



SAR TEST REPORT

Product Name: Smart phone

Model Name: TANK MINI 1, iHunt Titan Mini

Issued For : Shenzhen OBLUE Communication Technology Co.,Ltd.
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Head: 0.317 W/kg

Max. SAR (10g):
Body: 0.452 W/kg

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Revision History

Rev.	Issue Date	Contents
00	Jan. 19, 2024	Initial Issue



TEST REPORT CERTIFICATION

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Product Name Smart phone
Trademark 8849, Unihertz, iHunt
Model Name TANK MINI 1, iHunt Titan Mini
Sample number LGT2312084-4

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
EN 50360: 2017; EN 50566: 2017; EN IEC/IEEE 62209-1528: 2021; EN 50663: 2017; EN 62479: 2010	PASS

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1. General Information

1.1 EUT Description

Product Name	Smart phone		
Trademark	8849, Unihertz, iHunt		
Model Name	TANK MINI 1		
Series Model	iHunt Titan Mini		
Model Difference	Different trade and model name.		
Hardware Version	G95_V1.1		
Software Version	TANK_MINI_1_EEA_20240108		
Frequency Range	GSM 900: 880 MHz to 915 MHz GSM1800: 1710 MHz to 1785 MHz WCDMA Band I: 1920 MHz to 1980 MHz WCDMA Band VIII: 880 MHz to 915 MHz LTE Band 1: 1920 MHz to 1980 MHz LTE Band 3: 1710 MHz to 1785 MHz LTE Band 7: 2500 MHz to 2570 MHz LTE Band 8: 880 MHz to 915 MHz LTE Band 20: 832 MHz to 862 MHz LTE Band 28: 703 MHz to 748 MHz LTE Band 34: 2010MHz to 2025MHz LTE Band 38: 2570 MHz to 2620 MHz LTE Band 40: 2305 MHz to 2400MHz WLAN 802.11b/g/n20: 2412 to 2472MHz WLAN 802.11n40: 2422 to 2462MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 to 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 to 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5470 to 5725 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 to 5850 MHz Bluetooth: 2402 MHz to 2480 MHz GPS: 1575.42MHz FM: 87.5 MHz to 108 MHz BDS: 1561.098MHz GLONASS: 1602 MHz GALILEO: 1575.42 MHz NFC: 13.56MHz		
Max. Reported SAR (10g)	Mode	Head (W/ kg)	Body Worn and Hotspot(W/Kg)
	GSM 900	0.077	0.396
	GSM 1800	0.021	0.121
	WCDMA Band I	0.022	0.042
	WCDMA Band VIII	0.040	0.090
	LTE Band 1	0.024	0.036
	LTE Band 3	0.041	0.150
	LTE Band 7	0.090	0.452
	LTE Band 8	0.061	0.109
	LTE Band 20	0.043	0.085
	LTE Band 28	0.053	0.078
	LTE Band 34	0.024	0.034



	LTE Band 38	0.073	0.447
	LTE Band 40	0.061	0.201
	2.4GHz WLAN	0.113	0.095
	5.2GHz WLAN	0.165	0.169
	5.3GHz WLAN	0.122	0.158
	5.6GHz WLAN	0.317	0.224
	5.8GHz WLAN	0.312	0.336
	Limit	2.0 W/kg	
Battery	Rated Capacity: 5300mAh Rated Voltage: 3.87V		
Description test modes	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested		
Modulation Mode	GSM	GMSK for GSM/GPRS	
	WCDMA	QPSK; HSDPA: QPSK/16QAM; HSUPA: BPSK	
	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/n(OFDM): BPSK, QPSK,16-QAM,64-QAM 802.11ac (OFDM): BPSK, QPSK,16-QAM,64-QAM,256-QAM	
	Bluetooth	BT(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -DQPSK BT EDR(3Mbps): 8DPSK	
	BLE	GFSK	
	GPS	BPSK	
	FM	FM	
	BDS	QPSK	
	GLONASS	FDMA	
	GALILEO	CBOC	
	NFC	ASK	
Power control level	GSM900: 5, DCS1800: 0		
Power class	GSM900: 4, GSM1800: 1		
Antenna Specification	GSM/WCDMA/LTE: FPC Antenna Bluetooth: FPC Antenna WLAN: FPC Antenna FM: Integrated Antenna GNSS: FPC Antenna		
Operating Mode	Maximum continuous output		



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, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	FCC Registration No.: 746540
	A2LA Certificate No.: 6727.01
	IC Registration No.: CN0136



2. Test Standards and Limits

No.	Identity	Document Title
1	EN 50360: 2017	Product standard to demonstrate the compliance of wireless communication devices, with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 300 MHz to 6 GHz: devices used next to the ear
2	EN 50566: 2017	Product standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz: hand-held and body mounted devices in close proximity to the human body
3	EN IEC/IEEE 62209-1528: 2021	Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)
4	EN 50663: 2017	Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10MHz to 300GHz)
5	EN 62479: 2010	Assessment of the compliance of low-power electronic and electrical equipment with the restrictions related to human exposure to electromagnetic fields (10MHz to 300 GHz)

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. According to EN 50360 and 1999/519/EC the limit for General Population/Uncontrolled exposure should be applied for this device, it is 2.0 W/kg as averaged over any 10 gram of tissue.

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

<u>Whole-Body</u>	<u>Partial-Body</u>	<u>Hands, Wrists, Feet and Ankles</u>
0.4	8.0	20.0

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

<u>Whole-Body</u>	<u>Partial-Body</u>	<u>Hands, Wrists, Feet and Ankles</u>
0.08	2.0	4.0

NOTE: **Whole-Body SAR** is averaged over the entire body, **partial-body SAR** is averaged over any 10 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
2.0 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

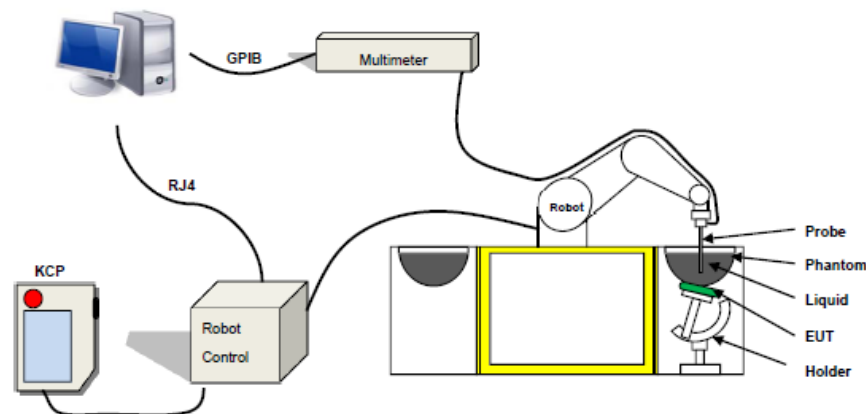
$$SAR = \frac{\sigma E^2}{\rho}$$

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 Open SAR software computes the results to give a SAR value in a 1g or 10g mass.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 04/22 EPGO364 with following specifications is used

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



Figure 1-MVG COMOSAR Dosimetric E field Probe

3.2.2 Phantom

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

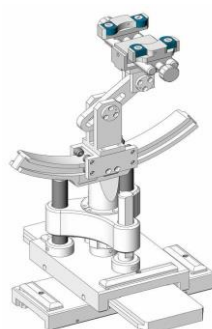


Figure-SN 06/22 SAM 148



Figure-SN 06/22 ELLI 51

3.2.3 Device Holder



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



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine 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 10 g averaging, the maximum weighting coefficient for SAR is 0,5.

EN 62209 RECOMMENDED TISSUE DIELECTRIC PARAMETERS

The head and body tissue dielectric parameters recommended by the EN 62209 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]					
2023-12-27	22.1	48	750	21.8	Permittivity	42.06	43.02	2.28	±10
					Conductivity	0.89	0.94	5.86	±10
2023-12-19	21.1	51	835	20.8	Permittivity	41.50	40.93	-1.37	±10
					Conductivity	0.90	0.91	1.11	±10
2023-12-26	21.3	52	1800	21.1	Permittivity	40.00	40.36	0.90	±10
					Conductivity	1.40	1.37	-2.14	±10
2023-12-23	22.7	45	1900	22.4	Permittivity	40.00	41.28	3.20	±10
					Conductivity	1.40	1.41	0.71	±10
2023-12-20	21.8	40	2000	21.5	Permittivity	40.00	40.49	1.23	±10
					Conductivity	1.40	1.46	4.29	±10
2023-12-24	22	40	2450	21.7	Permittivity	39.20	40.23	2.63	±10
					Conductivity	1.80	1.82	1.11	±10
2023-12-22	23.5	45	2600	23.2	Permittivity	39.00	40.15	2.95	±10
					Conductivity	1.96	1.92	-2.04	±10
2024-01-09	22.9	59	5200	22.6	Permittivity	36.00	36.17	0.47	±10
					Conductivity	4.66	4.63	-0.64	±10
2024-01-12	20.3	60	5400	20	Permittivity	35.80	35.95	0.42	±10
					Conductivity	4.86	4.83	-0.62	±10
2024-01-09	23	59	5600	22.6	Permittivity	35.55	35.89	0.96	±10
					Conductivity	5.07	5.11	0.89	±10
2024-01-14	22.9	59	5800	22.6	Permittivity	35.30	36.20	2.55	±10
					Conductivity	5.27	5.24	-0.57	±10

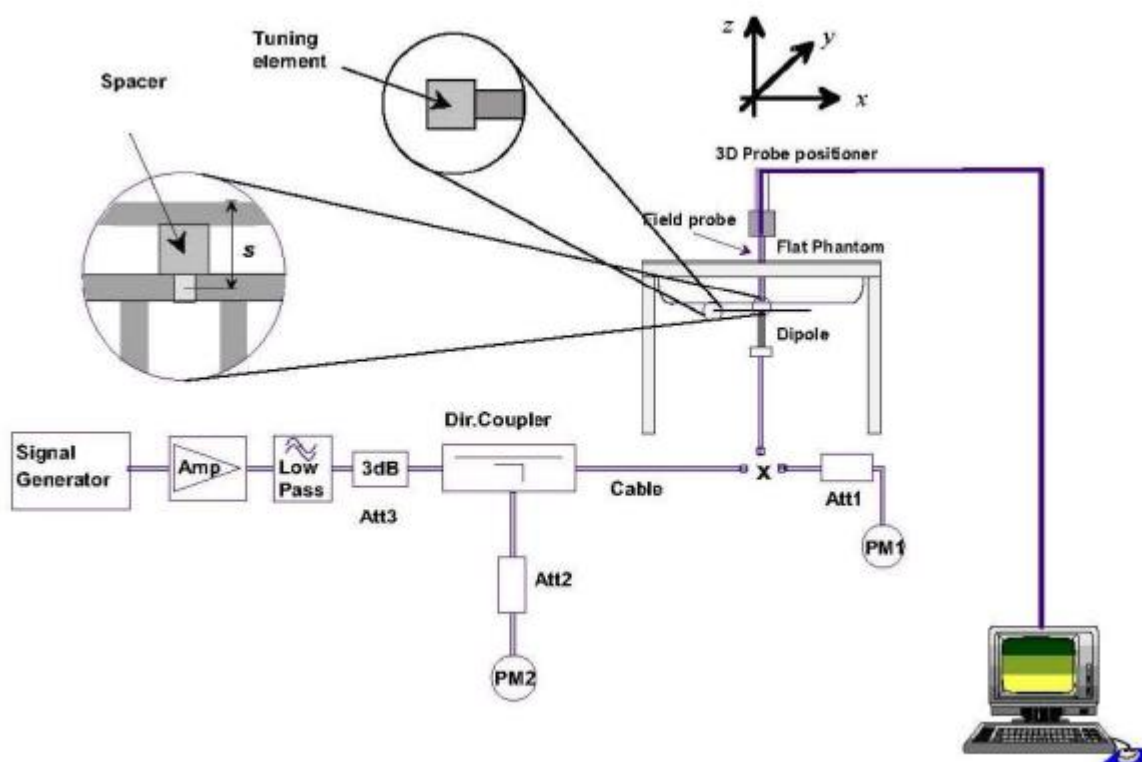


5. SAR System Validation

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. (MHz)	Power (mW)	Power drift (%)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target SAR10g (W/kg)	Tolerance (%)
2023-12-27	750	100	-3.84	0.566	5.66	5.40	4.81
2023-12-19	835	100	0.03	0.633	6.33	6.16	2.76
2023-12-26	1800	100	-2.35	2.064	20.64	20.45	0.93
2023-12-23	1900	100	1.68	2.045	20.45	20.67	-1.06
2023-12-20	2000	100	3.44	2.079	20.79	20.89	-0.48
2023-12-24	2450	100	-3.77	2.381	23.81	23.71	0.42
2023-12-22	2600	100	1.36	2.456	24.56	24.15	1.70
2024-01-09	5200	100	0.37	2.187	21.87	21.82	0.23
2024-01-12	5400	100	-2.22	2.260	22.60	22.45	0.67
2024-01-09	5600	100	1.50	2.226	22.26	22.11	0.68
2024-01-14	5800	100	0.77	2.124	21.24	21.39	-0.70



6. SAR Evaluation Procedures

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

- 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:

For handsets operating above 300 MHz evaluated with the homogeneous head model, the SAR distribution is measured on a two-dimensional coarse grid at a fixed separation distance of less than 8 mm from the surface of the phantom shell. The scan region should cover all areas that are exposed and encompassed by the projection of the handset. In order to maintain a fixed distance of less than 8 mm from the surface to within ± 1 mm, as required by the measurement protocol, the exact shape and dimensions of the phantom inner surface shall be known, pre-calibrated, or preferably detected during the SAR measurement with a mechanical or optical surface-detection mechanism that meets the probe positioning requirements. This evaluation technique determines the maximum spacing between the grid points, i.e., it has been found that a 20 mm $\times$ 20 mm grid is usually sufficient to achieve the required precision if two staggered one-dimensional cubic splines are used to locate the maximum SAR location;.

The maximum local SAR is evaluated on an interpolated grid at 1 mm to 2 mm resolution during the zoom scan. A zoom-scan volume of 32 mm $\times$ 32 mm $\times$ 30 mm, consisting of 5 $\times$ 5 $\times$ 7 points with the center at the peak SAR location determined during the area scan, can be chosen. Although a scan resolution of 8 mm is sufficient for directions parallel to the surface, 5 mm is needed in the direction normal to the surface of the phantom to achieve the required extrapolation accuracy.



7. EUT Test Position

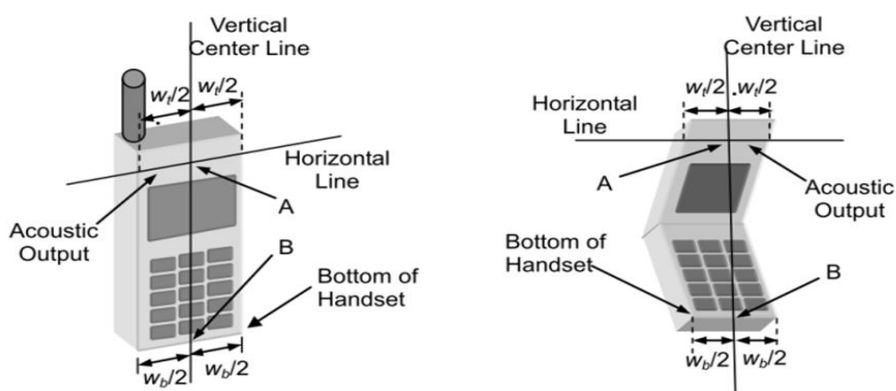
This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Front Face and Rear Face.

Define Two Imaginary Lines On The Handset:

1) The vertical centerline passes through two points on the front side of the handset: the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the handset.

2) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

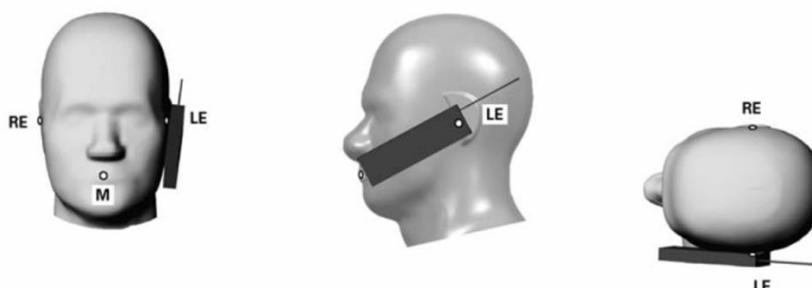
3) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



7.1 Cheek Position

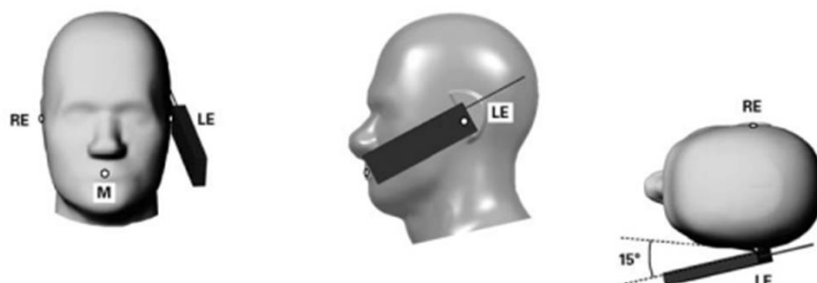
1) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the earpiece with the line RE-LE.

2) To move the device towards the phantom with the earpiece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.



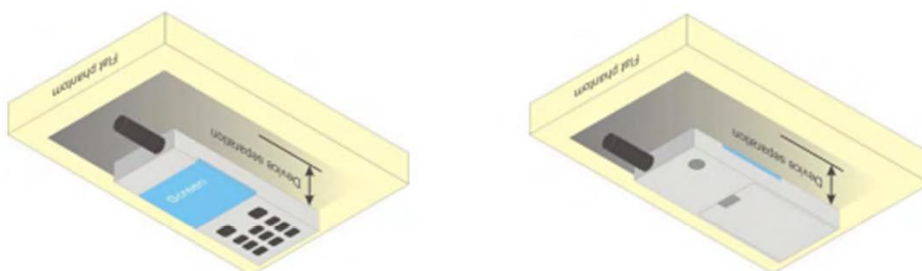
7.2 Tilt Position

- (1) To position the device in the “cheek” position described above.
- (2) While maintaining the device in the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until with the ear is lost.



7.3 Body-worn Position Conditions

- 1) To position the EUT parallel to the phantom surface.
- 2) To adjust the EUT parallel to the flat phantom.
- 3) To adjust the distance between the EUT surface and the flat phantom to 5mm.





8. Uncertainty

8.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in EN/IEC IEC 62209-1528. 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)								
$C(\epsilon', \sigma)$	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	
$u(\Delta SAR)$	Combined uncertainty						9.53	
U	Expanded uncertainty and effective degrees of freedom					U =	19.06	



9. Conducted Power Measurement

Test Result:

RF Output Power (dBm)						
Band	GSM 900			DCS 1800		
Channel	975	62	124	512	700	885
Frequency (MHz)	880.2	902.4	914.8	1710.2	1747.8	1784.8
GSM (GMSK, 1-Slot)	33.26	33.88	33.36	30.86	30.81	30.89
GPRS (GMSK, 1-Slot)	29.52	30.11	29.55	26.38	26.25	26.39
GPRS (GMSK, 2-Slot)	29.54	30.13	29.60	26.39	26.25	26.39
GPRS (GMSK, 3-Slot)	29.56	30.17	29.60	26.38	26.24	26.38
GPRS (GMSK, 4-Slot)	29.59	30.18	29.63	26.38	26.24	26.38
Remark: GPRS, CS4 coding scheme. Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link						

Frame- RF Output Power (dBm)						
Band	GSM 900			DCS 1800		
Channel	975	62	124	512	700	885
Frequency (MHz)	880.2	902.4	914.8	1710.2	1747.8	1784.8
GSM (GMSK, 1-Slot)	24.23	24.85	24.33	21.83	21.78	21.86
GPRS (GMSK, 1-Slot)	20.49	21.08	20.52	17.35	17.22	17.36
GPRS (GMSK, 2-Slot)	23.52	24.11	23.58	20.37	20.23	20.37
GPRS (GMSK, 3-Slot)	25.30	25.91	25.34	22.12	21.98	22.12
GPRS (GMSK, 4-Slot)	26.58	27.17	26.62	23.37	23.23	23.37
Remark: 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum Burst-averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB Frame-averaged power = Burst averaged power (3 TX Slots) – 4.26 dB Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB						



WCDMA

As the SAR body tests for WCDMA, we established the radio link through call processing. The maximum output power were verified on high, middle and low channels for each test band according to 3GPP TS 34.121 with the following configuration: a 12.2kbps RMC, 64,144,384 kbps RMC with TPC set to all “all ‘1’s”b Test loop Mode 1

The following procedures had been used to prepare the EUT for the SAR test.

Band	WCDMA Band I			WCDMA Band VIII		
Channel	9612	9750	9888	2712	2787	2863
Frequency (MHz)	1922.4	1950	1977.6	882.4	897.4	912.6
RMC 12.2Kbps	23.29	25.35	25.18	23.52	23.46	23.36
HSDPA Subtest-1	22.55	22.95	22.86	22.73	22.71	22.60
HSDPA Subtest-2	22.36	22.66	22.49	24.34	22.12	23.60
HSDPA Subtest-3	21.40	21.55	21.54	24.27	21.52	23.45
HSDPA Subtest-4	21.16	21.78	21.54	24.24	21.45	23.46
HSUPA Subtest-1	22.40	22.64	22.62	21.89	22.63	23.17
HSUPA Subtest-2	22.47	22.86	22.62	22.44	22.65	23.14
HSUPA Subtest-3	21.53	21.80	21.87	23.79	21.49	19.38
HSUPA Subtest-4	22.54	22.94	22.84	22.72	22.73	22.64
HSUPA Subtest-5	22.12	22.33	21.85	21.33	22.12	21.74



WLAN (2.4G band)

- The client supplied a special driver to program the EUT, allowing it to continually transmit the specified maximum power and change the channel frequency.
- Maximum conducted power was measured by replacing the antenna with an adapter for conductive measurement.
- The conducted power was measured at the high, middle and low channel frequency before and after the SAR measurement.
- During SAR test, the highest output channel per band measured first, and then if necessary, the other channels were measured according to the normal procedures.

Output power (dBm):

2.4G WIFI				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11b	1	2412	15.45	35.08
	7	2442	15.43	34.91
	13	2472	14.89	30.83
802.11g	1	2412	13.54	22.59
	7	2442	13.59	22.86
	13	2472	12.76	18.88
802.11 n- HT20	1	2412	11.57	14.35
	7	2442	11.88	15.42
	13	2472	10.84	12.13
802.11 n- HT40	3	2422	11.94	15.63
	7	2442	11.87	15.38
	11	2462	11.41	13.84



5.2GHz WLAN

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	36	5180	16.05	40.27
802.11n-HT20	36	5180	12.67	18.49
802.11n-HT40	38	5190	12.17	16.48
802.11ac80	42	5210	11.94	15.63

5.3GHz WLAN

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	64	5320	15.39	34.59
802.11n-HT20	64	5320	12.55	17.99
802.11n-HT40	62	5310	12.41	17.42
802.11ac80	58	5290	13.16	20.70

5.6G WLAN

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	100	5500	17.07	50.93
	140	5700	15.45	35.08
802.11n-HT20	100	5500	14.21	26.36
	140	5700	12.71	18.66
802.11n-HT40	102	5510	13.84	24.21
	134	5670	12.55	17.99
802.11ac80	106	5530	11.64	14.59
	122	5610	11.46	14.00

5.8G WLAN

5.8G WLAN				
Mode	Channel Number	Frequency (MHz)	Output Power (dBm)	Output Power (mW)
802.11a	149	5745	12.78	18.97
	157	5785	12.53	17.91
	165	5825	12.40	17.38
802.11n-HT20	149	5745	11.41	13.84
	157	5785	11.16	13.06
	165	5825	11.40	13.80
802.11n-HT40	151	5755	11.66	14.66
	159	5795	11.20	13.18
802.11ac80	155	5775	11.31	13.52



Bluetooth

Mode	Output Power (dBm)	Output Power (mW)
GFSK(1Mbps)	6.75	4.73
QPSK(2Mbps)	3.62	2.30
8DPSK(3Mbps)	3.56	2.27

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	2.71	1.87
	19	2440	4.60	2.88
	39	2480	3.08	2.03
GFSK(2Mbps)	0	2402	2.69	1.86
	19	2440	4.58	2.87
	39	2480	3.06	2.02

*Note: According to EN50663 and EN 62479, the available antenna power of this EUT BT is **6.75dBm (4.73mW)**, this power is less than the defined low power exclusion level (P_{max} : **20 mW**), so BT do not need stand-alone SAR.*



LTE output list

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band1	5	18025	1	#0	QPSK	22.13	PASS
Band1	5	18025	1	#Max	QPSK	22.28	PASS
Band1	5	18025	8	#0	QPSK	22.16	PASS
Band1	5	18025	8	#Max	QPSK	22.33	PASS
Band1	5	18300	1	#0	QPSK	22.64	PASS
Band1	5	18300	1	#Max	QPSK	22.45	PASS
Band1	5	18300	8	#0	QPSK	22.51	PASS
Band1	5	18300	8	#Max	QPSK	22.72	PASS
Band1	5	18575	1	#0	QPSK	22.44	PASS
Band1	5	18575	1	#Max	QPSK	22.3	PASS
Band1	5	18575	8	#0	QPSK	22.37	PASS
Band1	5	18575	8	#Max	QPSK	22.38	PASS
Band1	20	18100	1	#0	QPSK	22.07	PASS
Band1	20	18100	1	#Max	QPSK	22.54	PASS
Band1	20	18100	18	#0	QPSK	22.17	PASS
Band1	20	18100	18	#Max	QPSK	22.69	PASS
Band1	20	18300	1	#0	QPSK	22.78	PASS
Band1	20	18300	1	#Max	QPSK	22.63	PASS
Band1	20	18300	18	#0	QPSK	22.7	PASS
Band1	20	18300	18	#Max	QPSK	22.52	PASS
Band1	20	18500	1	#0	QPSK	22.65	PASS
Band1	20	18500	1	#Max	QPSK	22.48	PASS
Band1	20	18500	18	#0	QPSK	22.61	PASS
Band1	20	18500	18	#Max	QPSK	22.52	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band3	1.4	19207	1	#0	QPSK	22.72	PASS
Band3	1.4	19207	1	#Max	QPSK	22.63	PASS
Band3	1.4	19207	5	#0	QPSK	22.71	PASS
Band3	1.4	19207	5	#Max	QPSK	22.59	PASS
Band3	1.4	19575	1	#0	QPSK	22.97	PASS
Band3	1.4	19575	1	#Max	QPSK	22.77	PASS
Band3	1.4	19575	5	#0	QPSK	23.04	PASS
Band3	1.4	19575	5	#Max	QPSK	23.04	PASS
Band3	1.4	19943	1	#0	QPSK	22.54	PASS
Band3	1.4	19943	1	#Max	QPSK	22.58	PASS
Band3	1.4	19943	5	#0	QPSK	22.67	PASS
Band3	1.4	19943	5	#Max	QPSK	22.68	PASS
Band3	5	19225	1	#0	QPSK	22.67	PASS
Band3	5	19225	1	#Max	QPSK	22.8	PASS
Band3	5	19225	8	#0	QPSK	22.81	PASS
Band3	5	19225	8	#Max	QPSK	22.82	PASS
Band3	5	19575	1	#0	QPSK	23.01	PASS
Band3	5	19575	1	#Max	QPSK	23.23	PASS
Band3	5	19575	8	#0	QPSK	23.16	PASS
Band3	5	19575	8	#Max	QPSK	23.16	PASS
Band3	5	19925	1	#0	QPSK	22.77	PASS
Band3	5	19925	1	#Max	QPSK	22.81	PASS
Band3	5	19925	8	#0	QPSK	22.87	PASS
Band3	5	19925	8	#Max	QPSK	22.84	PASS
Band3	20	19300	1	#0	QPSK	22.68	PASS
Band3	20	19300	1	#Max	QPSK	23.1	PASS
Band3	20	19300	18	#0	QPSK	22.76	PASS
Band3	20	19300	18	#Max	QPSK	23.19	PASS
Band3	20	19575	1	#0	QPSK	22.99	PASS
Band3	20	19575	1	#Max	QPSK	23.35	PASS
Band3	20	19575	18	#0	QPSK	23.02	PASS
Band3	20	19575	18	#Max	QPSK	23.38	PASS
Band3	20	19850	1	#0	QPSK	23.1	PASS
Band3	20	19850	1	#Max	QPSK	23	PASS
Band3	20	19850	18	#0	QPSK	23.13	PASS
Band3	20	19850	18	#Max	QPSK	22.87	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band7	5	20775	1	#0	QPSK	24.51	PASS
Band7	5	20775	1	#Max	QPSK	24.62	PASS
Band7	5	20775	8	#0	QPSK	24.57	PASS
Band7	5	20775	8	#Max	QPSK	24.75	PASS
Band7	5	21100	1	#0	QPSK	25.06	PASS
Band7	5	21100	1	#Max	QPSK	25.01	PASS
Band7	5	21100	8	#0	QPSK	25.16	PASS
Band7	5	21100	8	#Max	QPSK	25.1	PASS
Band7	5	21425	1	#0	QPSK	24.59	PASS
Band7	5	21425	1	#Max	QPSK	24.56	PASS
Band7	5	21425	8	#0	QPSK	24.79	PASS
Band7	5	21425	8	#Max	QPSK	24.74	PASS
Band7	20	20850	1	#0	QPSK	24.49	PASS
Band7	20	20850	1	#Max	QPSK	25.17	PASS
Band7	20	20850	18	#0	QPSK	24.39	PASS
Band7	20	20850	18	#Max	QPSK	24.95	PASS
Band7	20	21100	1	#0	QPSK	25.17	PASS
Band7	20	21100	1	#Max	QPSK	25.27	PASS
Band7	20	21100	18	#0	QPSK	24.97	PASS
Band7	20	21100	18	#Max	QPSK	24.96	PASS
Band7	20	21350	1	#0	QPSK	24.89	PASS
Band7	20	21350	1	#Max	QPSK	24.92	PASS
Band7	20	21350	18	#0	QPSK	24.84	PASS
Band7	20	21350	18	#Max	QPSK	24.7	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band8	1.4	21457	1	#0	QPSK	24.79	PASS
Band8	1.4	21457	1	#Max	QPSK	24.76	PASS
Band8	1.4	21457	5	#0	QPSK	24.68	PASS
Band8	1.4	21457	5	#Max	QPSK	24.73	PASS
Band8	1.4	21625	1	#0	QPSK	24.88	PASS
Band8	1.4	21625	1	#Max	QPSK	24.75	PASS
Band8	1.4	21625	5	#0	QPSK	24.94	PASS
Band8	1.4	21625	5	#Max	QPSK	24.83	PASS
Band8	1.4	21793	1	#0	QPSK	24.25	PASS
Band8	1.4	21793	1	#Max	QPSK	24.2	PASS
Band8	1.4	21793	5	#0	QPSK	24.31	PASS
Band8	1.4	21793	5	#Max	QPSK	24.23	PASS
Band8	5	21475	1	#0	QPSK	24.87	PASS
Band8	5	21475	1	#Max	QPSK	25.03	PASS
Band8	5	21475	8	#0	QPSK	24.86	PASS
Band8	5	21475	8	#Max	QPSK	25.2	PASS
Band8	5	21625	1	#0	QPSK	25.24	PASS
Band8	5	21625	1	#Max	QPSK	24.95	PASS
Band8	5	21625	8	#0	QPSK	25.18	PASS
Band8	5	21625	8	#Max	QPSK	24.95	PASS
Band8	5	21775	1	#0	QPSK	24.75	PASS
Band8	5	21775	1	#Max	QPSK	24.25	PASS
Band8	5	21775	8	#0	QPSK	24.94	PASS
Band8	5	21775	8	#Max	QPSK	24.42	PASS
Band8	10	21500	1	#0	QPSK	24.9	PASS
Band8	10	21500	1	#Max	QPSK	25.28	PASS
Band8	10	21500	12	#0	QPSK	25.02	PASS
Band8	10	21500	12	#Max	QPSK	25.3	PASS
Band8	10	21625	1	#0	QPSK	25.24	PASS
Band8	10	21625	1	#Max	QPSK	24.88	PASS
Band8	10	21625	12	#0	QPSK	25.3	PASS
Band8	10	21625	12	#Max	QPSK	24.86	PASS
Band8	10	21750	1	#0	QPSK	24.86	PASS
Band8	10	21750	1	#Max	QPSK	24.54	PASS
Band8	10	21750	12	#0	QPSK	24.73	PASS
Band8	10	21750	12	#Max	QPSK	24.57	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band20	5	24175	1	#0	QPSK	20.62	PASS
Band20	5	24175	1	#Max	QPSK	20.92	PASS
Band20	5	24175	8	#0	QPSK	20.79	PASS
Band20	5	24175	8	#Max	QPSK	20.96	PASS
Band20	5	24300	1	#0	QPSK	21.1	PASS
Band20	5	24300	1	#Max	QPSK	21.13	PASS
Band20	5	24300	8	#0	QPSK	21.08	PASS
Band20	5	24300	8	#Max	QPSK	21.22	PASS
Band20	5	24425	1	#0	QPSK	20.75	PASS
Band20	5	24425	1	#Max	QPSK	20.55	PASS
Band20	5	24425	8	#0	QPSK	20.96	PASS
Band20	5	24425	8	#Max	QPSK	20.76	PASS
Band20	20	24250	1	#0	QPSK	20.59	PASS
Band20	20	24250	1	#Max	QPSK	21.1	PASS
Band20	20	24250	18	#0	QPSK	20.76	PASS
Band20	20	24250	18	#Max	QPSK	21.21	PASS
Band20	20	24300	1	#0	QPSK	21.08	PASS
Band20	20	24300	1	#Max	QPSK	21.02	PASS
Band20	20	24300	18	#0	QPSK	21.07	PASS
Band20	20	24300	18	#Max	QPSK	21.18	PASS
Band20	20	24350	1	#0	QPSK	20.95	PASS
Band20	20	24350	1	#Max	QPSK	20.73	PASS
Band20	20	24350	18	#0	QPSK	21.12	PASS
Band20	20	24350	18	#Max	QPSK	20.91	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band28	3	27225	1	#0	QPSK	22.28	PASS
Band28	3	27225	1	#Max	QPSK	22.72	PASS
Band28	3	27225	4	#0	QPSK	22.22	PASS
Band28	3	27225	4	#Max	QPSK	22.57	PASS
Band28	3	27435	1	#0	QPSK	23	PASS
Band28	3	27435	1	#Max	QPSK	23.17	PASS
Band28	3	27435	4	#0	QPSK	23.05	PASS
Band28	3	27435	4	#Max	QPSK	23.16	PASS
Band28	3	27645	1	#0	QPSK	22.73	PASS
Band28	3	27645	1	#Max	QPSK	23.01	PASS
Band28	3	27645	4	#0	QPSK	22.62	PASS
Band28	3	27645	4	#Max	QPSK	22.83	PASS
Band28	5	27235	1	#0	QPSK	22.37	PASS
Band28	5	27235	1	#Max	QPSK	23.2	PASS
Band28	5	27235	8	#0	QPSK	22.61	PASS
Band28	5	27235	8	#Max	QPSK	23.24	PASS
Band28	5	27435	1	#0	QPSK	23.25	PASS
Band28	5	27435	1	#Max	QPSK	23.57	PASS
Band28	5	27435	8	#0	QPSK	23.27	PASS
Band28	5	27435	8	#Max	QPSK	23.56	PASS
Band28	5	27635	1	#0	QPSK	22.68	PASS
Band28	5	27635	1	#Max	QPSK	22.97	PASS
Band28	5	27635	8	#0	QPSK	22.91	PASS
Band28	5	27635	8	#Max	QPSK	23.04	PASS
Band28	20	27310	1	#0	QPSK	22.57	PASS
Band28	20	27310	1	#Max	QPSK	23.2	PASS
Band28	20	27310	18	#0	QPSK	22.84	PASS
Band28	20	27310	18	#Max	QPSK	23.36	PASS
Band28	20	27435	1	#0	QPSK	23.22	PASS
Band28	20	27435	1	#Max	QPSK	23.95	PASS
Band28	20	27435	18	#0	QPSK	23.17	PASS
Band28	20	27435	18	#Max	QPSK	23.97	PASS
Band28	20	27560	1	#0	QPSK	23.51	PASS
Band28	20	27560	1	#Max	QPSK	23.21	PASS
Band28	20	27560	18	#0	QPSK	23.64	PASS
Band28	20	27560	18	#Max	QPSK	23.17	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band34	5	36225	1	#0	QPSK	23.52	PASS
Band34	5	36225	1	#Max	QPSK	23.63	PASS
Band34	5	36225	8	#0	QPSK	23.61	PASS
Band34	5	36225	8	#Max	QPSK	23.61	PASS
Band34	5	36275	1	#0	QPSK	23.6	PASS
Band34	5	36275	1	#Max	QPSK	23.55	PASS
Band34	5	36275	8	#0	QPSK	23.54	PASS
Band34	5	36275	8	#Max	QPSK	23.58	PASS
Band34	5	36325	1	#0	QPSK	23.41	PASS
Band34	5	36325	1	#Max	QPSK	23.55	PASS
Band34	5	36325	8	#0	QPSK	23.58	PASS
Band34	5	36325	8	#Max	QPSK	23.75	PASS
Band34	15	36275	1	#0	QPSK	23.68	PASS
Band34	15	36275	1	#Max	QPSK	23.65	PASS
Band34	15	36275	16	#0	QPSK	23.65	PASS
Band34	15	36275	16	#Max	QPSK	23.77	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band38	5	37775	1	#0	QPSK	23.33	PASS
Band38	5	37775	1	#Max	QPSK	23.46	PASS
Band38	5	37775	8	#0	QPSK	23.28	PASS
Band38	5	37775	8	#Max	QPSK	23.45	PASS
Band38	5	38000	1	#0	QPSK	23.72	PASS
Band38	5	38000	1	#Max	QPSK	23.67	PASS
Band38	5	38000	8	#0	QPSK	23.62	PASS
Band38	5	38000	8	#Max	QPSK	23.6	PASS
Band38	5	38225	1	#0	QPSK	23.4	PASS
Band38	5	38225	1	#Max	QPSK	23.43	PASS
Band38	5	38225	8	#0	QPSK	23.62	PASS
Band38	5	38225	8	#Max	QPSK	23.55	PASS
Band38	20	37850	1	#0	QPSK	23.36	PASS
Band38	20	37850	1	#Max	QPSK	23.78	PASS
Band38	20	37850	18	#0	QPSK	23.52	PASS
Band38	20	37850	18	#Max	QPSK	23.65	PASS
Band38	20	38000	1	#0	QPSK	23.72	PASS
Band38	20	38000	1	#Max	QPSK	23.84	PASS
Band38	20	38000	18	#0	QPSK	23.64	PASS
Band38	20	38000	18	#Max	QPSK	23.85	PASS
Band38	20	38150	1	#0	QPSK	23.68	PASS
Band38	20	38150	1	#Max	QPSK	23.74	PASS
Band38	20	38150	18	#0	QPSK	23.68	PASS
Band38	20	38150	18	#Max	QPSK	23.68	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Verdict
Band40	5	38675	1	#0	QPSK	23.56	PASS
Band40	5	38675	1	#Max	QPSK	23.57	PASS
Band40	5	38675	8	#0	QPSK	23.56	PASS
Band40	5	38675	8	#Max	QPSK	23.7	PASS
Band40	5	39150	1	#0	QPSK	23.45	PASS
Band40	5	39150	1	#Max	QPSK	23.5	PASS
Band40	5	39150	8	#0	QPSK	23.48	PASS
Band40	5	39150	8	#Max	QPSK	23.49	PASS
Band40	5	39625	1	#0	QPSK	23.71	PASS
Band40	5	39625	1	#Max	QPSK	23.52	PASS
Band40	5	39625	8	#0	QPSK	23.51	PASS
Band40	5	39625	8	#Max	QPSK	23.55	PASS
Band40	20	38750	1	#0	QPSK	23.72	PASS
Band40	20	38750	1	#Max	QPSK	23.88	PASS
Band40	20	38750	18	#0	QPSK	23.6	PASS
Band40	20	38750	18	#Max	QPSK	23.98	PASS
Band40	20	39150	1	#0	QPSK	23.68	PASS
Band40	20	39150	1	#Max	QPSK	23.61	PASS
Band40	20	39150	18	#0	QPSK	23.69	PASS
Band40	20	39150	18	#Max	QPSK	23.46	PASS
Band40	20	39550	1	#0	QPSK	23.82	PASS
Band40	20	39550	1	#Max	QPSK	23.57	PASS
Band40	20	39550	18	#0	QPSK	23.89	PASS
Band40	20	39550	18	#Max	QPSK	23.71	PASS



Tune up power

Mode	GSM900	GSM1800
GSM/PCS	33±1dBm	30±1dBm
GPRS (1 Slot)	29.5±1dBm	25.5±1dBm
GPRS (2 Slot)	29.5±1dBm	25.5±1dBm
GPRS (3 Slot)	29.5±1dBm	25.5±1dBm
GPRS (4 Slot)	29.5±1dBm	25.5±1dBm

Mode	WCDMA Band I	WCDMA Band VIII
RMC	24.5±1dBm	23±1dBm
HSDPA Subtest-1	22±1dBm	22±1dBm
HSDPA Subtest-2	22±1dBm	23.5±1dBm
HSDPA Subtest-3	21±1dBm	23.5±1dBm
HSDPA Subtest-4	21±1dBm	23.5±1dBm
HSUPA Subtest-1	22±1dBm	22.5±1dBm
HSUPA Subtest-2	22±1dBm	22.5±1dBm
HSUPA Subtest-3	21±1dBm	23±1dBm
HSUPA Subtest-4	22±1dBm	22±1dBm
HSUPA Subtest-5	21.5±1dBm	21.5±1dBm

Mode	BT
GFSK	6±1dBm
$\pi/4$ -DQPSK	3±1dBm
8DPSK	3±1dBm

Mode	BLE		
GFSK(1Mbps)	0	2402	2±1dBm
	19	2440	4±1dBm
	39	2480	2.5±1dBm
GFSK(2Mbps)	0	2402	2±1dBm
	19	2440	4±1dBm
	39	2480	2.5±1dBm



Mode	2.4G WLAN
802.11b	14.5±1dBm
802.11g	13±1dBm
802.11n(HT20)	11±1dBm
802.11n(HT40)	11±1dBm

Mode	5.2G WLAN
802.11a	15.5±1dBm
802.11n-HT20	12±1dBm
802.11n-HT40	11.5±1dBm
802.11ac80	11±1dBm

Mode	5.3G WLAN
802.11a	14.5±1dBm
802.11n-HT20	12±1dBm
802.11n-HT40	12±1dBm
802.11ac80	12.5±1dBm

Mode	5.6G WLAN
802.11a	16.5±1dBm
802.11n-HT20	13.5±1dBm
802.11n-HT40	13±1dBm
802.11ac80	11±1dBm

Mode	5.8G WLAN
802.11a	12±1dBm
802.11n-HT20	10.5±1dBm
802.11n-HT40	11±1dBm
802.11ac80	10.5±1dBm

BW[MHz]	Mode	Band 1	Band 3	Band 7	Band 8	Band 20
1.4	QPSK	N/A	22.5±1dBm	N/A	24±1dBm	N/A
3	QPSK	N/A	N/A	N/A	N/A	N/A
5	QPSK	22±1dBm	22.5±1dBm	24.5±1dBm	24.5±1dBm	20.5±1dBm
10	QPSK	N/A	N/A	N/A	24.5±1dBm	N/A
20	QPSK	22±1dBm	22.5±1dBm	24.5±1dBm	N/A	21±1dBm

BW[MHz]	Mode	Band 28	Band 34	Band 38	Band 40
1.4	QPSK	N/A	N/A	N/A	N/A
3	QPSK	22.5±1dBm	N/A	N/A	N/A
5	QPSK	23±1dBm	23±1dBm	23±1dBm	23±1dBm
10	QPSK	N/A	N/A	N/A	N/A
20	QPSK	23±1dBm	23±1dBm	23±1dBm	23.5±1dBm

10. Test Photos and Results

10.1 EUT Photos

Front side



Back side





Right Edge



Left Edge





Top Edge



Bottom Edge

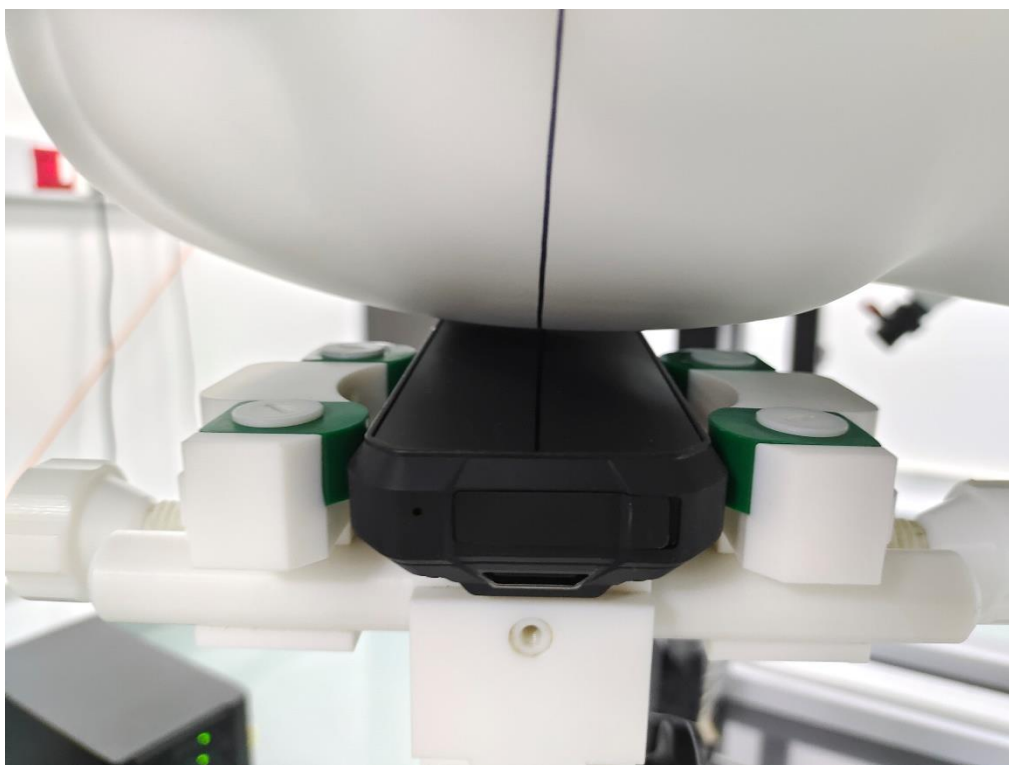


10.2 Setup Photos

Right Touch



Right Tilt



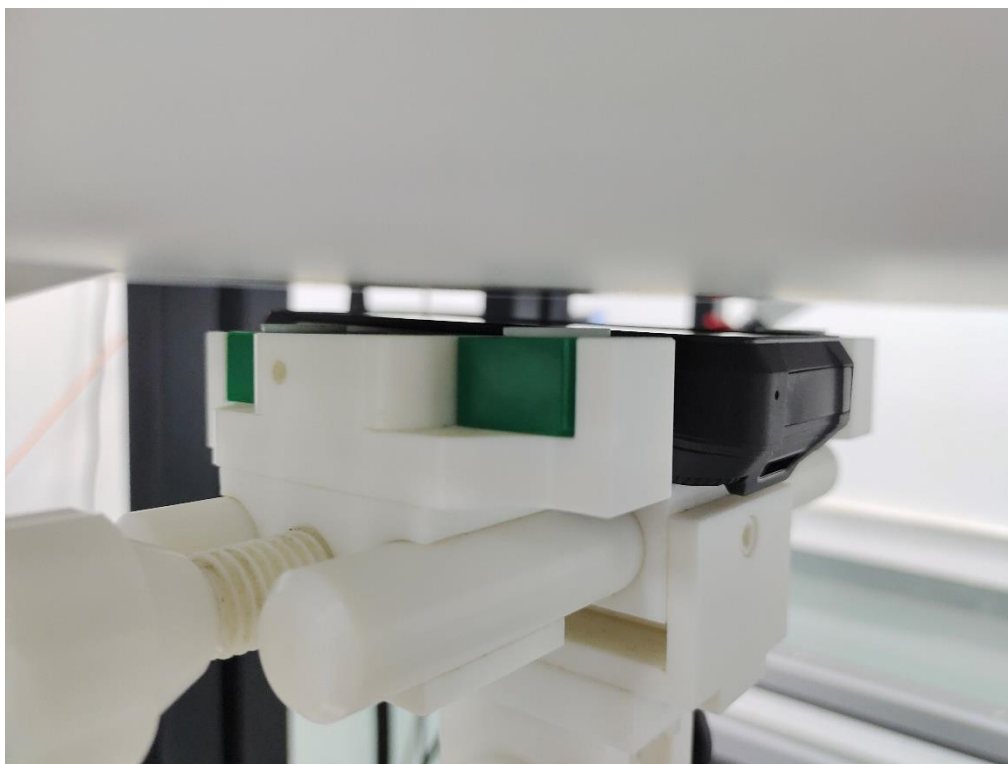
Left Touch



Left Tilt



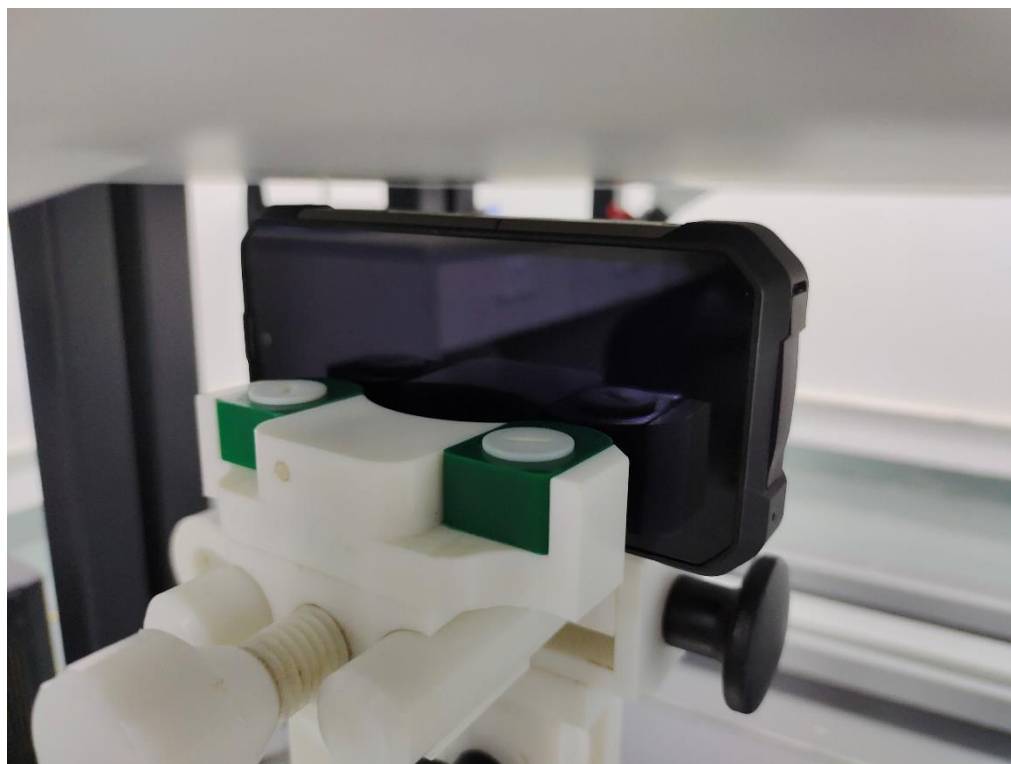
Body Front side



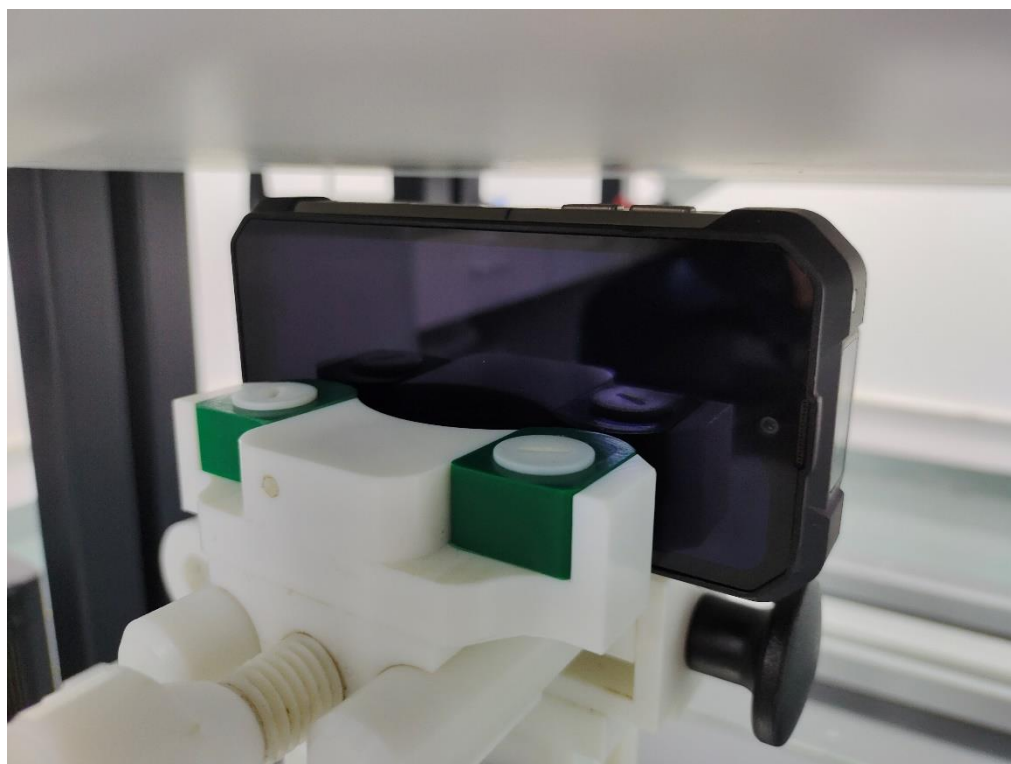
Body Back side



Body Right side

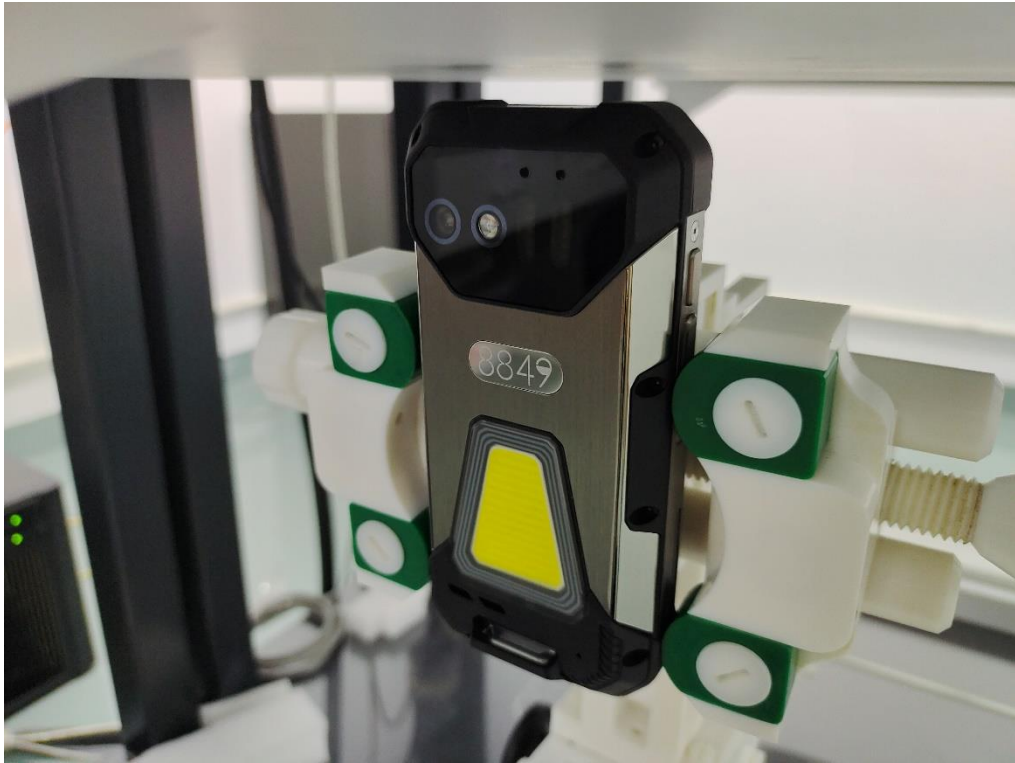


Body Left side





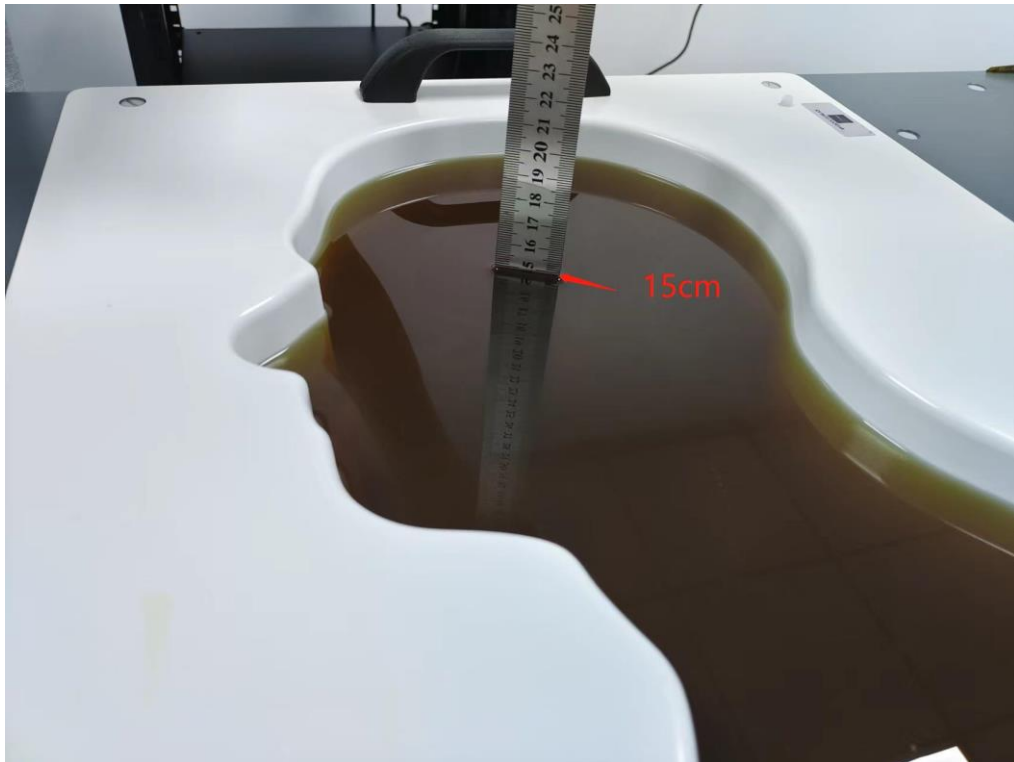
Top Edge



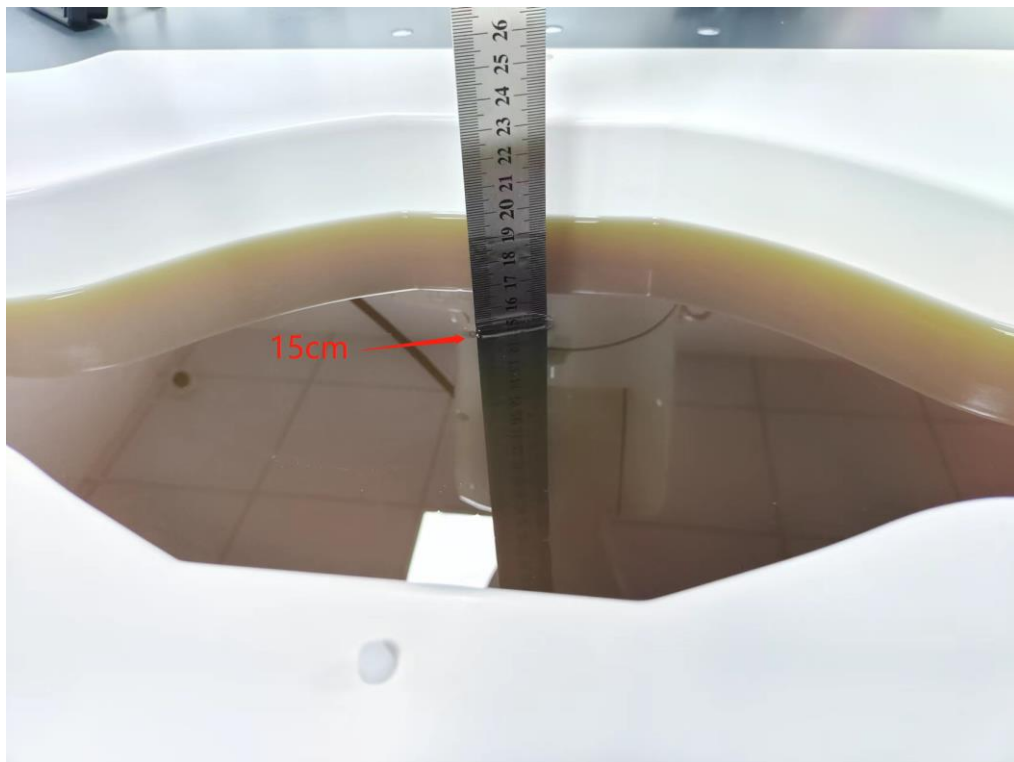
Bottom Edge



Liquid depth (15 cm)



Liquid depth (15 cm)





11. SAR Result Summary

11.1 Head SAR

Band	Model	Test Position	Freq.	SAR (10g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM900	Voice	Right Cheek	902.4	0.075	0.72	34.00	33.88	0.077	1
		Right Tilt	902.4	0.048	-1.87	34.00	33.88	0.049	/
		Left Cheek	902.4	0.060	0.21	34.00	33.88	0.062	/
		Left Tilt	902.4	0.039	1.90	34.00	33.88	0.040	/
GSM1800	Voice	Right Cheek	1784.8	0.018	-0.33	31.00	30.89	0.018	/
		Right Tilt	1784.8	0.015	1.31	31.00	30.89	0.015	/
		Left Cheek	1784.8	0.020	1.14	31.00	30.89	0.021	3
		Left Tilt	1784.8	0.017	-2.35	31.00	30.89	0.017	/
WCDMA Band I	RMC	Right Cheek	1950	0.020	0.42	25.50	25.35	0.021	/
		Right Tilt	1950	0.013	-0.19	25.50	25.35	0.013	/
		Left Cheek	1950	0.021	1.57	25.50	25.35	0.022	5
		Left Tilt	1950	0.018	-2.99	25.50	25.35	0.019	/
WCDMA Band VIII	RMC	Right Cheek	882.4	0.036	-1.81	24.00	23.52	0.040	7
		Right Tilt	882.4	0.028	0.89	24.00	23.52	0.031	/
		Left Cheek	882.4	0.030	0.06	24.00	23.52	0.034	/
		Left Tilt	882.4	0.024	-1.29	24.00	23.52	0.027	/
LTE Band 1	20MHz BW, 1RB Offset 0	Right Cheek	1950	0.018	-2.43	23.00	22.78	0.019	/
		Right Tilt	1950	0.015	2.64	23.00	22.78	0.016	/
		Left Cheek	1950	0.023	-0.19	23.00	22.78	0.024	9
		Left Tilt	1950	0.017	-2.57	23.00	22.78	0.018	/
LTE Band 3	20MHz BW, 1RB Offset 0	Right Cheek	1747.5	0.033	-3.50	23.50	23.38	0.034	/
		Right Tilt	1747.5	0.027	-2.10	23.50	23.38	0.028	/
		Left Cheek	1747.5	0.040	-3.17	23.50	23.38	0.041	11
		Left Tilt	1747.5	0.036	-0.21	23.50	23.38	0.037	/
LTE Band 7	20MHz BW, 1RB Offset 0	Right Cheek	2535	0.063	1.21	25.50	25.27	0.066	/
		Right Tilt	2535	0.054	3.51	25.50	25.27	0.057	/
		Left Cheek	2535	0.085	-3.08	25.50	25.27	0.090	13
		Left Tilt	2535	0.076	-2.56	25.50	25.27	0.080	/
LTE Band 8	10MHz BW, 12RB Offset 0	Right Cheek	897.5	0.058	3.52	25.50	25.30	0.061	15
		Right Tilt	897.5	0.045	0.38	25.50	25.30	0.047	/
		Left Cheek	897.5	0.047	1.16	25.50	25.30	0.049	/
		Left Tilt	897.5	0.032	-1.18	25.50	25.30	0.034	/
LTE Band 20	20MHz BW, 1RB Offset 0	Right Cheek	842	0.036	-3.23	22.00	21.21	0.043	17
		Right Tilt	842	0.028	0.28	22.00	21.21	0.034	/
		Left Cheek	842	0.035	1.57	22.00	21.21	0.042	/
		Left Tilt	842	0.023	-2.18	22.00	21.21	0.028	/
LTE Band 28	20MHz BW, 1RB Offset 0	Right Cheek	728	0.053	2.52	24.00	23.97	0.053	19
		Right Tilt	728	0.041	-3.86	24.00	23.97	0.041	/
		Left Cheek	728	0.042	0.24	24.00	23.97	0.042	/
		Left Tilt	728	0.036	-1.62	24.00	23.97	0.036	/



LTE Band 34	15MHz BW, 16RB Offset 0	Right Cheek	2017.5	0.023	-1.97	24.00	23.77	0.024	21
		Right Tilt	2017.5	0.018	0.59	24.00	23.77	0.019	/
		Left Cheek	2017.5	0.021	-3.48	24.00	23.77	0.022	/
		Left Tilt	2017.5	0.015	-0.38	24.00	23.77	0.016	/
LTE Band 38	20MHz BW, 1RB Offset 0	Right Cheek	2595	0.071	-2.13	24.00	23.85	0.073	23
		Right Tilt	2595	0.066	-1.93	24.00	23.85	0.068	/
		Left Cheek	2595	0.057	-0.24	24.00	23.85	0.059	/
		Left Tilt	2595	0.045	-3.99	24.00	23.85	0.047	/
LTE Band 40	20MHz BW, 1RB Offset 0	Right Cheek	2310	0.032	-1.72	24.50	23.98	0.036	/
		Right Tilt	2310	0.025	2.29	24.50	23.98	0.028	/
		Left Cheek	2310	0.054	2.44	24.50	23.98	0.061	25
		Left Tilt	2310	0.021	-0.69	24.50	23.98	0.024	/
2.4GHz WLAN	802.11b	Right Cheek	2412	0.080	0.99	15.50	15.45	0.081	/
		Right Tilt	2412	0.112	-3.54	15.50	15.45	0.113	27
		Left Cheek	2412	0.066	-1.86	15.50	15.45	0.067	/
		Left Tilt	2412	0.087	-1.34	15.50	15.45	0.088	/
5.2GHz WLAN	802.11a	Right Cheek	5180	0.108	-1.77	16.50	16.05	0.120	/
		Right Tilt	5180	0.149	1.46	16.50	16.05	0.165	29
		Left Cheek	5180	0.101	0.25	16.50	16.05	0.112	/
		Left Tilt	5180	0.141	-0.45	16.50	16.05	0.156	/
5.3GHz WLAN	802.11a	Right Cheek	5320	0.088	2.28	15.50	15.39	0.090	/
		Right Tilt	5320	0.119	1.01	15.50	15.39	0.122	31
		Left Cheek	5320	0.070	-2.97	15.50	15.39	0.072	/
		Left Tilt	5320	0.091	-3.87	15.50	15.39	0.093	/
5.6GHz WLAN	802.11a	Right Cheek	5500	0.204	-0.74	17.50	17.07	0.225	/
		Right Tilt	5500	0.287	-2.29	17.50	17.07	0.317	33
		Left Cheek	5500	0.154	2.14	17.50	17.07	0.170	/
		Left Tilt	5500	0.217	2.89	17.50	17.07	0.240	/
5.8GHz WLAN	802.11a	Right Cheek	5745	0.208	2.41	13.00	12.78	0.219	/
		Right Tilt	5745	0.297	-0.98	13.00	12.78	0.312	35
		Left Cheek	5745	0.162	-0.81	13.00	12.78	0.170	/
		Left Tilt	5745	0.226	1.72	13.00	12.78	0.238	/



11.2 Body SAR

Band	Model	Test Position	Freq.	SAR (10g) (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM900	GPRS (GMSK, 4-Slot)	Front Side	902.4	0.195	-3.82	30.50	30.18	0.210	/
		Back Side	902.4	0.368	-3.96	30.50	30.18	0.396	2
		Left Edge	902.4	0.246	-1.77	30.50	30.18	0.265	/
		Right Edge	902.4	0.260	-2.49	30.50	30.18	0.280	/
		Top Edge	902.4	0.066	1.30	30.50	30.18	0.071	/
		Bottom Edge	902.4	0.114	-0.55	30.50	30.18	0.123	/
GSM1800	GPRS (GMSK, 4-Slot)	Front Side	1710.2	0.045	3.89	26.50	23.37	0.093	/
		Back Side	1710.2	0.059	0.03	26.50	23.37	0.121	4
		Left Edge	1710.2	0.023	1.96	26.50	23.37	0.047	/
		Right Edge	1710.2	0.020	3.81	26.50	23.37	0.041	/
		Top Edge	1710.2	0.014	-3.21	26.50	23.37	0.029	/
		Bottom Edge	1710.2	0.051	1.46	26.50	23.37	0.105	/
WCDMA Band I	RMC	Front Side	1950	0.031	2.67	25.50	25.35	0.032	/
		Back Side	1950	0.041	1.24	25.50	25.35	0.042	6
		Left Edge	1950	0.020	0.17	25.50	25.35	0.021	/
		Right Edge	1950	0.016	1.55	25.50	25.35	0.017	/
		Top Edge	1950	0.011	-2.29	25.50	25.35	0.011	/
		Bottom Edge	1950	0.036	-2.47	25.50	25.35	0.037	/
WCDMA Band VIII	RMC	Front Side	882.4	0.043	-1.31	24.00	23.52	0.048	/
		Back Side	882.4	0.081	-1.88	24.00	23.52	0.090	8
		Left Edge	882.4	0.056	2.73	24.00	23.52	0.063	/
		Right Edge	882.4	0.058	0.62	24.00	23.52	0.065	/
		Top Edge	882.4	0.020	-0.57	24.00	23.52	0.022	/
		Bottom Edge	882.4	0.027	-0.40	24.00	23.52	0.030	/
LTE Band 1	20MHz BW, 1RB Offset 0	Front Side	1950	0.029	1.01	23.00	22.78	0.031	/
		Back Side	1950	0.034	-2.78	23.00	22.78	0.036	10
		Left Edge	1950	0.017	3.23	23.00	22.78	0.018	/
		Right Edge	1950	0.021	-0.94	23.00	22.78	0.022	/
		Top Edge	1950	0.013	2.20	23.00	22.78	0.014	/
		Bottom Edge	1950	0.027	-3.42	23.00	22.78	0.028	/
LTE Band 3	20MHz BW, 1RB Offset 0	Front Side	1747.5	0.108	2.13	23.50	23.38	0.111	/
		Back Side	1747.5	0.146	1.54	23.50	23.38	0.150	12
		Left Edge	1747.5	0.060	3.09	23.50	23.38	0.062	/
		Right Edge	1747.5	0.052	2.80	23.50	23.38	0.053	/
		Top Edge	1747.5	0.028	2.10	23.50	23.38	0.029	/
		Bottom Edge	1747.5	0.118	1.62	23.50	23.38	0.121	/
LTE Band 7	20MHz BW, 1RB Offset 0	Front Side	2535	0.312	0.82	25.50	25.27	0.329	/
		Back Side	2510	0.391	2.38	25.50	25.17	0.422	/
		Back Side	2535	0.429	3.84	25.50	25.27	0.452	14
		Back Side	2560	0.366	-0.17	25.50	24.92	0.418	/
		Left Edge	2535	0.173	3.18	25.50	25.27	0.182	/
		Right Edge	2535	0.153	0.59	25.50	25.27	0.161	/
		Top Edge	2535	0.072	3.02	25.50	25.27	0.076	/
		Bottom Edge	2535	0.345	-3.08	25.50	25.27	0.364	/



LTE Band 8	20MHz BW, 12RB Offset 0	Front Side	897.5	0.055	-3.89	25.50	25.30	0.058	/
		Back Side	897.5	0.104	3.15	25.50	25.30	0.109	16
		Left Edge	897.5	0.072	0.70	25.50	25.30	0.075	/
		Right Edge	897.5	0.074	-1.03	25.50	25.30	0.077	/
		Top Edge	897.5	0.020	2.84	25.50	25.30	0.021	/
		Bottom Edge	897.5	0.033	-1.17	25.50	25.30	0.035	/
LTE Band 20	20MHz BW, 1RB Offset 0	Front Side	842	0.054	2.84	22.00	21.21	0.065	/
		Back Side	842	0.071	3.06	22.00	21.21	0.085	18
		Left Edge	842	0.031	-2.35	22.00	21.21	0.037	/
		Right Edge	842	0.026	-3.34	22.00	21.21	0.031	/
		Top Edge	842	0.015	0.72	22.00	21.21	0.018	/
		Bottom Edge	842	0.060	-0.59	22.00	21.21	0.072	/
LTE Band 28	20MHz BW, 1RB Offset 0	Front Side	728	0.044	-0.05	24.00	23.97	0.044	/
		Back Side	728	0.077	0.00	24.00	23.97	0.078	20
		Left Edge	728	0.054	2.87	24.00	23.97	0.054	/
		Right Edge	728	0.054	0.31	24.00	23.97	0.054	/
		Top Edge	728	0.022	3.28	24.00	23.97	0.022	/
		Bottom Edge	728	0.026	-3.37	24.00	23.97	0.026	/
LTE Band 34	15MHz BW, 16RB Offset 0	Front Side	2017.5	0.023	-0.50	24.00	23.77	0.024	/
		Back Side	2017.5	0.032	3.28	24.00	23.77	0.034	22
		Left Edge	2017.5	0.019	-3.34	24.00	23.77	0.020	/
		Right Edge	2017.5	0.016	-2.59	24.00	23.77	0.017	/
		Top Edge	2017.5	0.010	-1.10	24.00	23.77	0.011	/
		Bottom Edge	2017.5	0.026	3.86	24.00	23.77	0.027	/
LTE Band 38	20MHz BW, 1RB Offset 0	Front Side	2595	0.311	-0.39	24.00	23.85	0.322	/
		Back Side	2595	0.432	0.54	24.00	23.85	0.447	24
		Left Edge	2595	0.177	3.47	24.00	23.85	0.183	/
		Right Edge	2595	0.154	-1.39	24.00	23.85	0.159	/
		Top Edge	2595	0.074	-2.21	24.00	23.85	0.077	/
		Bottom Edge	2595	0.349	-0.77	24.00	23.85	0.361	/
LTE Band 40	20MHz BW, 1RB Offset 0	Front Side	2310	0.132	2.33	24.50	23.98	0.149	/
		Back Side	2310	0.178	3.52	24.50	23.98	0.201	26
		Left Edge	2310	0.074	1.69	24.50	23.98	0.083	/
		Right Edge	2310	0.065	-3.17	24.50	23.98	0.073	/
		Top Edge	2310	0.030	-0.86	24.50	23.98	0.034	/
		Bottom Edge	2310	0.142	2.76	24.50	23.98	0.160	/
2.4GHz WLAN	802.11b	Front Side	2412	0.040	-3.01	15.50	15.45	0.040	/
		Back Side	2412	0.081	2.37	15.50	15.45	0.082	/
		Left Edge	2412	0.019	-1.78	15.50	15.45	0.019	/
		Right Edge	2412	0.043	3.38	15.50	15.45	0.043	/
		Top Edge	2412	0.094	-0.32	15.50	15.45	0.095	28
		Bottom Edge	2412	0.018	0.96	15.50	15.45	0.018	/
5.2GHz WLAN	802.11a	Front Side	5180	0.065	-3.75	16.50	16.05	0.072	/
		Back Side	5180	0.131	2.51	16.50	16.05	0.145	/
		Left Edge	5180	0.030	1.63	16.50	16.05	0.033	/
		Right Edge	5180	0.067	1.67	16.50	16.05	0.074	/
		Top Edge	5180	0.152	-1.19	16.50	16.05	0.169	30
		Bottom Edge	5180	0.025	-3.06	16.50	16.05	0.028	/



5.3GHz WLAN	802.11a	Front Side	5320	0.062	-3.07	15.50	15.39	0.064	/
		Back Side	5320	0.134	-1.16	15.50	15.39	0.137	/
		Left Edge	5320	0.031	0.92	15.50	15.39	0.032	/
		Right Edge	5320	0.069	0.49	15.50	15.39	0.071	/
		Top Edge	5320	0.154	1.70	15.50	15.39	0.158	32
		Bottom Edge	5320	0.029	1.86	15.50	15.39	0.030	/
5.6GHz WLAN	802.11a	Front Side	5500	0.085	0.64	17.50	17.07	0.094	/
		Back Side	5500	0.173	0.07	17.50	17.07	0.191	/
		Left Edge	5500	0.041	-0.85	17.50	17.07	0.045	/
		Right Edge	5500	0.092	-0.49	17.50	17.07	0.102	/
		Top Edge	5500	0.203	-2.50	17.50	17.07	0.224	34
		Bottom Edge	5500	0.035	-0.26	17.50	17.07	0.039	/
5.8GHz WLAN	802.11a	Front Side	5745	0.130	1.27	13.00	12.78	0.137	/
		Back Side	5745	0.271	-0.57	13.00	12.78	0.285	/
		Left Edge	5745	0.068	-1.23	13.00	12.78	0.072	/
		Right Edge	5745	0.147	-2.07	13.00	12.78	0.155	/
		Top Edge	5745	0.319	3.97	13.00	12.78	0.336	36
		Bottom Edge	5745	0.058	0.53	13.00	12.78	0.061	/

Note:

1. The test separation of all above table is 5mm.
2. Two SIM card slot can't work at the same time.
3. When the 10g SAR is $\leq 1.0\text{W/kg}$, testing for low and high channel is optional.



11.3 Simultaneous Multi-band Transmission Evaluation:

Application Simultaneous Transmission information:

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

Note:

1. The Bluetooth and WLAN can't simultaneous transmission at the same time.
2. The 2.4GHz WLAN and 5GHz WLAN can't simultaneous transmission at the same time.
3. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
4. The reported SAR summation is calculated based on the same configuration and test position.
5. DUT will choose either 2G/3G/4G according to the network signal condition, therefore, 2G/3G/4G will not transmit simultaneously.
6. Multi -band transmission analysis for Body SAR is performed following EN 62209-2 procedure. One way of determining the threshold power level available to the secondary transmitter ($P_{\text{available}}$) is to calculate it from the measured peak spatial-average SAR of the primary transmitter (SAR_1) according to the equation:

$$P_{\text{available}} = P_{\text{th},m} * (SAR_{\text{lim.}} - SAR_1) / SAR_{\text{lim.}}$$

where:

$P_{\text{th},m}$ is the threshold exclusion power level taken from Annex B of IEC 62479 for the frequency of the secondary transmitter at the separation distance used in the testing.

If the output power of the secondary transmitter is less than $P_{\text{available}}$, SAR measurement for the secondary transmitter is not necessary.



Simultaneous Mode	Position	SAR1	Secondary transmitter Maximum Average Power		Separation distance	$P_{available}$	Result
		10g(W/Kg)	dBm	mW	(mm)	mW	
GSM + 2.4GWLAN	Head	0.077	15.00	31.623	5	19.230	Yes
	Body	0.396			5	16.040	Yes
WCDMA + 2.4GWLAN	Head	0.040			5	19.600	Yes
	Body	0.090			5	19.100	Yes
LTE + 2.4GWLAN	Head	0.090			5	19.100	Yes
	Body	0.452			5	15.480	Yes
GSM + 5.2GWLAN	Head	0.077	16.50	44.668	5	19.230	Yes
	Body	0.396			5	16.040	Yes
WCDMA + 5.2GWLAN	Head	0.040			5	19.600	Yes
	Body	0.090			5	19.100	Yes
LTE + 5.2GWLAN	Head	0.090			5	19.100	Yes
	Body	0.452			5	15.480	Yes
GSM + 5.3GWLAN	Head	0.077	15.50	35.481	5	19.230	Yes
	Body	0.396			5	16.040	Yes
WCDMA + 5.3GWLAN	Head	0.040			5	19.600	Yes
	Body	0.090			5	19.100	Yes
LTE + 5.3GWLAN	Head	0.090			5	19.100	Yes
	Body	0.452			5	15.480	Yes
GSM + 5.6GWLAN	Head	0.077	17.50	56.234	5	19.230	Yes
	Body	0.396			5	16.040	Yes
WCDMA + 5.6GWLAN	Head	0.040			5	19.600	Yes
	Body	0.090			5	19.100	Yes
LTE + 5.6GWLAN	Head	0.090			5	19.100	Yes
	Body	0.452			5	15.480	Yes
GSM + 5.8GWLAN	Head	0.077	13.00	19.953	5	19.230	Yes
	Body	0.396			5	16.040	Yes
WCDMA + 5.8GWLAN	Head	0.040			5	19.600	Yes
	Body	0.090			5	19.100	Yes
LTE + 5.8GWLAN	Head	0.090			5	19.100	Yes
	Body	0.452			5	15.480	Yes
GSM + BT	Head	0.077	7.00	5.012	5	19.230	No
	Body	0.396			5	16.040	No
WCDMA + BT	Head	0.040			5	19.600	No
	Body	0.090			5	19.100	No
LTE + BT	Head	0.090			5	19.100	No
	Body	0.452			5	15.480	No

Note :

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

The "No" is represent that SAR measurement for the secondary transmitter is not necessary.

The "Yes" is means that SAR measurement for the secondary transmitter is necessary.



Simultaneous Mode	Position	Mode	Max. 10-g SAR W/Kg	10-g Sum SAR W/Kg
GSM + 2.4GWLAN	Head	GSM	0.077	0.190
		2.4GHz WLAN	0.113	
	Body	GSM	0.396	0.491
		2.4GHz WLAN	0.095	
WCDMA + 2.4GWLAN	Head	WCDMA	0.040	0.153
		2.4GHz WLAN	0.113	
	Body	WCDMA	0.090	0.185
		2.4GHz WLAN	0.095	
LTE + 2.4GWLAN	Head	LTE	0.090	0.203
		2.4GHz WLAN	0.113	
	Body	LTE	0.452	0.547
		2.4GHz WLAN	0.095	
GSM + 5.2GWLAN	Head	GSM	0.077	0.239
		5.2GHz WLAN	0.162	
	Body	GSM	0.396	0.565
		5.2GHz WLAN	0.169	
WCDMA + 5.2GWLAN	Head	WCDMA	0.040	0.205
		5.2GHz WLAN	0.165	
	Body	WCDMA	0.090	0.259
		5.2GHz WLAN	0.169	
LTE + 5.2GWLAN	Head	LTE	0.090	0.255
		5.2GHz WLAN	0.165	
	Body	LTE	0.452	0.621
		5.2GHz WLAN	0.169	
GSM + 5.3GWLAN	Head	GSM	0.077	0.199
		5.3GHz WLAN	0.122	
	Body	GSM	0.396	0.554
		5.3GHz WLAN	0.158	
WCDMA + 5.3GWLAN	Head	WCDMA	0.040	0.162
		5.3GHz WLAN	0.122	
	Body	WCDMA	0.090	0.248
		5.3GHz WLAN	0.158	
LTE + 5.3GWLAN	Head	LTE	0.090	0.212
		5.3GHz WLAN	0.122	
	Body	LTE	0.452	0.610
		5.3GHz WLAN	0.158	
GSM + 5.6GWLAN	Head	GSM	0.077	0.394
		5.6GHz WLAN	0.317	
	Body	GSM	0.396	0.620
		5.6GHz WLAN	0.224	
WCDMA + 5.6GWLAN	Head	WCDMA	0.040	0.357
		5.6GHz WLAN	0.317	
	Body	WCDMA	0.090	0.314
		5.6GHz WLAN	0.224	



LTE + 5.6GWLAN	Head	LTE	0.090	0.407
		5.6GHz WLAN	0.317	
	Body	LTE	0.452	0.676
		5.6GHz WLAN	0.224	
GSM + 5.8GWLAN	Head	GSM	0.077	0.389
		5.8GHz WLAN	0.312	
	Body	GSM	0.396	0.732
		5.8GHz WLAN	0.336	
WCDMA + 5.8GWLAN	Head	WCDMA	0.040	0.352
		5.8GHz WLAN	0.312	
	Body	WCDMA	0.090	0.426
		5.8GHz WLAN	0.336	
LTE + 5.8GWLAN	Head	LTE	0.090	0.402
		5.8GHz WLAN	0.312	
	Body	LTE	0.452	0.788
		5.8GHz WLAN	0.336	

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.



12. 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
2000MHz Dipole	MVG	DIP2G000	SN 06/22 DIP2G000-642	2022.02.11	2025.02.10
2450MHz Dipole	MVG	DIP2G450	SN 06/22 DIP2G450-645	2022.02.11	2025.02.10
2600MHz Dipole	MVG	DIP2G600	SN 06/22 DIP2G600-646	2022.02.11	2025.02.10
5000MHz Dipole	MVG	DIP5G000	SN 06/22 DIP5G000-653	2022.02.11	2025.02.10
E-Field Probe	MVG	EPGO364	SN 04/22 EPGO364	2023.02.10	2024.02.09
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2023.02.10	2024.02.09
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop holder	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	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 Plot

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)

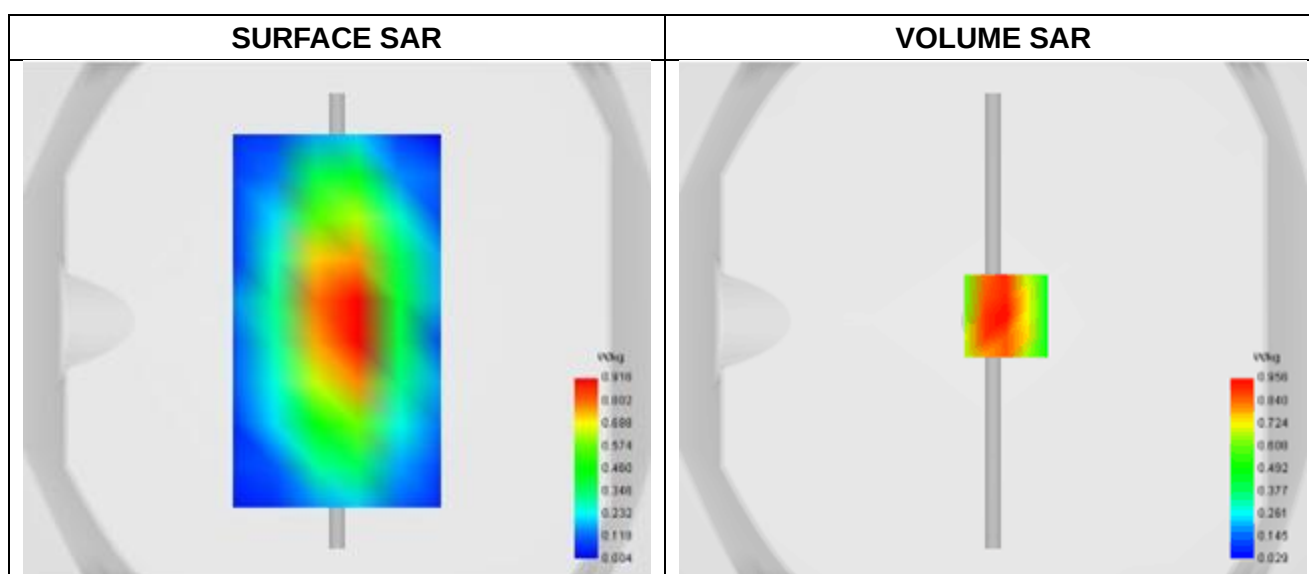
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2023-11-22

Experimental conditions.

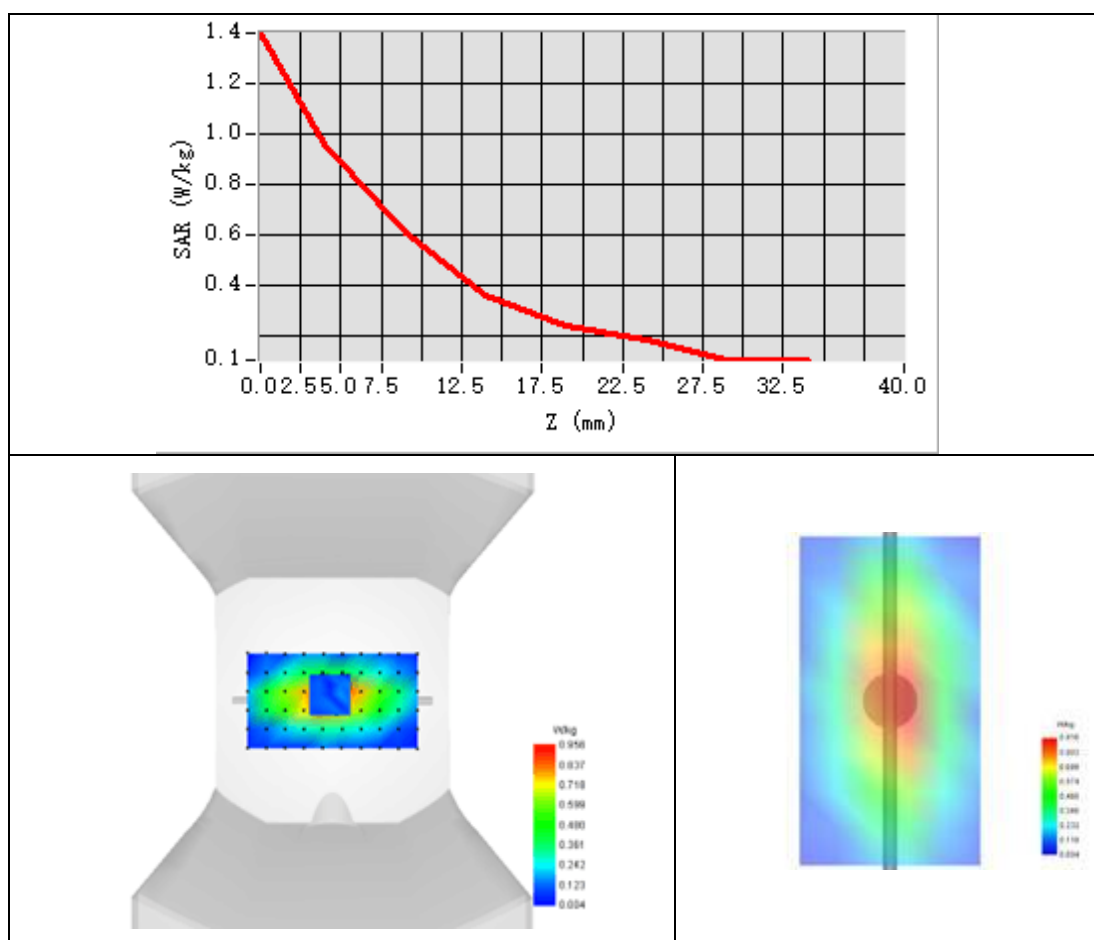
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW
Frequency (MHz)	750.000
Relative permittivity	41.900
Conductivity (S/m)	0.890
Probe	SN 04/22 EPGO364
ConvF	1.69
Crest factor:	1:1



Maximum location: X=5.00, Y=3.00 ; SAR Peak: 1.41 W/kg

SAR 10g (W/Kg)	0.575
SAR 1g (W/Kg)	0.921

Z Axis Scan





System Performance Check Data (835MHz)

Type: Phone measurement (Complete)

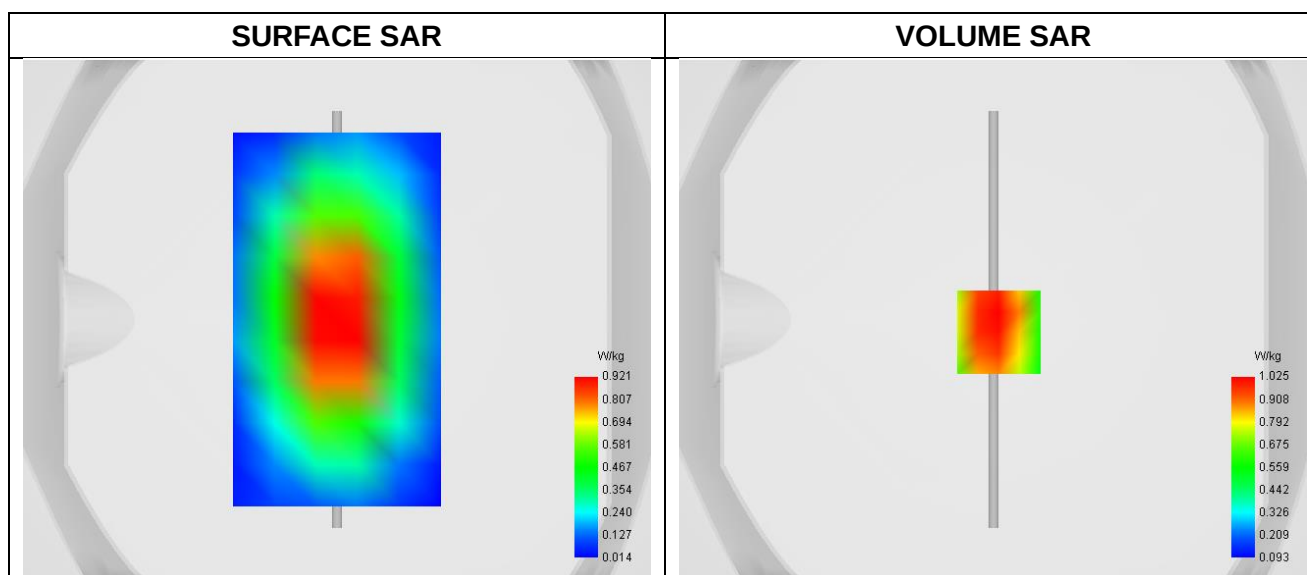
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2023-12-19

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW
Frequency (MHz)	835.000
Relative permittivity	40.93
Conductivity (S/m)	0.91
Probe	SN 04/22 EPGO364
ConvF	1.72
Crest factor:	1:1

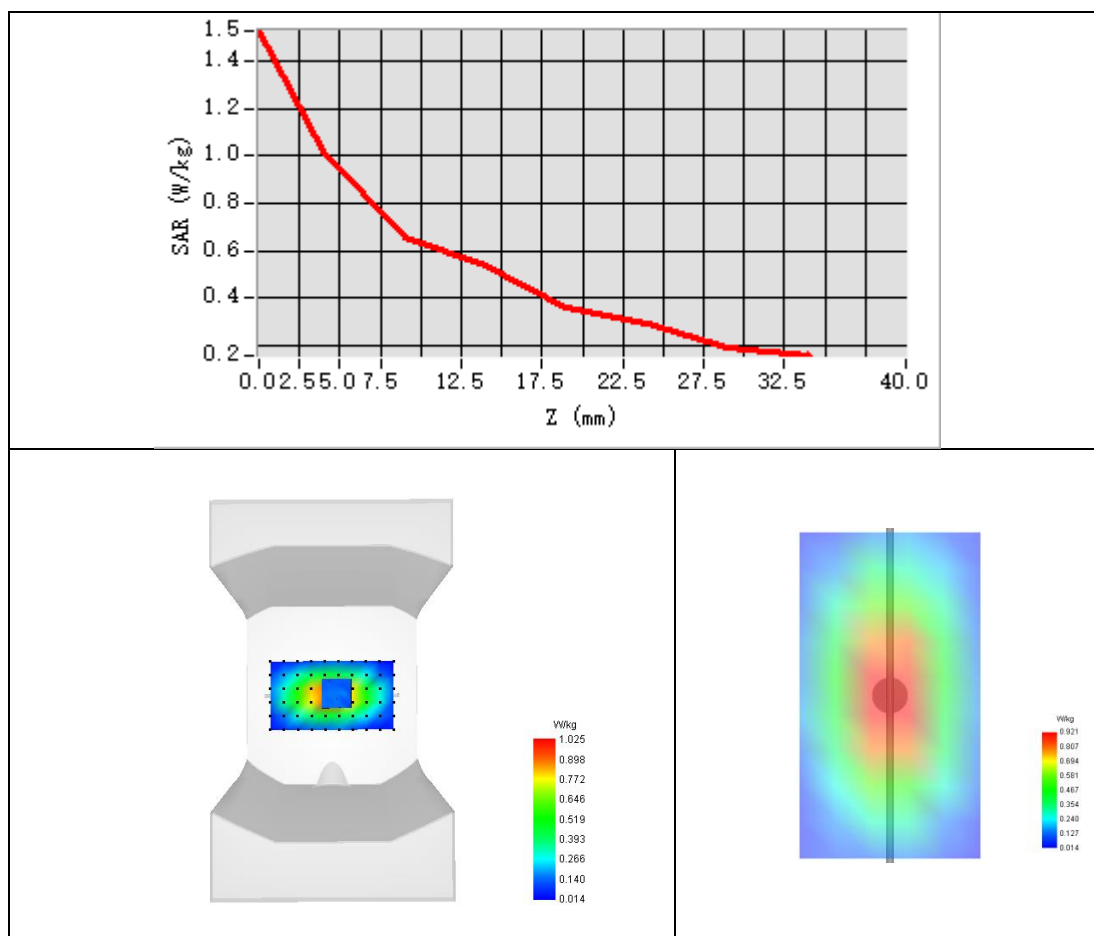


Maximum location: X=5.00, Y=7.00 ; SAR Peak: 1.62 W/kg

SAR 10g (W/Kg)	0.633
SAR 1g (W/Kg)	0.982



Z Axis Scan





System Performance Check Data (1800MHz)

Type: Phone measurement (Complete)

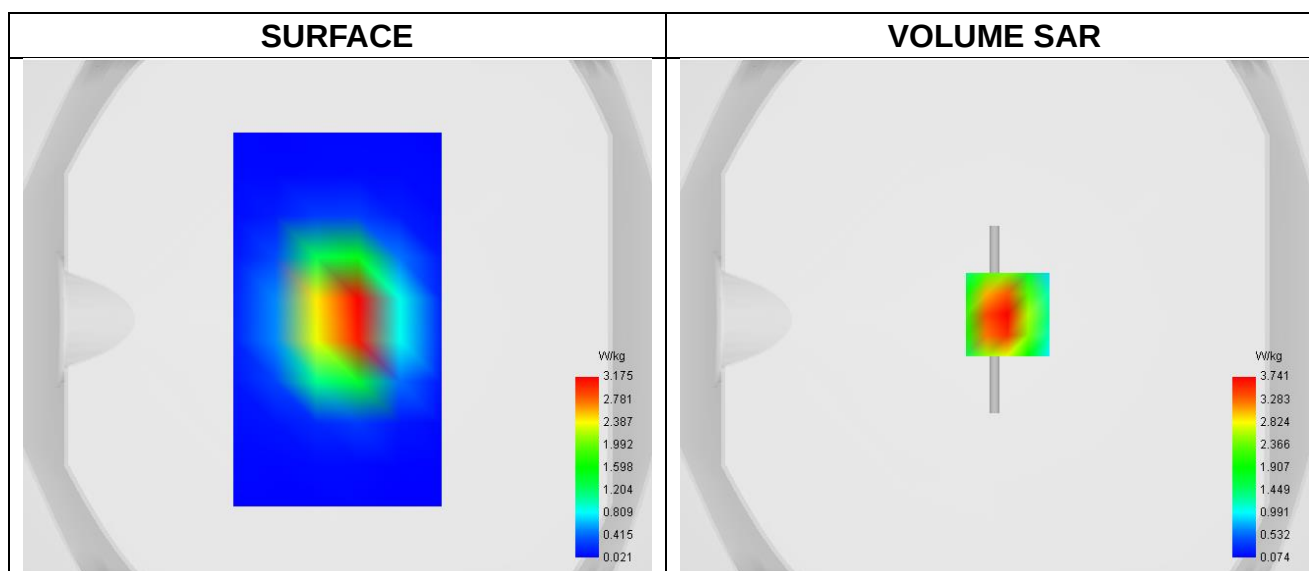
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2023-12-26

Experimental conditions.

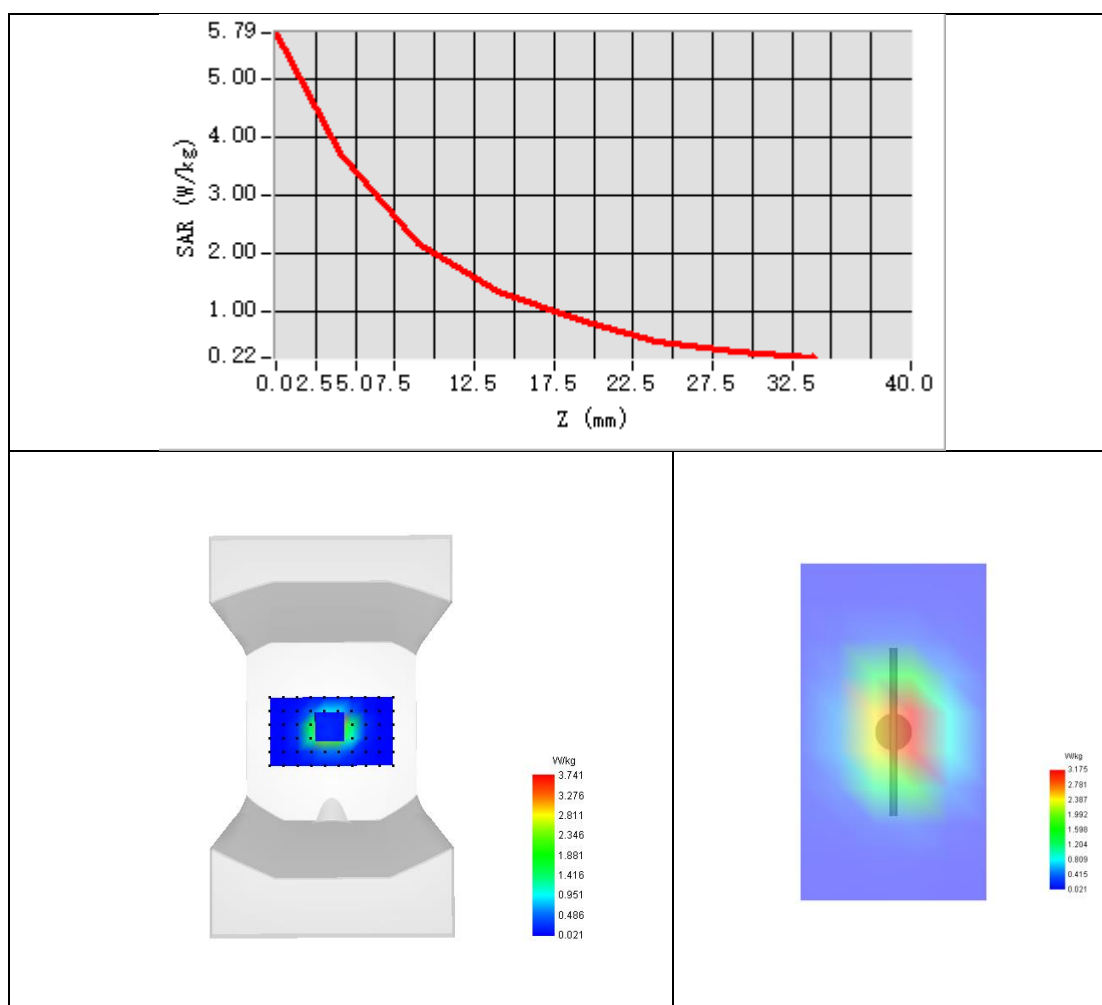
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW
Frequency (MHz)	1800.000
Relative permittivity	40.36
Conductivity (S/m)	1.37
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1



Maximum location: X=5.00, Y=2.00 ; SAR Peak: 5.67 W/kg

SAR 10g (W/Kg)	2.064
SAR 1g (W/Kg)	3.736

Z Axis Scan





System Performance Check Data (1900MHz)

Type: Phone measurement (Complete)

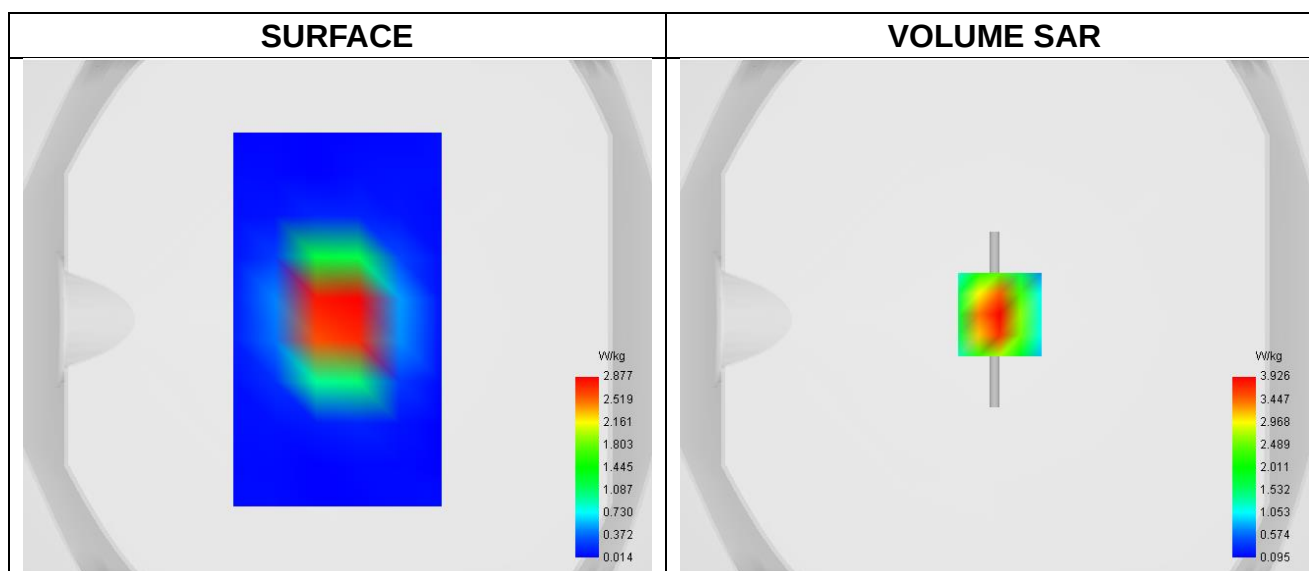
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2023-12-23

Experimental conditions.

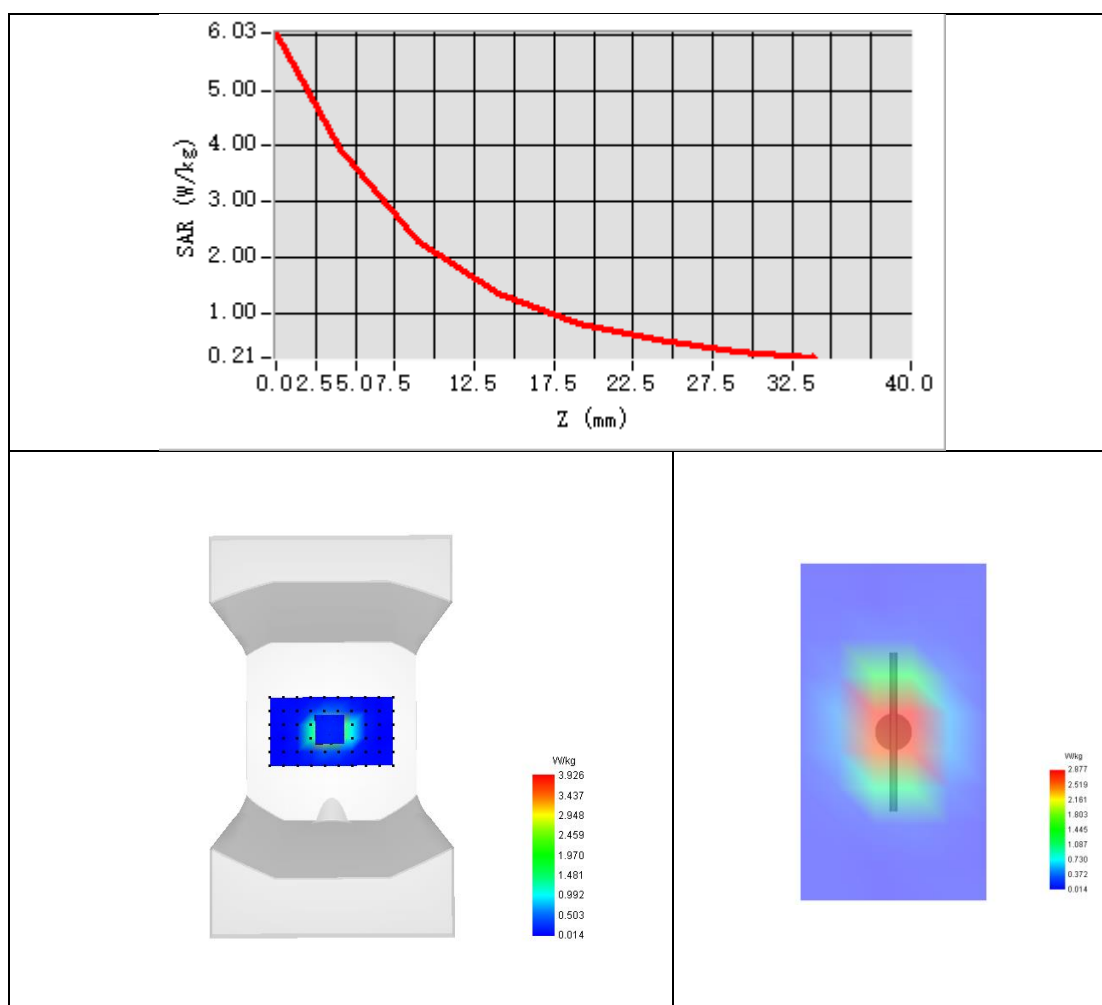
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW
Frequency (MHz)	1900.000
Relative permittivity	41.28
Conductivity (S/m)	1.41
Probe	SN 04/22 EPGO364
ConvF	2.25
Crest factor:	1:1



Maximum location: X=2.00, Y=3.00 ; SAR Peak: 6.26 W/kg

SAR 10g (W/Kg)	2.045
SAR 1g (W/Kg)	3.913

Z Axis Scan





System Performance Check Data (2000MHz)

Type: Phone measurement (Complete)

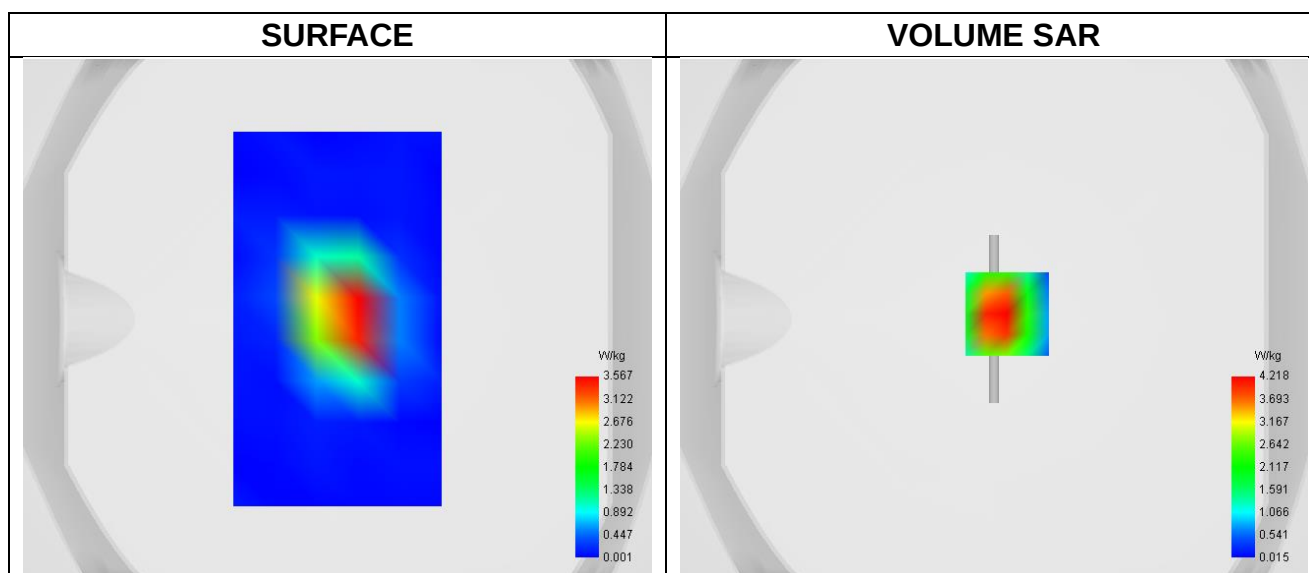
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2023-12-20

Experimental conditions.

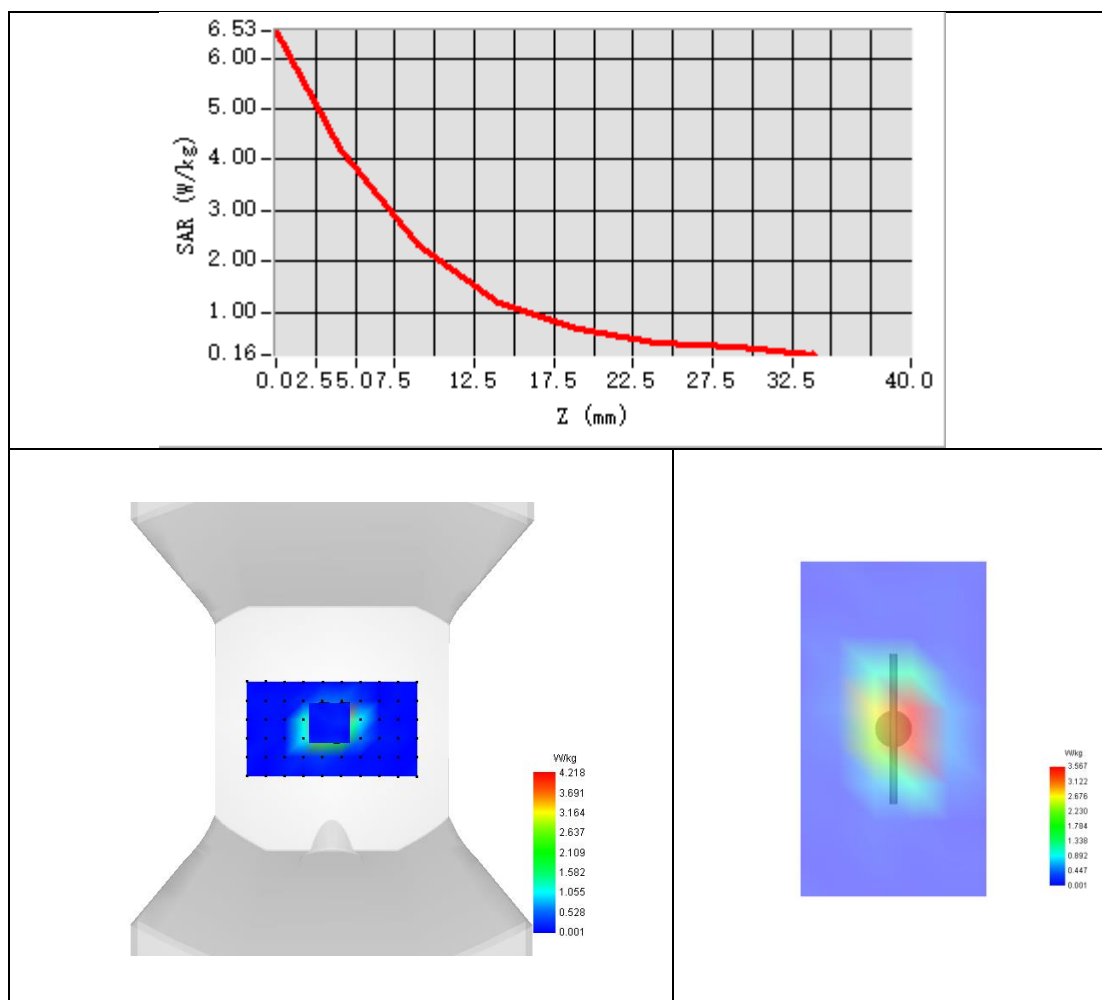
Phantom	Validation plane
Device Position	Dipole
Band	CW2000
Channels	Middle
Signal	CW
Frequency (MHz)	2000.000
Relative permittivity	40.49
Conductivity (S/m)	1.46
Probe	SN 04/22 EPGO364
ConvF	2.35
Crest factor:	1:1



Maximum location: X=5.00, Y=3.00 ; SAR Peak: 7.22/kg

SAR 10g (W/Kg)	2.079
SAR 1g (W/Kg)	4.286

Z Axis Scan





System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

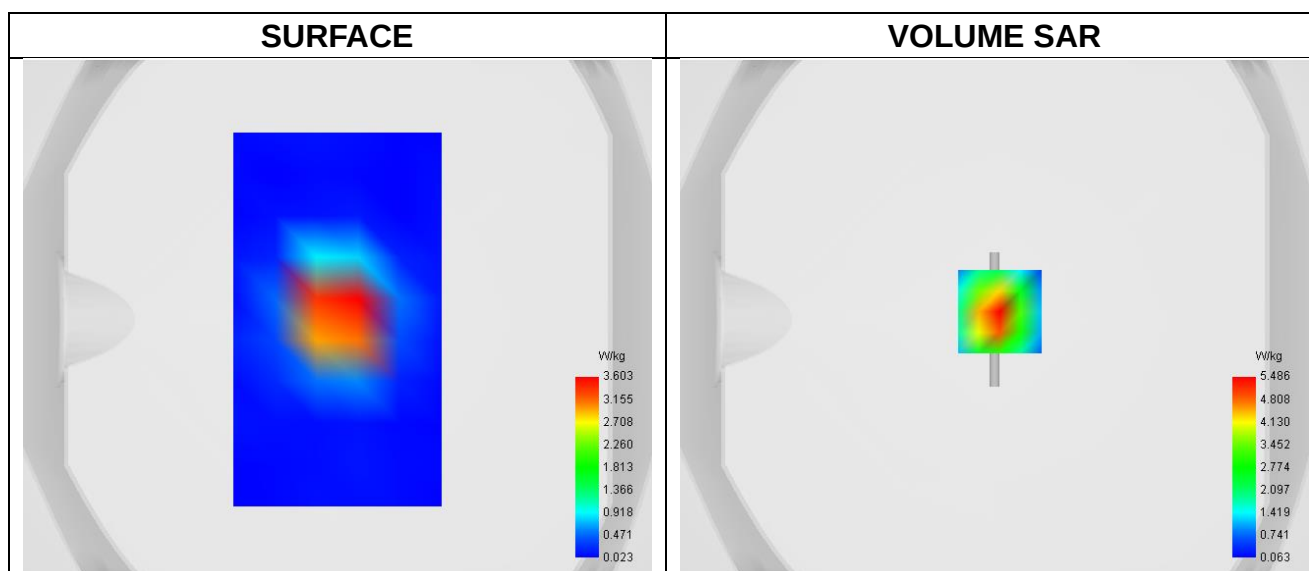
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2023-12-24

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW
Frequency (MHz)	2450.000
Relative permittivity	40.23
Conductivity (S/m)	1.82
Probe	SN 04/22 EPGO364
ConvF	2.33
Crest factor:	1:1

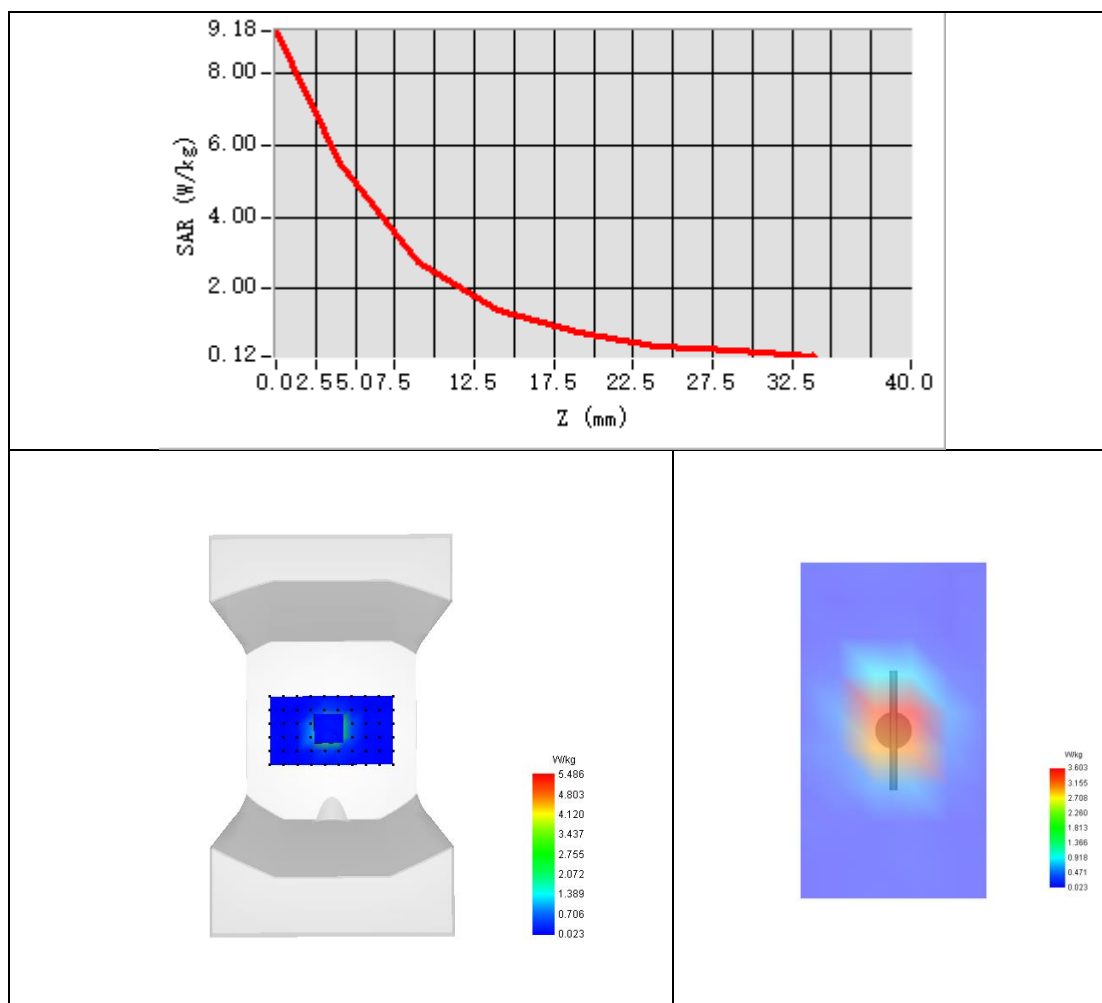


Maximum location: X=2.00, Y=3.00 ; SAR Peak: 9.16 W/kg

SAR 10g (W/Kg)	2.381
SAR 1g (W/Kg)	5.399



Z Axis Scan





System Performance Check Data (2600MHz)

Type: Phone measurement (Complete)

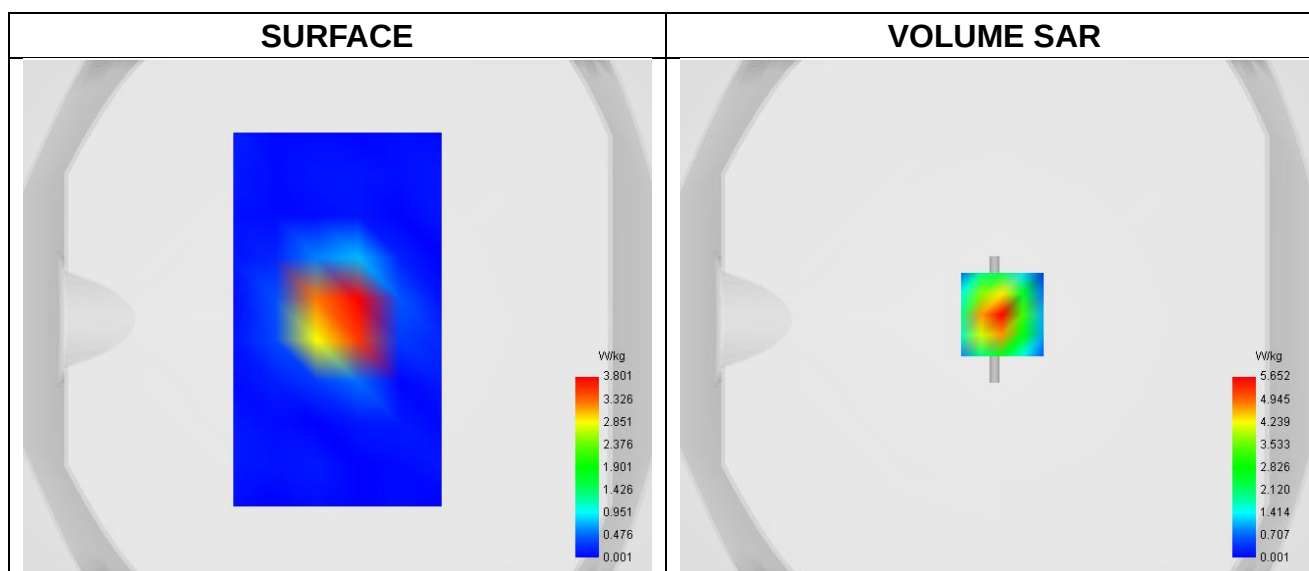
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2023-12-22

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW
Frequency (MHz)	2600.000
Relative permittivity	40.15
Conductivity (S/m)	1.92
Probe	SN 04/22 EPGO364
ConvF	2.36
Crest factor:	1:1

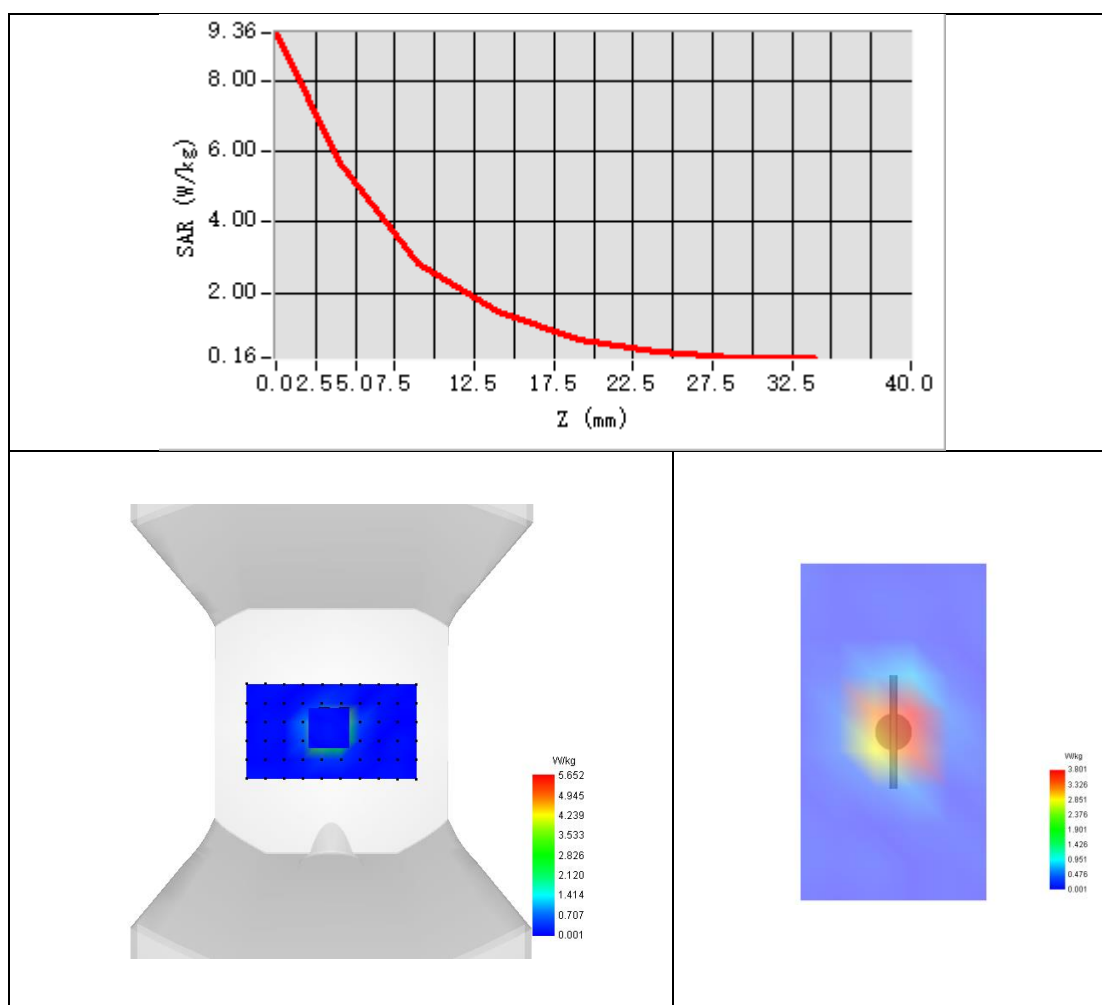


Maximum location: X=3.00, Y=2.00 ; SAR Peak: 9.65 W/kg

SAR 10g (W/Kg)	2.456
SAR 1g (W/Kg)	5.626



Z Axis Scan





System Performance Check Data (5200MHz)

Type: Phone measurement (Complete)

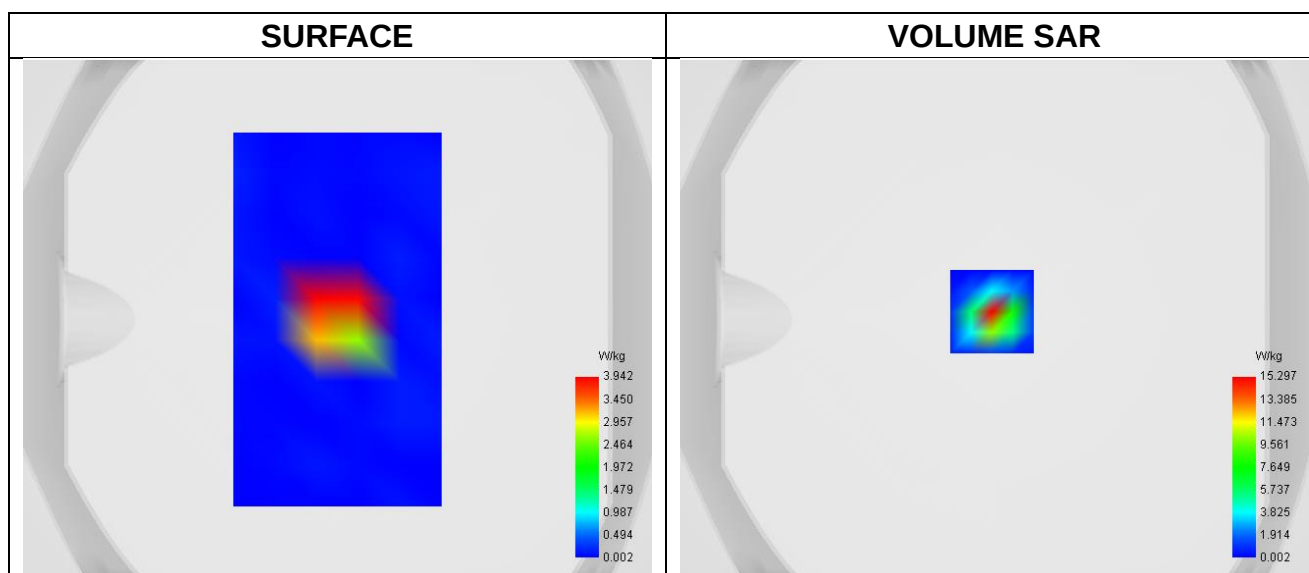
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2024-01-09

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW
Frequency (MHz)	5200.000
Relative permittivity	36.17
Conductivity (S/m)	4.63
Probe	SN 04/22 EPGO364
ConvF	1.95
Crest factor:	1:1

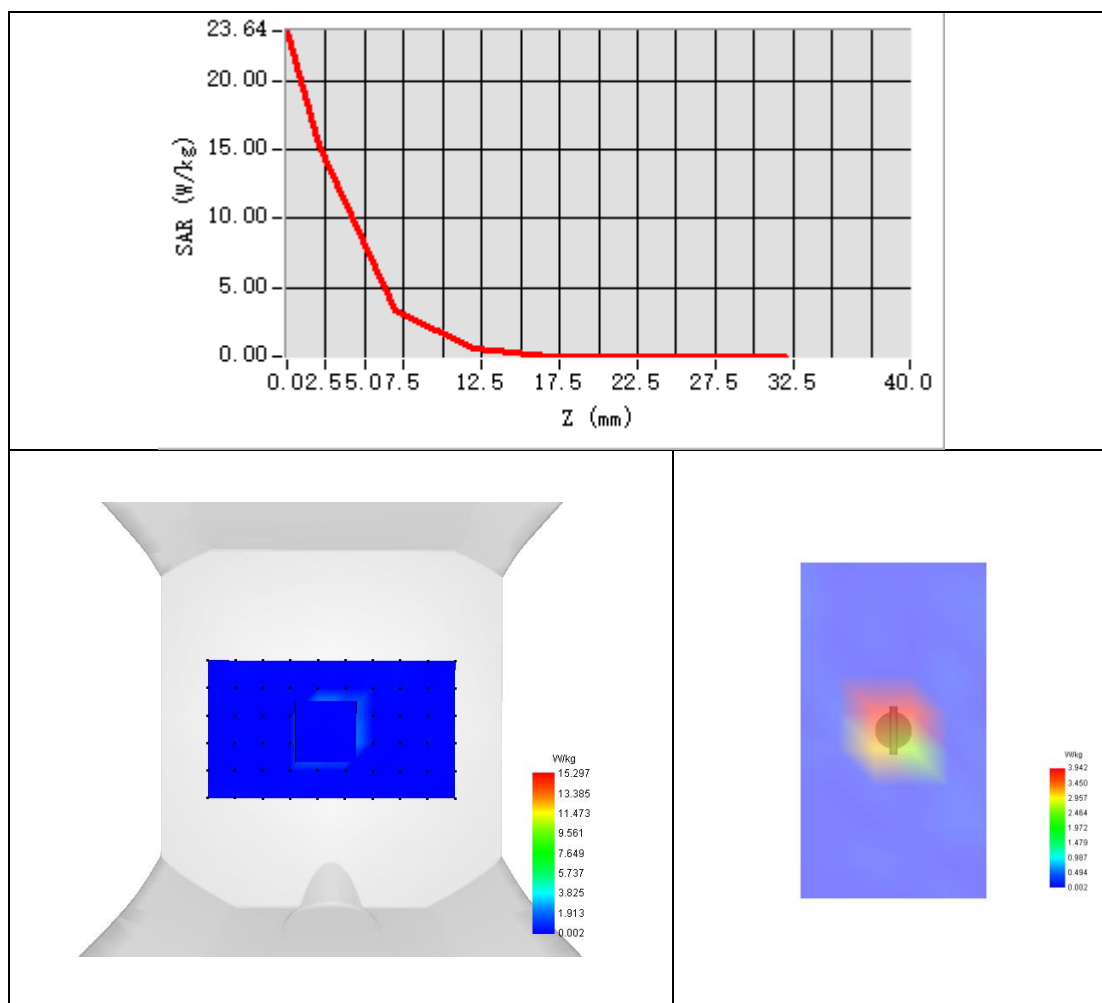


Maximum location: X=-1.00, Y=3.00 ; SAR Peak: 25.13 W/kg

SAR 10g (W/Kg)	2.187
SAR 1g (W/Kg)	7.954



Z Axis Scan





System Performance Check Data (5400MHz)

Type: Phone measurement (Complete)

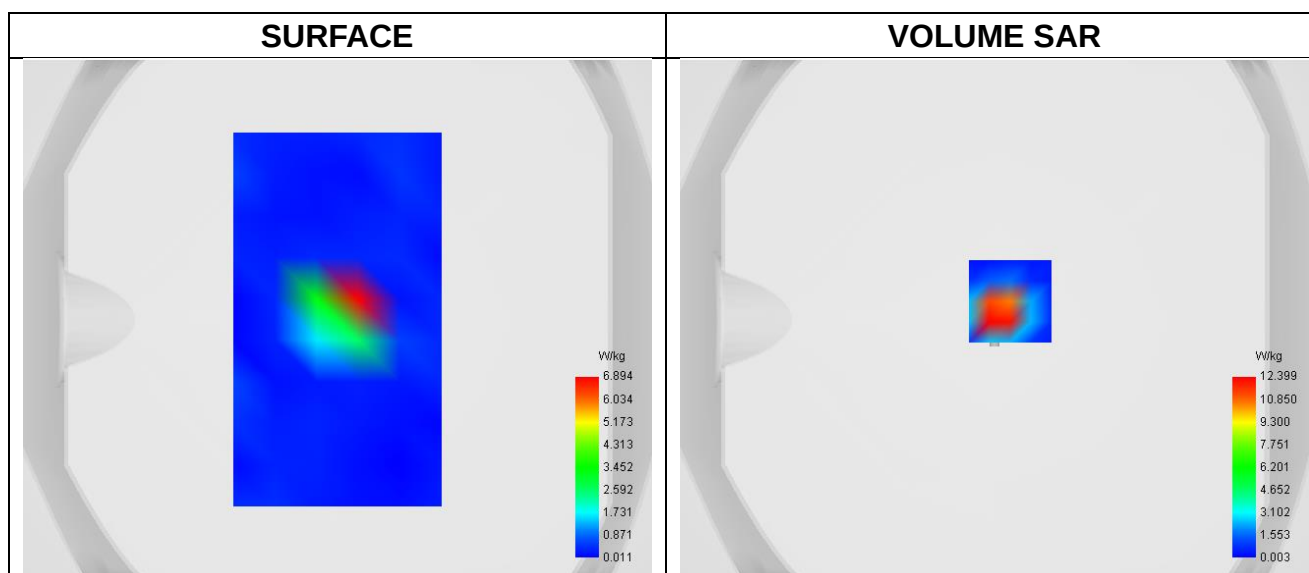
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2024-01-12

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5400
Channels	Middle
Signal	CW
Frequency (MHz)	5400.000
Relative permittivity	35.95
Conductivity (S/m)	4.83
Probe	SN 04/22 EPGO364
ConvF	1.85
Crest factor:	1:1

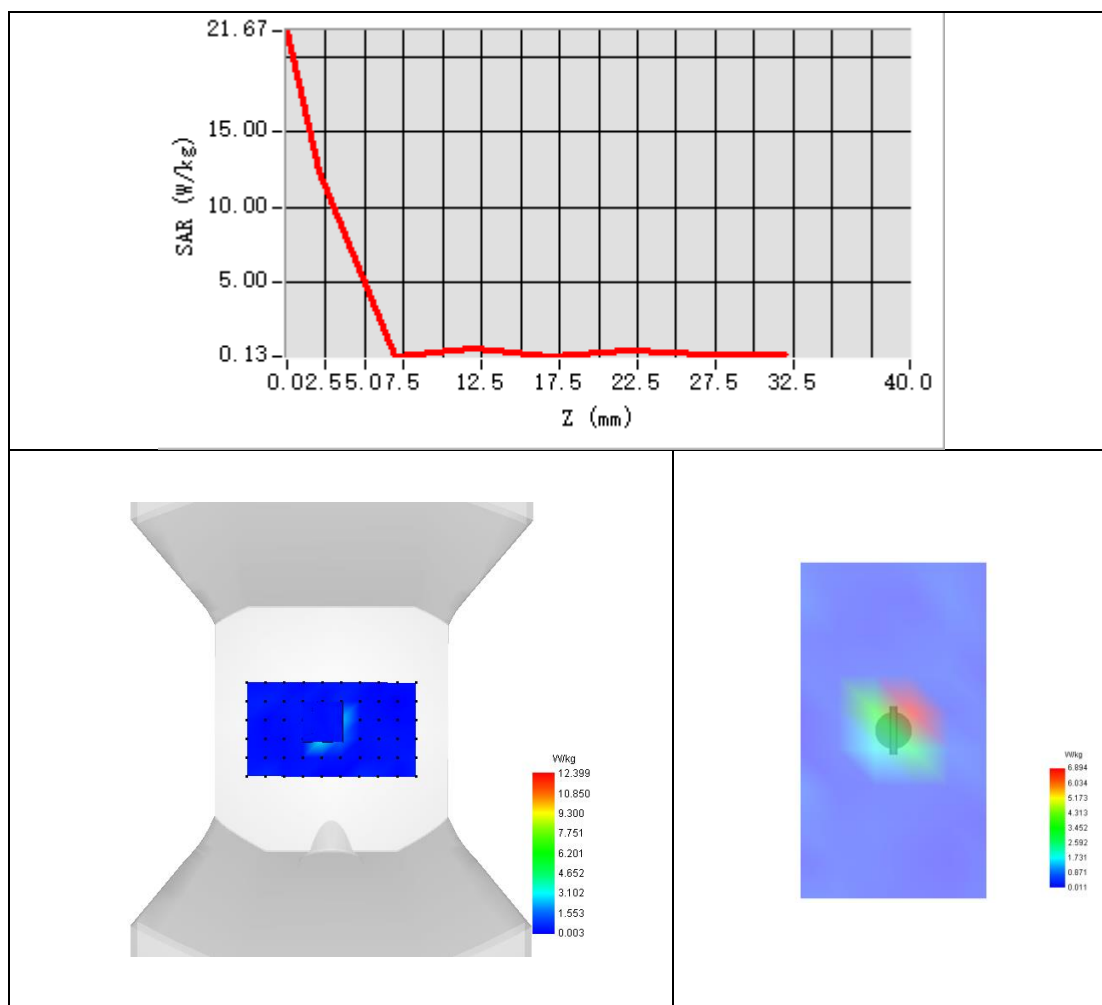


Maximum location: X=6.00, Y=7.00 ; SAR Peak: 26.91 W/kg

SAR 10g (W/Kg)	2.260
SAR 1g (W/Kg)	8.421



Z Axis Scan





System Performance Check Data (5600MHz)

Type: Phone measurement (Complete)

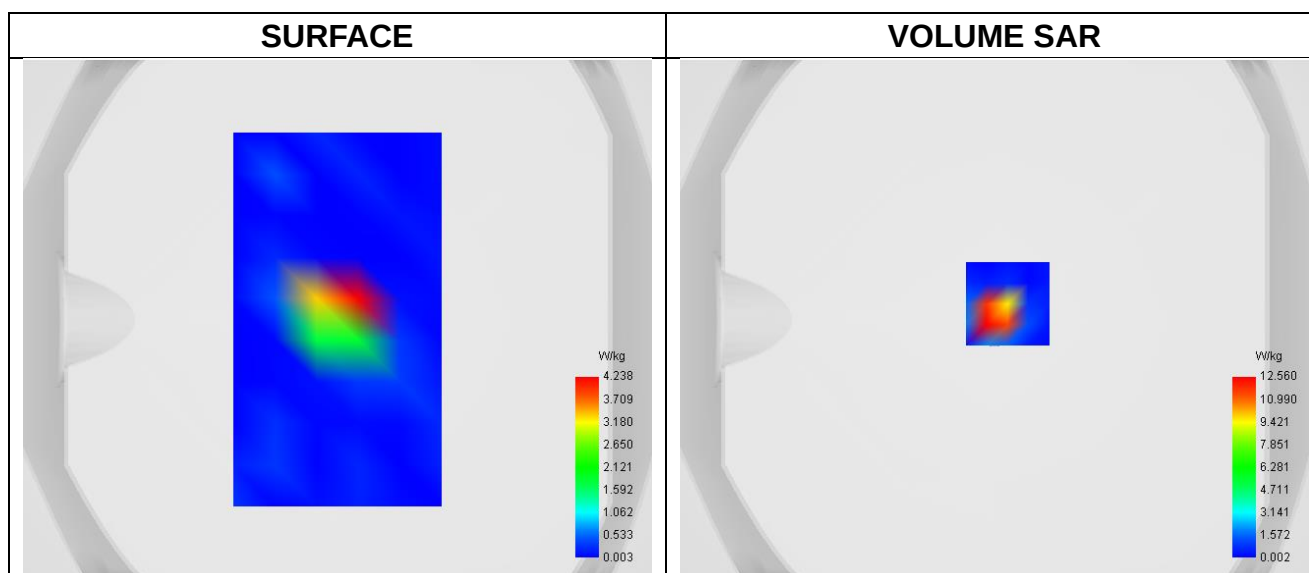
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2024-01-09

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW
Frequency (MHz)	5600.000
Relative permittivity	35.89
Conductivity (S/m)	5.11
Probe	SN 04/22 EPGO364
ConvF	1.86
Crest factor:	1:1

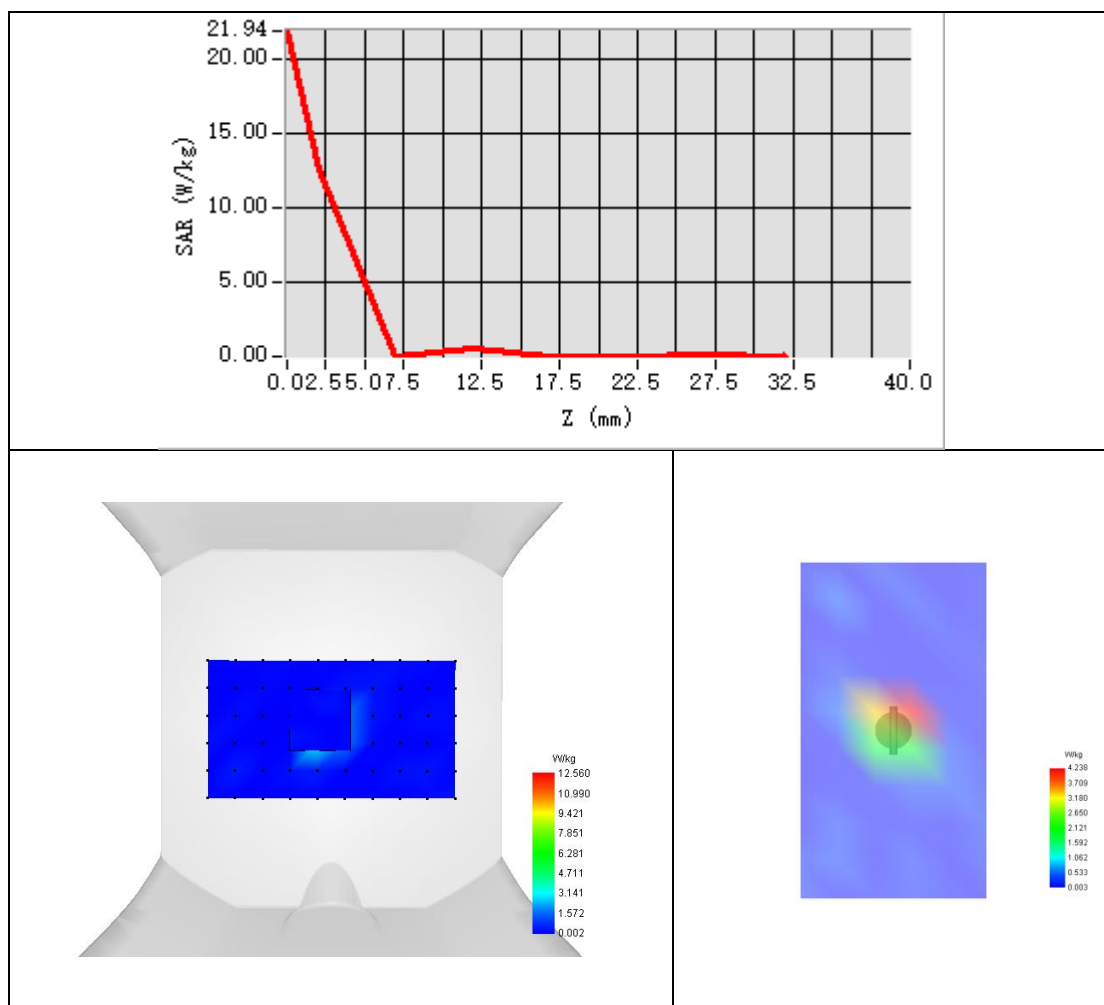


Maximum location: X=5.00, Y=6.00 ; SAR Peak: 27.42 W/kg

SAR 10g (W/Kg)	2.226
SAR 1g (W/Kg)	8.103



Z Axis Scan





System Performance Check Data (5800MHz)

Type: Phone measurement (Complete)

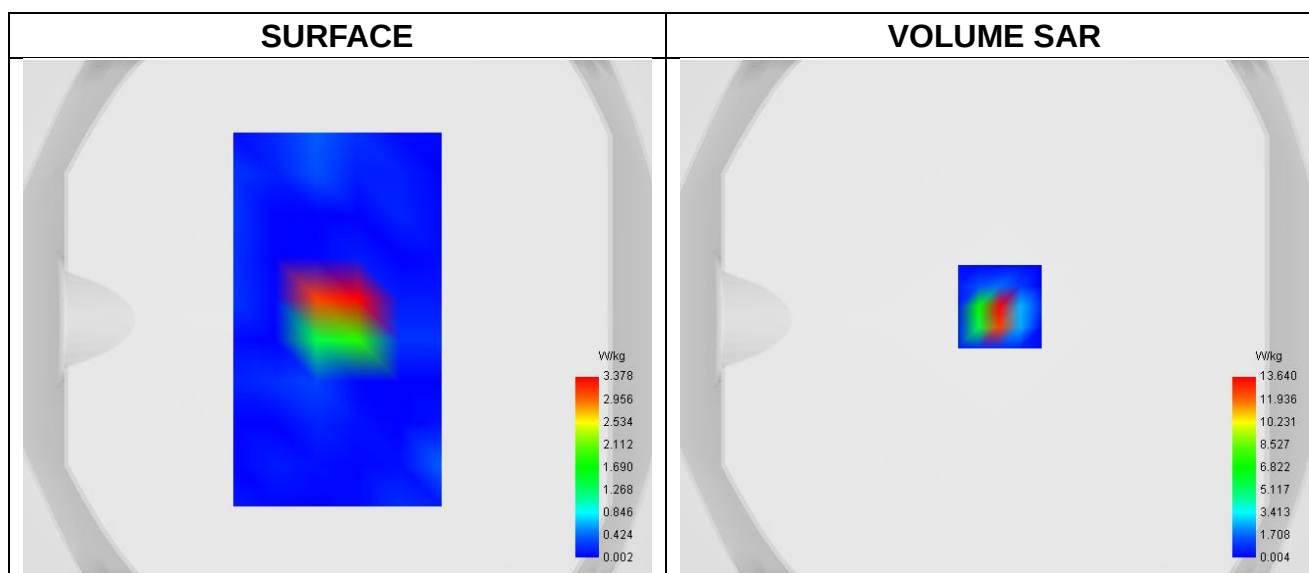
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=4mm, dy=4mm, dz=2mm

Date of measurement: 2024-01-14

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW
Frequency (MHz)	5800.000
Relative permittivity	36.20
Conductivity (S/m)	5.24
Probe	SN 04/22 EPGO364
ConvF	1.73
Crest factor:	1:1

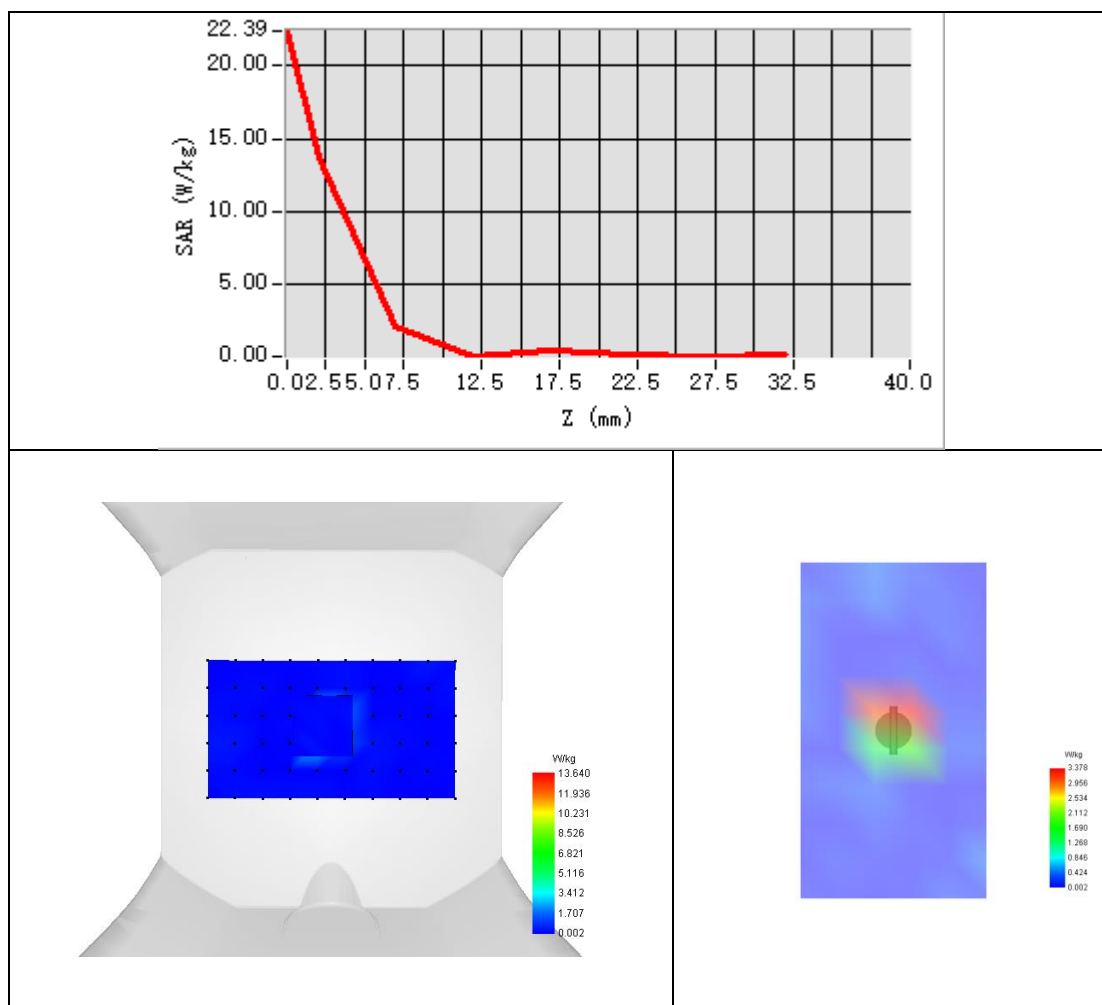


Maximum location: X=2.00, Y=5.00 ; SAR Peak: 27.38 W/kg

SAR 10g (W/Kg)	2.124
SAR 1g (W/Kg)	7.862



Z Axis Scan



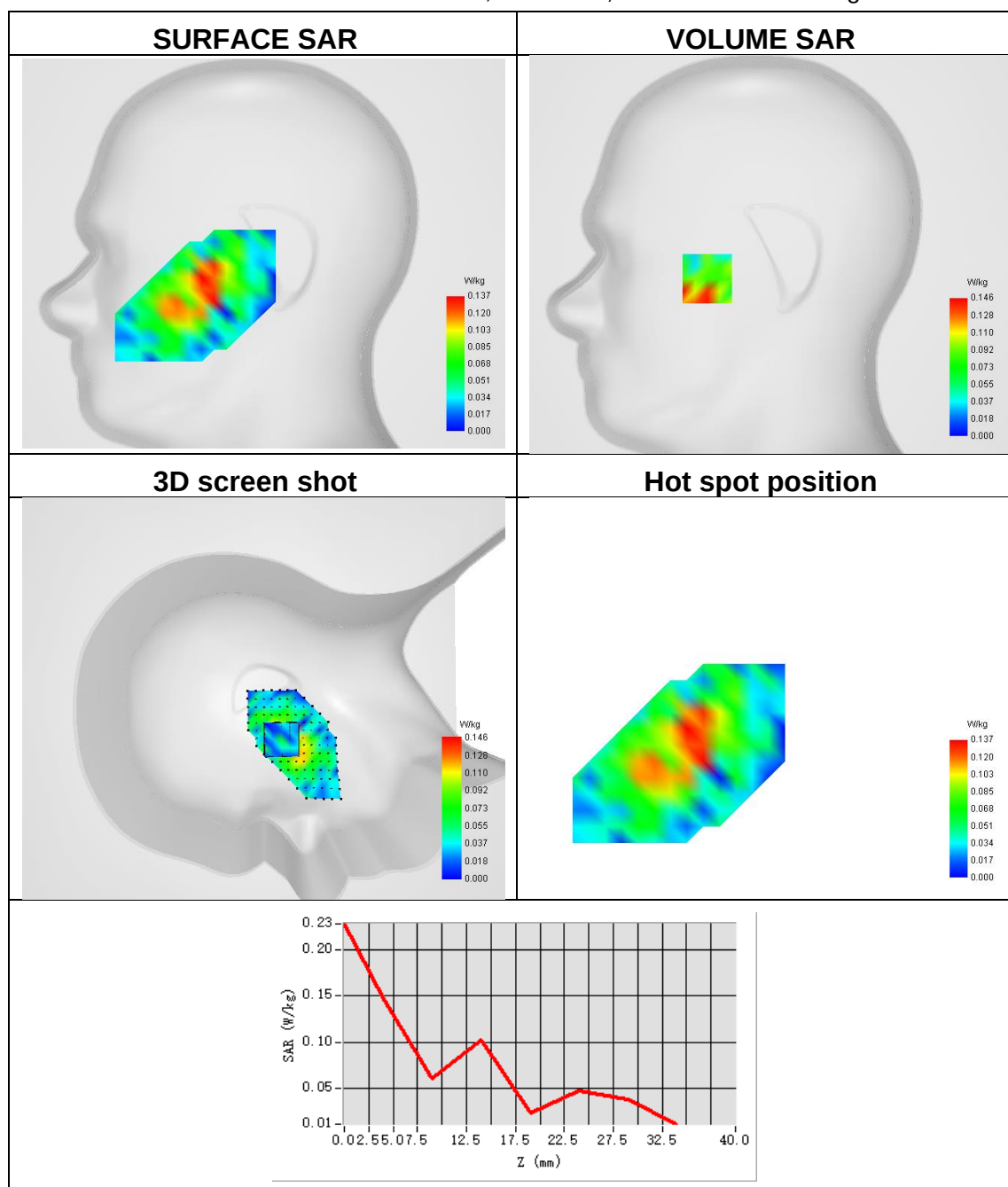


Appendix B. SAR Test Plots

Plot 1:

Test Date	2023-12-19
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	GSM900
Signal	TDMA (GSM)
Frequency	902.4
SAR 10g (W/Kg)	0.075
SAR 1g (W/Kg)	0.139

Maximum location: X=-40.00, Y=-16.00 ; SAR Peak: 0.29 W/kg

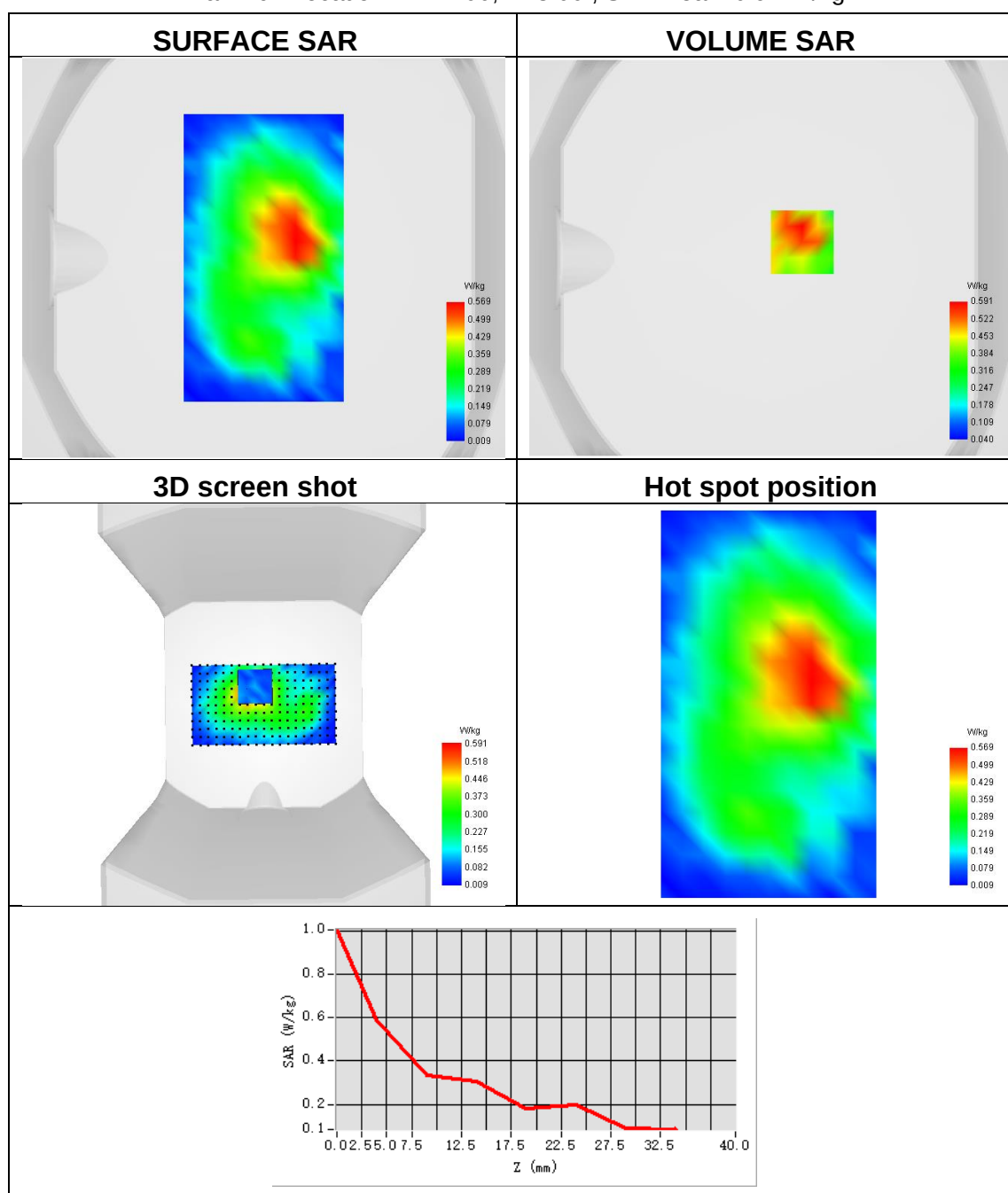




Plot 2:

Test Date	2023-12-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GPRS900
Signal	TDMA (GPRS)
Frequency	902.4
SAR 10g (W/Kg)	0.368
SAR 1g (W/Kg)	0.584

Maximum location: X=17.00, Y=8.00 ; SAR Peak: 0.92 W/kg

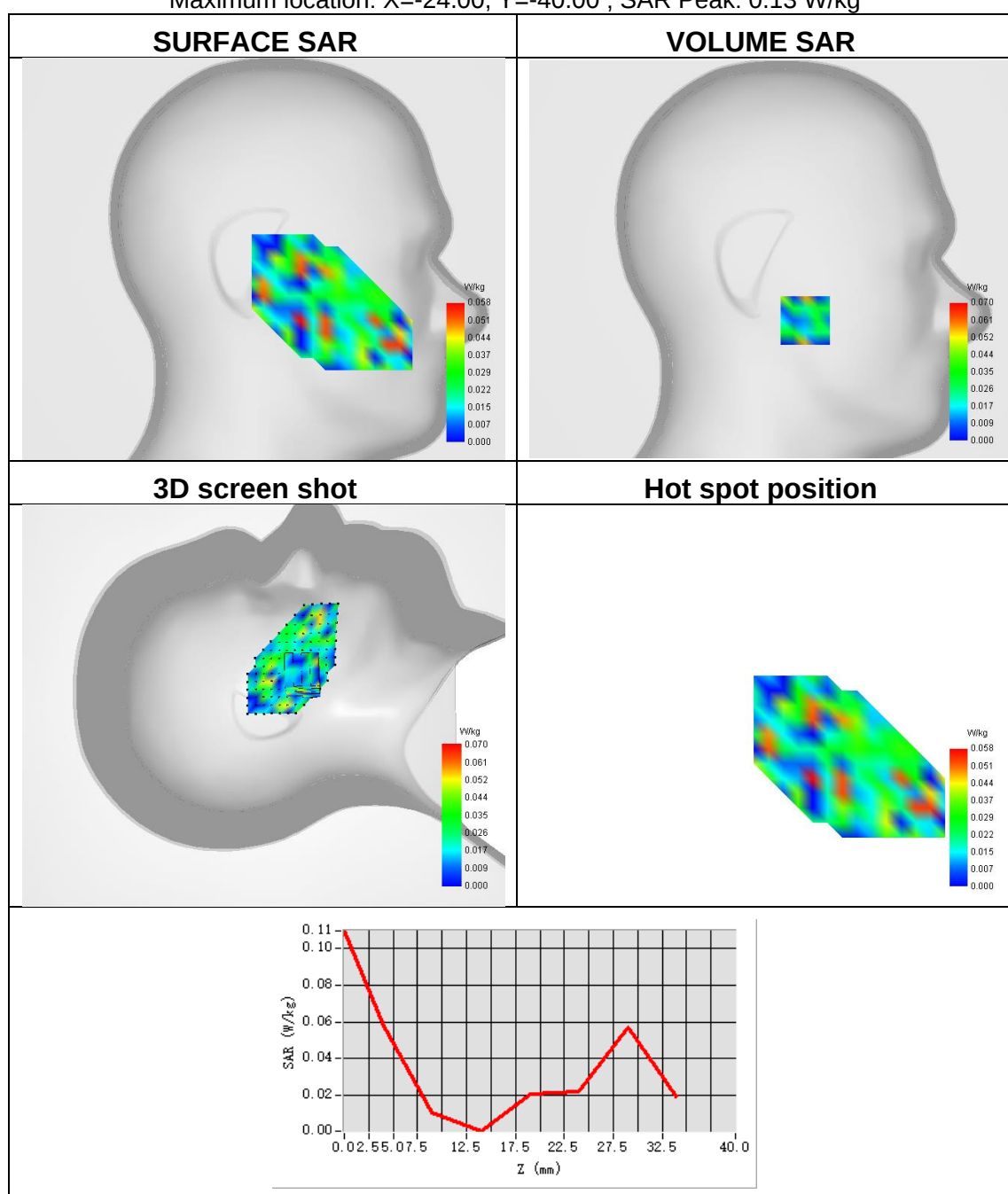




Plot 3:

Test Date	2023-12-26
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	GSM1800
Signal	TDMA (GSM)
Frequency	1784.8
SAR 10g (W/Kg)	0.020
SAR 1g (W/Kg)	0.033

Maximum location: X=-24.00, Y=-40.00 ; SAR Peak: 0.13 W/kg

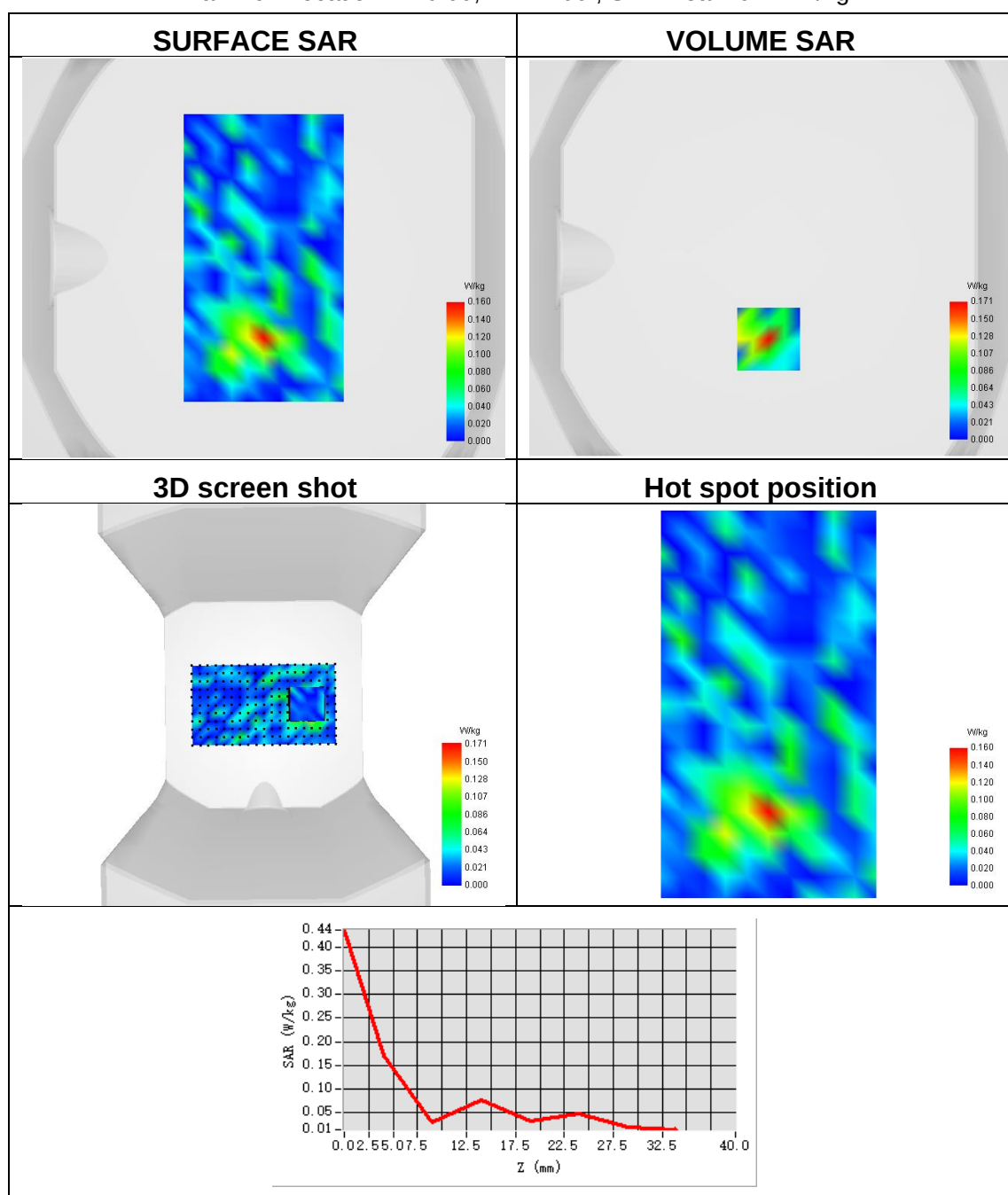




Plot 4:

Test Date	2023-12-26
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	GPRS1800
Signal	TDMA (GPRS)
Frequency	1710.2
SAR 10g (W/Kg)	0.059
SAR 1g (W/Kg)	0.151

Maximum location: X=0.00, Y=-41.00 ; SAR Peak: 0.41 W/kg

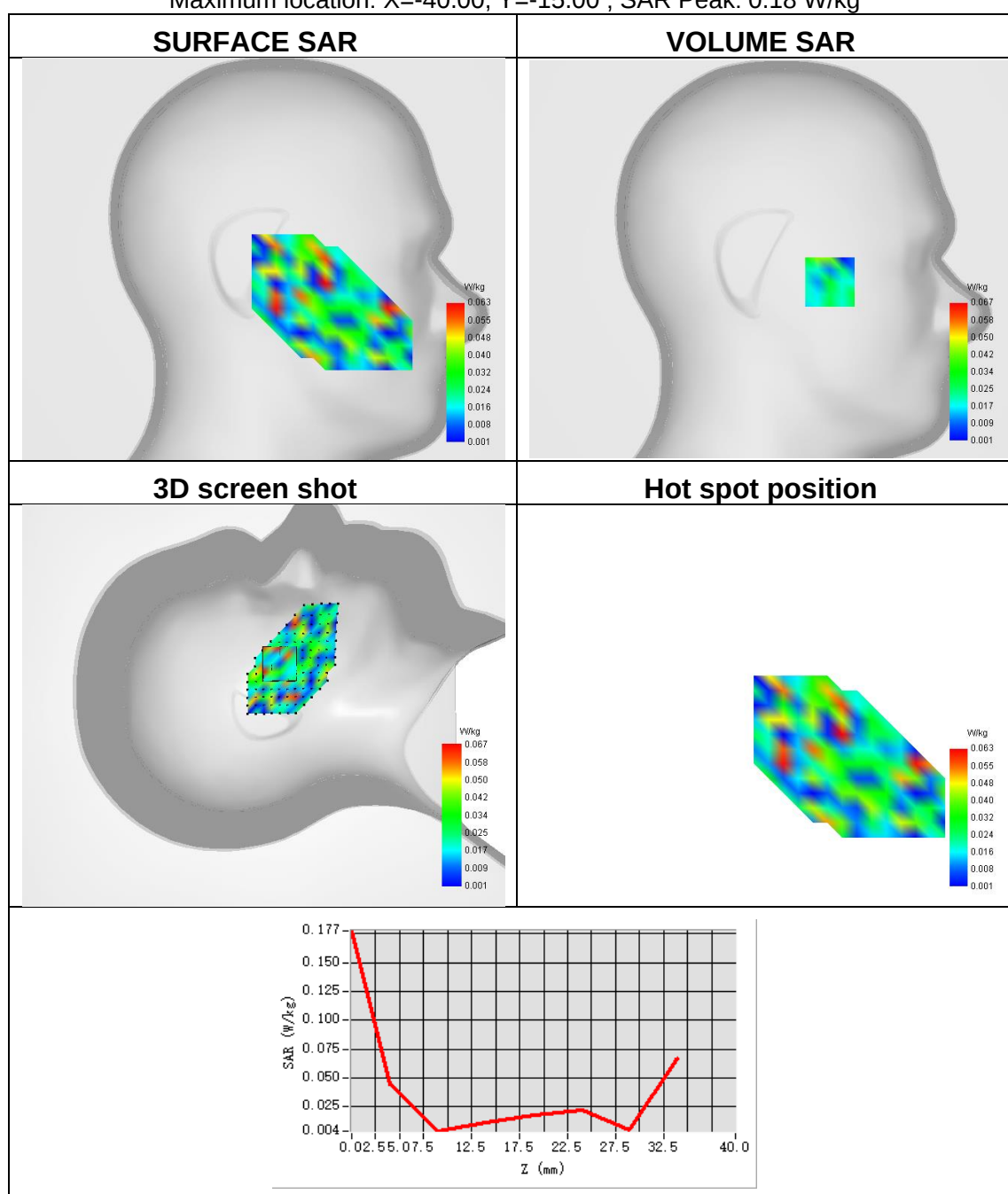




Plot 5:

Test Date	2023-12-23
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	Band 1 (UMTS)
Signal	WCDMA
Frequency	1950
SAR 10g (W/Kg)	0.021
SAR 1g (W/Kg)	0.052

Maximum location: X=-40.00, Y=-15.00 ; SAR Peak: 0.18 W/kg

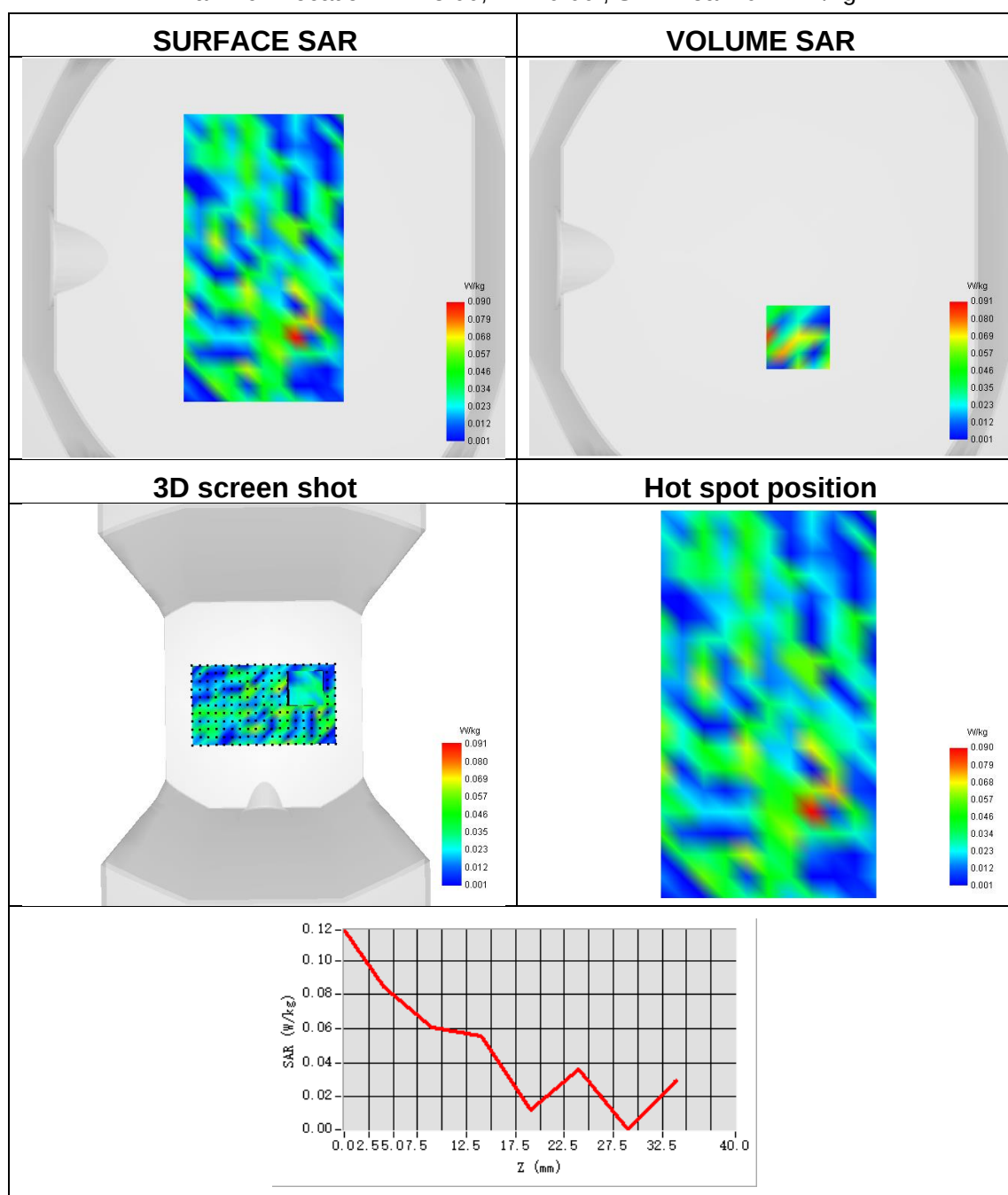




Plot 6:

Test Date	2023-12-23
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	Band 1 (UMTS)
Signal	WCDMA
Frequency	1950
SAR 10g (W/Kg)	0.041
SAR 1g (W/Kg)	0.084

Maximum location: X=15.00, Y=-40.00 ; SAR Peak: 0.21 W/kg

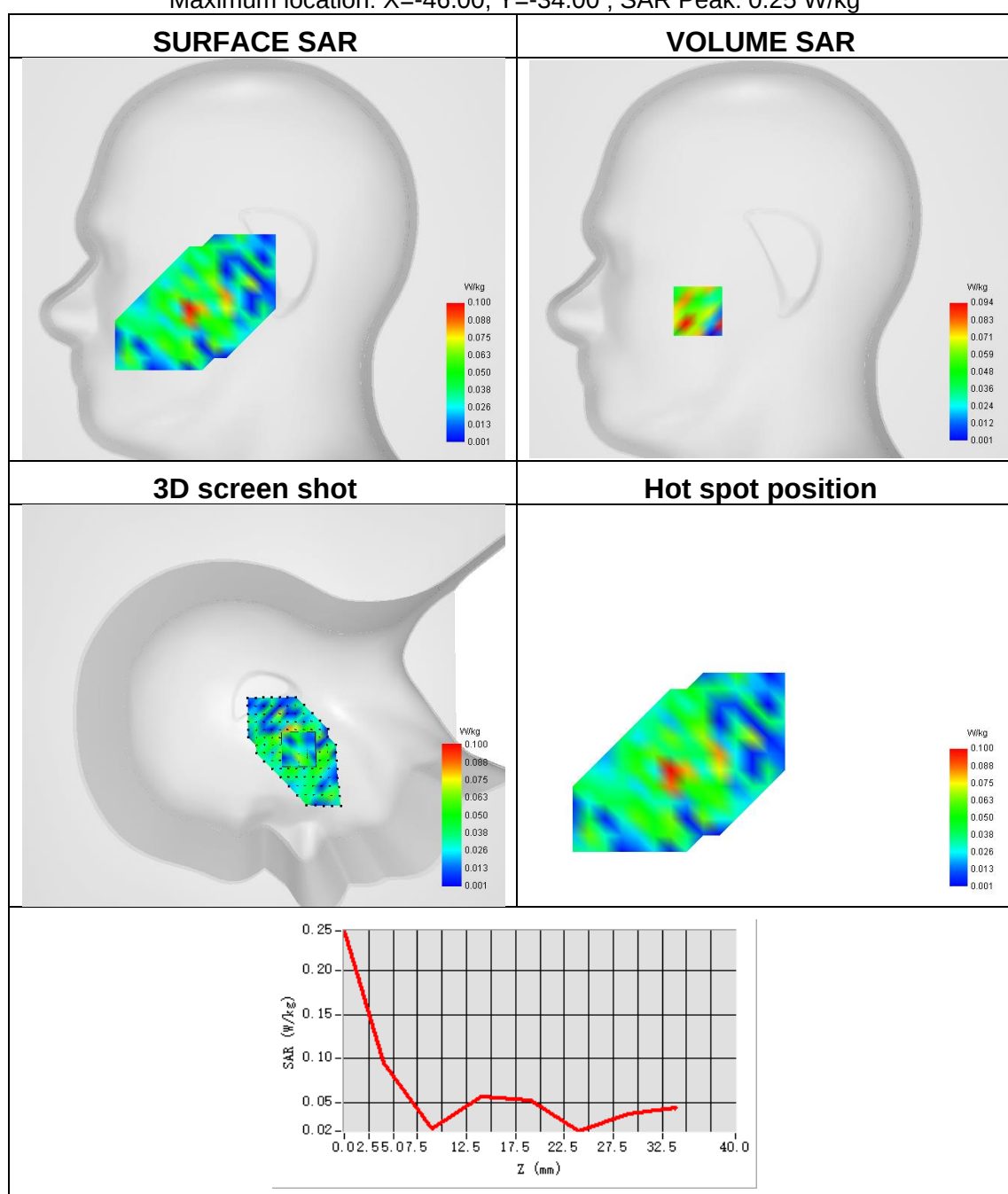




Plot 7:

Test Date	2023-12-19
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	Band 8 (900)
Signal	WCDMA
Frequency	882.4
SAR 10g (W/Kg)	0.036
SAR 1g (W/Kg)	0.074

Maximum location: X=-46.00, Y=-34.00 ; SAR Peak: 0.25 W/kg

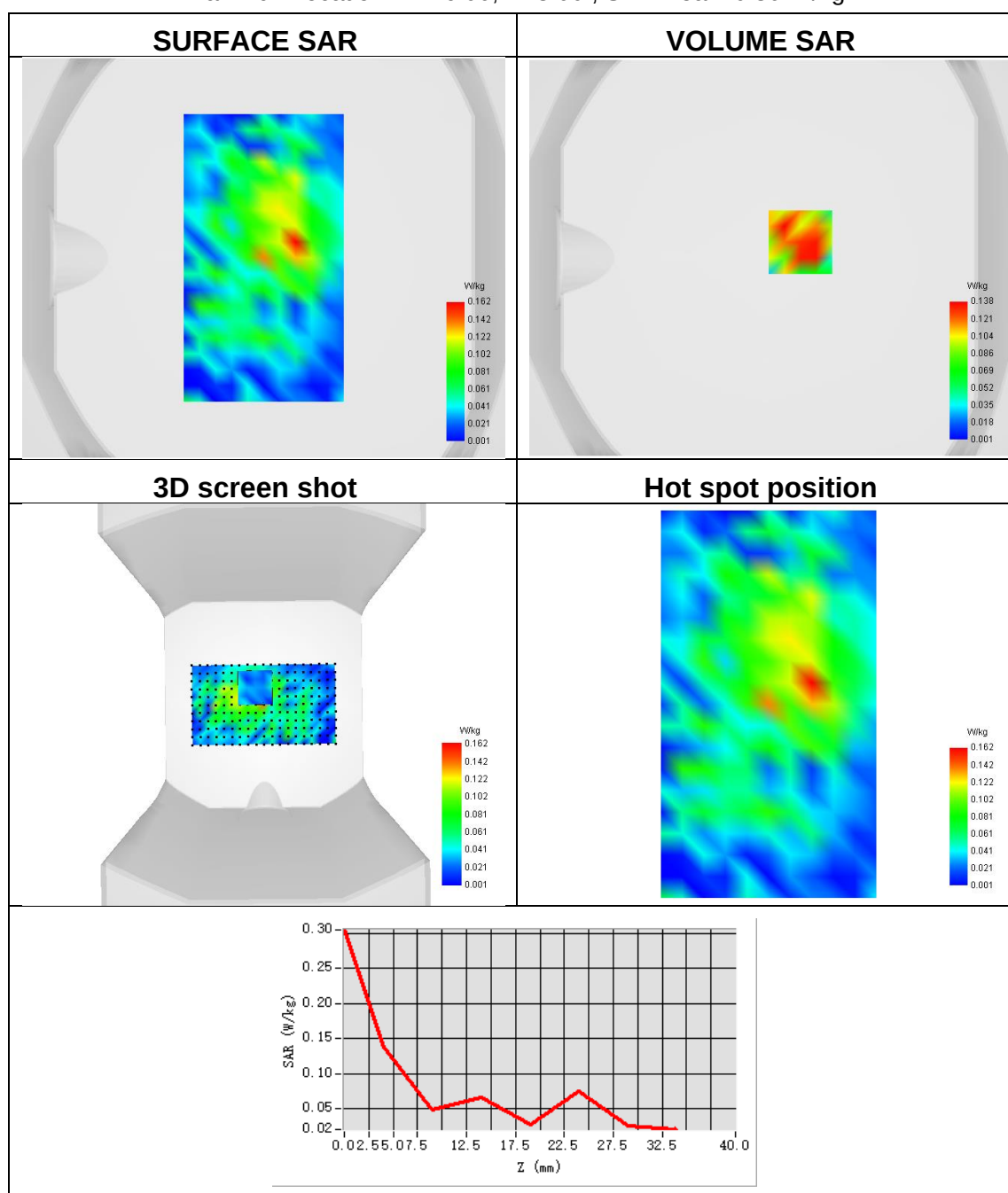




Plot 8:

Test Date	2023-12-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	Band 8 (900)
Signal	WCDMA
Frequency	882.4
SAR 10g (W/Kg)	0.081
SAR 1g (W/Kg)	0.146

Maximum location: X=16.00, Y=8.00 ; SAR Peak: 0.30 W/kg

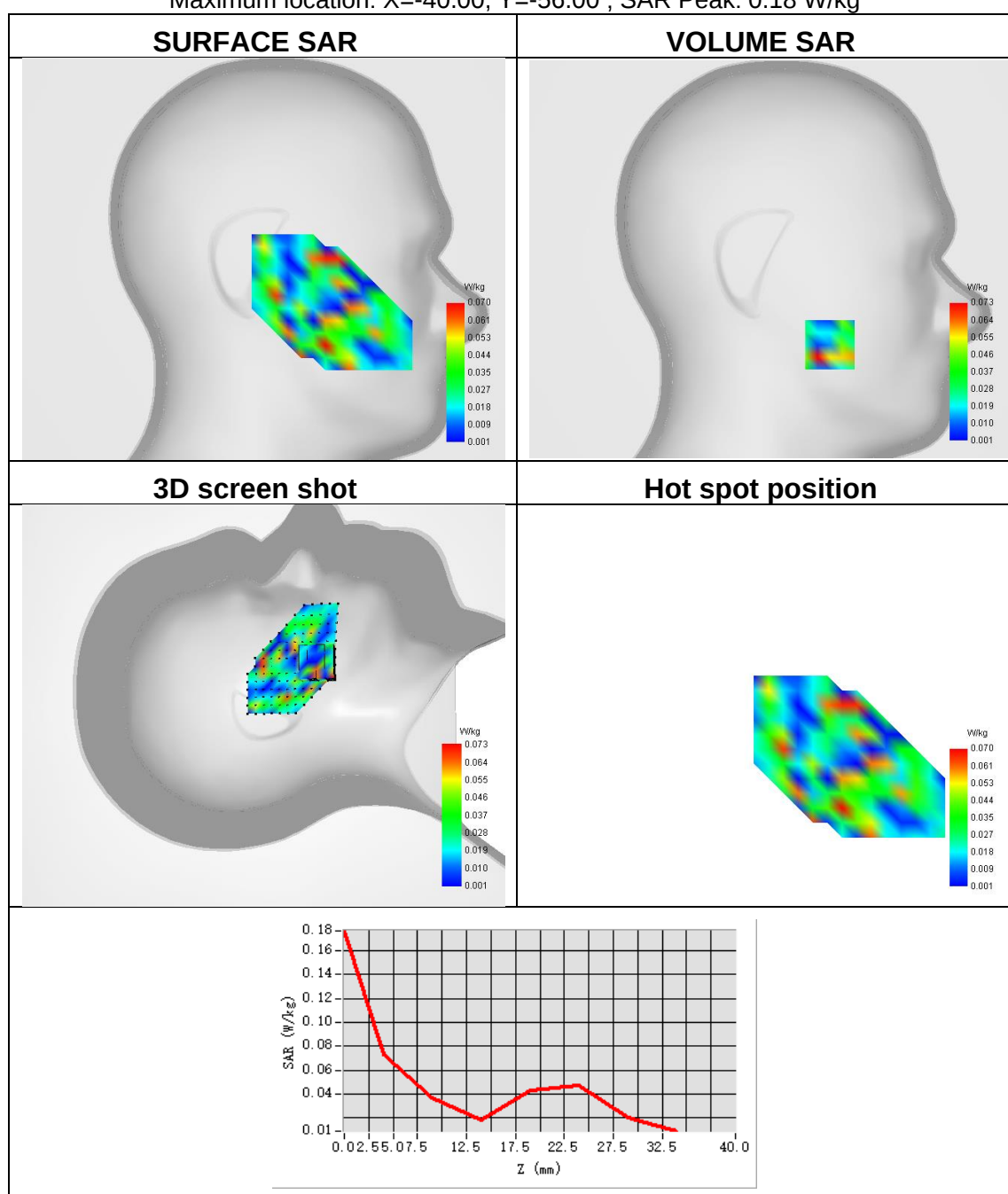




Plot 9:

Test Date	2023-12-23
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 1
Signal	LTE FDD
Frequency	1950
SAR 10g (W/Kg)	0.023
SAR 1g (W/Kg)	0.059

Maximum location: X=-40.00, Y=-56.00 ; SAR Peak: 0.18 W/kg

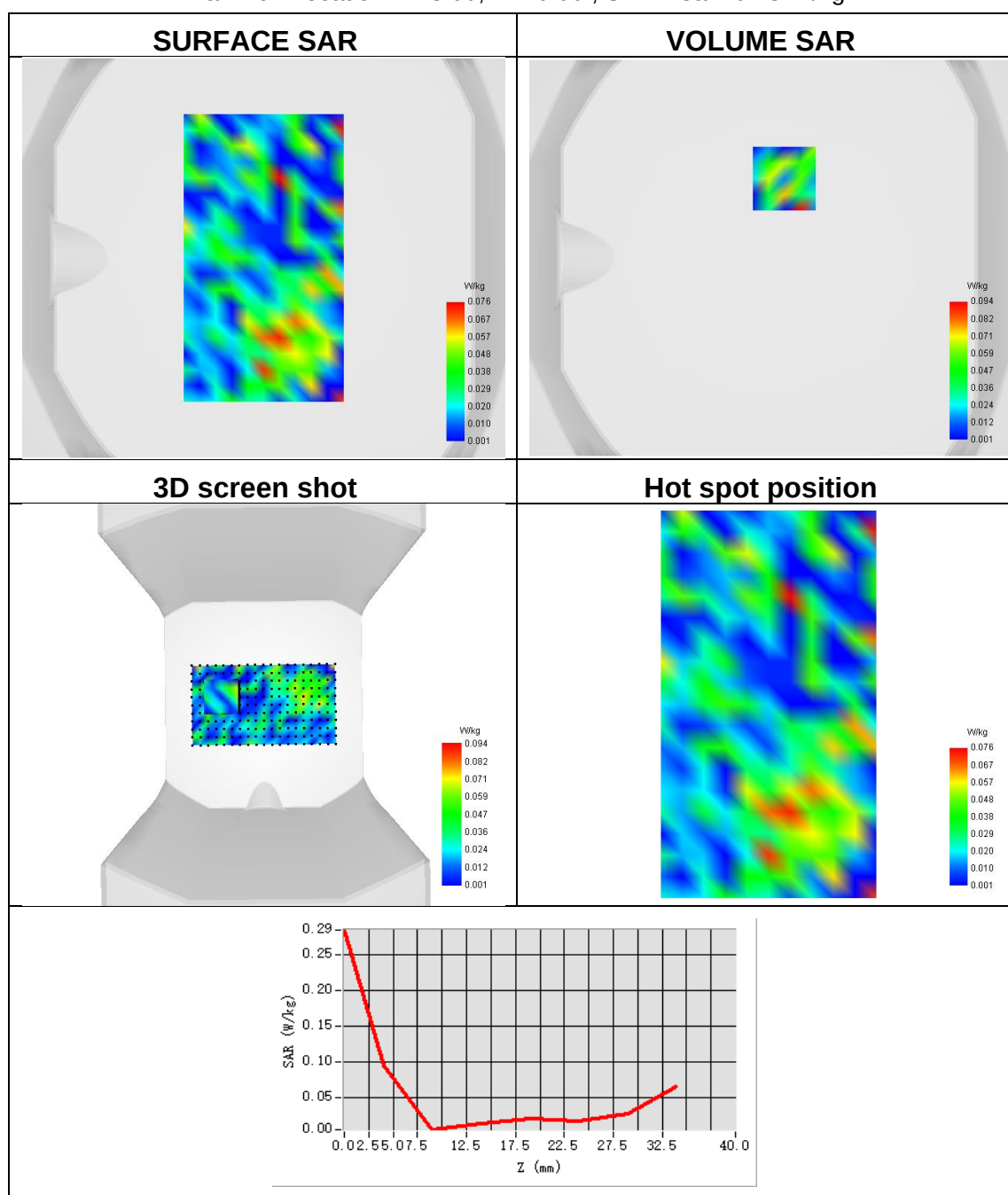




Plot 10:

Test Date	2023-12-23
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 1
Signal	LTE FDD
Frequency	1950
SAR 10g (W/Kg)	0.034
SAR 1g (W/Kg)	0.079

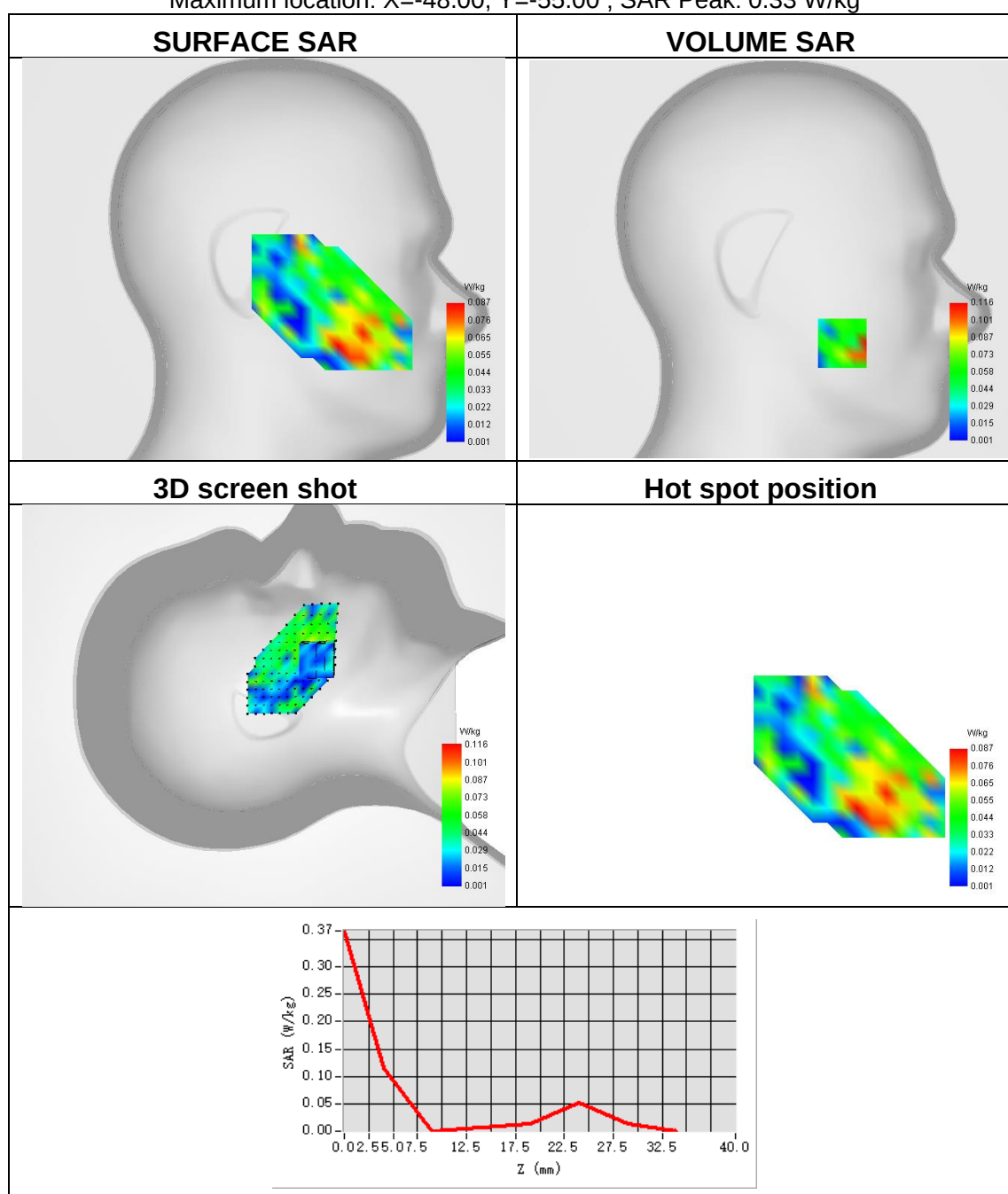
Maximum location: X=8.00, Y=40.00 ; SAR Peak: 0.28 W/kg



Plot 11:

Test Date	2023-12-26
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 3
Signal	LTE FDD
Frequency	1747.5
SAR 10g (W/Kg)	0.040
SAR 1g (W/Kg)	0.090

Maximum location: X=-48.00, Y=-55.00 ; SAR Peak: 0.33 W/kg

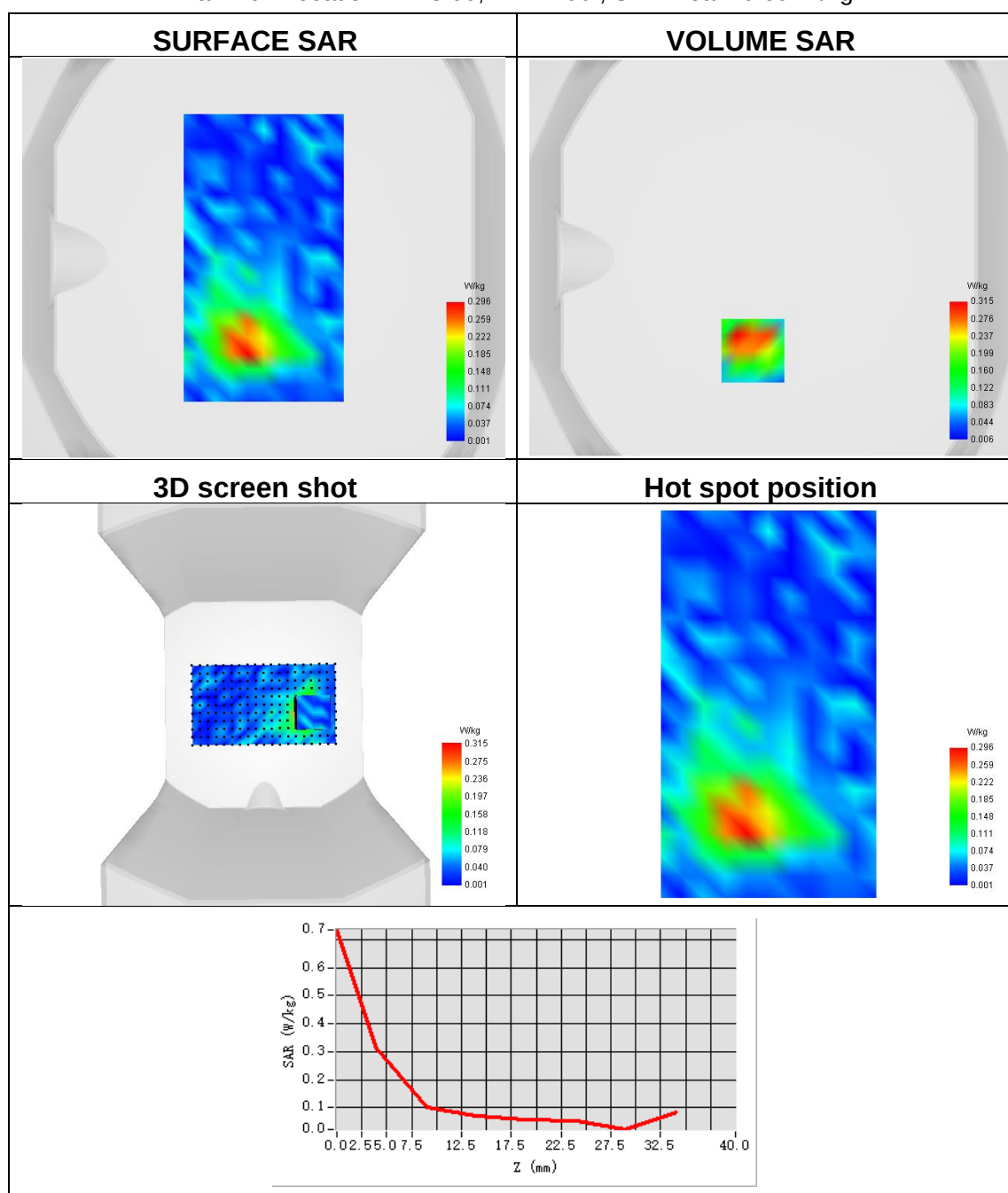




Plot 12:

Test Date	2023-12-26
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 3
Signal	LTE FDD
Frequency	1747.5
SAR 10g (W/Kg)	0.146
SAR 1g (W/Kg)	0.317

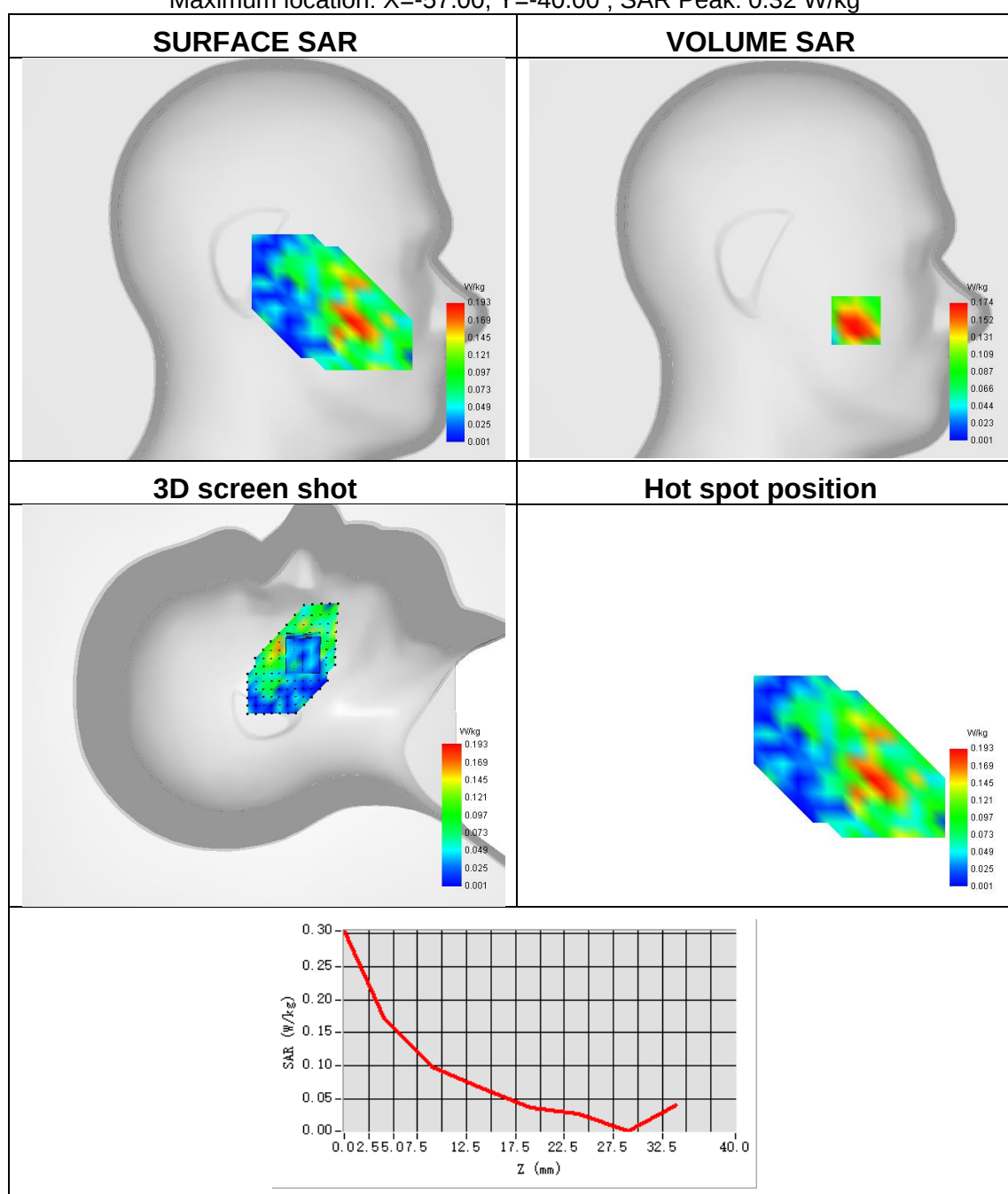
Maximum location: X=-8.00, Y=-47.00 ; SAR Peak: 0.69 W/kg



Plot 13:

Test Date	2023-12-22
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 7
Signal	LTE FDD
Frequency	2535
SAR 10g (W/Kg)	0.085
SAR 1g (W/Kg)	0.171

Maximum location: X=-57.00, Y=-40.00 ; SAR Peak: 0.32 W/kg

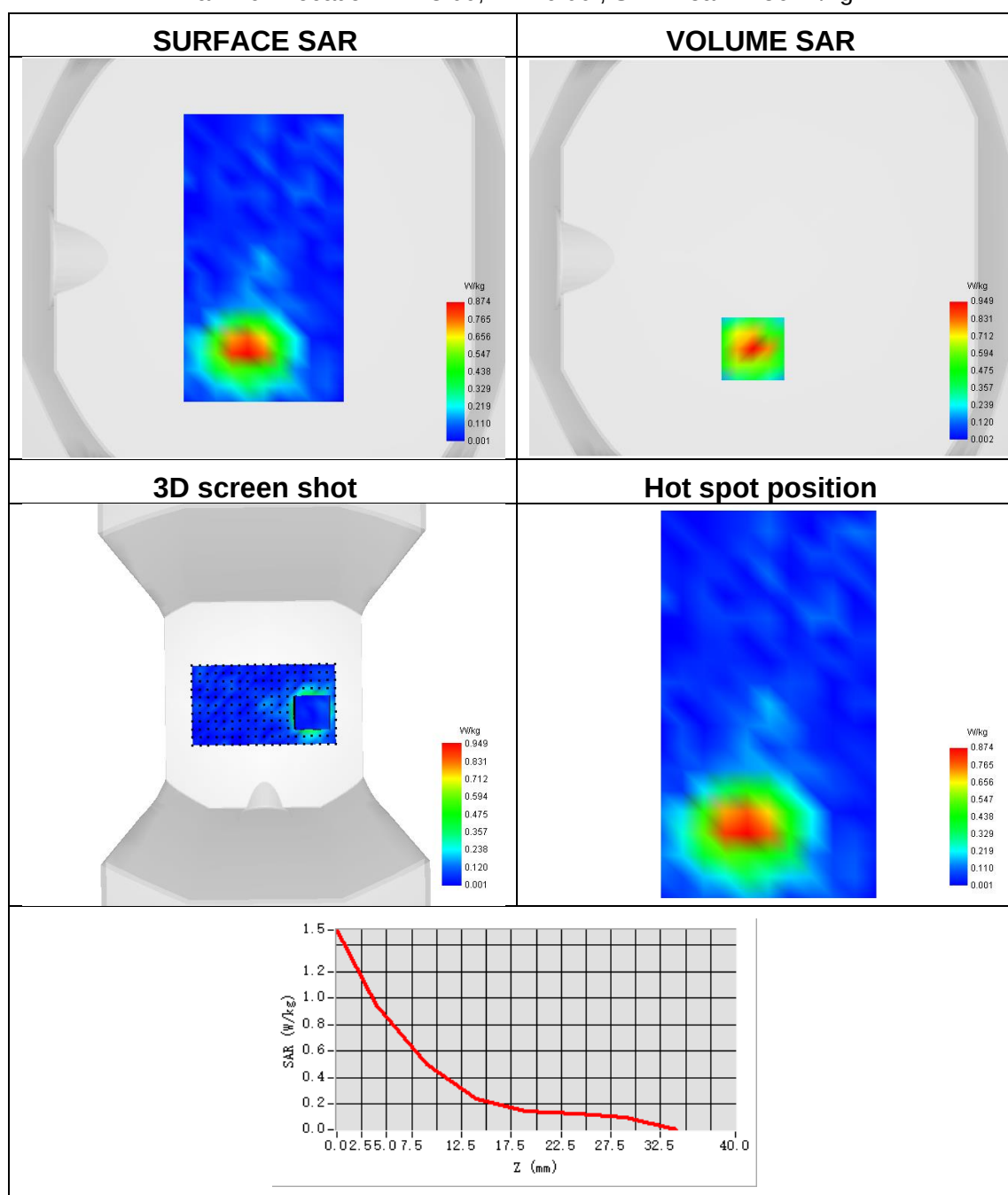




Plot 14:

Test Date	2023-12-22
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 7
Signal	LTE FDD
Frequency	2535
SAR 10g (W/Kg)	0.429
SAR 1g (W/Kg)	0.864

Maximum location: X=-8.00, Y=-46.00 ; SAR Peak: 1.56 W/kg

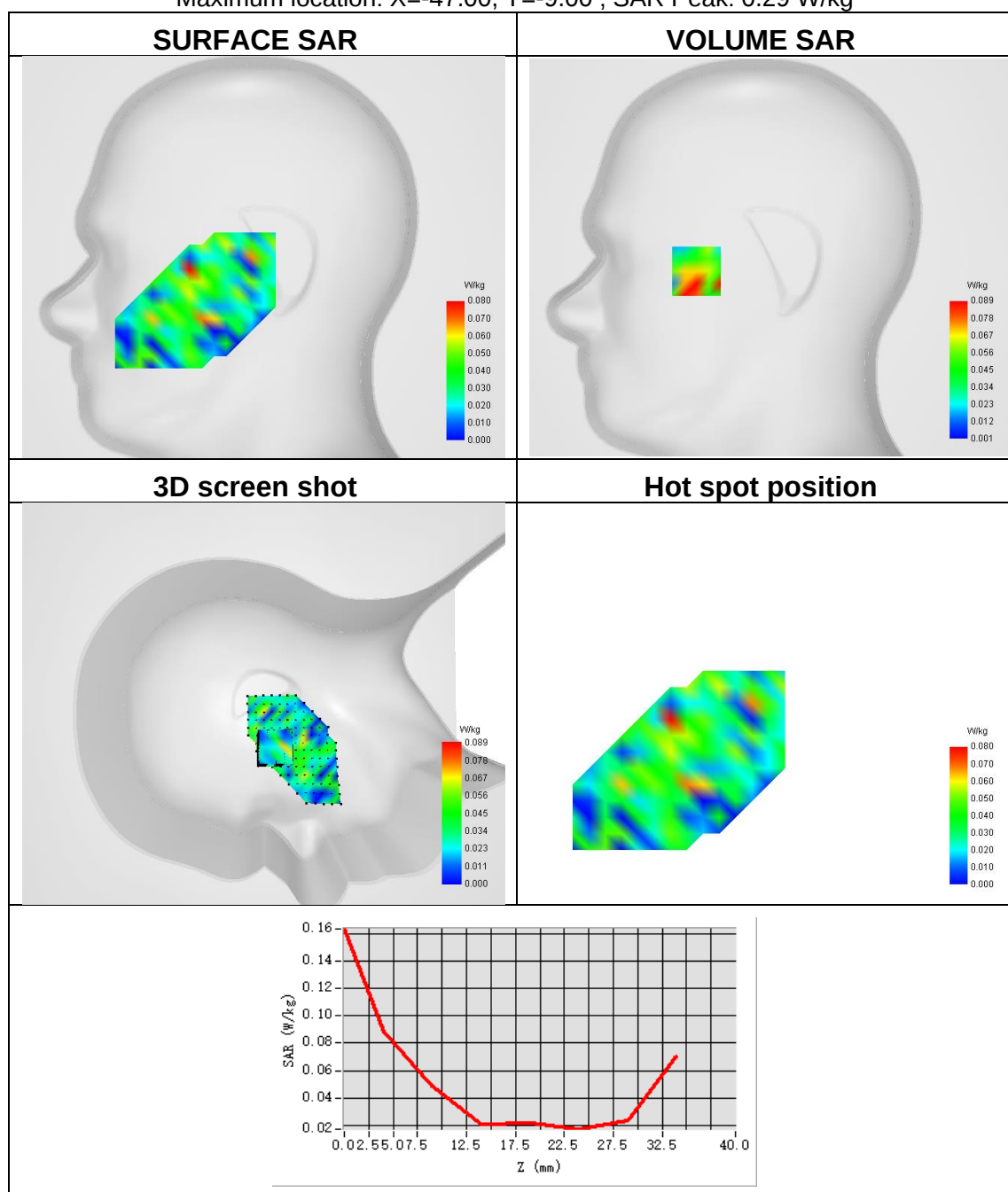




Plot 15:

Test Date	2023-12-19
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE band 8
Signal	LTE FDD
Frequency	897.5
SAR 10g (W/Kg)	0.058
SAR 1g (W/Kg)	0.121

Maximum location: X=-47.00, Y=-9.00 ; SAR Peak: 0.29 W/kg

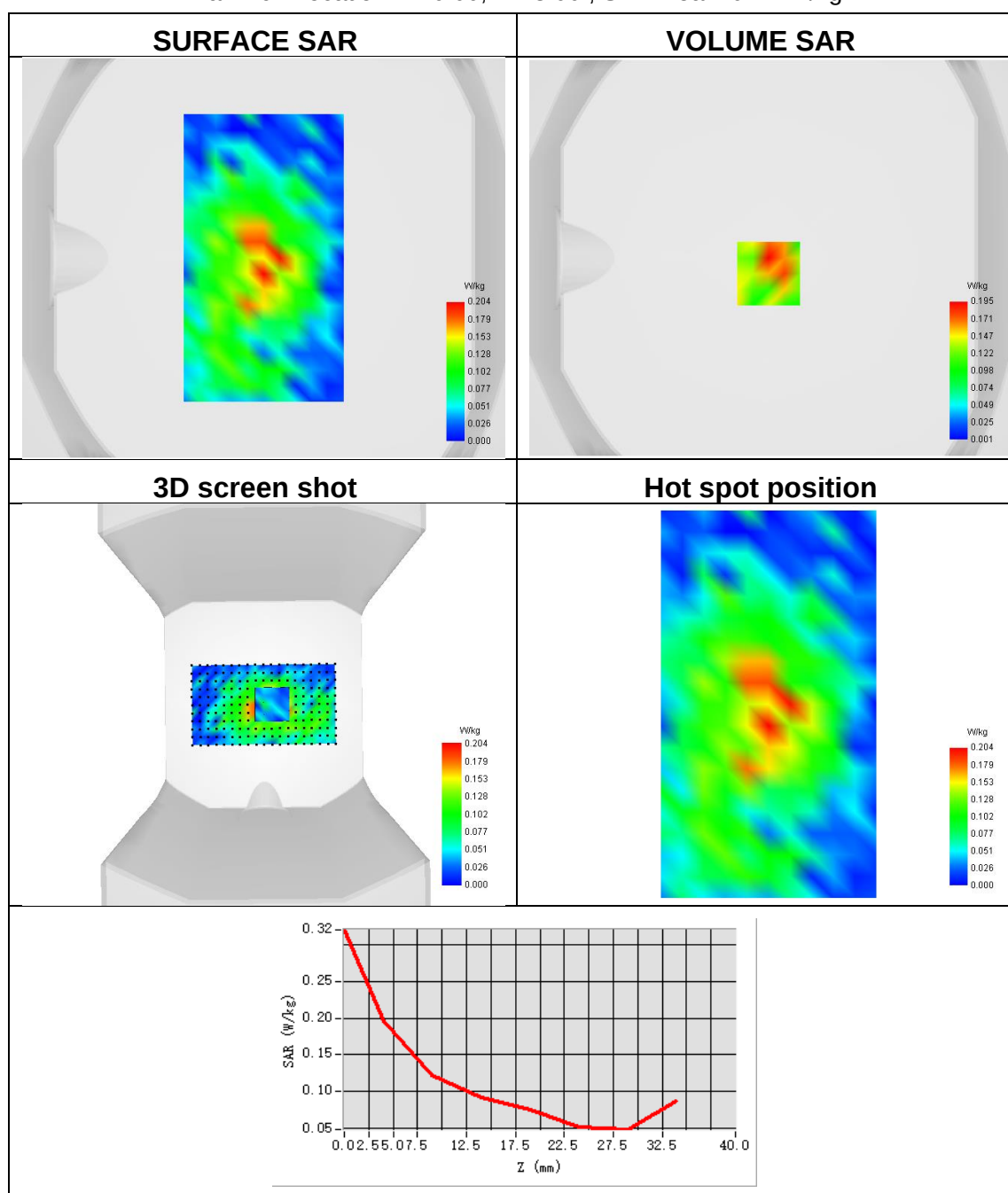




Plot 16:

Test Date	2023-12-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 8
Signal	LTE FDD
Frequency	897.5
SAR 10g (W/Kg)	0.104
SAR 1g (W/Kg)	0.175

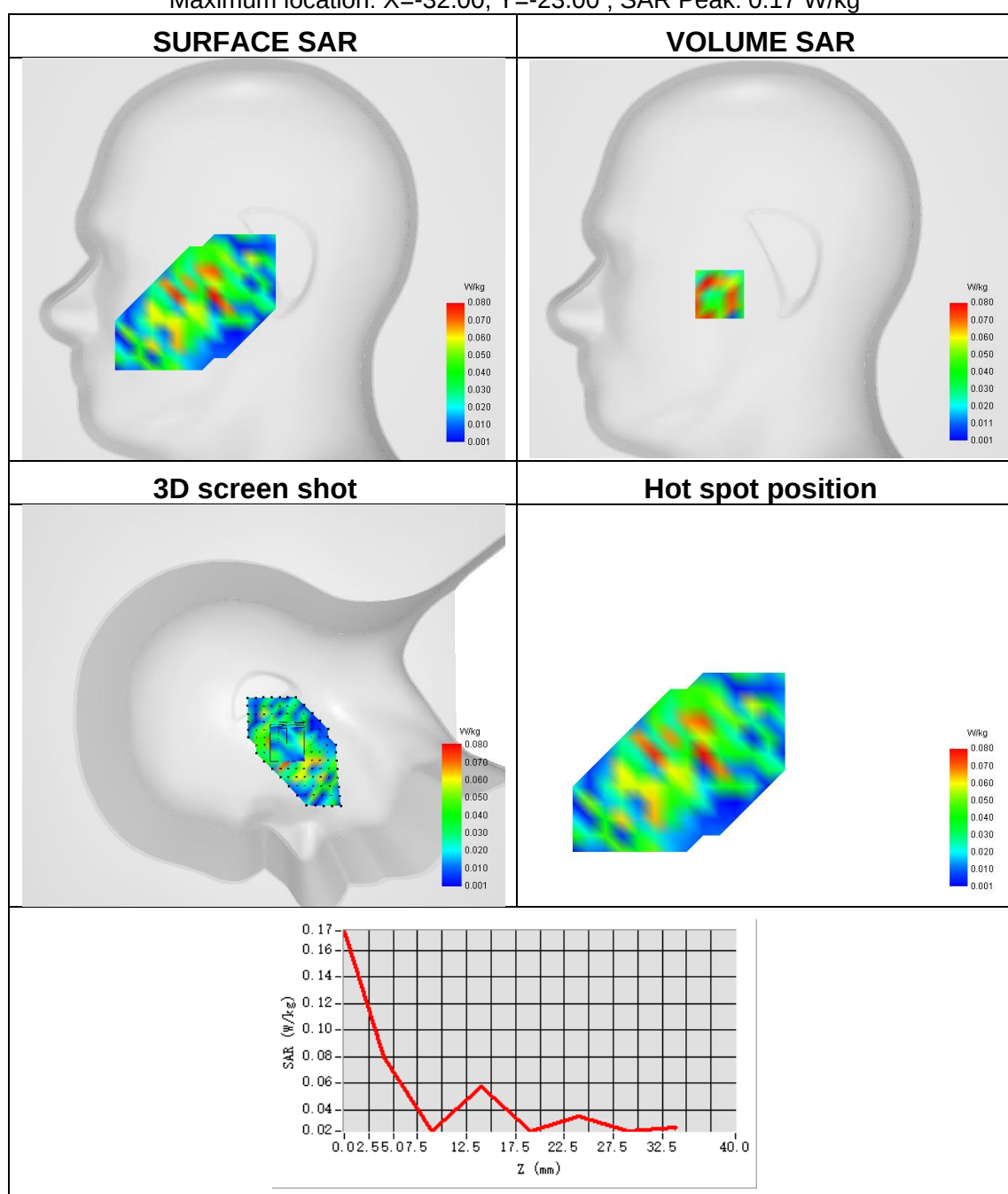
Maximum location: X=0.00, Y=-8.00 ; SAR Peak: 0.42 W/kg



Plot 17:

Test Date	2023-12-19
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE band 20
Signal	LTE FDD
Frequency	842
SAR 10g (W/Kg)	0.036
SAR 1g (W/Kg)	0.067

Maximum location: X=-32.00, Y=-23.00 ; SAR Peak: 0.17 W/kg

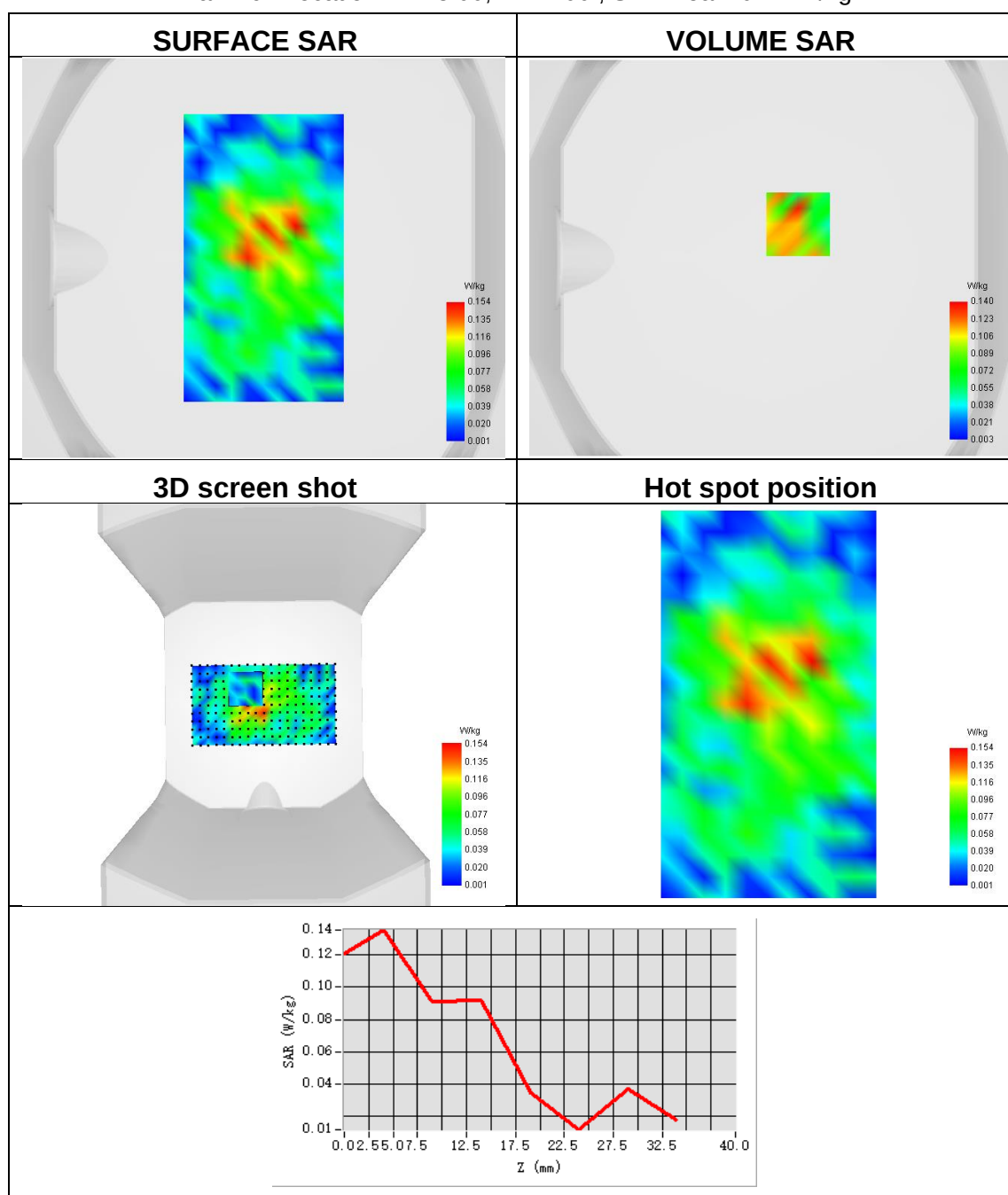




Plot 18:

Test Date	2023-12-19
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 20
Signal	LTE FDD
Frequency	842
SAR 10g (W/Kg)	0.071
SAR 1g (W/Kg)	0.110

Maximum location: X=15.00, Y=17.00 ; SAR Peak: 0.21 W/kg

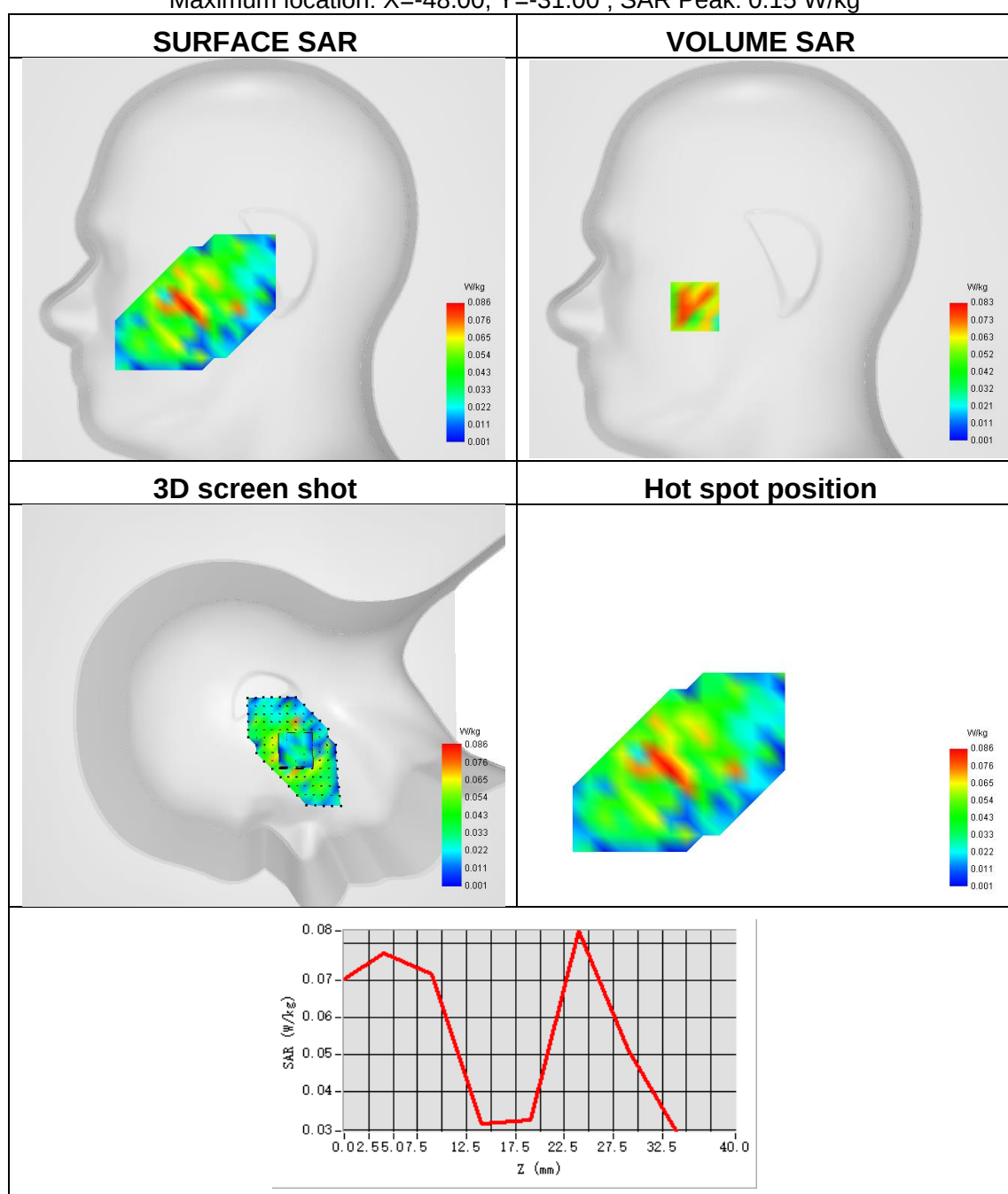




Plot 19:

Test Date	2023-12-27
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE band 28
Signal	LTE FDD
Frequency	728
SAR 10g (W/Kg)	0.053
SAR 1g (W/Kg)	0.084

Maximum location: X=-48.00, Y=-31.00 ; SAR Peak: 0.15 W/kg

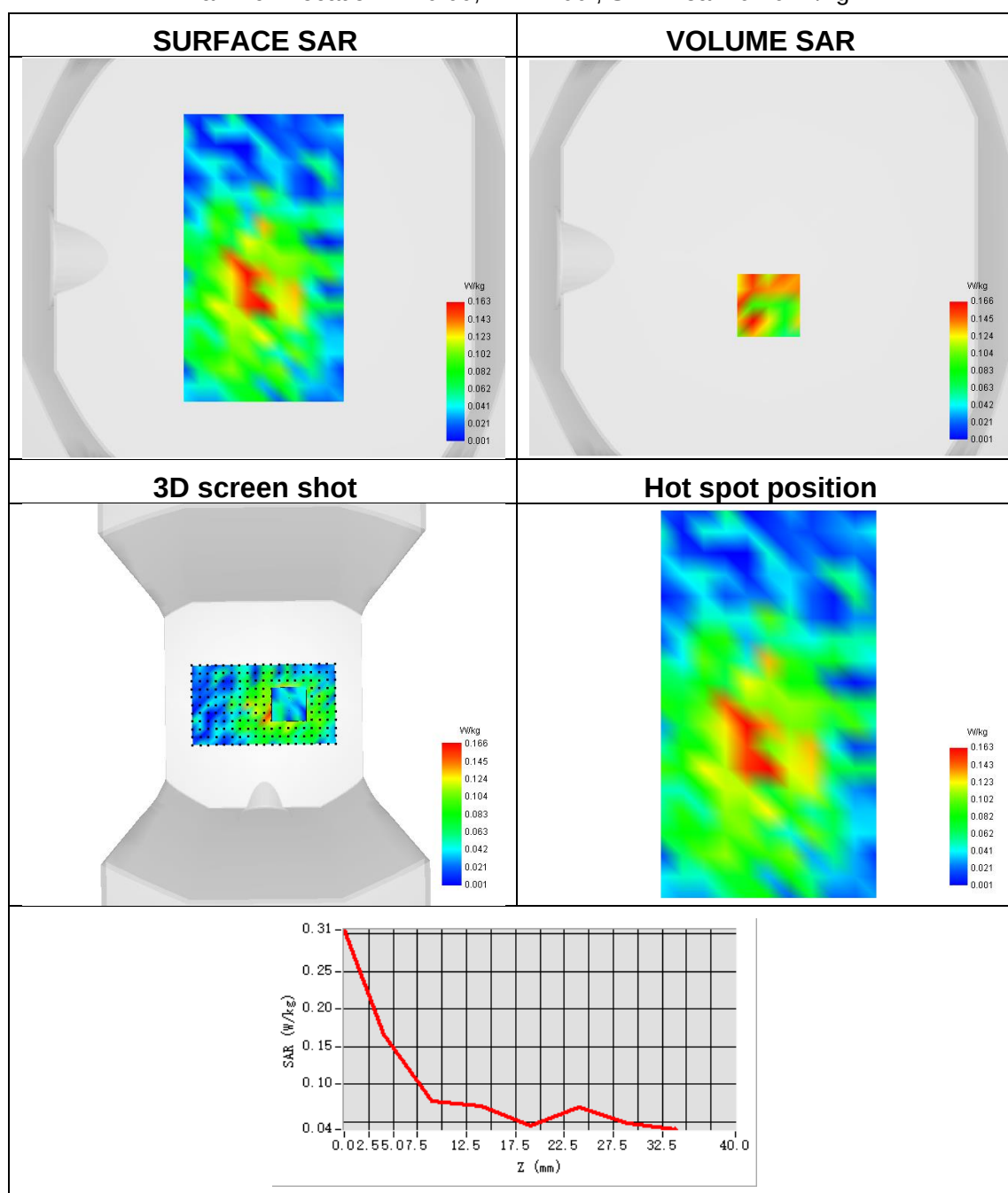




Plot 20:

Test Date	2023-12-27
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 28
Signal	LTE FDD
Frequency	728
SAR 10g (W/Kg)	0.077
SAR 1g (W/Kg)	0.189

Maximum location: X=0.00, Y=-24.00 ; SAR Peak: 0.40 W/kg

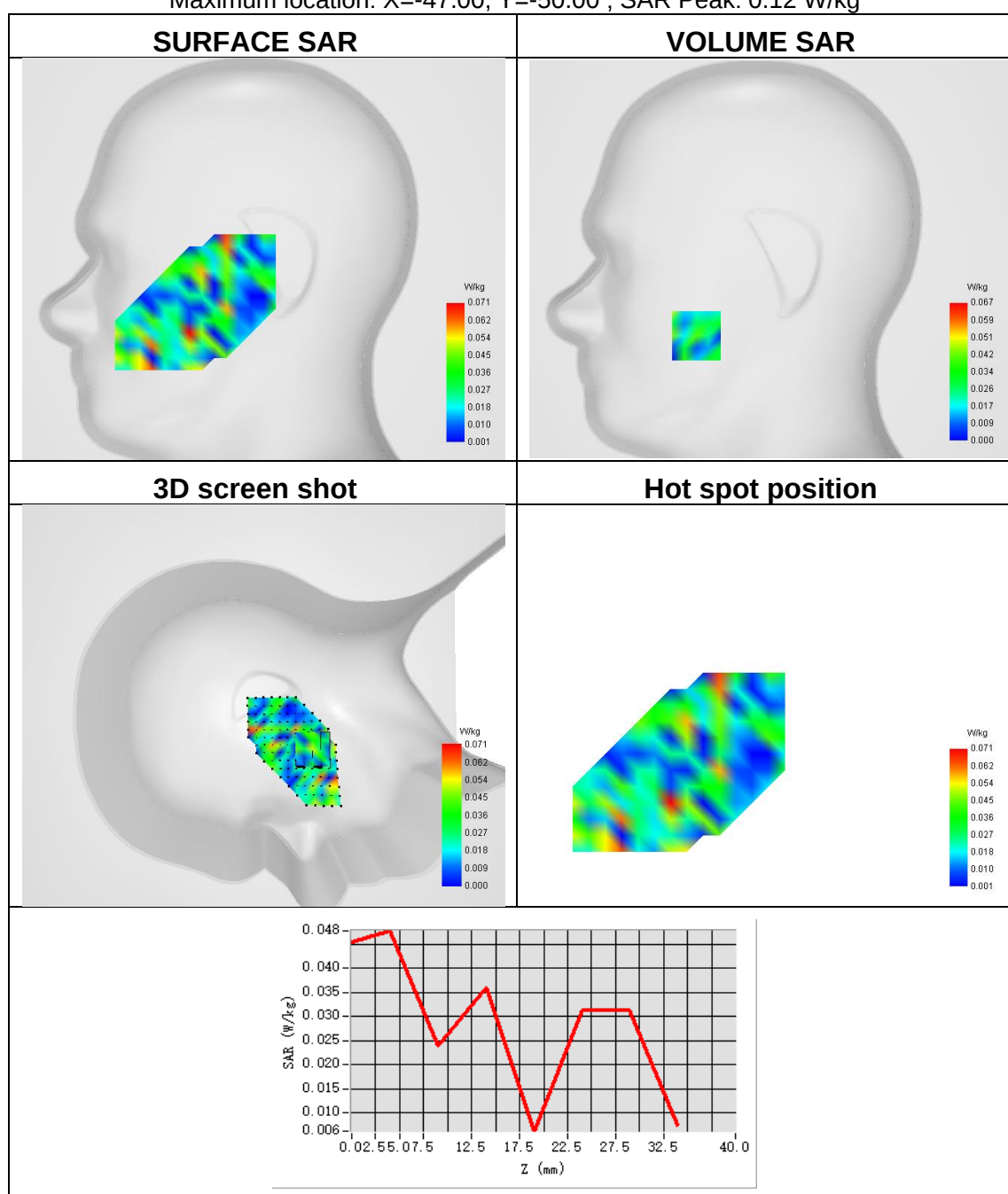




Plot 21:

Test Date	2023-12-20
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE band 34
Signal	LTE TDD
Frequency	2017.5
SAR 10g (W/Kg)	0.023
SAR 1g (W/Kg)	0.047

Maximum location: X=-47.00, Y=-50.00 ; SAR Peak: 0.12 W/kg

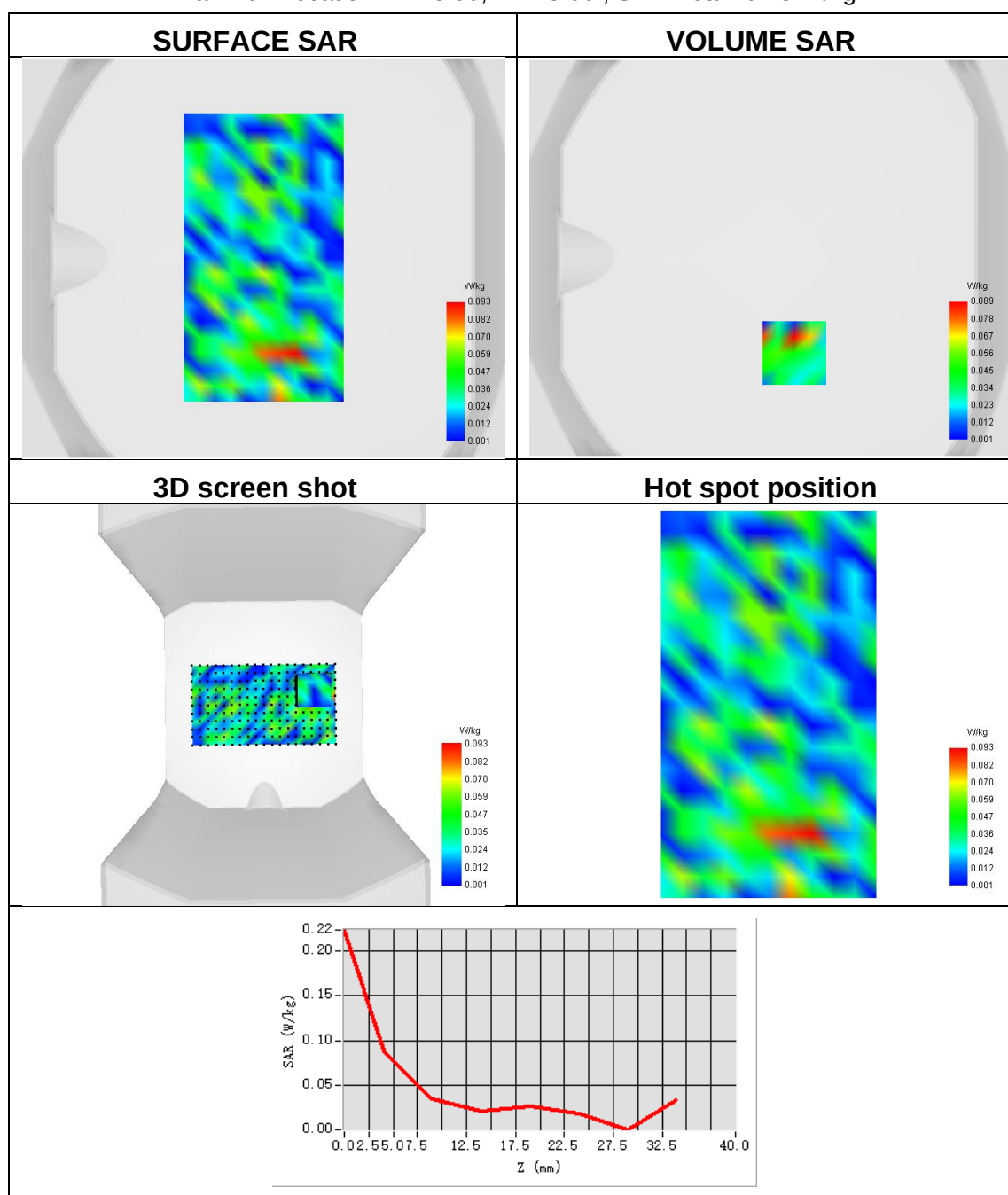




Plot 22:

Test Date	2023-12-20
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 34
Signal	LTE TDD
Frequency	2017.5
SAR 10g (W/Kg)	0.032
SAR 1g (W/Kg)	0.075

Maximum location: X=13.00, Y=-48.00 ; SAR Peak: 0.18 W/kg

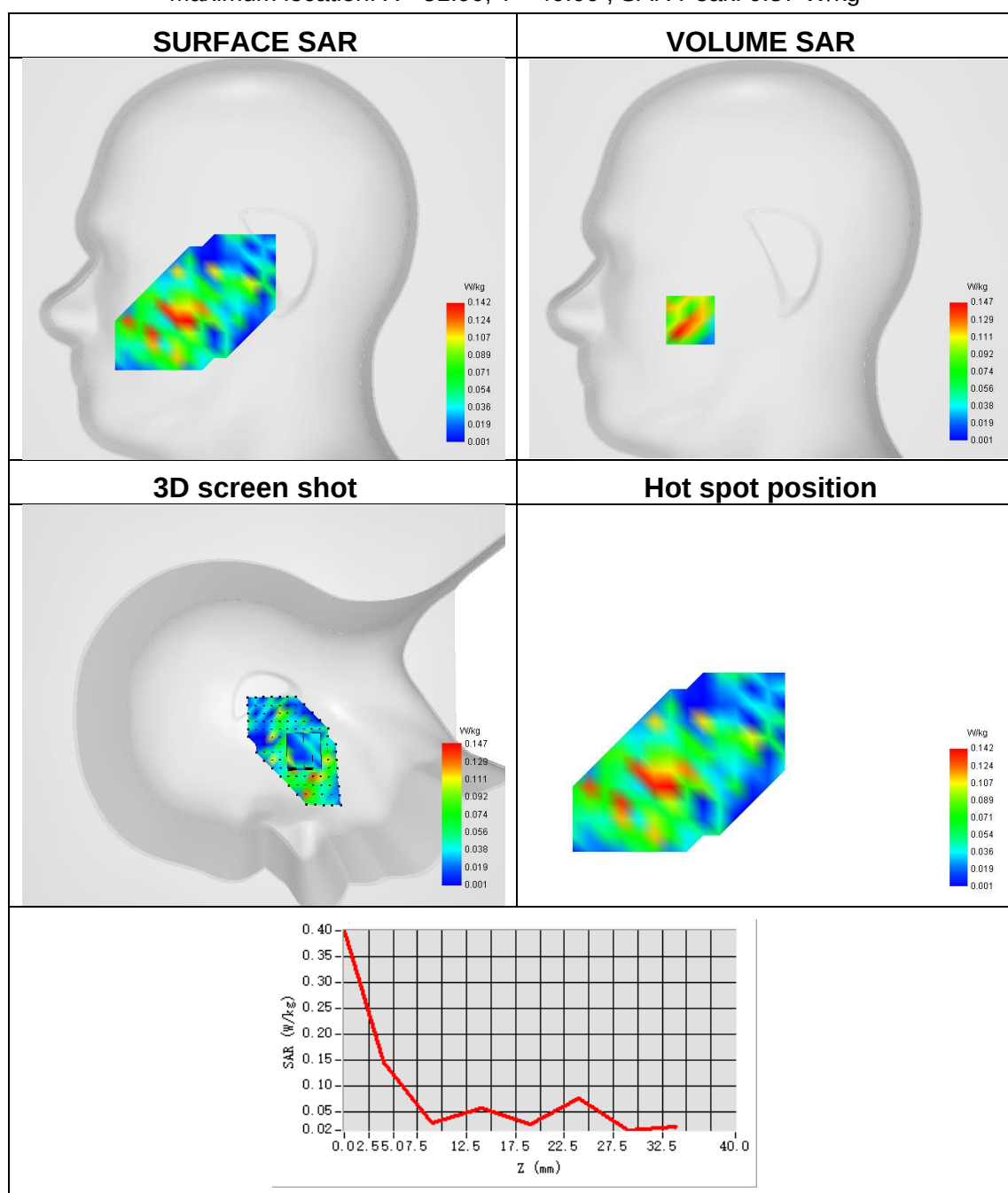




Plot 23:

Test Date	2023-12-22
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE band 38
Signal	LTE TDD
Frequency	2595
SAR 10g (W/Kg)	0.071
SAR 1g (W/Kg)	0.159

Maximum location: X=-51.00, Y=-40.00 ; SAR Peak: 0.37 W/kg

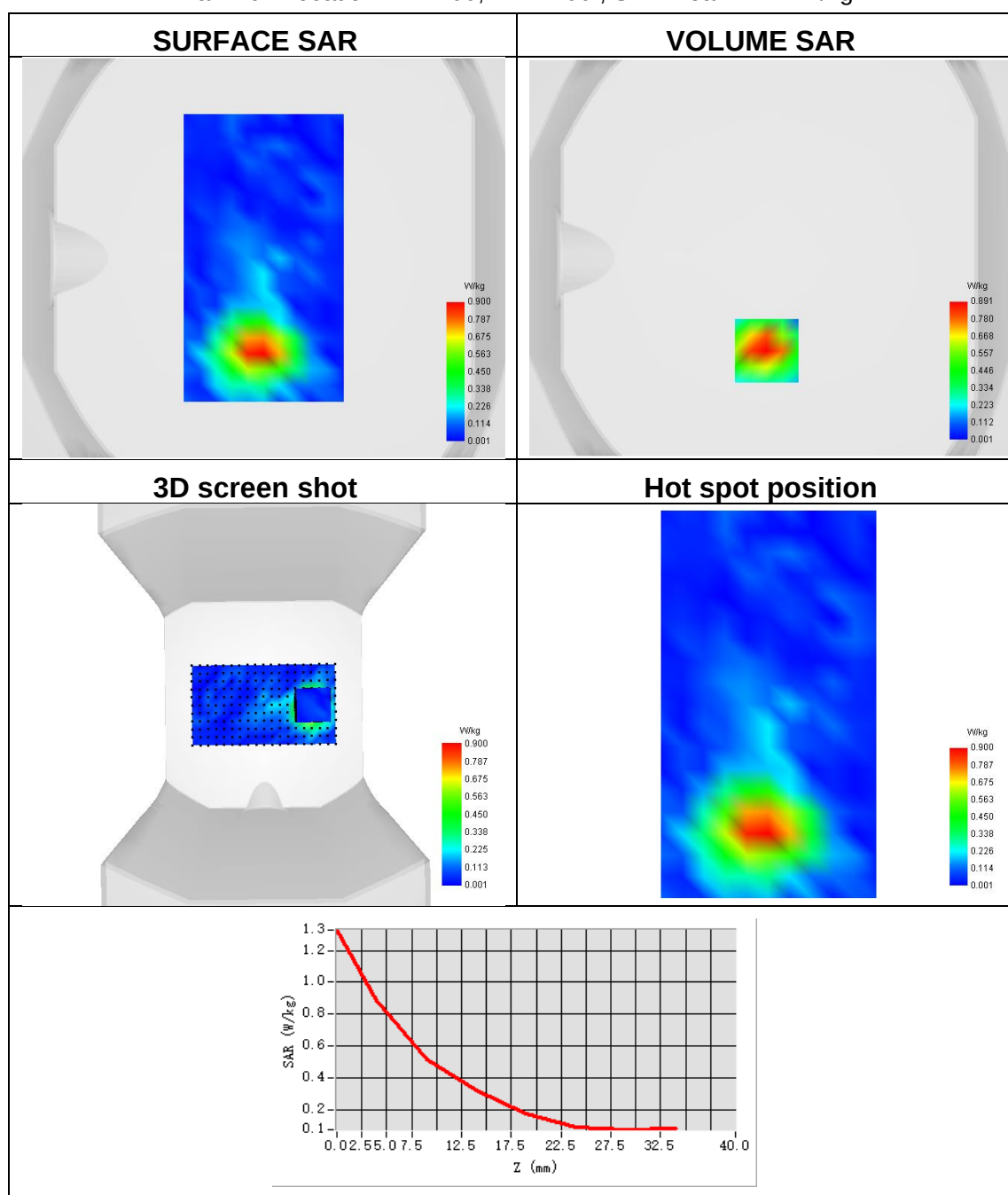




Plot 24:

Test Date	2023-12-22
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 38
Signal	LTE TDD
Frequency	2595
SAR 10g (W/Kg)	0.432
SAR 1g (W/Kg)	0.847

Maximum location: X=-1.00, Y=-47.00 ; SAR Peak: 1.47 W/kg

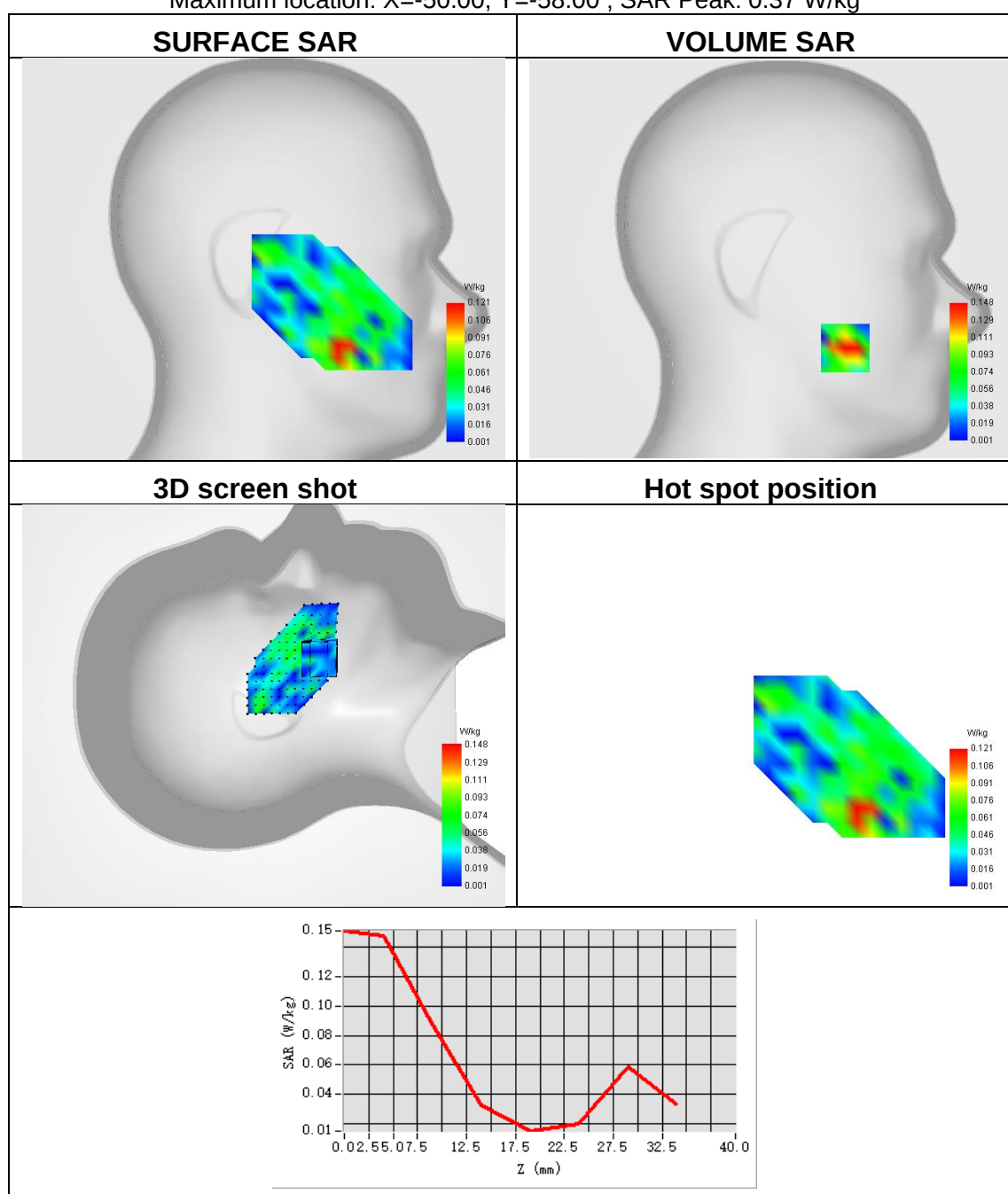




Plot 25:

Test Date	2023-12-24
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE band 40
Signal	LTE TDD
Frequency	2310
SAR 10g (W/Kg)	0.054
SAR 1g (W/Kg)	0.129

Maximum location: X=-50.00, Y=-58.00 ; SAR Peak: 0.37 W/kg

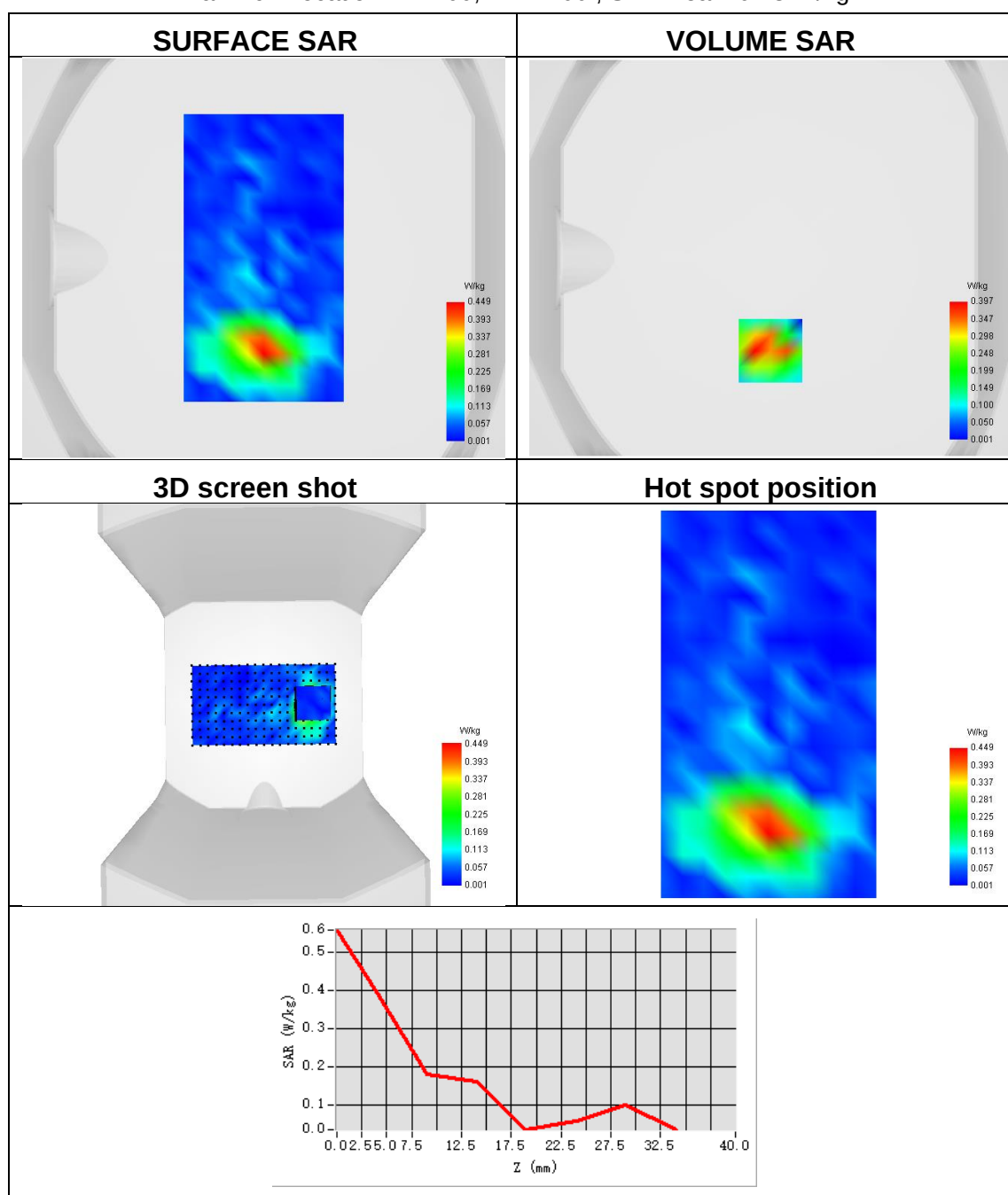




Plot 26:

Test Date	2023-12-24
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE band 40
Signal	LTE TDD
Frequency	2310
SAR 10g (W/Kg)	0.178
SAR 1g (W/Kg)	0.370

Maximum location: X=1.00, Y=-47.00 ; SAR Peak: 0.73 W/kg

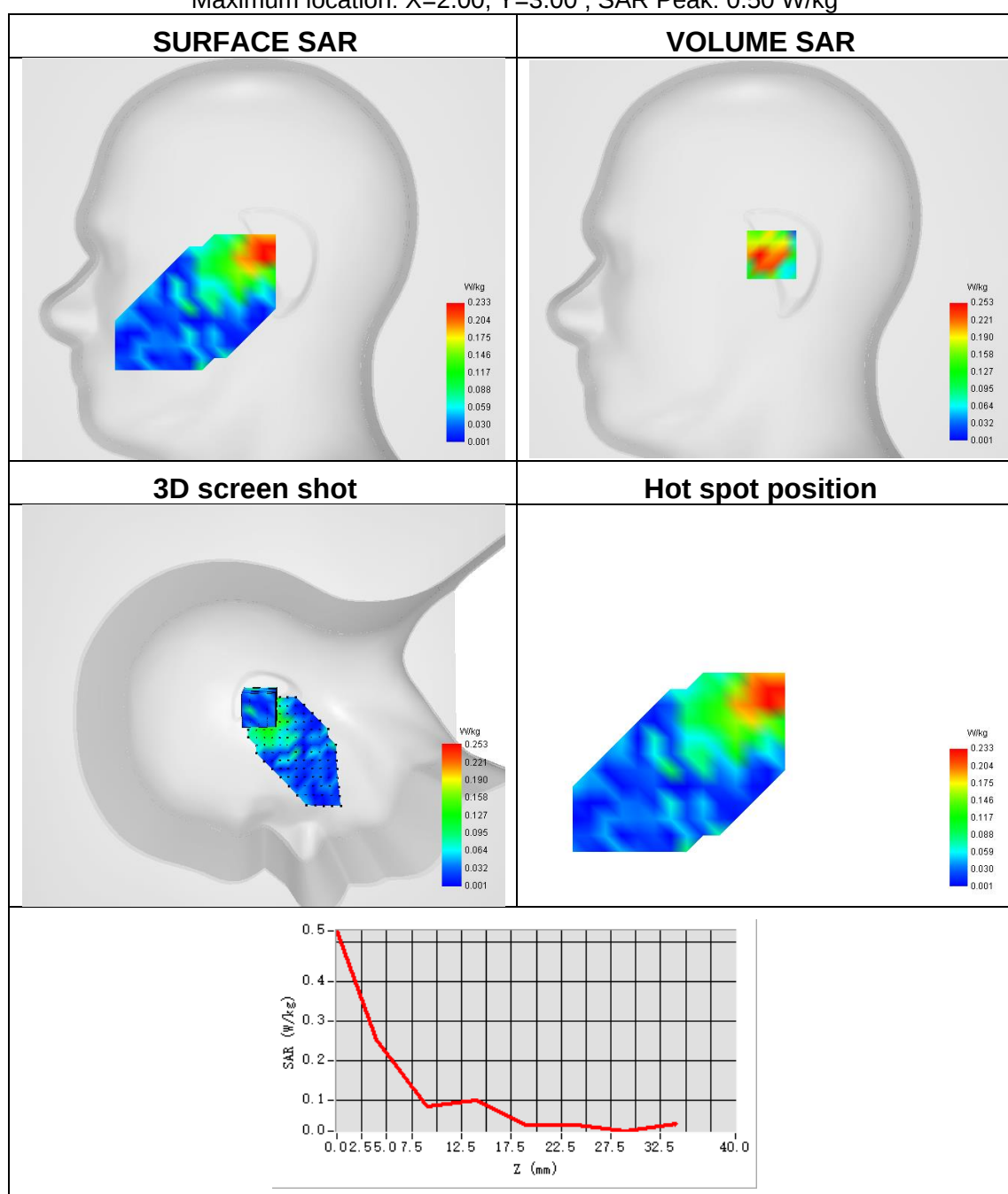




Plot 27:

Test Date	2023-12-24
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Tilt
Band	ISM
Signal	IEEE 802.11 b
Frequency	2412
SAR 10g (W/Kg)	0.112
SAR 1g (W/Kg)	0.254

Maximum location: X=2.00, Y=3.00 ; SAR Peak: 0.50 W/kg

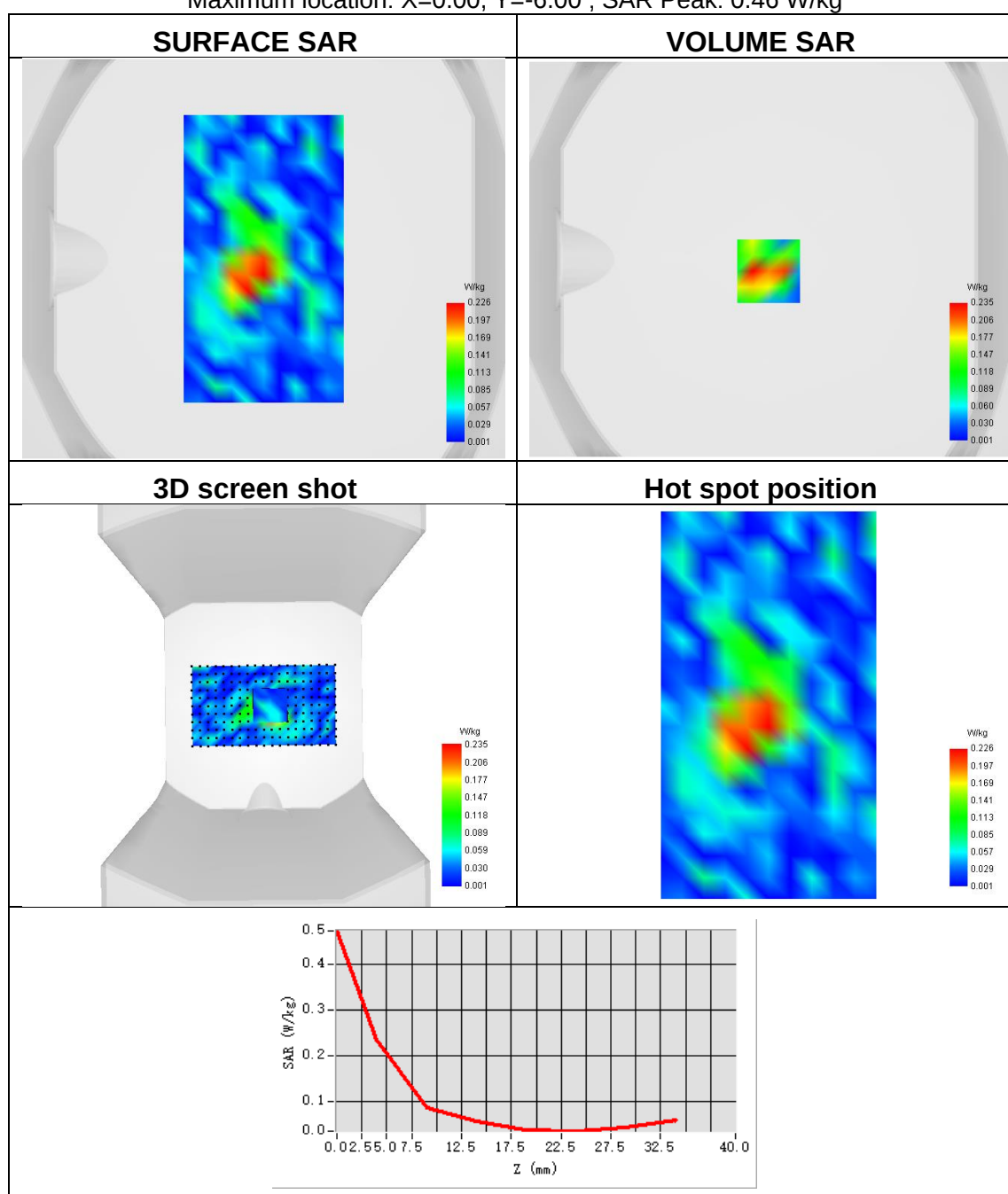




Plot 28:

Test Date	2023-12-24
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Top Edge
Band	ISM
Signal	IEEE 802.11 b
Frequency	2412
SAR 10g (W/Kg)	0.094
SAR 1g (W/Kg)	0.207

Maximum location: X=0.00, Y=-6.00 ; SAR Peak: 0.46 W/kg

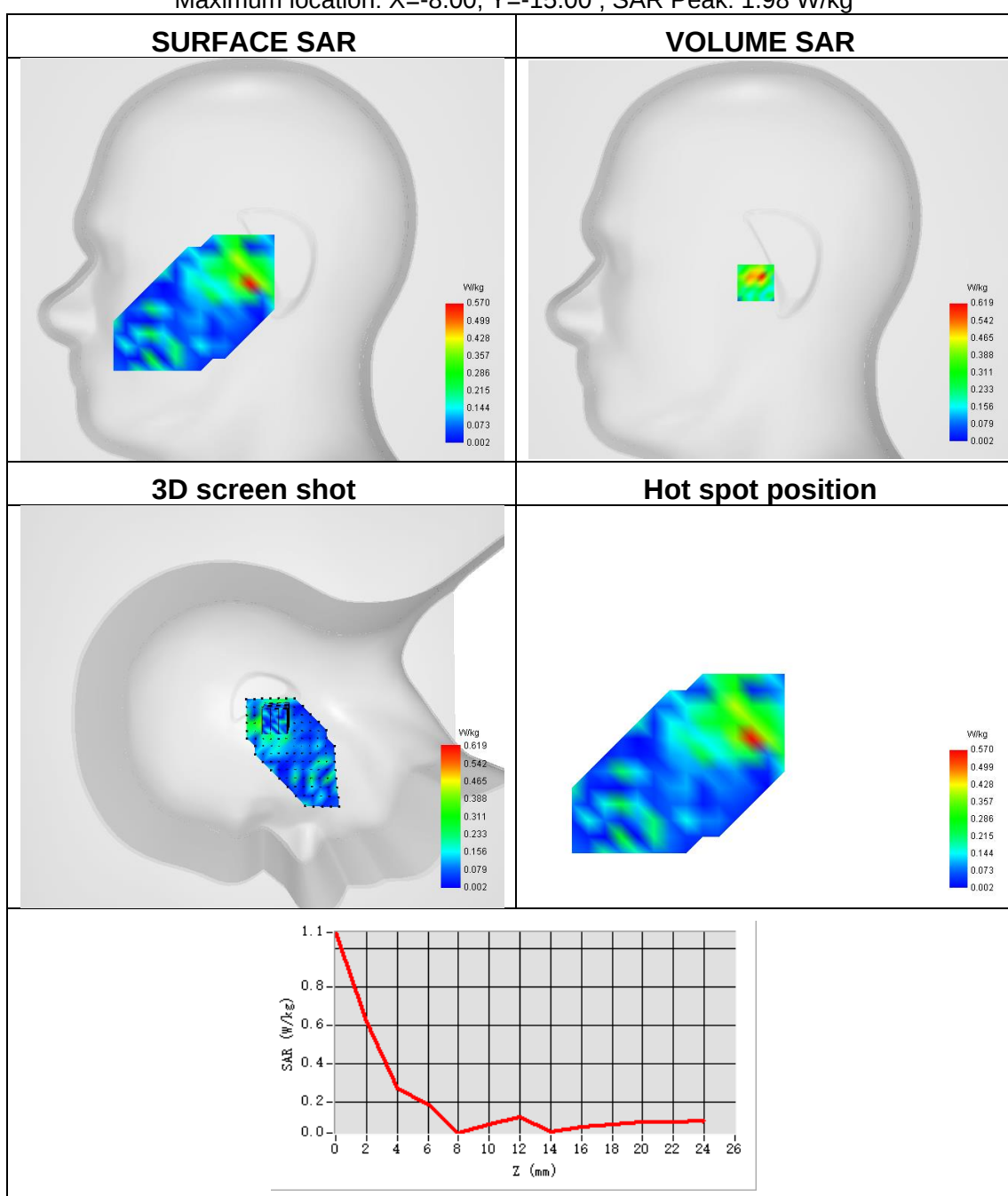




Plot 29:

Test Date	2024-01-09
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Right head
Device Position	Tilt
Band	U-NII-1
Signal	IEEE 802.11 a
Frequency	5180
SAR 10g (W/Kg)	0.149
SAR 1g (W/Kg)	0.446

Maximum location: X=-8.00, Y=-15.00 ; SAR Peak: 1.98 W/kg

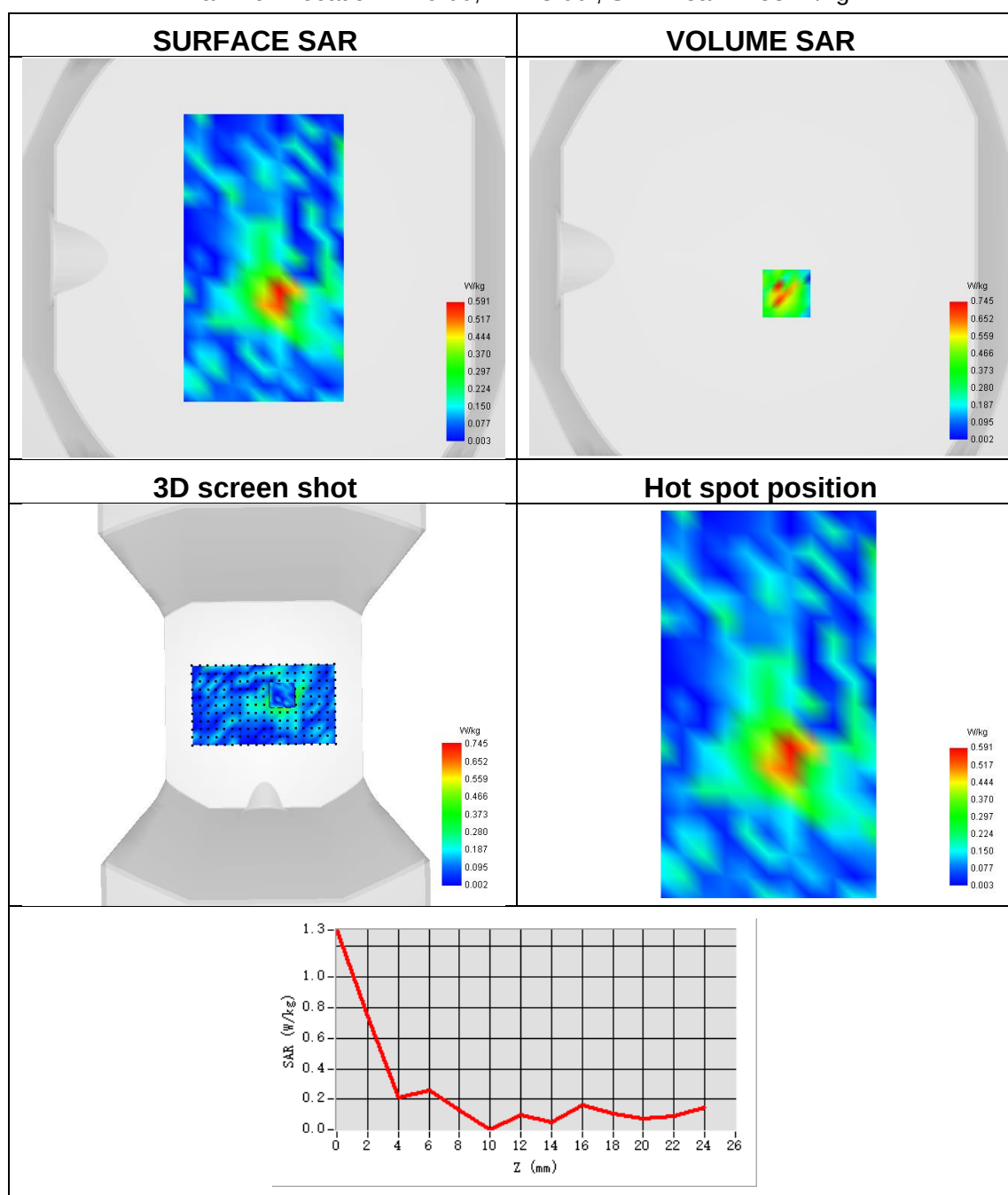




Plot 30:

Test Date	2024-01-09
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Top Edge
Band	U-NII-1
Signal	IEEE 802.11 a
Frequency	5180
SAR 10g (W/Kg)	0.152
SAR 1g (W/Kg)	0.403

Maximum location: X=9.00, Y=-18.00 ; SAR Peak: 1.58 W/kg

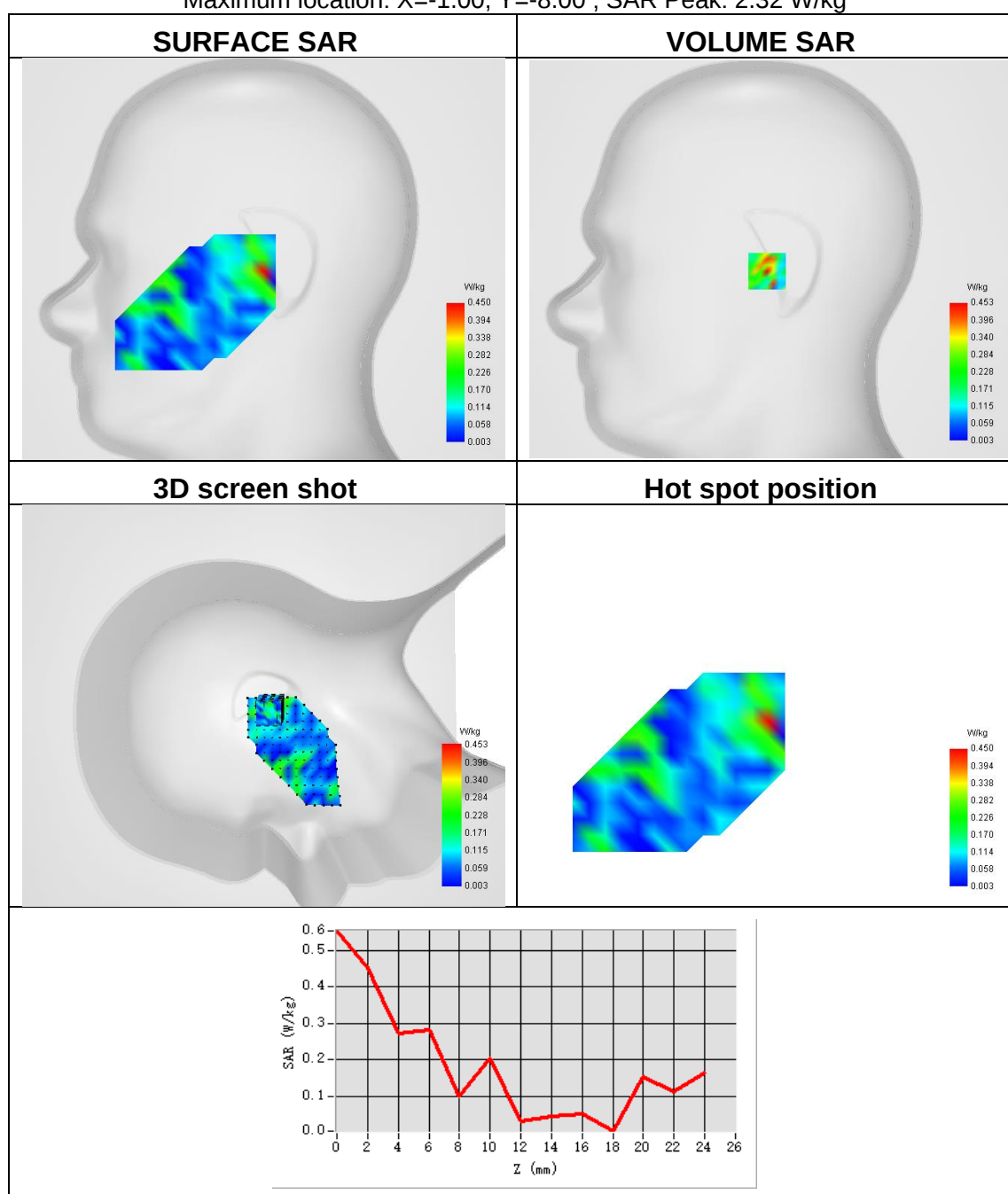




Plot 31:

Test Date	2024-01-12
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Right head
Device Position	Tilt
Band	U-NII-2
Signal	IEEE 802.11a
Frequency	5320
SAR 10g (W/Kg)	0.119
SAR 1g (W/Kg)	0.313

Maximum location: X=-1.00, Y=-8.00 ; SAR Peak: 2.32 W/kg

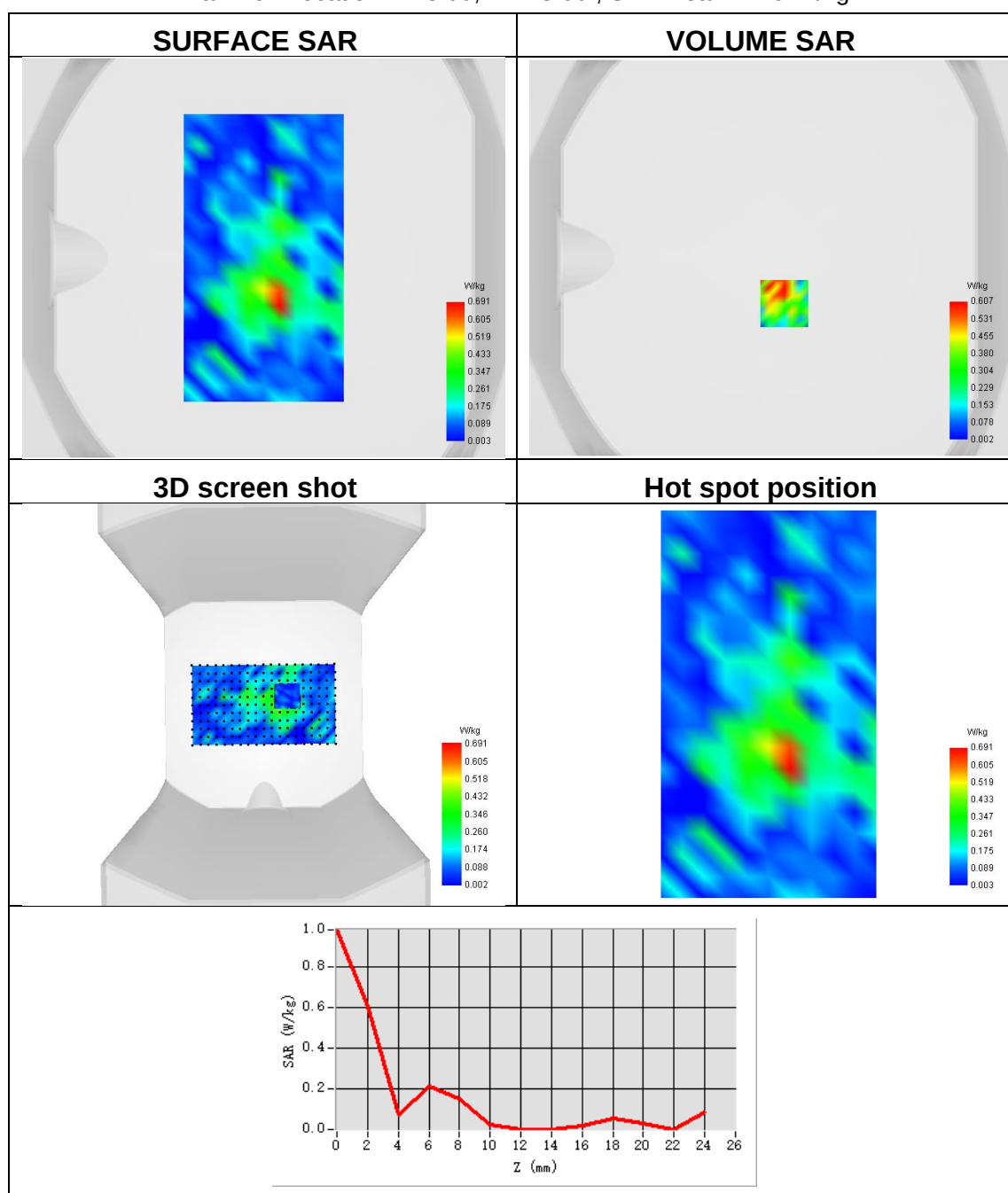




Plot 32:

Test Date	2024-01-12
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Top Edge
Band	U-NII-2
Signal	IEEE 802.11a
Frequency	5320
SAR 10g (W/Kg)	0.154
SAR 1g (W/Kg)	0.387

Maximum location: X=8.00, Y=-23.00 ; SAR Peak: 1.29 W/kg

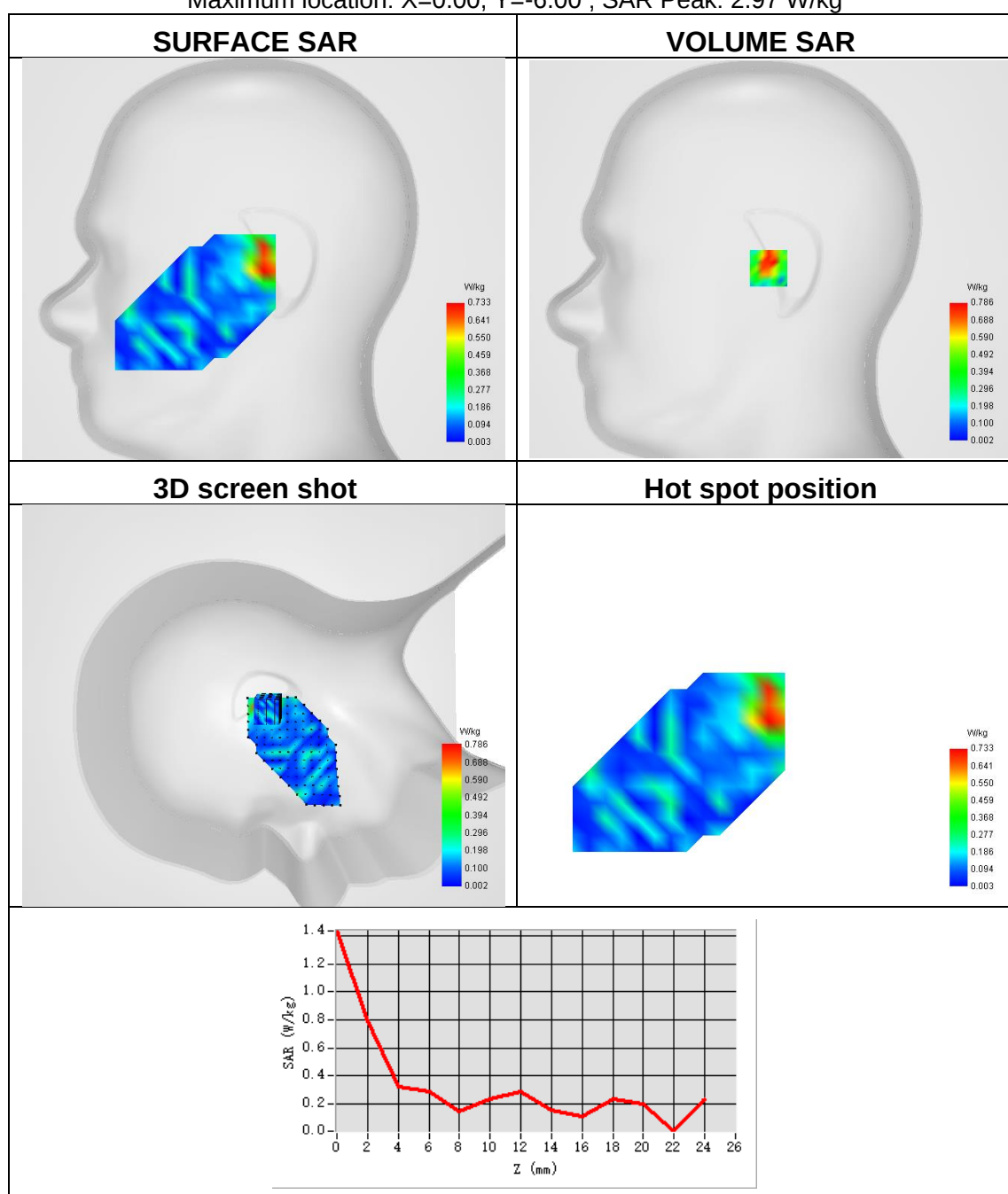




Plot 33:

Test Date	2024-01-09
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Right head
Device Position	Tilt
Band	U-NII-3
Signal	IEEE 802.11 a
Frequency	5500
SAR 10g (W/Kg)	0.287
SAR 1g (W/Kg)	0.668

Maximum location: X=0.00, Y=-6.00 ; SAR Peak: 2.97 W/kg

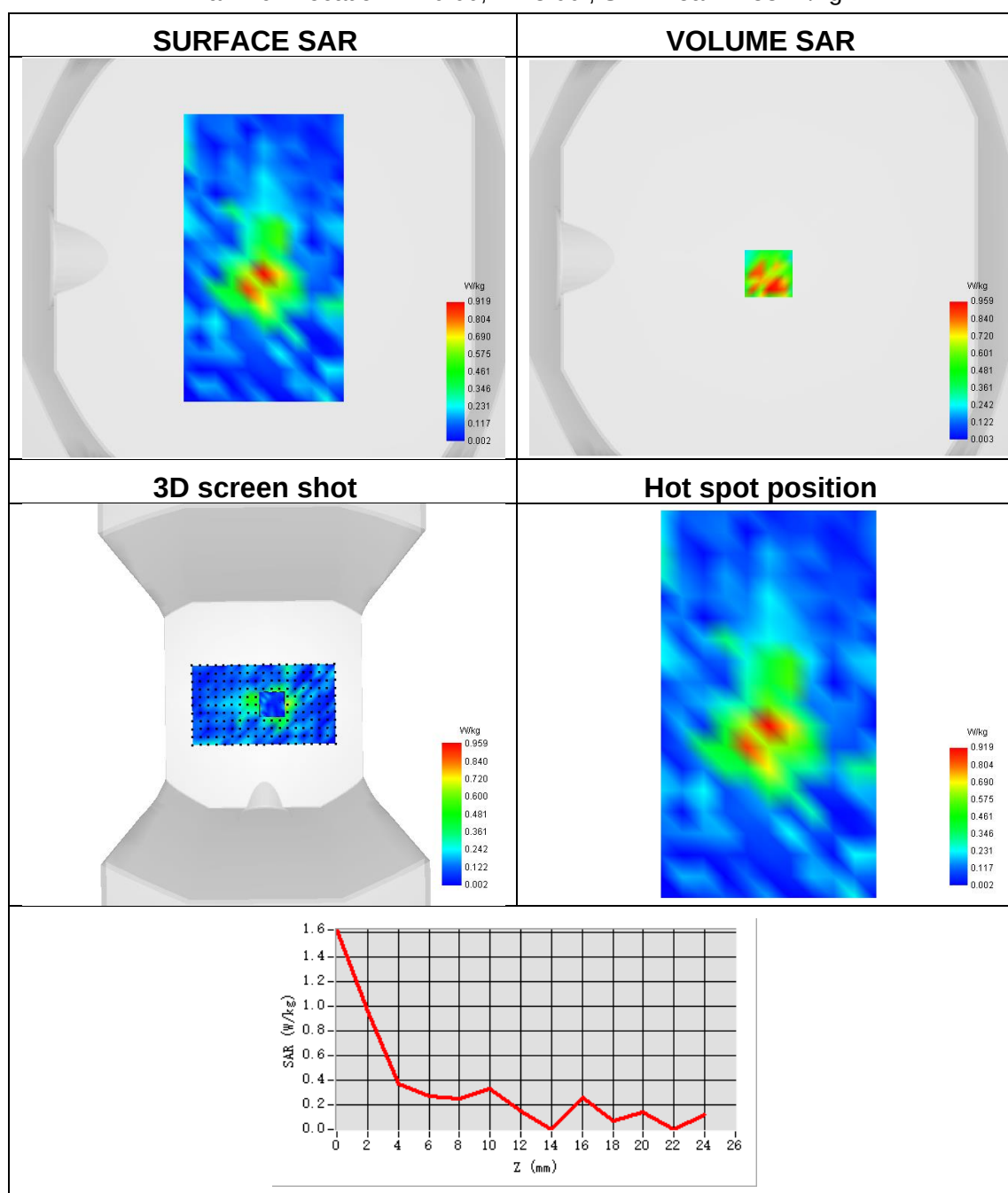




Plot 34:

Test Date	2024-01-09
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Top Edge
Band	U-NII-3
Signal	IEEE 802.11 a
Frequency	5500
SAR 10g (W/Kg)	0.203
SAR 1g (W/Kg)	0.552

Maximum location: X=0.00, Y=-8.00 ; SAR Peak: 2.58 W/kg

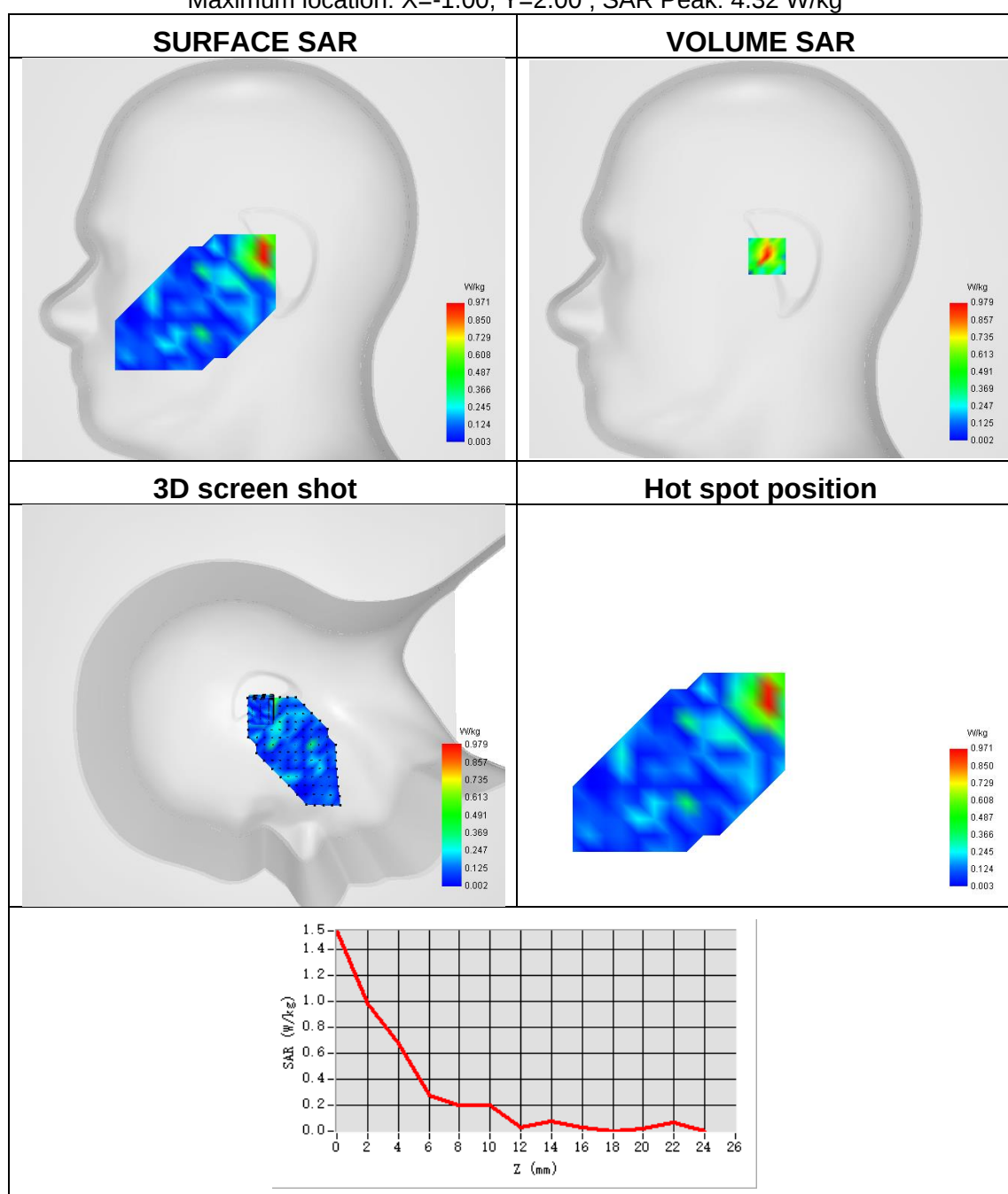




Plot 35:

Test Date	2024-01-14
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Right head
Device Position	Tilt
Band	U-NII-4
Signal	IEEE 802.11 a
Frequency	5745
SAR 10g (W/Kg)	0.297
SAR 1g (W/Kg)	0.797

Maximum location: X=-1.00, Y=2.00 ; SAR Peak: 4.32 W/kg

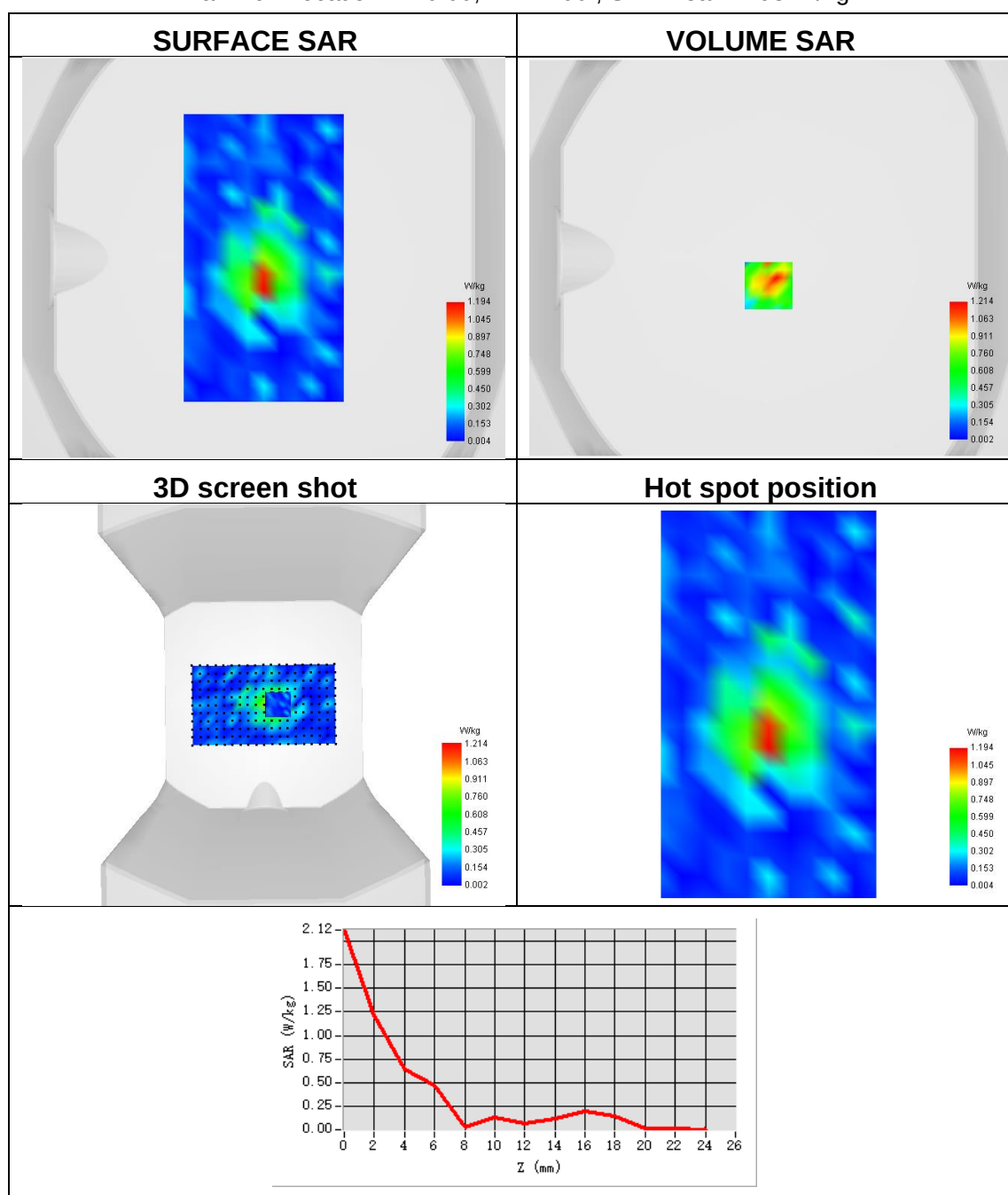




Plot 36:

Test Date	2024-01-14
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Top Edge
Band	U-NII-4
Signal	IEEE 802.11 a
Frequency	5745
SAR 10g (W/Kg)	0.319
SAR 1g (W/Kg)	0.766

Maximum location: X=0.00, Y=-14.00 ; SAR Peak: 2.95 W/kg





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※