



Certificate #4338.01



SAR Test Report

Report No.: STS2512524H02

Issued for

SCANTECH (HANGZHOU) CO., LTD.

Room 102, Unit 1, Building 12, No 998, West Wenyi Road,
Wuchang Street, Yuhang District, Hangzhou, Zhejiang,
China

Product Name: Scanology WiFiCard

Brand Name: SCANOLGY

Model Name: WiFiCard 1.0

Series Model(s): WiFiCard 2.0, WiFiCard 3.0

FCC ID: 2A9DL-WIFICARD

Test Standard: ANSI/IEEE Std. C95.1
FCC 47 CFR Part 2 (2.1093)
IEEE Std. 1528-2013

Max. Report
SAR (1g) Body: 1.248 W/kg

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.



TEST REPORT CERTIFICATION

Applicant's name : SCANTECH (HANGZHOU) CO., LTD.

Address : Room 102, Unit 1, Building 12, No 998, West Wenyi Road,
Wuchang Street, Yuhang District, Hangzhou, Zhejiang, China

Manufacturer's Name : SCANTECH (HANGZHOU) CO., LTD.

Address : Room 102, Unit 1, Building 12, No 998, West Wenyi Road,
Wuchang Street, Yuhang District, Hangzhou, Zhejiang, China

Product description

Product name : Scanology WiFiCard

Brand name : SCANOLOGY

Model name : WiFiCard 1.0

Series Model(s) : WiFiCard 2.0, WiFiCard 3.0

ANSI/IEEE Std. C95.1

Standards : FCC 47 CFR Part 2 (2.1093)

IEEE Std. 1528-2013

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664 The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test :

Date (s) of performance of tests : 05 Jan. 2026 ~ 05 Feb. 2025

Date of Issue : 06 Feb. 2025

Test Result : **Pass**

Testing Engineer :

Xin Liu

(Xin.Liu)

Technical Manager :

Shi fan-long

(Shifan. Long)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





Table of Contents

1. General Information	5
1.1 EUT Description	5
1.2 Test Environment	7
1.3 Test Factory	7
2. Test Standards and Limits	8
3. SAR Measurement System	9
3.1 Definition of Specific Absorption Rate (SAR)	9
3.2 SAR System	9
4. Tissue Simulating Liquids	12
4.1 Simulating Liquids Parameter Check	12
5. SAR System Validation	15
5.1 Validation System	15
5.2 Validation Result	16
6. SAR Evaluation Procedures	17
7. EUT Antenna Location Sketch	18
7.1 USB connector Orientations Implemented on Laptop Computers	18
8. Uncertainty	19
8.1 Measurement Uncertainty	19
9. Conducted Power Measurement	22
9.1 Test Result	22
10. EUT and Test Setup Photo	25
10.1 EUT Photo	25
10.2 Setup Photo	28
11. SAR Result Summary	31
11.1 Body-worn SAR	31
12. Equipment List	34
Appendix A. System Validation Plots	35
Appendix B. SAR Test Plots	45
Appendix C. Probe Calibration and Dipole Calibration Report	85



Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	06 Feb. 2025	STS2512524H01	ALL	Initial Issue



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	Scanology WiFiCard		
Brand Name	SCANOLOGY		
Model Name	WiFiCard 1.0		
Series Model	WiFiCard 2.0, WiFiCard 3.0		
Model Difference	As the declaration of the manufacturer, the difference of the models is model name, others are the same.		
Sample number	25120154-1		
Battery	Rated Voltage: Charge Limit Voltage: Capacity:		
Device Category	Portable		
Product stage	Production unit		
RF Exposure Environment	General Population / Uncontrolled		
Hardware Version	M-7921G V1.0		
Software Version	M-7921G V1		
Frequency Range	WLAN802.11b/g/n20/ax20/be20: 2412 MHz ~ 2462 MHz WLAN 802.11n40/ax40/be40: 2422 MHz ~ 2452 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80: 5150 ~ 5250 MHz WLAN 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80: 5250 ~ 5350 MHz WLAN 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80: 5470 ~ 5725 MHz WLAN 802.11 a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80: 5725 ~ 5850 MHz		
Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Body:0mm	Band	Mode	Body Worn (W/kg)
	DTS	2.4G WLAN_ANT 1	0.536
	DTS	2.4G WLAN_ANT 2	0.550
	DTS	2.4G WLAN_ANT 1+2	1.178
	NII	5.2G WLAN_ANT 1	1.219
	NII	5.2G WLAN_ANT 2	0.923
	NII	5.2G WLAN_ANT 1+2	1.179
	NII	5.3G WLAN_ANT 1	0.617
	NII	5.3G WLAN_ANT 2	0.560
	NII	5.3G WLAN_ANT 1+2	1.248
	NII	5.6G WLAN_ANT 1	0.821
	NII	5.6G WLAN_ANT 2	0.919
	NII	5.6G WLAN_ANT 1+2	1.229
	NII	5.8G WLAN_ANT 1	0.540



	NII	5.8G WLAN_ANT 2	0.600
	NII	5.8G WLAN_ANT 1+2	1.044
FCC Equipment Class	Digital Transmission System (DTS) Unlicensed National Information Infrastructure TX(NII)		
Operating Mode:	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 802.11ax(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 802.11ax(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM		
Antenna Specification:	WLAN: PIFA Antenna		
Hotspot Mode	Not Support		
DTM Mode	Not Support		
Note: 1. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power			



1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

ShenZhen STS Test Services Co.,Ltd.

101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01



2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
10	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:

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

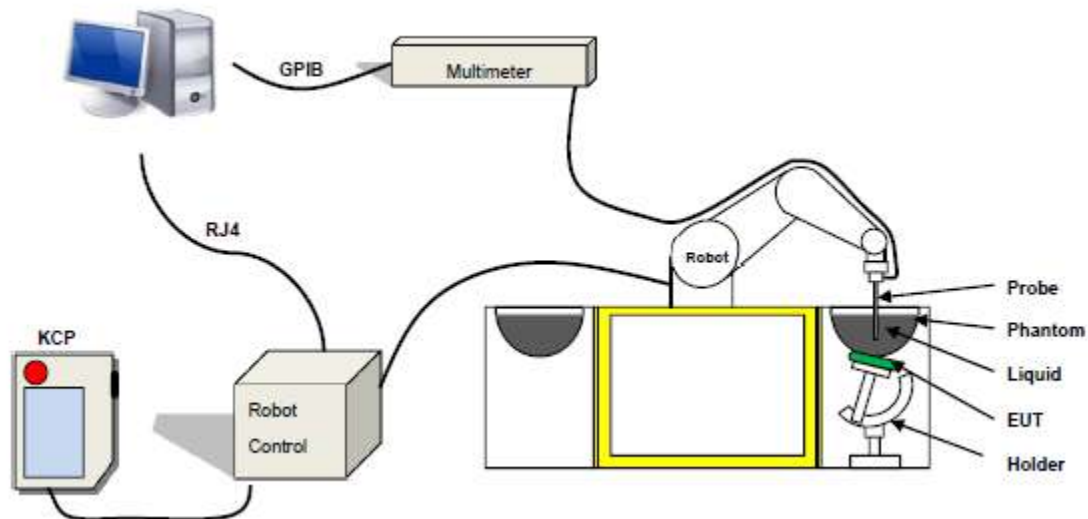
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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 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 08/21 EPGO352 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2 mm
- 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: 150 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 Dipole

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.

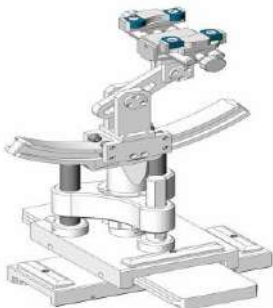
SN 32/14 SAM115



Figure-SN 21/21 ELLI48



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



The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE (%)			Salt (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	78.60	21.40			/		5.30	49.00
5800	78.50	21.40			0.1		6.00	48.20

**LIQUID MEASUREMENT RESULTS**

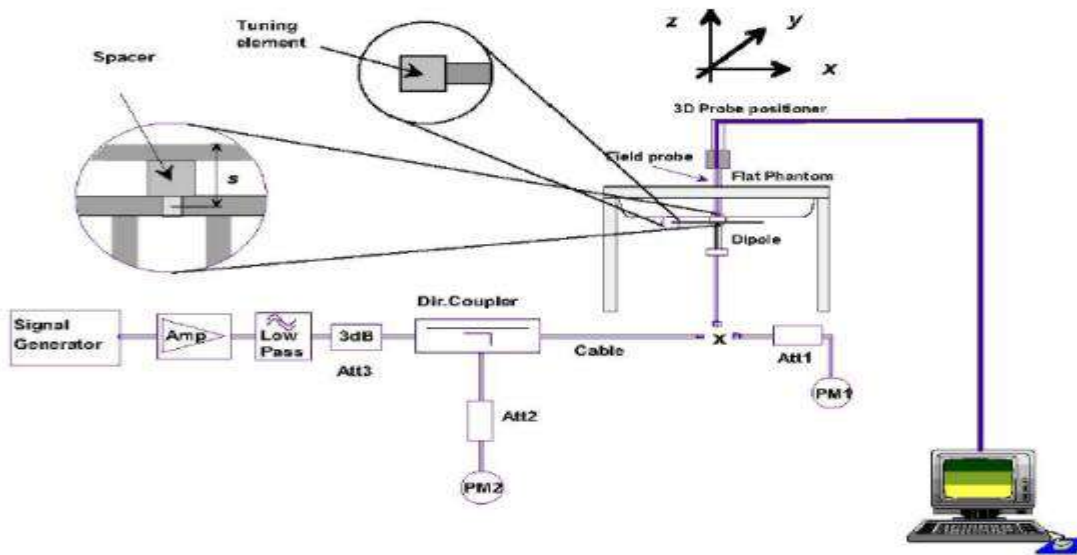
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2026-01-05	22.4	58	2412	22.2	Permittivity	39.27	39.80	1.35	±5
					Conductivity	1.77	1.79	1.13	±5
2026-01-05	22.4	58	2437	22.2	Permittivity	39.22	39.15	-0.18	±5
					Conductivity	1.79	1.78	-0.56	±5
2026-01-05	22.4	58	2450	22.1	Permittivity	39.20	38.98	-0.56	±5
					Conductivity	1.80	1.81	0.56	±5
2026-02-03	23.0	42	5180	22.6	Permittivity	36.02	37.01	2.75	±5
					Conductivity	4.64	4.63	-0.22	±5
2026-02-03	23.0	42	5200	22.6	Permittivity	36.00	35.44	-1.56	±5
					Conductivity	4.66	4.68	0.43	±5
2026-02-03	23.0	42	5240	22.7	Permittivity	35.96	36.01	0.14	±5
					Conductivity	4.70	4.69	-0.21	±5
2026-02-03	23.0	42	5260	22.7	Permittivity	35.94	36.09	0.42	±5
					Conductivity	4.72	4.73	0.21	±5
2026-02-04	22.5	51	5320	22.2	Permittivity	35.88	36.46	1.62	±5
					Conductivity	4.78	4.79	0.21	±5
2026-02-04	22.5	51	5400	22.1	Permittivity	35.80	36.44	1.79	±5
					Conductivity	4.86	4.88	0.41	±5
2026-02-04	22.5	51	5500	22.2	Permittivity	35.68	35.64	-0.11	±5
					Conductivity	4.96	4.97	0.20	±5
2026-02-04	22.5	51	5580	22.3	Permittivity	35.58	35.58	0.00	±5
					Conductivity	5.04	5.06	0.40	±5
2026-02-04	22.5	51	5600	22.2	Permittivity	35.55	35.79	0.68	±5
					Conductivity	5.07	5.07	0.00	±5
2026-02-04	22.5	51	5700	22.2	Permittivity	35.43	36.16	2.06	±5
					Conductivity	5.17	5.18	0.19	±5
2026-02-05	23.7	48	5745	23.4	Permittivity	35.36	35.91	1.56	±5
					Conductivity	5.21	5.21	0.00	±5
2026-02-05	23.7	48	5800	23.3	Permittivity	35.30	35.93	1.78	±5
					Conductivity	5.27	5.27	0.00	±5
2026-02-05	23.7	48	5825	23.3	Permittivity	35.28	35.01	-0.77	±5
					Conductivity	5.30	5.29	-0.19	±5
2026-02-05	23.7	48	5800	23.4	Permittivity	35.30	34.83	-1.33	±5
					Conductivity	5.27	5.27	0.00	±5
2026-02-05	23.7	48	5800	23.4	Permittivity	35.30	35.91	1.73	±5
					Conductivity	5.27	5.28	0.19	±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

Date	Frequency (MHz)	Power	SAR _{1g} (W/Kg)	SAR _{10g} (W/Kg)	Drift (%)	1W Target		Difference percentage		Limited %
						SAR _{1g} (W/Kg)	SAR _{10g} (W/Kg)	1g	10g	
2026-01-05	2450	100 mW	5.529	2.377	-0.21	54.70	24.11	1.08%	-1.41%	10
		Normalize to 1 Watt	55.29	23.77						
2026-02-03	5200	10 mW	1.534	0.549	2.91	163.88	57.29	-6.42%	-4.12%	10
		Normalize to 1 Watt	153.36	54.93						
2026-02-04	5400	10 mW	1.707	0.601	-1.99	172.23	59.16	-0.91%	1.64%	10
		Normalize to 1 Watt	170.66	60.13						
2026-02-04	5600	10 mW	1.698	0.581	2.18	181.28	61.57	-6.34%	-5.67%	10
		Normalize to 1 Watt	169.78	58.08						
2026-02-05	5800	10 mW	1.824	0.665	3.65	188.95	63.45	-3.48%	4.74%	10
		Normalize to 1 Watt	182.38	66.46						

Note:

- (1) We use a CW signal of 20dBm(2450MHz) and 10dBm(5000-6000MHz) for system check, and then all SAR values are normalized to 1W forward power. The result must be within $\pm 10\%$ of target value.



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

According to KDB 447498 D02, USB connector orientations on laptop computers, which is tested for SAR compliance in body-worn accessory and other use configurations described in the following subsections.

7.1 USB connector Orientations Implemented on Laptop Computers



Horizontal-Up



Horizontal-Down



Vertical-Front



Vertical-Back

Note: These are USB connector orientations on laptop computers; USB dongles have the reverse configuration for plugging into the corresponding laptop computers.



8. Uncertainty

8.1 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 $k=2$.

SATIMO Uncertainty- SN 08/21 EPG0352									
Measurement uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+ - %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+ %)	10g Ui (+ %)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.71	0.71	0.07	0.07	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.71	0.71	0.42	0.42	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	1.00	1.00	1.97	1.97	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	1.00	1.00	0.10	0.10	∞
Integration Time	E.2.8	1.43	R	1.73	1.00	1.00	0.83	0.83	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions- reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
Test sample Related									
Test sample positioning	E.4.2	3.10	N	1.00	1.00	1.00	3.10	3.10	∞
Device holder uncertainty	E.4.1	3.80	N	1.00	1.00	1.00	3.80	3.80	∞
Output power variation— SAR drift measurement	E.2.9	4.50	R	1.73	1.00	1.00	2.60	2.60	∞
SAR scaling	E.6.5	1.80	R	1.73	1.00	1.00	1.04	1.04	∞
Phantom and tissue parameters									
Phantom shell uncertainty— shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	M
Liquid permittivity measurement	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity— temperature uncertainty	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity— temperature uncertainty	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	∞
Combined Standard Uncertainty			RSS				10.08	9.59	
Expanded Uncertainty (95% Confidence interval)			K=2				19.58	19.18	



SATIMO Uncertainty- SN 08/21 EPG0352									
System Validation uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	1.00	1.00	0.10	0.10	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions-reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
System validation source									
Deviation of experimental dipole from numerical dipole	E.6.4	4.80	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.10	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.40	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and set-up									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity (temperature uncertainty)	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid conductivity (measured)	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid permittivity (temperature uncertainty)	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity (measured)	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				9.72	9.52	
Expanded Uncertainty (95% Confidence interval)			K=2				19.44	19.03	



SATIMO Uncertainty- SN 08/21 EPG0352									
• System Check uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+ - %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+- %)	10g Ui (+- %)	vi
Measurement System									
Probe calibration drift	E.2.1.3	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.00	0.00	0.00	0.00	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.8	R	1.73	0.00	0.00	0.00	0.00	∞
Linearity	E.2.4	1.25	R	1.73	0.00	0.00	0.00	0.00	∞
System detection limits	E.2.4	1.20	R	1.73	0.00	0.00	0.00	0.00	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	0.00	0.00	0.00	0.00	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions- Noise	E.6.1	3.51	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions- reflections	E.6.1	3.15	R	1.73	0.00	0.00	0.00	0.00	∞
Probe positioner mechanical tolerance	E.6.2	1.2	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.4	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	3.9	R	1.73	0.00	0.00	0.00	0.00	∞
System check source (dipole)									
Deviation of experimental dipoles	E.6.4	4.8	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.1	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.4	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and tissue parameters									
Phantom shell uncertainty— shape, thickness, and permittivity	E.3.1	3.7	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.4	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid permittivity measurement	E.3.3	4.1	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity— temperature uncertainty	E.3.4	2.7	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity— temperature uncertainty	E.3.4	4.8	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				5.56	5.20	
Expanded Uncertainty (95% Confidence interval)			K=2				11.12	10.41	



9. Conducted Power Measurement

9.1 Test Result

2.4G WLAN

2.4GWIFI					
Mode	Channel Number	Frequency (MHz)	ANT_1 Conducted Power (dBm)	ANT_2 Conducted Power (dBm)	ANT_1+2 Conducted Power (dBm)
802.11b	1	2412	15.35	15.11	N/A
	7	2437	16.03	14.81	N/A
	11	2462	13.70	14.32	N/A
802.11g	1	2412	13.65	13.28	N/A
	7	2437	14.13	13.19	N/A
	11	2462	12.12	12.73	N/A
802.11 n-HT20	1	2412	11.58	11.57	14.59
	7	2437	12.05	11.37	14.73
	11	2462	10.13	10.91	13.55
802.11 n-HT40	3	2422	10.16	10.35	13.27
	6	2437	10.42	10.19	13.32
	9	2452	10.05	10.18	13.13
802.11ax-HE20	1	2412	12.13	11.77	14.96
	7	2437	12.51	11.37	14.99
	11	2462	10.49	11.14	13.84
802.11ax-HE40	3	2422	10.84	10.79	13.83
	6	2437	11.21	10.63	13.94
	9	2452	10.65	10.51	13.59

WLAN (5.2Gband)

5.2G WLAN					
Mode	Channel Number	Frequency (MHz)	ANT_1 Conducted Power (dBm)	ANT_2 Conducted Power (dBm)	ANT_1+2 Conducted Power (dBm)
802.11a	36	5180	11.11	11.18	N/A
	40	5200	11.31	12.14	N/A
	48	5240	11.76	11.16	N/A
802.11 n-HT20	36	5180	4.61	5.28	7.97
	40	5200	8.08	5.90	10.14
	48	5240	5.08	5.96	8.55
802.11 n-HT40	38	5190	5.72	5.07	8.42
	46	5230	6.76	6.12	9.46
802.11ac-VHT20	36	5180	4.71	5.09	7.91
	40	5200	5.13	5.73	8.45
	48	5240	8.31	6.48	10.50
802.11ac-VHT40	38	5190	5.57	4.99	8.30
	46	5230	6.71	6.05	9.40
802.11ac-VHT80	42	5210	5.60	5.40	8.51
802.11 ax-HE20	36	5180	4.33	12.33	12.97
	40	5200	3.56	12.54	13.06
	48	5240	5.61	6.32	8.99
802.11 ax-HE40	38	5190	5.96	5.41	8.70
	46	5230	7.18	6.61	9.91
802.11 ax-HE80	42	5210	5.90	5.67	8.80

**WLAN (5.3Gband)**

5.3G WLAN					
Mode	Channel Number	Frequency (MHz)	ANT_1 Conducted Power (dBm)	ANT_2 Conducted Power (dBm)	ANT_1+2 Conducted Power (dBm)
802.11a	52	5260	12.92	12.20	N/A
	60	5300	10.22	11.28	N/A
	64	5320	13.56	11.86	N/A
802.11 n-HT20	52	5260	10.08	8.19	12.25
	60	5300	10.11	8.38	12.34
	64	5320	8.55	8.87	11.72
802.11 n-HT40	54	5270	7.17	3.60	8.75
	62	5310	7.90	2.51	9.00
802.11ac-VHT20	52	5260	10.50	7.34	12.21
	60	5300	10.14	8.17	12.28
	64	5320	8.49	8.78	11.65
802.11ac-VHT40	54	5270	7.05	3.52	8.64
	62	5310	7.72	2.50	8.86
802.11ac-VHT80	58	5290	6.23	6.62	9.44
802.11 ax-HE20	52	5260	10.51	7.61	12.31
	60	5300	10.38	8.07	12.39
	64	5320	10.94	8.75	12.99
802.11 ax-HE40	54	5270	4.50	3.88	7.21
	62	5310	10.26	7.26	12.02
802.11 ax-HE80	58	5290	9.30	6.87	11.26

WLAN (5.6Gband)

5.6G WLAN					
Mode	Channel Number	Frequency (MHz)	ANT_1 Conducted Power (dBm)	ANT_2 Conducted Power (dBm)	ANT_1+2 Conducted Power (dBm)
802.11a	100	5500	12.39	12.21	N/A
	116	5580	11.61	10.55	N/A
	140	5700	12.57	10.20	N/A
802.11 n-HT20	100	5500	9.37	9.24	12.32
	116	5580	10.46	9.58	13.05
	140	5700	10.49	8.23	12.52
802.11 n-HT40	102	5510	11.15	7.40	12.68
	110	5550	7.18	3.78	8.81
	134	5670	7.28	5.71	9.58
802.11ac-VHT20	100	5500	13.38	10.41	15.15
	116	5580	8.40	5.18	10.09
	140	5700	10.29	8.24	12.40
802.11ac-VHT40	102	5510	4.99	4.14	7.60
	110	5550	7.71	4.62	9.44
	134	5670	7.24	5.67	9.54
802.11ac-VHT80	106	5530	10.44	7.05	12.08
	122	5610	11.47	7.67	12.98
802.11 ax-HE20	100	5500	9.36	9.06	12.22
	116	5580	10.44	9.37	12.95
	140	5700	10.29	8.23	12.39
802.11 ax-HE40	102	5510	8.79	7.74	11.31
	110	5550	8.35	5.05	10.02
	134	5670	10.50	7.78	12.36
802.11 ax-HE80	106	5530	10.65	7.40	12.33
	122	5610	8.04	4.78	9.72

**WLAN (5.8Gband)**

5.8G WLAN					
Mode	Channel Number	Frequency (MHz)	ANT_1 Conducted Power (dBm)	ANT_2 Conducted Power (dBm)	ANT_1+2 Conducted Power (dBm)
802.11a	149	5745	11.30	7.88	N/A
	157	5785	10.53	7.35	N/A
	165	5825	12.04	8.21	N/A
802.11 n-HT20	149	5745	11.21	7.82	12.85
	157	5785	10.51	7.28	12.20
	165	5825	5.86	6.00	8.94
802.11 n-HT40	151	5755	9.07	6.18	10.87
	159	5795	9.49	6.53	11.27
802.11ac-VHT20	149	5745	7.17	5.59	9.46
	157	5785	9.85	5.97	11.34
	165	5825	5.87	5.86	8.88
802.11ac-VHT40	151	5755	9.10	6.24	10.91
	159	5795	9.30	6.39	11.09
802.11ac-VHT80	155	5775	9.01	6.26	10.86
802.11 ax-HE20	149	5745	7.03	5.71	9.43
	157	5785	7.17	6.00	9.63
	165	5825	5.90	5.88	8.90
802.11 ax-HE40	151	5755	9.50	6.60	11.30
	159	5795	9.92	6.83	11.65
802.11 ax-HE80	155	5775	9.25	6.55	11.12

10. EUT and Test Setup Photo

10.1 EUT Photo

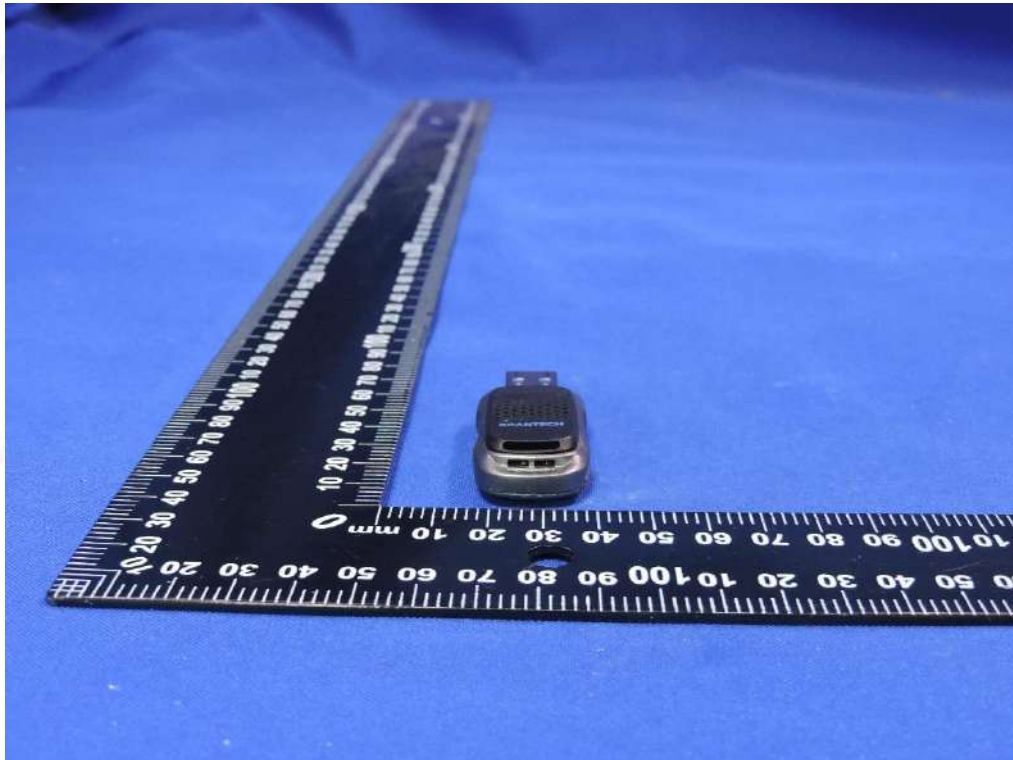
Front side



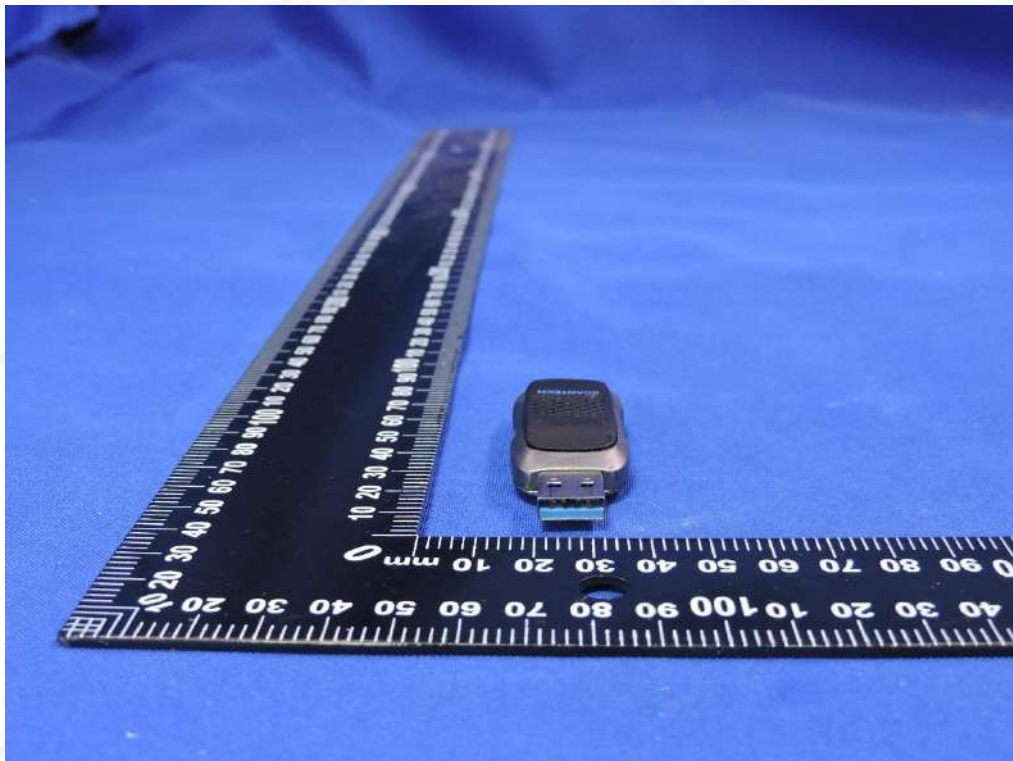
Back side



Top side

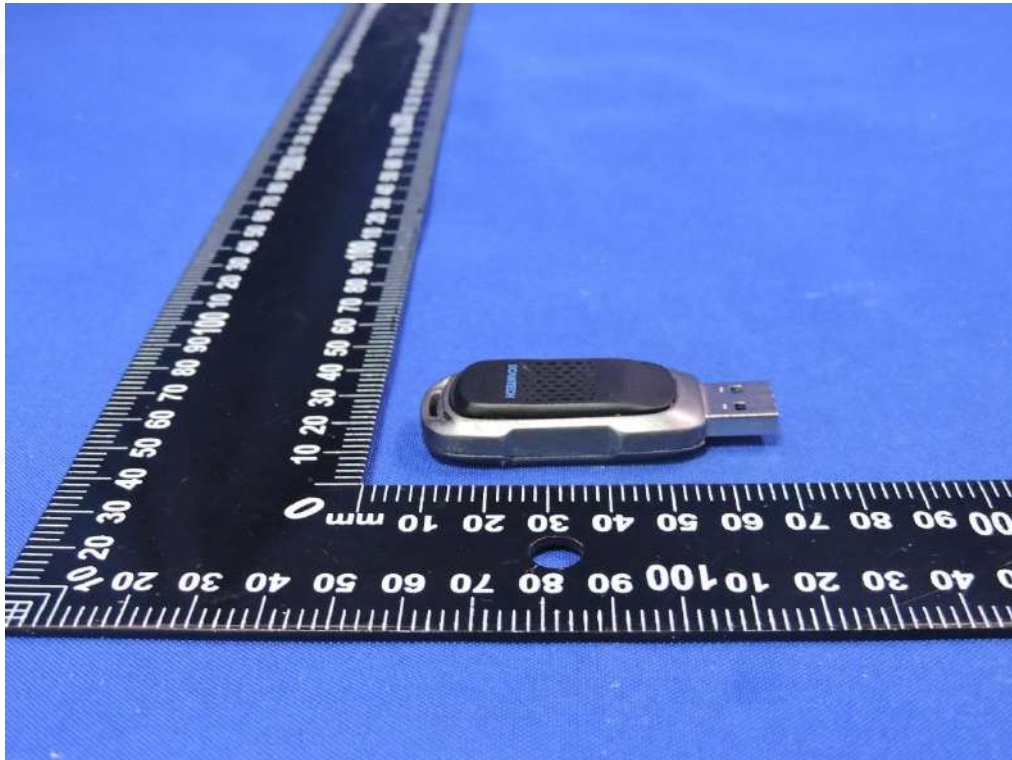


Bottom side

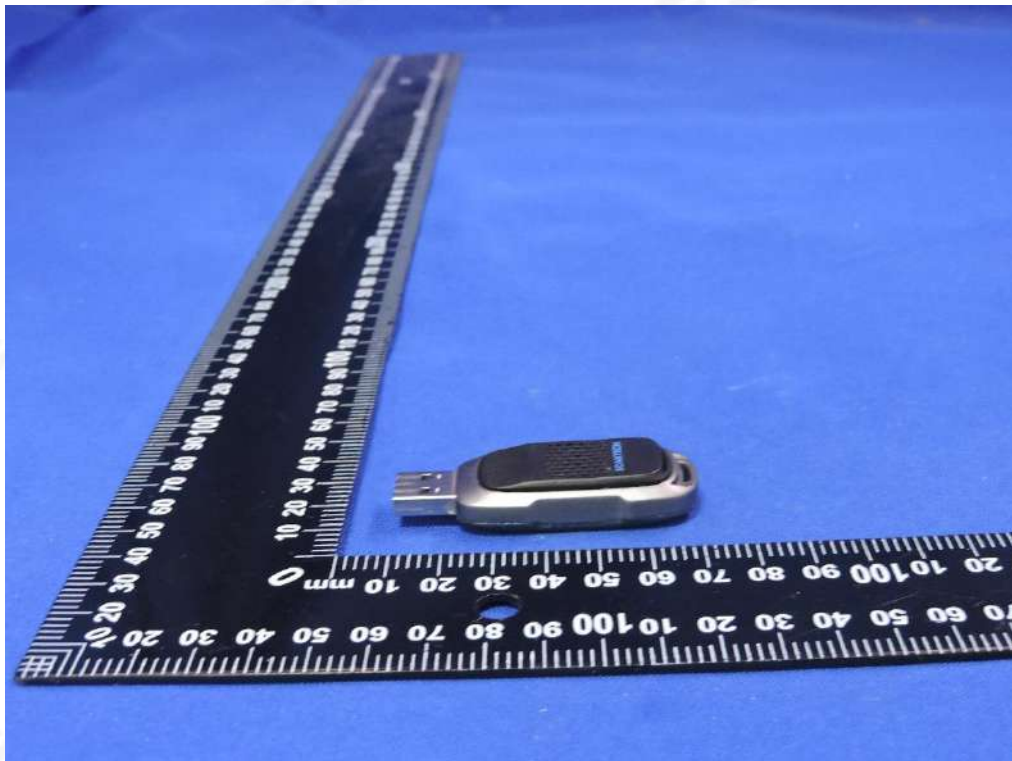




Left side



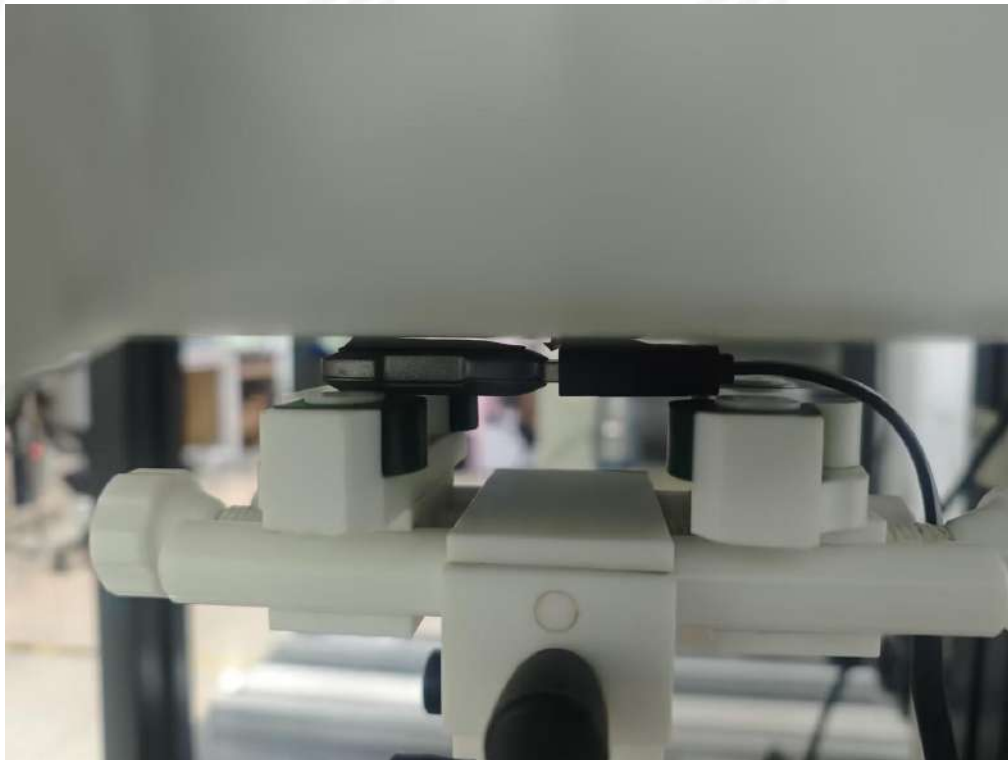
Right side



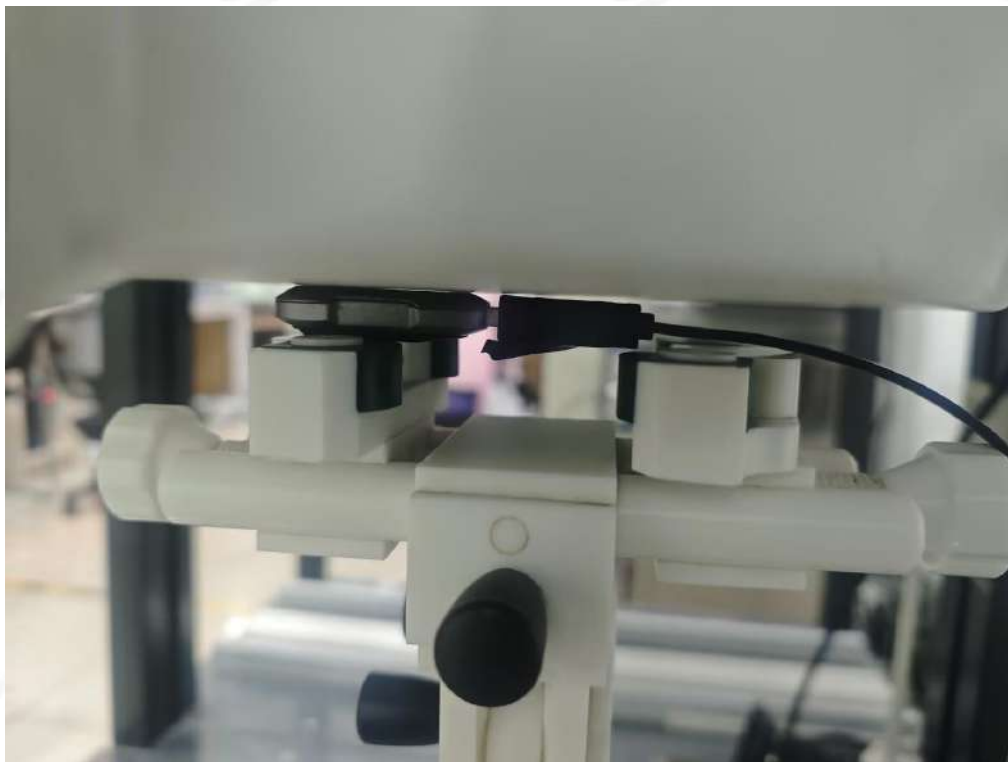


10.2 Setup Photo

.Horizontal- Up side (separation distance is 0mm)



Horizontal- Down side (separation distance is 0mm)



Vertical- Front (separation distance is 0mm)



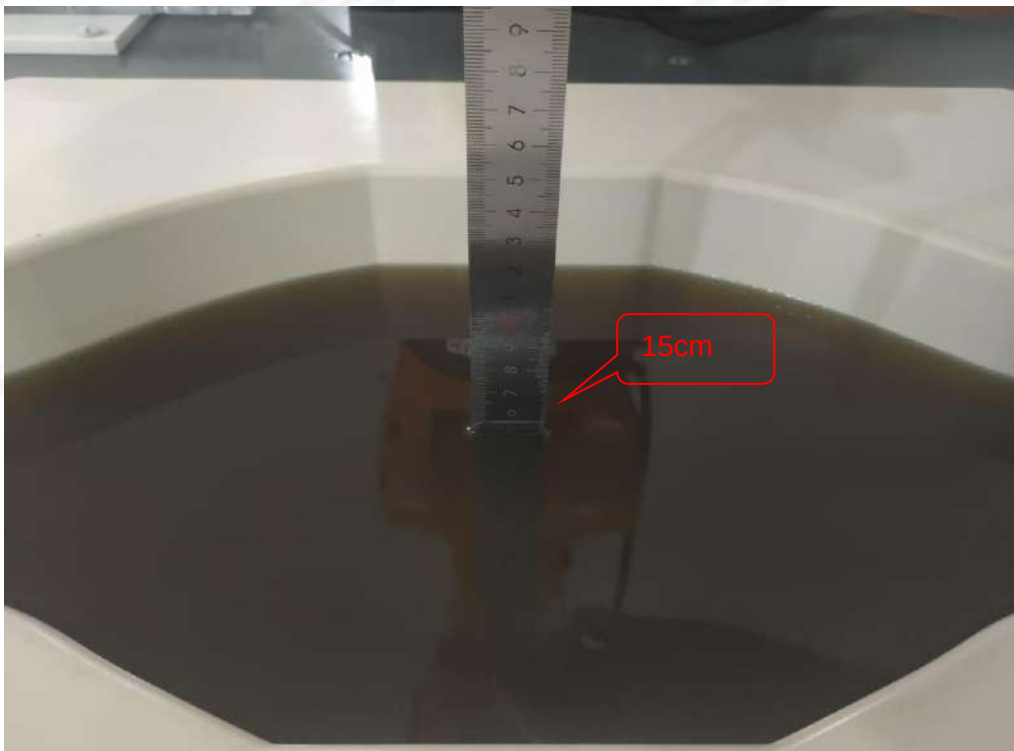
Vertical- Back (separation distance is 0mm)



Top edge (separation distance is 0mm)



Liquid depth (15 cm)





11. SAR Result Summary

11.1 Body-worn SAR

Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
2.4G WLAN_ANT_1	802.11b	Horizontal- Up	2437	0.311	-2.89	16.50	16.03	0.347	/
		Horizontal- Down	2437	0.481	0.15	16.50	16.03	0.536	1
		Vertical- Front	2437	0.205	3.82	16.50	16.03	0.228	/
		Vertical- Back	2437	0.314	-2.26	16.50	16.03	0.350	/
		Top edge	2437	0.214	0.84	16.50	16.03	0.238	/
2.4G WLAN_ANT_2	802.11b	Horizontal- Up	2412	0.325	-3.19	15.50	15.11	0.356	/
		Horizontal- Down	2412	0.503	2.41	15.50	15.11	0.550	2
		Vertical- Front	2412	0.305	-0.86	15.50	15.11	0.334	/
		Vertical- Back	2412	0.274	-2.13	15.50	15.11	0.300	/
		Top edge	2412	0.209	-3.27	15.50	15.11	0.229	/
2.4G WLAN_MIMO ANT_1	802.11ax-HE20	Horizontal- Up	2437	0.341	1.77	15.00	14.99	0.342	/
		Horizontal- Down	2437	0.577	-0.40	15.00	14.99	0.578	3
		Vertical- Front	2437	0.402	1.29	15.00	14.99	0.403	/
		Vertical- Back	2437	0.366	1.56	15.00	14.99	0.367	/
		Top edge	2437	0.328	3.33	15.00	14.99	0.329	/
2.4G WLAN_MIMO ANT_2	802.11b	Horizontal- Up	2437	0.410	-0.24	15.00	14.99	0.411	/
		Horizontal- Down	2437	0.598	-2.26	15.00	14.99	0.599	4
		Vertical- Front	2437	0.396	0.71	15.00	14.99	0.397	/
		Vertical- Back	2437	0.378	1.78	15.00	14.99	0.379	/
		Top edge	2437	0.325	1.94	15.00	14.99	0.326	/
5.2G WLAN_ANT_1	802.11a	Horizontal- Up	5240	0.754	-3.10	12.00	11.76	0.797	/
		Horizontal- Down	5180	1.052	-2.52	11.50	11.11	1.151	/
		Horizontal- Down	5200	1.032	-2.91	11.50	11.31	1.078	/
		Horizontal- Down	5240	1.153	2.77	12.00	11.76	1.219	5
		Vertical- Front	5240	0.698	-2.93	12.00	11.76	0.738	/
		Vertical- Back	5240	0.666	0.45	12.00	11.76	0.704	/
5.2G WLAN_ANT_2	802.11 ax- HE20	Top edge	5240	0.650	-0.41	12.00	11.76	0.687	/
		Horizontal- Up	5200	0.574	-1.68	13.00	12.54	0.638	/
		Horizontal- Down	5180	0.810	-3.03	12.50	12.33	0.842	/
		Horizontal- Down	5200	0.830	-1.63	13.00	12.54	0.923	6
		Horizontal- Down	5240	0.615	-2.64	6.50	6.32	0.641	/
		Vertical- Front	5200	0.601	-1.67	13.00	12.54	0.668	/
		Vertical- Back	5200	0.522	1.21	13.00	12.54	0.580	/
5.2G WLAN_MIMO ANT_1	802.11 ax- HE20	Top edge	5200	0.536	-2.31	13.00	12.54	0.596	/
		Horizontal- Up	5200	0.410	-1.40	13.50	13.06	0.454	/
		Horizontal- Down	5200	0.551	0.79	13.50	13.06	0.610	7
		Vertical- Front	5200	0.325	1.58	13.50	13.06	0.360	/
		Vertical- Back	5200	0.352	-0.63	13.50	13.06	0.390	/
5.2G WLAN_MIMO ANT_2	802.11 ax- HE20	Top edge	5200	0.331	2.61	13.50	13.06	0.366	/
		Horizontal- Up	5200	0.258	0.28	13.50	13.06	0.286	/
		Horizontal- Down	5200	0.514	-3.84	13.50	13.06	0.569	8
		Vertical- Front	5200	0.308	-0.78	13.50	13.06	0.341	/
		Vertical- Back	5200	0.296	-1.76	13.50	13.06	0.328	/
		Top edge	5200	0.274	-0.08	13.50	13.06	0.303	/



Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
5.3G WLAN_ANT_1	802.11a	Horizontal- Up	5320	0.247	-1.68	14.00	13.56	0.273	/
		Horizontal- Down	5320	0.558	-1.66	14.00	13.56	0.617	9
		Vertical- Front	5320	0.305	-1.48	14.00	13.56	0.338	/
		Vertical- Back	5320	0.233	-0.95	14.00	13.56	0.258	/
		Top edge	5320	0.241	-2.46	14.00	13.56	0.267	/
5.3G WLAN_ANT_2	802.11a	Horizontal- Up	5260	0.401	-1.16	12.50	12.20	0.430	/
		Horizontal- Down	5260	0.523	1.75	12.50	12.20	0.560	10
		Vertical- Front	5260	0.356	-0.41	12.50	12.20	0.381	/
		Vertical- Back	5260	0.374	-0.41	12.50	12.20	0.401	/
		Top edge	5260	0.335	-1.60	12.50	12.20	0.359	/
5.3G WLAN_MIMO ANT_1	802.11 ax- HE20	Horizontal- Up	5320	0.485	1.30	13.00	12.99	0.486	/
		Horizontal- Down	5320	0.684	2.95	13.00	12.99	0.686	11
		Vertical- Front	5320	0.452	0.25	13.00	12.99	0.453	/
		Vertical- Back	5320	0.433	-3.29	13.00	12.99	0.434	/
		Top edge	5320	0.469	-0.99	13.00	12.99	0.470	/
5.3G WLAN_MIMO ANT_2	802.11 ax- HE20	Horizontal- Up	5320	0.385	-1.34	13.00	12.99	0.386	/
		Horizontal- Down	5320	0.561	2.85	13.00	12.99	0.562	12
		Vertical- Front	5320	0.341	-3.67	13.00	12.99	0.342	/
		Vertical- Back	5320	0.325	1.86	13.00	12.99	0.326	/
		Top edge	5320	0.369	-2.00	13.00	12.99	0.370	/
5.6G WLAN_ANT_1	802.11ac- VHT20	Horizontal- Up	5500	0.415	-2.08	13.50	13.38	0.427	/
		Horizontal- Down	5500	0.799	-2.42	13.50	13.38	0.821	13
		Horizontal- Down	5580	0.685	-1.70	8.50	8.40	0.701	/
		Horizontal- Down	5700	0.758	0.68	10.50	10.29	0.796	/
		Vertical- Front	5500	0.621	0.21	13.50	13.38	0.638	/
		Vertical- Back	5500	0.647	-0.44	13.50	13.38	0.665	/
		Top edge	5500	0.585	3.38	13.50	13.38	0.601	/
5.6G WLAN_ANT_2	802.11a	Horizontal- Up	5500	0.647	1.57	12.50	12.21	0.692	/
		Horizontal- Down	5500	0.860	-3.38	12.50	12.21	0.919	14
		Horizontal- Down	5580	0.769	1.38	11.00	10.55	0.853	/
		Horizontal- Down	5700	0.714	2.02	10.50	10.20	0.765	/
		Vertical- Front	5500	0.558	1.79	12.50	12.21	0.597	/
		Vertical- Back	5500	0.496	2.46	12.50	12.21	0.530	/
		Top edge	5500	0.436	1.91	12.50	12.21	0.466	/
5.6G WLAN_MIMO ANT_1	802.11ac- VHT20	Horizontal- Up	5500	0.444	-2.40	15.50	15.15	0.481	/
		Horizontal- Down	5500	0.616	-3.66	15.50	15.15	0.668	15
		Vertical- Front	5500	0.520	1.81	15.50	15.15	0.564	/
		Vertical- Back	5500	0.514	-0.45	15.50	15.15	0.557	/
		Top edge	5500	0.439	1.28	15.50	15.15	0.476	/
5.6G WLAN_MIMO ANT_2	802.11ac- VHT20	Horizontal- Up	5500	0.289	-2.22	15.50	15.15	0.313	/
		Horizontal- Down	5500	0.518	2.47	15.50	15.15	0.561	16
		Vertical- Front	5500	0.369	-3.09	15.50	15.15	0.400	/
		Vertical- Back	5500	0.321	1.18	15.50	15.15	0.348	/
		Top edge	5500	0.325	-3.16	15.50	15.15	0.352	/



Band	Model	Test Position	Freq.	SAR (1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
5.8G WLAN_ANT_1	802.11a	Horizontal- Up	5825	0.281	2.10	12.50	12.04	0.312	/
		Horizontal- Down	5825	0.486	-1.89	12.50	12.04	0.540	17
		Vertical- Front	5825	0.314	-0.61	12.50	12.04	0.349	/
		Vertical- Back	5825	0.318	-2.42	12.50	12.04	0.354	/
		Top edge	5825	0.352	-2.99	12.50	12.04	0.391	/
5.8G WLAN_ANT_2	802.11a	Horizontal- Up	5825	0.339	-3.32	8.50	8.21	0.362	/
		Horizontal- Down	5825	0.561	2.25	8.50	8.21	0.600	18
		Vertical- Front	5825	0.369	-3.08	8.50	8.21	0.394	/
		Vertical- Back	5825	0.351	2.53	8.50	8.21	0.375	/
		Top edge	5825	0.371	-3.79	8.50	8.21	0.397	/
5.8G WLAN_MIMO ANT_1	802.11 n-HT20	Horizontal- Up	5745	0.285	-3.18	13.00	12.85	0.295	/
		Horizontal- Down	5745	0.505	2.18	13.00	12.85	0.523	19
		Vertical- Front	5745	0.305	0.88	13.00	12.85	0.316	/
		Vertical- Back	5745	0.314	-1.75	13.00	12.85	0.325	/
		Top edge	5745	0.350	2.17	13.00	12.85	0.362	/
5.8G WLAN_MIMO ANT_2	802.11 n-HT20	Horizontal- Up	5745	0.337	3.65	13.00	12.85	0.349	/
		Horizontal- Down	5745	0.504	3.82	13.00	12.85	0.522	20
		Vertical- Front	5745	0.347	2.54	13.00	12.85	0.359	/
		Vertical- Back	5745	0.329	2.30	13.00	12.85	0.341	/
		Top edge	5745	0.317	-2.82	13.00	12.85	0.328	/

Band	ANT	Max SAR (W/Kg)	2.4G WLAN_ANT_1+2
2.4G WLAN_ANT_1+2	ANT-1	0.578	1.178
	ANT-2	0.599	
Band	ANT	Max SAR (W/Kg)	5.2G WLAN_ANT_1+2
5.2G WLAN_ANT_1+2	ANT-1	0.610	1.179
	ANT-2	0.569	
Band	ANT	Max SAR (W/Kg)	5.3G WLAN_ANT_1+2
5.3G WLAN_ANT_1+2	ANT-1	0.686	1.248
	ANT-2	0.562	
Band	ANT	Max SAR (W/Kg)	5.6G WLAN_ANT_1+2
5.6G WLAN_ANT_1+2	ANT-1	0.668	1.229
	ANT-2	0.561	
Band	ANT	Max SAR (W/Kg)	5.8G WLAN_ANT_1+2
5.8G WLAN_ANT_1+2	ANT-1	0.523	1.044
	ANT-2	0.522	

Note:

- The test separation of all above table is 0mm.
- Per KDB 447498 D04, 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



12. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
SAR Test System	SATIMO	N/A	V5.3.15.11	N/A	N/A
2450MHzDipole	MVG	SID2450	SN 30/14 DIP2G450-335	2023.07.04	2026.07.03
Waveguide	MVG	SWG5500	SN 13/14 WGA32	2023.07.04	2026.07.03
E-Field Probe	MVG	SSE2	SN 08/21 EPGO352	2025.09.15	2026.09.14
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2025.09.15	2026.09.14
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom3	MVG	SAM	SN 21/21 ELLI48	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	HXT-10-8-SMA	240327017	2025-02-22	2026-02-21
Directional coupler	Xi'an Xingbo	XBOH-OA08-20dB	211123-4-3	2025-02-22	2026-02-21
Network Analyzer	Agilent	E5071C	MY46520378	2025-09-26	2026-09-24
Multi Meter	Keithley	Multi Meter 2000	4050073	2025-09-22	2026-09-21
Signal Generator	Agilent	N5182A	MY50140530	2025-09-26	2026-09-25
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2025-02-22	2026-02-21
Wireless Communication Test Set	R&S	CMW500	156324	2025-09-25	2026-09-24
Power Amplifier	DESAY	WCS-DLNA50M8G50G1	CSKJLNA231227A	2025-09-29	2026-09-28
Power Meter	R&S	NRP	100510	2025-09-25	2026-09-24
Power Sensor	R&S	NRP-Z11	101919	2025-09-25	2026-09-24
Power Sensor	Keysight	U2021XA	MY56280002	2025-09-25	2026-09-24
Temperature hygrometer	TOPRIE	TP502V4-P	6700000124198	2025.10.09	2026.10.08
Thermograph	Elitech	RC-4	S/N EF7176501537	2025.10.17	2026.10.16



Appendix A. System Validation Plots

System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

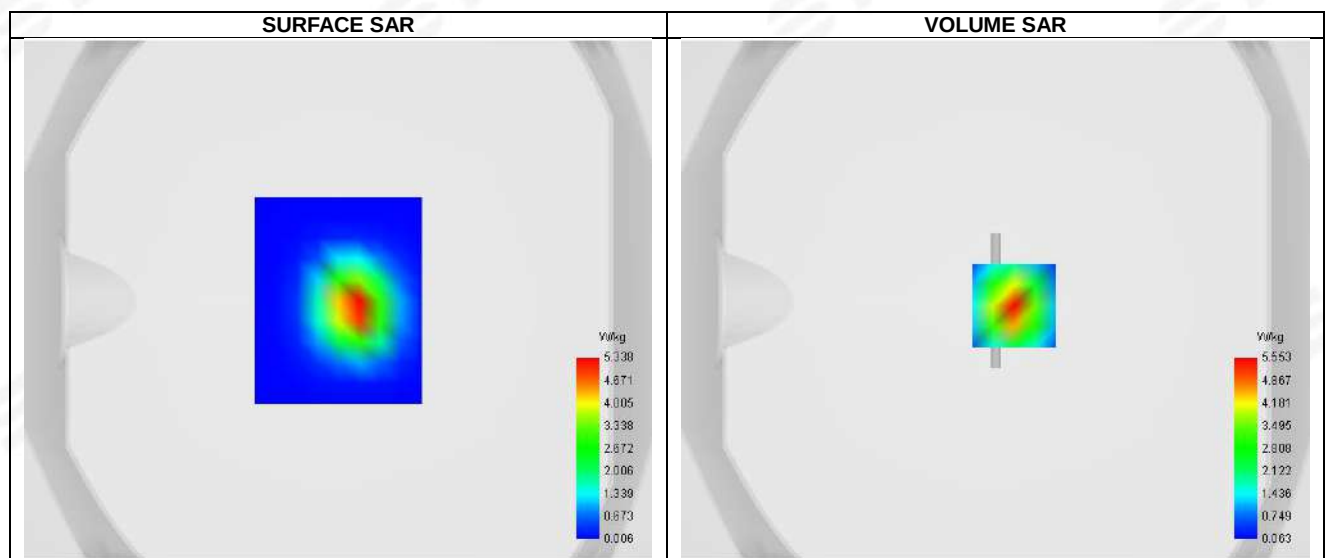
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2025-01-05

Experimental conditions.

Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity	38.98
Conductivity (S/m)	1.81
Probe	SN 08/21 EPGO352
ConvF	1.82
Crest factor:	1:1



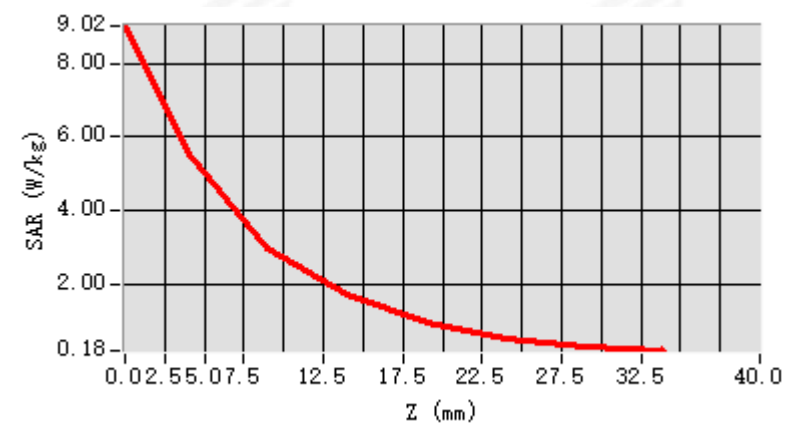
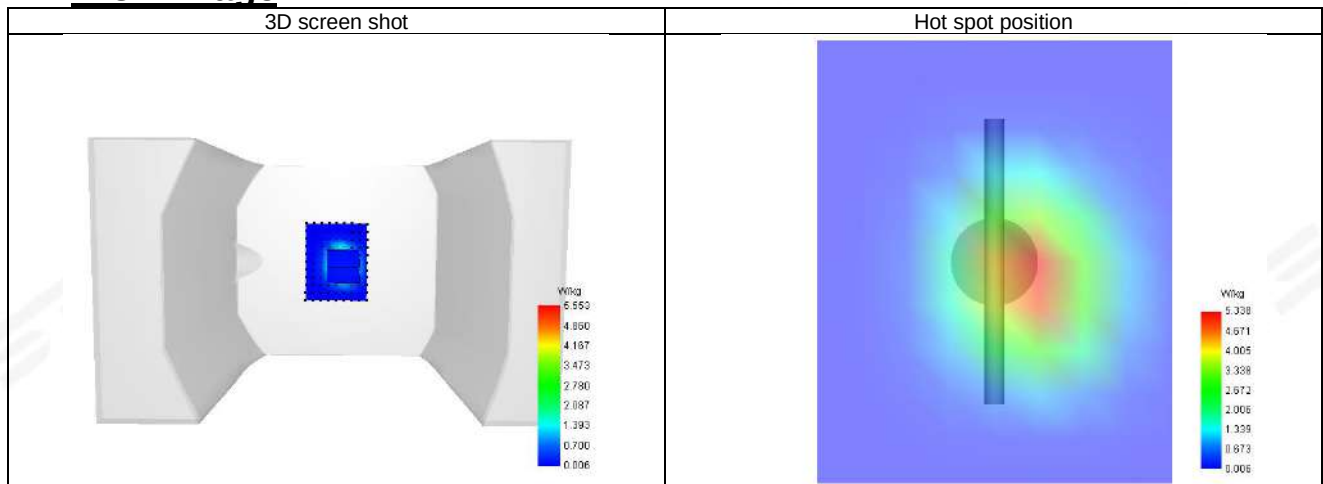
Maximum location: X=7.00, Y=-2.00 ; SAR Peak: 8.94 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	2.377
SAR 1g (W/Kg)	5.529
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	53.120501

**E. Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.017	5.553	2.950	1.707	0.954	0.533	0.298

**F. 3D Image**

**System Performance Check Data (5200MHz)**

Type: Dipole measurement (Complete)

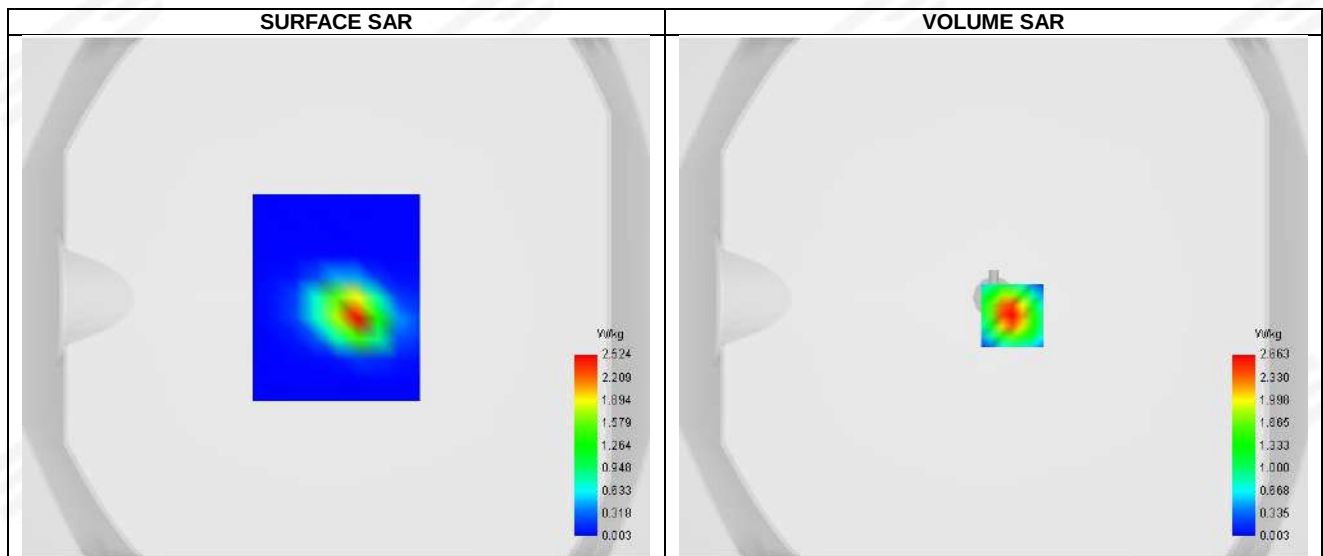
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2025-02-03

Experimental conditions.

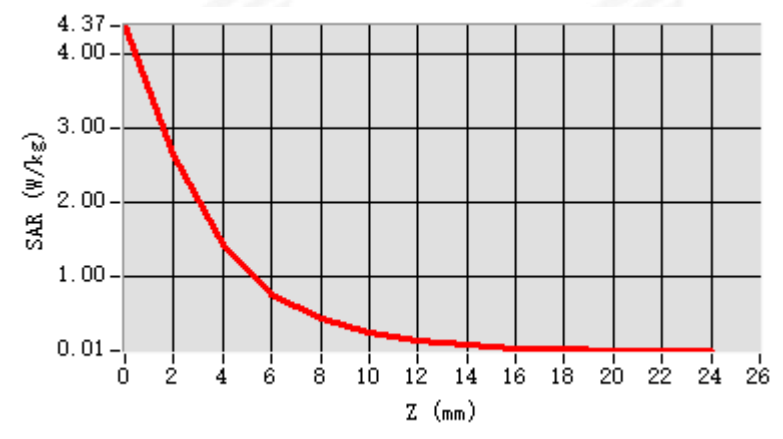
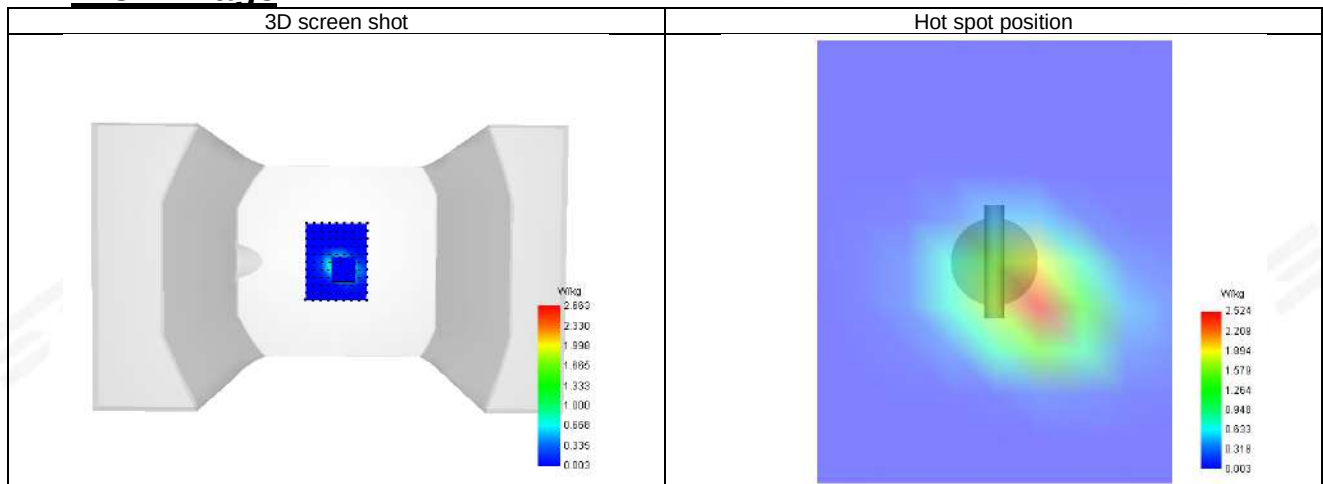
Device Position	Validation plane
Band	5200 MHz
Channels	-
Signal	CW
Frequency (MHz)	5200
Relative permittivity	35.44
Conductivity (S/m)	4.68
Probe	SN 08/21 EPGO352
ConvF	1.37
Crest factor:	1:1

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.549
SAR 1g (W/Kg)	1.534
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	53.798366

**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	4.375	2.663	1.433	0.772	0.446	0.248	0.137	0.076	0.042	0.023	0.013	0.007

**F. 3D Image**

**System Performance Check Data (5400MHz)**

Type: Dipole measurement (Complete)

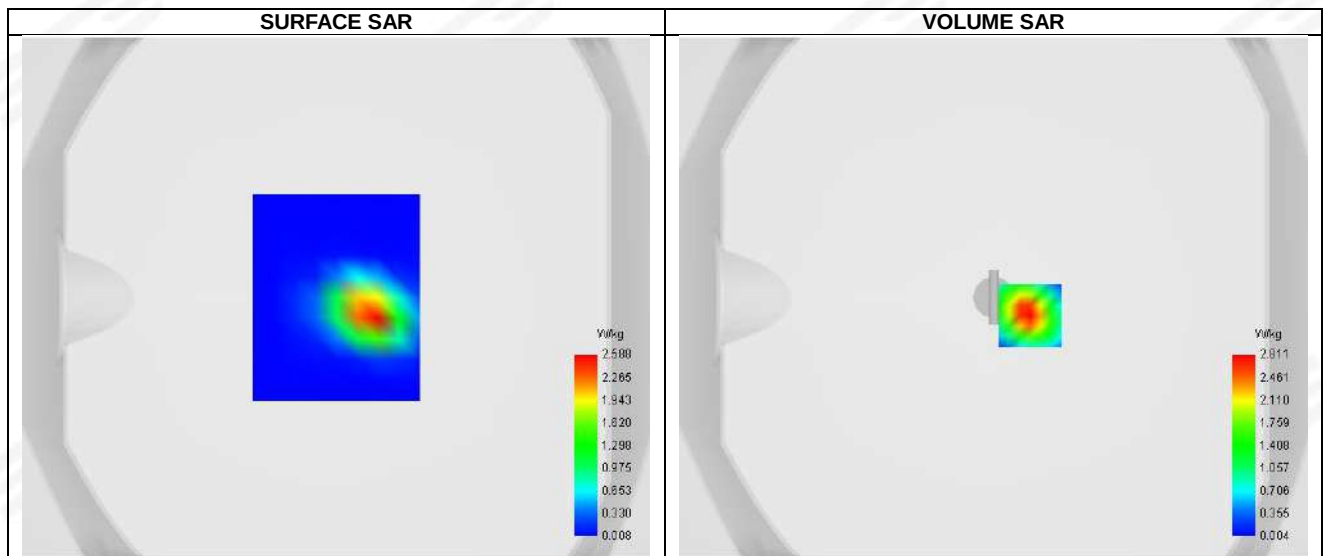
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2025-02-04

Experimental conditions.

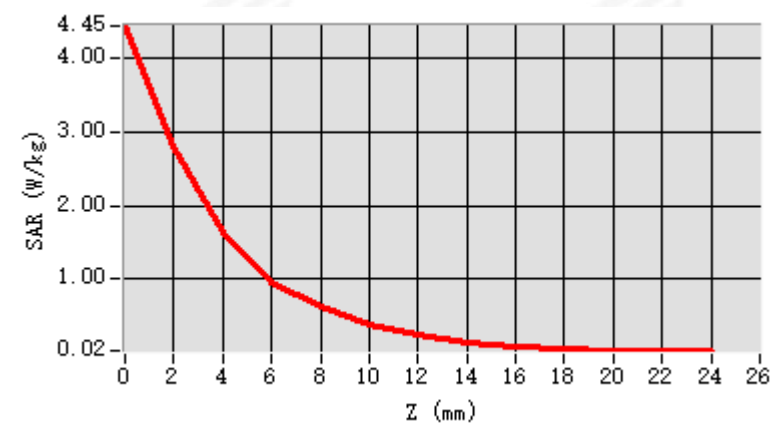
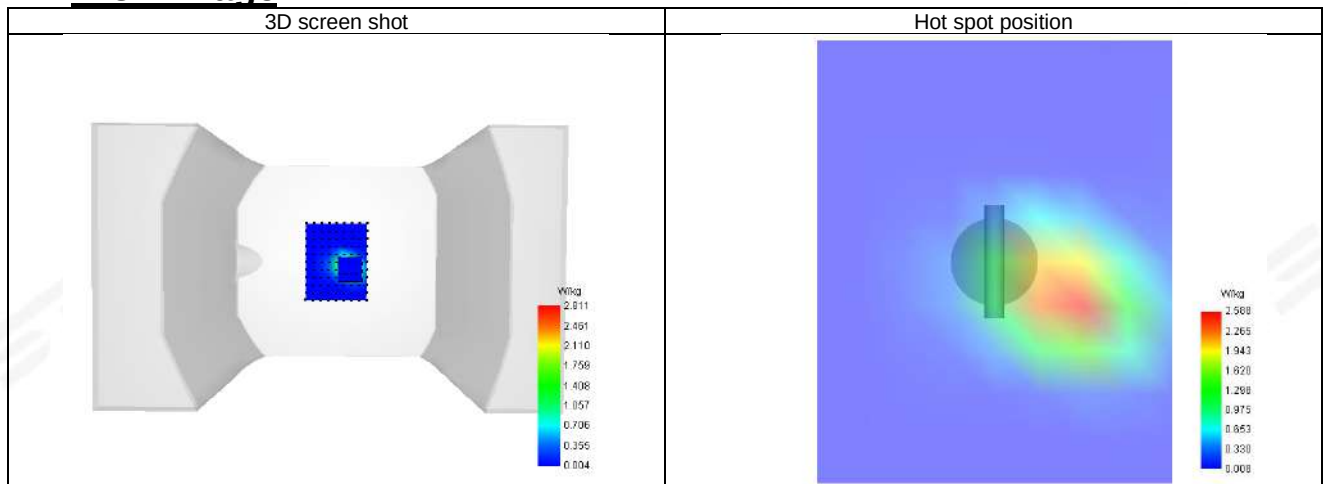
Device Position	Validation plane
Band	5400 MHz
Channels	-
Signal	CW
Frequency (MHz)	5400
Relative permittivity	36.44
Conductivity (S/m)	4.88
Probe	SN 08/21 EPGO352
ConvF	1.26
Crest factor:	1:1

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.601
SAR 1g (W/Kg)	1.707
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	58.256753

**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	4.447	2.811	1.638	0.937	0.615	0.374	0.227	0.138	0.084	0.051	0.031	0.019

**F. 3D Image**

**System Performance Check Data (5600MHz)**

Type: Dipole measurement (Complete)

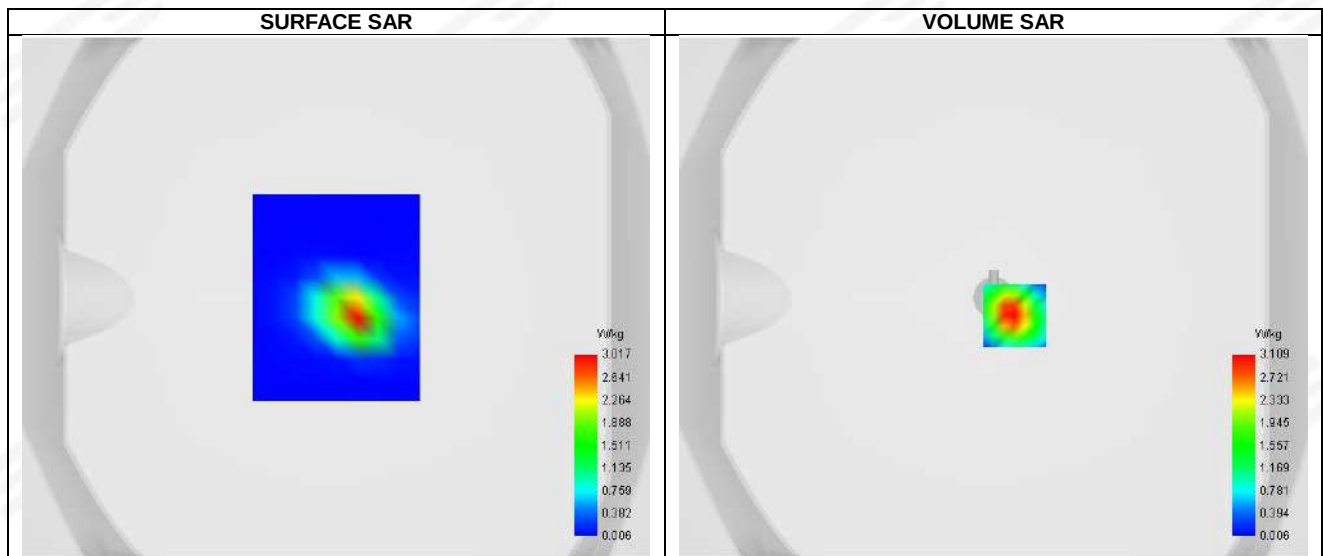
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2025-02-04

Experimental conditions.

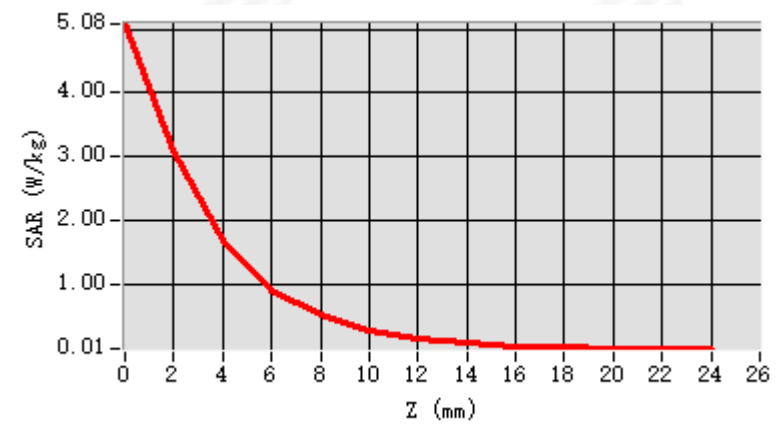
Device Position	Validation plane
Band	5600 MHz
Channels	-
Signal	CW
Frequency (MHz)	5600
Relative permittivity	35.79
Conductivity (S/m)	5.07
Probe	SN 08/21 EPGO352
ConvF	1.21
Crest factor:	1:1

**D. SAR 1g & 10g**

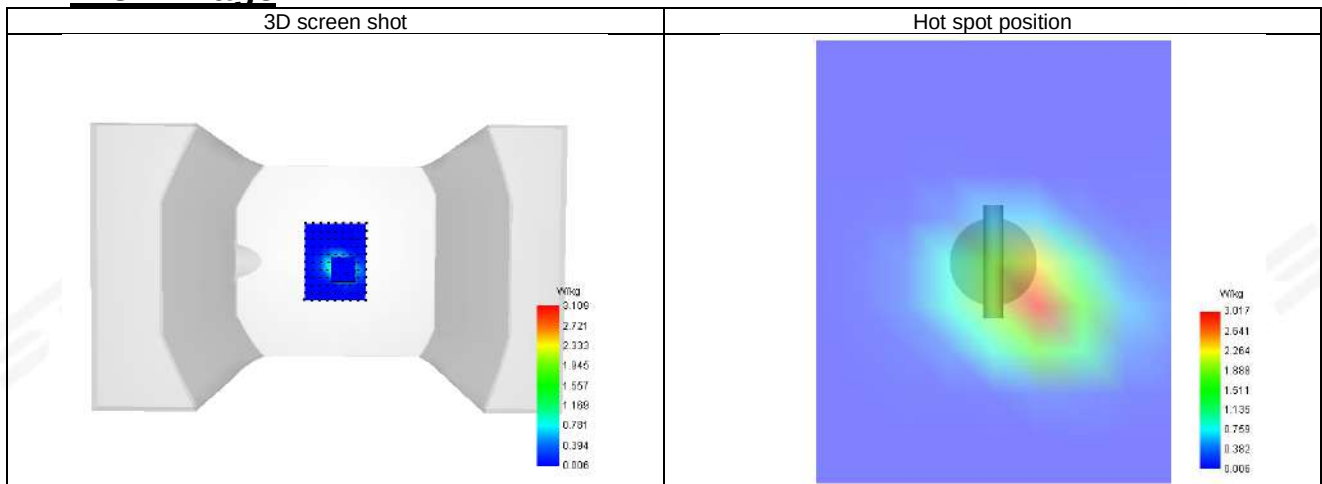
SAR 10g (W/Kg)	0.581
SAR 1g (W/Kg)	1.698
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	54.975988

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
SAR (W/Kg)	5.079	3.109	1.709	0.922	0.528	0.293	0.163	0.090	0.050	0.028	0.015	0.009	0.009



F. 3D Image



**System Performance Check Data (5800MHz)**

Type: Dipole measurement (Complete)

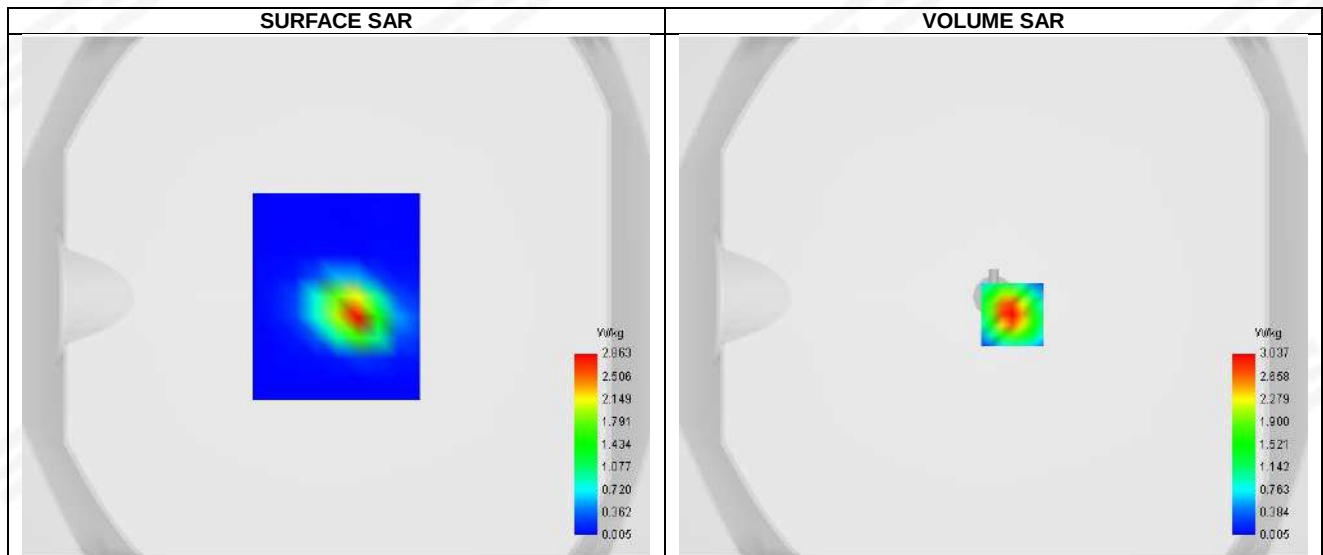
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2025-02-05

Experimental conditions.

Device Position	Validation plane
Band	5800 MHz
Channels	-
Signal	CW
Frequency (MHz)	5800
Relative permittivity	35.93
Conductivity (S/m)	5.27
Probe	SN 08/21 EPGO352
ConvF	1.32
Crest factor:	1:1



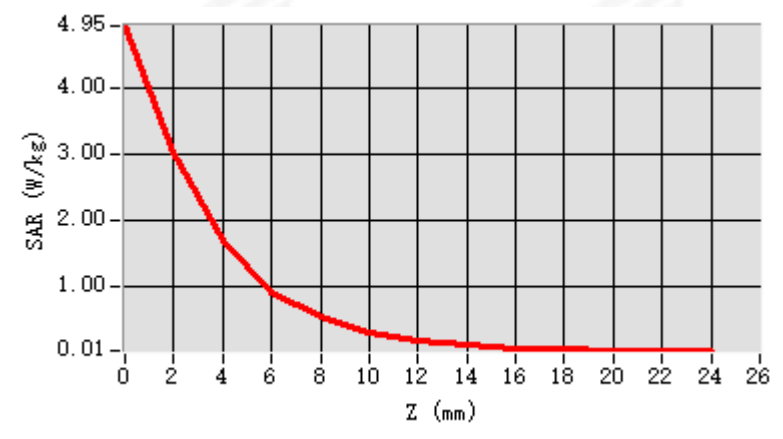
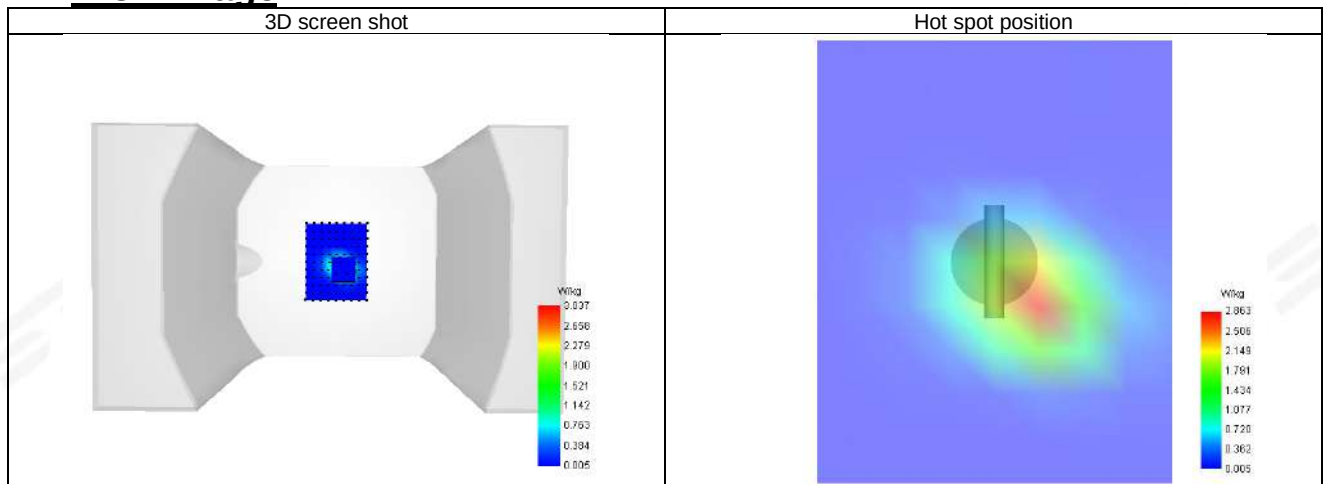
Maximum location: X=7.00, Y=-7.00 ; SAR Peak: 5.17 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.665
SAR 1g (W/Kg)	1.824
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	55.297526

**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	4.953	3.037	1.679	0.904	0.525	0.293	0.164	0.092	0.051	0.029	0.016	0.009

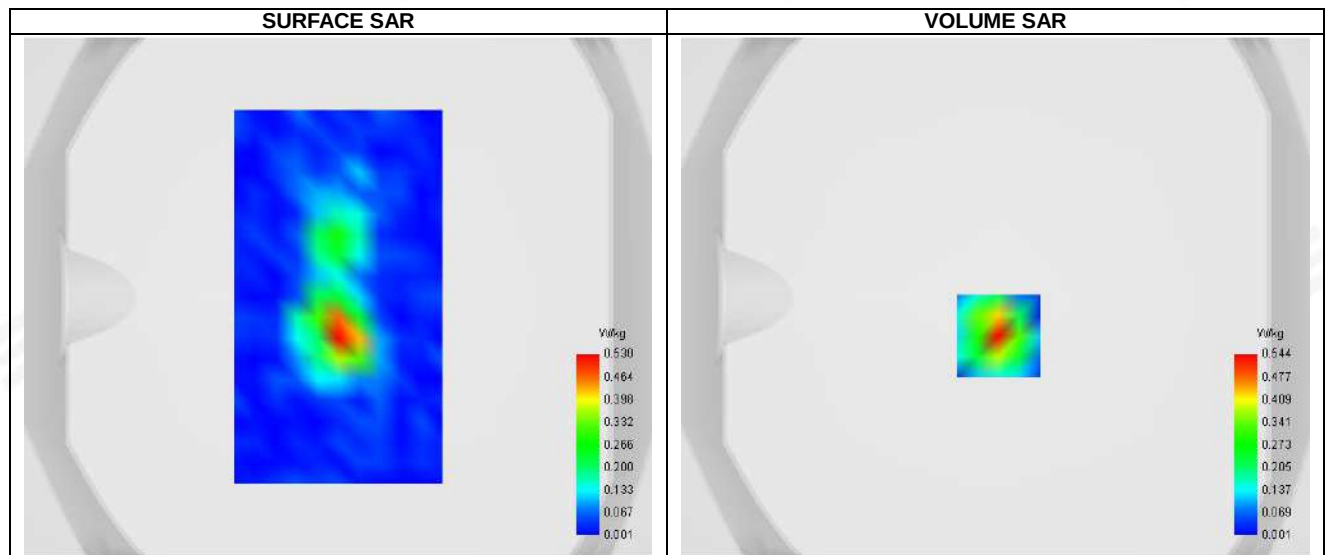
**F. 3D Image**



Appendix B. SAR Test Plots

Plot 1: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0

Test Date	2025-01-05
ConvF	1.82
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Horizontal- Down
Band	2.4G WLAN_ANT_1
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.15
Conductivity (S/m)	1.78

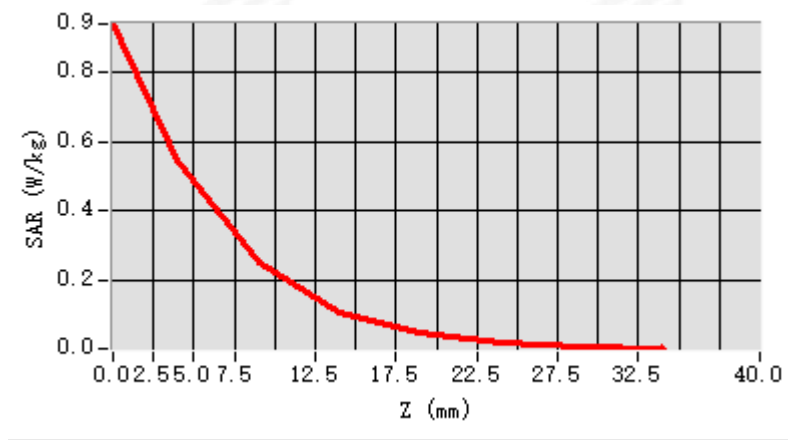


D. SAR 1g & 10g

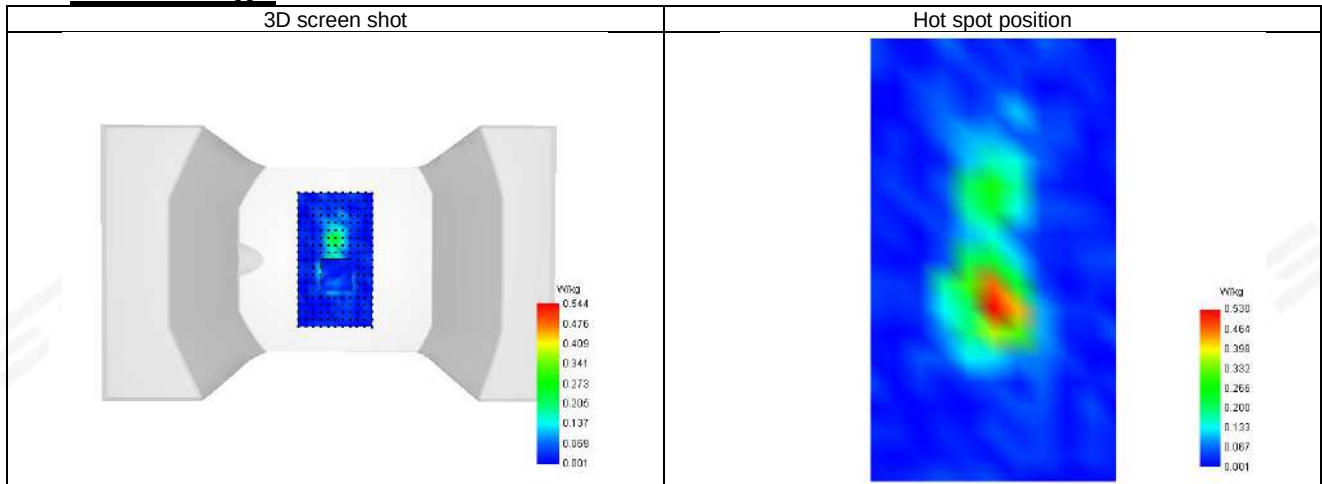
SAR 10g (W/Kg)	0.215
SAR 1g (W/Kg)	0.481
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	46.442500

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.940	0.544	0.253	0.108	0.048	0.021	0.009

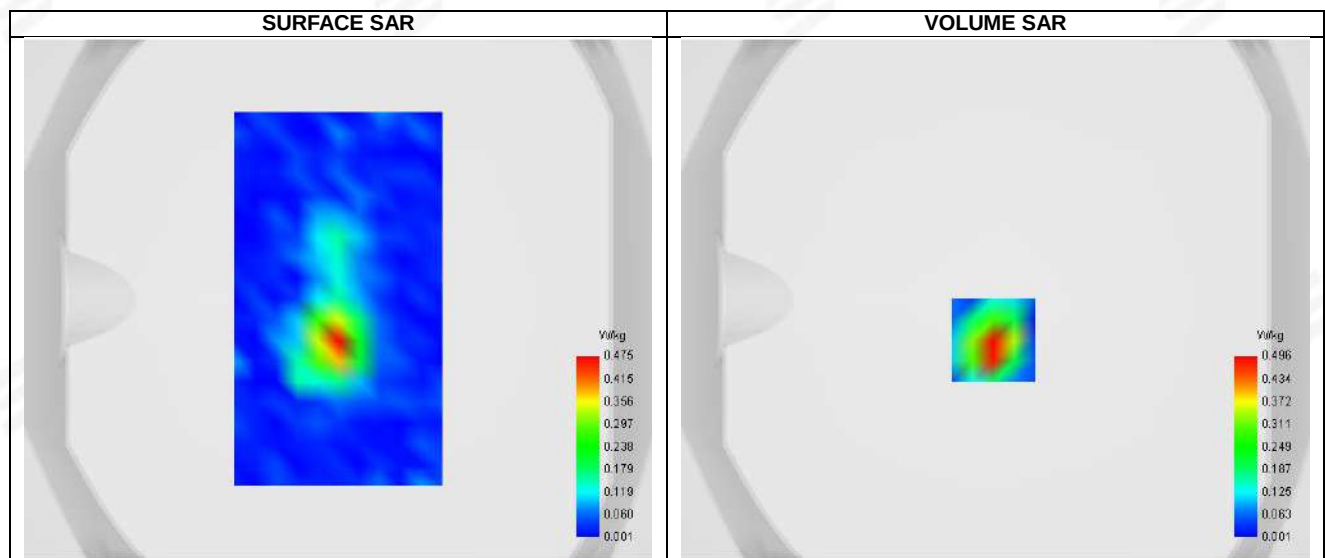


F. 3D Image



**Plot 2: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

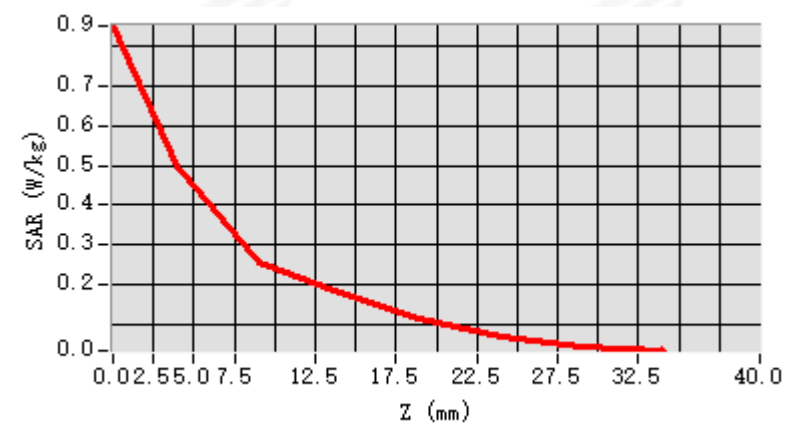
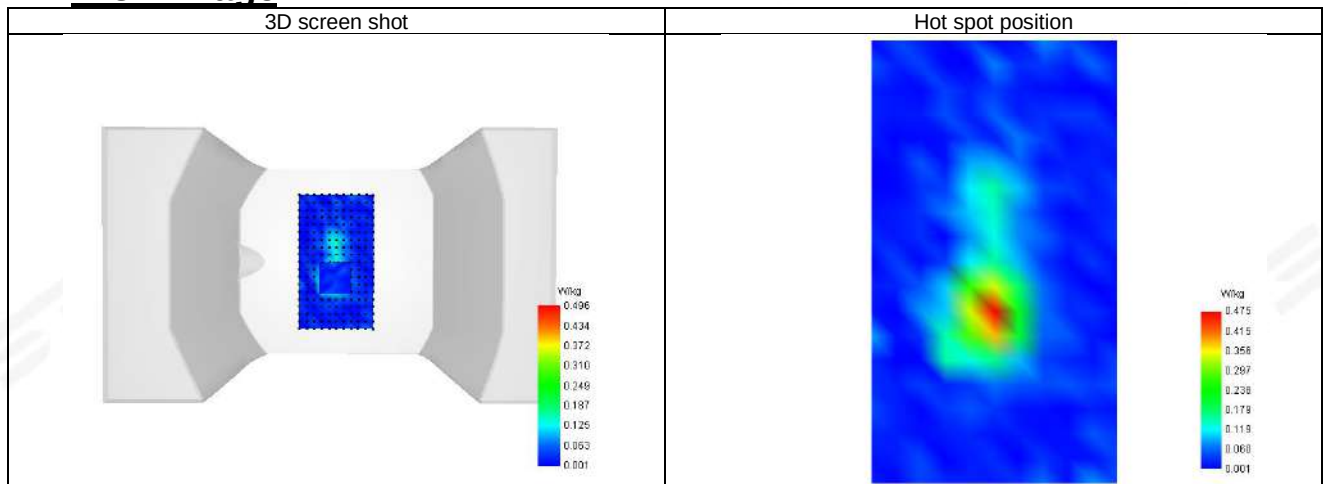
Test Date	2025-01-05
ConvF	1.82
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Horizontal- Down
Band	2.4G WLAN_ANT_2
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2412
Relative permittivity (real part)	39.80
Conductivity (S/m)	1.79

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.202
SAR 1g (W/Kg)	0.503
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	51.095337

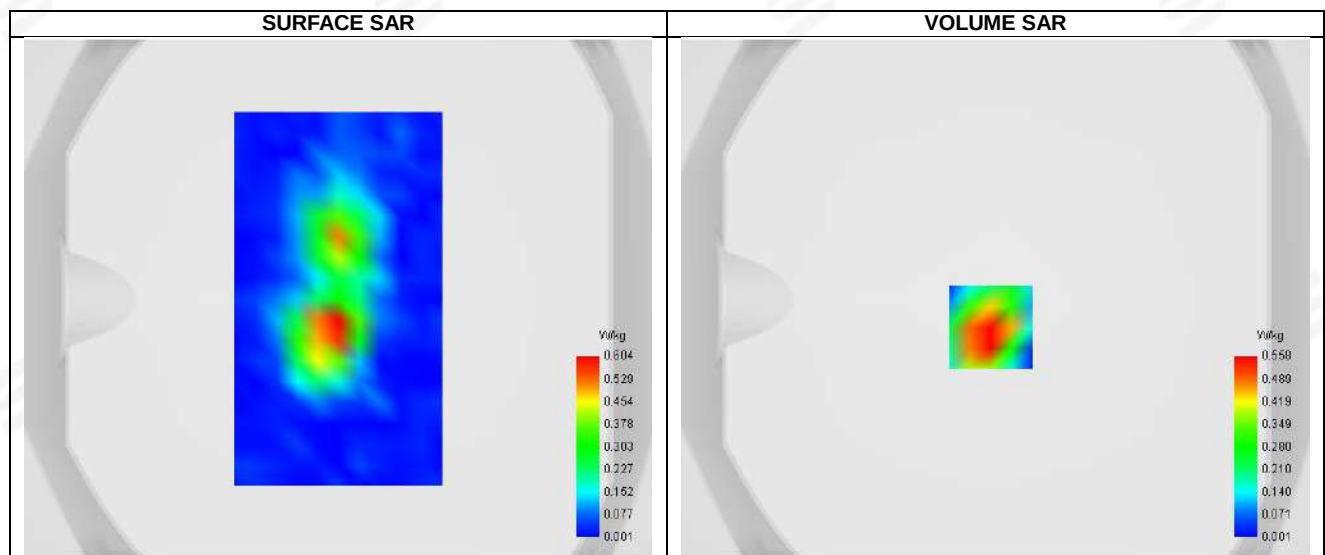
**E. Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.853	0.496	0.254	0.180	0.111	0.069	0.043

**F. 3D Image**

**Plot 3: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

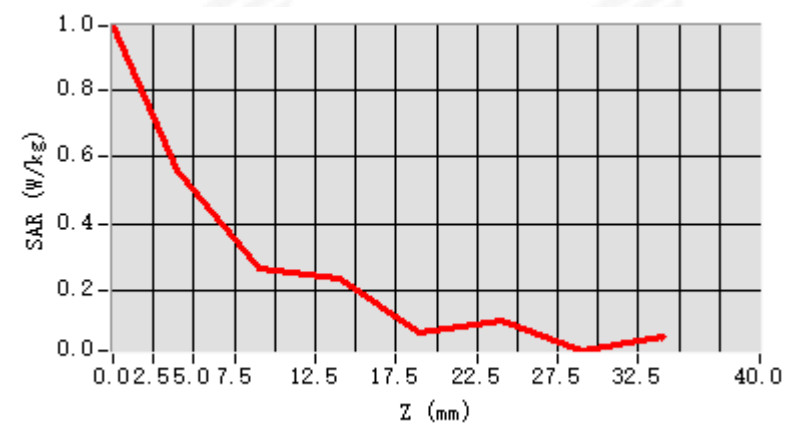
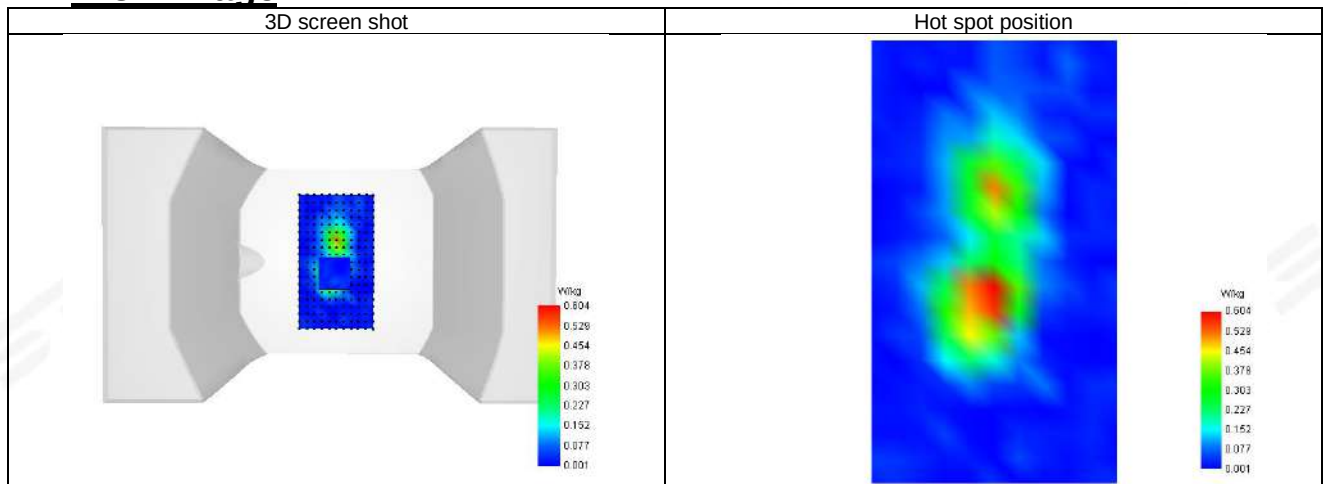
Test Date	2025-01-05
ConvF	1.82
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Horizontal- Down
Band	2.4G WLAN_MIMO ANT_1
Signal	802.11ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.15
Conductivity (S/m)	1.78

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.266
SAR 1g (W/Kg)	0.577
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	49.128113

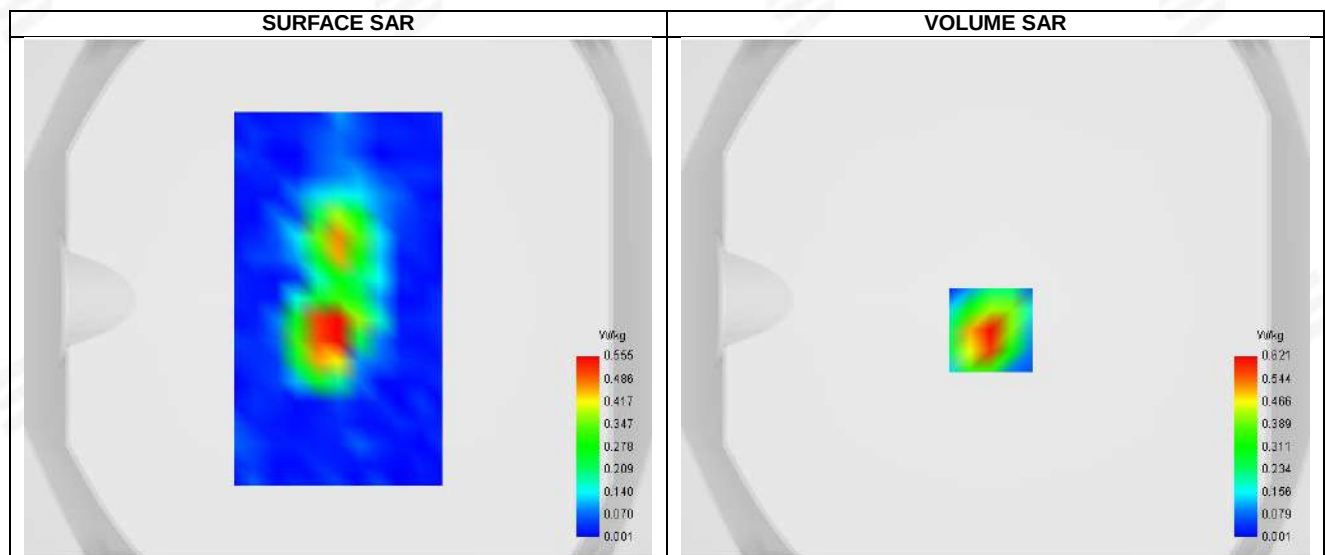
**E. Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.990	0.558	0.266	0.238	0.074	0.114	0.022

**F. 3D Image**

**Plot 4: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

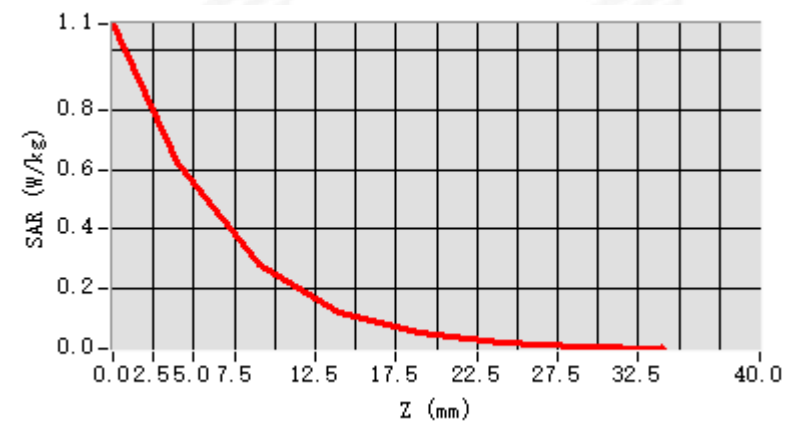
Test Date	2025-01-05
ConvF	1.82
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Horizontal- Down
Band	2.4G WLAN_MIMO ANT_2
Signal	802.11ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.15
Conductivity (S/m)	1.78

**D. SAR 1g & 10g**

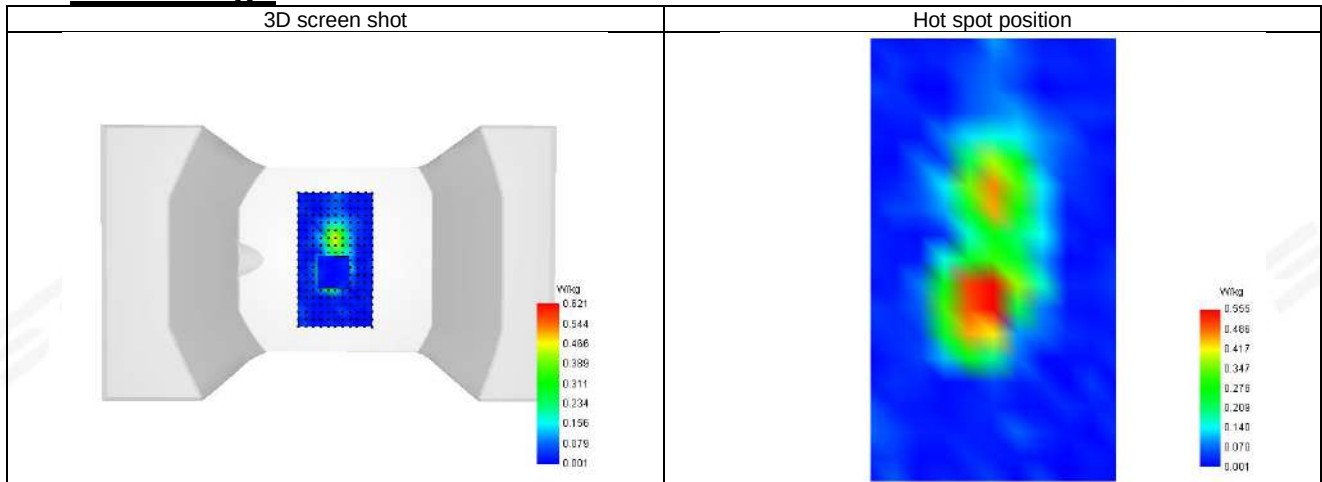
SAR 10g (W/Kg)	0.257
SAR 1g (W/Kg)	0.598
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	45.558637

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.085	0.621	0.283	0.119	0.052	0.023	0.010

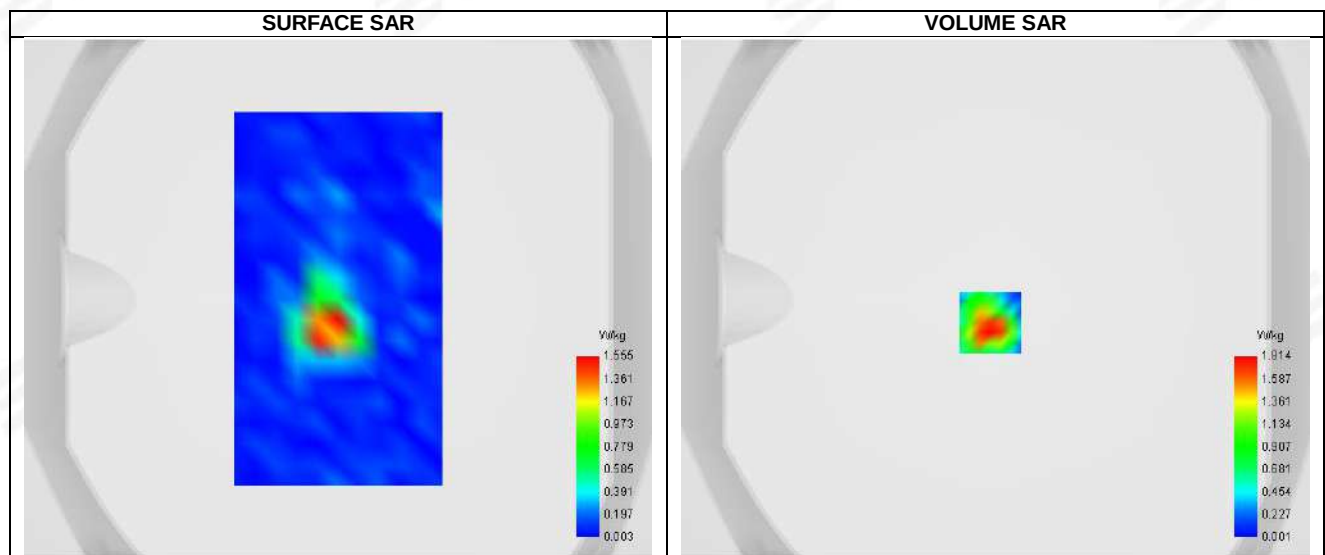


F. 3D Image



**Plot 5: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

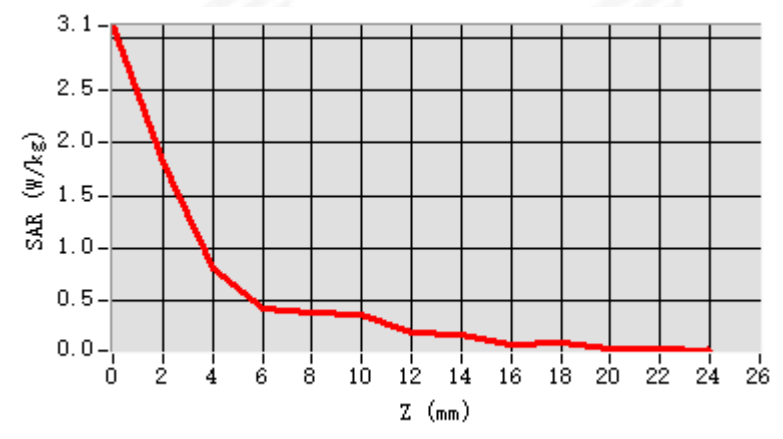
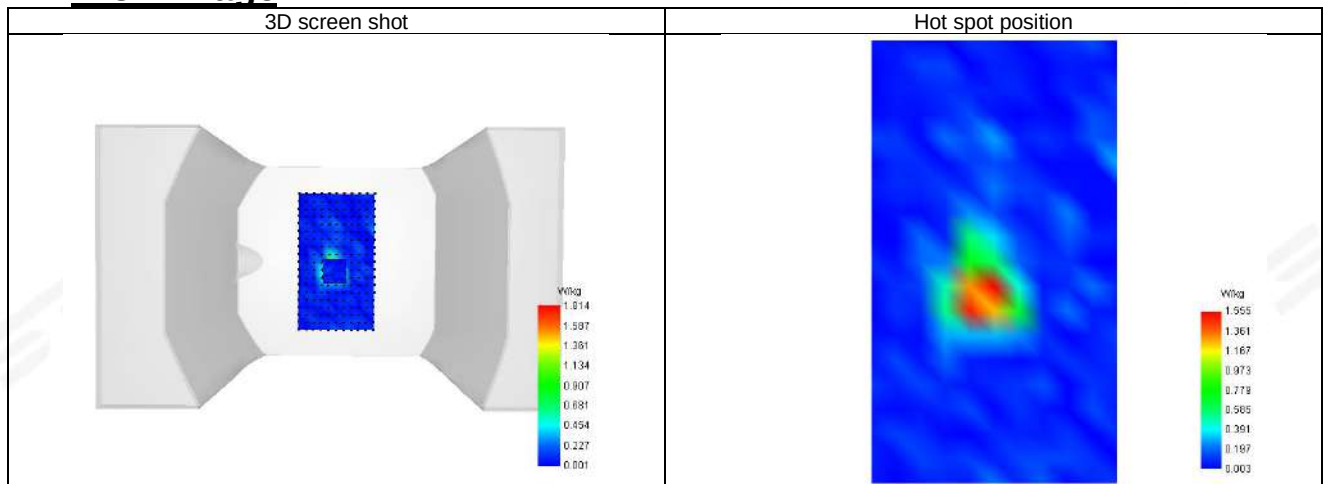
Test Date	2026-02-04
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.2G WLAN_ANT_1
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5240
Relative permittivity (real part)	36.01
Conductivity (S/m)	4.69

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.386
SAR 1g (W/Kg)	1.153
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	54.787779

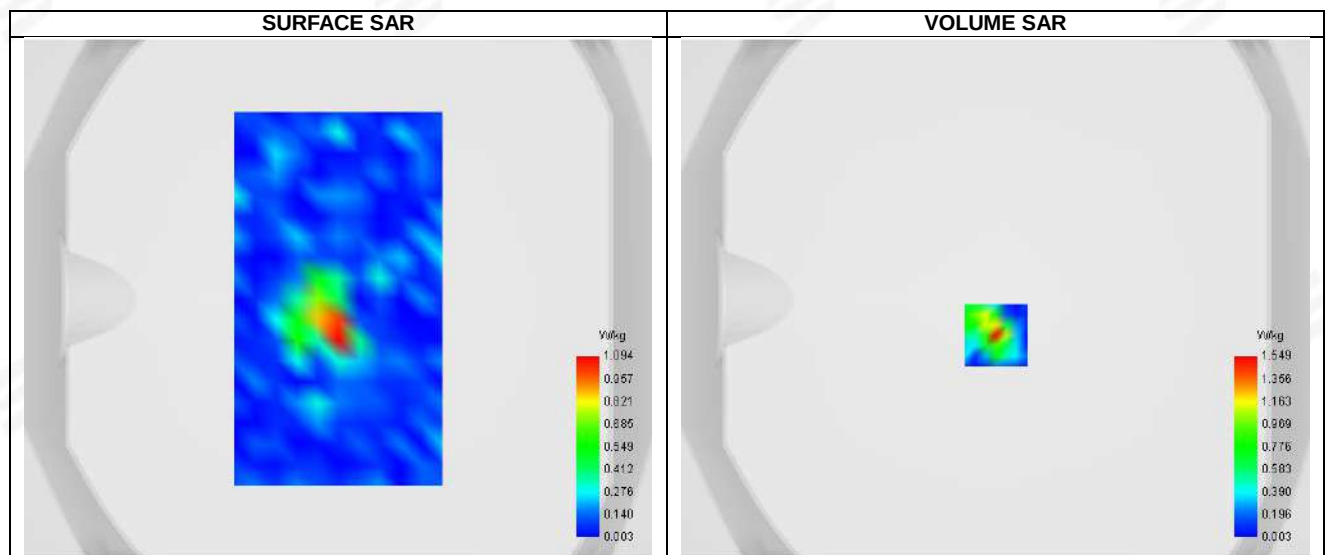
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	3.114	1.814	0.812	0.425	0.389	0.372	0.184	0.182	0.087	0.089	0.041	0.044

**F. 3D Image**

**Plot 6: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.2G WLAN_ANT_2
Signal	802.11 ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	5200
Relative permittivity (real part)	35.44
Conductivity (S/m)	4.68



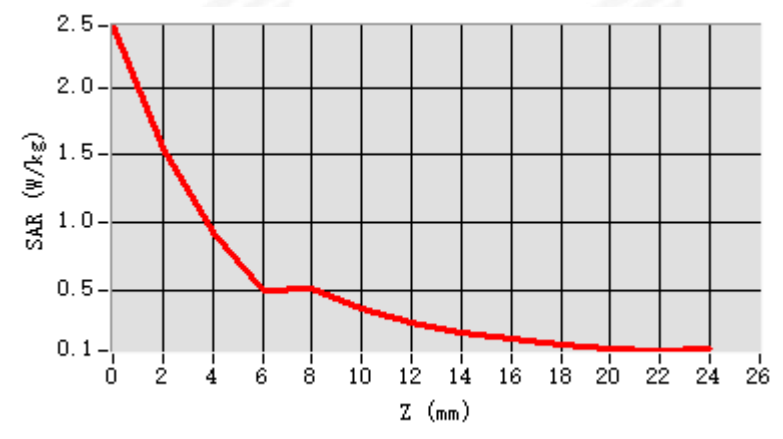
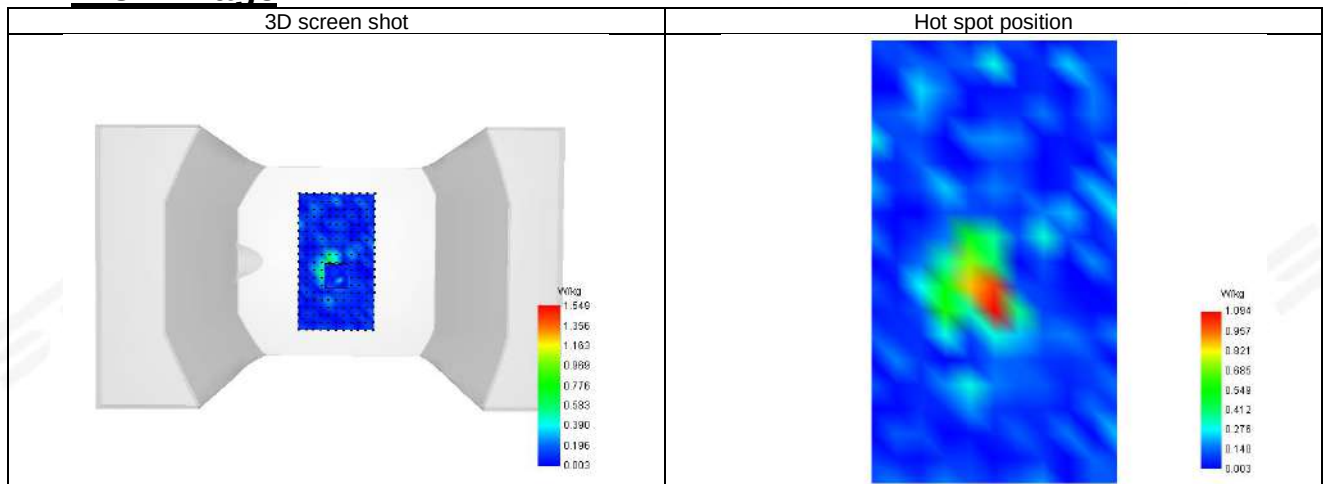
Maximum location: X=0.00, Y=-14.00 ; SAR Peak: 2.86 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.295
SAR 1g (W/Kg)	0.830
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	59.725771

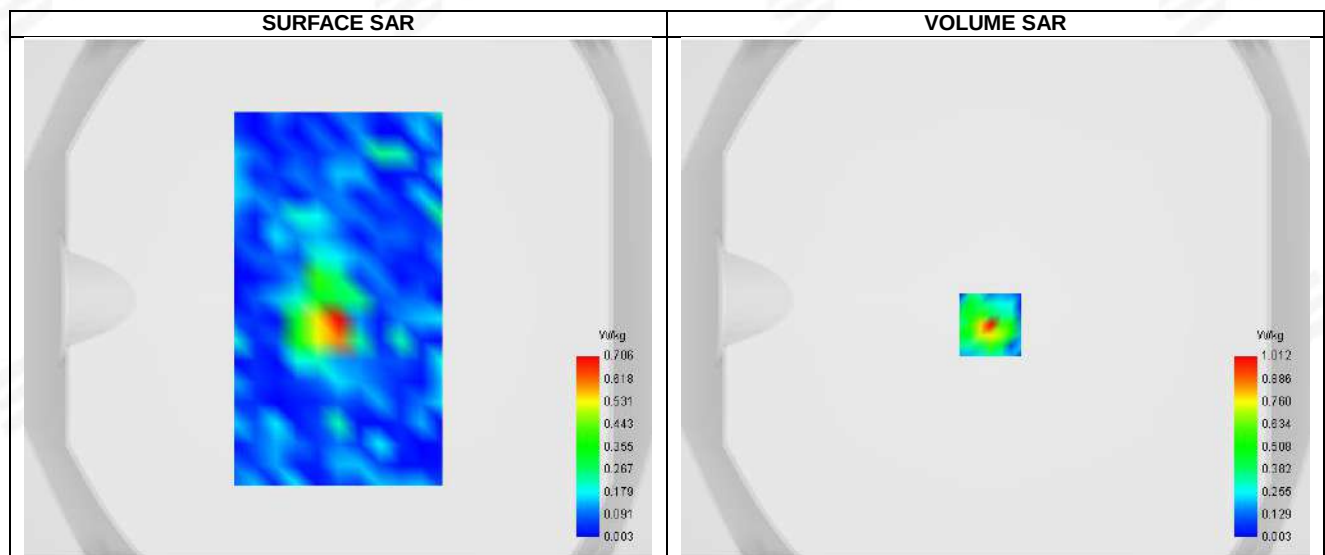
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	2.457	1.549	0.925	0.493	0.511	0.368	0.265	0.191	0.138	0.099	0.072	0.052

**F. 3D Image**

**Plot 7: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

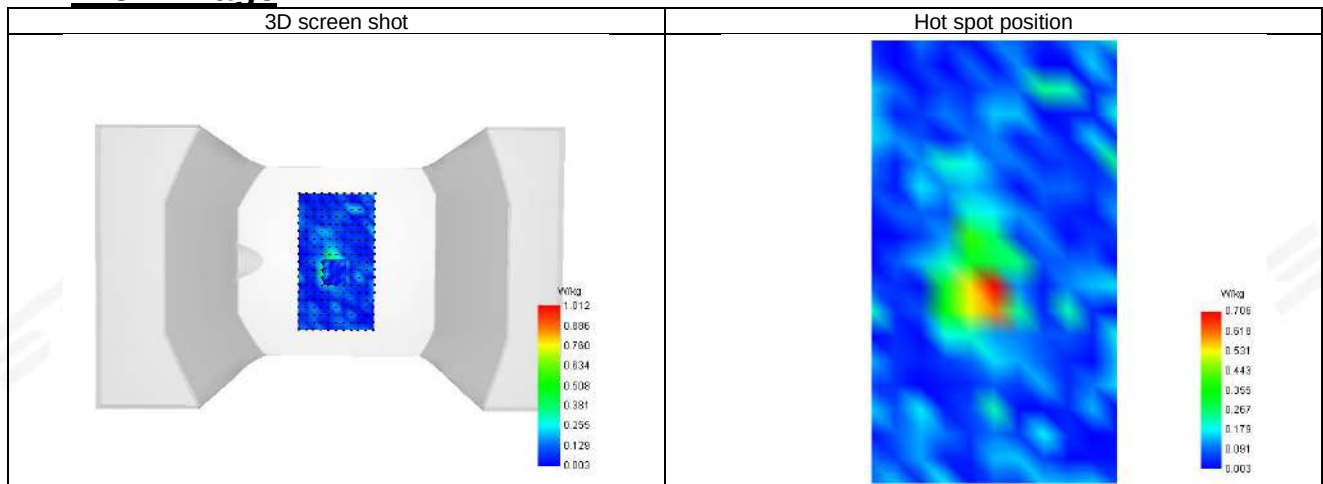
Test Date	2026-02-04
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.2G WLAN_MIMO ANT_1
Signal	802.11 ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	5200
Relative permittivity (real part)	35.44
Conductivity (S/m)	4.68

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.224
SAR 1g (W/Kg)	0.551
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	62.058401

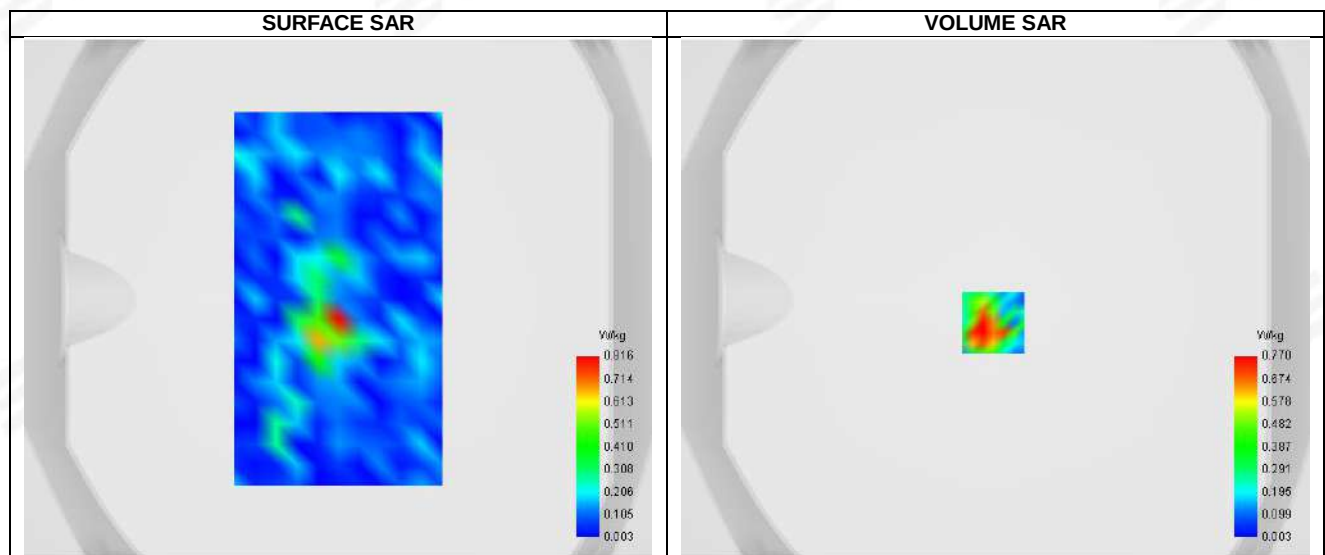
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.522	1.012	0.344	0.479	0.362	0.273	0.207	0.156	0.118	0.089	0.067	0.051

**F. 3D Image**

**Plot 8: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.2G WLAN_MIMO ANT_2
Signal	802.11 ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	5200
Relative permittivity (real part)	35.44
Conductivity (S/m)	4.68



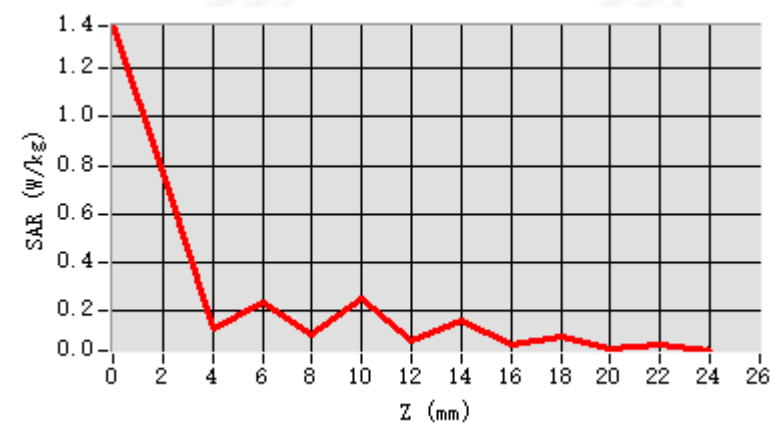
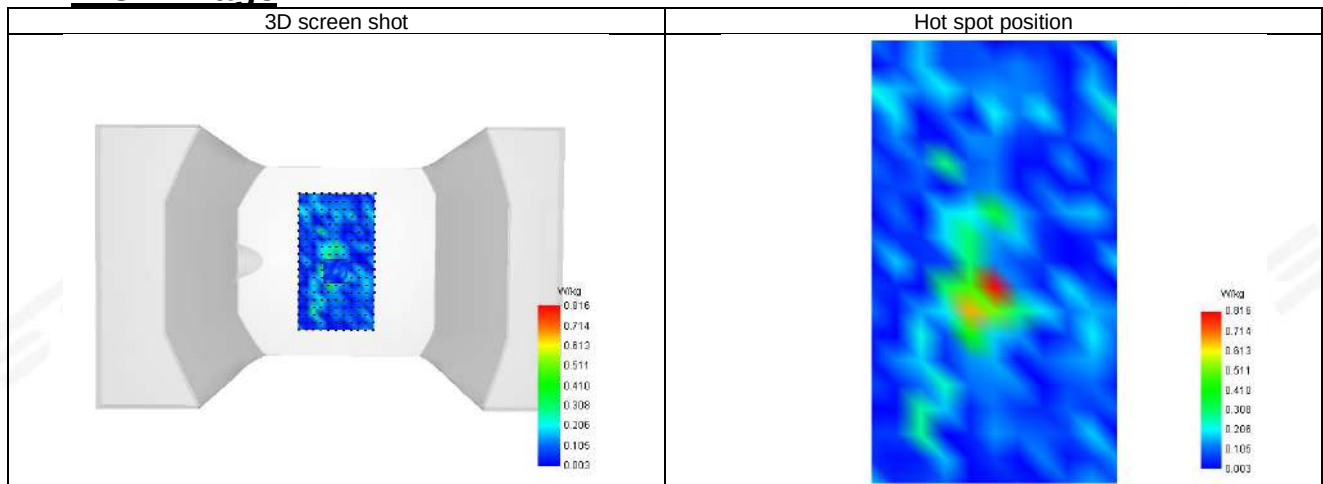
Maximum location: X=-1.00, Y=-9.00 ; SAR Peak: 2.04 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.193
SAR 1g (W/Kg)	0.514
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	73.106605

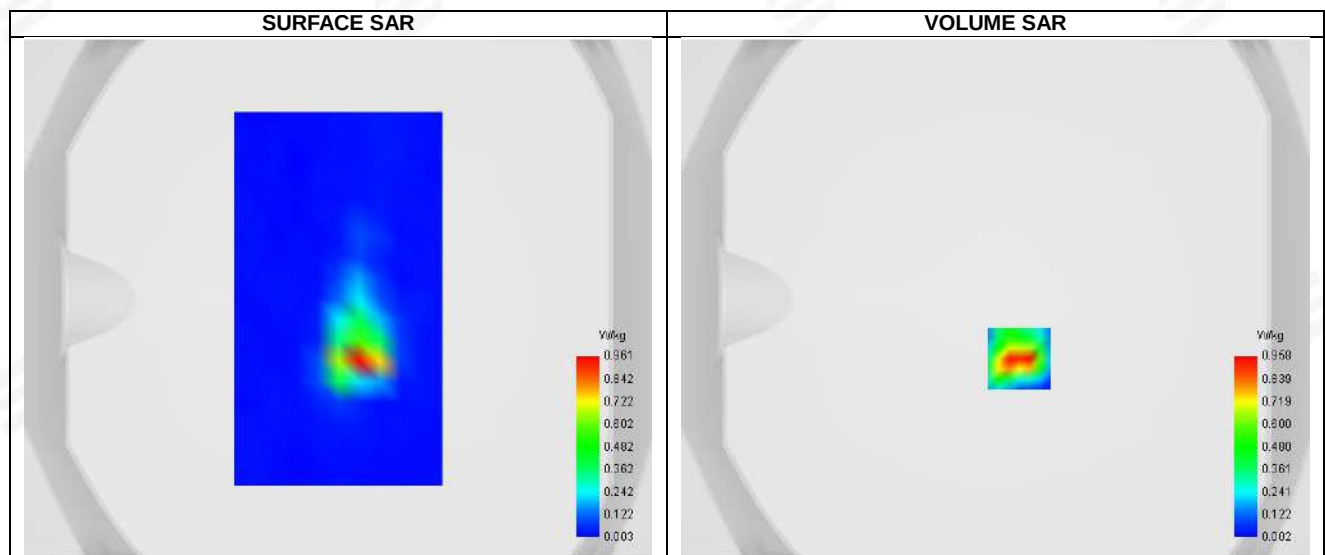
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
SAR (W/Kg)	1.374	0.770	0.131	0.239	0.102	0.253	0.080	0.159	0.062	0.100	0.049	0.062	0.062

**F. 3D Image**

**Plot 9: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.26
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.3G WLAN_ANT_1
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5320
Relative permittivity (real part)	36.46
Conductivity (S/m)	4.79



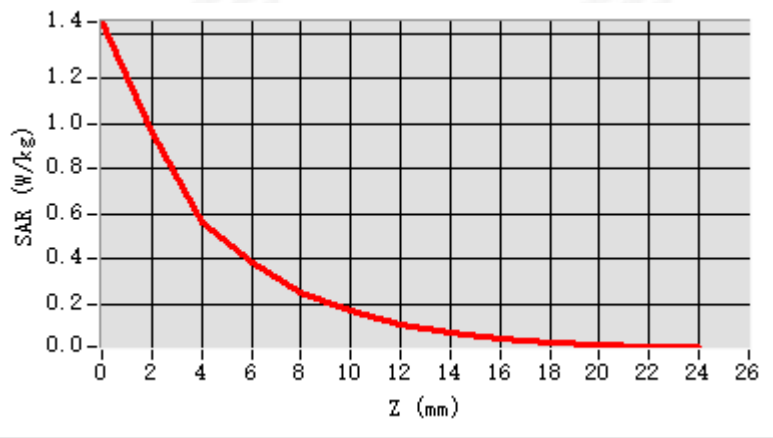
Maximum location: X=9.00, Y=-23.00 ; SAR Peak: 1.86 W/kg

D. SAR 1g & 10g

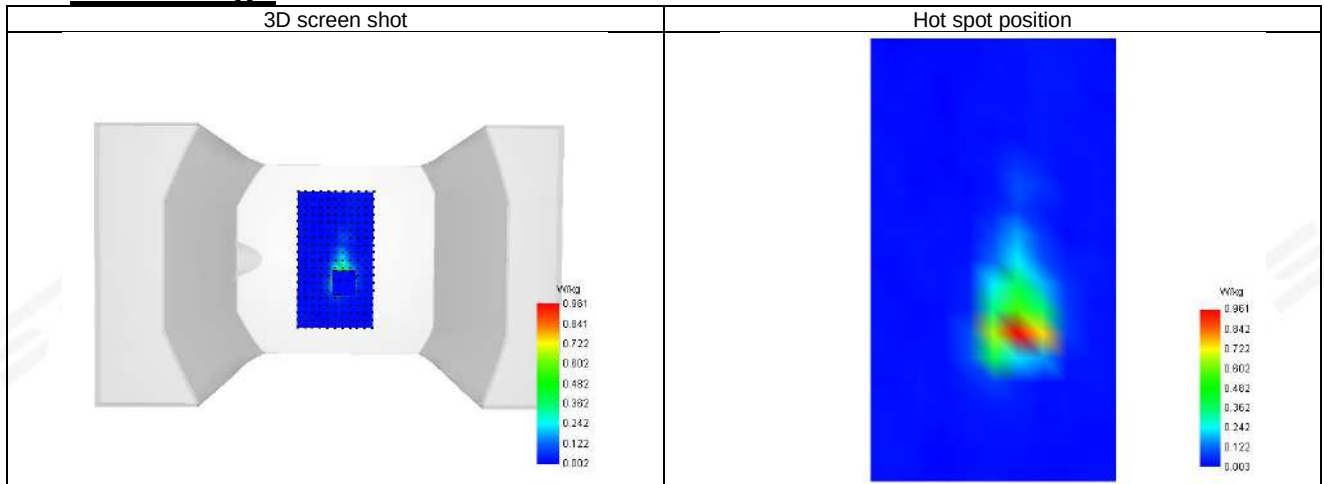
SAR 10g (W/Kg)	0.182
SAR 1g (W/Kg)	0.558
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	58.480890

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.449	0.958	0.561	0.390	0.252	0.170	0.109	0.074	0.048	0.033	0.021	0.014

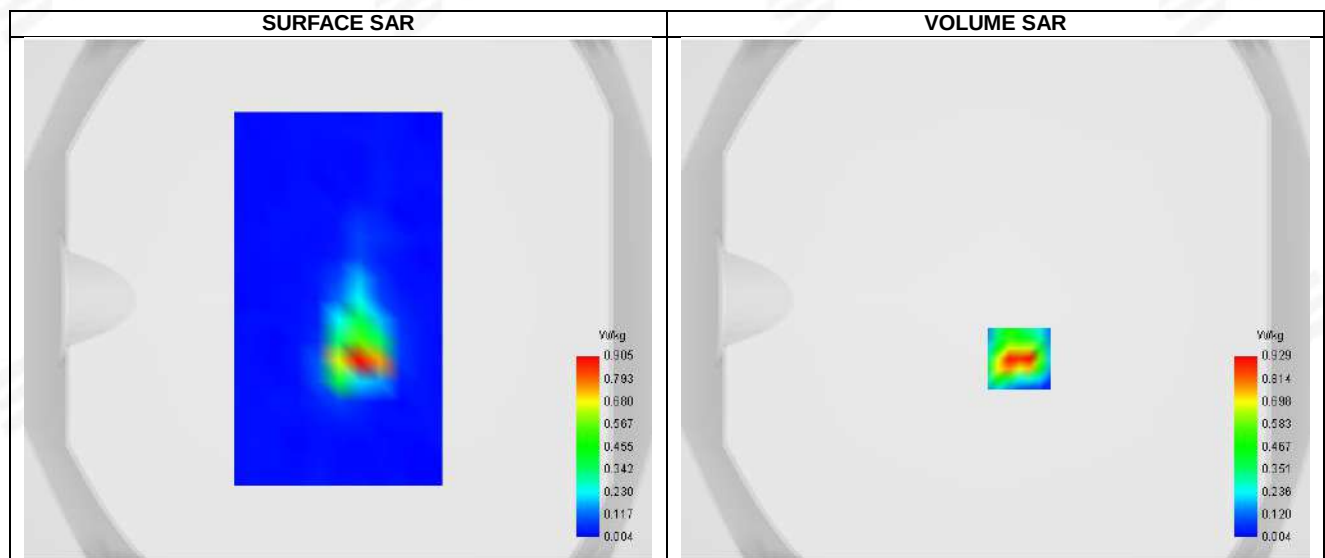


F. 3D Image



**Plot 10: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.3G WLAN_ANT_2
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5260
Relative permittivity (real part)	36.09
Conductivity (S/m)	4.73



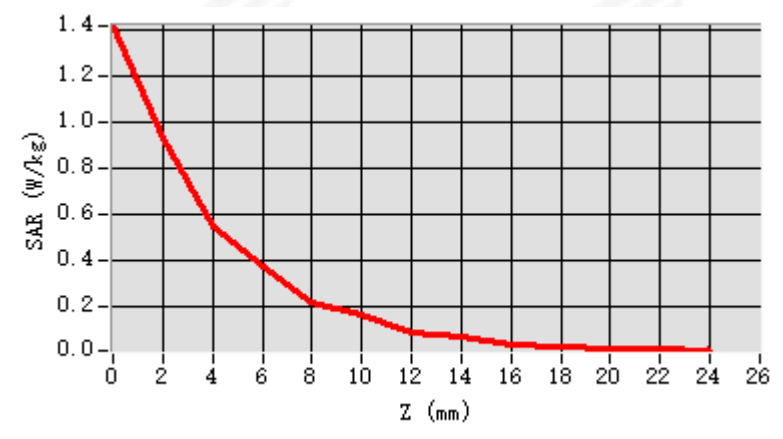
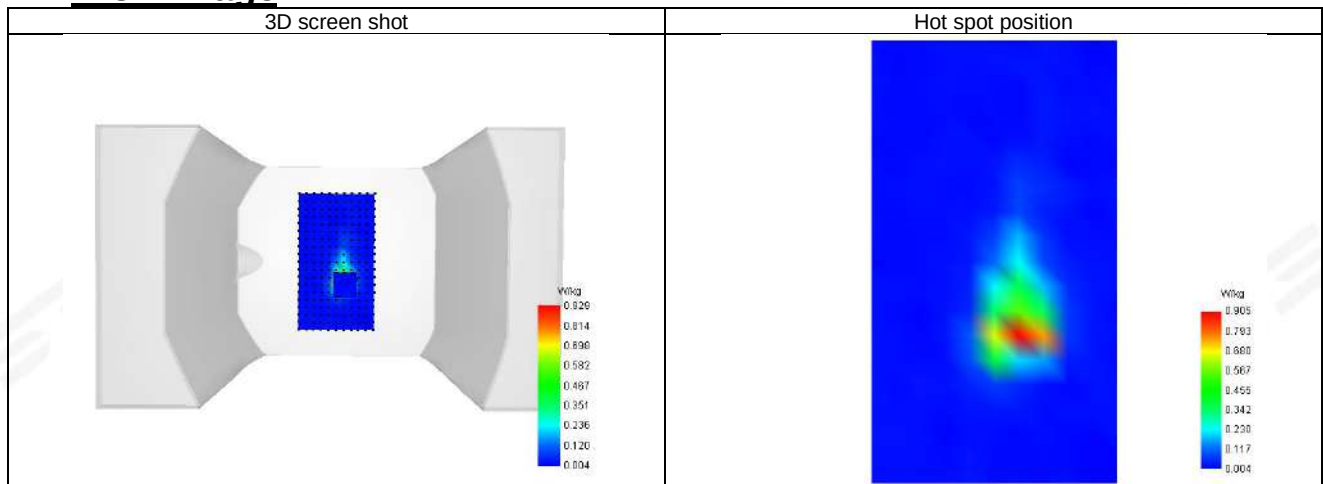
Maximum location: X=9.00, Y=-23.00 ; SAR Peak: 1.81 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.168
SAR 1g (W/Kg)	0.523
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	59.043638

**E. Z Axis Scan**

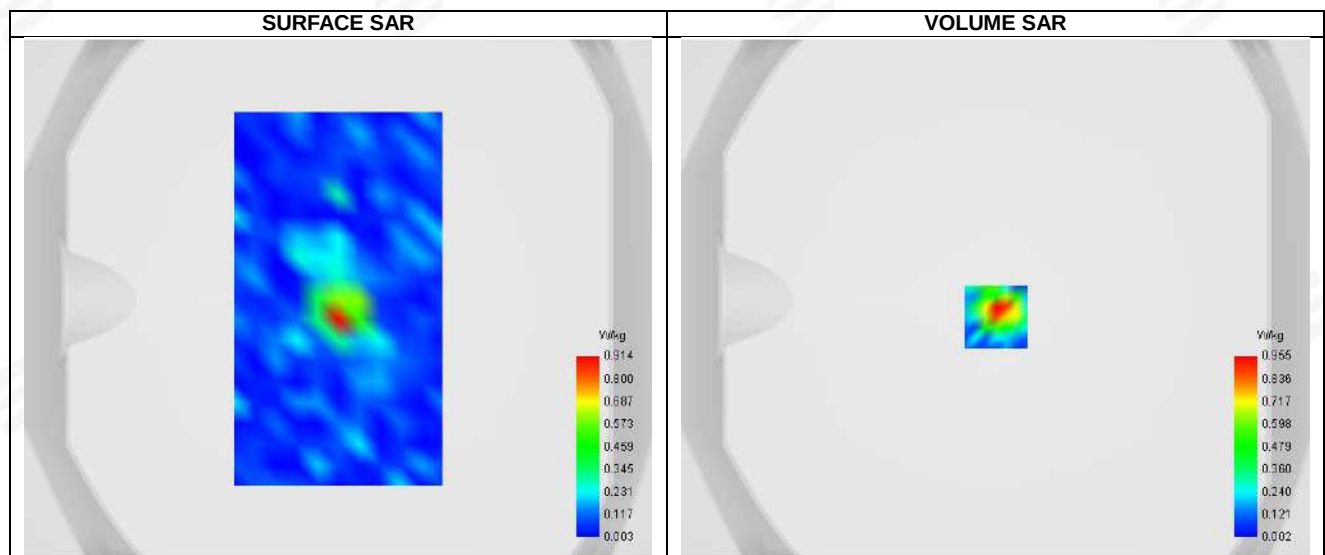
Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.415	0.929	0.549	0.372	0.217	0.161	0.085	0.069	0.033	0.030	0.013	0.013

**F. 3D Image**



Plot 11: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0

Test Date	2026-02-04
ConvF	1.26
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.3G WLAN_MIMO ANT_1
Signal	802.11 ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	5320
Relative permittivity (real part)	36.46
Conductivity (S/m)	4.79

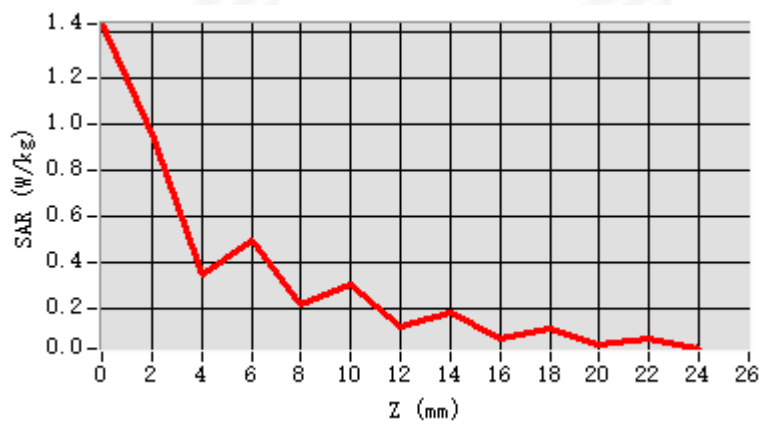
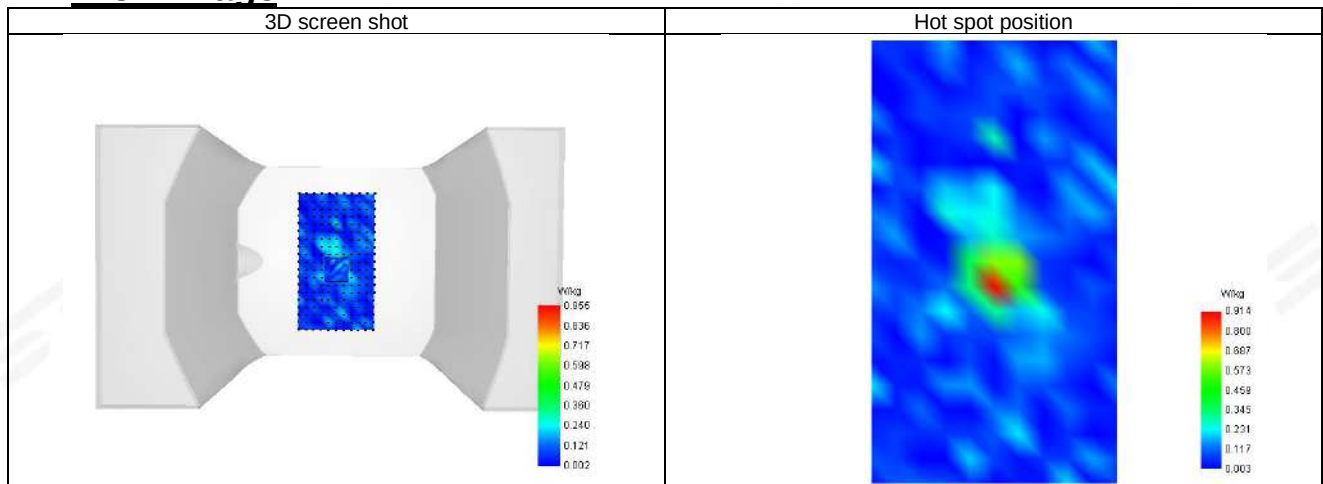


D. SAR 1g & 10g

SAR 10g (W/Kg)	0.240
SAR 1g (W/Kg)	0.684
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	65.743454

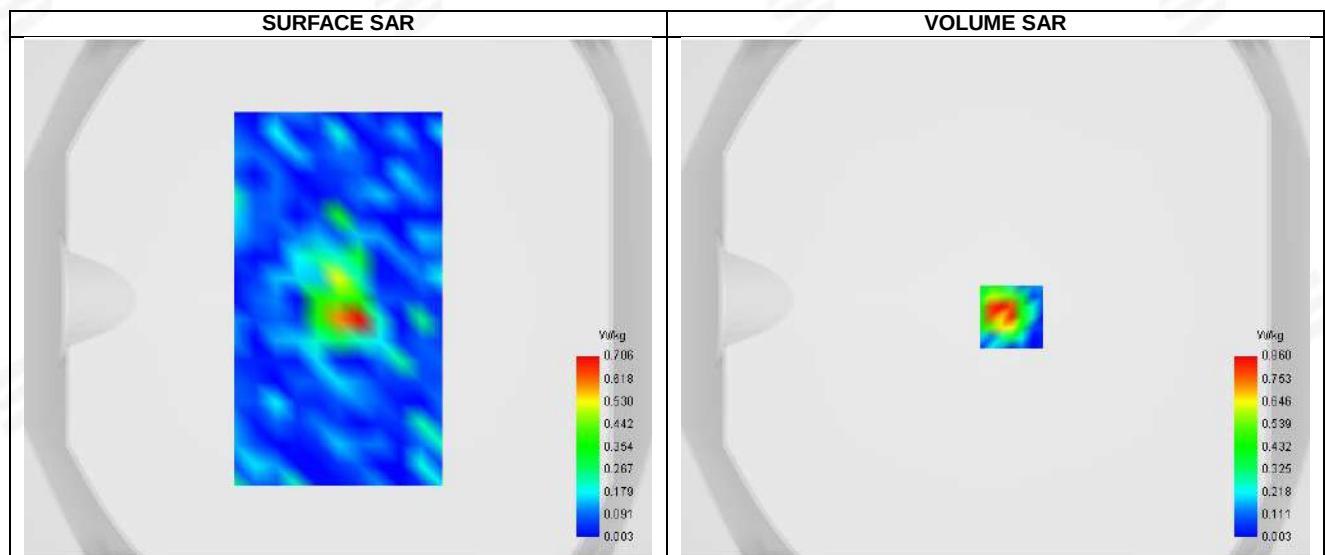
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.434	0.955	0.347	0.499	0.221	0.302	0.126	0.183	0.072	0.111	0.041	0.067

**F. 3D Image**

**Plot 12: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.3G WLAN_MIMO ANT_2
Signal	802.11 ax-HE20 (Crest factor: 1.0)
Frequency (MHz)	5320
Relative permittivity (real part)	36.46
Conductivity (S/m)	4.79



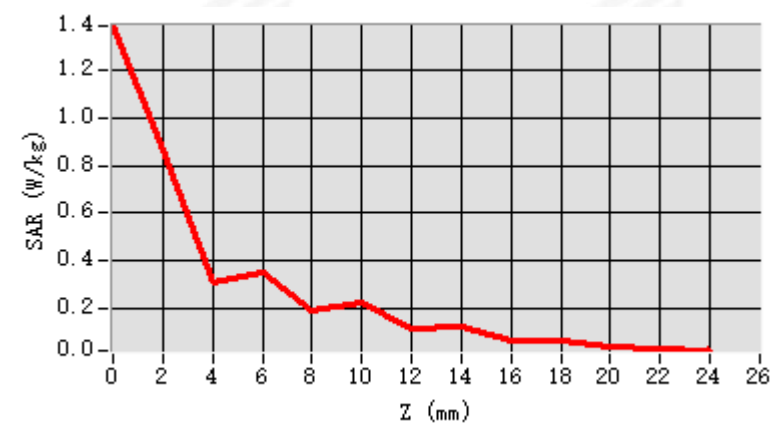
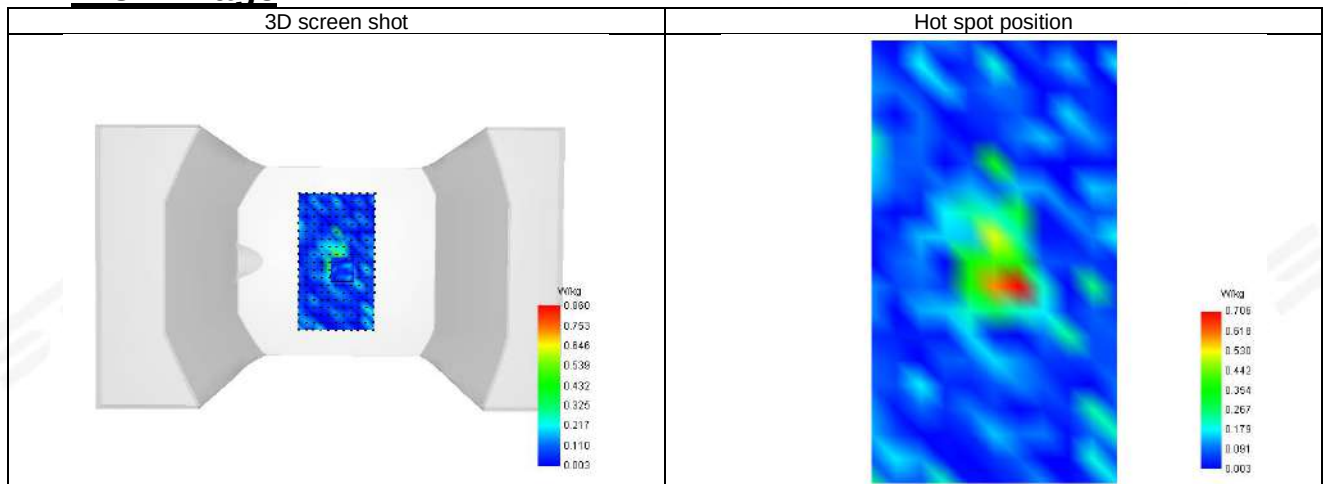
Maximum location: X=6.00, Y=-7.00 ; SAR Peak: 1.80 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.197
SAR 1g (W/Kg)	0.561
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	69.029854

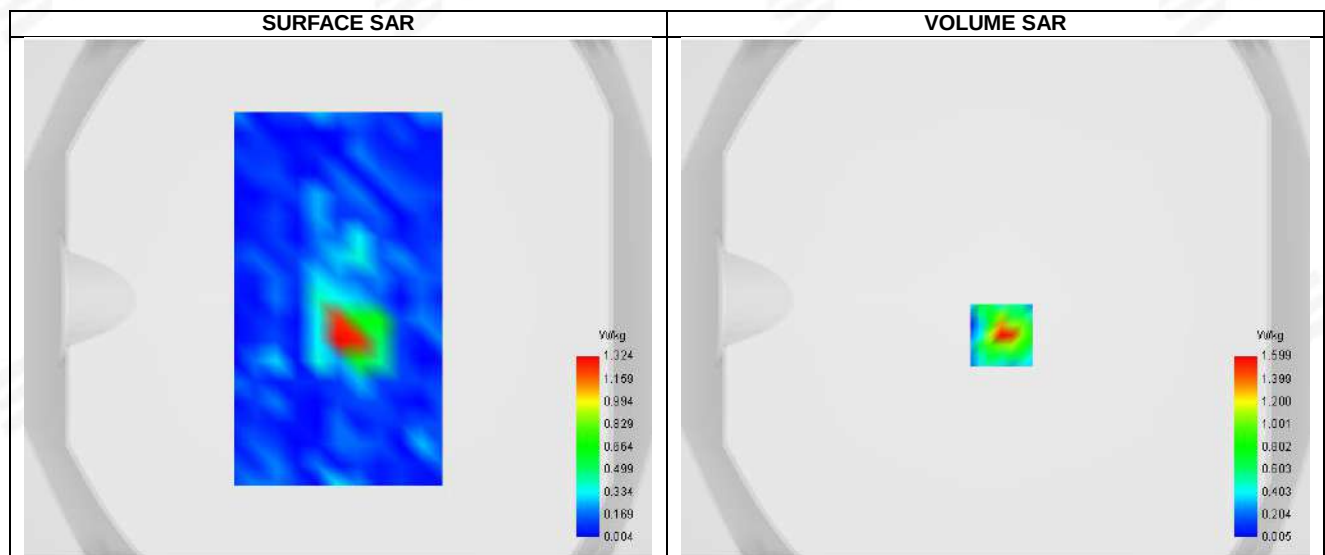
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.381	0.860	0.309	0.354	0.191	0.231	0.118	0.127	0.073	0.070	0.045	0.038

**F. 3D Image**

**Plot 13: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.6G WLAN_ANT_1
Signal	802.11ac-VHT20 (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	35.64
Conductivity (S/m)	4.97



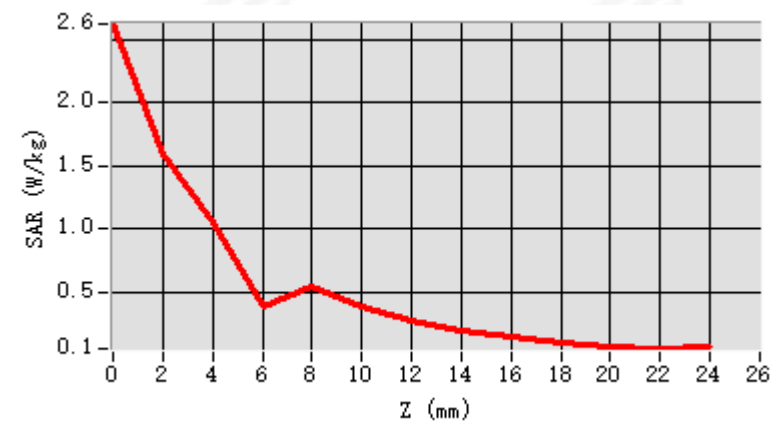
Maximum location: X=2.00, Y=-14.00 ; SAR Peak: 2.94 W/kg

D. SAR 1g & 10g

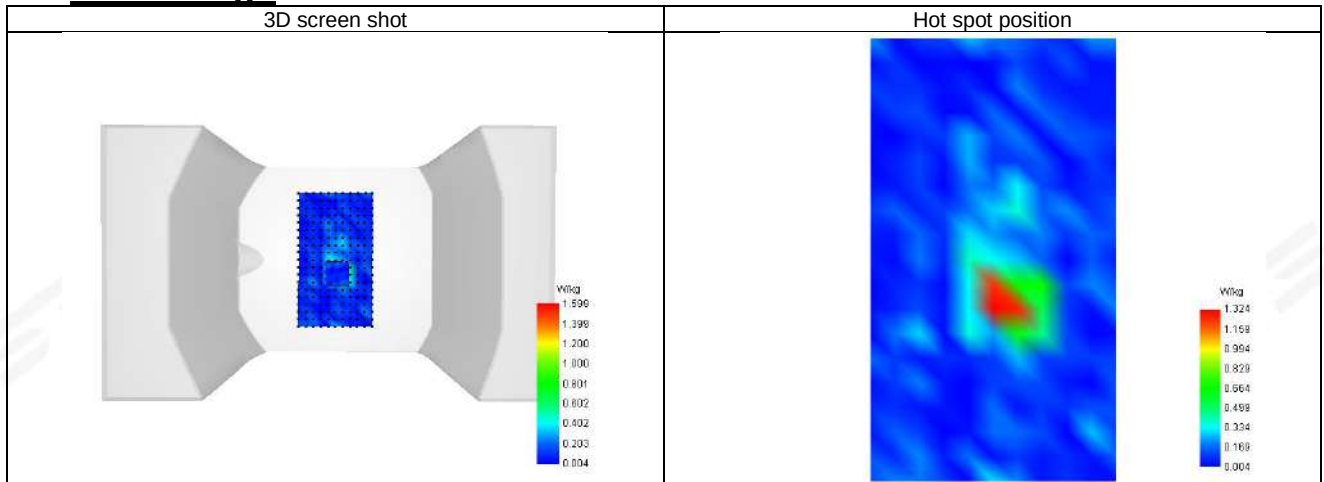
SAR 10g (W/Kg)	0.320
SAR 1g (W/Kg)	0.799
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	66.538022

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	2.621	1.599	1.047	0.390	0.542	0.393	0.285	0.207	0.150	0.109	0.079	0.057

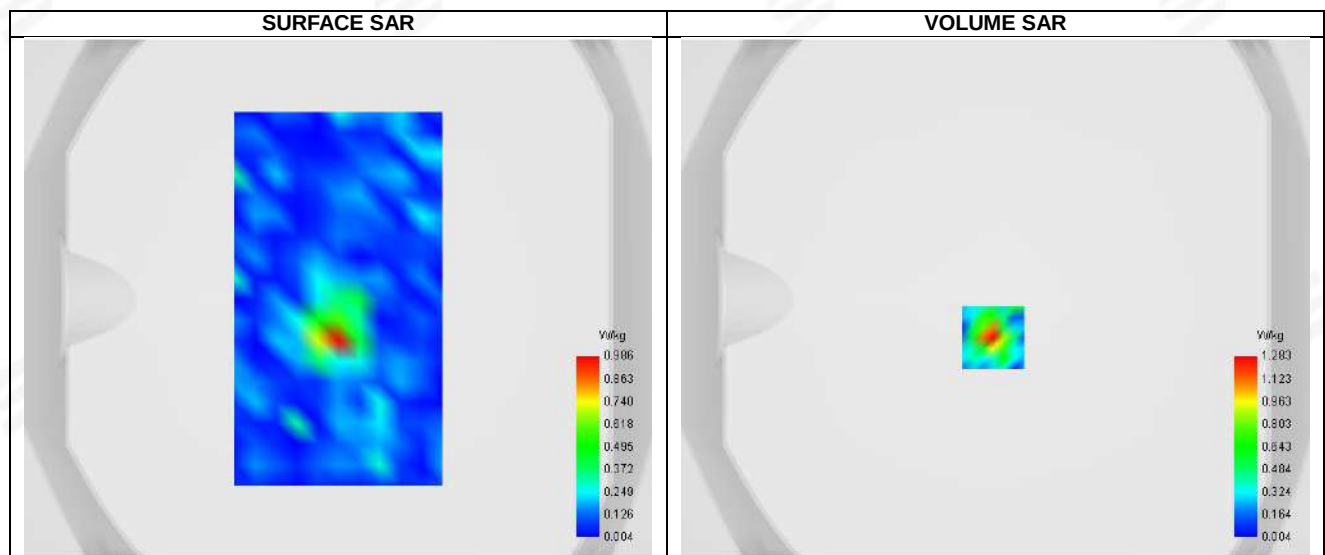


F. 3D Image



**Plot 14: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

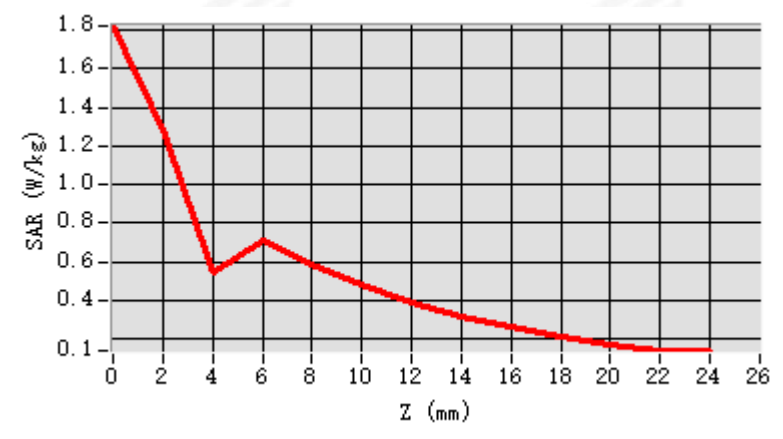
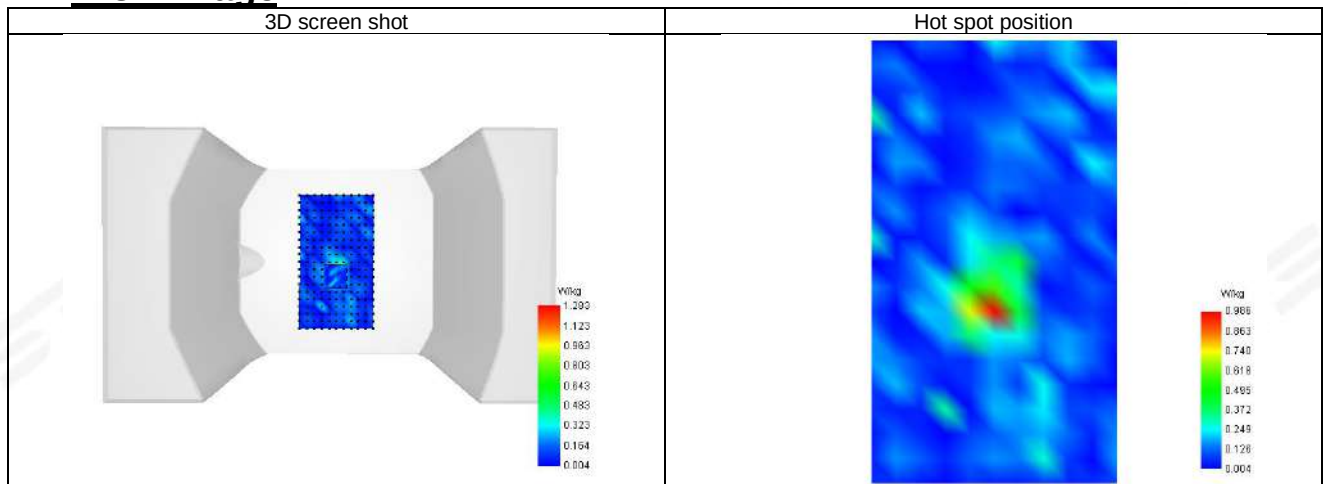
Test Date	2026-02-04
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.6G WLAN_ANT_2
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	35.64
Conductivity (S/m)	4.97

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.317
SAR 1g (W/Kg)	0.860
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	46.929642

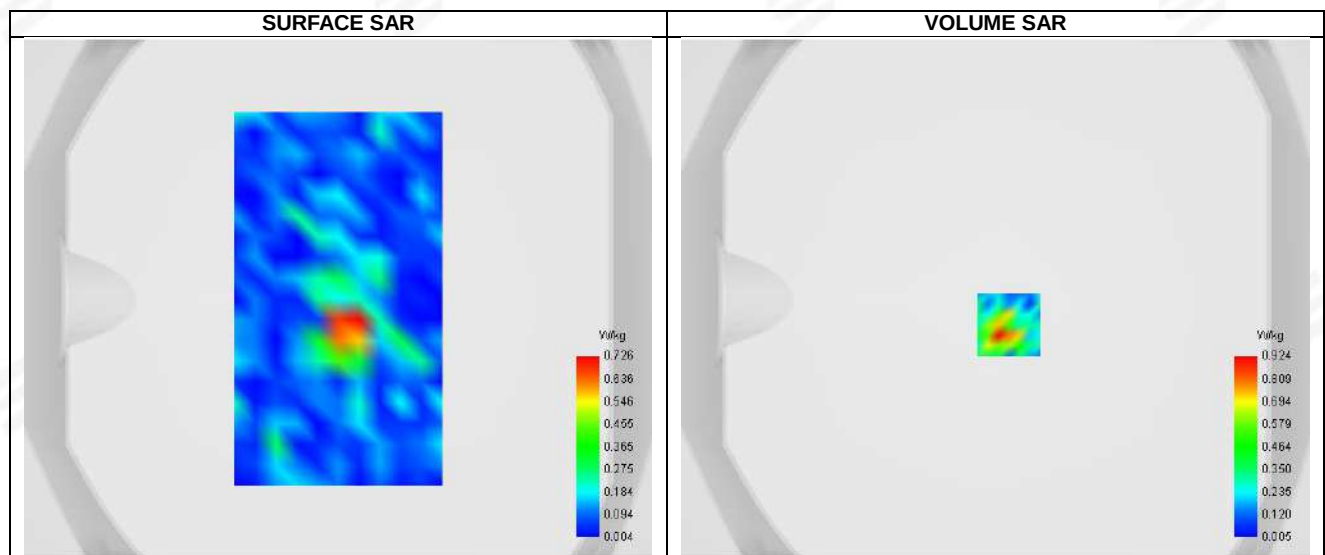
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.821	1.283	0.545	0.714	0.584	0.477	0.390	0.319	0.261	0.213	0.174	0.142

**F. 3D Image**

**Plot 15: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

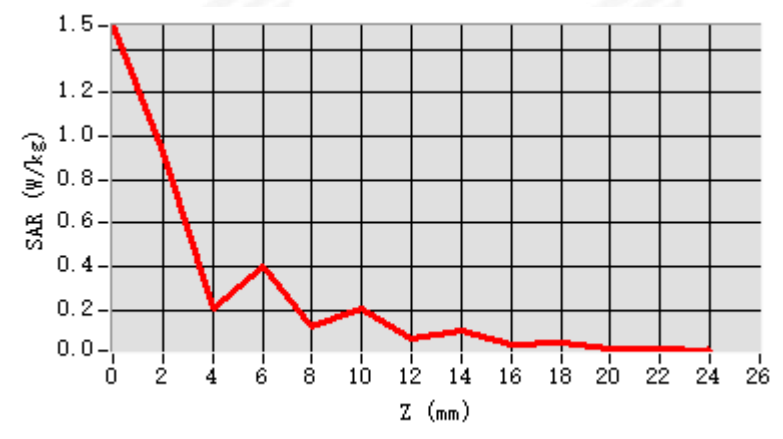
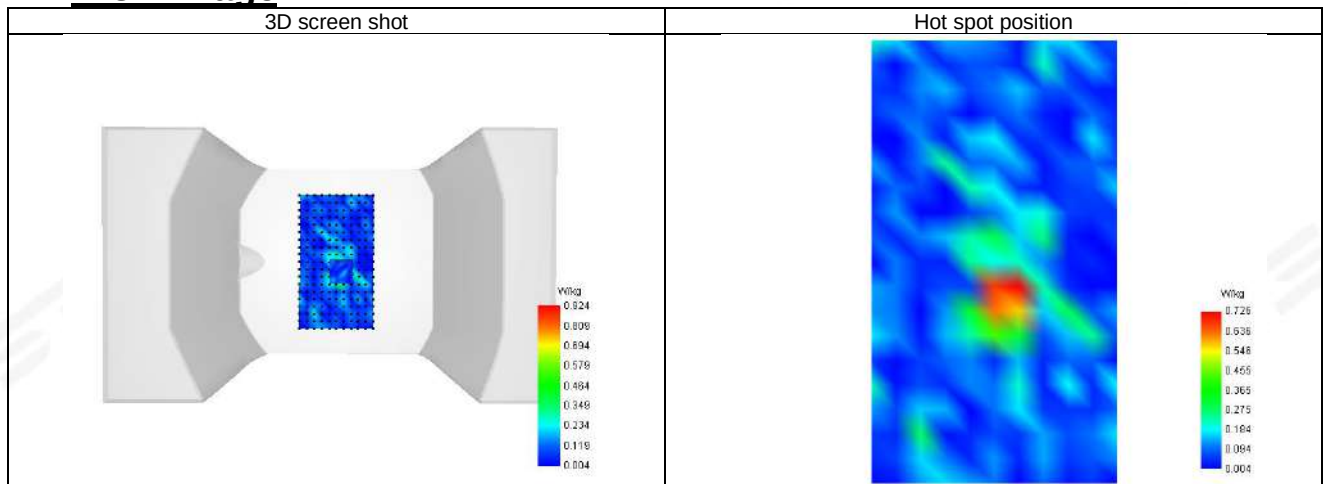
Test Date	2026-02-04
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.6G WLAN_MIMO ANT_1
Signal	802.11ac-VHT20 (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	35.64
Conductivity (S/m)	4.97

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.234
SAR 1g (W/Kg)	0.616
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	46.091240

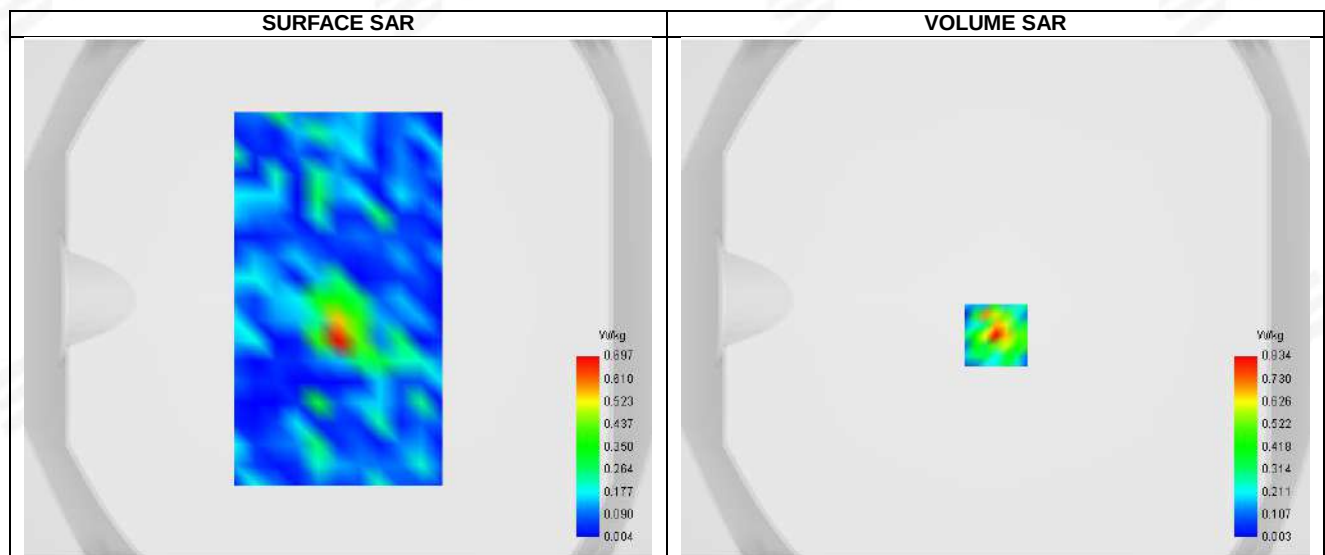
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.507	0.924	0.206	0.405	0.121	0.207	0.071	0.106	0.041	0.055	0.024	0.028

**F. 3D Image**

**Plot 16: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-04
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.6G WLAN_MIMO ANT_2
Signal	802.11ac-VHT20 (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	35.64
Conductivity (S/m)	4.97



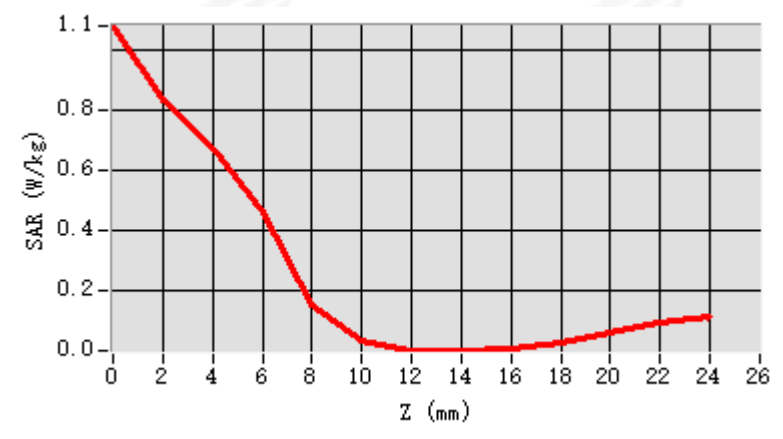
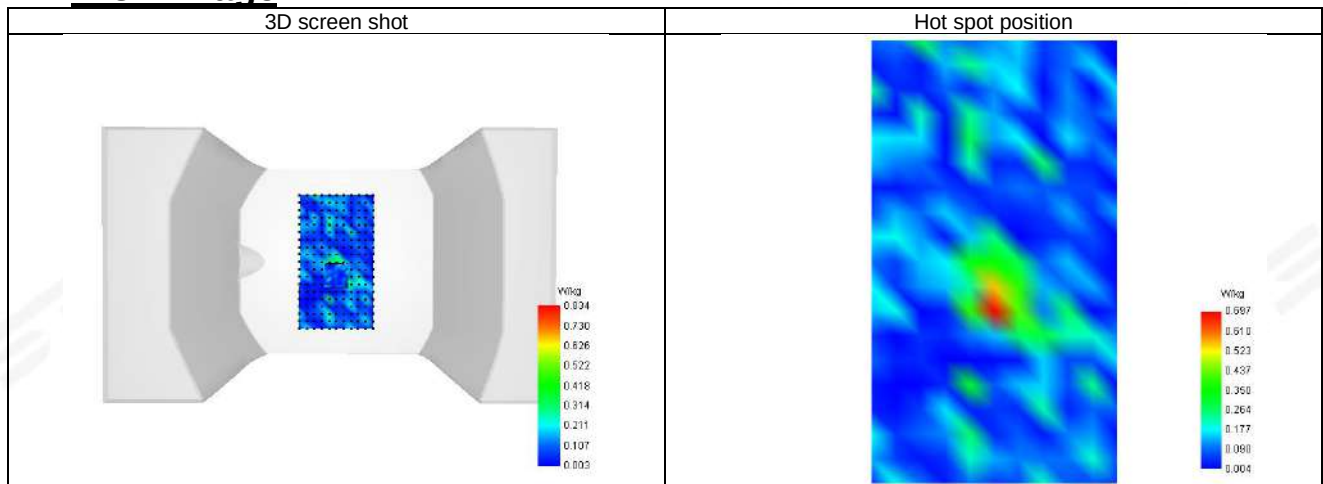
Maximum location: X=0.00, Y=-14.00 ; SAR Peak: 2.17 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.200
SAR 1g (W/Kg)	0.518
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	80.552110

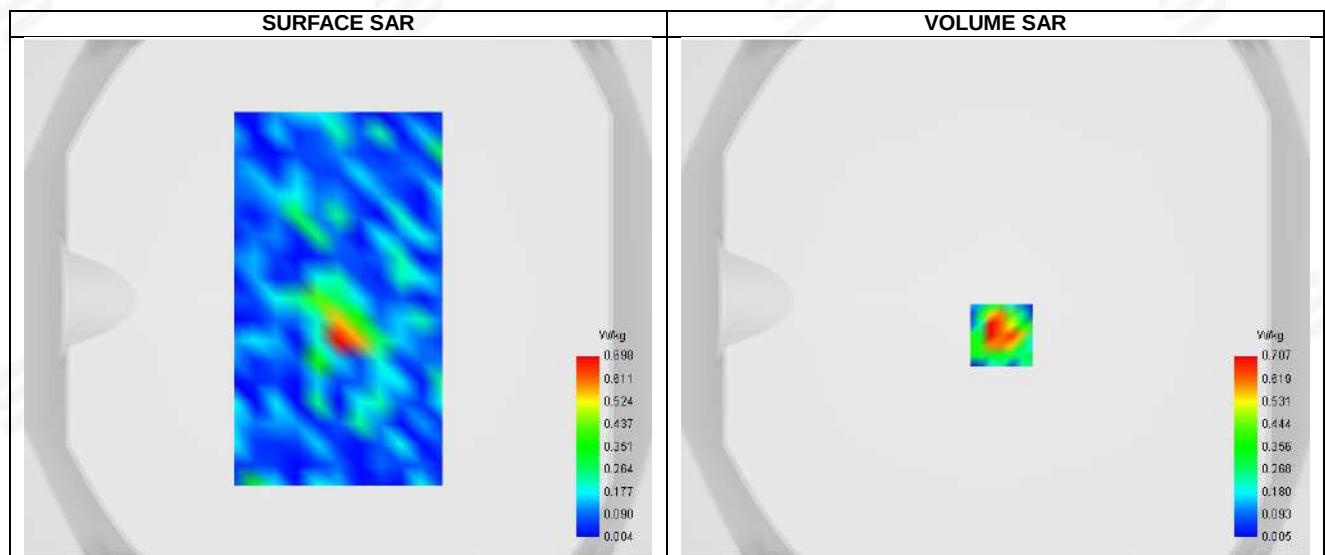
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
SAR (W/Kg)	1.079	0.834	0.671	0.459	0.158	0.033	0.006	0.003	0.008	0.027	0.061	0.099	

**F. 3D Image**

**Plot 17: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

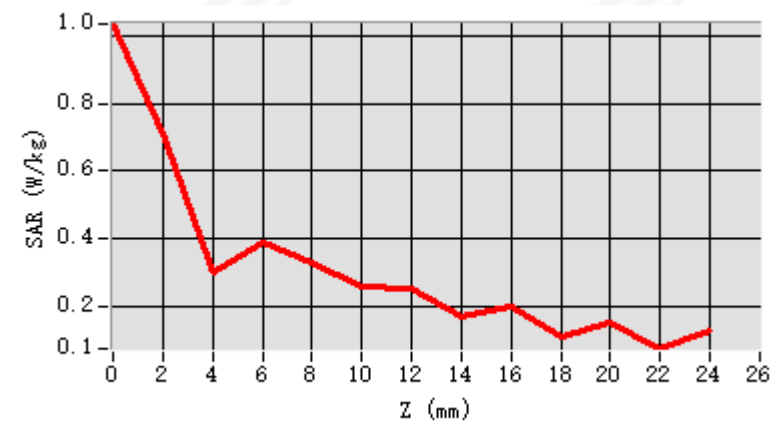
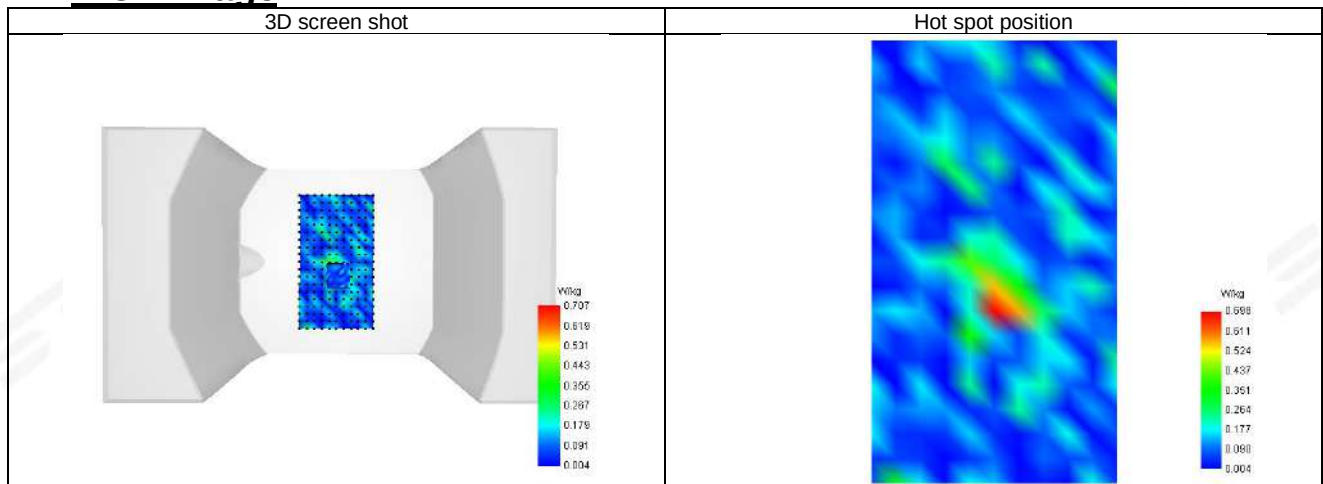
Test Date	2026-02-05
ConvF	1.32
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.8G WLAN_ANT_1
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5825
Relative permittivity (real part)	35.01
Conductivity (S/m)	5.29

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.181
SAR 1g (W/Kg)	0.486
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	74.248812

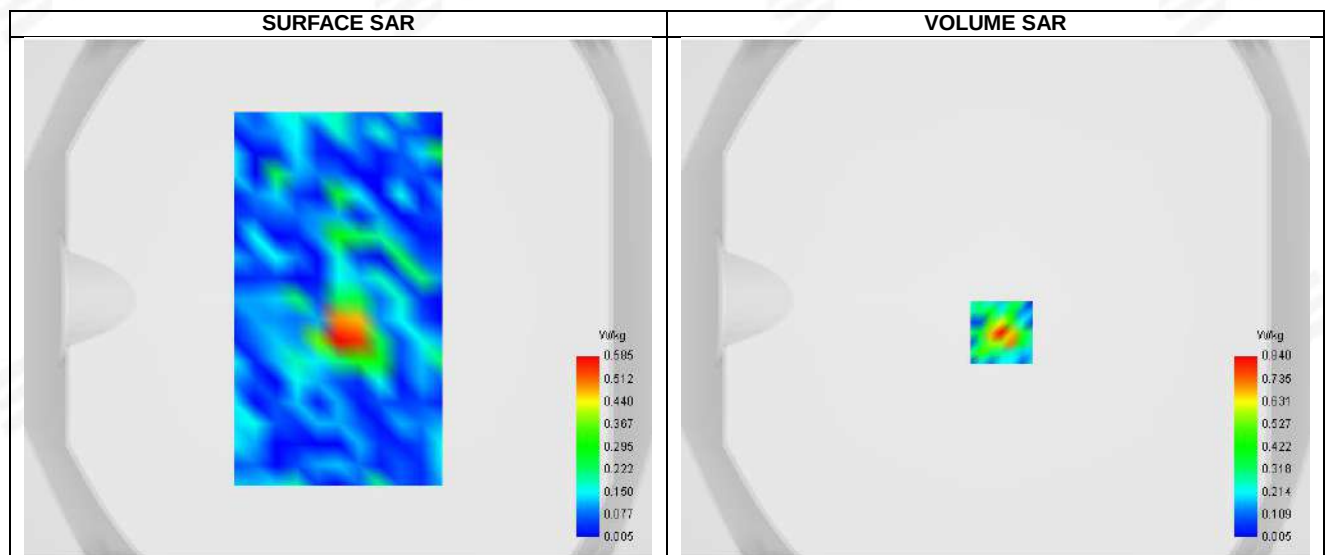
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
SAR (W/Kg)	1.036	0.707	0.297	0.390	0.326	0.257	0.254	0.169	0.197	0.112	0.153	0.074	0.074

**F. 3D Image**

**Plot 18: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-05
ConvF	1.32
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.8G WLAN_ANT_2
Signal	802.11a (Crest factor: 1.0)
Frequency (MHz)	5825
Relative permittivity (real part)	35.01
Conductivity (S/m)	5.29



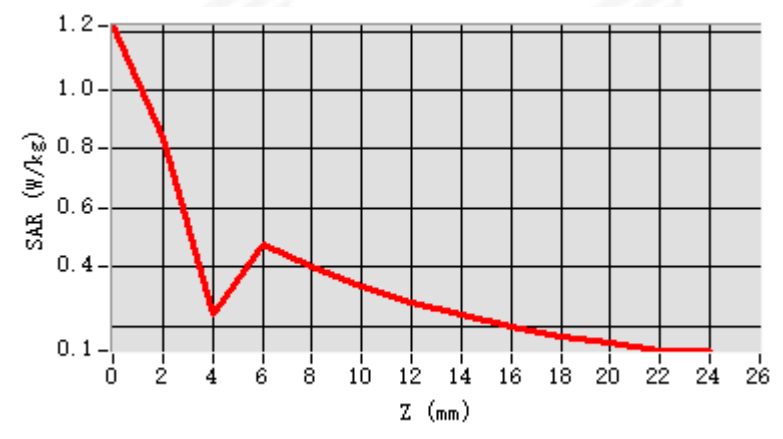
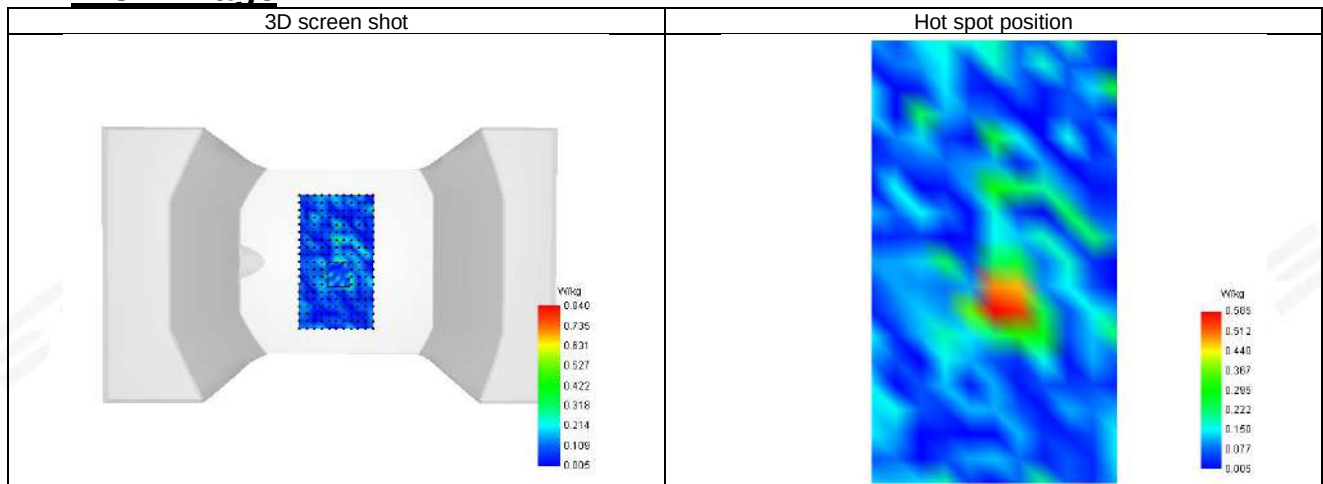
Maximum location: X=2.00, Y=-13.00 ; SAR Peak: 2.47 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.208
SAR 1g (W/Kg)	0.561
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	60.700886

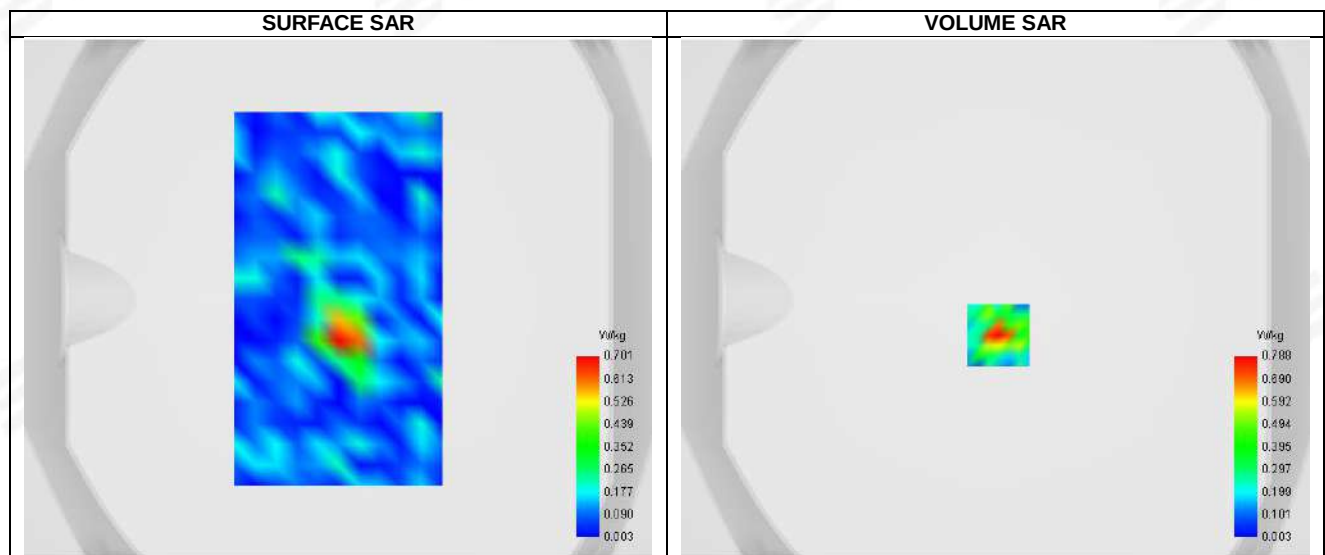
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.217	0.840	0.239	0.474	0.398	0.335	0.281	0.236	0.198	0.167	0.140	0.118

**F. 3D Image**

**Plot 19: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

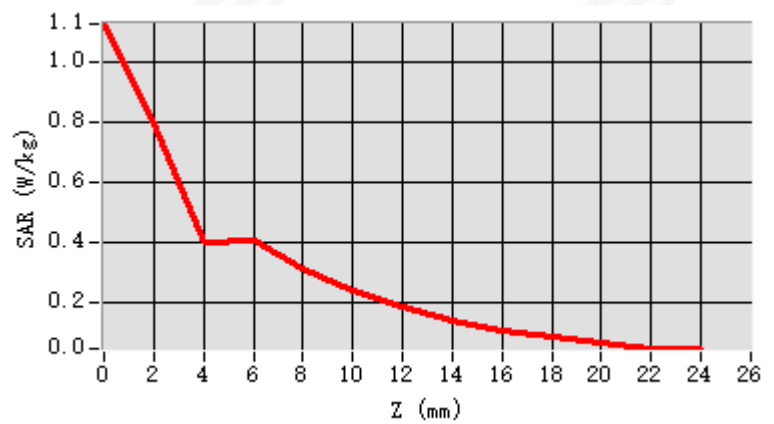
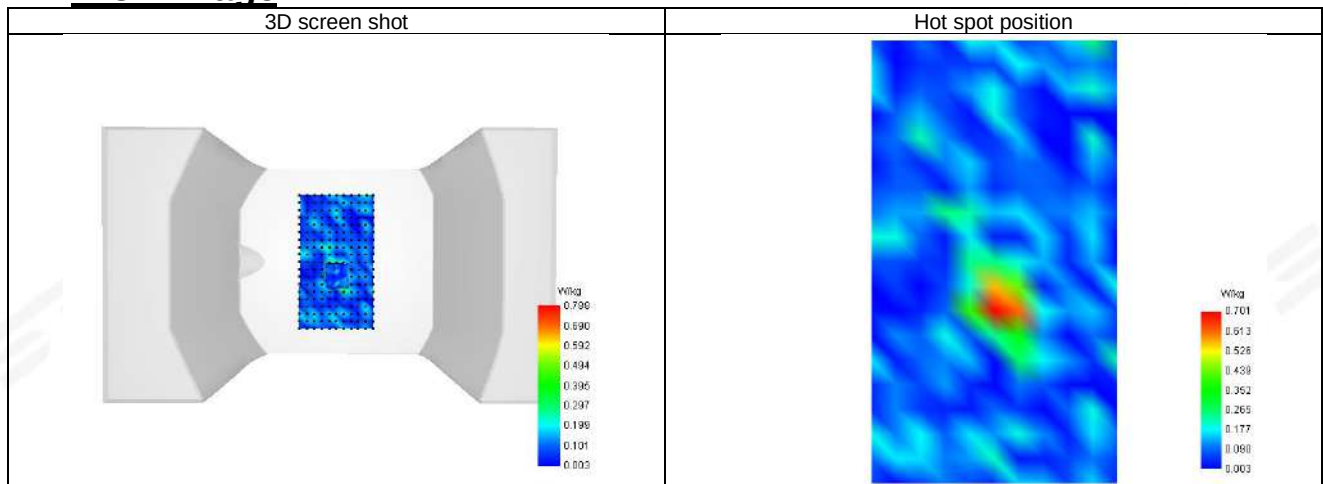
Test Date	2026-02-05
ConvF	1.32
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.8G WLAN_MIMO ANT_1
Signal	802.11 n-HT20 (Crest factor: 1.0)
Frequency (MHz)	5745
Relative permittivity (real part)	35.91
Conductivity (S/m)	5.21

**D. SAR 1g & 10g**

SAR 10g (W/Kg)	0.211
SAR 1g (W/Kg)	0.505
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	66.841549

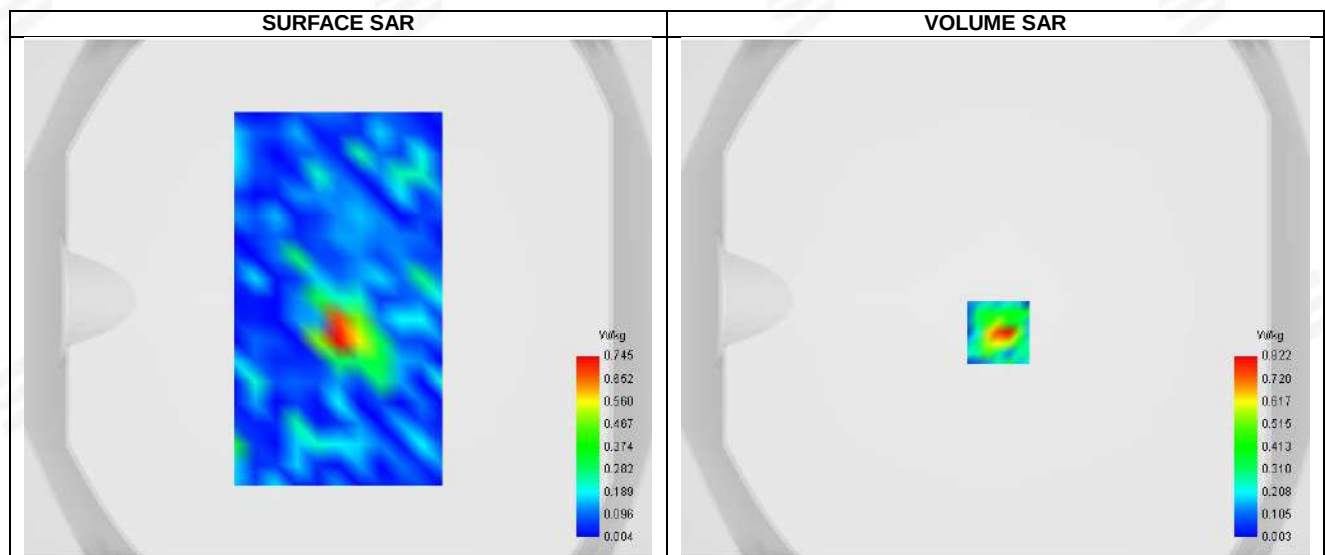
**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.124	0.788	0.399	0.408	0.314	0.241	0.186	0.143	0.110	0.084	0.065	0.050

**F. 3D Image**

**Plot 20: DUT: Scanology WiFiCard; EUT Model: WiFiCard 1.0**

Test Date	2026-02-05
ConvF	1.32
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Horizontal- Down
Band	5.8G WLAN_MIMO ANT_2
Signal	802.11 n-HT20 (Crest factor: 1.0)
Frequency (MHz)	5745
Relative permittivity (real part)	35.91
Conductivity (S/m)	5.21



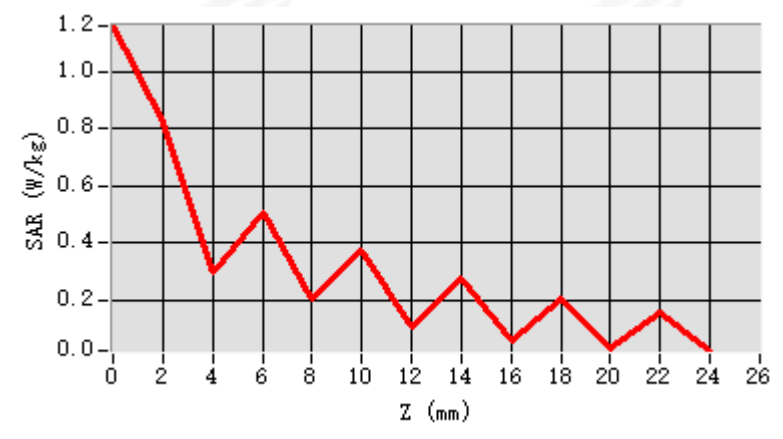
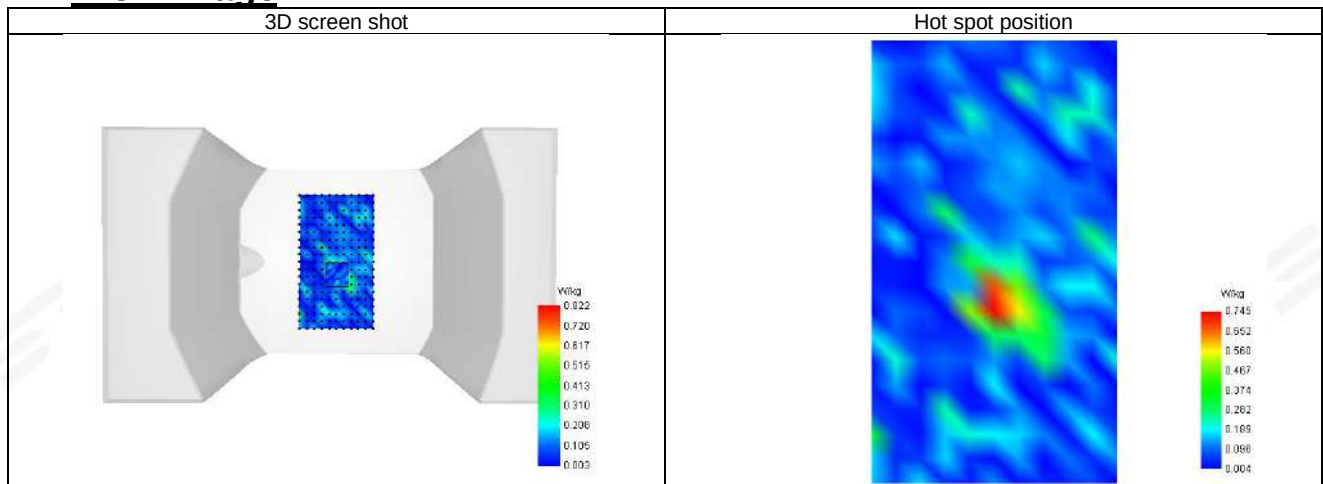
Maximum location: X=1.00, Y=-13.00 ; SAR Peak: 2.01 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.207
SAR 1g (W/Kg)	0.504
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	67.982299

**E. Z Axis Scan**

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	1.162	0.822	0.292	0.507	0.204	0.375	0.104	0.277	0.053	0.205	0.027	0.152

**F. 3D Image**



Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※