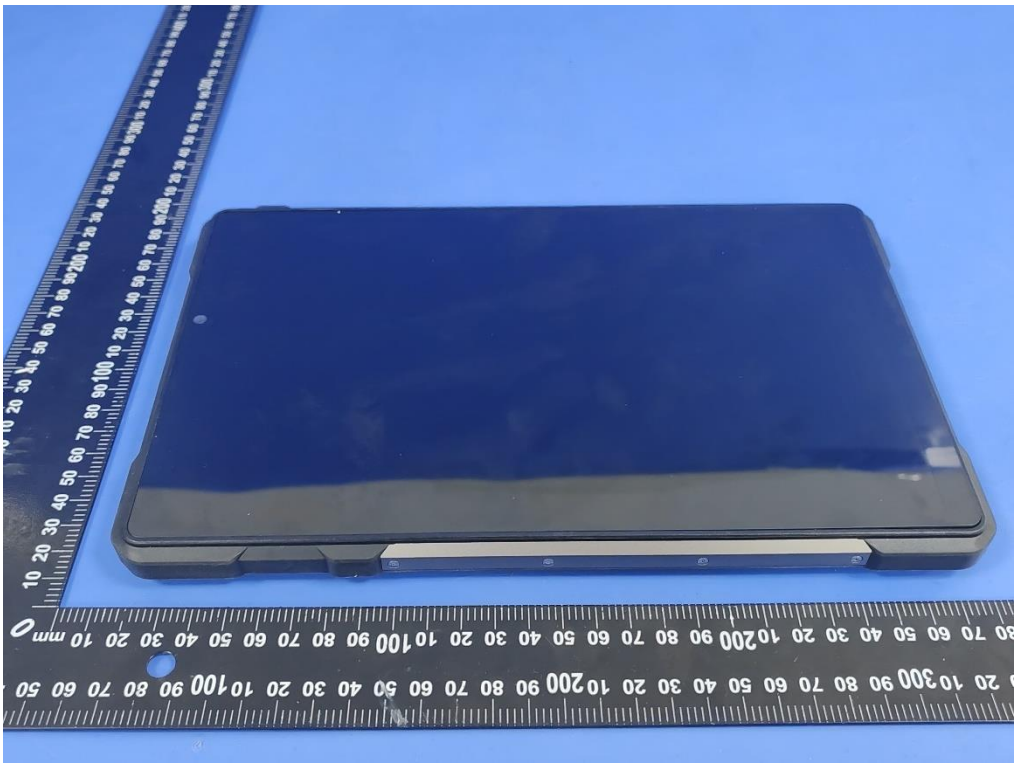


Back side

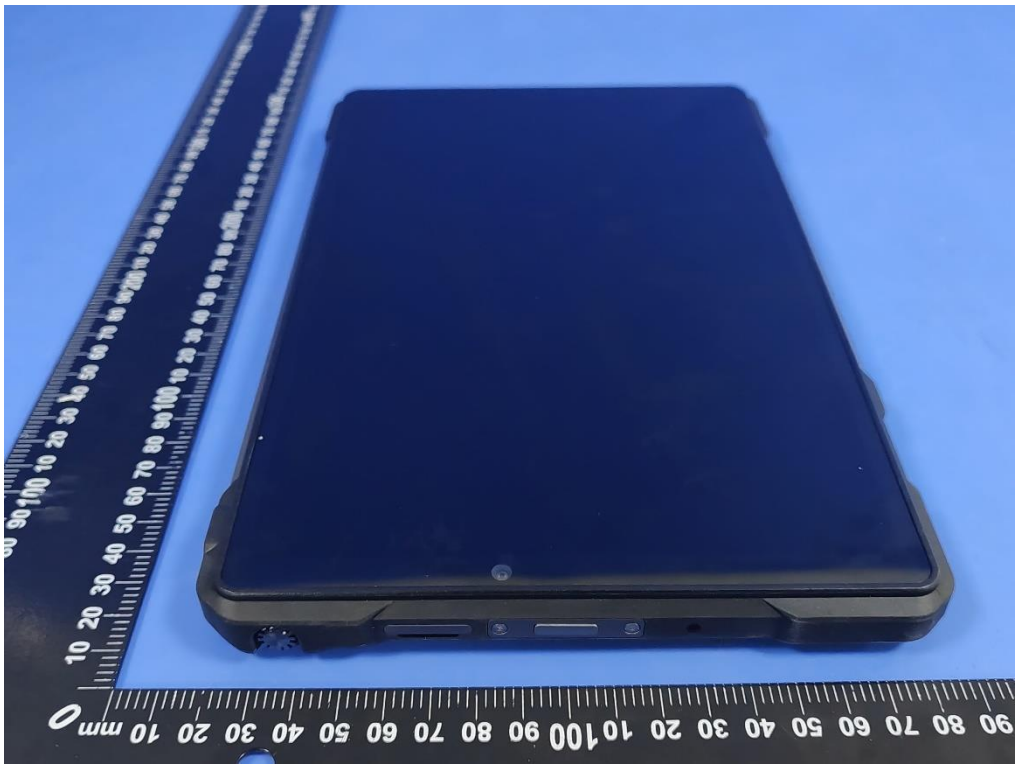
Right Edge



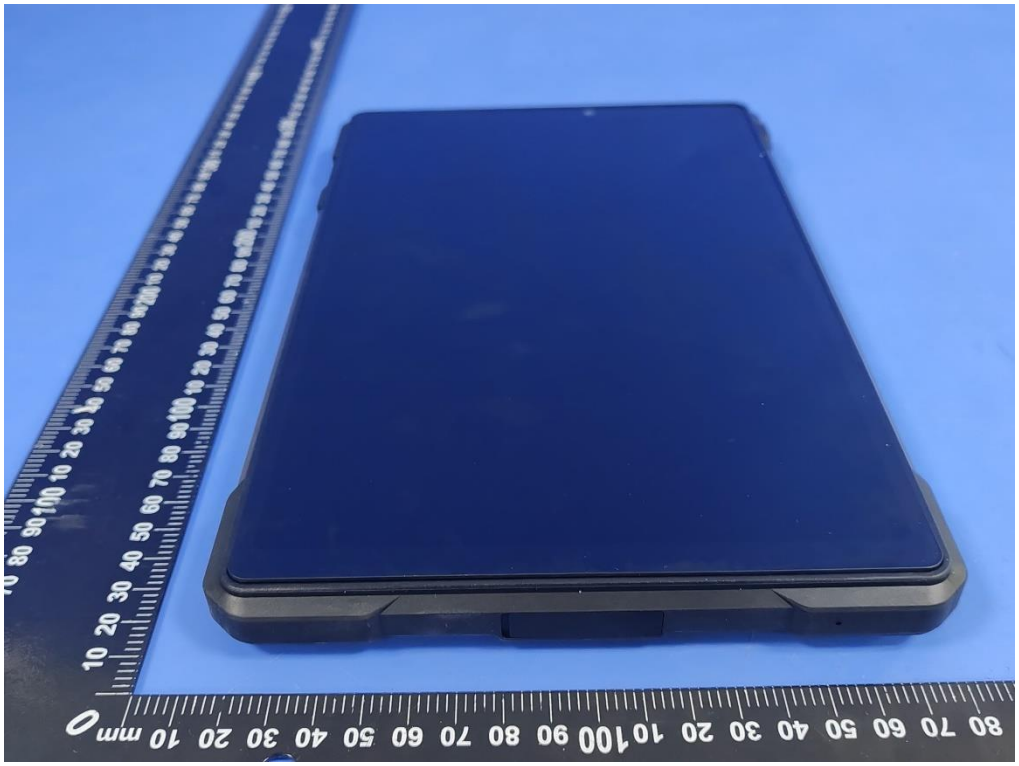
Left Edge



Top Edge



Bottom Edge



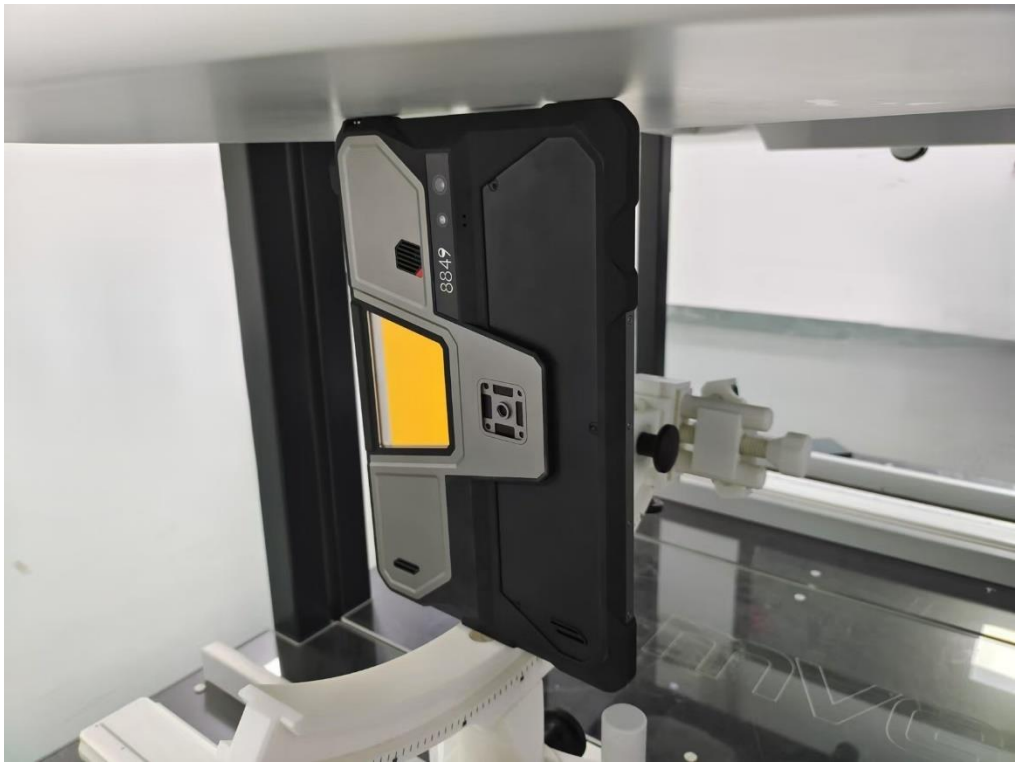
11.2 Setup Photos

Body Back side (separation distance 0mm)

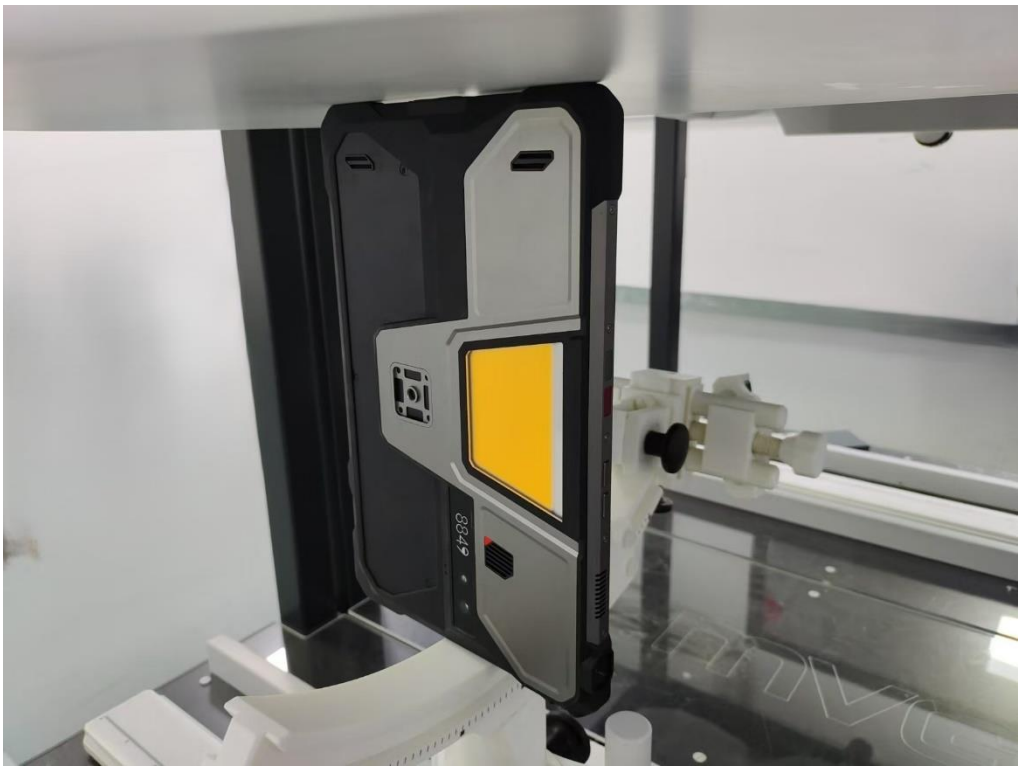
Body Left side (separation distance is 0mm)

Body Right side (separation distance 0mm)

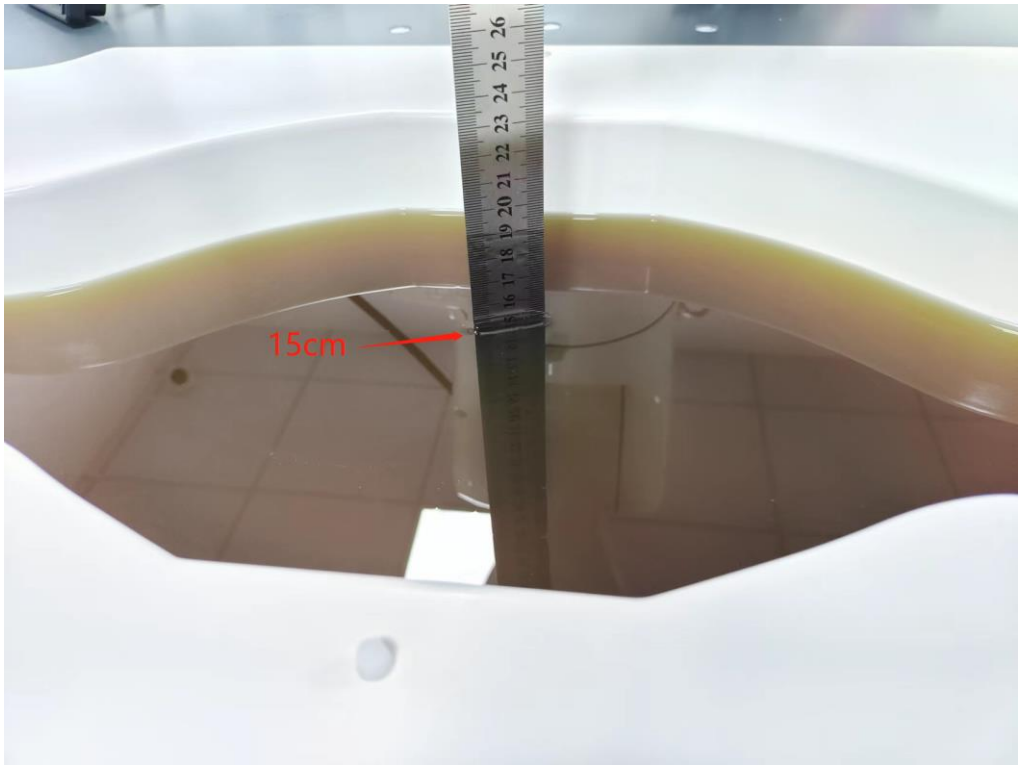
Body Top side (separation distance is 0mm)



Body Bottom side (separation distance 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	GPRS Data-4 Slot	Back Side	824.2	0.731	3.27	29.00	28.31	0.857	/
		Back Side	836.6	0.898	3.27	29.00	28.72	**0.958**	**1**
		Back Side	848.8	0.756	3.27	29.00	28.40	0.868	/
		Left Side	836.6	0.427	-2.49	29.00	28.72	0.455	/
		Right Side	836.6	0.368	-0.46	29.00	28.72	0.393	/
		Top Side	836.6	0.057	0.97	29.00	28.72	0.061	/
		Bottom Side	836.6	0.233	2.49	29.00	28.72	0.249	/
PCS 1900	GPRS Data-4 Slot	Back Side	1880	0.560	1.64	24.50	24.49	**0.561**	**2**
		Left Side	1880	0.263	-3.20	24.50	24.49	0.264	/
		Bottom Side	1880	0.489	2.60	24.50	24.49	0.490	/
WCDMA Band II	RMC	Back Side	1852.4	0.801	1.49	20.00	19.70	0.858	/
		Back Side	1880	0.772	1.49	20.00	19.67	0.833	/
		Back Side	1907.6	0.832	1.49	20.00	19.72	**0.887**	**3**
		Left Side	1907.6	0.391	2.31	20.00	19.72	0.417	/
		Bottom Side	1907.6	0.731	-1.41	20.00	19.72	0.780	/
WCDMA Band IV	RMC	Back Side	1712.6	0.415	0.36	16.00	15.88	**0.427**	**4**
		Left Side	1712.6	0.201	2.65	16.00	15.88	0.207	/
		Bottom Side	1712.6	0.366	1.20	16.00	15.88	0.376	/
WCDMA Band V	RMC	Back Side	846.6	0.409	0.30	24.50	24.10	**0.448**	**5**
		Left Side	846.6	0.199	-2.15	24.50	24.10	0.218	/
		Bottom Side	846.6	0.105	0.45	24.50	24.10	0.115	/
CDMA	BC0	Back Side	848.31	0.101	2.85	24.00	23.60	**0.111**	**6**
		Left Side	848.31	0.049	-0.82	24.00	23.60	0.054	/
		Bottom Side	848.31	0.026	1.05	24.00	23.60	0.029	/
CDMA	BC1	Back Side	1908.75	0.267	3.39	24.00	24.14	**0.259**	**7**
		Left Side	1908.75	0.13	-1.87	24.00	24.14	0.126	/
		Bottom Side	1908.75	0.234	1.01	24.00	24.14	0.227	/
2.4GHz WLAN	802.11b	Back Side	2437	0.335	-0.26	16.00	15.92	**0.341**	**8**
		Left Side	2437	0.163	2.05	16.00	15.92	0.166	/
		Top Side	2437	0.099	1.23	16.00	15.92	0.101	/
5.2GHz WLAN	802.11a	Back Side	5240	0.457	0.64	11.00	10.86	**0.472**	**9**
		Left Side	5240	0.221	2.60	11.00	10.86	0.228	/
		Top Side	5240	0.135	3.50	11.00	10.86	0.139	/
5.3GHz WLAN	802.11a	Back Side	5260	0.492	-2.10	11.00	10.90	**0.503**	**10**
		Left Side	5260	0.233	0.78	11.00	10.90	0.238	/
		Top Side	5260	0.144	-3.06	11.00	10.90	0.147	/
5.6GHz WLAN	802.11a	Back Side	5700	0.375	-1.20	11.50	11.45	**0.379**	**11**
		Left Side	5700	0.179	1.62	11.50	11.45	0.181	/
		Top Side	5700	0.108	-3.97	11.50	11.45	0.109	/
5.8GHz WLAN	802.11a	Back Side	5825	0.494	-0.38	12.00	11.55	**0.548**	**12**
		Left Side	5825	0.233	-3.91	12.00	11.55	0.258	/
		Top Side	5825	0.142	2.47	12.00	11.55	0.158	/

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	0.791	-2.74	20.50	20.18	**0.851**	**13**
			1	0	Back Side	1880	0.710	-2.74	20.50	19.97	0.802	/
			1	0	Back Side	1900	0.732	-2.74	20.50	20.07	0.808	/
			50	0	Back Side	1900	0.681	-0.79	19.50	19.08	0.750	/
			1	0	Left Side	1860	0.377	3.60	20.50	20.18	0.406	/
			50	0	Left Side	1900	0.325	2.51	19.50	19.08	0.358	/
			1	0	Bottom Side	1860	0.695	0.88	20.50	20.18	0.748	/
			50	0	Bottom Side	1900	0.602	2.38	19.50	19.08	0.663	/
LTE Band 4	20M	QPSK	1	0	Back Side	1745	0.487	0.83	17.50	17.00	**0.546**	**14**
			50	0	Back Side	1745	0.418	2.95	16.00	15.91	0.427	/
			1	0	Left Side	1745	0.233	-2.24	17.50	17.00	0.261	/
			50	0	Left Side	1745	0.203	-2.90	16.00	15.91	0.207	/
			1	0	Bottom Side	1745	0.428	1.57	17.50	17.00	0.480	/
			50	0	Bottom Side	1745	0.368	0.81	16.00	15.91	0.376	/
LTE Band 5	10M	QPSK	1	0	Back Side	829	0.517	1.68	25.00	24.84	**0.536**	**15**
			25	0	Back Side	836.5	0.443	3.47	24.00	23.87	0.456	/
			1	0	Left Side	829	0.303	3.67	25.00	24.84	0.314	/
			25	0	Left Side	836.5	0.261	-2.45	24.00	23.87	0.269	/
			1	0	Bottom Side	829	0.185	-1.35	25.00	24.84	0.192	/
			25	0	Bottom Side	836.5	0.159	-2.29	24.00	23.87	0.164	/
LTE Band 7	20M	QPSK	1	0	Back Side	2510	0.187	0.48	24.50	24.19	0.201	/
			50	0	Back Side	2510	0.163	-0.26	23.50	23.17	0.176	/
			1	0	Left Side	2510	0.130	2.37	24.50	24.19	0.140	/
			50	0	Left Side	2510	0.115	0.05	23.50	23.17	0.124	/
			1	0	Bottom Side	2510	0.257	1.72	24.50	24.19	**0.276**	**16**
			50	0	Bottom Side	2510	0.219	-1.36	23.50	23.17	0.236	/
LTE Band 12	10M	QPSK	1	0	Back Side	707.5	0.400	-0.57	25.00	24.61	**0.438**	**17**
			25	0	Back Side	707.5	0.346	3.97	24.00	23.60	0.379	/
			1	0	Left Side	707.5	0.189	0.27	25.00	24.61	0.207	/
			25	0	Left Side	707.5	0.161	-0.26	24.00	23.60	0.177	/
			1	0	Bottom Side	707.5	0.102	-2.78	25.00	24.61	0.112	/
			25	0	Bottom Side	707.5	0.089	0.14	24.00	23.60	0.098	/
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.881	0.41	25.00	24.85	**0.912**	**18**
			25	0	Back Side	782	0.756	0.64	24.00	23.74	0.803	/
			1	0	Left Side	782	0.42	0.22	25.00	24.85	0.435	/
			25	0	Left Side	782	0.365	-0.67	24.00	23.74	0.388	/
			1	0	Bottom Side	782	0.232	-3.01	25.00	24.85	0.240	/
			25	0	Bottom Side	782	0.202	2.46	24.00	23.74	0.214	/
LTE Band 17	10M	QPSK	1	0	Back Side	710	0.508	-0.80	25.00	24.65	**0.551**	**19**
			25	0	Back Side	709	0.435	0.43	24.00	23.65	0.472	/
			1	0	Left Side	710	0.245	3.83	25.00	24.65	0.266	/
			25	0	Left Side	709	0.213	-3.09	24.00	23.65	0.231	/
			1	0	Bottom Side	710	0.131	-1.99	25.00	24.65	0.142	/
			25	0	Bottom Side	709	0.115	2.35	24.00	23.65	0.125	/
LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.884	2.02	20.50	20.22	**0.943**	**20**
			1	0	Back Side	1887.5	0.751	2.02	20.50	19.94	0.854	/
			1	0	Back Side	1915	0.832	2.02	20.50	20.20	0.892	/
			50	0	Back Side	1860	0.721	-3.49	19.50	19.16	0.780	/
			1	0	Left Side	1860	0.417	0.34	20.50	20.22	0.445	/
			50	0	Left Side	1860	0.361	2.90	19.50	19.16	0.390	/
			1	0	Bottom Side	1860	0.688	3.09	20.50	20.22	0.734	/
			50	0	Bottom Side	1860	0.562	-0.13	19.50	19.16	0.608	/

LTE Band 26	15M	QPSK	1	0	Back Side	841.5	0.563	3.43	24.50	24.25	**0.596**	**21**
			36	0	Back Side	831.5	0.486	-3.45	23.50	23.25	0.515	/
			1	0	Left Side	841.5	0.266	-1.81	24.50	24.25	0.282	/
			36	0	Left Side	831.5	0.227	-3.00	23.50	23.25	0.240	/
			1	0	Bottom Side	841.5	0.15	-0.88	24.50	24.25	0.159	/
			36	0	Bottom Side	831.5	0.127	-3.04	23.50	23.25	0.135	/
LTE Band 38	20M	QPSK	1	0	Back Side	2610	0.164	1.42	25.00	24.59	**0.180**	**22**
			50	0	Back Side	2610	0.144	2.04	24.00	23.53	0.160	/
			1	0	Left Side	2610	0.081	-3.20	25.00	24.59	0.089	/
			50	0	Left Side	2610	0.072	-3.01	24.00	23.53	0.080	/
			1	0	Bottom Side	2610	0.144	-3.49	25.00	24.59	0.158	/
			50	0	Bottom Side	2610	0.127	3.52	24.00	23.53	0.142	/
LTE Band 40	10M	QPSK	1	0	Back Side	2310	0.350	-0.54	15.50	15.06	**0.387**	**23**
			50	0	Back Side	2310	0.304	-2.22	14.50	14.01	0.340	/
			1	0	Left Side	2310	0.17	-3.87	15.50	15.06	0.188	/
			50	0	Left Side	2310	0.146	-0.28	14.50	14.01	0.163	/
			1	0	Bottom Side	2310	0.311	-3.73	15.50	15.06	0.344	/
			50	0	Bottom Side	2310	0.269	-0.97	14.50	14.01	0.301	/
LTE Band 41	20M	QPSK	1	0	Back Side	2645	0.104	-1.36	25.00	24.99	**0.104**	**24**
			50	0	Back Side	2645	0.092	0.11	24.00	23.92	0.094	/
			1	0	Left Side	2645	0.05	2.81	25.00	24.99	0.050	/
			50	0	Left Side	2645	0.043	3.80	24.00	23.92	0.044	/
			1	0	Bottom Side	2645	0.095	2.21	25.00	24.99	0.095	/
			50	0	Bottom Side	2645	0.083	-2.43	24.00	23.92	0.085	/
LTE Band 66	20M	QPSK	1	0	Back Side	1700	0.706	3.55	19.50	18.89	0.812	/
			1	0	Back Side	1735	0.732	3.55	19.50	19.01	0.819	/
			1	0	Back Side	1770	0.819	3.55	19.50	19.38	**0.842**	**25**
			50	0	Back Side	1770	0.705	-3.69	18.50	18.21	0.754	/
			1	0	Left Side	1770	0.39	2.36	19.50	19.38	0.401	/
			50	0	Left Side	1770	0.337	-2.49	18.50	18.21	0.360	/
			1	0	Bottom Side	1770	0.72	-2.17	19.50	19.38	0.740	/
			50	0	Bottom Side	1770	0.621	-0.18	18.50	18.21	0.664	/

Note:

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

12.2 Repeated SAR

Band	Mode	Test Position	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	0.728	3.77	29.00	28.31	0.853
		Back Side	836.6	0.887	-1.37	29.00	28.72	0.946
		Back Side	848.8	0.742	-0.11	29.00	28.40	0.852
WCDMA Band II	RMC	Back Side	1852.4	0.773	1.69	20.00	19.70	0.828
		Back Side	1880	0.752	0.10	20.00	19.67	0.811
		Back Side	1907.6	0.832	-2.76	20.00	19.72	0.887

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	0.791	-3.94	20.50	20.18	0.851
			1	0	Back Side	1880	0.684	-1.69	20.50	19.97	0.773
			1	0	Back Side	1900	0.698	-2.82	20.50	20.07	0.771
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.845	3.60	25.00	24.85	0.875
LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.850	-0.08	20.50	20.22	0.907
			1	0	Back Side	1887.5	0.746	-3.10	20.50	19.94	0.849
			1	0	Back Side	1915	0.817	-2.62	20.50	20.20	0.875
LTE Band 66	20M	QPSK	1	0	Back Side	1700	0.676	2.46	19.50	18.89	0.778
			1	0	Back Side	1735	0.709	-0.57	19.50	19.01	0.794
			1	0	Back Side	1770	0.789	3.48	19.50	19.38	0.811

12.3 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	0.731	0.728	1.004
		Back Side	836.6	0.898	0.887	1.012
		Back Side	848.8	0.756	0.742	1.019
WCDMA Band II	RMC	Back Side	1852	0.801	0.773	1.036
		Back Side	1880	0.772	0.752	1.027
		Back Side	1908	0.832	0.832	1.000

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	0.791	0.791	1.000
			1	0	Back Side	1880	0.710	0.684	1.038
			1	0	Back Side	1900	0.732	0.698	1.049
LTE Band 13	10M	QPSK	1	0	Back Side	782	0.881	0.845	1.043
LTE Band 25	20M	QPSK	1	0	Back Side	1860	0.884	0.850	1.040
			1	0	Back Side	1887.5	0.751	0.746	1.007
			1	0	Back Side	1915	0.832	0.817	1.018
LTE Band 66	20M	QPSK	1	0	Back Side	1700	0.706	0.676	1.044
			1	0	Back Side	1735	0.732	0.709	1.032
			1	0	Back Side	1770	0.819	0.789	1.038

Note:

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

12.4 Simultaneous Multi-band Transmission Evaluation

Application Simultaneous Transmission information:

Position	Simultaneous State
Body	1. GSM + 2.4GHz WLAN/5G WLAN+NFC
	2. GSM + Bluetooth+NFC
	3. WCDMA + 2.4GHz WLAN/5G WLAN+NFC
	4. WCDMA + Bluetooth+NFC
	5. CDMA + 2.4GHz WLAN/5G WLAN+NFC
	6. CDMA + Bluetooth+NFC
	7. LTE + 2.4GHz WLAN/5G WLAN+NFC
	8. LTE + Bluetooth+NFC
	9. SA+2.4GHz WLAN/5G WLAN+NFC
	10. SA+ Bluetooth+NFC
	11. NSA + 2.4GHz WLAN/5G WLAN+NFC
	12. NSA + Bluetooth+NFC

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

Estimated SAR		Maximum Turn-up Power		Antenna to user(mm)	Frequency(GHz)	Stand Alone SAR(1g) [W/kg]
		dBm	mW			
BT	Head	5.5	3.548	5	2.441	0.148
	Body			5	2.441	0.148
NFC	Head	-42	0.000063	5	0.01356	0.0000002
	Body			5	0.01356	0.0000002

Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + 2.4G WLAN + NFC	Body	GSM	0.958	1.299
		NFC	0.0000002	
		2.4G WLAN	0.341	
GSM + Bluetooth+ NFC	Body	GSM	0.958	1.106
		NFC	0.0000002	
		BT	0.148	
GSM + 5G WLAN+ NFC	Body	GSM	0.958	1.506
		NFC	0.0000002	
		5G WLAN	0.548	
WCDMA + 2.4G WLAN + NFC	Body	WCDMA	0.887	1.228
		NFC	0.0000002	
		2.4G WLAN	0.341	
WCDMA + Bluetooth+ NFC	Body	WCDMA	0.887	1.035
		NFC	0.0000002	
		BT	0.148	
WCDMA + 5G WLAN+ NFC	Body	WCDMA	0.887	1.435
		NFC	0.0000002	
		5G WLAN	0.548	
CDMA + 2.4G WLAN + NFC	Body	CDMA	0.259	0.600
		NFC	0.0000002	
		2.4G WLAN	0.341	
CDMA + Bluetooth+ NFC	Body	CDMA	0.259	0.407
		NFC	0.0000002	
		BT	0.148	
CDMA + 5G WLAN+ NFC	Body	CDMA	0.259	0.807
		NFC	0.0000002	
		5G WLAN	0.548	
LTE + 2.4G WLAN + NFC	Body	LTE	0.943	1.284
		NFC	0.0000002	
		2.4G WLAN	0.341	
LTE + Bluetooth+ NFC	Body	LTE	0.943	1.091
		NFC	0.0000002	
		BT	0.148	
LTE + 5G WLAN+ NFC	Body	LTE	0.943	1.491
		NFC	0.0000002	
		5G WLAN	0.548	

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
2300MHz Dipole	MVG	DIP2G300	SN 06/22 DIP2G100-644	2022.02.11	2025.02.10
2450MHz Dipole	MVG	DIP2G450	SN 06/22 DIP2G450-645	2022.02.11	2025.02.10
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2022.02.11	2025.02.10
5000MHz Dipole	MVG	DIP5G000	SN 06/22 DIP5G000-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2024.02.07	2025.02.06
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2024.02.07	2025.02.06
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop positioner	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	2024.04.11	2025.04.10
Network Analyzer	ZVL	R&S	116184-HC	2024.03.25	2025.03.24
Multi Meter	DMM6500	Keithley	4527252	2024.03.15	2025.03.14
Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Wireless Communication Test Set	R&S	CMW500	137737	2024.03.09	2025.03.08
Power Sensor	R&S	Z11	116184	2024.02.23	2025.02.22
Electronic Temperature hygrometer	N/A	ST-W2318	N/A	2024.03.11	2025.03.10
Temperature hygrometer	N/A	TP101	N/A	2024.03.11	2025.03.10

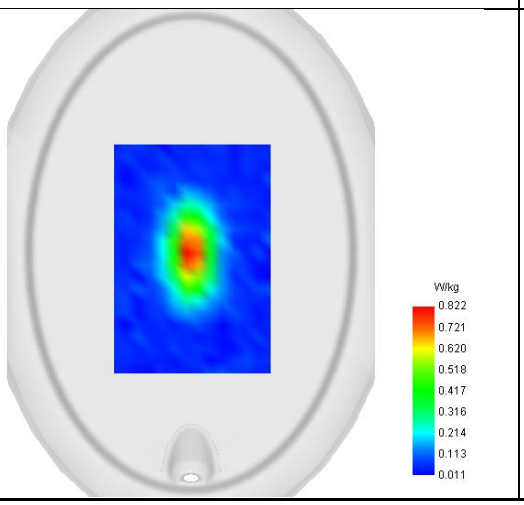
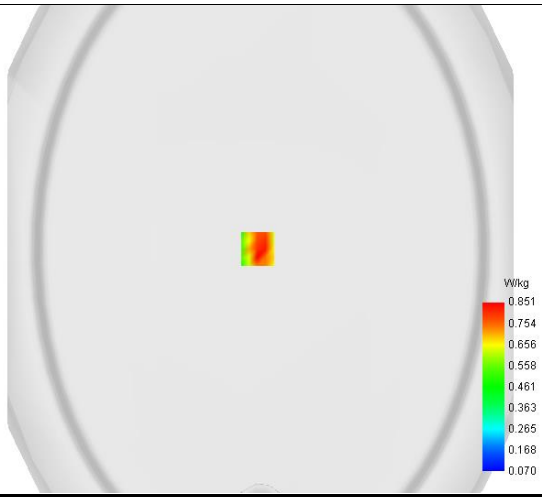
Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-07

Experimental conditions.

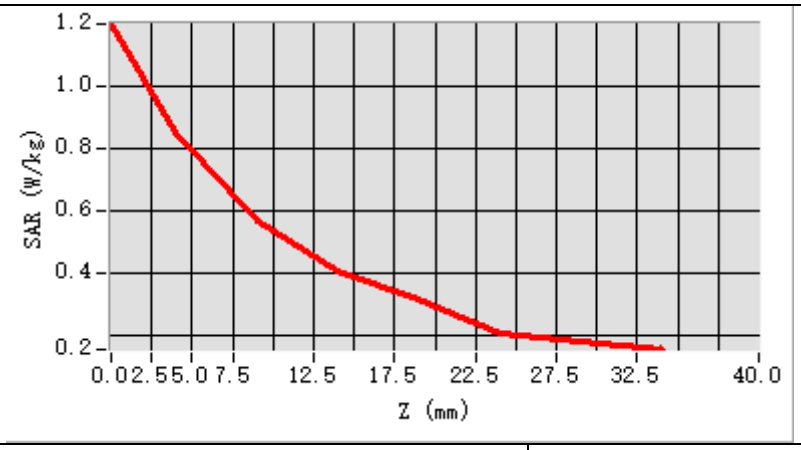
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	42.58
Conductivity (S/m)	0.88
Probe	SN 04/22 EPGO364
ConvF	1.68
Crest factor:	1:1

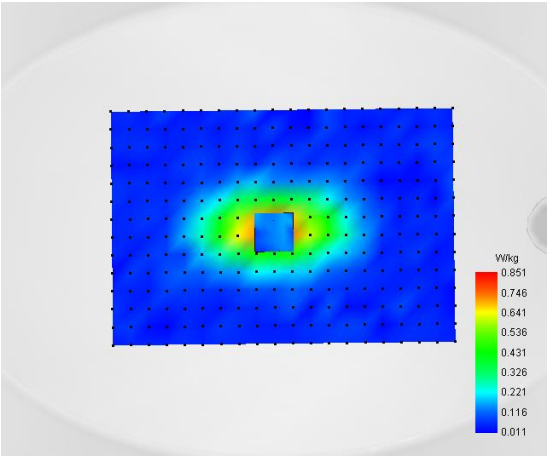
SURFACE SAR	VOLUME SAR
	

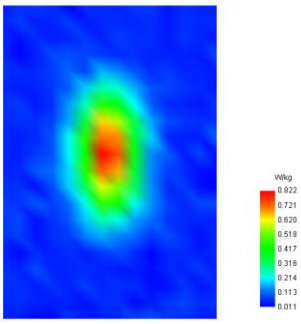
Maximum location: X=-3.00, Y=0.00 ; SAR Peak: 1.22 W/kg

SAR 10g (W/Kg)	0.582
SAR 1g (W/Kg)	0.810

Z Axis Scan


1.2
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
0.851
0.746
0.641
0.536
0.431
0.326
0.221
0.116
0.011

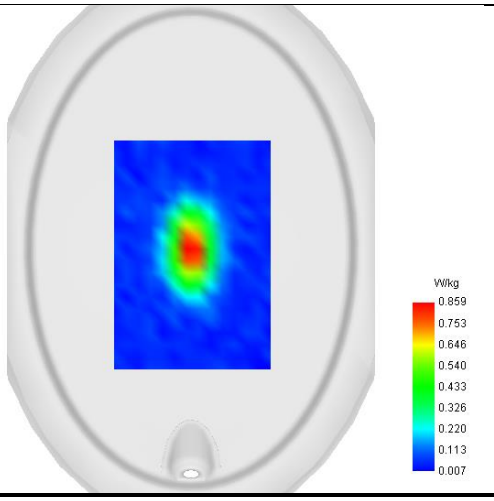
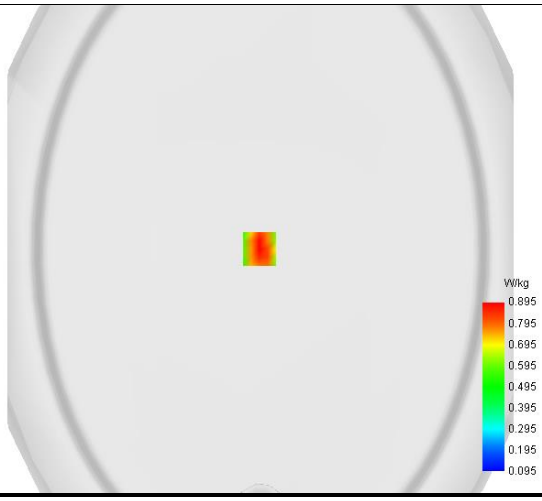

W/kg
0.922
0.721
0.620
0.518
0.417
0.316
0.214
0.113
0.011

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: 2025-01-06

Experimental conditions.

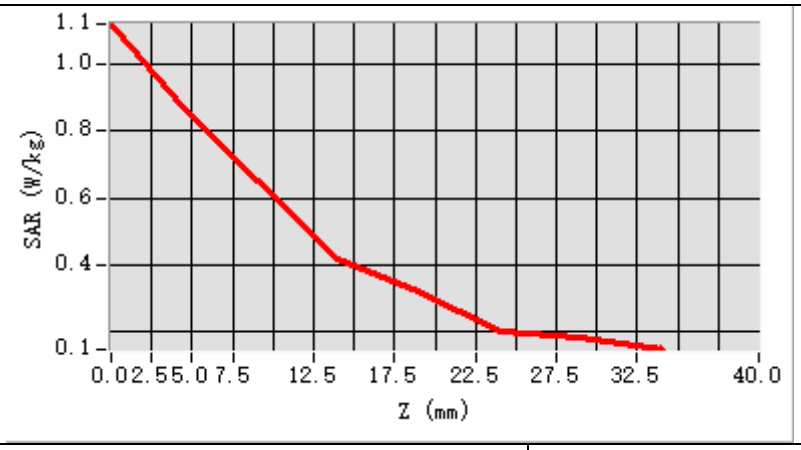
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	41.69
Conductivity (S/m)	0.91
Probe	SN 04/22 EPGO364
ConvF	1.70
Crest factor:	1:1

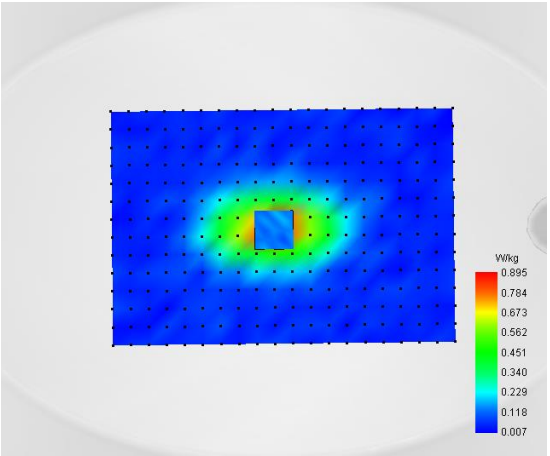
SURFACE SAR	VOLUME SAR
	

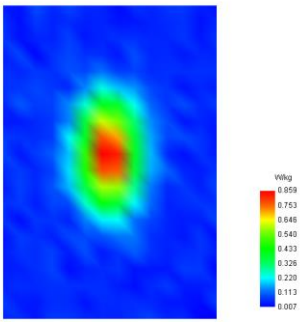
Maximum location: X=-1.00, Y=0.00 ; SAR Peak: 1.29 W/kg

SAR 10g (W/Kg)	0.600
SAR 1g (W/Kg)	0.991

Z Axis Scan


1.1
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
0.895
0.784
0.673
0.562
0.451
0.340
0.229
0.118
0.007

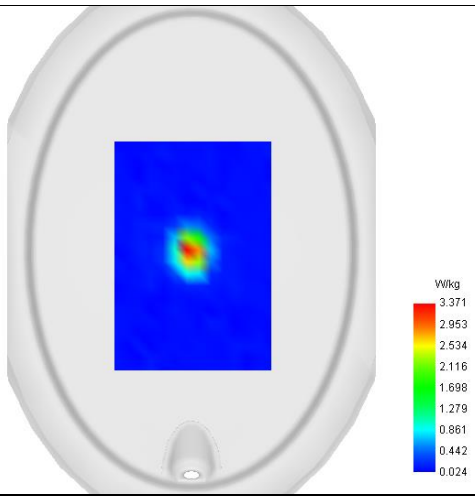
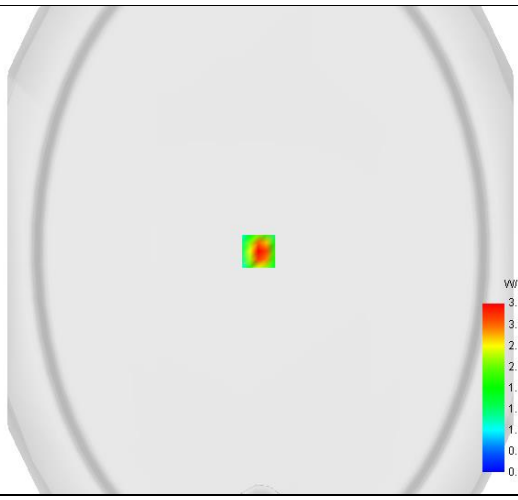

W/kg
0.859
0.753
0.646
0.540
0.433
0.326
0.220
0.113
0.007

System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-12

Experimental conditions.

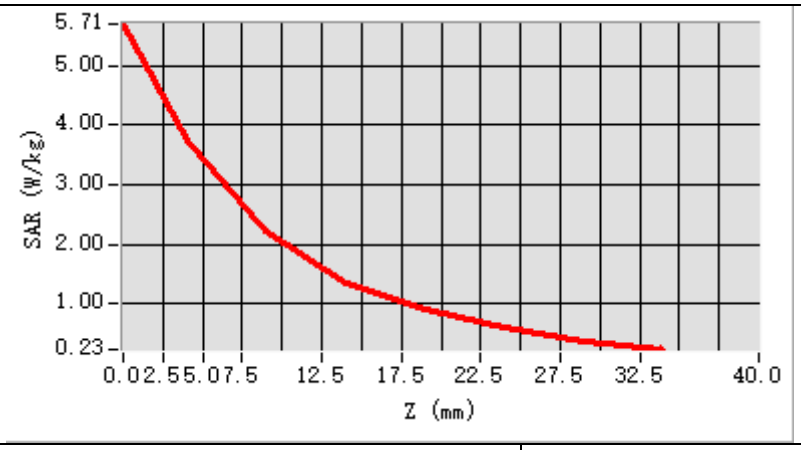
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	41.19
Conductivity (S/m)	1.45
Probe	SN 04/22 EPGO364
ConvF	1.91
Crest factor:	1:1

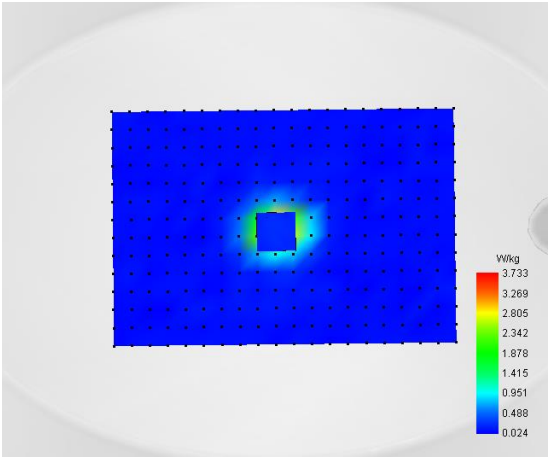
SURFACE	VOLUME SAR
	

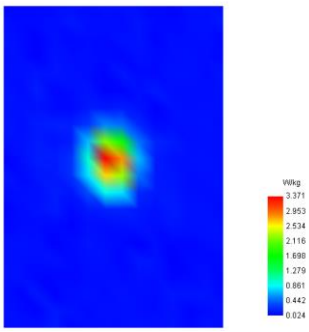
Maximum location: X=-2.00, Y=-1.00 ; SAR Peak: 5.74 W/kg

SAR 10g (W/Kg)	2.075
SAR 1g (W/Kg)	3.723

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

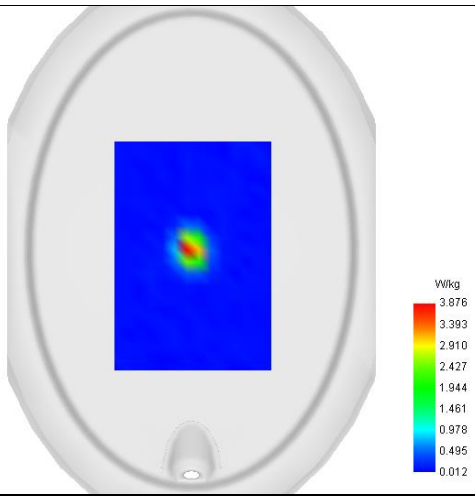
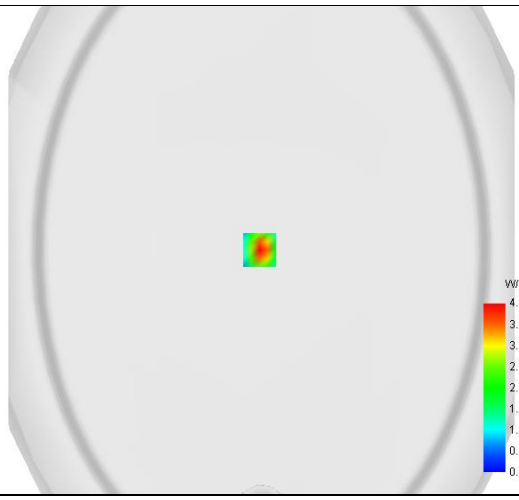

W/kg
3.371
2.953
2.534
2.116
1.698
1.279
0.861
0.442
0.024

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: 2025-01-13

Experimental conditions.

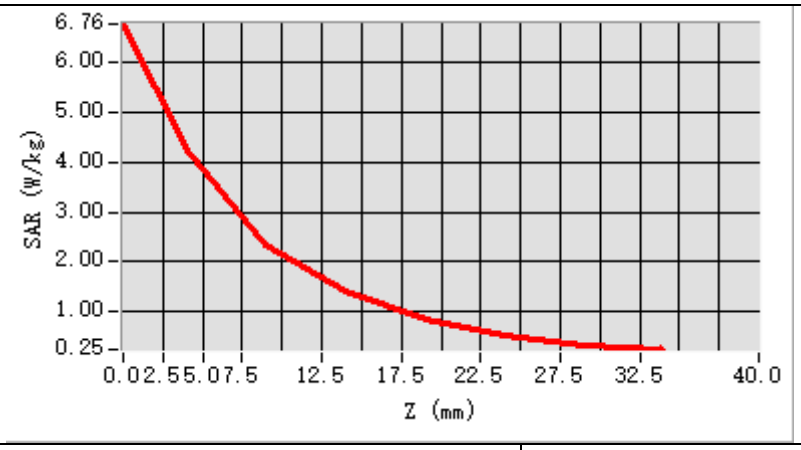
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.36
Conductivity (S/m)	1.43
Probe	SN 04/22 EPGO364
ConvF	2.24
Crest factor:	1:1

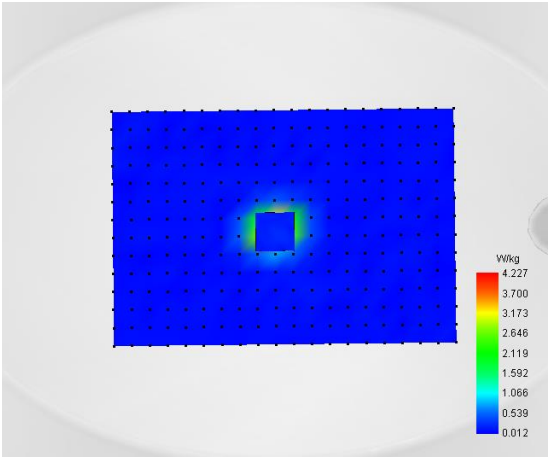
SURFACE	VOLUME SAR
	

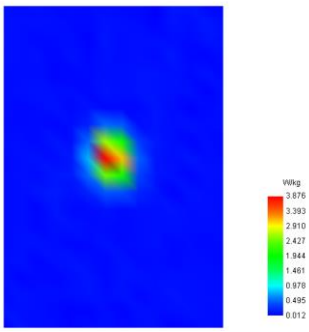
Maximum location: X=-2.00, Y=0.00 ; SAR Peak: 6.85 W/kg

SAR 10g (W/Kg)	2.044
SAR 1g (W/Kg)	4.050

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

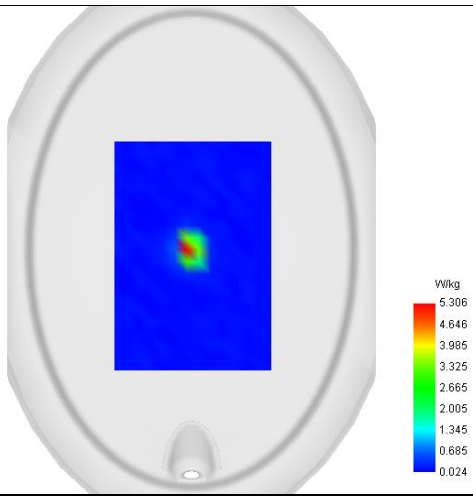
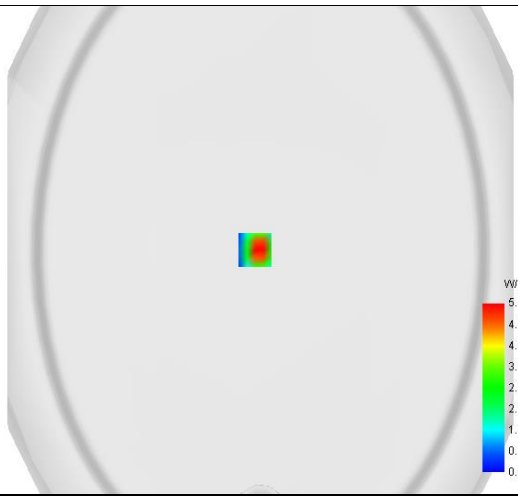

W/kg
3.876
3.393
2.910
2.427
1.944
1.461
0.978
0.495
0.012

System Performance Check Data (2300MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-16

Experimental conditions.

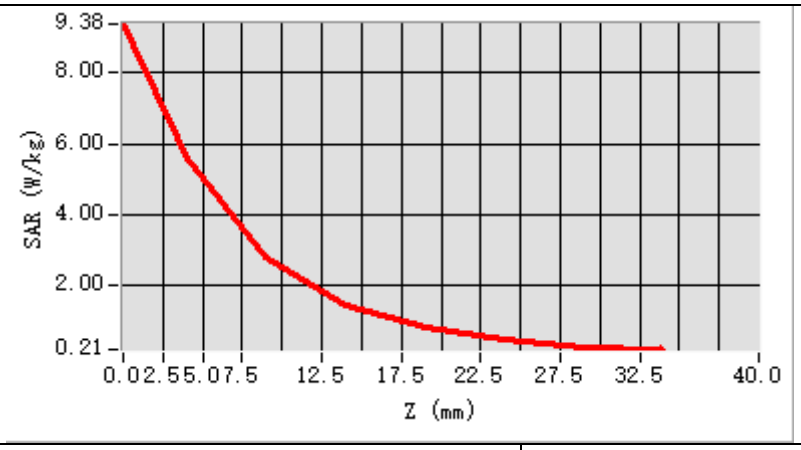
Phantom	Validation plane
Device Position	Dipole
Band	CW2300
Channels	Middle
Signal	CW
Frequency (MHz)	2300.000
Relative permittivity	40.52
Conductivity (S/m)	1.67
Probe	SN 04/22 EPGO364
ConvF	2.31
Crest factor:	1:1

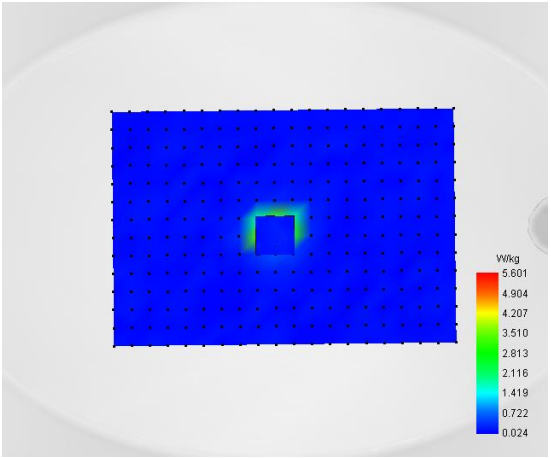
SURFACE	VOLUME SAR
	

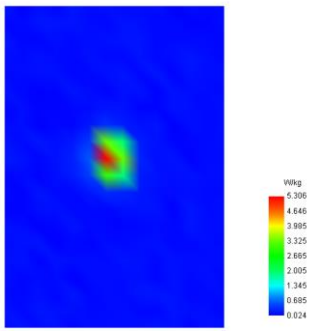
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 10.34 W/kg

SAR 10g (W/Kg)	2.292
SAR 1g (W/Kg)	5.065

Z Axis Scan


9.38
8.00
6.00
4.00
2.00
0.21
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
5.601
4.904
4.207
3.510
2.813
2.116
1.419
0.722
0.024

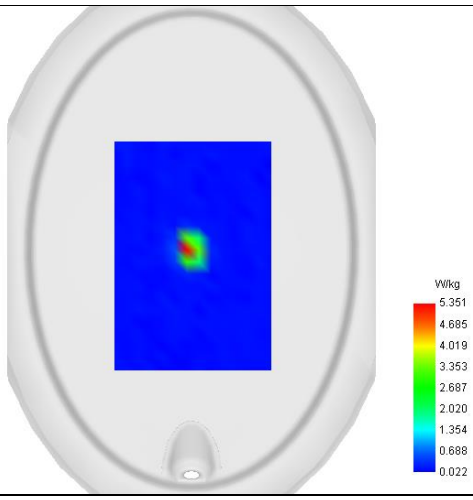
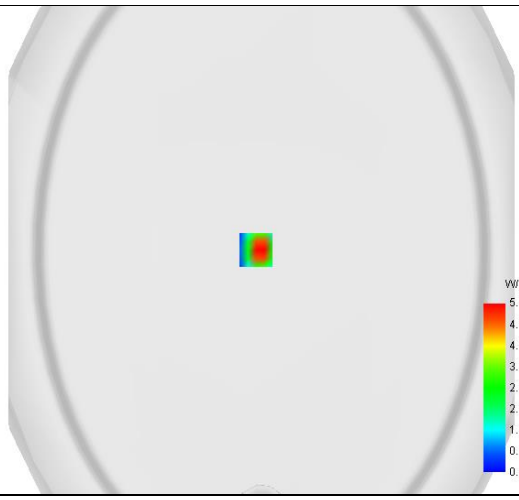

W/kg
5.306
4.646
3.985
3.325
2.665
2.005
1.345
0.685
0.024

System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm, dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-01-16

Experimental conditions.

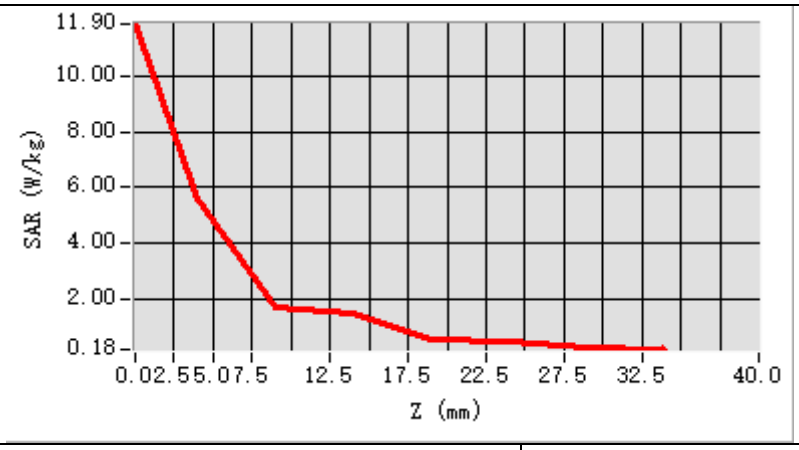
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	39.49
Conductivity (S/m)	1.95
Probe	SN 04/22 EPGO364
ConvF	2.35
Crest factor:	1:1

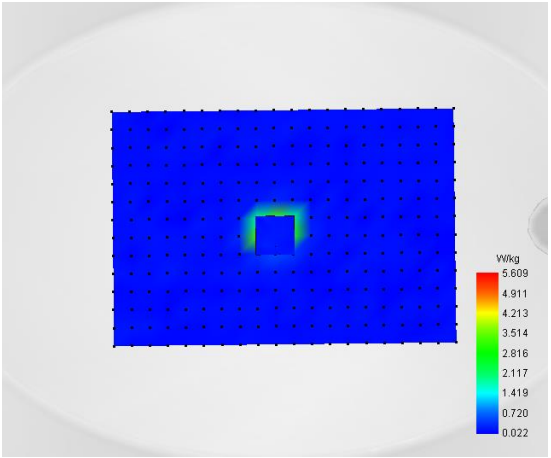
SURFACE	VOLUME SAR
	

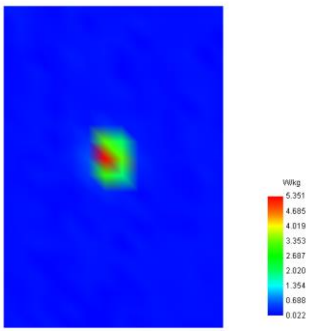
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 10.29 W/kg

SAR 10g (W/Kg)	2.406
SAR 1g (W/Kg)	5.650

Z Axis Scan


11.90
10.00
8.00
6.00
4.00
2.00
0.18
SAR (W/kg)
0.02.55.07.5
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

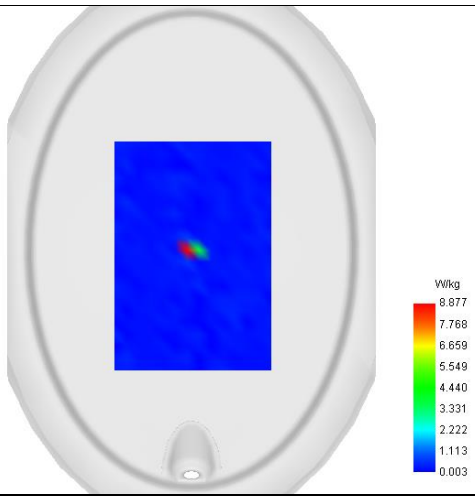
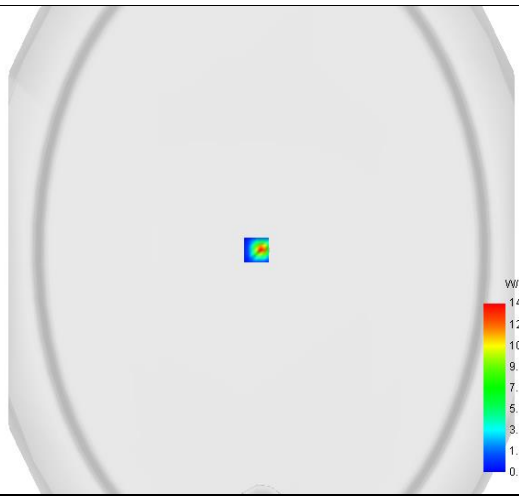

W/kg
5.351
4.685
4.019
3.353
2.687
2.020
1.354
0.688
0.022

System Performance Check Data (5200MHz)

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

Experimental conditions.

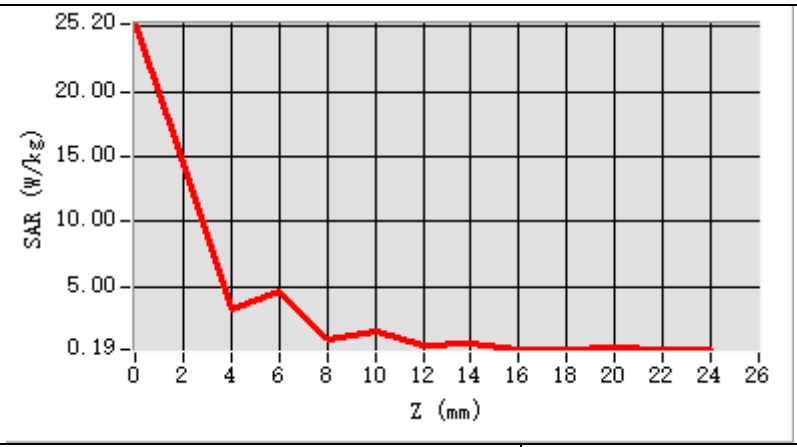
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.52
Conductivity (S/m)	4.59
Probe	SN 04/22 EPGO364
ConvF	1.98
Crest factor:	1:1

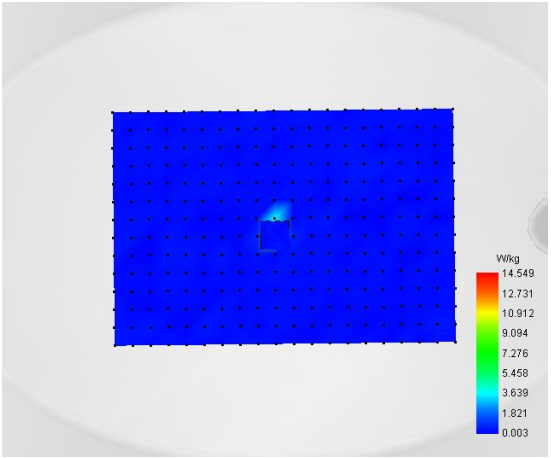
SURFACE	VOLUME SAR
	

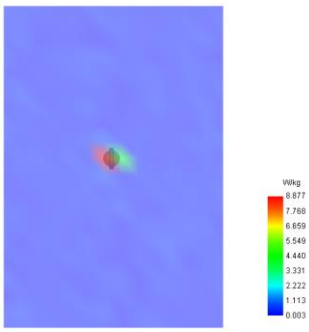
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 24.50 W/kg

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

Z Axis Scan


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


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

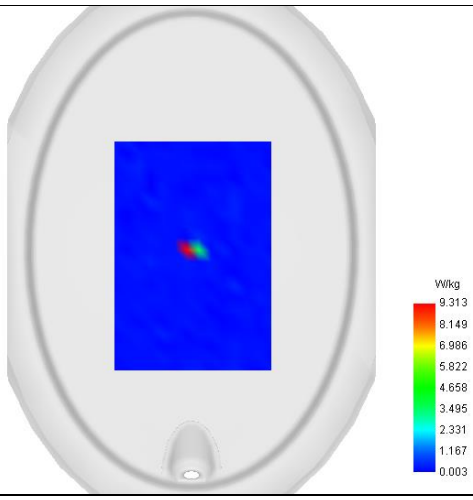
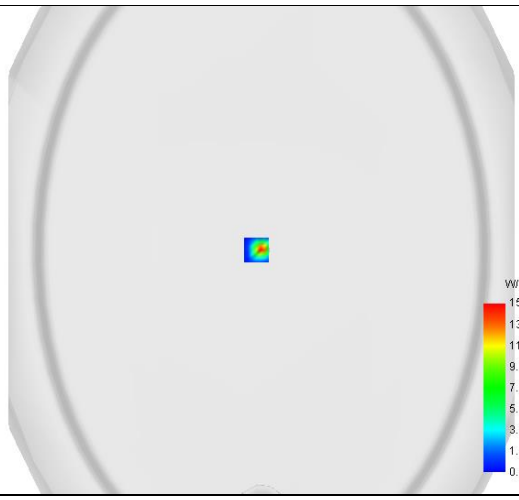

W/kg
8.877
7.768
6.659
5.549
4.440
3.331
2.222
1.113
0.003

System Performance Check Data (5800MHz)

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

Experimental conditions.

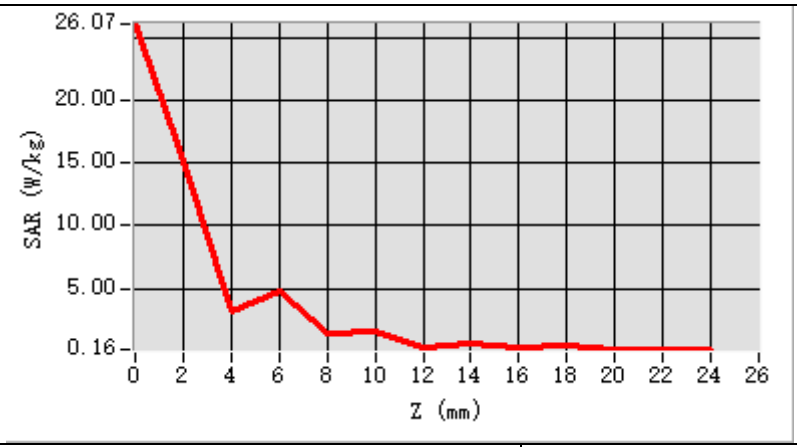
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.49
Conductivity (S/m)	5.25
Probe	SN 04/22 EPGO364
ConvF	1.71
Crest factor:	1:1

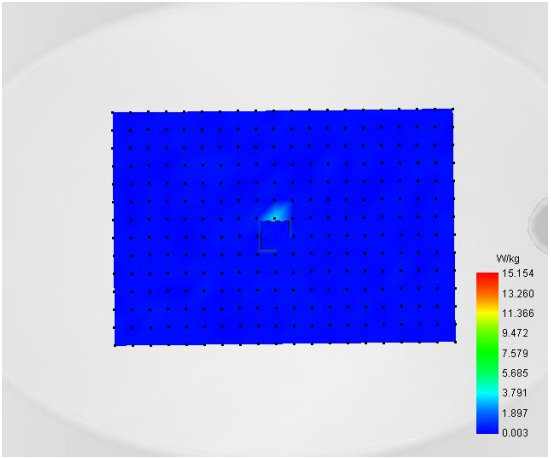
SURFACE	VOLUME SAR
	

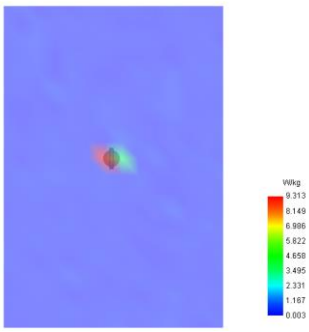
Maximum location: X=-5.00, Y=0.00 ; SAR Peak: 26.20 W/kg

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

Z Axis Scan


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


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


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

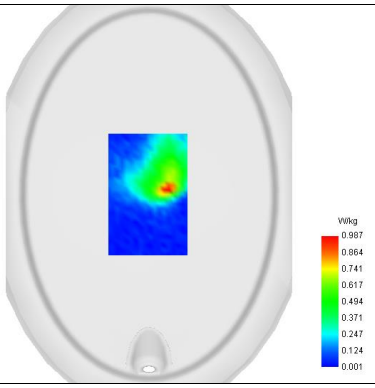
Appendix B. SAR Test Plots

Plot 1:

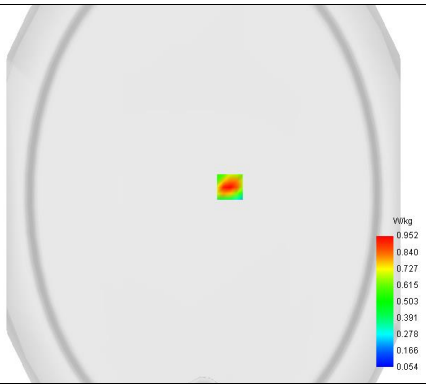
Test Date	2025-01-06
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GPRS850
Signal	TDMA (GPRS)
Frequency	836.6
SAR 10g (W/Kg)	0.523
SAR 1g (W/Kg)	0.898
ConvF	1.70
Relative permittivity	41.69
Conductivity (S/m)	0.91

Maximum location: X=33.00, Y=9.00 ; SAR Peak: 1.40 W/kg

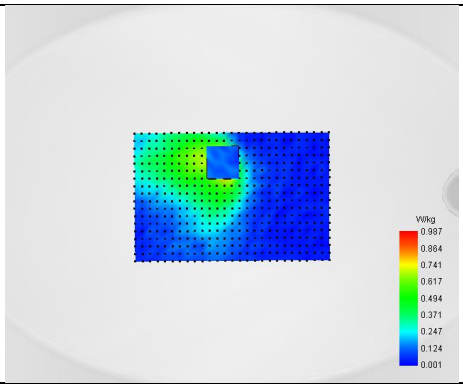
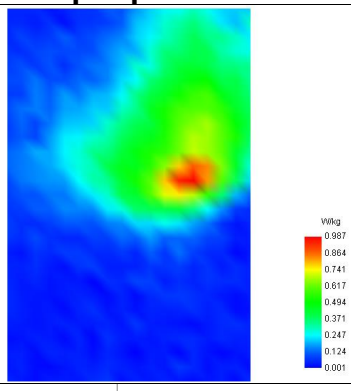
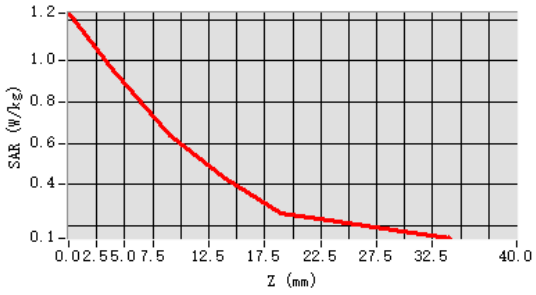
SURFACE SAR



VOLUME SAR



3D screen shot



Hot spot position