



SAR TEST REPORT

Product Name: AI Companion

Model Name: r1

FCC ID: 2BFB4R1

Issued For : Rabbit Inc.

1710-1716 12th Street Santa Monica, CA 90404

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

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

Report Number: LGT24A165HA01

Sample Received Date: Jan. 29, 2024

Date of Test: Jan. 30, 2024 ~ Feb. 21, 2024

Date of Issue: Apr. 15, 2024

Max. SAR (1g): Body: 1.316 W/kg

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Revision History

Rev.	Issue Date	Contents
00	Mar. 08, 2024	Initial Issue
01	Apr. 15, 2024	Update Manufacturer name and address and add maximum input current information



TEST REPORT CERTIFICATION

Applicant Rabbit Inc.
Address 1710-1716 12th Street Santa Monica, CA 90404
Manufacture Rabbit Inc.
Address 1710-1716 12th Street Santa Monica, CA 90404
Product Name AI Companion
Trademark rabbit
Model Name r1
Sample number LGT2401169-4

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

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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:	AI Companion	
Trademark:	rabbit	
Model Name:	r1	
Series Model:	N/A	
Model Difference:	N/A	
Device Category:	Portable	
Product stage:	Production unit	
RF Exposure Environment:	General Population / Uncontrolled	
Hardware Version:	N/A	
Software Version:	N/A	
Frequency Range:	LTE Band 2:1850 ~1910 MHz LTE Band 4:1710 ~1755 MHz LTE Band 5:824 ~ 849 MHz LTE Band 7:2500 ~ 2570 MHz LTE Band 12:699~716 MHz LTE Band 17:704 ~ 716 MHz LTE Band 25:1850~1915 MHz LTE Band 26:814~824 MHz/824-849 MHz LTE Band 38:2570~2620 MHz LTE Band 40:2305~2315 MHz/2350-2360 MHz LTE Band 41:2496~2690 MHz LTE Band 66:1710~1780 MHz LTE Band 71:663~698 MHz WLAN 802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11n40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz Bluetooth: 2402 ~ 2480 MHz	
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: 5mm	Mode	Body and hotspot (W/kg))
	LTE Band 2	1.243
	LTE Band 4	1.316
	LTE Band 5	1.102
	LTE Band 7	0.822
	LTE Band 12	0.740



	LTE Band 17	0.804
	LTE Band 25	1.189
	LTE Band 26	1.212
	LTE Band 38	0.885
	LTE Band 40	0.980
	LTE Band 41	0.914
	LTE Band 66	1.226
	LTE Band 71	0.443
	2.4G WLAN	0.281
	5.2G WLAN	0.456
	5.3G WLAN	0.553
	5.8G WLAN	0.392
	Bluetooth ^{Note}	0.186
1-g Sum SAR:		1.502
Battery:	Rated Voltage:3.85V Capacity: 1000mAh	
Rating:	Input: 5VDC 1A	
Operating Mode:	LTE: QPSK, 16QAM 2.4G WLAN: 802.11b(DSSS): CCK, DQPSK, DBPSK 802.11g(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK, QPSK,16-QAM,64-QAM 5G WLAN: 802.11a(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11ac (OFDM): BPSK, QPSK,16-QAM,64-QAM,256-QAM Bluetooth: GFSK + π /4DQPSK+8DPSK BLE: GFSK	
Antenna Specification:	LTE: FPC Antenna Bluetooth: FPC Antenna WLAN: FPC Antenna	
Operating Mode:	Maximum continuous output	
SIM Card:	Only support single SIM Card.	
Hotspot Mode:	Not Support	
DTM Mode:	Not Support	
Note 1: The BT value was Estimated.		



1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

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



2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
8	FCC KDB 248227 D01 Wi-Fi SAR v02r02	SAR Considerations for 802.11 Devices

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

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

0.4 8.0 20.0

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

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

0.08 1.6 4.0

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

Population/Uncontrolled Environments:

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

Occupational/Controlled Environments:

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

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



3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

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

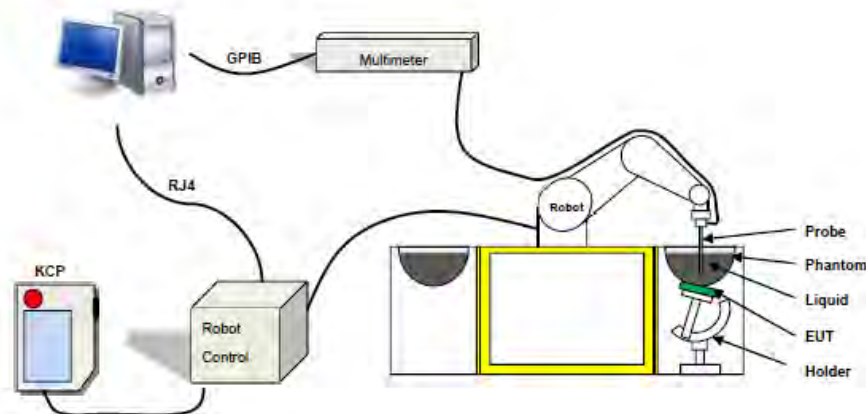
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue;

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

3.2 SAR System

MVG SAR System Diagram:



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

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

The following figure shows the system.



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

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 04/22 EPG0364 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.

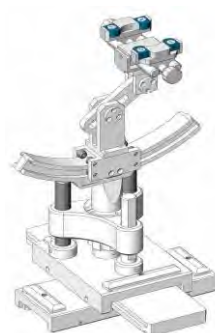


Figure-SN 06/22 SAM 148



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 if the dielectric parameters are within the tolerances of the specified target values

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

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

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

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



LIQUID MEASUREMENT RESULTS

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2024-01-31	22.7	55	688	22.4	Permittivity	42.23	42.19	-0.10	±5
					Conductivity	0.89	0.91	2.72	±5
2024-01-31	22.7	55	704	22.4	Permittivity	42.15	43.10	2.27	±5
					Conductivity	0.89	0.86	-3.04	±5
2024-01-31	22.7	55	709	22.4	Permittivity	42.12	42.69	1.36	±5
					Conductivity	0.89	0.87	-1.95	±5
2024-01-31	22.7	55	710	22.4	Permittivity	42.11	42.85	1.75	±5
					Conductivity	0.89	0.89	0.30	±5
2024-01-31	22.7	55	711	22.4	Permittivity	42.11	42.68	1.36	±5
					Conductivity	0.89	0.86	-3.09	±5
2024-01-31	22.7	55	750	22.4	Permittivity	41.90	42.24	0.81	±5
					Conductivity	0.89	0.90	1.12	±5
2024-02-03	23.7	49	821.5	23.4	Permittivity	41.52	42.28	1.83	±5
					Conductivity	0.89	0.90	0.58	±5
2024-02-03	23.7	49	829	23.4	Permittivity	41.48	42.35	2.10	±5
					Conductivity	0.90	0.90	0.53	±5
2024-02-03	23.7	49	831.5	23.4	Permittivity	41.47	41.07	-0.95	±5
					Conductivity	0.90	0.87	-2.84	±5
2024-02-03	23.7	49	835	23.4	Permittivity	41.50	40.83	-1.61	±5
					Conductivity	0.90	0.94	4.44	±5
2024-02-03	23.7	49	836.5	23.4	Permittivity	41.49	41.01	-1.16	±5
					Conductivity	0.90	0.93	3.31	±5
2024-02-03	23.7	49	841.5	23.4	Permittivity	41.47	42.36	2.15	±5
					Conductivity	0.90	0.88	-2.31	±5
2024-02-17	22.4	41	835	22.1	Permittivity	41.50	42.56	2.55	±5
					Conductivity	0.90	0.87	-3.33	±5
2024-02-17	22.4	41	844	22.1	Permittivity	41.46	41.63	0.42	±5
					Conductivity	0.90	0.90	-0.12	±5
2024-02-16	23.8	40	1745	23.6	Permittivity	40.08	40.99	2.27	±5
					Conductivity	1.37	1.38	0.84	±5
2024-02-16	23.8	40	1800	23.6	Permittivity	40.00	40.59	1.48	±5
					Conductivity	1.40	1.45	3.57	±5
2024-02-14	23.1	47	1720	22.9	Permittivity	40.11	40.50	0.96	±5
					Conductivity	1.35	1.36	0.42	±5
2024-02-14	23.1	47	1732.5	22.9	Permittivity	40.10	40.00	-0.24	±5
					Conductivity	1.36	1.36	-0.10	±5
2024-02-14	23.1	47	1770	22.9	Permittivity	40.04	39.79	-0.63	±5
					Conductivity	1.38	1.36	-1.65	±5
2024-02-14	23.1	47	1800	22.9	Permittivity	40.00	40.23	0.57	±5
					Conductivity	1.40	1.46	4.29	±5
2024-01-30	20.4	59	1860	20.1	Permittivity	40.00	40.96	2.40	±5
					Conductivity	1.40	1.33	-5.00	±5



2024-01-30	20.4	59	1880	20.1	Permittivity	40.00	40.70	1.75	±5
					Conductivity	1.40	1.38	-1.43	±5
2024-01-30	20.4	59	1900	20.1	Permittivity	40.00	40.84	2.10	±5
					Conductivity	1.40	1.44	2.86	±5
2024-02-18	21.2	59	1882.5	20.9	Permittivity	40.00	40.04	0.10	±5
					Conductivity	1.40	1.42	1.43	±5
2024-02-18	21.2	59	1900	20.9	Permittivity	40.00	40.04	0.10	±5
					Conductivity	1.40	1.42	1.43	±5
2024-02-18	21.2	59	1905	20.9	Permittivity	40.00	39.74	-0.65	±5
					Conductivity	1.40	1.38	-1.43	±5
2024-02-19	20.7	45	2355	20.5	Permittivity	39.37	38.74	-1.60	±5
					Conductivity	1.72	1.76	2.59	±5
2024-02-19	20.7	45	2437	20.5	Permittivity	39.22	40.41	3.03	±5
					Conductivity	1.79	1.80	0.65	±5
2024-02-19	20.7	45	2450	20.5	Permittivity	39.20	39.97	1.96	±5
					Conductivity	1.80	1.83	1.67	±5
2024-02-15	21.6	57	2506	21.3	Permittivity	39.13	39.69	1.44	±5
					Conductivity	1.86	1.78	-4.29	±5
2024-02-15	21.6	57	2510	21.3	Permittivity	39.12	39.00	-0.31	±5
					Conductivity	1.86	1.86	-0.21	±5
2024-02-15	21.6	57	2535	21.3	Permittivity	39.09	38.67	-1.07	±5
					Conductivity	1.89	1.87	-1.09	±5
2024-02-15	21.6	57	2560	21.3	Permittivity	39.05	38.76	-0.75	±5
					Conductivity	1.92	1.90	-0.90	±5
2024-02-15	21.6	57	2580	21.3	Permittivity	39.03	39.22	0.50	±5
					Conductivity	1.94	1.91	-1.48	±5
2024-02-15	21.6	57	2593	21.3	Permittivity	39.01	40.05	2.67	±5
					Conductivity	1.95	1.92	-1.67	±5
2024-02-15	21.6	57	2595	21.3	Permittivity	39.01	38.37	-1.63	±5
					Conductivity	1.95	1.89	-3.31	±5
2024-02-15	21.6	57	2600	21.3	Permittivity	39.00	39.35	0.90	±5
					Conductivity	1.96	1.98	1.02	±5
2024-02-15	21.6	57	2610	21.3	Permittivity	38.99	39.26	0.70	±5
					Conductivity	1.97	1.97	-0.05	±5
2024-02-15	21.6	57	2680	21.3	Permittivity	38.90	39.03	0.33	±5
					Conductivity	2.05	2.04	-0.39	±5
2024-02-20	22.2	55	5180	21.8	Permittivity	36.02	35.60	-1.17	±5
					Conductivity	4.64	4.61	-0.63	±5
2024-02-20	22.2	55	5200	21.8	Permittivity	36.00	36.55	1.53	±5
					Conductivity	4.66	4.63	-0.64	±5
2024-02-21	23.3	59	5260	23	Permittivity	35.94	36.77	2.31	±5
					Conductivity	4.72	4.75	0.64	±5
2024-02-21	23.3	59	5300	23	Permittivity	35.90	36.81	2.53	±5
					Conductivity	4.76	4.79	0.63	±5
2024-02-21	23.4	59	5745	23.1	Permittivity	35.37	35.58	0.60	±5
					Conductivity	5.21	5.20	-0.26	±5
2024-02-21	23.4	59	5800	23.1	Permittivity	35.30	36.28	2.78	±5
					Conductivity	5.27	5.21	-1.14	±5

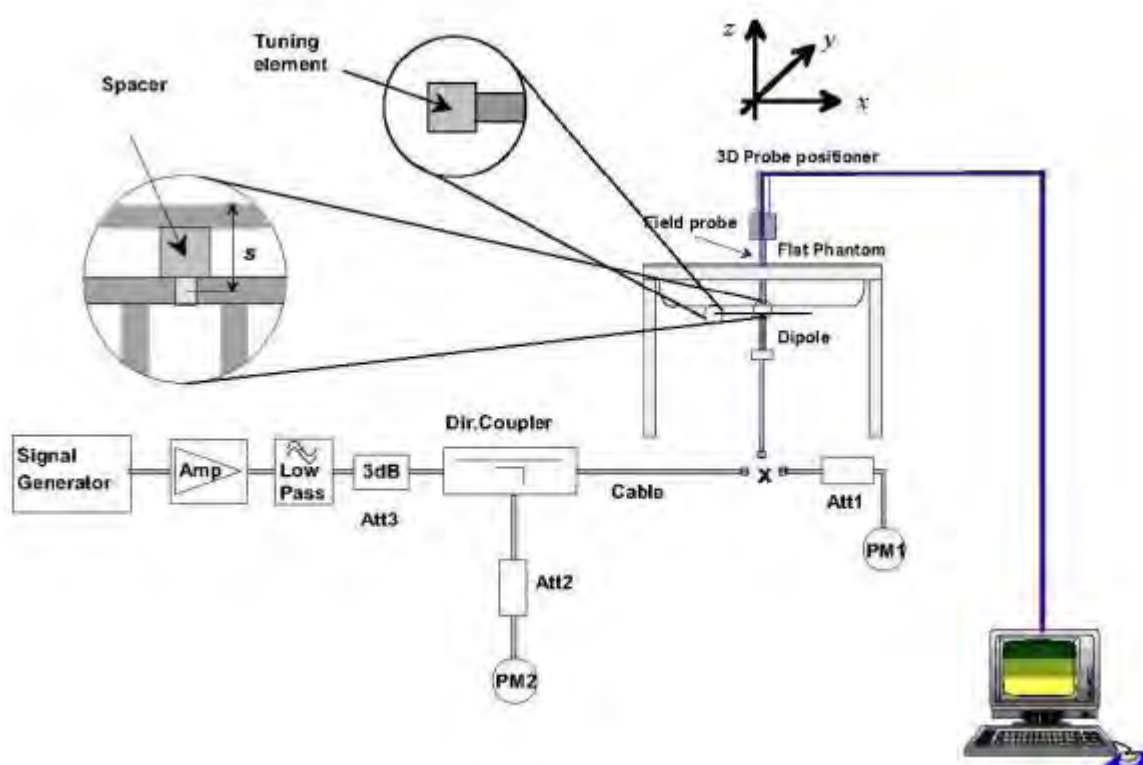


5. SAR System Validation

5.1 Validation System

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

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





5.2 Validation Result

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

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2024-01-31	750	100	0.809	8.09	8.27	-2.18	10
2024-02-03	835	100	0.947	9.47	9.75	-2.87	10
2024-02-17	835	100	0.953	9.53	9.75	-2.26	10
2024-02-16	1800	100	3.762	37.62	39.06	-3.69	10
2024-02-14	1800	100	3.648	36.48	39.06	-6.61	10
2024-01-30	1900	100	4.076	40.76	40.85	-0.22	10
2024-02-18	1900	100	4.121	41.21	40.85	0.88	10
2024-02-19	2450	100	5.440	54.40	54.28	0.22	10
2024-02-15	2600	100	5.632	56.32	56.58	-0.46	10
2024-02-20	5200	100	7.773	77.73	77.64	0.12	10
2024-02-21	5300	100	8.011	80.11	80.27	-0.20	10
2024-02-21	5800	100	7.469	74.69	74.92	-0.31	10

Note:

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



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6. SAR Evaluation Procedures

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

The following steps are used for each test position

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

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

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

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

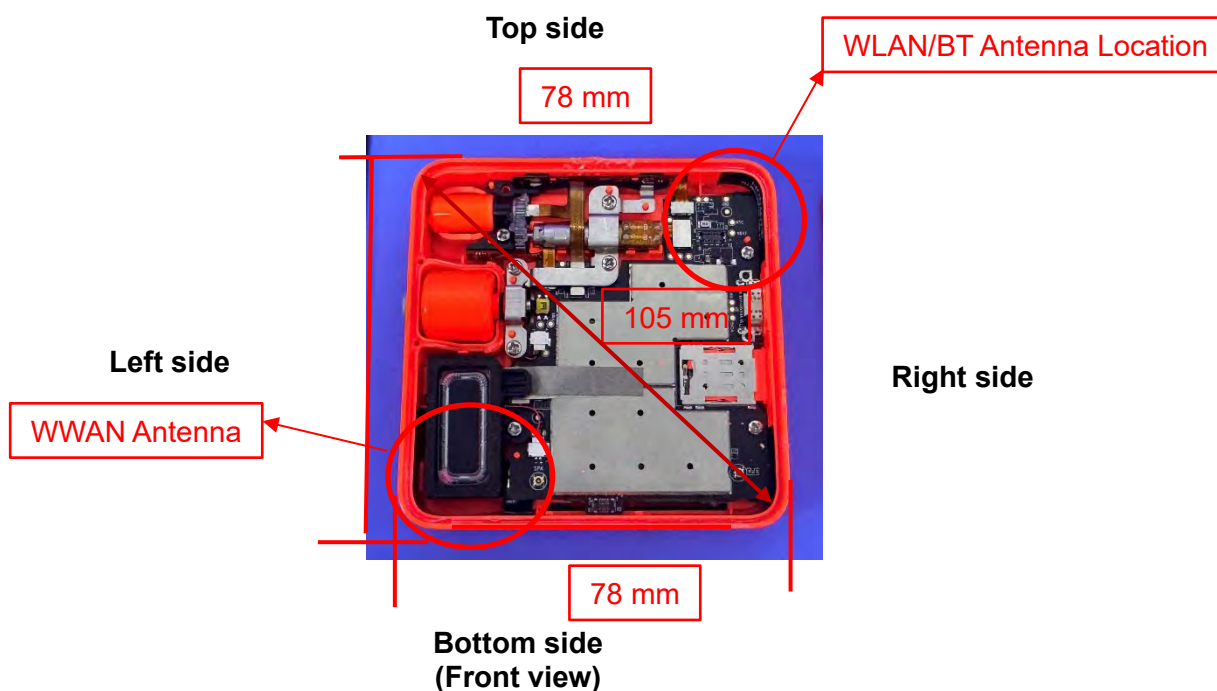
Area Scan& Zoom Scan

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

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

7. EUT Antenna Location Sketch

It is a AI Companion, support LTE/WLAN/BT mode.



Antenna Separation Distance(mm)						
ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	≤5	≤5	60	≤5	≤5	57
WWAN	≤5	≤5	≤5	47	54	≤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.

Exposure Position	Wireless Interface	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12
	Calculated Frequency (MHz)	1860	1745	844	2560	704
	Maximum Turn-up power (dBm)	26	25.5	26	23.5	23.5
	Maximum rated power(mW)	398.11	354.81	398.11	223.87	223.87
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.00	11.36	16.33	9.38	17.88
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.00	11.36	16.33	9.38	17.88
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	47	47	47	47	47
	exclusion threshold(mW)	103.39	106.74	153.48	88.13	168.05
	Testing required?	YES	YES	YES	YES	YES
Right Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.00	11.36	16.33	9.38	17.88
	Testing required?	YES	YES	YES	YES	YES
Top Side	Separation distance (mm)	54	54	54	54	54
	exclusion threshold(mW)	149.99	153.55	185.78	133.75	197.55
	Testing required?	YES	YES	YES	YES	YES
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	11.00	11.36	16.33	9.38	17.88
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 17	LTE Band 25	LTE Band 26	LTE Band 38	LTE Band 40
	Calculated Frequency (MHz)	711	1860	841.5	2580	2355
	Maximum Turn-up power (dBm)	26.5	26	26	25.5	12.5
	Maximum rated power(mW)	446.68	398.11	398.11	354.81	17.78
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	17.79	11.00	16.35	9.34	9.77
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	17.79	11.00	16.35	9.34	9.77
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (mm)	47	47	47	47	47
	exclusion threshold(mW)	167.22	103.39	153.71	87.78	91.88
	Testing required?	YES	YES	YES	YES	NO
Right Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	17.79	11.00	16.35	9.34	9.77
	Testing required?	YES	YES	YES	YES	YES
Top Side	Separation distance (mm)	54	54	54	54	54
	exclusion threshold(mW)	196.85	149.99	185.96	133.39	105.56
	Testing required?	YES	YES	YES	YES	NO
Bottom Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	17.79	11.00	16.35	9.34	9.77
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 41	LTE Band 66	LTE Band 71	BT	2.4G WLAN
	Calculated Frequency (MHz)	2506	1770	688	2441	2437
	Maximum Turn-up power (dBm)	22.5	22.5	26.5	6	14
	Maximum rated power(mW)	177.83	177.83	446.68	3.98	25.12
Back Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.48	11.27	18.08	9.60	9.61
	Testing required?	YES	YES	YES	NO	YES
Front Side	Separation distance (mm)	5	5	5	5	5
	exclusion threshold(mW)	9.48	11.27	18.08	9.60	9.61
	Testing required?	YES	YES	YES	NO	YES
Left Side	Separation distance (mm)	47	47	47	5	5
	exclusion threshold(mW)	89.07	105.98	169.99	9.60	9.61
	Testing required?	YES	YES	YES	NO	YES
Right Side	Separation distance (mm)	5	5	5	60	60
	exclusion threshold(mW)	9.48	11.27	18.08	115.21	115.30
	Testing required?	YES	YES	YES	NO	NO
Top Side	Separation distance (mm)	54	54	54	5	5
	exclusion threshold(mW)	134.75	152.75	199.19	9.60	9.61
	Testing required?	YES	YES	YES	NO	YES
Bottom Side	Separation distance (mm)	5	5	5	57	57
	exclusion threshold(mW)	9.48	11.27	18.08	166.01	166.09
	Testing required?	YES	YES	YES	NO	NO



Exposure Position	Wireless Interface	5.2G WLAN	5.3G WLAN	5.8G WLAN
	Calculated Frequency (MHz)	5180	5260	5825
	Maximum Turn-up power (dBm)	12.5	11.5	11.5
	Maximum rated power(mW)	17.78	14.13	14.13
Back Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.59	6.54	6.22
	Testing required?	YES	YES	YES
Front Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.59	6.54	6.22
	Testing required?	YES	YES	YES
Left Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.59	6.54	6.22
	Testing required?	YES	YES	YES
Right Side	Separation distance (mm)	60	60	60
	exclusion threshold(mW)	79.09	78.48	74.58
	Testing required?	NO	NO	NO
Top Side	Separation distance (mm)	5	5	5
	exclusion threshold(mW)	6.59	6.54	6.22
	Testing required?	YES	YES	YES
Bottom Side	Separation distance (mm)	57	57	57
	exclusion threshold(mW)	135.91	135.40	132.15
	Testing required?	NO	NO	NO

Note:

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.



3. per KDB 447498 D01, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <25mm, 25mm is user to determine SAR exclusion threshold
4. per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance $\leq 50\text{mm}$ are determined by:
$$[(\text{max.power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation.}$$

The result is rounded to one decimal place for comparison

For <50mm distance, we just calculate mW of the exclusion threshold value(3.0) to do compare
5. per KDB 447498 D01, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
 - a) [threshold at 50mm in step 1] + (test separation distance - 50mm) * (f (MHz)/150)]mW, at 100 MHz to 1500 MHz
 - b) [threshold at 50mm in step1] + (test separation distance - 50mm) * 10]mW at > 1500MHz and $\leq 6\text{GHz}$
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8. for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.

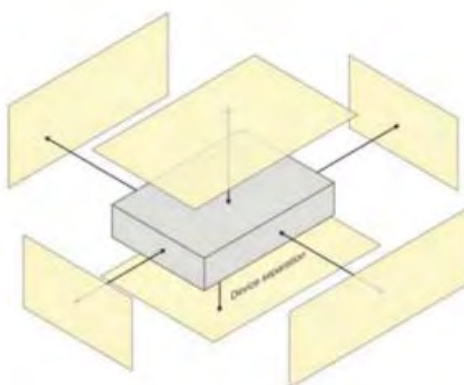


8. EUT Test Position

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

8.1 Hotspot 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 from that surface or edge. When form factor of a handset is smaller than 9cm x 5cm, a test separation distance of 5mm (instead of 10mm) is required for testing hotspot mode. When the separate distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).





9. Uncertainty

9.1 Measurement Uncertainty

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

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



10. Conducted Power Measurement

10.1 Test Result

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
802.11b	1	2412	15.84	38.37
	7	2437	16.13	41.02
	11	2462	15.53	35.73
802.11g	1	2412	13.42	21.98
	7	2437	13.15	20.65
	11	2462	12.87	19.36
802.11n-HT20	1	2412	11.76	15.00
	7	2437	11.84	15.28
	11	2462	12.01	15.89
802.11n-HT40	3	2422	12.39	17.34
	6	2437	12.32	17.06
	9	2452	12.08	16.14

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	36	5180	15.35	34.28
	40	5200	15.28	33.73
	48	5240	15.06	32.06
802.11n-HT20	36	5180	13.05	20.18
	40	5200	13.06	20.23
	48	5240	13.26	21.18
802.11n-HT40	38	5190	12.99	19.91
	46	5230	13.01	20.00
802.11ac-VHT20	36	5180	8.81	7.60
	40	5200	8.94	7.83
	48	5240	8.97	7.89
802.11ac-VHT40	38	5190	8.75	7.50
	46	5230	8.78	7.55
802.11ac-VHT80	42	5210	8.89	7.74



5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	52	5260	15.12	32.51
	60	5300	14.91	30.97
	64	5320	14.83	30.41
802.11n-HT20	52	5260	13.08	20.32
	60	5300	13.05	20.18
	64	5320	12.90	19.50
802.11n-HT40	54	5270	12.98	19.86
	62	5310	12.68	18.54
802.11ac-VHT20	52	5260	8.89	7.74
	60	5300	8.58	7.21
	64	5320	8.53	7.13
802.11ac-VHT40	54	5270	8.79	7.57
	62	5310	8.45	7.00
802.11ac-VHT80	58	5290	8.94	7.83

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a20	149	5745	16.04	40.18
	157	5785	15.85	38.46
	165	5825	15.34	34.20
802.11n-HT20	149	5745	13.81	24.04
	157	5785	13.84	24.21
	165	5825	13.50	22.39
802.11n-HT40	151	5755	13.59	22.86
	159	5795	10.54	11.32
802.11ac-VHT20	149	5745	10.07	10.16
	157	5785	9.91	9.79
	165	5825	9.65	9.23
802.11ac-VHT40	151	5755	10.17	10.40
	159	5795	10.34	10.81
802.11ac-VHT80	155	5775	9.03	8.00



Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	5.69	3.71
	39	2441	6.27	4.24
	78	2480	5.59	3.62
$\pi/4$ -QPSK(2Mbps)	0	2402	4.77	3.00
	39	2441	5.46	3.52
	78	2480	4.75	2.99
8DPSK(3Mbps)	0	2402	4.90	3.09
	39	2441	5.51	3.56
	78	2480	4.75	2.99

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	3.34	2.16
	19	2440	3.94	2.48
	39	2480	3.18	2.08
GFSK(2Mbps)	0	2402	3.98	2.50
	19	2440	3.92	2.47
	39	2480	3.24	2.11



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 $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.89	24.83	24.69
1.4	1	2		25.05	25.02	24.82
1.4	1	5		24.92	24.85	24.63
1.4	3	0		24.95	24.81	24.79
1.4	3	1		24.91	24.79	24.79
1.4	3	2		24.91	24.84	24.79
1.4	6	0		23.91	23.82	23.71
1.4	1	0	16-QAM	23.68	23.97	23.84
1.4	1	2		23.84	24.01	23.89
1.4	1	5		23.66	23.94	23.82
1.4	3	0		24.06	23.99	23.91
1.4	3	1		24.04	24.03	23.94
1.4	3	2		24.07	23.95	23.96
1.4	6	0		23.11	23.03	22.92
3	1	0	QPSK	25.00	24.83	24.72
3	1	7		25.25	25.07	24.98
3	1	14		25.09	24.77	24.75
3	8	0		23.96	23.82	23.74
3	8	4		23.95	23.85	23.78
3	8	7		23.94	23.86	23.78
3	15	0		23.92	23.76	23.70
3	1	0	16-QAM	23.83	24.33	23.94
3	1	7		24.09	24.50	24.12
3	1	14		23.76	24.21	23.90
3	8	0		22.98	22.91	22.82
3	8	4		23.01	22.94	22.86
3	8	7		22.98	22.90	22.79
3	15	0		23.01	22.91	22.73



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.89	24.79	24.61
5	1	12		25.27	25.23	25.09
5	1	24		24.96	24.76	24.66
5	12	0		23.93	23.85	23.72
5	12	6		24.00	23.86	23.77
5	12	11		24.04	23.80	23.76
5	25	0		23.97	23.89	23.75
5	1	0	16-QAM	24.34	24.15	23.99
5	1	12		24.70	24.41	24.19
5	1	24		24.35	24.11	23.96
5	12	0		22.96	22.89	22.81
5	12	6		23.04	22.86	22.88
5	12	11		23.04	22.87	22.80
5	25	0		22.98	22.96	22.80
10	1	0	QPSK	24.92	24.98	24.73
10	1	24		25.08	25.07	24.84
10	1	49		25.01	24.92	24.75
10	25	0		23.95	23.90	23.81
10	25	12		23.98	23.88	23.75
10	25	24		24.08	23.90	23.81
10	50	0		23.99	23.90	23.78
10	1	0	16-QAM	24.10	23.80	24.19
10	1	24		24.19	23.84	24.22
10	1	49		24.15	23.70	24.14
10	25	0		23.00	22.95	22.87
10	25	12		23.06	22.96	22.88
10	25	24		23.12	22.97	22.93
10	50	0		23.09	22.94	22.85



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.84	24.82	24.75
15	1	37		25.19	25.16	25.22
15	1	74		24.94	24.74	24.79
15	36	0		24.04	23.95	23.87
15	36	18		24.13	23.96	23.86
15	36	39		24.13	23.95	23.90
15	75	0		24.15	23.93	23.88
15	1	0	16-QAM	24.26	24.06	23.81
15	1	38		24.56	24.32	24.22
15	1	75		24.32	23.86	23.80
15	36	0		23.04	22.98	22.88
15	36	18		23.16	23.04	22.84
15	36	39		23.21	23.04	22.81
15	75	0		23.12	22.99	22.96
20	1	0	QPSK	25.38	25.32	25.16
20	1	49		25.75	25.50	25.43
20	1	99		25.51	25.24	25.21
20	50	0		24.40	24.40	24.38
20	50	24		24.53	24.40	24.33
20	50	49		24.57	24.35	24.30
20	100	0		24.46	24.35	24.35
20	1	0	16-QAM	24.57	24.59	24.42
20	1	49		24.83	24.77	24.76
20	1	99		24.64	24.43	24.47
20	50	0		23.47	23.52	23.50
20	50	24		23.58	23.54	23.47
20	50	49		23.61	23.40	23.40
20	100	0		23.55	23.51	23.42



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.50	24.52	24.55
1.4	1	2		24.62	24.67	24.69
1.4	1	5		24.39	24.55	24.52
1.4	3	0		24.59	24.60	24.54
1.4	3	1		24.60	24.56	24.56
1.4	3	2		24.58	24.60	24.55
1.4	6	0		23.51	23.53	23.49
1.4	1	0	16-QAM	23.68	23.35	23.62
1.4	1	2		23.78	23.53	23.74
1.4	1	5		23.64	23.38	23.67
1.4	3	0		23.77	23.70	23.73
1.4	3	1		23.80	23.67	23.70
1.4	3	2		23.79	23.76	23.69
1.4	6	0		22.72	22.77	22.73
3	1	0	QPSK	24.61	24.50	24.50
3	1	7		24.87	24.81	24.75
3	1	14		24.59	24.54	24.49
3	8	0		23.50	23.52	23.51
3	8	4		23.51	23.55	23.53
3	8	7		23.49	23.55	23.54
3	15	0		23.49	23.50	23.50
3	1	0	16-QAM	23.38	23.95	23.70
3	1	7		23.63	24.29	24.02
3	1	14		23.32	24.02	23.72
3	8	0		22.53	22.62	22.59
3	8	4		22.59	22.66	22.60
3	8	7		22.55	22.65	22.59
3	15	0		22.66	22.66	22.51



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.41	24.39	24.36
5	1	12		24.75	24.89	24.90
5	1	24		24.35	24.50	24.36
5	12	0		23.46	23.50	23.51
5	12	6		23.53	23.56	23.57
5	12	11		23.48	23.55	23.53
5	25	0		23.46	23.57	23.56
5	1	0	16-QAM	23.93	23.76	23.72
5	1	12		24.31	24.26	24.12
5	1	24		23.87	23.80	23.75
5	12	0		22.55	22.50	22.59
5	12	6		22.55	22.62	22.68
5	12	11		22.53	22.58	22.53
5	25	0		22.51	22.65	22.58
10	1	0	QPSK	24.51	24.47	24.65
10	1	24		24.53	24.65	24.73
10	1	49		24.38	24.60	24.54
10	25	0		23.50	23.55	23.60
10	25	12		23.46	23.57	23.57
10	25	24		23.49	23.61	23.59
10	50	0		23.54	23.59	23.63
10	1	0	16-QAM	23.91	23.61	23.46
10	1	24		23.96	23.85	23.52
10	1	49		23.81	23.82	23.41
10	25	0		22.62	22.60	22.68
10	25	12		22.58	22.69	22.67
10	25	24		22.59	22.69	22.70
10	50	0		22.60	22.69	22.66



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.40	24.32	24.65
15	1	37		24.69	24.85	24.82
15	1	74		24.30	24.55	24.51
15	36	0		23.52	23.59	23.75
15	36	18		23.52	23.65	23.73
15	36	39		23.48	23.69	23.66
15	75	0		23.53	23.62	23.73
15	1	0	16-QAM	23.83	23.56	23.67
15	1	38		24.05	23.95	23.99
15	1	75		23.76	23.80	23.53
15	36	0		22.53	22.60	22.72
15	36	18		22.54	22.75	22.70
15	36	39		22.57	22.76	22.61
15	75	0		22.56	22.67	22.79
20	1	0	QPSK	24.94	24.75	24.93
20	1	49		25.10	25.21	25.29
20	1	99		24.95	25.11	24.93
20	50	0		23.89	23.95	24.07
20	50	24		23.90	24.04	24.18
20	50	49		23.88	24.17	24.09
20	100	0		23.86	24.07	24.14
20	1	0	16-QAM	24.15	23.99	24.31
20	1	49		24.21	24.47	24.64
20	1	99		24.13	24.38	24.24
20	50	0		22.95	23.12	23.26
20	50	24		22.99	23.23	23.28
20	50	49		22.95	23.27	23.22
20	100	0		23.00	23.19	23.19



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.81	24.87	25.31
1.4	1	2		24.96	25.09	25.50
1.4	1	5		24.82	24.90	25.35
1.4	3	0		24.80	25.01	25.32
1.4	3	1		24.80	25.01	25.33
1.4	3	2		24.79	25.02	25.35
1.4	6	0		23.81	23.97	24.33
1.4	1	0	16-QAM	23.95	24.15	24.09
1.4	1	2		24.04	24.24	24.23
1.4	1	5		24.00	24.18	24.10
1.4	3	0		24.05	24.27	24.44
1.4	3	1		24.03	24.27	24.46
1.4	3	2		24.00	24.30	24.50
1.4	6	0		23.00	23.11	23.52
3	1	0	QPSK	24.75	24.93	25.26
3	1	7		25.02	25.28	25.48
3	1	14		24.77	25.08	25.30
3	8	0		23.80	23.94	24.39
3	8	4		23.81	24.04	24.43
3	8	7		23.84	24.00	24.42
3	15	0		23.76	23.96	24.37
3	1	0	16-QAM	24.04	23.79	24.73
3	1	7		24.34	24.21	25.00
3	1	14		23.96	23.92	24.71
3	8	0		22.84	22.93	23.40
3	8	4		22.83	23.01	23.43
3	8	7		22.81	23.03	23.36
3	15	0		22.76	23.07	23.40



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.68	24.80	25.12
5	1	12		25.11	25.27	25.58
5	1	24		24.74	24.95	25.23
5	12	0		23.79	23.92	24.27
5	12	6		23.85	24.02	24.39
5	12	11		23.80	24.01	24.34
5	25	0		23.82	24.00	24.35
5	1	0	16-QAM	24.25	24.14	24.53
5	1	12		24.74	24.66	24.91
5	1	24		24.24	24.32	24.56
5	12	0		22.72	22.91	23.34
5	12	6		22.83	22.97	23.40
5	12	11		22.78	22.94	23.36
5	25	0		22.79	23.03	23.34
10	1	0	QPSK	25.19	25.29	25.62
10	1	24		25.34	25.58	25.94
10	1	49		25.34	25.66	25.96
10	25	0		24.33	24.45	24.81
10	25	12		24.28	24.50	24.85
10	25	24		24.39	24.64	24.87
10	50	0		24.32	24.52	24.82
10	1	0	16-QAM	24.68	24.54	24.50
10	1	24		24.79	24.78	24.78
10	1	49		24.75	24.87	24.71
10	25	0		23.36	23.47	23.87
10	25	12		23.34	23.51	23.87
10	25	24		23.38	23.63	23.88
10	50	0		23.33	23.59	23.83



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.17	22.17	22.20
5	1	12		22.60	22.70	22.68
5	1	24		22.09	22.20	22.19
5	12	0		21.27	21.30	21.35
5	12	6		21.35	21.43	21.40
5	12	11		21.30	21.33	21.30
5	25	0		21.31	21.38	21.39
5	1	0	16-QAM	21.75	21.59	21.53
5	1	12		22.19	22.12	22.06
5	1	24		21.77	21.62	21.58
5	12	0		20.15	20.27	20.33
5	12	6		20.32	20.33	20.43
5	12	11		20.26	20.28	20.37
5	25	0		20.23	20.38	20.31
10	1	0	QPSK	22.22	22.24	22.30
10	1	24		22.31	22.29	22.43
10	1	49		22.32	22.25	22.33
10	25	0		21.31	21.43	21.35
10	25	12		21.30	21.35	21.34
10	25	24		21.37	21.31	21.40
10	50	0		21.34	21.43	21.37
10	1	0	16-QAM	21.06	21.78	21.56
10	1	24		21.25	21.74	21.54
10	1	49		21.16	21.79	21.50
10	25	0		20.26	20.52	20.35
10	25	12		20.32	20.44	20.41
10	25	24		20.37	20.37	20.41
10	50	0		20.32	20.44	20.43



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.06	22.17	22.34
15	1	37		22.54	22.64	22.77
15	1	74		22.18	22.24	22.33
15	36	0		21.32	21.48	21.43
15	36	18		21.42	21.46	21.42
15	36	39		21.38	21.41	21.44
15	75	0		21.35	21.42	21.39
15	1	0	16-QAM	21.64	21.49	21.43
15	1	38		22.05	21.96	21.82
15	1	75		21.74	21.48	21.38
15	36	0		20.24	20.51	20.32
15	36	18		20.42	20.50	20.37
15	36	39		20.41	20.42	20.36
15	75	0		20.36	20.35	20.43
20	1	0	QPSK	22.65	22.70	22.78
20	1	49		22.94	22.94	23.09
20	1	99		22.76	22.79	22.79
20	50	0		21.75	21.95	21.81
20	50	24		21.83	21.92	21.91
20	50	49		21.90	21.76	21.91
20	100	0		21.85	21.88	21.82
20	1	0	16-QAM	21.92	22.00	22.12
20	1	49		22.23	22.24	22.43
20	1	99		22.04	22.09	22.15
20	50	0		20.75	21.02	20.92
20	50	24		20.88	20.99	21.01
20	50	49		20.88	20.82	20.99
20	100	0		20.84	20.89	20.87



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.73	22.55	22.70
1.4	1	2		22.86	22.76	22.94
1.4	1	5		22.67	22.54	22.78
1.4	3	0		22.67	22.71	22.81
1.4	3	1		22.69	22.71	22.83
1.4	3	2		22.72	22.71	22.85
1.4	6	0		21.66	21.64	21.77
1.4	1	0	16-QAM	21.90	21.83	21.62
1.4	1	2		21.96	21.94	21.75
1.4	1	5		21.80	21.82	21.62
1.4	3	0		21.87	21.92	21.95
1.4	3	1		21.89	21.97	21.96
1.4	3	2		21.87	21.92	21.99
1.4	6	0		20.85	20.80	20.98
3	1	0	QPSK	22.71	22.58	22.68
3	1	7		23.08	22.85	23.08
3	1	14		22.75	22.63	22.77
3	8	0		21.65	21.57	21.74
3	8	4		21.68	21.61	21.74
3	8	7		21.61	21.65	21.77
3	15	0		21.63	21.62	21.70
3	1	0	16-QAM	21.60	22.02	21.92
3	1	7		21.87	22.37	22.24
3	1	14		21.57	22.10	21.99
3	8	0		20.62	20.64	20.76
3	8	4		20.65	20.64	20.76
3	8	7		20.61	20.66	20.75
3	15	0		20.72	20.65	20.67



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.59	22.48	22.55
5	1	12		23.15	22.86	22.94
5	1	24		22.52	22.52	22.70
5	12	0		21.57	21.60	21.72
5	12	6		21.69	21.69	21.77
5	12	11		21.63	21.64	21.70
5	25	0		21.67	21.67	21.76
5	1	0	16-QAM	21.89	21.85	22.09
5	1	12		22.33	22.15	22.56
5	1	24		21.91	21.90	22.25
5	12	0		20.56	20.63	20.73
5	12	6		20.64	20.67	20.73
5	12	11		20.58	20.68	20.64
5	25	0		20.68	20.63	20.73
10	1	0	QPSK	23.18	23.09	23.14
10	1	24		23.32	23.25	23.29
10	1	49		23.24	23.18	23.31
10	25	0		22.19	22.14	22.22
10	25	12		22.17	22.21	22.22
10	25	24		22.26	22.24	22.18
10	50	0		22.21	22.18	22.18
10	1	0	16-QAM	22.08	22.52	22.33
10	1	24		22.18	22.71	22.49
10	1	49		22.10	22.66	22.52
10	25	0		21.20	21.16	21.23
10	25	12		21.19	21.20	21.27
10	25	24		21.25	21.28	21.23
10	50	0		21.21	21.21	21.24



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	25.44	25.40	25.44
5	1	12		25.90	25.78	25.95
5	1	24		25.53	25.48	25.62
5	12	0		24.51	24.56	24.61
5	12	6		24.58	24.60	24.69
5	12	11		24.56	24.51	24.61
5	25	0		24.53	24.53	24.64
5	1	0	16-QAM	24.71	24.68	24.90
5	1	12		25.02	25.25	25.33
5	1	24		24.77	24.75	25.06
5	12	0		23.45	23.54	23.56
5	12	6		23.50	23.60	23.66
5	12	11		23.51	23.53	23.58
5	25	0		23.52	23.48	23.57
10	1	0	QPSK	25.94	25.97	26.10
10	1	24		26.18	26.18	26.29
10	1	49		26.15	26.14	26.33
10	25	0		25.08	25.09	25.14
10	25	12		25.11	25.08	25.16
10	25	24		25.08	25.07	25.08
10	50	0		25.04	25.06	25.11
10	1	0	16-QAM	25.32	25.15	24.83
10	1	24		25.53	25.32	24.97
10	1	49		25.55	25.30	25.03
10	25	0		24.05	24.05	24.07
10	25	12		24.12	24.09	24.09
10	25	24		24.14	24.05	24.09
10	50	0		24.03	24.08	24.08



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.91	24.87	24.64
1.4	1	2		25.12	24.98	24.82
1.4	1	5		24.95	24.85	24.62
1.4	3	0		24.96	24.79	24.79
1.4	3	1		25.02	24.85	24.79
1.4	3	2		24.95	24.83	24.74
1.4	6	0		23.92	23.82	23.73
1.4	1	0	16-QAM	23.71	23.97	23.83
1.4	1	2		23.85	24.03	23.93
1.4	1	5		23.72	23.92	23.89
1.4	3	0		24.08	23.98	23.91
1.4	3	1		24.05	24.05	23.94
1.4	3	2		24.11	23.96	23.98
1.4	6	0		23.15	23.04	22.92
3	1	0	QPSK	24.99	24.80	24.69
3	1	7		25.34	24.96	24.96
3	1	14		25.07	24.74	24.72
3	8	0		23.96	23.80	23.74
3	8	4		24.01	23.82	23.79
3	8	7		23.99	23.82	23.76
3	15	0		23.93	23.77	23.70
3	1	0	16-QAM	23.79	24.25	23.82
3	1	7		24.03	24.41	24.16
3	1	14		23.77	24.21	23.86
3	8	0		22.99	22.90	22.77
3	8	4		23.00	23.00	22.80
3	8	7		22.97	22.90	22.73
3	15	0		23.08	22.91	22.67



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.80	24.75	24.57
5	1	12		25.28	25.19	24.99
5	1	24		24.89	24.74	24.59
5	12	0		23.89	23.81	23.74
5	12	6		23.99	23.87	23.75
5	12	11		23.97	23.76	23.68
5	25	0		23.97	23.84	23.70
5	1	0	16-QAM	24.30	24.08	23.82
5	1	12		24.75	24.47	24.28
5	1	24		24.35	24.04	23.86
5	12	0		22.97	22.83	22.70
5	12	6		23.03	22.87	22.81
5	12	11		23.00	22.89	22.73
5	25	0		23.00	22.89	22.69
10	1	0	QPSK	24.87	24.77	24.80
10	1	24		25.08	24.96	24.95
10	1	49		24.93	24.78	24.83
10	25	0		23.92	23.86	23.77
10	25	12		23.99	23.86	23.73
10	25	24		24.06	23.90	23.64
10	50	0		24.00	23.88	23.72
10	1	0	16-QAM	24.28	24.02	23.57
10	1	24		24.44	24.14	23.68
10	1	49		24.37	23.93	23.51
10	25	0		23.02	22.92	22.79
10	25	12		23.07	22.95	22.78
10	25	24		23.15	22.94	22.73
10	50	0		23.05	22.98	22.75



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.83	24.80	24.76
15	1	37		25.36	25.00	25.06
15	1	74		24.95	24.69	24.79
15	36	0		24.00	23.92	23.87
15	36	18		24.11	23.93	23.84
15	36	39		24.13	23.94	23.76
15	75	0		24.10	23.94	23.80
15	1	0	16-QAM	24.23	23.97	23.79
15	1	38		24.55	24.28	24.17
15	1	75		24.32	23.89	23.75
15	36	0		23.03	22.97	22.84
15	36	18		23.10	22.99	22.79
15	36	39		23.13	22.97	22.68
15	75	0		23.10	22.94	22.84
20	1	0	QPSK	25.34	25.37	25.13
20	1	49		25.63	25.51	25.40
20	1	99		25.43	25.27	25.17
20	50	0		24.40	24.48	24.29
20	50	24		24.49	24.36	24.31
20	50	49		24.57	24.37	24.12
20	100	0		24.48	24.39	24.25
20	1	0	16-QAM	24.60	24.56	24.39
20	1	49		24.81	24.68	24.63
20	1	99		24.78	24.45	24.38
20	50	0		23.49	23.44	23.39
20	50	24		23.64	23.43	23.42
20	50	49		23.67	23.43	23.28
20	100	0		23.59	23.46	23.31



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	25.07	24.81	24.81
1.4	1	2		25.24	24.98	24.92
1.4	1	5		25.08	24.79	24.76
1.4	3	0		25.05	24.94	24.84
1.4	3	1		25.06	25.00	24.86
1.4	3	2		25.05	24.93	24.82
1.4	6	0		24.06	23.92	23.80
1.4	1	0	16-QAM	24.17	24.00	23.63
1.4	1	2		24.27	24.10	23.80
1.4	1	5		24.16	23.99	23.64
1.4	3	0		24.26	24.09	23.98
1.4	3	1		24.26	24.13	24.00
1.4	3	2		24.21	24.14	23.97
1.4	6	0		23.21	23.04	22.99
3	1	0	QPSK	25.00	24.92	24.77
3	1	7		25.24	25.24	25.06
3	1	14		24.92	24.93	24.70
3	8	0		24.01	23.86	23.83
3	8	4		24.04	23.93	23.85
3	8	7		23.98	23.85	23.81
3	15	0		23.98	23.84	23.77
3	1	0	16-QAM	24.21	23.70	24.22
3	1	7		24.45	23.98	24.52
3	1	14		24.02	23.71	24.16
3	8	0		23.03	22.82	22.86
3	8	4		23.02	22.90	22.88
3	8	7		22.97	22.83	22.83
3	15	0		22.95	22.90	22.85



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.87	24.77	24.64
5	1	12		25.39	25.18	25.04
5	1	24		24.79	24.72	24.59
5	12	0		23.97	23.82	23.80
5	12	6		24.02	23.94	23.89
5	12	11		23.97	23.86	23.80
5	25	0		23.99	23.91	23.82
5	1	0	16-QAM	24.40	24.04	23.99
5	1	12		24.85	24.37	24.46
5	1	24		24.26	24.05	24.01
5	12	0		22.97	22.76	22.84
5	12	6		22.97	22.84	22.89
5	12	11		22.94	22.75	22.76
5	25	0		22.94	22.87	22.78
10	1	0	QPSK	/	25.53	/
10	1	24		/	25.57	/
10	1	49		/	25.34	/
10	25	0		/	24.41	/
10	25	12		/	24.39	/
10	25	24		/	24.41	/
10	50	0		/	24.41	/
10	1	0	16-QAM	/	24.34	/
10	1	24		/	24.33	/
10	1	49		/	24.17	/
10	25	0		/	23.36	/
10	25	12		/	23.35	/
10	25	24		/	23.38	/
10	50	0		/	23.41	/



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.77	24.78	25.29
1.4	1	2		24.94	25.02	25.44
1.4	1	5		24.80	24.84	25.30
1.4	3	0		24.74	24.97	25.29
1.4	3	1		24.77	24.96	25.28
1.4	3	2		24.80	24.96	25.31
1.4	6	0		23.83	23.91	24.32
1.4	1	0	16-QAM	23.93	24.12	24.12
1.4	1	2		24.04	24.19	24.21
1.4	1	5		23.92	24.16	24.11
1.4	3	0		24.03	24.21	24.43
1.4	3	1		24.00	24.24	24.45
1.4	3	2		24.03	24.26	24.45
1.4	6	0		22.94	23.08	23.48
3	1	0	QPSK	24.69	24.81	25.28
3	1	7		25.02	25.16	25.66
3	1	14		24.68	24.93	25.36
3	8	0		23.75	23.89	24.35
3	8	4		23.75	23.93	24.39
3	8	7		23.79	23.99	24.32
3	15	0		23.69	23.94	24.29
3	1	0	16-QAM	24.20	24.05	24.16
3	1	7		24.45	24.38	24.48
3	1	14		24.14	24.19	24.11
3	8	0		22.76	22.91	23.30
3	8	4		22.79	22.95	23.33
3	8	7		22.81	22.98	23.29
3	15	0		22.74	22.88	23.35



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.64	24.60	25.08
5	1	12		24.93	24.98	25.63
5	1	24		24.63	24.83	25.22
5	12	0		23.70	23.85	24.32
5	12	6		23.82	24.00	24.37
5	12	11		23.77	23.97	24.29
5	25	0		23.77	23.94	24.35
5	1	0	16-QAM	23.98	23.99	24.74
5	1	12		24.35	24.52	25.03
5	1	24		24.00	24.25	24.72
5	12	0		22.71	22.87	23.26
5	12	6		22.79	23.02	23.34
5	12	11		22.70	23.01	23.25
5	25	0		22.77	22.94	23.34
10	1	0	QPSK	24.67	24.76	24.95
10	1	24		24.80	25.07	25.29
10	1	49		24.82	25.12	25.26
10	25	0		23.79	23.91	24.28
10	25	12		23.77	24.01	24.30
10	25	24		23.81	24.04	24.32
10	50	0		23.83	23.97	24.27
10	1	0	16-QAM	23.95	23.60	24.44
10	1	24		23.98	23.98	24.79
10	1	49		24.03	24.00	24.70
10	25	0		22.81	22.93	23.30
10	25	12		22.76	22.99	23.33
10	25	24		22.80	23.02	23.36
10	50	0		22.82	23.01	23.28



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	25.17	25.08	25.23
15	1	37		25.51	25.56	25.88
15	1	74		25.49	25.66	25.74
15	36	0		24.30	24.37	24.61
15	36	18		24.43	24.49	24.74
15	36	39		24.50	24.63	24.85
15	75	0		24.43	24.53	24.74
15	1	0	16-QAM	24.30	24.56	24.46
15	1	38		24.61	25.14	25.07
15	1	75		24.61	25.13	24.95
15	36	0		23.21	23.40	23.61
15	36	18		23.31	23.50	23.75
15	36	39		23.40	23.63	23.92
15	75	0		23.40	23.49	23.73



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.55	24.38	24.26
5	1	12		24.84	24.66	24.54
5	1	24		24.52	24.36	24.26
5	12	0		23.63	23.50	23.33
5	12	6		23.70	23.60	23.39
5	12	11		23.58	23.51	23.30
5	25	0		23.67	23.51	23.32
5	1	0	16-QAM	23.80	23.79	23.89
5	1	12		24.08	24.06	24.17
5	1	24		23.80	23.75	23.91
5	12	0		22.64	22.63	22.39
5	12	6		22.69	22.70	22.47
5	12	11		22.63	22.58	22.36
5	25	0		22.78	22.53	22.36
10	1	0	QPSK	24.61	24.57	24.34
10	1	24		24.73	24.67	24.47
10	1	49		24.59	24.47	24.34
10	25	0		23.70	23.59	23.37
10	25	12		23.62	23.51	23.34
10	25	24		23.66	23.53	23.35
10	50	0		23.67	23.56	23.36
10	1	0	16-QAM	24.11	23.72	23.27
10	1	24		24.21	23.80	23.42
10	1	49		24.07	23.59	23.25
10	25	0		22.80	22.65	22.46
10	25	12		22.72	22.61	22.44
10	25	24		22.80	22.57	22.41
10	50	0		22.72	22.66	22.39



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.56	24.60	24.27
15	1	37		24.82	24.81	24.50
15	1	74		24.57	24.41	24.21
15	36	0		23.64	23.60	23.34
15	36	18		23.66	23.59	23.35
15	36	39		23.64	23.50	23.40
15	75	0		23.68	23.55	23.38
15	1	0	16-QAM	23.74	23.78	23.80
15	1	38		23.95	23.94	24.01
15	1	75		23.71	23.62	23.76
15	36	0		22.75	22.58	22.40
15	36	18		22.77	22.50	22.42
15	36	39		22.73	22.47	22.43
15	75	0		22.70	22.64	22.42
20	1	0	QPSK	25.02	25.04	24.81
20	1	49		25.24	25.20	24.99
20	1	99		24.99	24.88	24.73
20	50	0		24.10	24.11	23.82
20	50	24		24.15	24.04	23.84
20	50	49		24.06	23.97	23.81
20	100	0		24.12	24.02	23.80
20	1	0	16-QAM	24.25	24.21	23.99
20	1	49		24.50	24.41	24.20
20	1	99		24.30	24.05	23.91
20	50	0		23.21	23.14	22.99
20	50	24		23.28	23.07	22.95
20	50	49		23.20	23.02	22.94
20	100	0		23.16	23.08	22.89



LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	11.64	11.62	11.57
5	1	12		11.93	11.91	11.86
5	1	24		11.63	11.61	11.54
5	12	0		10.71	10.65	10.62
5	12	6		10.74	10.69	10.69
5	12	11		10.69	10.65	10.64
5	25	0		10.70	10.62	10.61
5	1	0	16-QAM	11.35	10.95	10.96
5	1	12		11.64	11.24	11.27
5	1	24		11.34	10.94	10.94
5	12	0		9.79	9.68	9.73
5	12	6		9.83	9.73	9.79
5	12	11		9.80	9.66	9.73
5	25	0		9.78	9.80	9.69
10	1	0	QPSK	/	12.19	/
10	1	24		/	12.33	/
10	1	49		/	12.15	/
10	25	0		/	11.20	/
10	25	12		/	11.16	/
10	25	24		/	11.17	/
10	50	0		/	11.18	/
10	1	0	16-QAM	/	11.68	/
10	1	24		/	11.86	/
10	1	49		/	11.66	/
10	25	0		/	10.32	/
10	25	12		/	10.34	/
10	25	24		/	10.34	/
10	50	0		/	10.30	/



LTE Band 40 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	11.73	11.72	11.66
5	1	12		12.05	11.98	11.94
5	1	24		11.71	11.69	11.63
5	12	0		10.75	10.69	10.70
5	12	6		10.79	10.75	10.76
5	12	11		10.72	10.71	10.69
5	25	0		10.70	10.73	10.75
5	1	0	16-QAM	11.40	11.04	11.04
5	1	12		11.72	11.30	11.34
5	1	24		11.37	11.00	11.02
5	12	0		9.83	9.71	9.80
5	12	6		9.86	9.77	9.85
5	12	11		9.80	9.72	9.77
5	25	0		9.80	9.84	9.78
10	1	0	QPSK	/	12.27	/
10	1	24		/	12.42	/
10	1	49		/	12.24	/
10	25	0		/	11.25	/
10	25	12		/	11.20	/
10	25	24		/	11.25	/
10	50	0		/	11.25	/
10	1	0	16-QAM	/	11.24	/
10	1	24		/	11.37	/
10	1	49		/	11.19	/
10	25	0		/	10.33	/
10	25	12		/	10.31	/
10	25	24		/	10.30	/
10	50	0		/	10.32	/



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.37	21.28	20.86
5	1	12		21.62	21.50	21.07
5	1	24		21.40	21.27	20.89
5	12	0		20.35	20.34	19.99
5	12	6		20.58	20.40	20.04
5	12	11		20.48	20.28	19.98
5	25	0		20.48	20.37	19.99
5	1	0	16-QAM	21.10	20.65	20.28
5	1	12		21.35	20.88	20.49
5	1	24		21.14	20.64	20.31
5	12	0		19.47	19.33	19.13
5	12	6		19.61	19.38	19.14
5	12	11		19.51	19.31	19.09
5	25	0		19.46	19.39	19.07
10	1	0	QPSK	21.42	21.42	21.01
10	1	24		21.66	21.57	21.14
10	1	49		21.49	21.34	21.07
10	25	0		20.55	20.50	20.07
10	25	12		20.57	20.39	20.05
10	25	24		20.61	20.41	20.00
10	50	0		20.54	20.39	20.04
10	1	0	16-QAM	21.01	20.60	20.06
10	1	24		21.21	20.71	20.14
10	1	49		21.09	20.51	20.00
10	25	0		19.61	19.51	19.16
10	25	12		19.62	19.48	19.15
10	25	24		19.68	19.46	19.12
10	50	0		19.58	19.46	19.13



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.37	21.35	21.06
15	1	37		21.73	21.60	21.31
15	1	74		21.44	21.24	21.00
15	36	0		20.48	20.43	20.03
15	36	18		20.57	20.37	20.03
15	36	39		20.58	20.36	20.06
15	75	0		20.56	20.37	20.02
15	1	0	16-QAM	21.00	20.57	20.27
15	1	38		21.31	20.80	20.53
15	1	75		21.02	20.48	20.28
15	36	0		19.51	19.50	19.05
15	36	18		19.61	19.46	19.02
15	36	39		19.64	19.41	19.02
15	75	0		19.56	19.37	19.10
20	1	0	QPSK	21.90	21.79	21.51
20	1	49		22.21	22.03	21.71
20	1	99		21.96	21.71	21.44
20	50	0		20.95	20.94	20.54
20	50	24		21.05	20.89	20.56
20	50	49		21.03	20.81	20.52
20	100	0		20.99	20.83	20.50
20	1	0	16-QAM	21.07	21.13	20.75
20	1	49		21.46	21.38	20.97
20	1	99		21.21	21.02	20.69
20	50	0		20.06	20.01	19.60
20	50	24		20.16	19.98	19.66
20	50	49		20.15	19.90	19.54
20	100	0		20.03	19.89	19.62



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.40	21.36	21.67
1.4	1	2		21.56	21.56	21.83
1.4	1	5		21.35	21.37	21.76
1.4	3	0		21.41	21.52	21.74
1.4	3	1		21.40	21.48	21.77
1.4	3	2		21.42	21.52	21.73
1.4	6	0		20.33	20.40	20.65
1.4	1	0	16-QAM	20.55	20.63	20.58
1.4	1	2		20.69	20.74	20.73
1.4	1	5		20.62	20.63	20.61
1.4	3	0		20.63	20.82	20.93
1.4	3	1		20.66	20.81	20.92
1.4	3	2		20.60	20.79	20.98
1.4	6	0		19.61	19.65	19.95
3	1	0	QPSK	21.39	21.53	21.70
3	1	7		21.66	21.84	22.08
3	1	14		21.29	21.51	21.68
3	8	0		20.31	20.41	20.68
3	8	4		20.36	20.47	20.71
3	8	7		20.33	20.46	20.75
3	15	0		20.30	20.39	20.66
3	1	0	16-QAM	20.60	20.45	21.16
3	1	7		20.94	20.69	21.44
3	1	14		20.62	20.37	21.22
3	8	0		19.45	19.51	19.80
3	8	4		19.44	19.54	19.82
3	8	7		19.36	19.51	19.83
3	15	0		19.32	19.59	19.81



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.24	21.41	21.53
5	1	12		21.52	21.76	21.95
5	1	24		21.13	21.35	21.62
5	12	0		20.28	20.46	20.69
5	12	6		20.32	20.53	20.75
5	12	11		20.31	20.45	20.72
5	25	0		20.30	20.52	20.69
5	1	0	16-QAM	20.70	21.00	20.91
5	1	12		20.99	21.47	21.36
5	1	24		20.58	20.97	21.07
5	12	0		19.41	19.54	19.72
5	12	6		19.44	19.61	19.79
5	12	11		19.42	19.51	19.76
5	25	0		19.37	19.53	19.79
10	1	0	QPSK	21.31	21.46	21.51
10	1	24		21.31	21.60	21.79
10	1	49		21.22	21.41	21.83
10	25	0		20.24	20.51	20.63
10	25	12		20.25	20.52	20.67
10	25	24		20.31	20.54	20.71
10	50	0		20.33	20.54	20.67
10	1	0	16-QAM	20.84	20.75	20.40
10	1	24		20.81	20.85	20.69
10	1	49		20.67	20.62	20.66
10	25	0		19.37	19.58	19.70
10	25	12		19.37	19.57	19.74
10	25	24		19.40	19.58	19.81
10	50	0		19.38	19.66	19.72



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.32	21.42	21.21
15	1	37		21.52	21.78	21.78
15	1	74		21.15	21.31	21.66
15	36	0		20.27	20.55	20.49
15	36	18		20.27	20.56	20.61
15	36	39		20.34	20.46	20.68
15	75	0		20.22	20.46	20.58
15	1	0	16-QAM	20.48	20.55	20.75
15	1	38		20.72	20.98	21.20
15	1	75		20.41	20.45	21.19
15	36	0		19.37	19.54	19.56
15	36	18		19.36	19.58	19.68
15	36	39		19.41	19.49	19.74
15	75	0		19.31	19.53	19.62
20	1	0	QPSK	21.73	21.74	21.69
20	1	49		21.84	22.11	22.13
20	1	99		21.78	21.73	22.23
20	50	0		20.68	20.98	20.86
20	50	24		20.71	21.05	21.02
20	50	49		20.74	21.00	21.08
20	100	0		20.70	20.96	20.95
20	1	0	16-QAM	21.03	21.21	21.00
20	1	49		21.22	21.50	21.40
20	1	99		21.07	21.21	21.47
20	50	0		19.80	20.11	19.92
20	50	24		19.90	20.19	20.05
20	50	49		19.84	20.07	20.12
20	100	0		19.76	20.07	20.03



LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	25.13	25.27	25.37
5	1	12		25.52	25.77	25.57
5	1	24		25.20	25.36	25.34
5	12	0		24.05	24.40	24.49
5	12	6		24.25	24.48	24.54
5	12	11		24.23	24.44	24.49
5	25	0		24.12	24.40	24.51
5	1	0	16-QAM	24.51	24.54	24.65
5	1	12		24.99	25.01	25.12
5	1	24		24.67	24.67	24.64
5	12	0		23.07	23.35	23.47
5	12	6		23.29	23.45	23.55
5	12	11		23.26	23.41	23.48
5	25	0		23.17	23.50	23.46
10	1	0	QPSK	25.15	25.26	25.54
10	1	24		25.30	25.52	25.70
10	1	49		25.25	25.52	25.56
10	25	0		24.12	24.37	24.55
10	25	12		24.19	24.43	24.56
10	25	24		24.24	24.46	24.58
10	50	0		24.17	24.40	24.56
10	1	0	16-QAM	24.51	24.40	24.32
10	1	24		24.76	24.70	24.51
10	1	49		24.71	24.68	24.33
10	25	0		23.18	23.42	23.55
10	25	12		23.24	23.44	23.50
10	25	24		23.34	23.53	23.57
10	50	0		23.23	23.50	23.51



LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	25.07	25.14	25.44
15	1	37		25.52	25.62	25.86
15	1	74		25.27	25.54	25.56
15	36	0		24.21	24.38	24.57
15	36	18		24.30	24.47	24.57
15	36	39		24.47	24.52	24.66
15	75	0		24.33	24.42	24.62
15	1	0	16-QAM	24.46	24.35	24.49
15	1	38		24.97	24.84	24.82
15	1	75		24.70	24.68	24.55
15	36	0		23.25	23.40	23.52
15	36	18		23.35	23.57	23.54
15	36	39		23.48	23.60	23.57
15	75	0		23.34	23.46	23.61
20	1	0	QPSK	25.59	25.58	25.71
20	1	49		25.94	26.02	26.14
20	1	99		25.99	26.00	25.97
20	50	0		24.70	24.63	24.99
20	50	24		24.83	24.92	25.05
20	50	49		24.95	24.97	25.08
20	100	0		24.80	24.77	25.01
20	1	0	16-QAM	24.69	24.83	24.98
20	1	49		25.11	25.25	25.39
20	1	99		25.14	25.27	25.21
20	50	0		23.69	23.69	24.11
20	50	24		23.81	24.04	24.17
20	50	49		24.02	24.07	24.13
20	100	0		23.86	23.82	24.09

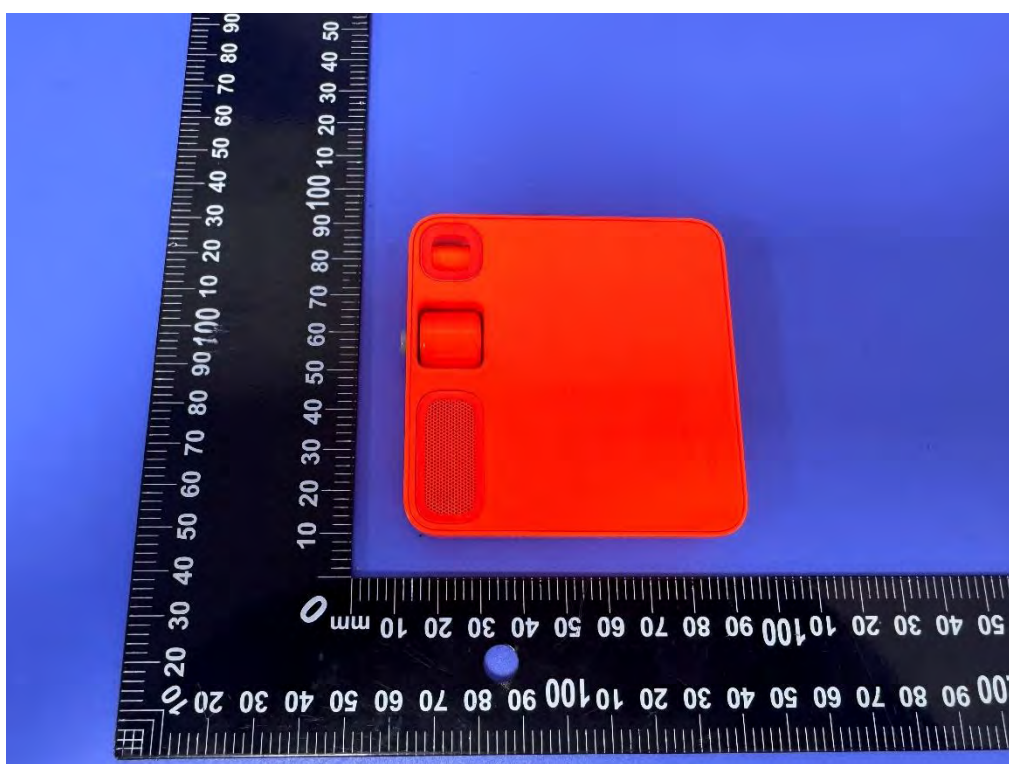
11. EUT and Test Setup Photo

11.1 EUT Photos

Front side

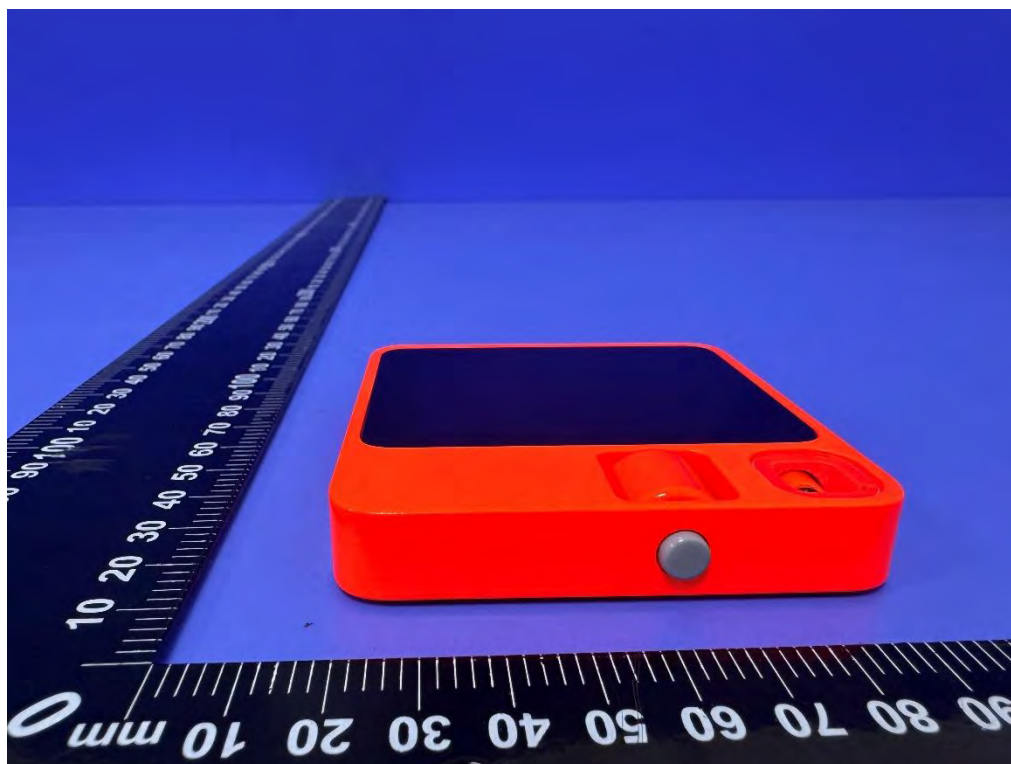


Back side

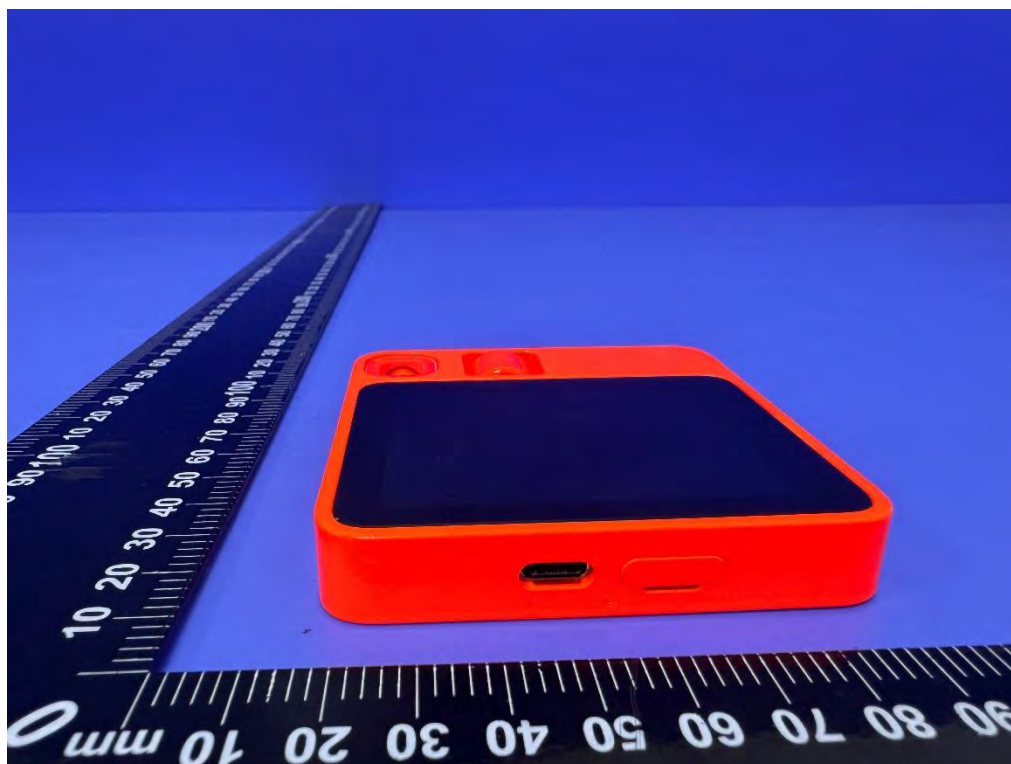




Right Edge

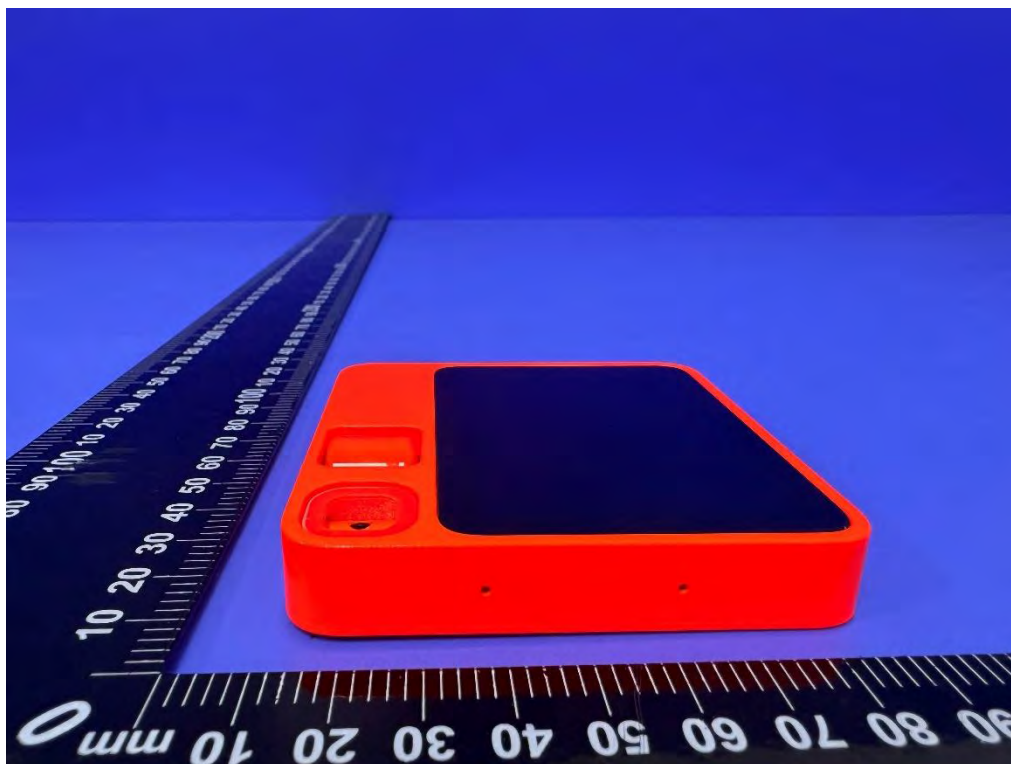


Left Edge

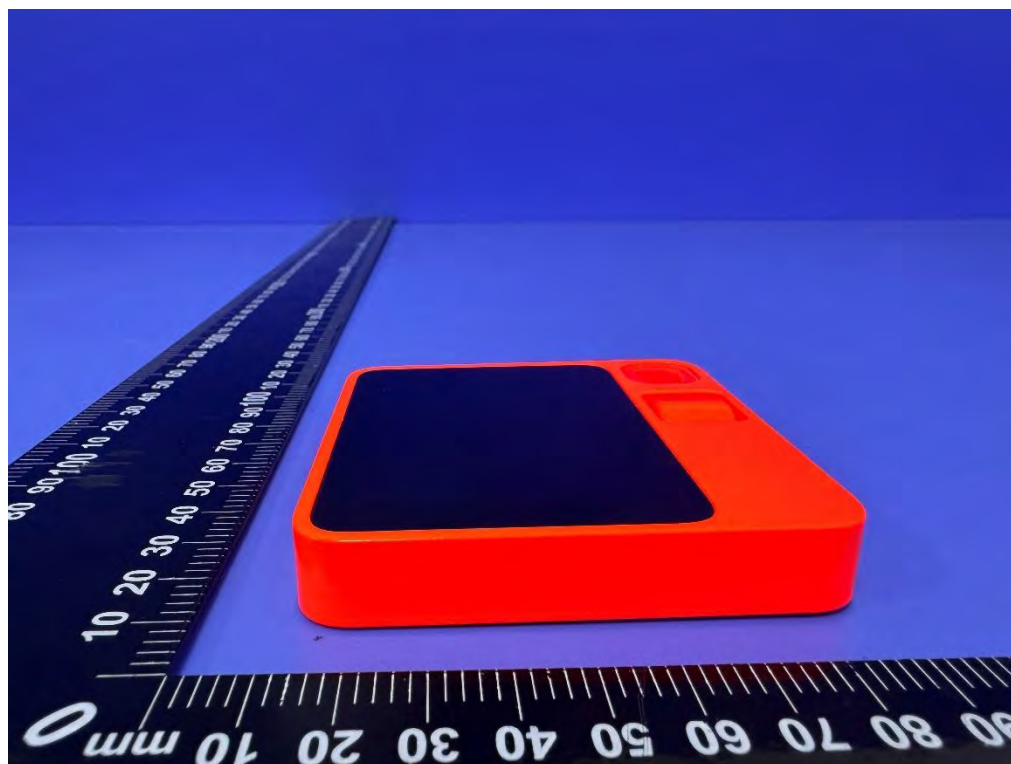




Top Edge

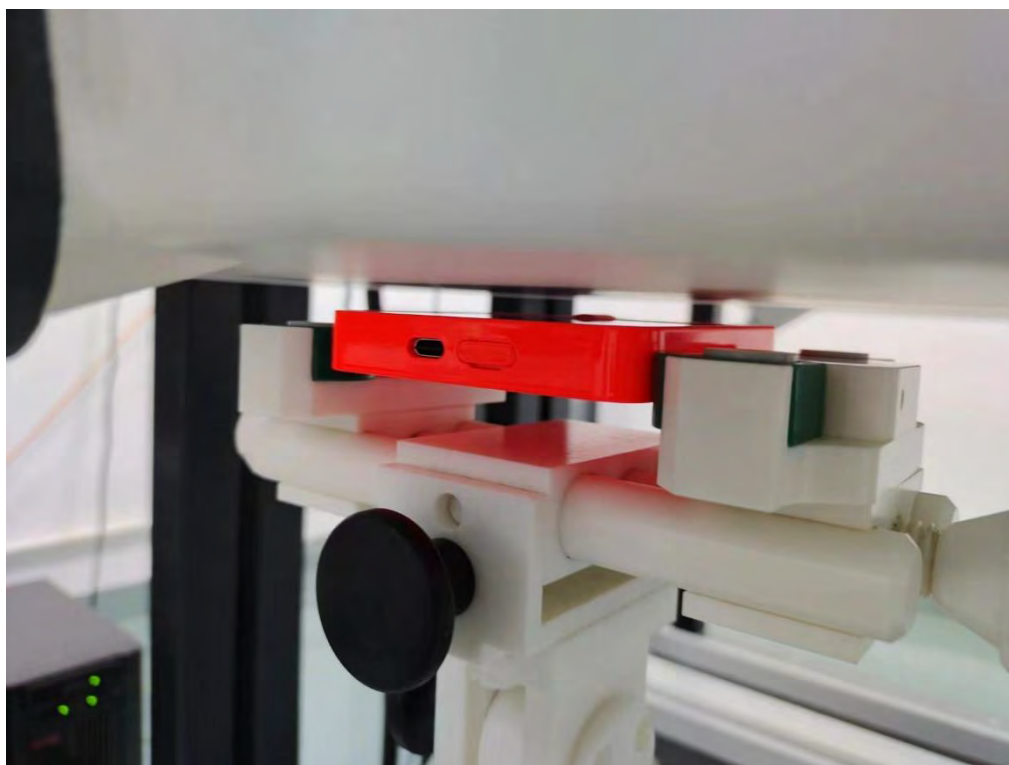


Bottom Edge



11.2 Setup Photos

Body Front side (separation distance is 5mm)

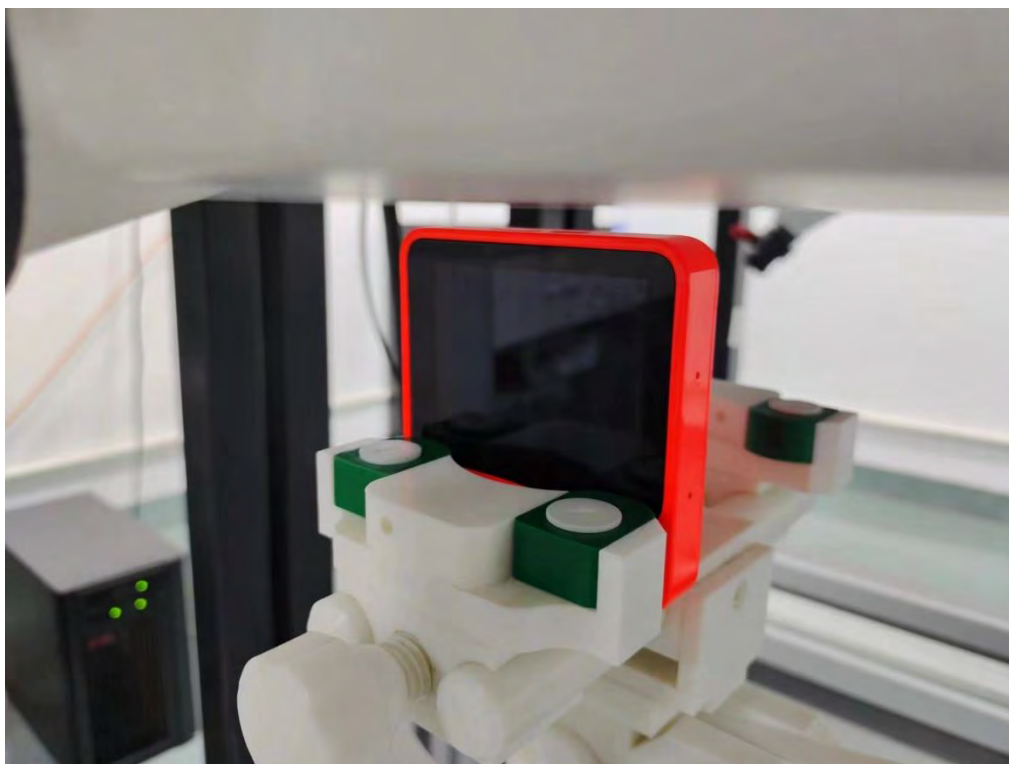


Body Back side (separation distance 5mm)

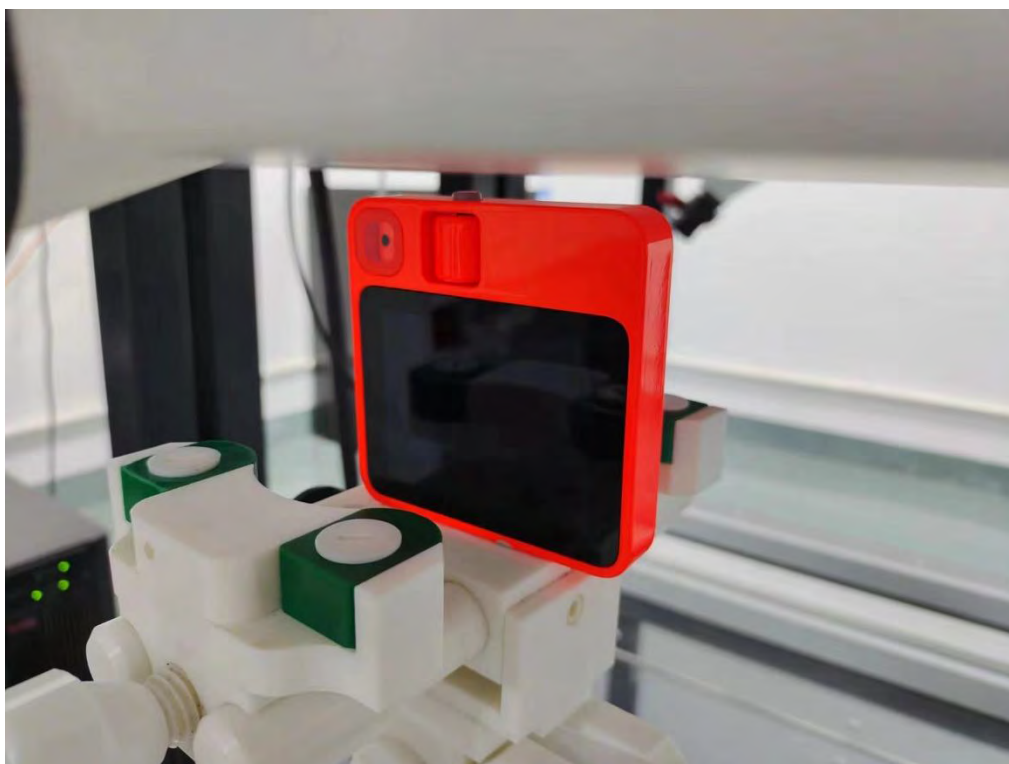




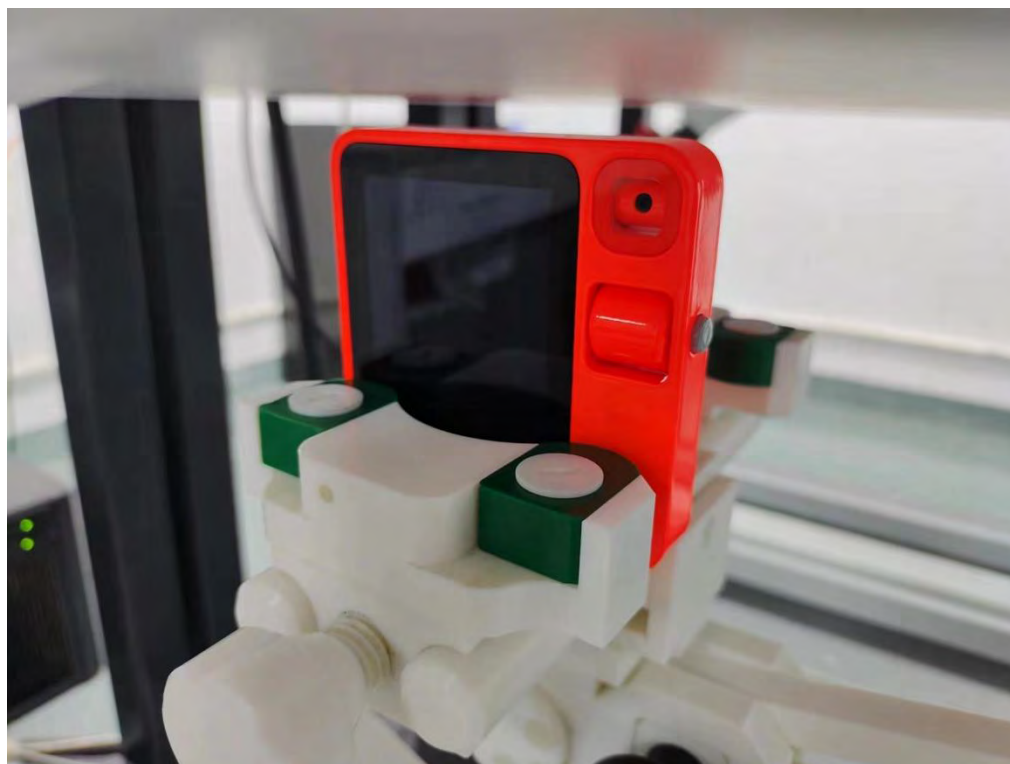
Body Left side (separation distance is 5mm)



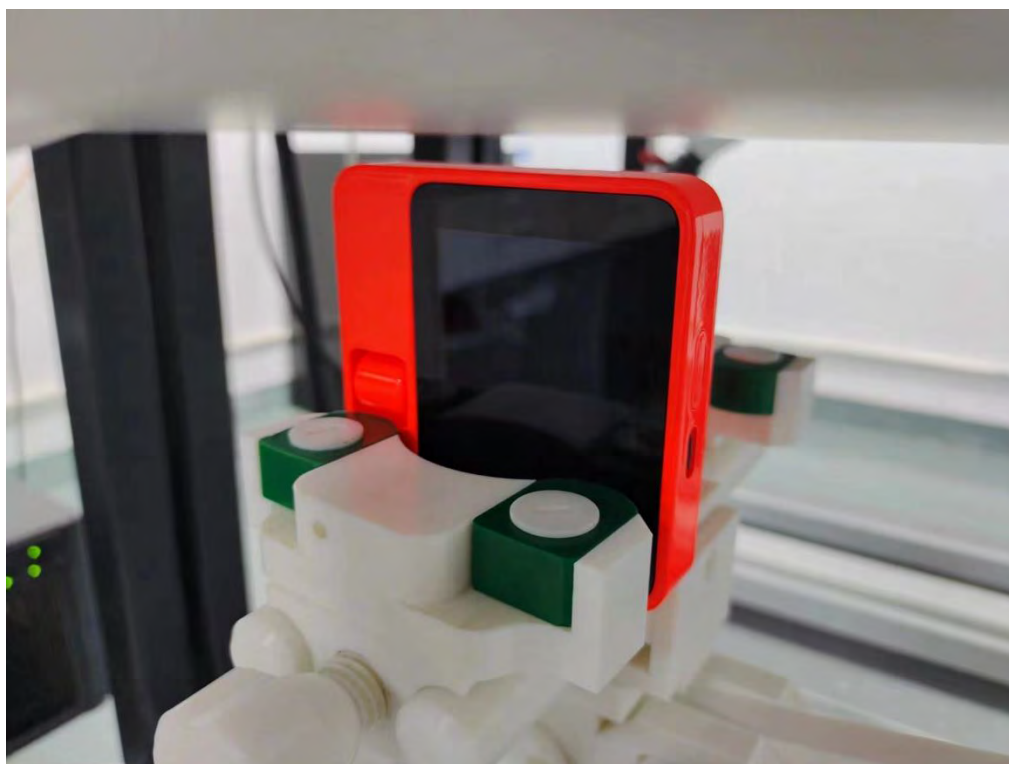
Body Right side (separation distance is 5mm)



Body Top side (separation distance is 5mm)

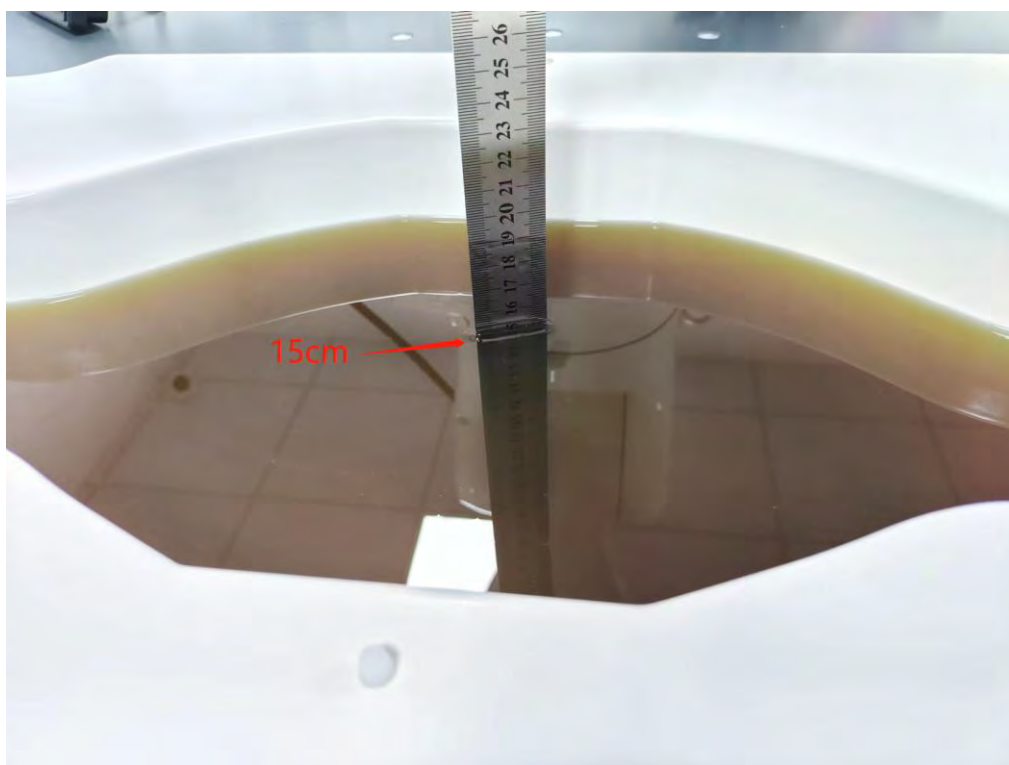


Body Bottom side (separation distance is 5mm)





Liquid depth (15 cm)





12. SAR Result Summary

12.1 Body-worn and Hotspot SAR

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.962	3.19	26.00	25.75	1.019	/
			1	0	Front side	1880	0.815	1.42	26.00	25.50	0.914	/
			1	0	Front side	1900	0.749	-3.76	26.00	25.43	0.854	/
			50	0	Front side	1860	0.712	2.53	25.00	24.57	0.786	/
			1	0	Back Side	1860	0.834	-0.15	26.00	25.75	0.883	/
			1	0	Back Side	1880	0.684	2.31	26.00	25.50	0.767	/
			1	0	Back Side	1900	0.613	-2.56	26.00	25.43	0.699	/
			50	0	Back Side	1860	0.648	-3.19	25.00	24.57	0.715	/
			1	0	Left Side	1860	0.247	1.35	26.00	25.75	0.262	/
			50	0	Left Side	1860	0.173	-0.92	25.00	24.57	0.191	/
			1	0	Right Side	1860	1.173	1.47	26.00	25.75	1.243	1
			1	0	Right Side	1880	0.958	-3.65	26.00	25.50	1.075	/
			1	0	Right Side	1900	0.858	-3.31	26.00	25.43	0.978	/
			50	0	Right Side	1860	0.892	3.83	25.00	24.57	0.985	/
			50	0	Right Side	1880	0.720	-1.08	25.00	24.40	0.827	/
			50	0	Right Side	1900	0.653	-1.41	25.00	24.38	0.753	/
			100	0	Right Side	1880	0.728	1.21	25.00	24.64	0.791	/
			1	0	Top Side	1860	0.057	-3.18	26.00	25.75	0.060	/
			50	0	Top Side	1860	0.023	-1.56	25.00	24.57	0.025	/
			1	0	Bottom Side	1860	1.012	-0.91	26.00	25.75	1.072	/
			1	0	Bottom Side	1880	0.829	-1.21	26.00	25.50	0.930	/
			1	0	Bottom Side	1900	0.741	2.19	26.00	25.43	0.845	/
			50	0	Bottom Side	1860	0.742	0.61	25.00	24.57	0.819	/
			50	0	Bottom Side	1880	0.604	3.21	25.00	24.40	0.693	/
			50	0	Bottom Side	1900	0.546	-3.92	25.00	24.38	0.630	/
			100	0	Bottom Side	1880	0.647	-3.21	25.00	24.64	0.703	/



LTE Band 4	20M	QPSK	1	0	Front side	1720	0.919	0.60	25.50	25.10	1.008	/
			1	0	Front side	1732.5	1.073	0.33	25.50	25.21	1.147	/
			1	0	Front side	1745	1.254	0.81	25.50	25.29	1.316	2
			50	0	Front side	1720	0.701	3.28	24.50	23.90	0.805	/
			50	0	Front side	1732.5	0.814	3.83	24.50	24.17	0.878	/
			50	0	Front side	1745	0.951	-3.94	24.50	24.18	1.024	/
			100	0	Front side	1745	0.723	-3.91	24.50	24.14	0.785	/
			1	0	Back Side	1720	0.833	0.95	25.50	25.10	0.913	/
			1	0	Back Side	1732.5	0.925	3.18	25.50	25.21	0.989	/
			1	0	Back Side	1745	1.010	-2.14	25.50	25.29	1.060	/
			50	0	Back Side	1720	0.631	1.04	24.50	23.90	0.724	/
			50	0	Back Side	1732.5	0.714	3.70	24.50	24.17	0.770	/
			50	0	Back Side	1745	0.779	-2.26	24.50	24.18	0.839	/
			1	0	Left Side	1745	0.270	-3.96	25.50	25.29	0.283	/
			50	0	Left Side	1745	0.213	0.51	24.50	24.18	0.229	/
			1	0	Right Side	1720	0.774	3.48	25.50	25.10	0.849	/
			1	0	Right Side	1732.5	0.918	1.30	25.50	25.21	0.981	/
			1	0	Right Side	1745	1.075	3.49	25.50	25.29	1.128	/
			50	0	Right Side	1720	0.593	-0.99	24.50	23.90	0.681	/
			50	0	Right Side	1732.5	0.701	-0.42	24.50	24.17	0.756	/
			50	0	Right Side	1745	0.817	0.03	24.50	24.18	0.879	/
			1	0	Top Side	1745	0.089	-3.64	25.50	25.29	0.093	/
			50	0	Top Side	1745	0.042	-2.26	24.50	24.18	0.045	/
			1	0	Bottom Side	1720	0.751	1.13	25.50	25.10	0.823	/
			1	0	Bottom Side	1732.5	0.865	-1.06	25.50	25.21	0.925	/
			1	0	Bottom Side	1745	1.008	3.48	25.50	25.29	1.058	/
			50	0	Bottom Side	1720	0.556	-2.83	24.50	23.90	0.638	/
			50	0	Bottom Side	1732.5	0.651	2.70	24.50	24.17	0.702	/
			50	0	Bottom Side	1745	0.748	-3.71	24.50	24.18	0.805	/
			100	0	Bottom Side	1745	0.629	0.71	24.50	24.14	0.683	/



LTE Band 5	10M	QPSK	1	0	Front side	829	0.664	-0.36	26.00	25.34	0.773	/
			1	0	Front side	836.5	0.825	1.08	26.00	25.66	0.892	/
			1	0	Front side	844	1.026	0.06	26.00	25.96	1.035	/
			25	0	Front side	829	0.528	-0.93	25.00	24.39	0.608	/
			25	0	Front side	836.5	0.634	0.98	25.00	24.64	0.689	/
			25	0	Front side	844	0.790	3.47	25.00	24.87	0.814	/
			1	0	Back Side	829	0.581	2.80	26.00	25.34	0.676	/
			1	0	Back Side	836.5	0.703	-3.93	26.00	25.66	0.760	/
			1	0	Back Side	844	0.872	-1.33	26.00	25.96	0.880	/
			25	0	Back Side	844	0.663	0.84	25.00	24.87	0.683	/
			1	0	Left Side	844	0.196	-0.55	26.00	25.96	0.198	/
			25	0	Left Side	844	0.138	2.77	25.00	24.87	0.142	/
			1	0	Right Side	844	0.409	3.41	26.00	25.96	0.413	/
			25	0	Right Side	844	0.313	-0.11	25.00	24.87	0.323	/
			1	0	Top Side	844	0.101	2.53	26.00	25.96	0.102	/
			25	0	Top Side	844	0.082	-0.88	25.00	24.87	0.084	/
			1	0	Bottom Side	829	0.712	-0.18	26.00	25.34	0.829	/
			1	0	Bottom Side	836.5	0.891	3.22	26.00	25.66	0.964	/
			1	0	Bottom Side	844	1.092	1.50	26.00	25.96	1.102	3
			25	0	Bottom Side	829	0.562	-1.96	25.00	24.39	0.647	/
			25	0	Bottom Side	836.5	0.688	-3.82	25.00	24.64	0.747	/
			25	0	Bottom Side	844	0.839	-1.71	25.00	24.87	0.864	/



LTE Band 7	20M	QPSK	1	0	Front side	2560	0.748	-2.72	23.50	23.09	0.822	4
			50	0	Front side	2535	0.566	-2.14	22.00	21.95	0.573	/
			1	0	Back Side	2510	0.619	4.00	23.50	22.94	0.704	/
			1	0	Back Side	2535	0.641	-0.29	23.50	22.94	0.729	/
			1	0	Back Side	2560	0.746	-0.41	23.50	23.09	0.820	/
			50	0	Back Side	2535	0.550	-0.72	22.00	21.95	0.556	/
			1	0	Left Side	2560	0.166	-0.81	23.50	23.09	0.182	/
			50	0	Left Side	2535	0.132	-1.62	22.00	21.95	0.134	/
			1	0	Right Side	2560	0.107	2.72	23.50	23.09	0.118	/
			50	0	Right Side	2535	0.083	-0.14	22.00	21.95	0.084	/
			1	0	Top Side	2560	0.059	0.67	23.50	23.09	0.065	/
			50	0	Top Side	2535	0.035	2.01	22.00	21.95	0.035	/
			1	0	Bottom Side	2560	0.605	0.87	23.50	23.09	0.665	/
			50	0	Bottom Side	2535	0.464	3.33	22.00	21.95	0.469	/
LTE Band 12	10M	QPSK	1	0	Front side	704	0.710	1.80	23.50	23.32	0.740	5
			25	0	Front side	704	0.523	-1.87	22.50	22.26	0.553	/
			1	0	Back Side	704	0.573	-1.33	23.50	23.32	0.597	/
			25	0	Back Side	704	0.438	2.32	22.50	22.26	0.463	/
			1	0	Left Side	704	0.159	-3.70	23.50	23.32	0.166	/
			25	0	Left Side	704	0.110	-0.30	22.50	22.26	0.116	/
			1	0	Right Side	704	0.287	-2.08	23.50	23.32	0.299	/
			25	0	Right Side	704	0.224	-1.23	22.50	22.26	0.237	/
			1	0	Top Side	704	0.052	-1.29	23.50	23.32	0.054	/
			25	0	Top Side	704	0.020	-2.33	22.50	22.26	0.021	/
			1	0	Bottom Side	704	0.551	1.35	23.50	23.32	0.574	/
			25	0	Bottom Side	704	0.405	-3.69	22.50	22.26	0.428	/



LTE Band 17	10M	QPSK	1	0	Front side	709	0.650	-0.51	26.50	26.18	0.700	/
			1	0	Front side	710	0.659	2.16	26.50	26.18	0.709	/
			1	0	Front side	711	0.773	3.57	26.50	26.33	0.804	6
			25	0	Front side	711	0.583	-2.77	25.50	25.16	0.630	/
			1	0	Back Side	711	0.627	2.94	26.50	26.33	0.652	/
			25	0	Back Side	711	0.471	3.76	25.50	25.16	0.509	/
			1	0	Left Side	711	0.168	3.85	26.50	26.33	0.175	/
			25	0	Left Side	711	0.142	1.00	25.50	25.16	0.154	/
			1	0	Right Side	711	0.318	2.89	26.50	26.33	0.331	/
			25	0	Right Side	711	0.244	0.81	25.50	25.16	0.264	/
			1	0	Top Side	711	0.051	-3.58	26.50	26.33	0.053	/
			25	0	Top Side	711	0.042	-3.01	25.50	25.16	0.045	/
			1	0	Bottom Side	711	0.558	-1.09	26.50	26.33	0.580	/
			25	0	Bottom Side	711	0.406	0.26	25.50	25.16	0.439	/



LTE Band 25	20M	QPSK	1	0	Front side	1860	1.092	3.34	26.00	25.63	1.189	7
			1	0	Front side	1882.5	0.898	-1.64	26.00	25.51	1.005	/
			1	0	Front side	1905	0.805	2.32	26.00	25.40	0.924	/
			50	0	Front side	1860	0.826	-1.15	25.00	24.57	0.912	/
			50	0	Front side	1882.5	0.688	1.64	25.00	24.39	0.792	/
			50	0	Front side	1905	0.620	0.90	25.00	24.31	0.727	/
			100	0	Front side	1860	0.693	-1.26	25.00	24.48	0.781	/
			1	0	Back Side	1860	0.887	0.73	26.00	25.63	0.966	/
			1	0	Back Side	1882.5	0.734	-1.03	26.00	25.51	0.822	/
			1	0	Back Side	1905	0.651	-0.28	26.00	25.40	0.747	/
			50	0	Back Side	1860	0.670	-0.48	25.00	24.57	0.740	/
			1	0	Left Side	1860	0.229	-0.79	26.00	25.63	0.249	/
			50	0	Left Side	1860	0.164	3.74	25.00	24.57	0.181	/
			1	0	Right Side	1860	0.443	-0.22	26.00	25.63	0.482	/
			50	0	Right Side	1860	0.326	-1.71	25.00	24.57	0.360	/
			1	0	Top Side	1860	0.067	-0.07	26.00	25.63	0.073	/
			50	0	Top Side	1860	0.057	-0.87	25.00	24.57	0.063	/
			1	0	Bottom Side	1860	0.877	-3.03	26.00	25.63	0.955	/
			1	0	Bottom Side	1882.5	0.722	2.25	26.00	25.51	0.808	/
			1	0	Bottom Side	1905	0.645	-2.15	26.00	25.40	0.741	/
			50	0	Bottom Side	1860	0.661	-0.52	25.00	24.57	0.730	/



LTE Band 26	15M	QPSK	1	0	Front side	821.5	0.787	-3.81	26.00	25.51	0.881	/
			1	0	Front side	831.5	0.949	1.96	26.00	25.66	1.026	/
			1	0	Front side	841.5	1.179	-3.35	26.00	25.88	1.212	8
			36	0	Front side	821.5	0.586	3.82	25.00	24.50	0.658	/
			36	0	Front side	831.5	0.743	1.14	25.00	24.63	0.809	/
			36	0	Front side	841.5	0.910	2.53	25.00	24.85	0.942	/
			75	0	Front side	841.5	0.750	-3.63	25.00	24.74	0.796	/
			1	0	Back Side	821.5	0.635	3.42	26.00	25.51	0.711	/
			1	0	Back Side	831.5	0.759	-0.17	26.00	25.66	0.821	/
			1	0	Back Side	841.5	0.944	-0.69	26.00	25.88	0.970	/
			36	0	Back Side	841.5	0.703	-1.03	25.00	24.85	0.728	/
			1	0	Left Side	841.5	0.241	-0.24	26.00	25.88	0.248	/
			36	0	Left Side	841.5	0.189	1.41	25.00	24.85	0.196	/
			1	0	Right Side	841.5	0.479	3.39	26.00	25.88	0.492	/
			36	0	Right Side	841.5	0.365	1.87	25.00	24.85	0.378	/
			1	0	Top Side	841.5	0.076	-2.24	26.00	25.88	0.078	/
			36	0	Top Side	841.5	0.053	-3.58	25.00	24.85	0.055	/
			1	0	Bottom Side	821.5	0.633	-1.83	26.00	25.51	0.709	/
			1	0	Bottom Side	831.5	0.774	-2.21	26.00	25.66	0.837	/
			1	0	Bottom Side	841.5	0.952	1.14	26.00	25.88	0.979	/
			36	0	Bottom Side	841.5	0.738	2.68	25.00	24.85	0.764	/



LTE Band 38	20M	QPSK	1	0	Front side	2580	0.834	-2.01	25.50	25.24	0.885	9
			1	0	Front side	2595	0.676	1.90	25.50	25.20	0.724	/
			1	0	Front side	2610	0.621	-0.83	25.50	24.99	0.698	/
			50	0	Front side	2580	0.631	0.73	24.50	24.15	0.684	/
			1	0	Back Side	2580	0.669	2.51	25.50	25.24	0.710	/
			50	0	Back Side	2580	0.519	-3.56	24.50	24.15	0.563	/
			1	0	Left Side	2580	0.176	3.41	25.50	25.24	0.187	/
			50	0	Left Side	2580	0.133	0.69	24.50	24.15	0.144	/
			1	0	Right Side	2580	0.346	2.45	25.50	25.24	0.367	/
			50	0	Right Side	2580	0.257	2.62	24.50	24.15	0.279	/
			1	0	Top Side	2580	0.057	-0.52	25.50	25.24	0.061	/
			50	0	Top Side	2580	0.054	3.11	24.50	24.15	0.059	/
			1	0	Bottom Side	2580	0.681	-3.17	25.50	25.24	0.723	/
			50	0	Bottom Side	2580	0.533	1.31	24.50	24.15	0.578	/
LTE Band 40	10M	QPSK	1	0	Front side	2355	0.962	-0.68	12.50	12.42	0.980	10
			1	0	Back Side	2355	0.081	-2.58	12.50	12.42	0.083	/
			50	0	Back Side	2355	0.063	-1.08	11.50	11.25	0.067	/
			1	0	Right Side	2355	0.390	-1.91	12.50	12.42	0.397	/
			50	0	Right Side	2355	0.295	-0.35	11.50	11.25	0.312	/
			1	0	Bottom Side	2355	0.350	2.99	12.50	12.42	0.357	/
			50	0	Bottom Side	2355	0.247	1.77	11.50	11.25	0.262	/



LTE Band 41	20M	QPSK	1	0	Front side	2506	0.855	-2.32	22.50	22.21	0.914	11
			1	0	Front side	2593	0.700	-1.89	22.50	22.03	0.780	/
			1	0	Front side	2680	0.631	3.11	22.50	21.71	0.757	/
			50	0	Front side	2506	0.639	-1.49	21.50	21.05	0.709	/
			1	0	Back Side	2506	0.287	-3.14	22.50	22.21	0.307	/
			50	0	Back Side	2506	0.208	-0.89	21.50	21.05	0.231	/
			1	0	Left Side	2506	0.183	1.88	22.50	22.21	0.196	/
			50	0	Left Side	2506	0.140	-2.33	21.50	21.05	0.155	/
			1	0	Right Side	2506	0.147	-2.85	22.50	22.21	0.157	/
			50	0	Right Side	2506	0.105	1.93	21.50	21.05	0.116	/
			1	0	Top Side	2506	0.052	-2.80	22.50	22.21	0.056	/
			50	0	Top Side	2506	0.045	2.94	21.50	21.05	0.050	/
			1	0	Bottom Side	2506	0.679	1.16	22.50	22.21	0.726	/
			50	0	Bottom Side	2506	0.491	-0.74	21.50	21.05	0.545	/



LTE Band 66	20M	QPSK	1	0	Front side	1720	0.769	3.28	22.50	21.84	0.895	/
			1	0	Front side	1745	0.934	-0.47	22.50	22.11	1.022	/
			1	0	Front side	1770	1.152	0.55	22.50	22.23	1.226	12
			50	0	Front side	1720	0.597	-2.40	21.50	20.74	0.711	/
			50	0	Front side	1745	0.697	-3.93	21.50	21.05	0.773	/
			50	0	Front side	1770	0.862	-2.67	21.50	21.08	0.950	/
			100	0	Front side	1745	0.754	0.11	21.00	20.96	0.761	/
			1	0	Back Side	1770	0.611	1.55	22.50	22.23	0.650	/
			50	0	Back Side	1770	0.447	3.21	21.50	21.08	0.492	/
			1	0	Left Side	1770	0.248	1.41	22.50	22.23	0.264	/
			50	0	Left Side	1770	0.197	3.65	21.50	21.08	0.217	/
			1	0	Right Side	1770	0.480	0.99	22.50	22.23	0.511	/
			50	0	Right Side	1770	0.355	-1.36	21.50	21.08	0.391	/
			1	0	Top Side	1770	0.076	-0.45	22.50	22.23	0.081	/
			50	0	Top Side	1770	0.051	0.28	21.50	21.08	0.056	/
			1	0	Bottom Side	1720	0.613	2.37	22.50	21.84	0.714	/
			1	0	Bottom Side	1745	0.744	-3.11	22.50	22.11	0.814	/
			1	0	Bottom Side	1770	0.918	1.75	22.50	22.23	0.977	/
			50	0	Bottom Side	1770	0.698	3.98	21.50	21.08	0.769	/
LTE Band 71	20M	QPSK	1	0	Front side	688	0.408	-3.50	26.50	26.14	0.443	13
			50	0	Front side	688	0.304	2.72	25.50	25.08	0.335	/
			1	0	Back Side	688	0.327	3.96	26.50	26.14	0.355	/
			50	0	Back Side	688	0.240	3.56	25.50	25.08	0.264	/
			1	0	Left Side	688	0.092	3.38	26.50	26.14	0.100	/
			50	0	Left Side	688	0.087	-2.83	25.50	25.08	0.096	/
			1	0	Right Side	688	0.183	0.87	26.50	26.14	0.199	/
			50	0	Right Side	688	0.141	-3.75	25.50	25.08	0.155	/
			1	0	Top Side	688	0.028	1.79	26.50	26.14	0.030	/
			50	0	Top Side	688	0.027	-2.76	25.50	25.08	0.030	/
			1	0	Bottom Side	688	0.328	-2.92	26.50	26.14	0.356	/
			50	0	Bottom Side	688	0.235	-2.13	25.50	25.08	0.259	/



Band	Model	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
2.4GHz WLAN	802.11b	Front Side	2437	0.165	2.53	16.50	16.13	0.180	/
		Back Side	2437	0.105	3.91	16.50	16.13	0.114	/
		Left Side	2437	0.258	-2.33	16.50	16.13	0.281	14
		Top Side	2437	0.119	-2.53	16.50	16.13	0.130	/
5.2GHz WLAN	802.11a	Front Side	5180	0.140	0.17	15.50	15.35	0.145	/
		Back Side	5180	0.196	-3.54	15.50	15.35	0.203	/
		Left Side	5180	0.441	-3.01	15.50	15.35	0.456	15
		Top Side	5180	0.125	-0.87	15.50	15.35	0.129	/
5.3GHz WLAN	802.11a	Front Side	5260	0.155	-3.96	15.50	15.12	0.169	/
		Back Side	5260	0.218	3.83	15.50	15.12	0.238	/
		Left Side	5260	0.507	2.30	15.50	15.12	0.553	16
		Top Side	5260	0.145	3.41	15.50	15.12	0.158	/
5.8GHz WLAN	802.11a	Front Side	5745	0.107	2.48	16.50	16.04	0.119	/
		Back Side	5745	0.149	-3.33	16.50	16.04	0.166	/
		Left Side	5745	0.353	2.24	16.50	16.04	0.392	17
		Top Side	5745	0.101	-0.41	16.50	16.04	0.112	/

Note:

- The test separation of all above table is 5mm.
- Per KDB 447498 D01, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor



Repeated SAR

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.915	-1.70	26.00	25.75	0.969	-
			1	0	Front side	1880	0.794	-0.94	26.00	25.50	0.890	-
			1	0	Front side	1900	0.748	-3.79	26.00	25.43	0.853	-
			1	0	Back Side	1860	0.808	-0.22	26.00	25.75	0.856	-
			1	0	Right Side	1860	1.138	2.38	26.00	25.75	1.206	-
			1	0	Right Side	1880	0.952	0.16	26.00	25.50	1.068	-
			1	0	Right Side	1900	0.819	-1.54	26.00	25.43	0.934	-
			50	0	Right Side	1860	0.872	0.95	25.00	24.57	0.963	-
			50	0	Right Side	1880	0.719	1.81	25.00	24.40	0.825	-
			1	0	Bottom Side	1860	1.009	-2.21	26.00	25.75	1.069	-
			1	0	Bottom Side	1880	0.800	-2.04	26.00	25.50	0.898	-
			1	0	Bottom Side	1900	0.718	-1.64	26.00	25.43	0.819	-
			50	0	Bottom Side	1860	0.715	2.80	25.00	24.57	0.789	-
			50	0	Bottom Side	1880	0.596	3.13	25.00	24.40	0.684	-
			50	0	Bottom Side	1900	0.538	-2.68	25.00	24.38	0.620	-
LTE Band 4	20M	QPSK	1	0	Front side	1720	0.909	2.92	25.50	25.10	0.997	-
			1	0	Front side	1732.5	0.698	-2.70	25.50	25.21	0.746	-
			1	0	Front side	1745	0.674	2.08	25.50	25.29	0.707	-
			50	0	Front side	1720	0.760	-3.85	24.50	23.90	0.873	-
			50	0	Front side	1732.5	0.811	-0.58	24.50	24.17	0.875	-
			50	0	Front side	1745	0.698	1.95	24.50	24.18	0.751	-
			1	0	Back Side	1720	0.674	1.85	25.50	25.10	0.739	-
			1	0	Back Side	1732.5	0.760	-3.70	25.50	25.21	0.812	-
			1	0	Back Side	1745	0.651	-0.63	25.50	25.29	0.683	-
			50	0	Back Side	1745	0.622	0.17	24.50	24.18	0.670	-
			1	0	Right Side	1720	0.760	0.38	25.50	25.10	0.833	-
			1	0	Right Side	1732.5	0.887	3.20	25.50	25.21	0.948	-



			1	0	Right Side	1745	0.698	-0.09	25.50	25.29	0.733	-
			50	0	Right Side	1745	0.674	2.19	24.50	24.18	0.726	-
			1	0	Bottom Side	1720	0.717	2.02	25.50	25.10	0.786	-
			1	0	Bottom Side	1732.5	0.698	3.71	25.50	25.21	0.746	-
			1	0	Bottom Side	1745	0.674	0.61	25.50	25.29	0.707	-
			50	0	Bottom Side	1745	0.760	3.79	24.50	24.18	0.818	-
LTE Band 5	20M	QPSK	1	0	Front side	836.5	0.816	-0.94	26.00	25.66	0.882	-
			1	0	Front side	844	1.014	-3.12	26.00	25.96	1.024	-
			1	0	Back Side	844	0.830	-1.97	25.00	24.87	0.855	-
			1	0	Bottom Side	829	0.687	-0.79	26.00	25.96	0.694	-
			1	0	Bottom Side	836.5	0.850	-0.85	26.00	25.34	0.989	-
			1	0	Bottom Side	844	1.056	3.01	26.00	25.66	1.142	-
			25	0	Bottom Side	844	0.797	2.53	26.00	25.96	0.805	-
LTE Band 7	20M	QPSK	1	0	Back Side	2560	0.723	-3.32	23.50	23.09	0.795	-
			1	0	Back Side	2560	0.726	3.74	23.50	23.09	0.798	-
LTE Band 17	10M	QPSK	1	0	Front side	711	0.757	-2.37	26.50	26.33	0.788	-
LTE Band 25	20M	QPSK	1	0	Front side	1860	1.057	3.55	26.00	25.63	1.151	-
			1	0	Front side	1882.5	0.698	3.85	26.00	25.51	0.781	-
			1	0	Front side	1905	0.674	-3.74	26.00	25.40	0.774	-
			50	0	Front side	1860	0.760	3.78	25.00	24.57	0.839	-
			1	0	Back Side	1860	0.651	3.27	26.00	25.63	0.709	-
			1	0	Back Side	1882.5	0.622	-2.56	26.00	25.51	0.696	-
			1	0	Bottom Side	1860	0.867	0.79	26.00	25.63	0.944	-
			1	0	Bottom Side	1882.5	0.694	-0.04	26.00	25.51	0.777	-
LTE Band 26	15M	QPSK	1	0	Front side	821.5	0.749	0.80	26.00	25.51	0.838	-
			1	0	Front side	831.5	0.926	-3.04	26.00	25.66	1.001	-
			1	0	Front side	841.5	1.133	3.93	26.00	25.88	1.165	-
			36	0	Front side	831.5	0.714	3.99	25.00	24.63	0.777	-
			36	0	Front side	841.5	0.888	1.42	25.00	24.85	0.919	-
			1	0	Back Side	831.5	0.747	-2.33	26.00	25.66	0.808	-
			1	0	Back Side	831.5	0.747	-2.33	26.00	25.66	0.808	-



			1	0	Back Side	841.5	0.923	-3.98	26.00	25.88	0.949	-
			1	0	Bottom Side	831.5	0.736	-3.96	26.00	25.66	0.796	-
			1	0	Bottom Side	841.5	0.910	2.72	26.00	25.88	0.936	-
LTE Band 38	20M	QPSK	1	0	Front side	2580	0.809	2.01	25.50	25.24	0.859	-
LTE Band 40	10M	QPSK	1	0	Front side	2355	0.921	-1.48	12.50	12.42	0.938	-
LTE Band 41	20M	QPSK	1	0	Front side	2506	0.850	0.48	22.50	22.21	0.909	-
LTE Band 66	20M	QPSK	1	0	Front side	1720	0.737	1.75	22.50	21.84	0.858	-
			1	0	Front side	1745	0.698	3.42	22.50	22.11	0.764	-
			1	0	Front side	1770	0.674	1.42	22.50	22.23	0.717	-
			50	0	Front side	1770	0.760	-3.09	21.50	21.08	0.837	-
			1	0	Bottom Side	1745	0.651	3.12	22.50	22.11	0.712	-
			1	0	Bottom Side	1770	0.622	1.15	22.50	22.23	0.662	-



Repeated SAR measurement

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.962	0.915	1.052
			1	0	Front side	1880	0.815	0.794	1.027
			1	0	Front side	1900	0.749	0.748	1.001
			1	0	Back Side	1860	0.834	0.808	1.032
			1	0	Right Side	1860	1.173	1.138	1.031
			1	0	Right Side	1880	0.958	0.952	1.006
			1	0	Right Side	1900	0.858	0.819	1.047
			50	0	Right Side	1860	0.892	0.872	1.023
			50	0	Right Side	1880	0.720	0.719	1.002
			1	0	Bottom Side	1860	1.012	1.009	1.003
			1	0	Bottom Side	1880	0.829	0.800	1.036
			1	0	Bottom Side	1900	0.741	0.718	1.032
			50	0	Bottom Side	1860	0.742	0.715	1.038
			50	0	Bottom Side	1880	0.604	0.596	1.014
			50	0	Bottom Side	1900	0.546	0.538	1.015
LTE Band 4	20M	QPSK	1	0	Front side	1720	0.919	0.909	1.011
			1	0	Front side	1732.5	1.073	1.029	1.042
			1	0	Front side	1745	1.254	1.245	1.007
			50	0	Front side	1720	0.701	0.687	1.020
			50	0	Front side	1732.5	0.814	0.811	1.004
			50	0	Front side	1745	0.951	0.933	1.020
			1	0	Back Side	1720	0.833	0.805	1.035
			1	0	Back Side	1732.5	0.925	0.896	1.032
			1	0	Back Side	1745	1.010	0.971	1.040
			50	0	Back Side	1745	0.779	0.760	1.025
			1	0	Right Side	1720	0.774	0.760	1.018
			1	0	Right Side	1732.5	0.918	0.887	1.035
			1	0	Right Side	1745	1.075	1.070	1.005
			50	0	Right Side	1745	0.817	0.805	1.015
			1	0	Bottom Side	1720	0.751	0.717	1.047
			1	0	Bottom Side	1732.5	0.865	0.847	1.021
			1	0	Bottom Side	1745	1.008	0.984	1.025
			50	0	Bottom Side	1745	0.748	0.740	1.011
LTE Band 5	20M	QPSK	1	0	Front side	836.5	0.825	0.816	1.011
			1	0	Front side	844	1.026	1.014	1.012
			1	0	Back Side	844	0.872	0.830	1.051
			1	0	Bottom Side	829	0.712	0.687	1.036
			1	0	Bottom Side	836.5	0.891	0.850	1.049
			1	0	Bottom Side	844	1.092	1.056	1.034
			25	0	Bottom Side	844	0.839	0.797	1.052
LTE Band 7	20M	QPSK	1	0	Front side	2560	0.748	0.723	1.034
			1	0	Back Side	2560	0.746	0.726	1.027
LTE Band 17	10M	QPSK	1	0	Front side	711	0.773	0.757	1.021



LTE Band 25	20M	QPSK	1	0	Front side	1860	1.092	1.057	1.033
			1	0	Front side	1882.5	0.898	0.856	1.050
			1	0	Front side	1905	0.805	0.775	1.039
			50	0	Front side	1860	0.826	0.807	1.024
			1	0	Back Side	1860	0.887	0.847	1.048
			1	0	Back Side	1882.5	0.734	0.731	1.004
			1	0	Bottom Side	1860	0.877	0.867	1.011
			1	0	Bottom Side	1882.5	0.722	0.694	1.040
LTE Band 26	15M	QPSK	1	0	Front side	821.5	0.787	0.749	1.051
			1	0	Front side	831.5	0.949	0.926	1.025
			1	0	Front side	841.5	1.179	1.133	1.040
			36	0	Front side	831.5	0.743	0.714	1.041
			36	0	Front side	841.5	0.910	0.888	1.025
			1	0	Back Side	831.5	0.759	0.747	1.016
			1	0	Back Side	841.5	0.944	0.923	1.022
			1	0	Bottom Side	831.5	0.774	0.736	1.051
			1	0	Bottom Side	841.5	0.952	0.910	1.046
LTE Band 38	20M	QPSK	1	0	Front side	2580	0.834	0.809	1.030
LTE Band 40	10M	QPSK	1	0	Front side	2355	0.962	0.921	1.044
LTE Band 41	20M	QPSK	1	0	Front side	2506	0.855	0.850	1.006
LTE Band 66	20M	QPSK	1	0	Front side	1720	0.769	0.737	1.044
			1	0	Front side	1745	0.934	0.901	1.036
			1	0	Front side	1770	1.152	1.109	1.039
			50	0	Front side	1770	0.862	0.847	1.017
			1	0	Bottom Side	1745	0.744	0.718	1.036
			1	0	Bottom Side	1770	0.918	0.889	1.032

Note:

1. Per KDB 865664 D01, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/Kg}$.
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 $< 1.45\text{W/Kg}$, 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 $\geq 1.45\text{W/Kg}$.
4. The ratio is the difference in percentage between original and repeated measured SAR.



12.2 Simultaneous Multi-band Transmission Evaluation:

Application Simultaneous Transmission information:

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

NOTE:

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

Estimated SAR		Maximum Turn-up Power		Antenna to user(mm)	Frequency (GHz)	Stand Alone SAR(1g) [W/kg]
		dBm	mW			
BT	Head	6.5	4.467	5	2.441	0.186
	Body			5	2.441	0.186

Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
LTE + 2.4G WLAN	Body Front	LTE	1.316	1.481
		2.4G WLAN	0.165	
	Body Left	LTE	0.839	1.120
		2.4G WLAN	0.281	
LTE + 5G WLAN	Body Front	LTE	1.316	1.471
		5G WLAN	0.155	
	Body Left	LTE	0.839	1.392
		5G WLAN	0.553	
LTE + Bluetooth	Body	LTE	1.316	1.502
		Bluetooth	0.186	

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	DIP0G750	SN 06/22 DIP0G750-638	2022.02.11	2025.02.10
835MHz Dipole	MVG	DIP0G835	SN 06/22 DIP0G835-639	2022.02.11	2025.02.10
1800MHz Dipole	MVG	DIP1G800	SN 06/22 DIP1G800-640	2022.02.11	2025.02.10
1900MHz Dipole	MVG	DIP1G900	SN 06/22 DIP1G900-641	2022.02.11	2025.02.10
2450MHz Dipole	MVG	DIP2G450	SN 06/22 DIP2G450-645	2022.02.11	2025.02.10
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2022.02.11	2025.02.10
5000MHz Dipole	MVG	DIP5G000	SN 06/22 DIP5G000-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2024.02.07	2023.02.06
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2024.02.07	2023.02.06
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 holder	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202303280013	N/A	N/A
Network Analyzer	Agilent	E5071C	MY46418070	2023.03.27	2024.03.26
Multi Meter	Keithley	DMM6500	DMM6500	2023.03.27	2024.03.26
Signal Generator	Keithley	N5182B	MY59100717	2023.04.07	2024.04.06
Wireless Communication Test Set	R&S	CMW500	137737	2023.04.14	2024.04.13
Power Sensor	R&S	Z11	116184	2023.04.13	2024.04.12
Temperature hygrometer	N/A	ST-W2318	N/A	2023.04.24	2024.04.23
Thermograph	N/A	TP101	N/A	2023.04.25	2024.04.24



Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)

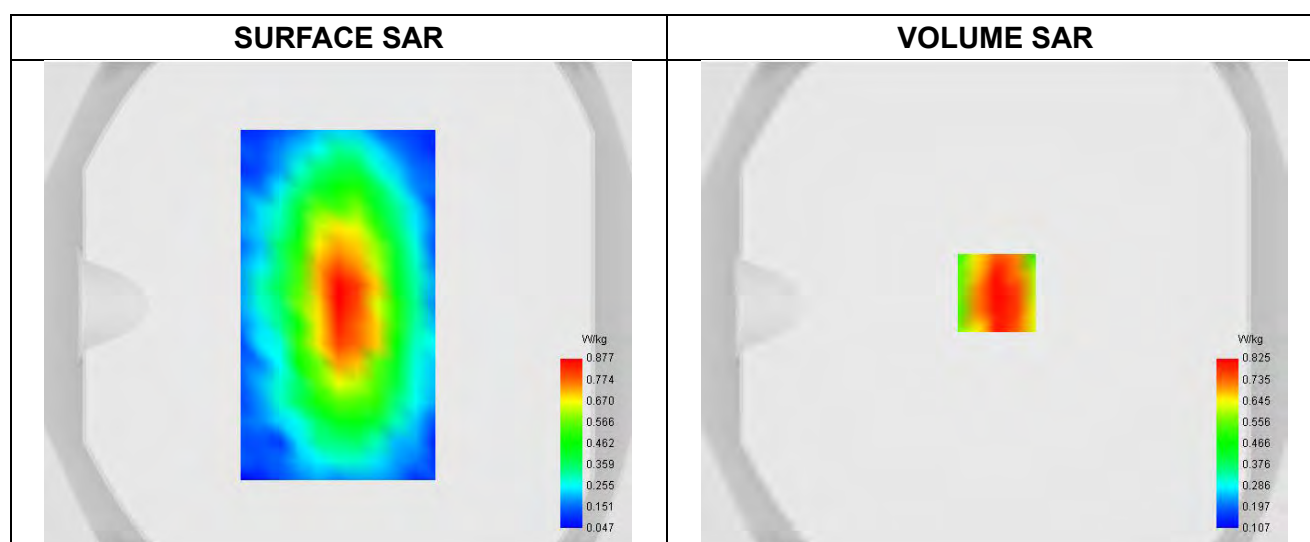
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2024-01-31

Experimental conditions.

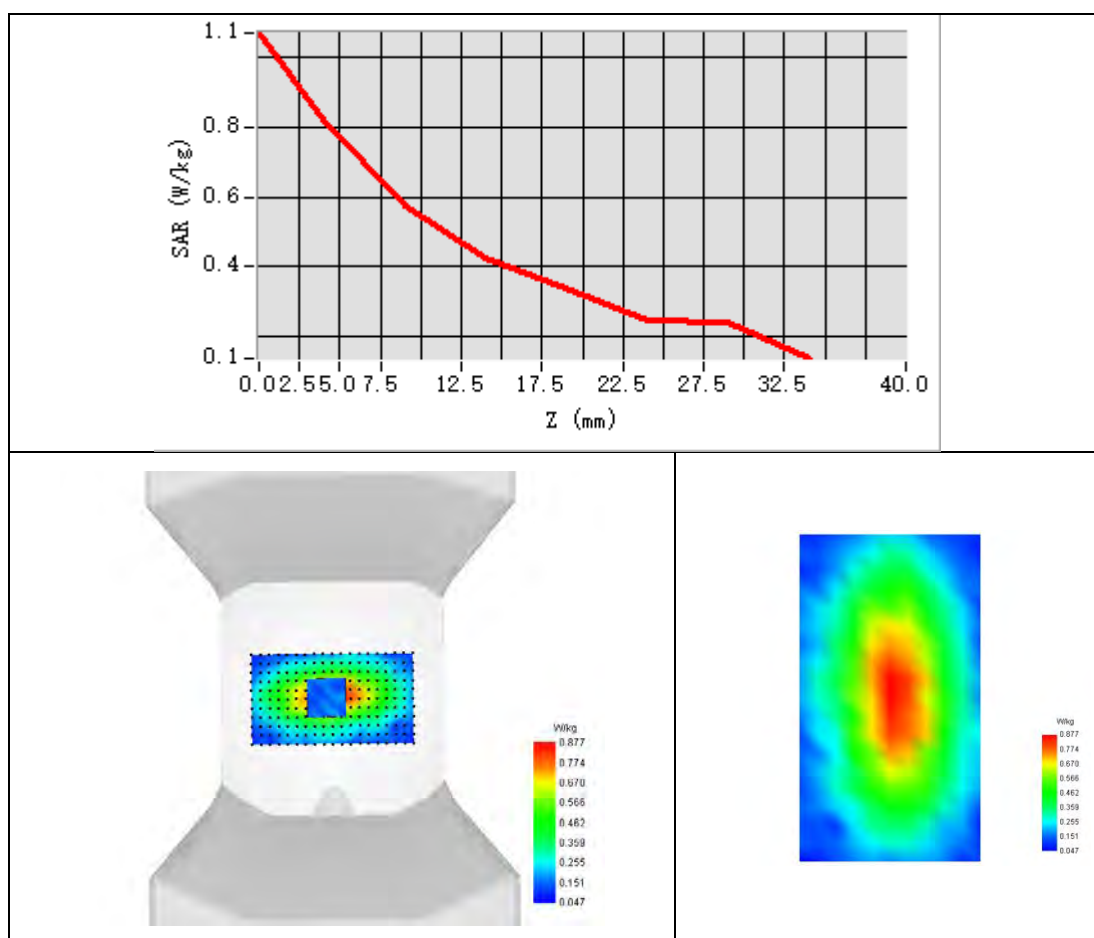
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	42.24
Conductivity (S/m)	0.90
Probe	SN 04/22 EPGO364
ConvF	1.68
Crest factor:	1:1



Maximum location: X=1.00, Y=5.00 ; SAR Peak: 1.27 W/kg

SAR 10g (W/Kg)	0.526
SAR 1g (W/Kg)	0.809

Z Axis Scan





System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

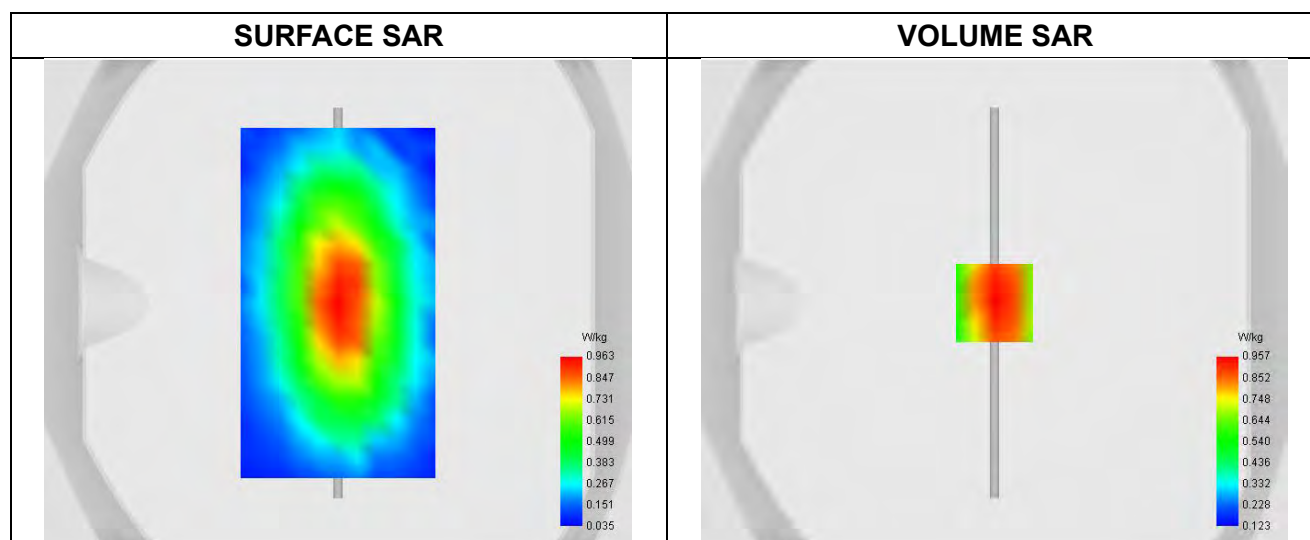
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2024-02-03

Experimental conditions.

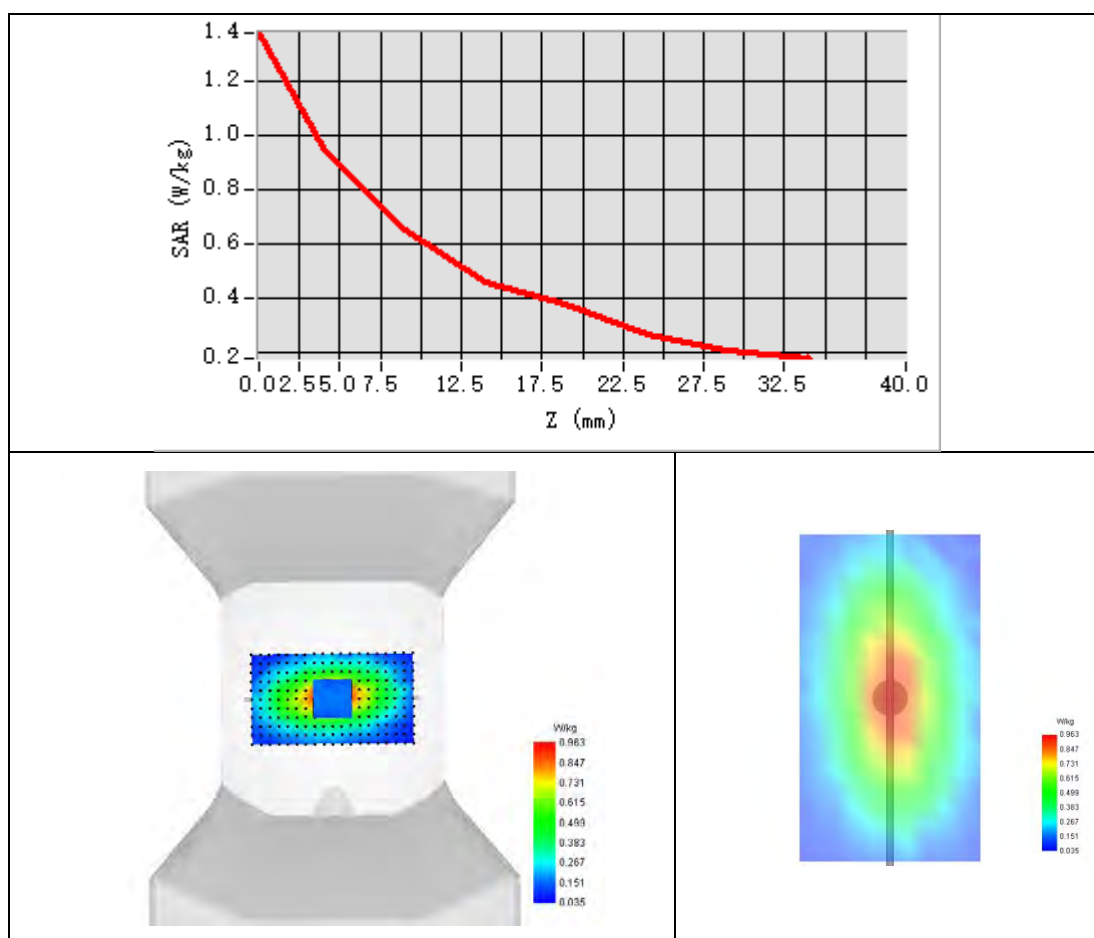
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	40.83
Conductivity (S/m)	0.94
Probe	SN 04/22 EPGO364
ConvF	1.70
Crest factor:	1:1



Maximum location: X=0.00, Y=0.00 ; SAR Peak: 1.45 W/kg

SAR 10g (W/Kg)	0.592
SAR 1g (W/Kg)	0.947

Z Axis Scan





System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

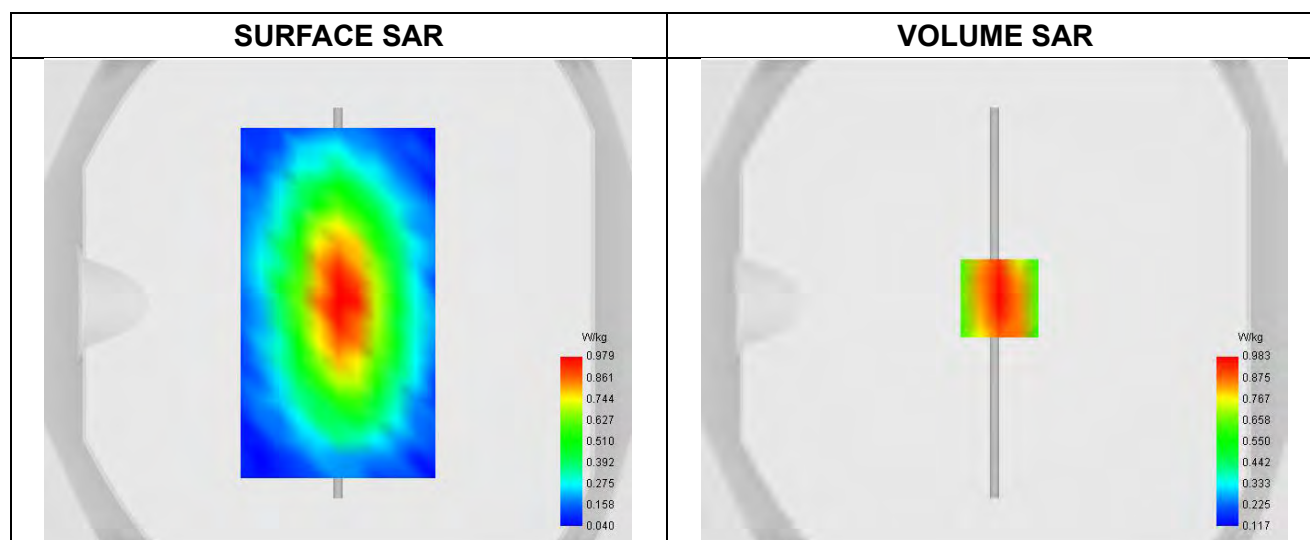
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2024-02-17

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	42.56
Conductivity (S/m)	0.87
Probe	SN 04/22 EPGO364
ConvF	1.70
Crest factor:	1:1

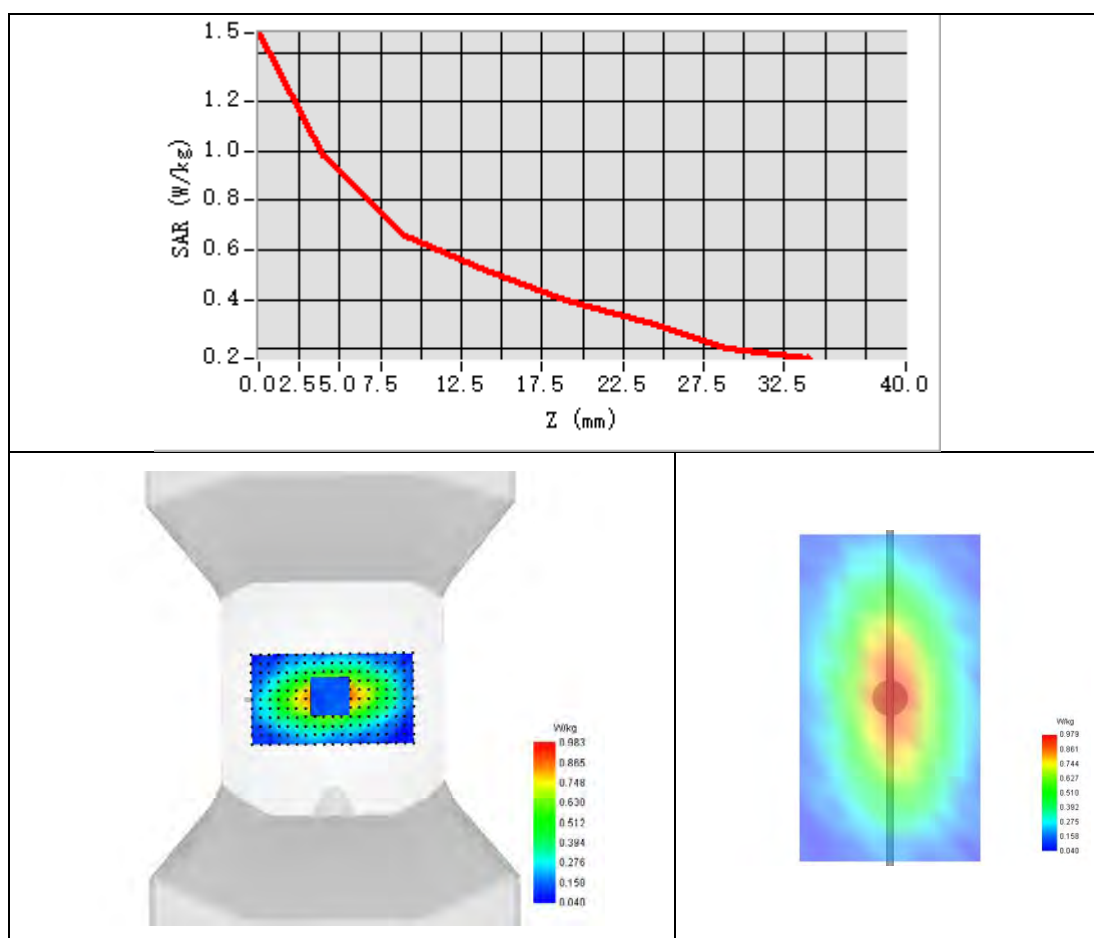


Maximum location: X=2.00, Y=2.00 ; SAR Peak: 1.53 W/kg

SAR 10g (W/Kg)	0.598
SAR 1g (W/Kg)	0.953



Z Axis Scan





System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)

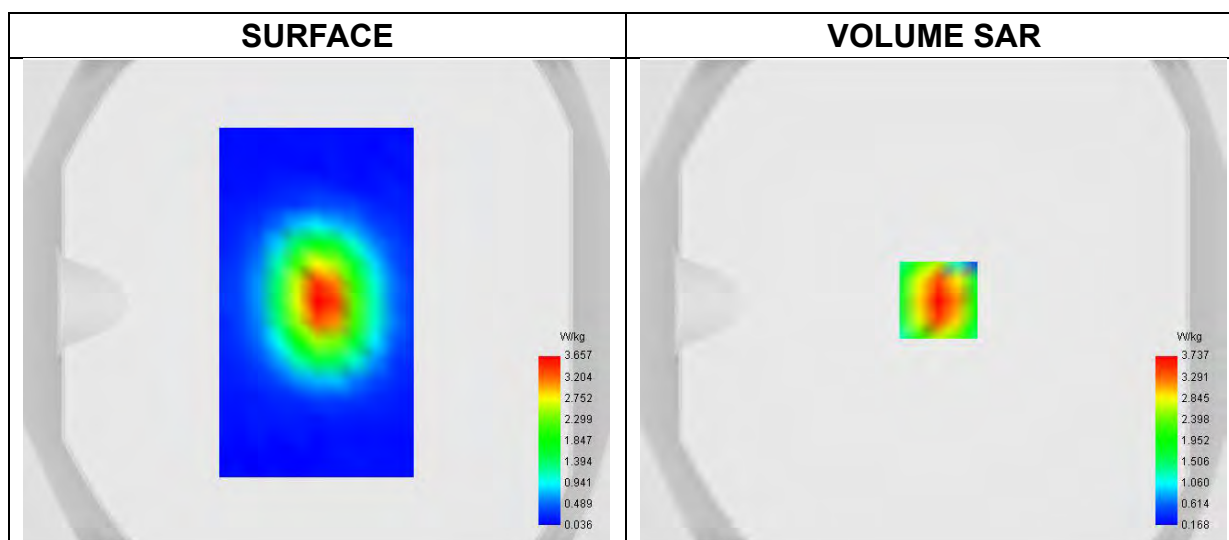
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-16

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.59
Conductivity (S/m)	1.45
Probe	SN 04/22 EPGO364
ConvF	1.91
Crest factor:	1:1

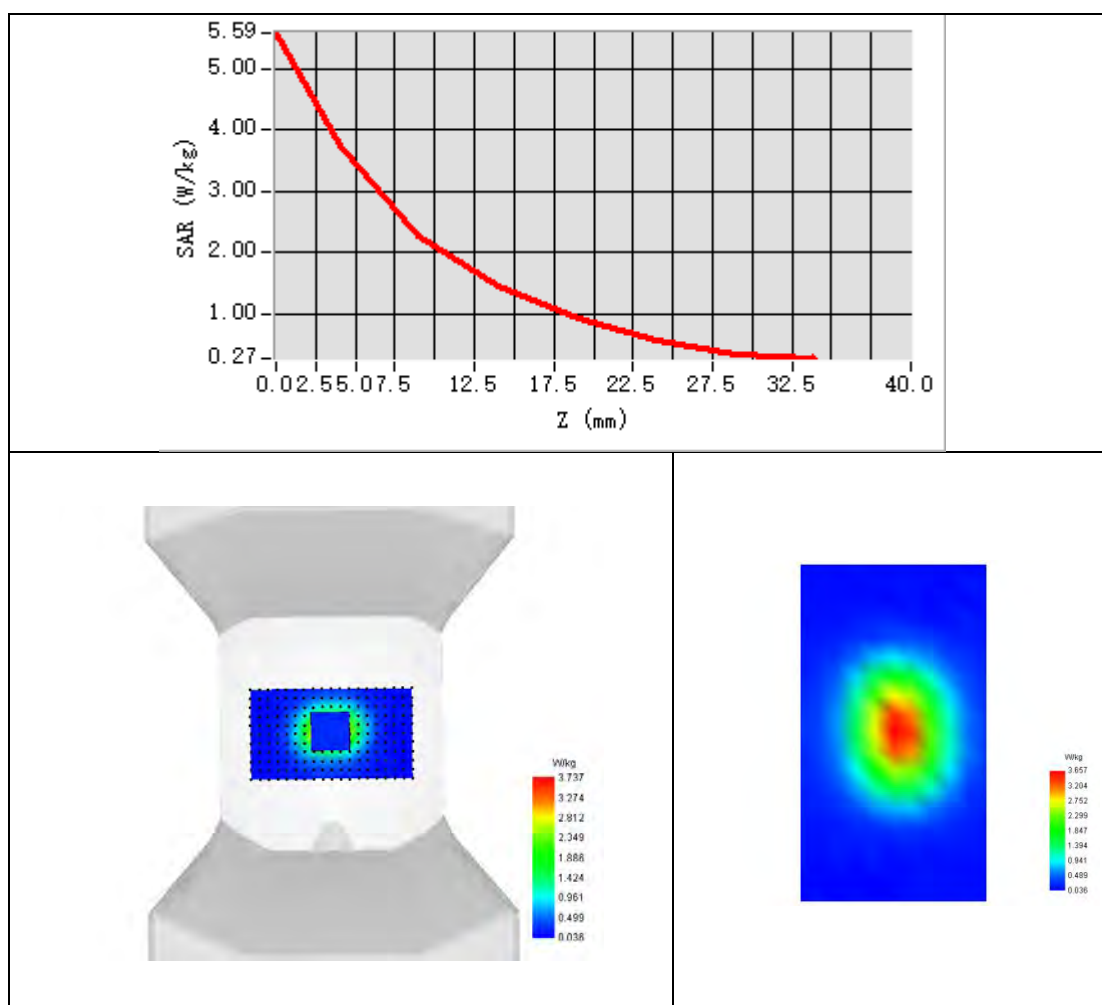


Maximum location: X=2.00, Y=1.00 ; SAR Peak: 5.33 W/kg

SAR 10g (W/Kg)	2.048
SAR 1g (W/Kg)	3.762



Z Axis Scan





System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)

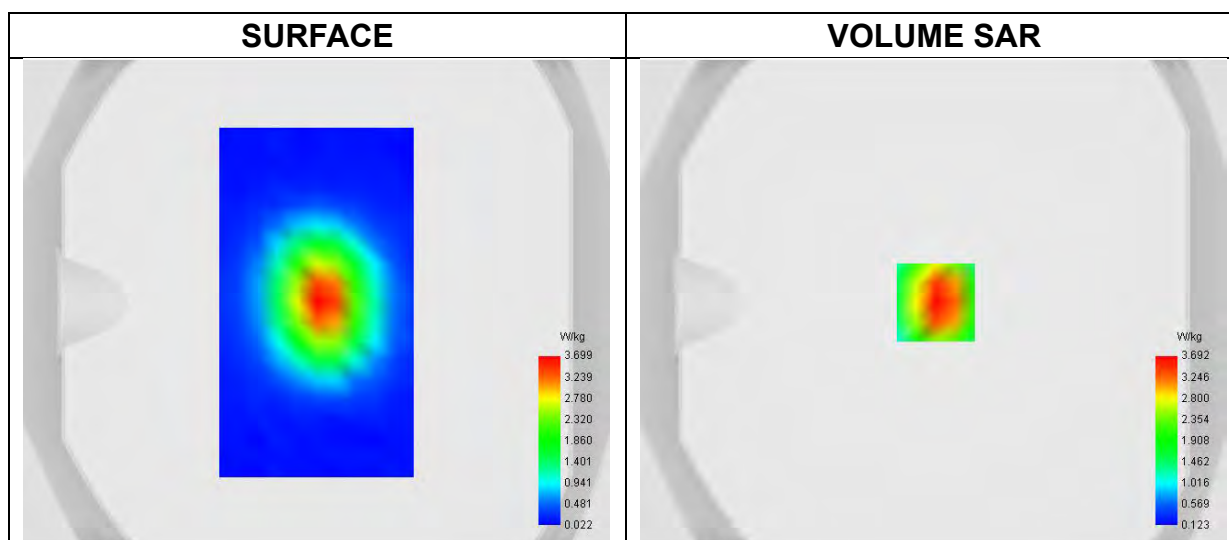
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-14

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.23
Conductivity (S/m)	1.46
Probe	SN 04/22 EPGO364
ConvF	1.91
Crest factor:	1:1

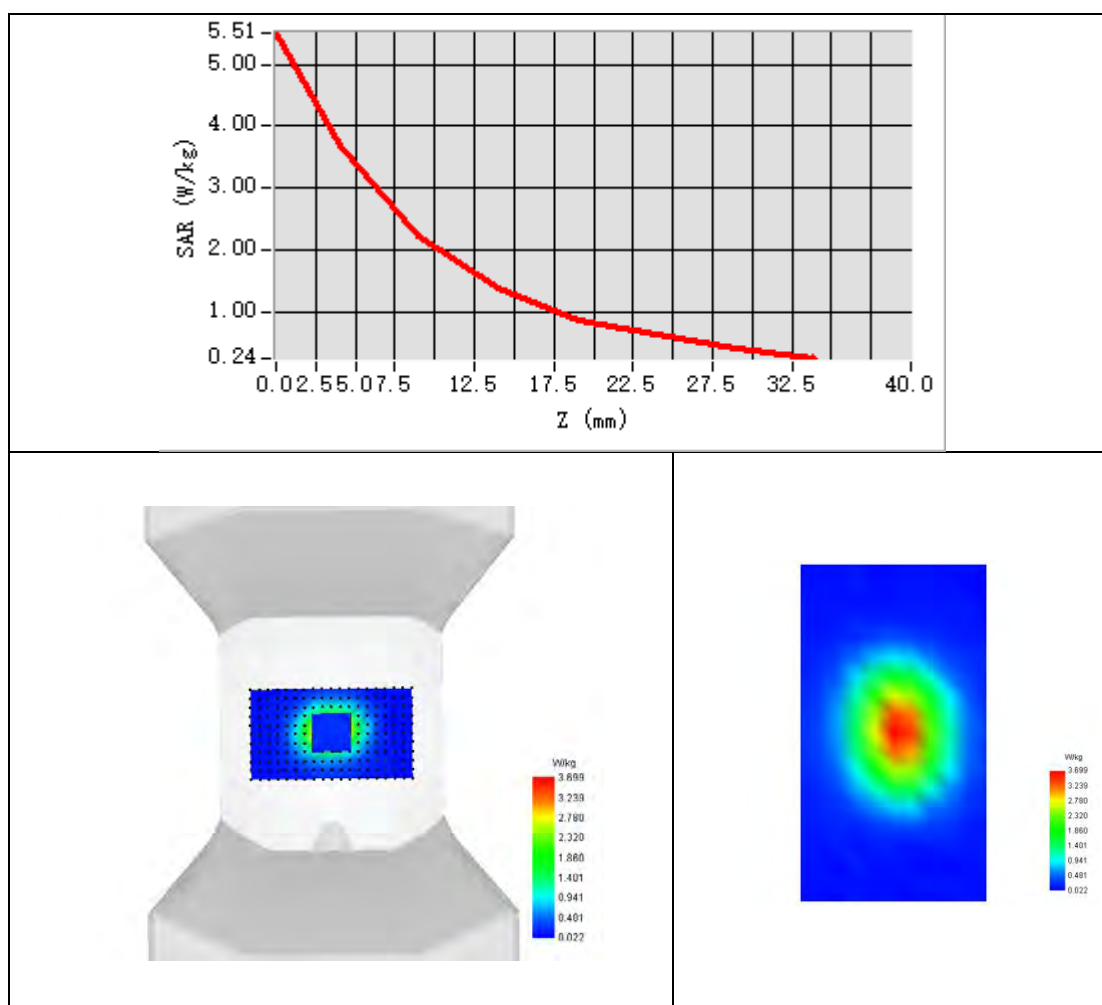


Maximum location: X=1.00, Y=0.00 ; SAR Peak: 5.61 W/kg

SAR 10g (W/Kg)	2.087
SAR 1g (W/Kg)	3.648



Z Axis Scan





System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)

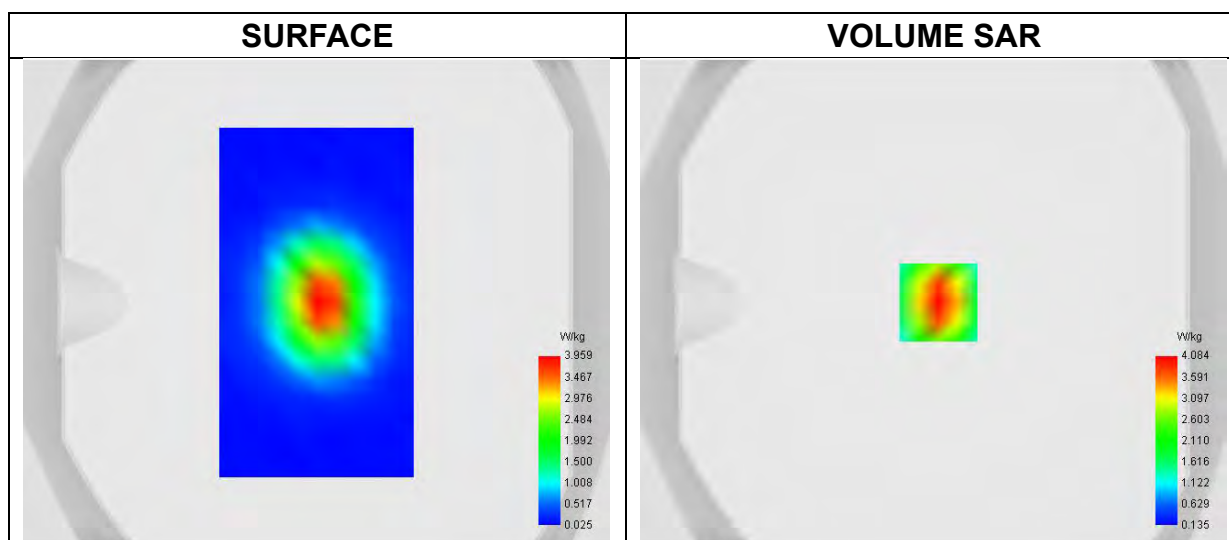
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-01-30

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.84
Conductivity (S/m)	1.44
Probe	SN 04/22 EPGO364
ConvF	2.24
Crest factor:	1:1

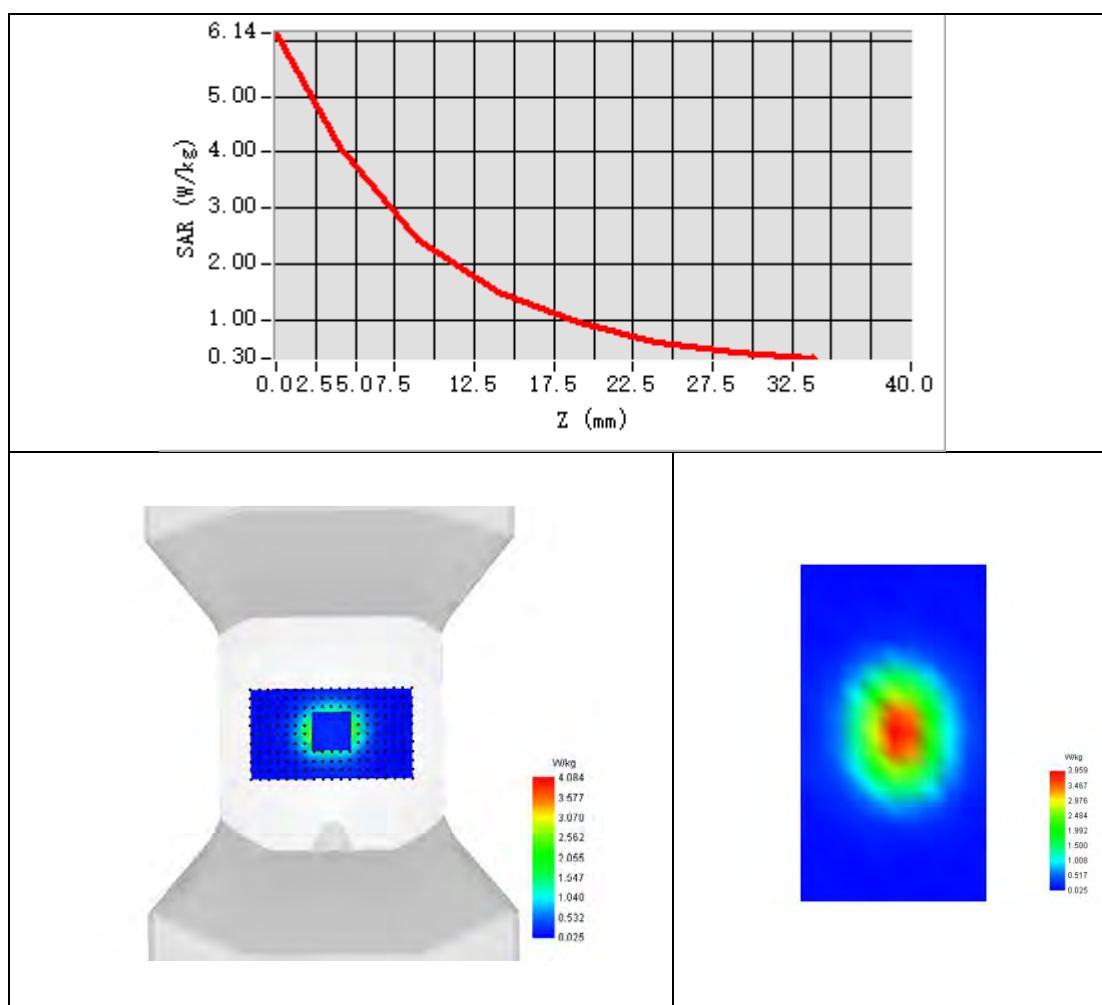


Maximum location: X=2.00, Y=0.00 ; SAR Peak: 6.13 W/kg

SAR 10g (W/Kg)	2.082
SAR 1g (W/Kg)	4.076



Z Axis Scan





System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)

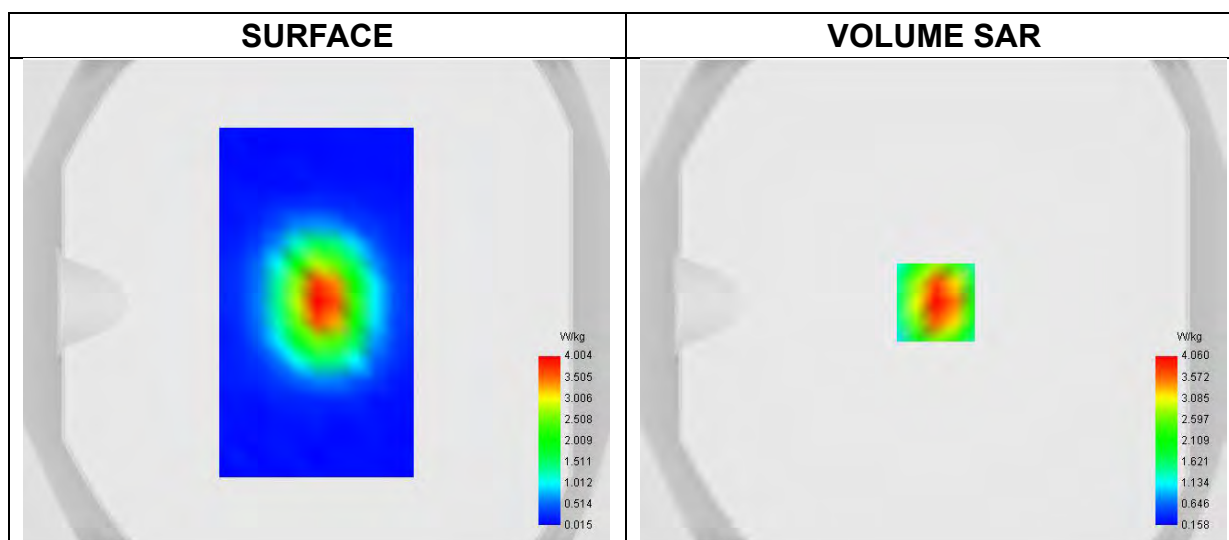
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-18

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	40.04
Conductivity (S/m)	1.42
Probe	SN 04/22 EPGO364
ConvF	2.24
Crest factor:	1:1

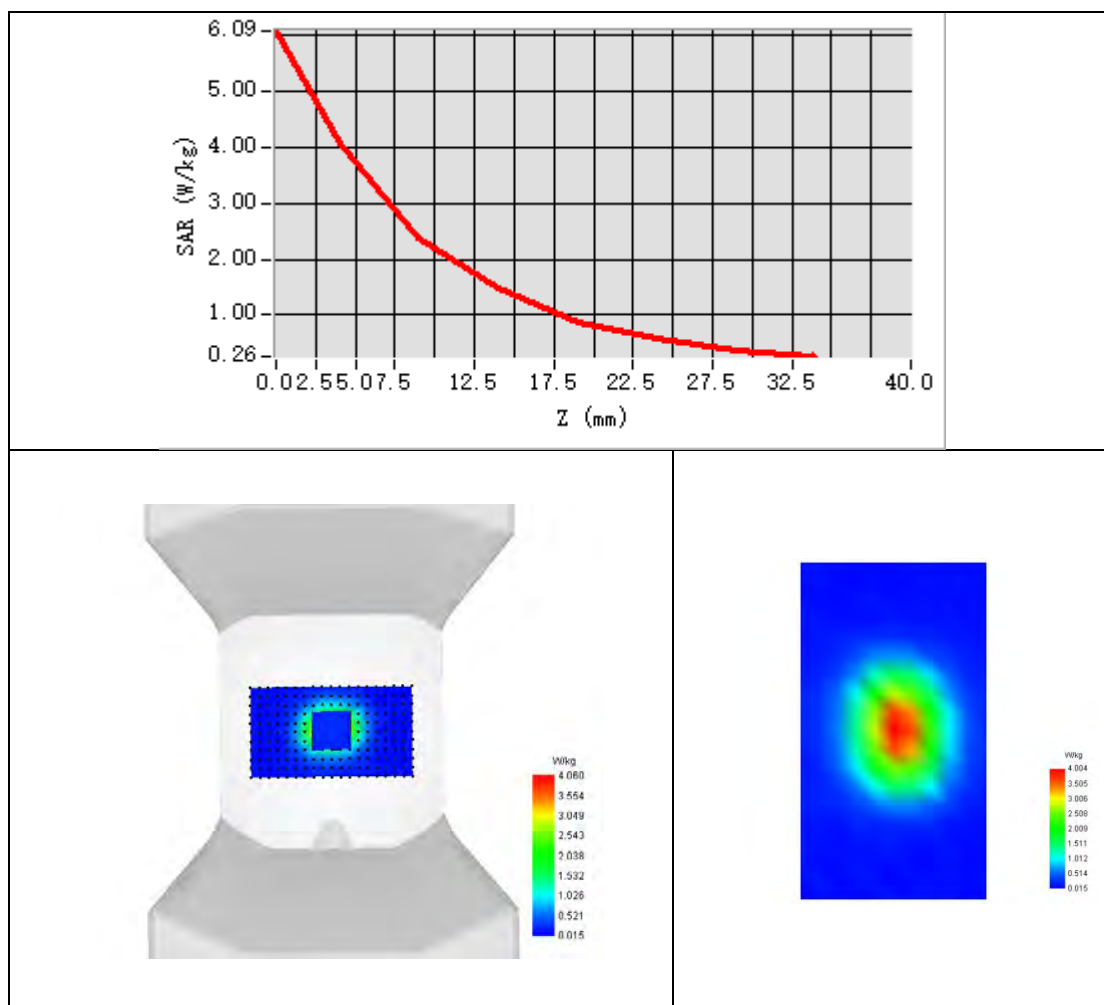


Maximum location: X=1.00, Y=0.00 ; SAR Peak: 6.18 W/kg

SAR 10g (W/Kg)	2.042
SAR 1g (W/Kg)	4.121



Z Axis Scan





System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

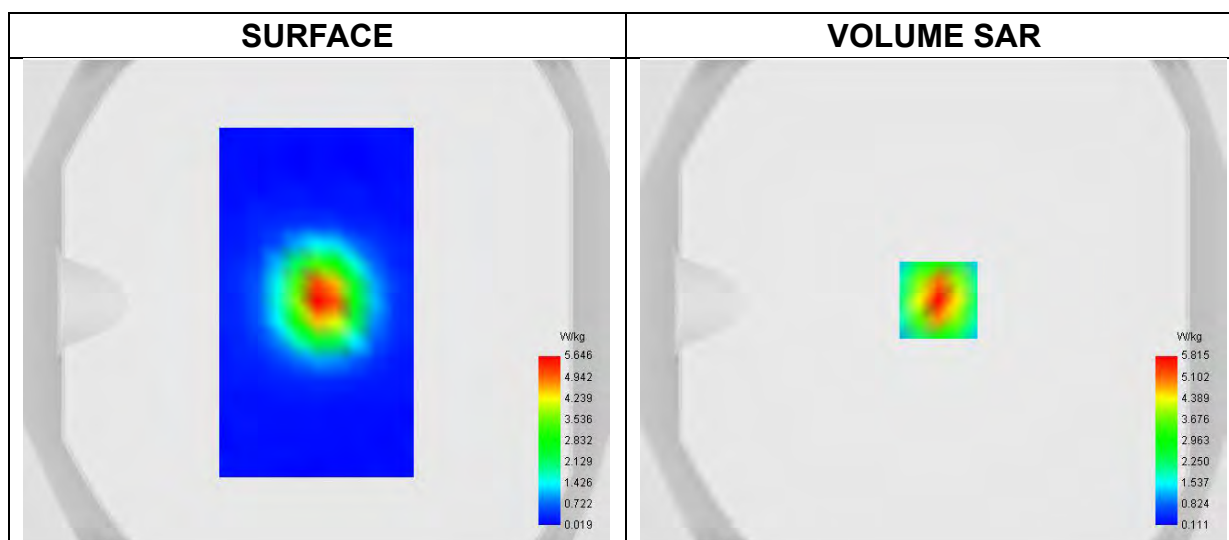
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-19

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	39.97
Conductivity (S/m)	1.83
Probe	SN 04/22 EPGO364
ConvF	2.30
Crest factor:	1:1

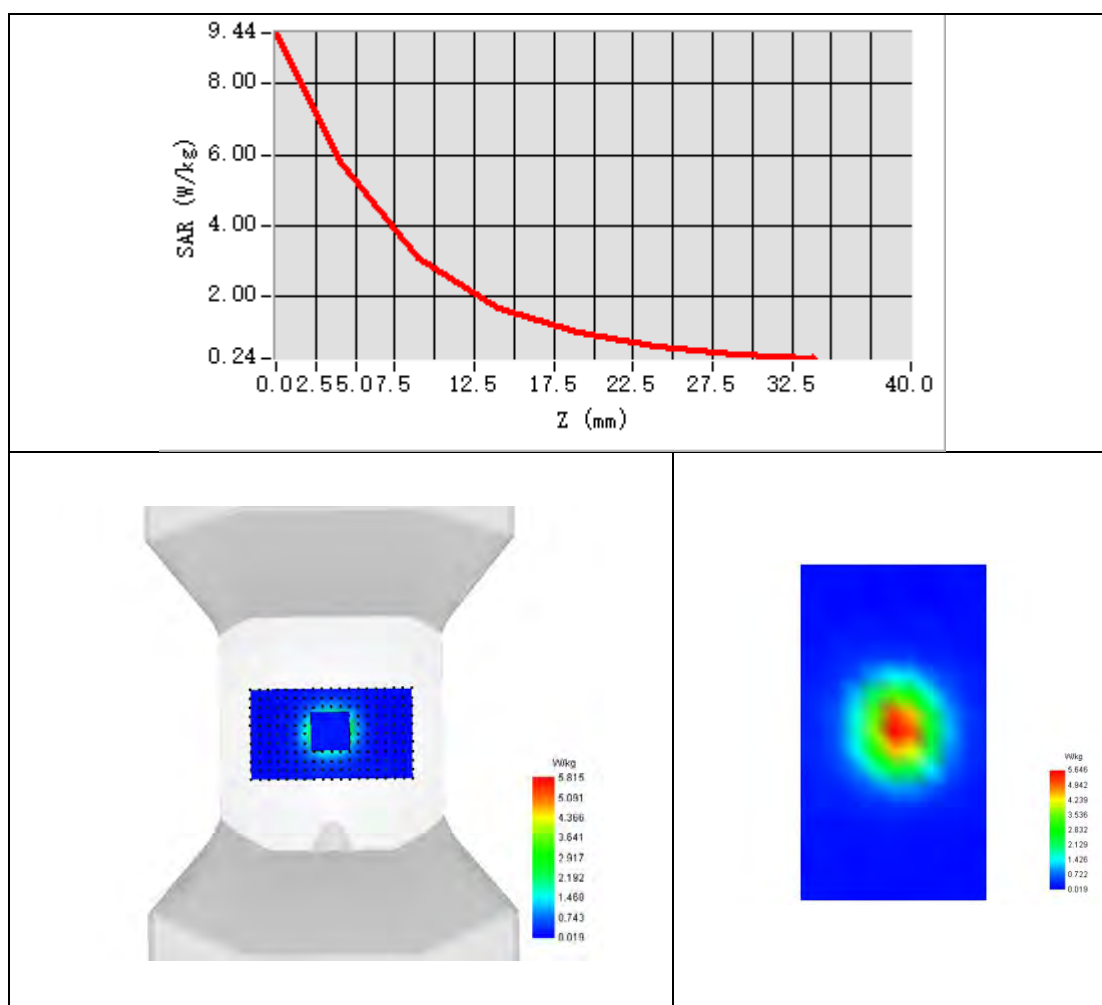


Maximum location: X=2.00, Y=1.00 ; SAR Peak: 9.64 W/kg

SAR 10g (W/Kg)	2.337
SAR 1g (W/Kg)	5.440



Z Axis Scan





System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)

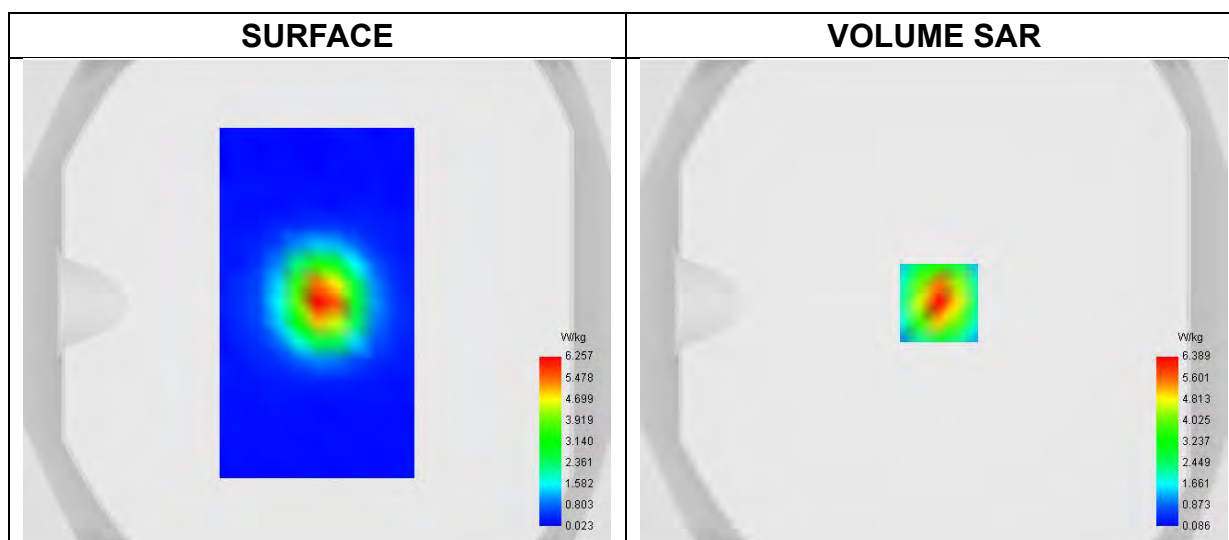
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-15

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	39.35
Conductivity (S/m)	1.98
Probe	SN 04/22 EPGO364
ConvF	2.35
Crest factor:	1:1

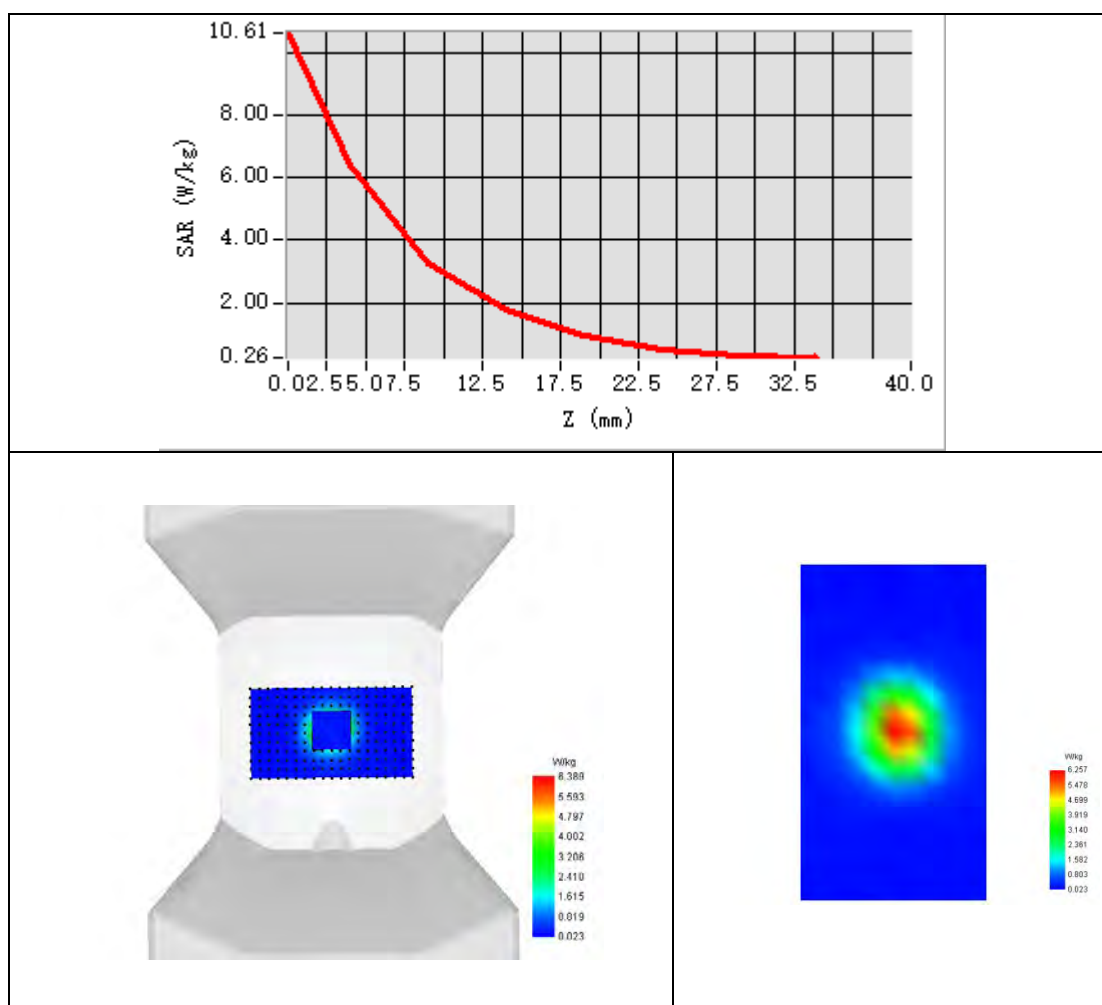


Maximum location: X=2.00, Y=0.00 ; SAR Peak: 10.76 W/kg

SAR 10g (W/Kg)	2.441
SAR 1g (W/Kg)	5.632



Z Axis Scan





System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)

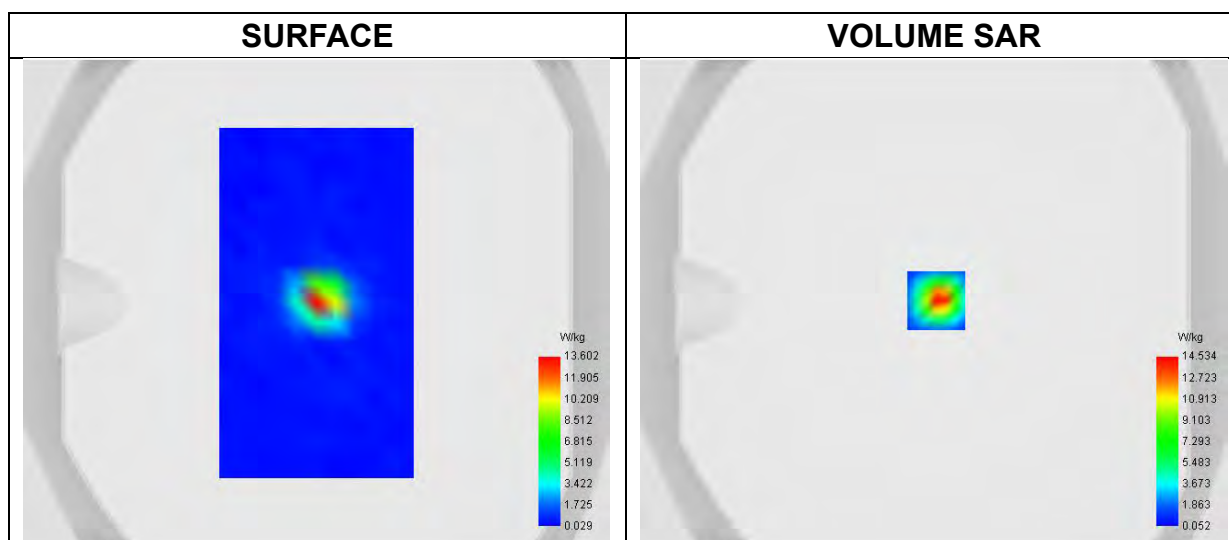
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-20

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.55
Conductivity (S/m)	4.63
Probe	SN 04/22 EPGO364
ConvF	1.98
Crest factor:	1:1

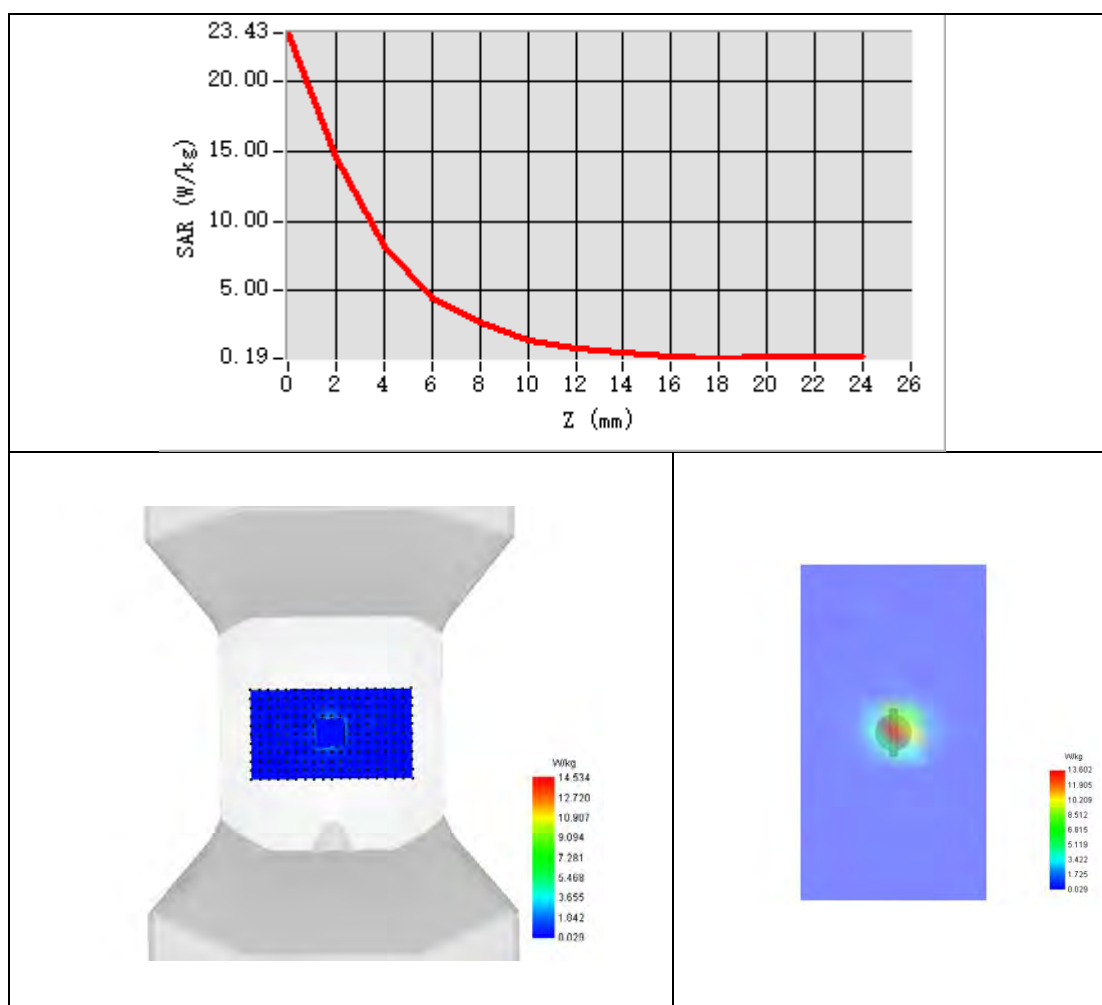


Maximum location: X=1.00, Y=1.00 ; SAR Peak: 24.80 W/kg

SAR 10g (W/Kg)	2.151
SAR 1g (W/Kg)	7.773



Z Axis Scan





System Performance Check Data (5400MHz)

Type: Phone measurement (Complete)

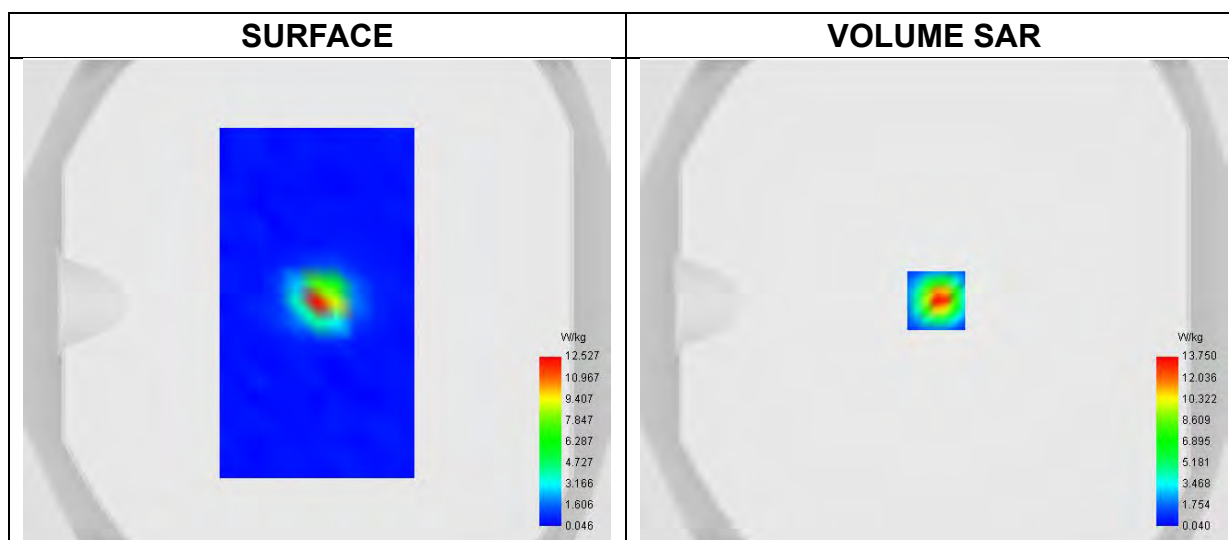
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-21

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5400
Channels	Middle
Signal	CW
Frequency (MHz)	5400.000
Relative permittivity	36.64
Conductivity (S/m)	4.87
Probe	SN 04/22 EPGO364
ConvF	1.83
Crest factor:	1:1

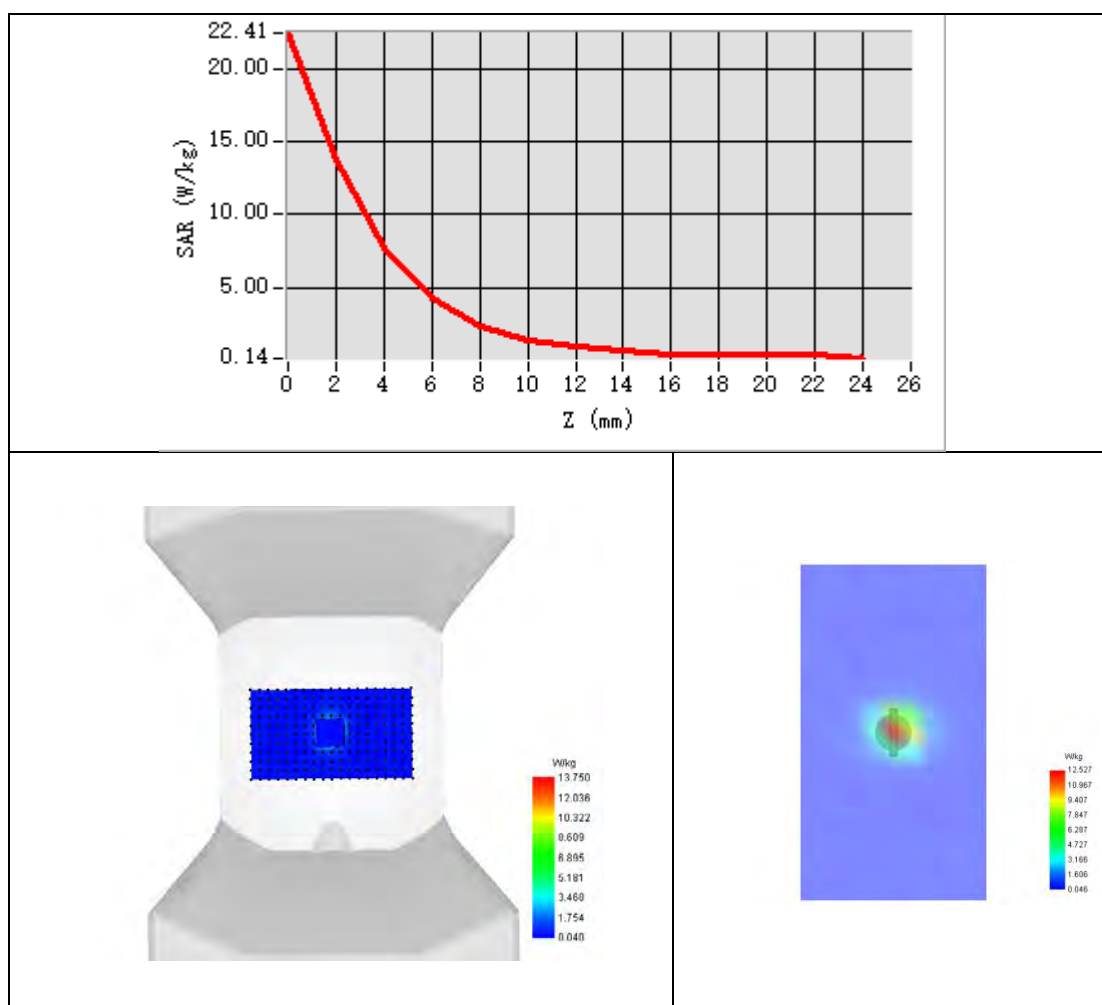


Maximum location: X=1.00, Y=1.00 ; SAR Peak: 22.78 W/kg

SAR 10g (W/Kg)	2.236
SAR 1g (W/Kg)	8.011



Z Axis Scan





System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)

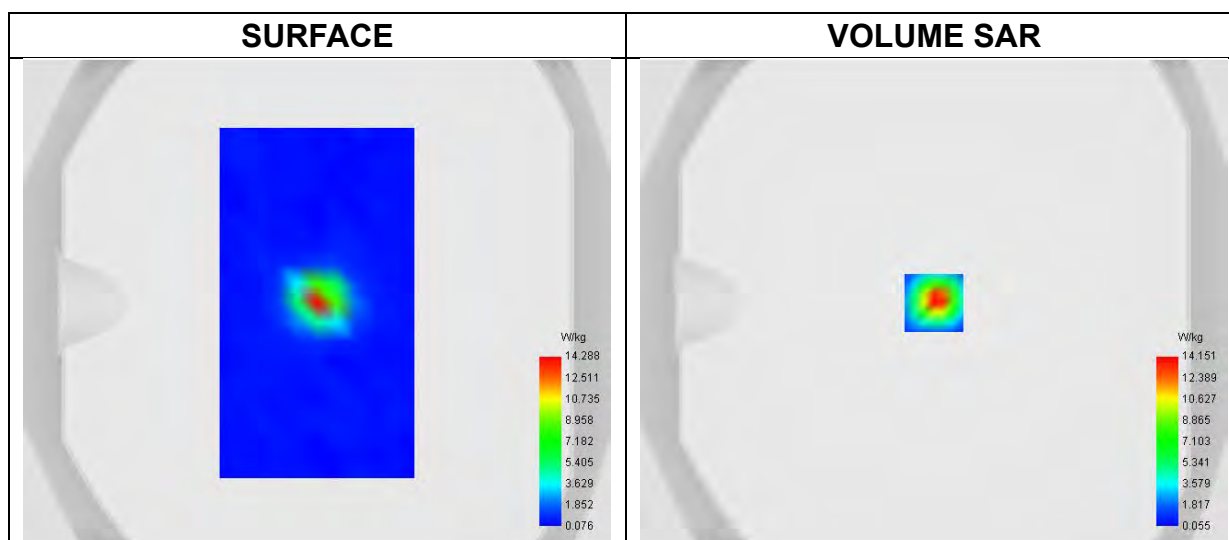
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2024-02-21

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.28
Conductivity (S/m)	5.21
Probe	SN 04/22 EPGO364
ConvF	1.71
Crest factor:	1:1

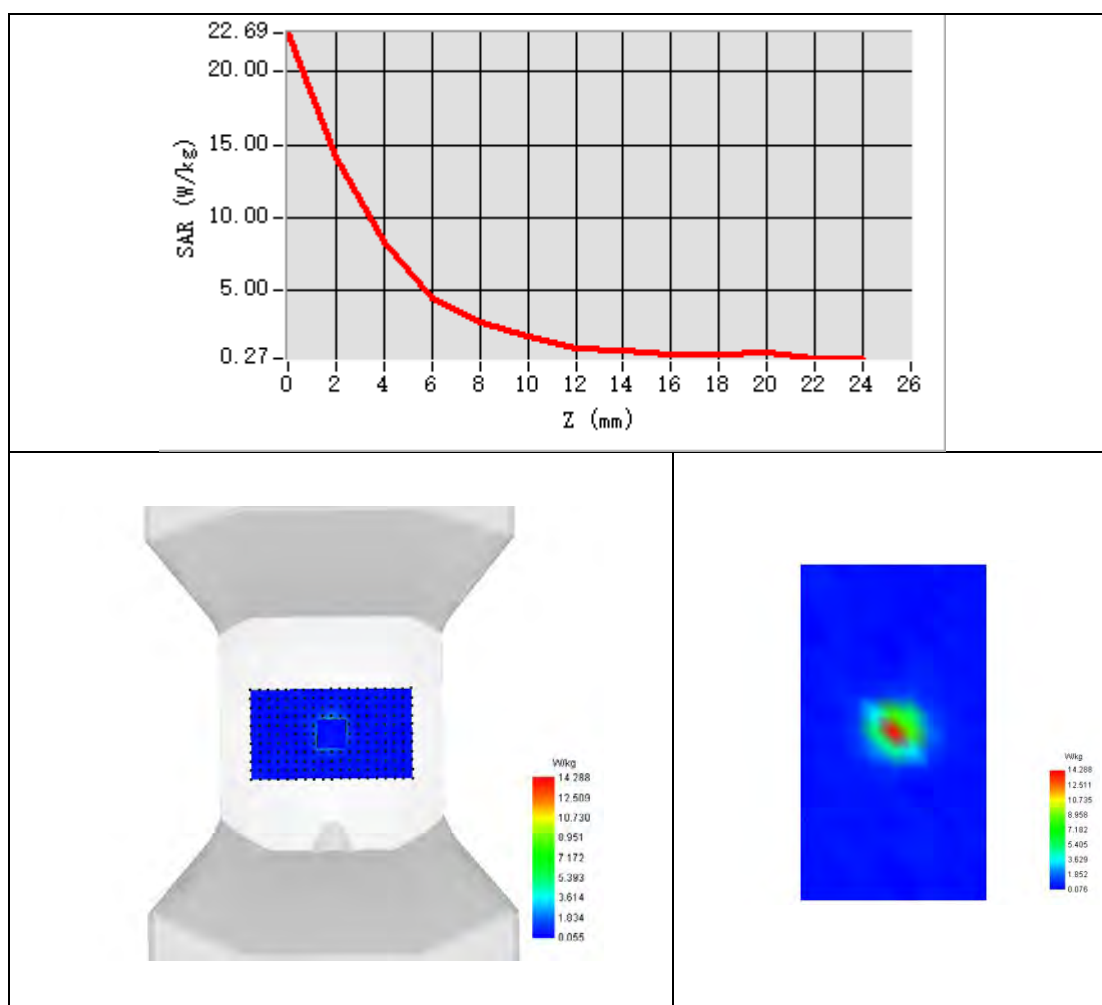


Maximum location: X=0.00, Y=0.00 ; SAR Peak: 24.31 W/kgg

SAR 10g (W/Kg)	2.155
SAR 1g (W/Kg)	7.469



Z Axis Scan



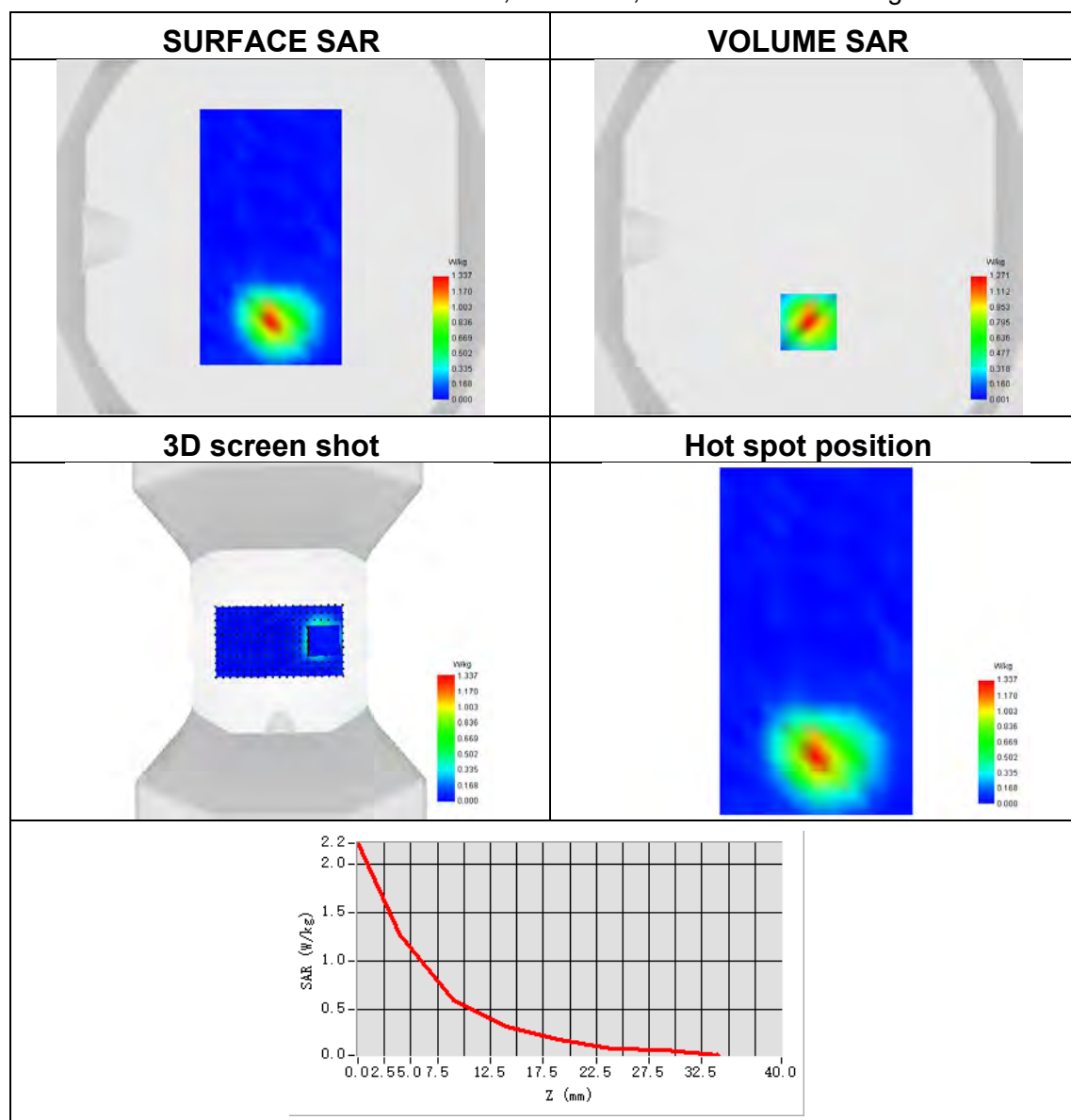


Appendix B. SAR Test Plots

Plot 1:

Test Date	2024-01-30
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Side
Band	LTE band 2
Signal	LTE FDD
Frequency	1860
SAR 10g (W/Kg)	0.527
SAR 1g (W/Kg)	1.173
Relative permittivity	40.96
Conductivity (S/m)	1.33
ConvF	2.24

Maximum location: X=0.00, Y=-48.00 ; SAR Peak: 2.19 W/kg

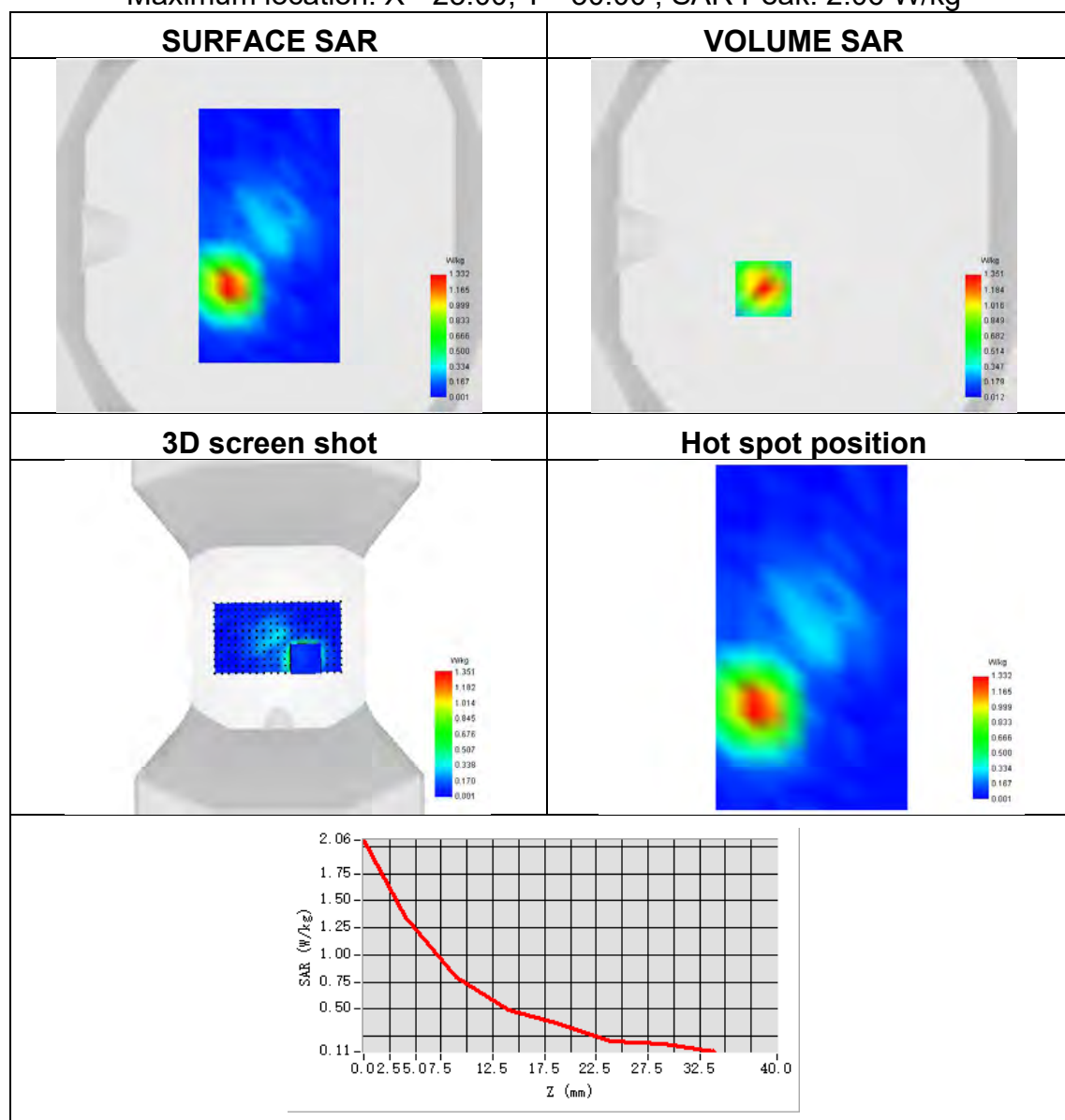




Plot 2:

Test Date	2024-02-16
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 4
Signal	LTE FDD
Frequency	1745
SAR 10g (W/Kg)	0.676
SAR 1g (W/Kg)	1.254
Relative permittivity	40.99
Conductivity (S/m)	1.38
ConvF	1.91

Maximum location: X=-23.00, Y=-30.00 ; SAR Peak: 2.06 W/kg

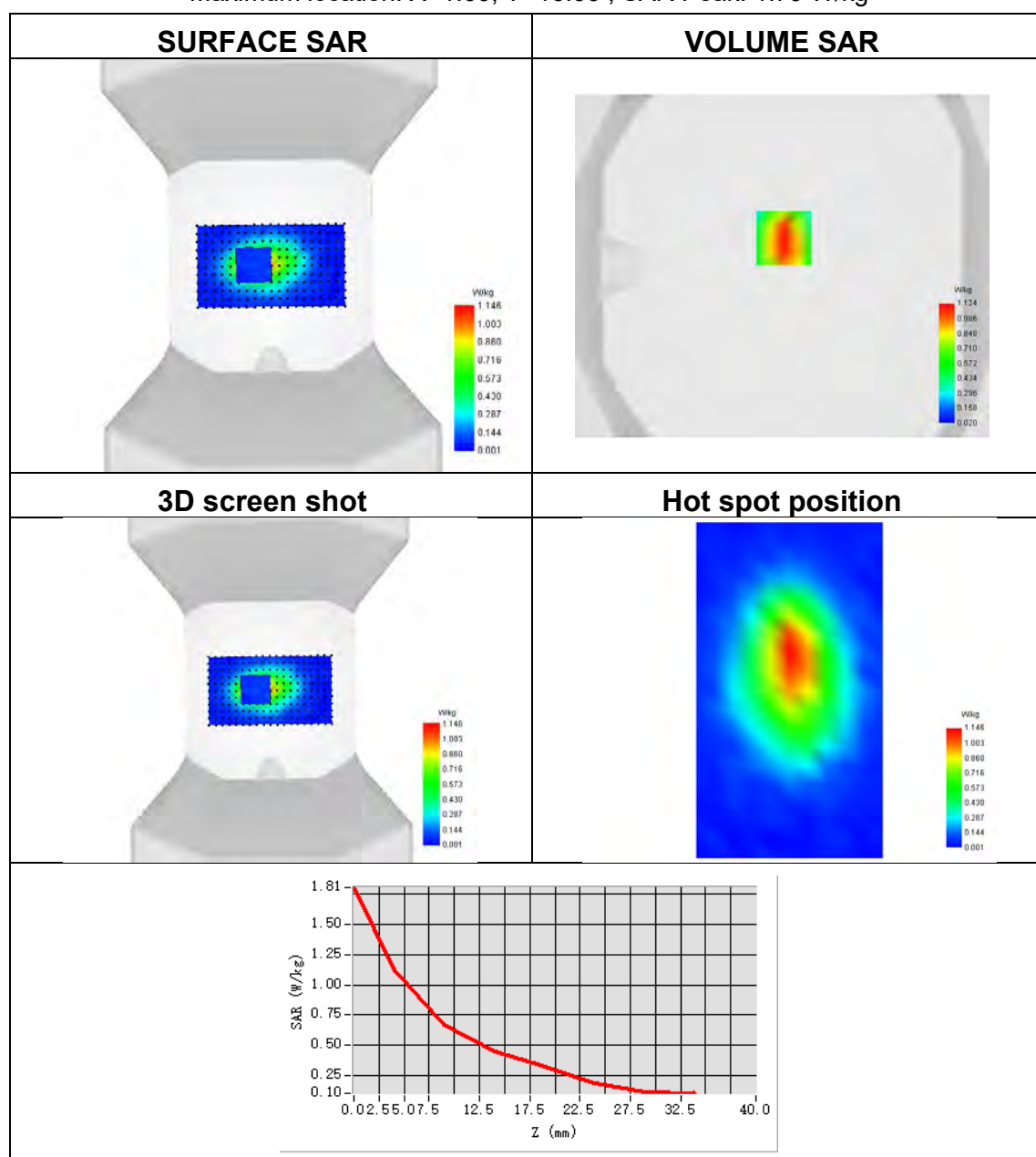




Plot 3:

Test Date	2024-02-17
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Bottom Side
Band	LTE band 5
Signal	LTE FDD
Frequency	844
SAR 10g (W/Kg)	0.593
SAR 1g (W/Kg)	1.092
Relative permittivity	41.63
Conductivity (S/m)	0.90
ConvF	1.70

Maximum location: X=1.00, Y=16.00 ; SAR Peak: 1.79 W/kg

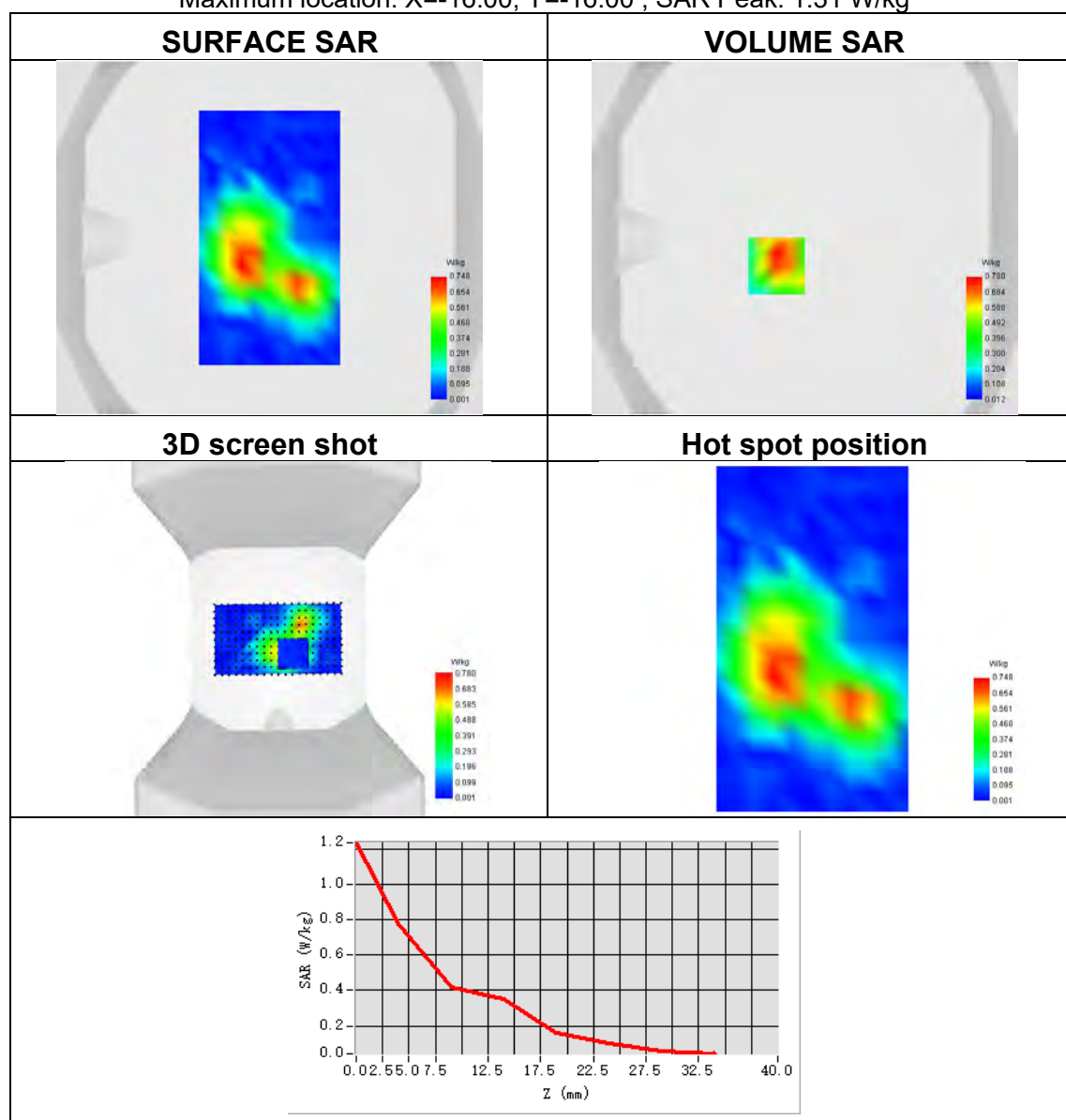




Plot 4:

Test Date	2024-02-15
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 7
Signal	LTE FDD
Frequency	2560
SAR 10g (W/Kg)	0.388
SAR 1g (W/Kg)	0.748
Relative permittivity	38.76
Conductivity (S/m)	1.90
ConvF	2.35

Maximum location: X=-16.00, Y=-16.00 ; SAR Peak: 1.31 W/kg

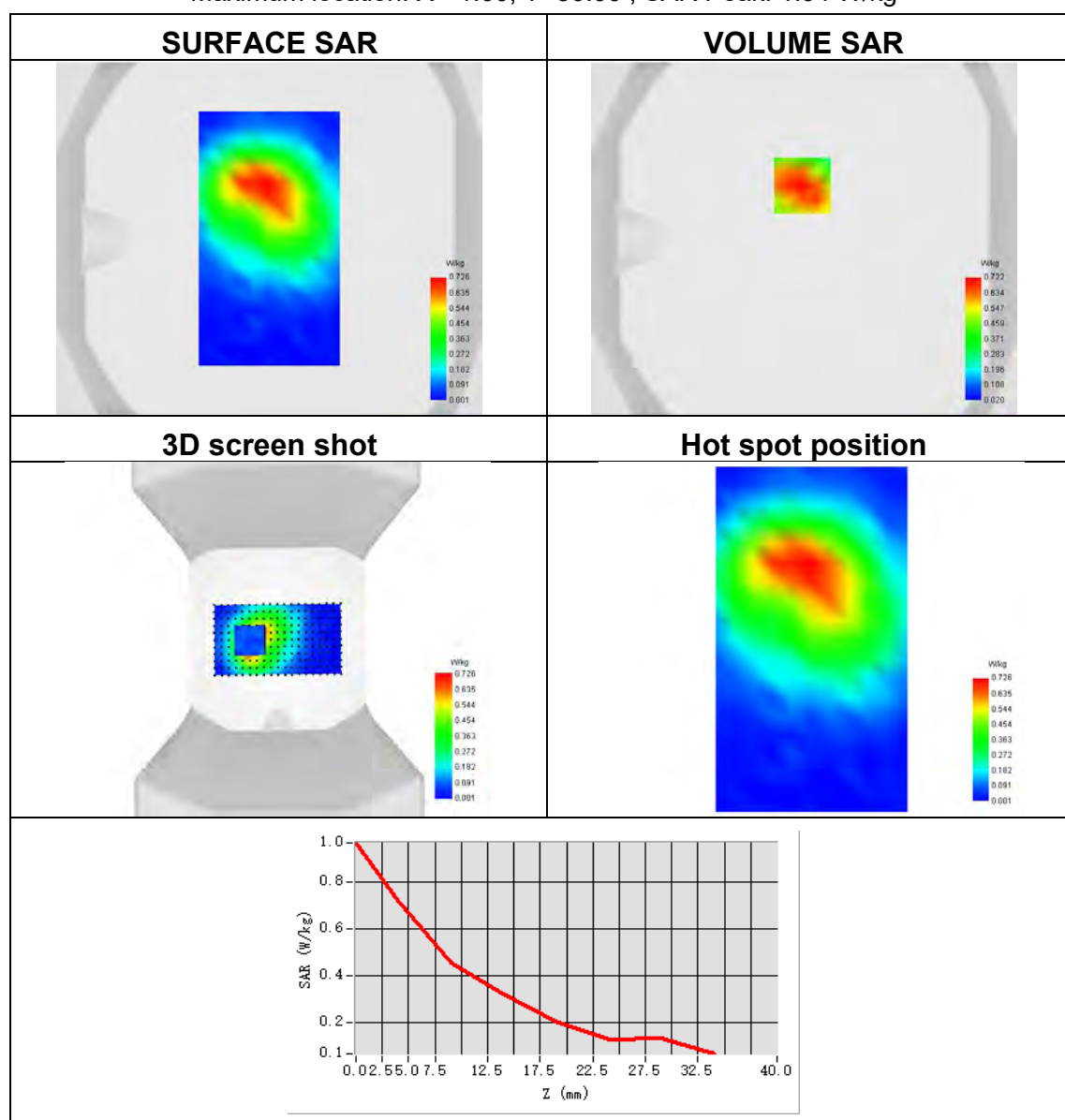




Plot 5:

Test Date	2024-01-31
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 12
Signal	LTE FDD
Frequency	704
SAR 10g (W/Kg)	0.427
SAR 1g (W/Kg)	0.710
Relative permittivity	43.10
Conductivity (S/m)	0.86
ConvF	1.68

Maximum location: X=-1.00, Y=30.00 ; SAR Peak: 1.04 W/kg

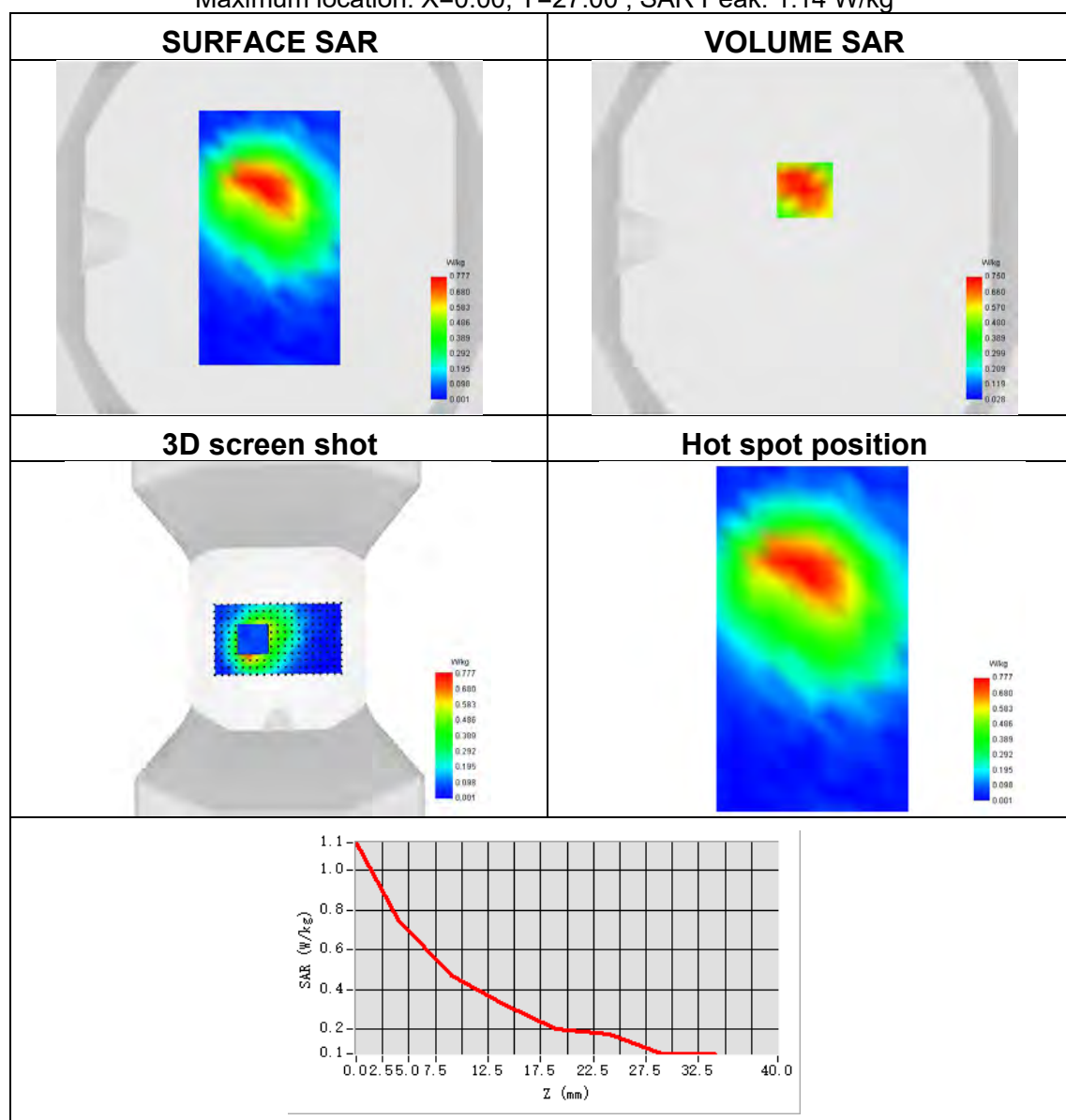




Plot 6:

Test Date	2024-01-31
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 17
Signal	LTE FDD
Frequency	711
SAR 10g (W/Kg)	0.446
SAR 1g (W/Kg)	0.773
Relative permittivity	42.68
Conductivity (S/m)	0.86
ConvF	1.68

Maximum location: X=0.00, Y=27.00 ; SAR Peak: 1.14 W/kg

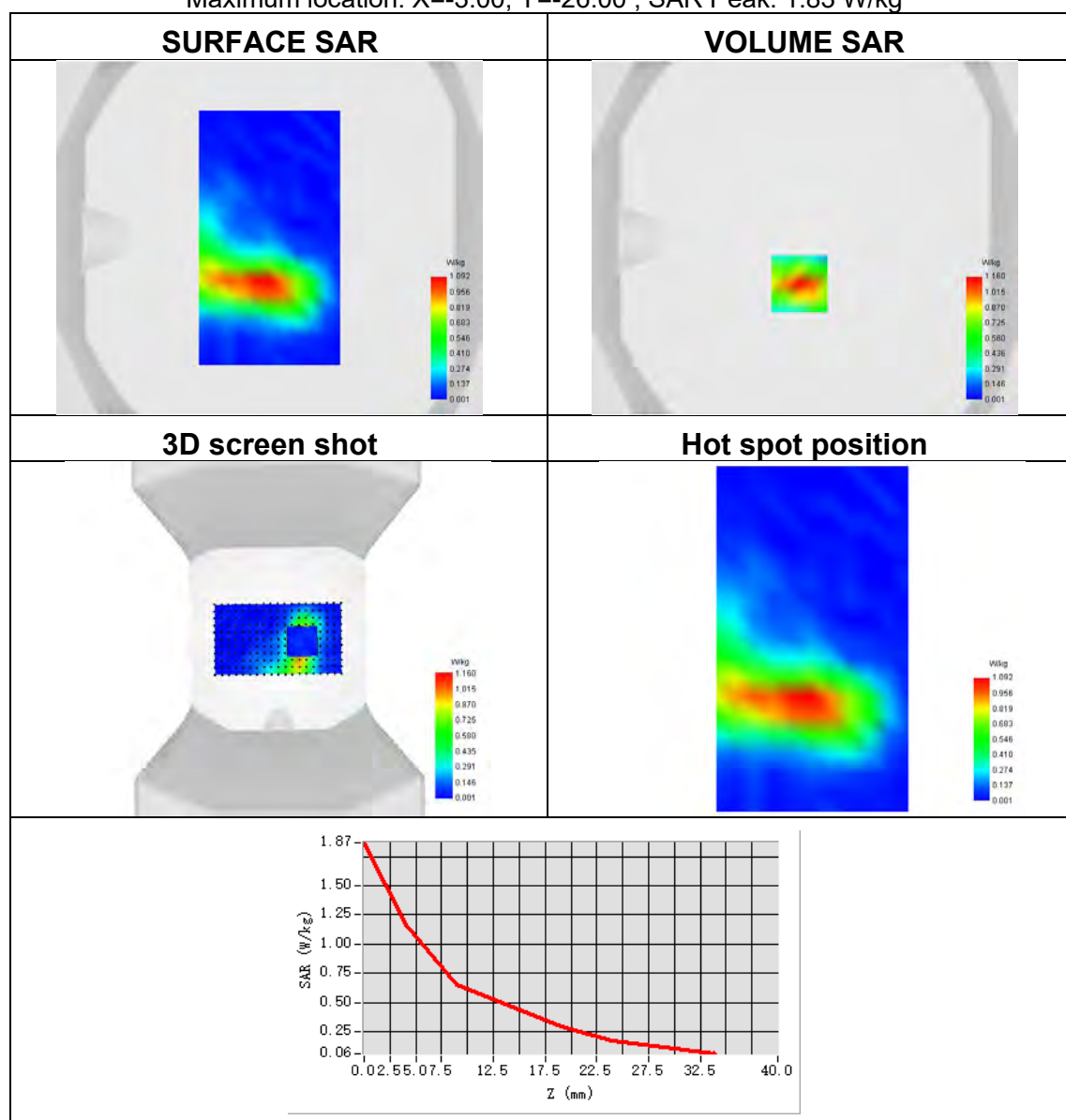




Plot 7:

Test Date	2024-01-30
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 25
Signal	LTE FDD
Frequency	1860
SAR 10g (W/Kg)	0.576
SAR 1g (W/Kg)	1.092
Relative permittivity	40.96
Conductivity (S/m)	1.33
ConvF	2.24

Maximum location: X=-3.00, Y=-26.00 ; SAR Peak: 1.83 W/kg

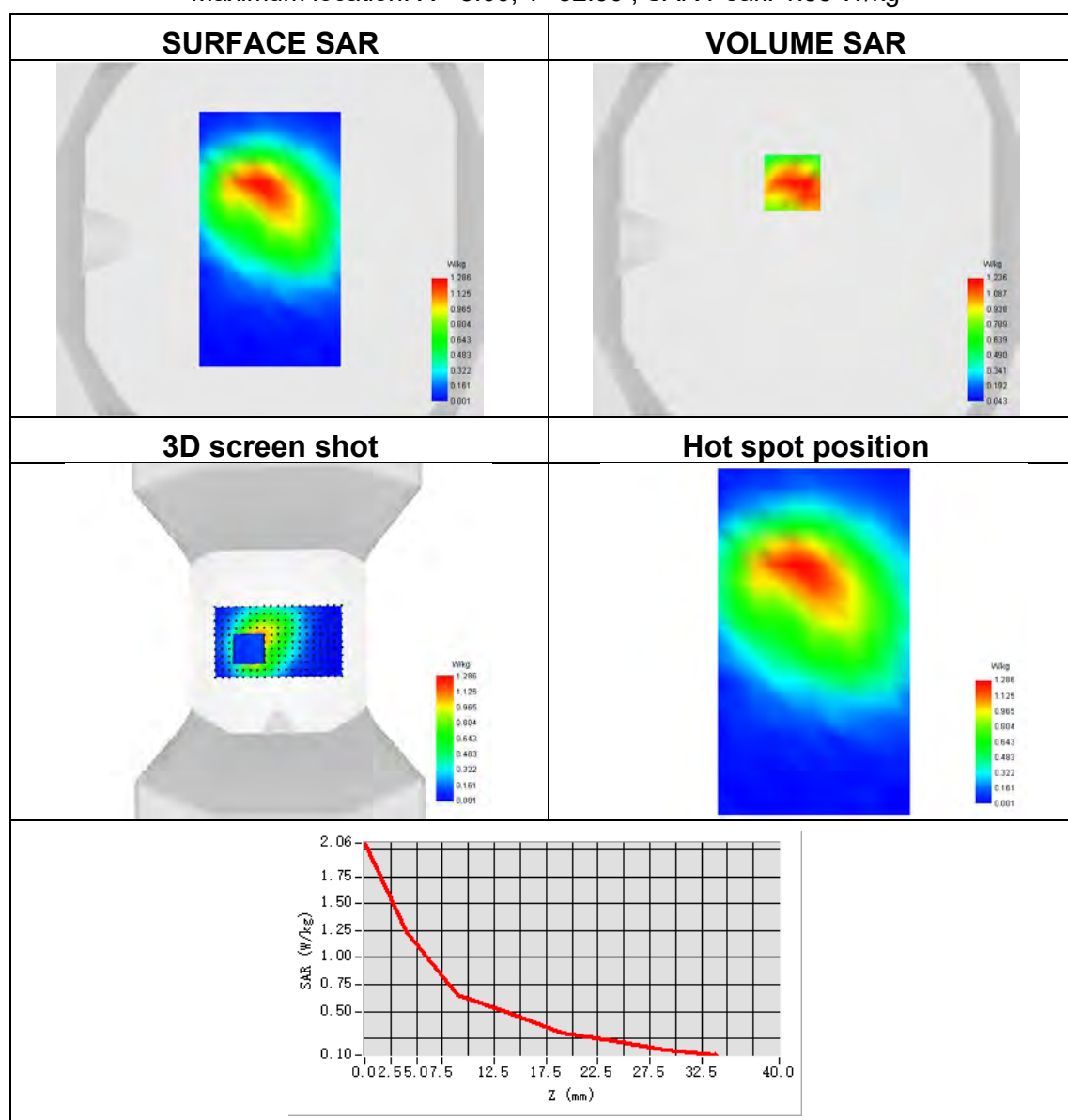




Plot 8:

Test Date	2024-02-03
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 26
Signal	LTE FDD
Frequency	841.5
SAR 10g (W/Kg)	0.684
SAR 1g (W/Kg)	1.179
Relative permittivity	42.36
Conductivity (S/m)	0.88
ConvF	1.70

Maximum location: X=-8.00, Y=32.00 ; SAR Peak: 1.88 W/kg

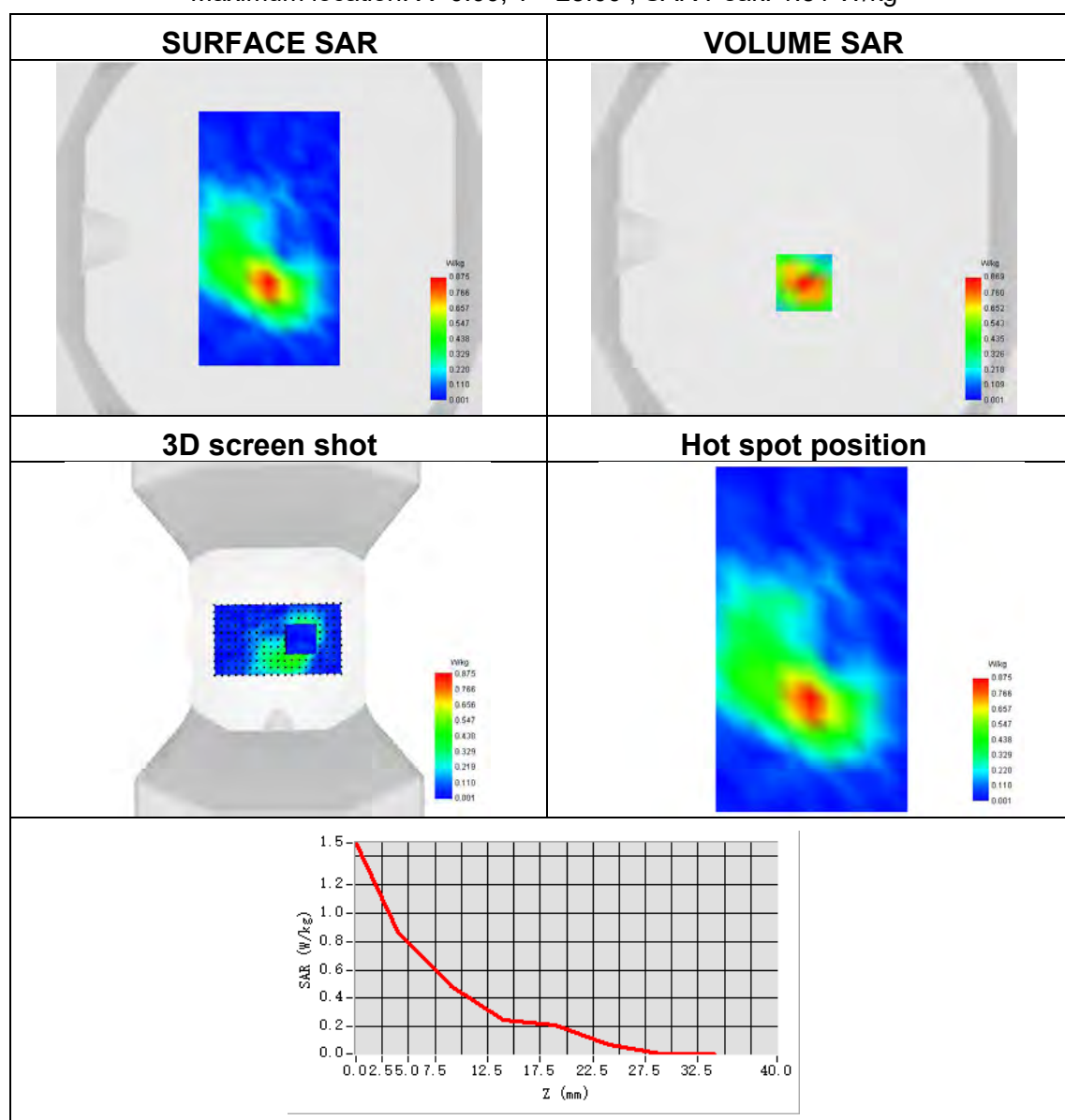




Plot 9:

Test Date	2024-02-15
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 38
Signal	LTE TDD
Frequency	2580
SAR 10g (W/Kg)	0.416
SAR 1g (W/Kg)	0.834
Relative permittivity	39.22
Conductivity (S/m)	1.91
ConvF	2.35

Maximum location: X=0.00, Y=-25.00 ; SAR Peak: 1.51 W/kg

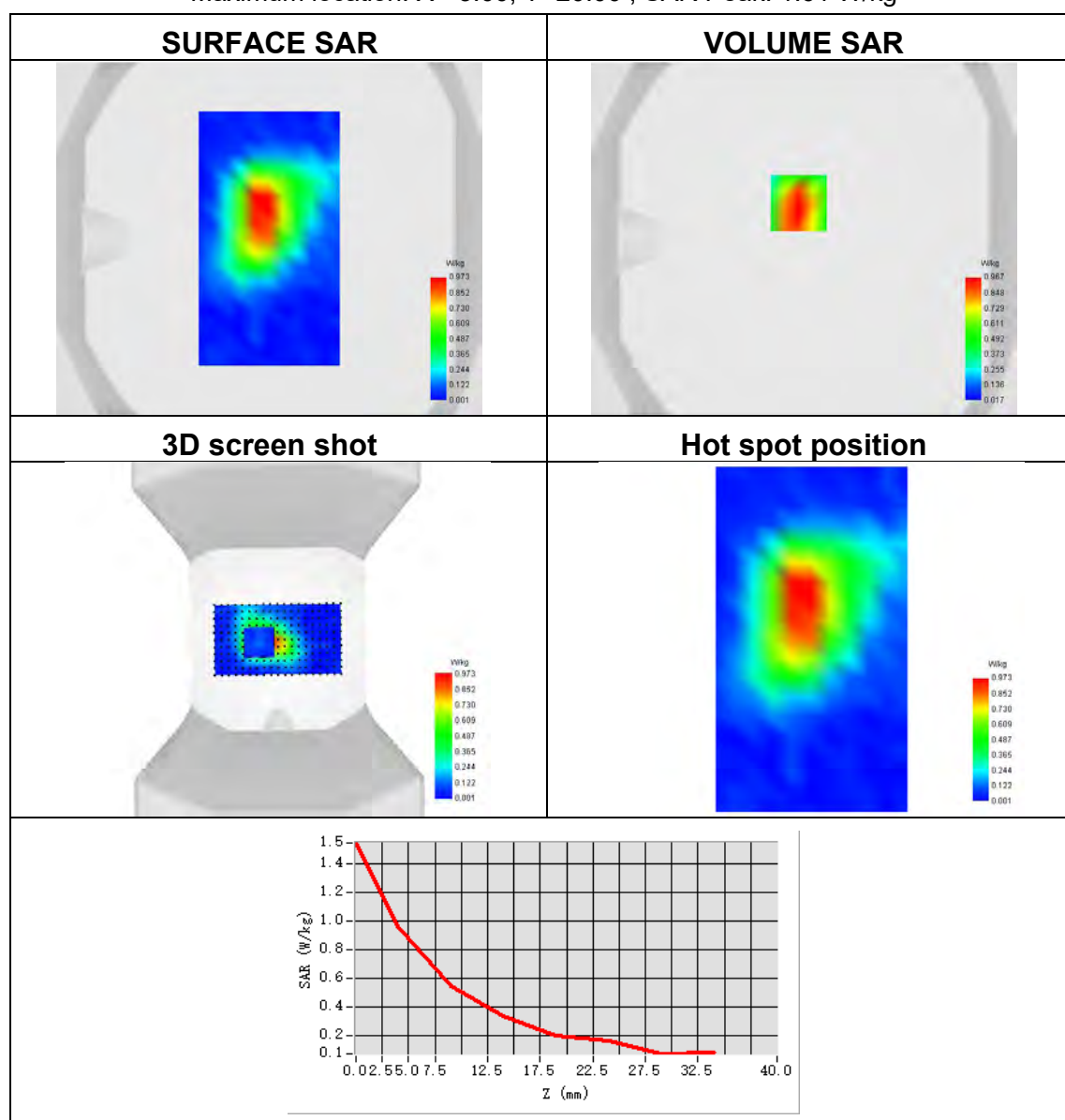




Plot 10:

Test Date	2024-02-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 40
Signal	LTE TDD
Frequency	2355
SAR 10g (W/Kg)	0.535
SAR 1g (W/Kg)	0.962
Relative permittivity	38.74
Conductivity (S/m)	1.76
ConvF	2.30

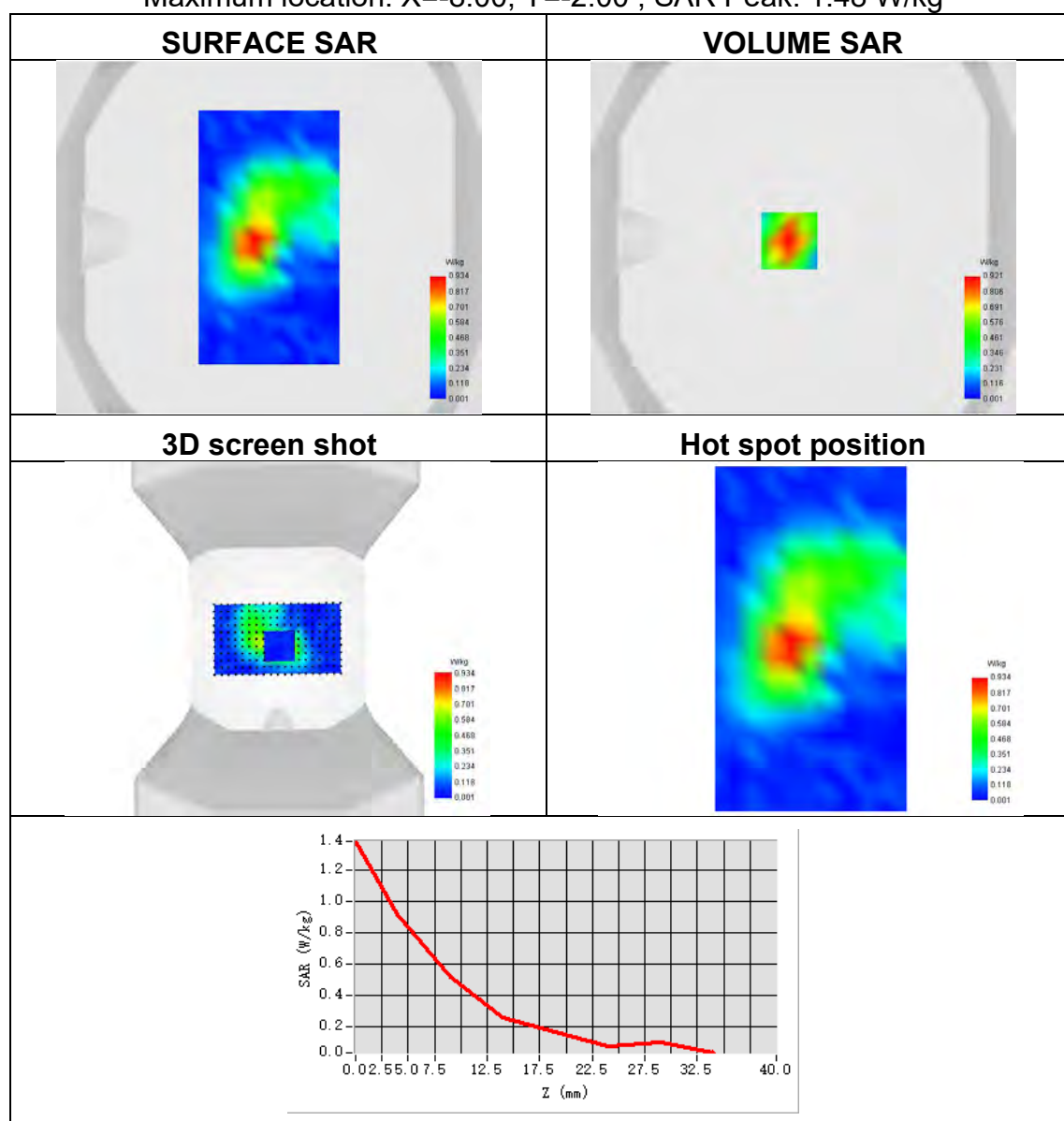
Maximum location: X=-3.00, Y=20.00 ; SAR Peak: 1.61 W/kg



Plot 11:

Test Date	2024-02-15
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 41
Signal	LTE TDD
Frequency	2506
SAR 10g (W/Kg)	0.423
SAR 1g (W/Kg)	0.855
Relative permittivity	39.69
Conductivity (S/m)	1.78
ConvF	2.35

Maximum location: X=-8.00, Y=-2.00 ; SAR Peak: 1.48 W/kg

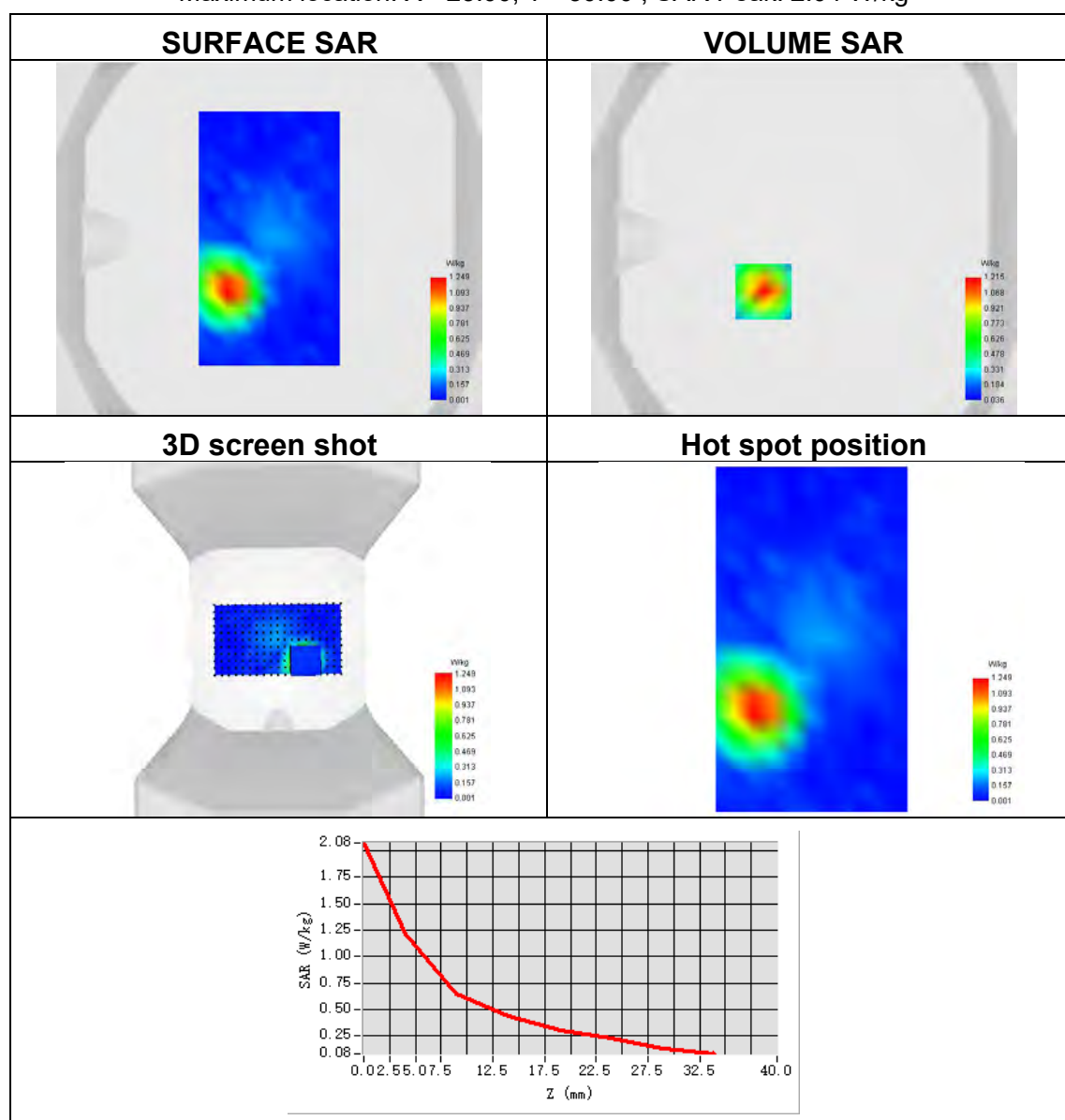




Plot 12:

Test Date	2024-02-14
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 66
Signal	LTE FDD
Frequency	1770
SAR 10g (W/Kg)	0.590
SAR 1g (W/Kg)	1.152
Relative permittivity	39.79
Conductivity (S/m)	1.36
ConvF	1.91

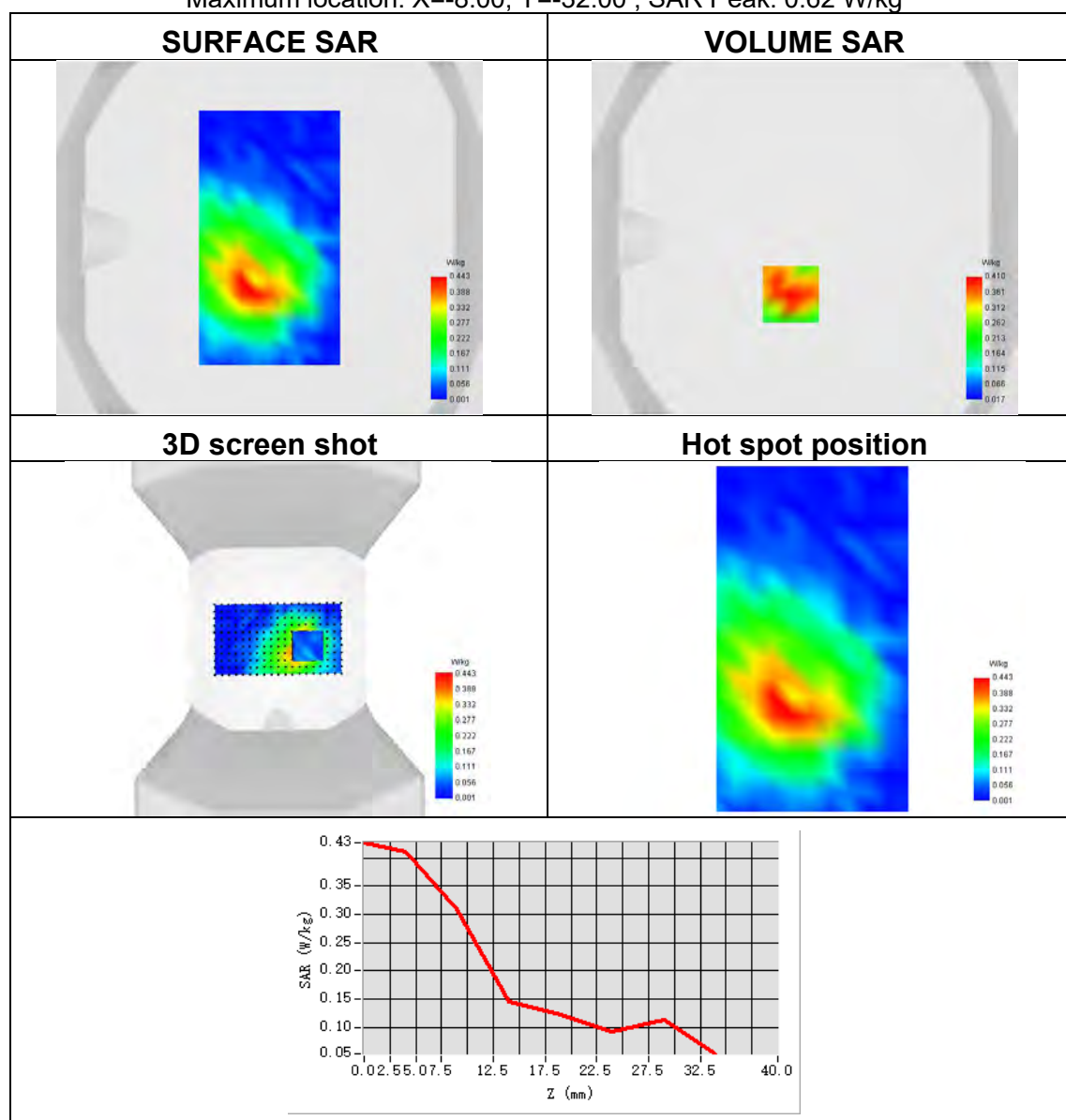
Maximum location: X=-23.00, Y=-30.00 ; SAR Peak: 2.04 W/kg



Plot 13:

Test Date	2024-01-31
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Front side
Band	LTE band 71
Signal	LTE FDD
Frequency	688
SAR 10g (W/Kg)	0.227
SAR 1g (W/Kg)	0.408
Relative permittivity	42.19
Conductivity (S/m)	0.91
ConvF	1.68

Maximum location: X=-8.00, Y=-32.00 ; SAR Peak: 0.62 W/kg

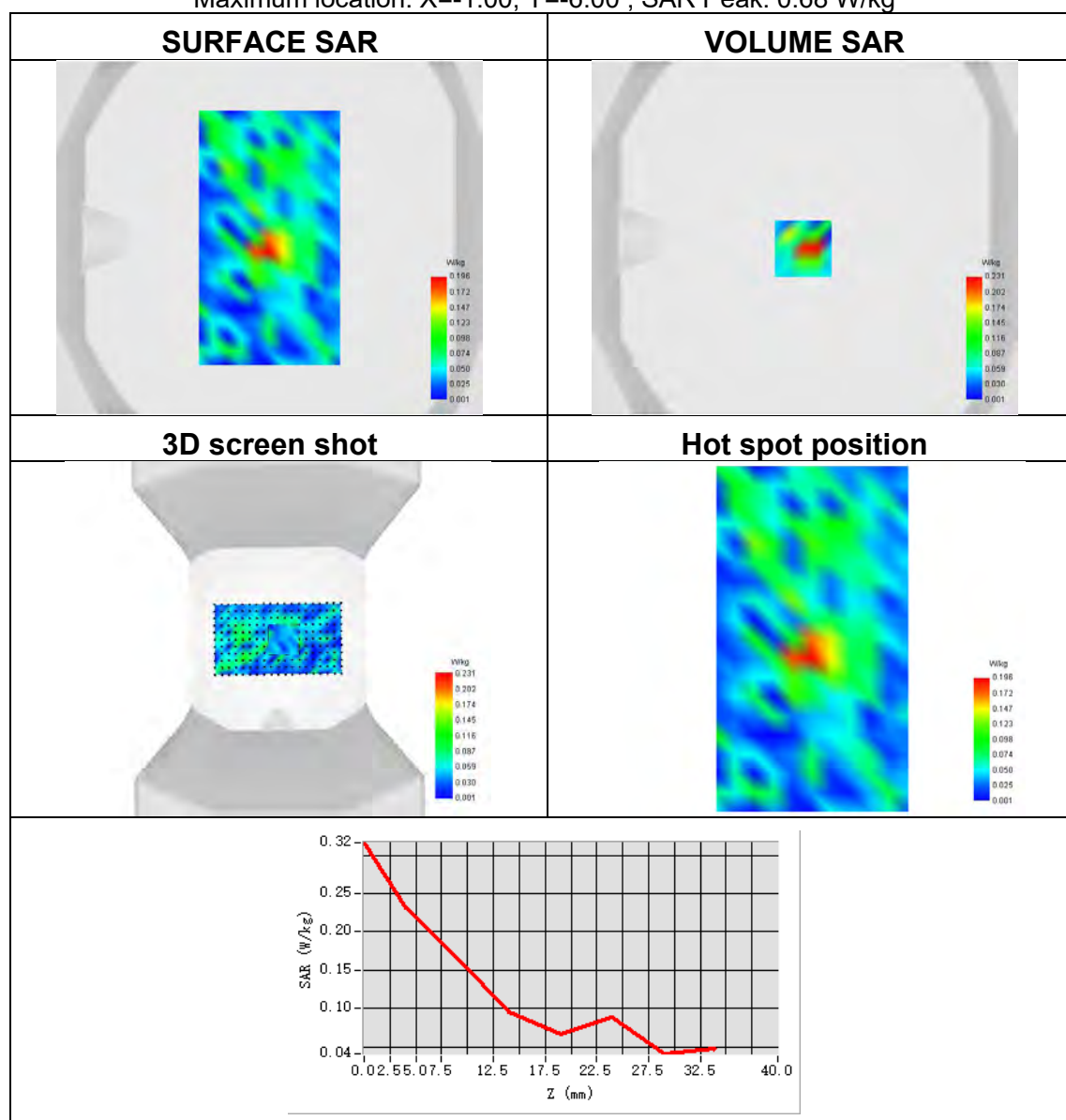




Plot 14:

Test Date	2024-02-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Side
Band	ISM
Signal	IEEE 802.11 b
Frequency	2437
SAR 10g (W/Kg)	0.101
SAR 1g (W/Kg)	0.258
Relative permittivity	40.41
Conductivity (S/m)	1.80
ConvF	2.30

Maximum location: X=-1.00, Y=-6.00 ; SAR Peak: 0.68 W/kg

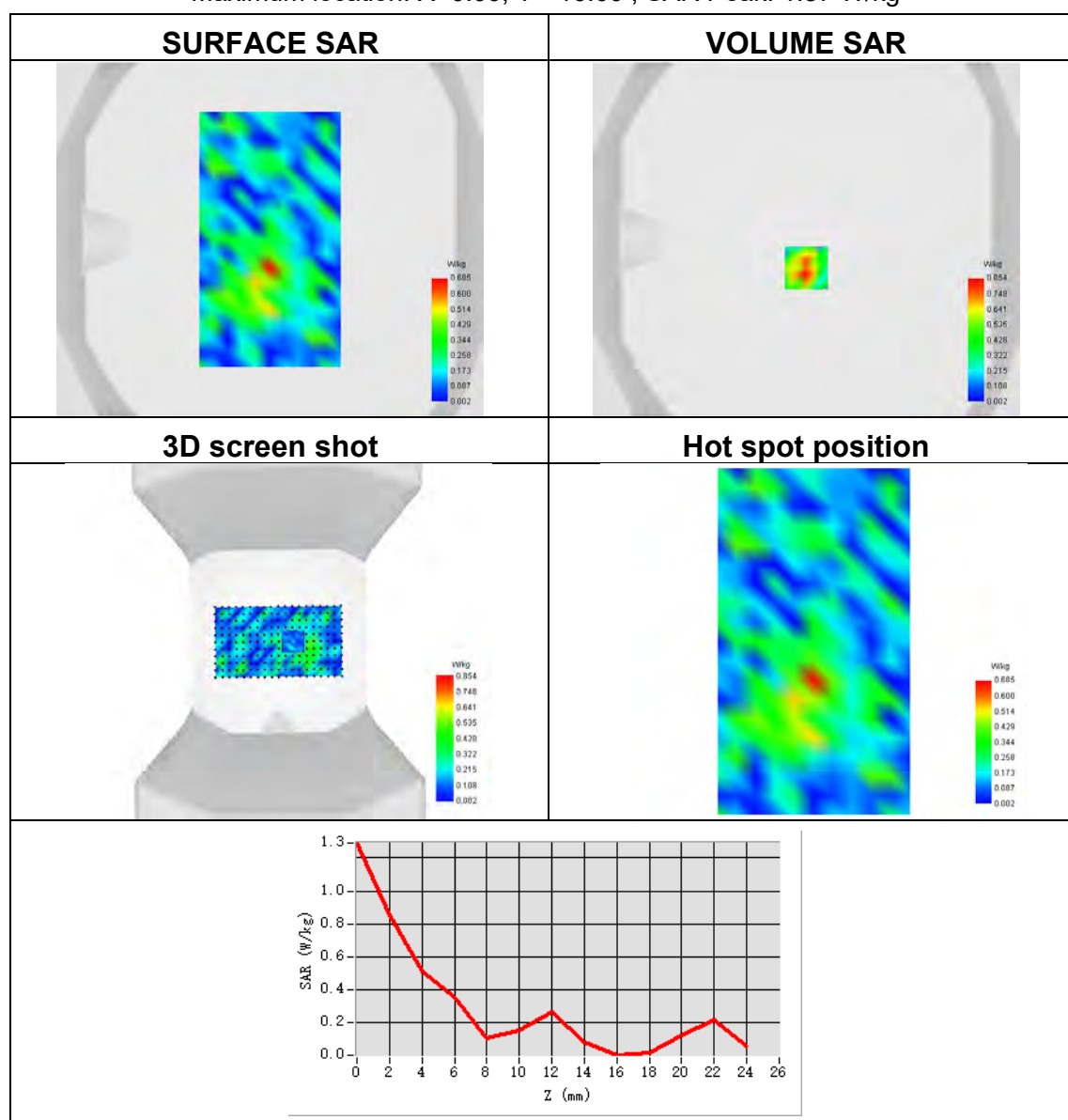




Plot 15:

Test Date	2024-02-20
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Left Side
Band	U-NII-1
Signal	IEEE 802.11a
Frequency	5180
SAR 10g (W/Kg)	0.187
SAR 1g (W/Kg)	0.441
Relative permittivity	35.60
Conductivity (S/m)	4.61
ConvF	1.98

Maximum location: X=0.00, Y=-16.00 ; SAR Peak: 1.87 W/kg

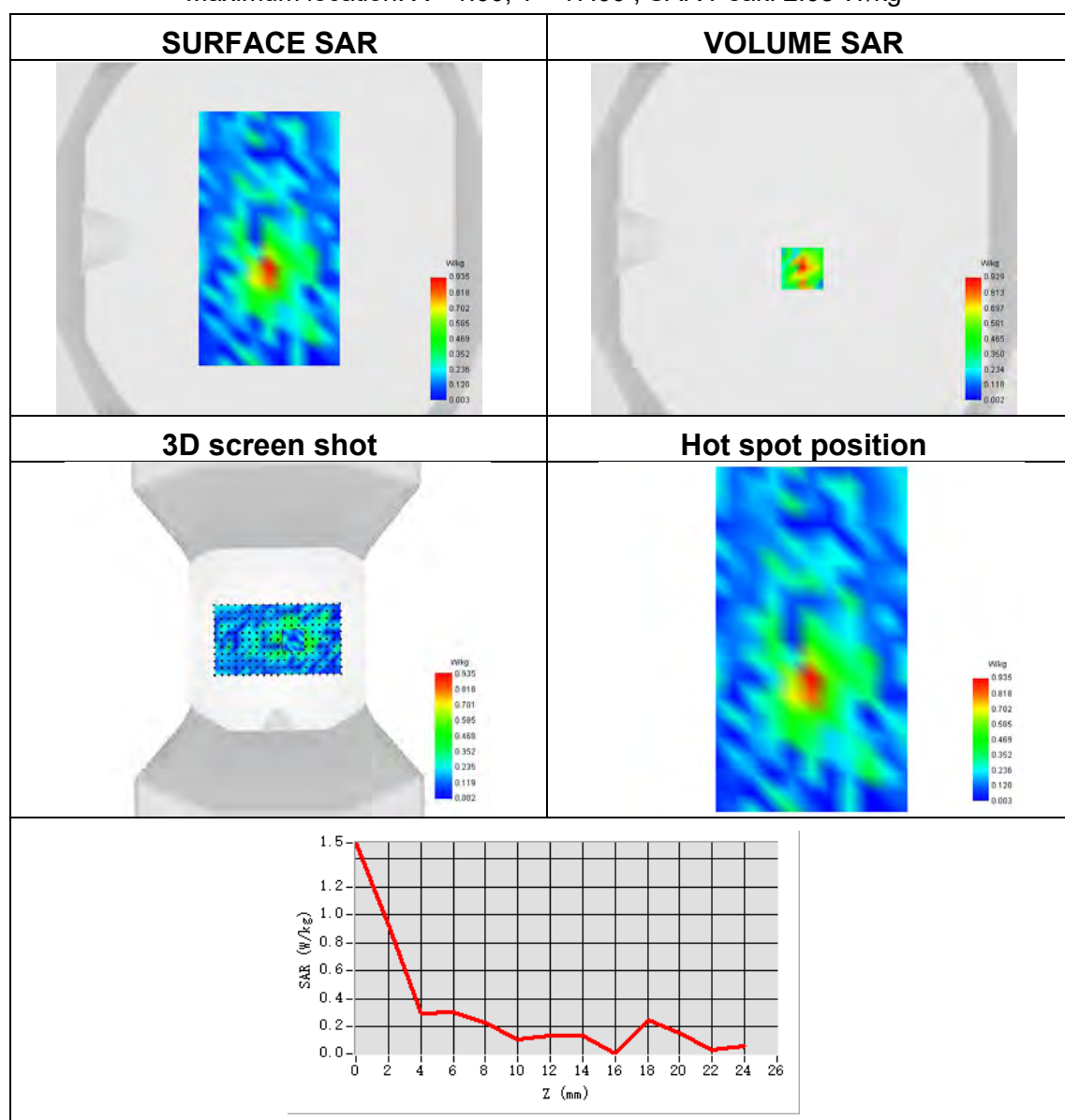




Plot 16:

Test Date	2024-02-21
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Left Side
Band	U-NII-2
Signal	IEEE 802.11a
Frequency	5260
SAR 10g (W/Kg)	0.246
SAR 1g (W/Kg)	0.507
Relative permittivity	36.77
Conductivity (S/m)	4.75
ConvF	1.83

Maximum location: X=-1.00, Y=-17.00 ; SAR Peak: 2.68 W/kg

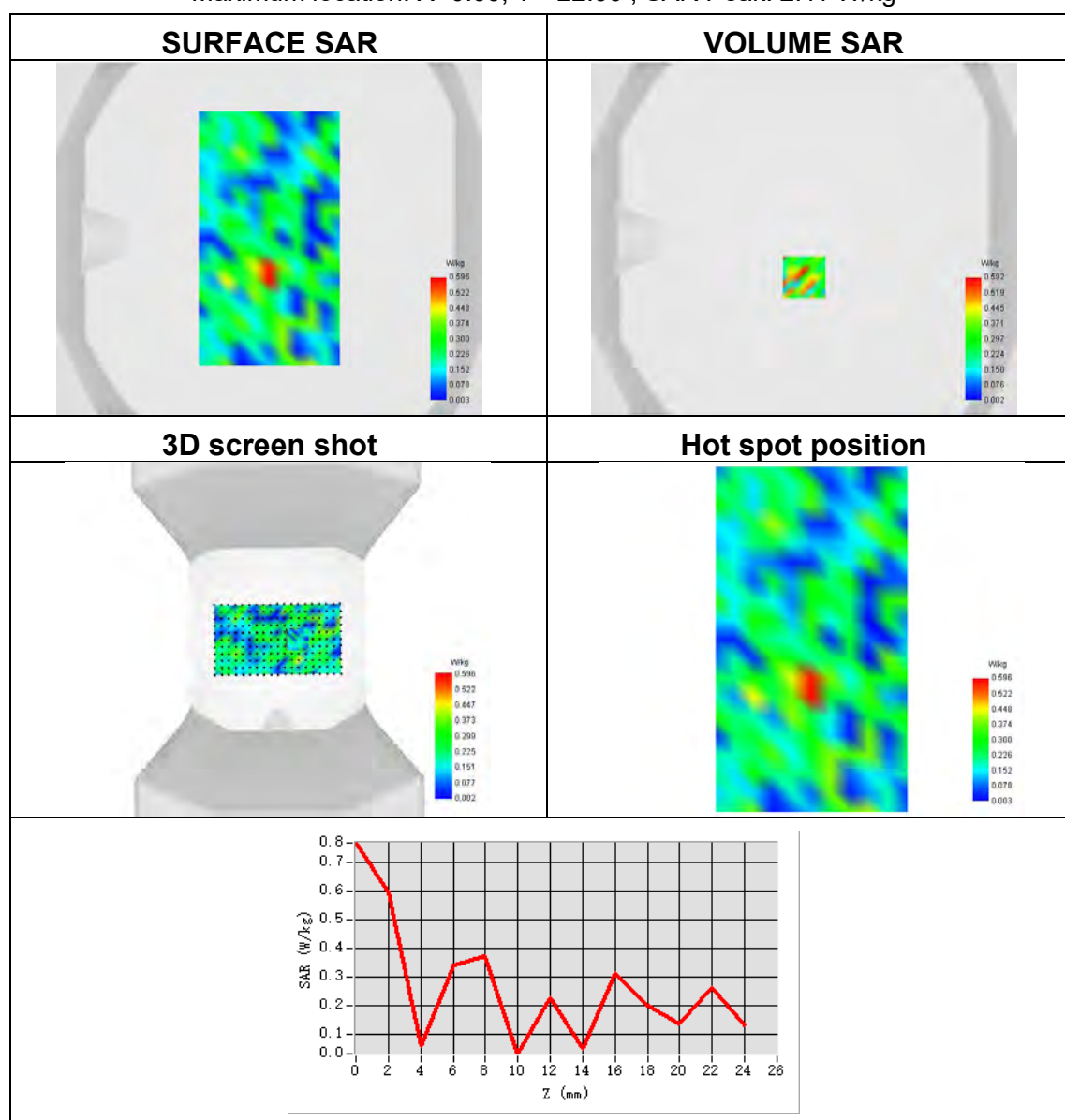




Plot 17:

Test Date	2024-02-21
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Left Side
Band	U-NII-4
Signal	IEEE 802.11a
Frequency	5745
SAR 10g (W/Kg)	0.166
SAR 1g (W/Kg)	0.353
Relative permittivity	35.58
Conductivity (S/m)	5.20
ConvF	1.71

Maximum location: X=0.00, Y=-22.00 ; SAR Peak: 2.11 W/kg





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※