



SAR Test Report

Report No.: STS2605091H03

Issued for

24Six Player LLC

3839 Flatlands Ave, Suite 201 Brooklyn, NY 11234 USA

Product Name: 24Six Solo 4

Brand Name: 24Six Solo 4

Model Name: 24Six Solo 4

Series Model(s): N/A

FCC ID: 2BDR8-24SIXSOLO4

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

Max. Report SAR (1g) Body: 1.245 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**.....: 24Six Player LLC

Address.....: 3839 Flatlands Ave, Suite 201 Brooklyn, NY 11234 USA

Manufacturer's Name.....: 24Six Player LLC

Address.....: 3839 Flatlands Ave, Suite 201 Brooklyn, NY 11234 USA

Product description

Product name.....: 24Six Solo 4

Brand name: 24Six Solo 4

Model name: 24Six Solo 4

Series Model.....: N/A

Standards.....: ANSI/IEEE Std. C95.1
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.....: 21 May. 2026

Date of Issue.....: 03 Jun. 2026

Test Result.....: **Pass**

Testing Engineer : _____

(Xin.Liu)

Technical Manager : _____

(Shifan. Long)

Authorized Signatory : _____

(Bovey Yang)





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Rev.	Issue Date	Report No.	Effect Page	Contents
00	03 Jun. 2026	STS2605091H03	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	24Six Solo 4
Brand Name	24Six Solo 4
Model Name	24Six Solo 4
Series Model	N/A
Model Difference	N/A
Sample number	260512019-1
Battery	Model: G564647PH Rated Voltage: 3.85V Charge Limit Voltage: 4.4V Capacity: 2000mAh
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	J91_65_61_D4EF V1.0
Software Version	N/A
Frequency Range	WLAN802.11b/g/n20: 2412 MHz ~ 2462 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5470 ~ 5725 MHz Bluetooth: 2402 MHz to 2480 MHz



Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Body:0mm	Band	Mode	Body Worn (W/kg)
	DTS	2.4G WLAN	0.909
	DSS	BT	0.090
	NII	5.2G WLAN	1.213
	NII	5.3G WLAN	1.233
	NII	5.6G WLAN	1.161
1-g Sum SAR			1.423
FCC Equipment Class	Part 15 Spread Spectrum Transmitter (DSS) 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 5G WLAN: 802.11a(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM):BPSK,QPSK,16-QAM,64-QAM,256-QAM Bluetooth: GFSK + π /4DQPSK+8DPSK BLE: GFSK		
Antenna Specification:	Bluetooth: FPC Antenna WLAN: FPC Antenna		
SIM Card	Not Support		
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.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong 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	IEEE Std C95.1, 2019	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz. It specifies the maximum exposure limit of 1.6 W/kg as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 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

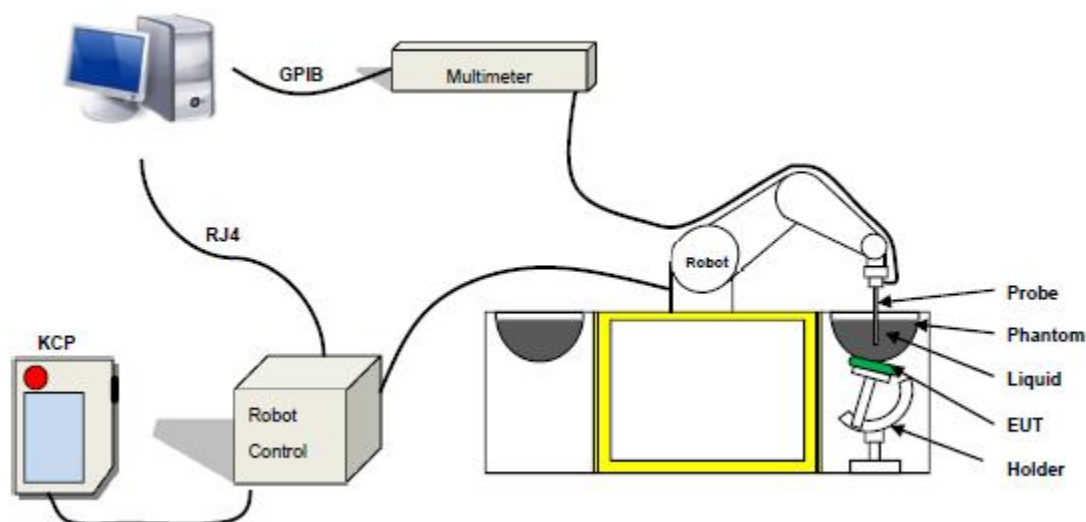
$$SAR = \frac{\sigma E^2}{\rho}$$

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.

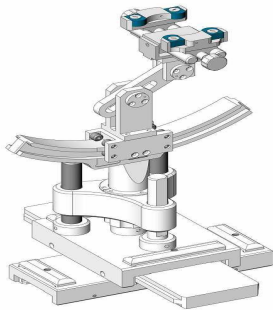
SN 32/14 SAM115



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.

The head tissue dielectric parameters recommended by the IEEE 62209-1528 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**

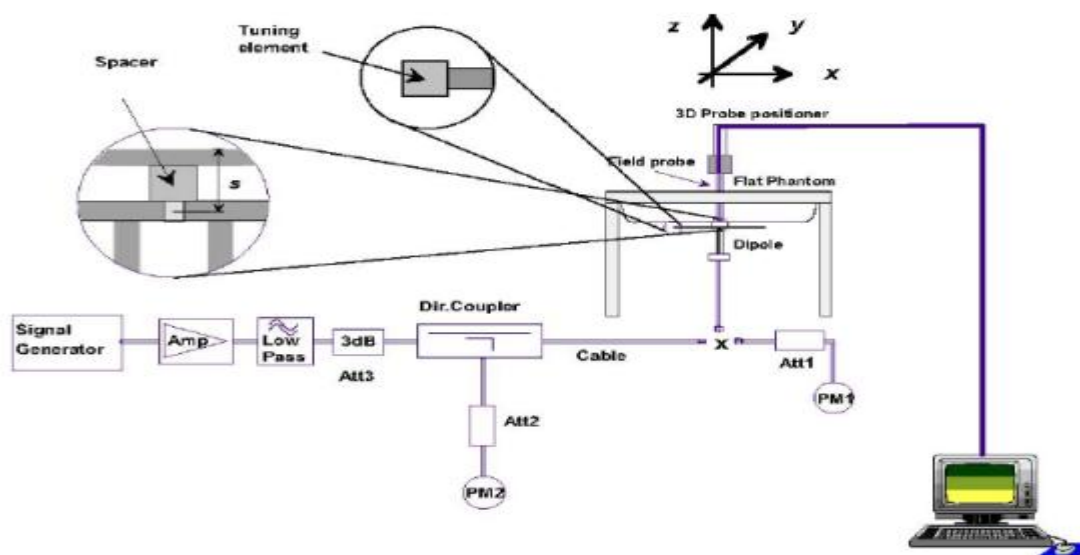
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2026-05-21	20.8	52	2412	20.7	Permittivity	39.27	40.09	2.09	±5
					Conductivity	1.77	1.76	-0.35	±5
2026-05-21	20.8	52	2437	20.7	Permittivity	39.22	39.84	1.57	±5
					Conductivity	1.79	1.78	-0.47	±5
2026-05-21	20.8	52	2450	20.7	Permittivity	39.20	39.55	0.89	±5
					Conductivity	1.80	1.80	0.00	±5
2026-05-21	20.8	52	2462	20.7	Permittivity	39.18	39.70	1.33	±5
					Conductivity	1.81	1.80	-0.59	±5
2026-05-21	20.8	52	2180	20.7	Permittivity	39.02	39.63	1.56	±5
					Conductivity	1.49	1.49	0.07	±5
2026-05-21	20.8	52	5200	20.7	Permittivity	36.00	36.85	2.36	±5
					Conductivity	4.66	4.65	-0.21	±5
2026-05-21	20.8	52	5240	20.7	Permittivity	35.96	35.89	-0.19	±5
					Conductivity	4.70	4.71	0.17	±5
2026-05-21	20.8	52	5260	20.7	Permittivity	35.94	36.58	1.78	±5
					Conductivity	4.72	4.74	0.42	±5
2026-05-21	20.8	52	5300	20.7	Permittivity	35.90	36.31	1.14	±5
					Conductivity	4.76	4.77	0.21	±5
2026-05-21	20.8	52	5320	20.7	Permittivity	35.88	36.16	0.78	±5
					Conductivity	4.78	4.76	-0.42	±5
2026-05-21	20.8	52	5400	20.7	Permittivity	35.80	36.16	1.01	±5
					Conductivity	4.86	4.86	0.00	±5
2026-05-21	20.8	52	5500	20.7	Permittivity	35.68	36.19	1.44	±5
					Conductivity	4.96	4.96	-0.05	±5
2026-05-21	20.8	52	5580	20.7	Permittivity	35.58	36.21	1.78	±5
					Conductivity	5.04	5.02	-0.49	±5
2026-05-21	20.8	52	5600	20.7	Permittivity	35.55	35.68	0.37	±5
					Conductivity	5.07	5.06	-0.10	±5
2026-05-21	20.8	52	5700	20.7	Permittivity	35.43	35.58	0.44	±5
					Conductivity	5.17	5.16	-0.15	±5

5. SAR System Validation

5.1 Validation System

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

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





5.2 Validation Result

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

Date	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	
2026-05-21	2450	100 mW	5.463	2.418	-3.96	54.70	24.11	-0.13%	0.29%	10
		Normalize to 1 Watt	54.63	24.18						
2026-05-21	5200	10 mW	1.563	0.611	3.48	163.88	57.29	-4.63%	6.65%	10
		Normalize to 1 Watt	156.30	61.10						
2026-05-21	5400	10 mW	1.696	0.543	-2.78	172.23	59.16	-1.53%	-8.22%	10
		Normalize to 1 Watt	169.60	54.30						
2026-05-21	5600	10 mW	1.726	0.647	-1.47	181.28	61.57	-4.79%	5.08%	10
		Normalize to 1 Watt	172.60	64.70						

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

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface is 2.7mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in SATIMO software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in db) is specified in the standards for compliance testing. For example, a 2db range is required in IEEE Standard 1528 standards, whereby 3db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100MHz to 6GHz

	$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	$\leq 2 \text{ GHz: } \leq 15 \text{ mm}$ $2 - 3 \text{ GHz: } \leq 12 \text{ mm}$	$3 - 4 \text{ GHz: } \leq 12 \text{ mm}$ $4 - 6 \text{ GHz: } \leq 10 \text{ mm}$
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR value within a cubic average volume containing 1g and 10g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1g and 10g and displays these values next to the job's label.



Zoom Scan Parameters extracted from KDB865664 d01 SAR Measurement 100MHz to 6GHz

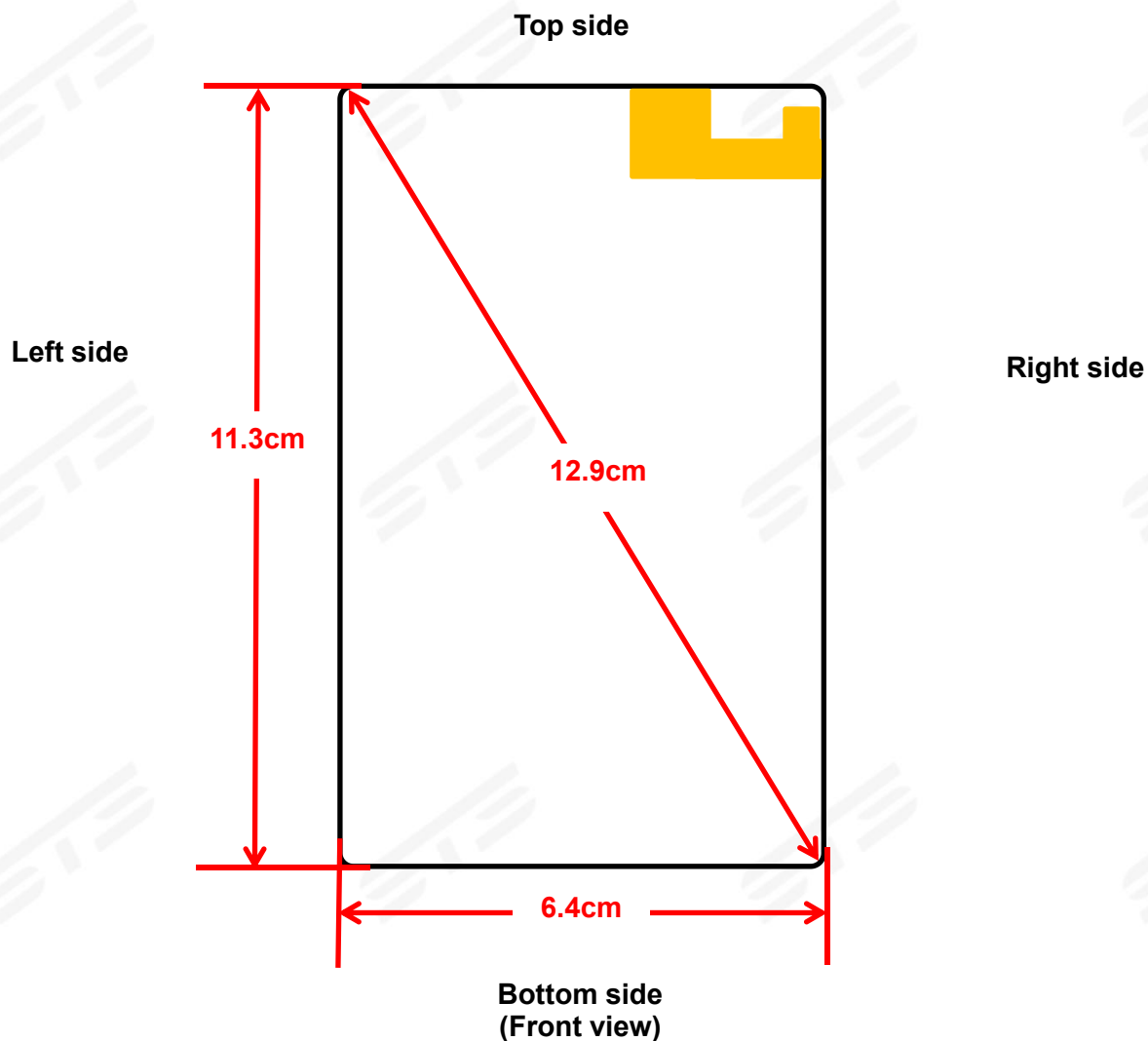
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			$\leq 2 \text{ GHz}: \leq 8 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz}: \leq 5 \text{ mm}^*$ $4 - 6 \text{ GHz}: \leq 4 \text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		$\leq 5 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 4 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 3 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	$\leq 4 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 3 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 2.5 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		$\geq 30 \text{ mm}$	$3 - 4 \text{ GHz}: \geq 28 \text{ mm}$ $4 - 5 \text{ GHz}: \geq 25 \text{ mm}$ $5 - 6 \text{ GHz}: \geq 22 \text{ mm}$
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is $\leq 1.4 \text{ W/kg}$, $\leq 8 \text{ mm}$, $\leq 7 \text{ mm}$ and $\leq 5 \text{ mm}$ zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

Step 4: Power Drift Measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the same settings. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

7. EUT Antenna Location Sketch

It is a Smart phone, support WLAN/BT mode.



WLAN/BT Antenna

Antenna Separation Distance(cm)						
ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
WLAN/BT	0.5	0.9	4.1	0.5	0.5	9.5

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

**7.1 SAR test exclusion consider table**

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

Exposure Position	Wireless Interface	BT	2.4G WLAN	5.2G WLAN	5.3G WLAN	5.6G WLAN
	Calculated Frequency(GHz)	2.441	2.462	5.24	5.32	5.5
	Maximum Turn-up power (dBm)	3.5	21	14	14	12.5
	Maximum rated power(mW)	2.24	125.89	25.12	25.12	17.78
Back Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.75	2.73	1.49	1.47	1.44
	Testing required?	NO	YES	YES	YES	YES
Front Side	Separation distance (cm)	0.9	0.9	0.9	0.9	0.9
	exclusion threshold(mW)	8.41	8.37	5.03	4.98	4.87
	Testing required?	NO	YES	YES	YES	YES
Left Side	Separation distance (cm)	4.1	4.1	4.1	4.1	4.1
	exclusion threshold(mW)	150.36	149.91	115.60	115.00	113.69
	Testing required?	NO	NO	NO	NO	NO
Right Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.75	2.73	1.49	1.47	1.44
	Testing required?	NO	YES	YES	YES	YES
Top Side	Separation distance (cm)	0.5	0.5	0.5	0.5	0.5
	exclusion threshold(mW)	2.75	2.73	1.49	1.47	1.44
	Testing required?	NO	YES	YES	YES	YES
Bottom Side	Separation distance (cm)	9.5	9.5	9.5	9.5	9.5
	exclusion threshold(mW)	743.02	741.99	656.71	655.10	651.59
	Testing required?	NO	NO	NO	NO	NO

Note:

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. Bluetooth RF Exposure Exclusion (per KDB 447498 D04): The device operates at 2.4 GHz with a maximum tune-up power of [X] mW, at a minimum separation distance of [Y] mm. Using the formula: $(P(\text{mW})/d(\text{mm})) \times \sqrt{f(\text{GHz})} \leq 3.0$ The calculated value is [result] ≤ 3.0 , meeting the exclusion threshold. SAR testing is not required
3. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
4. Per KDB 447498 D04, if the maximum time-averaged power available does not exceed 1 mW. This stand-alone SAR exemption test.
5. Per KDB 447498 D04, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:



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

Where

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

and

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

d = the separation distance (cm);

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

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



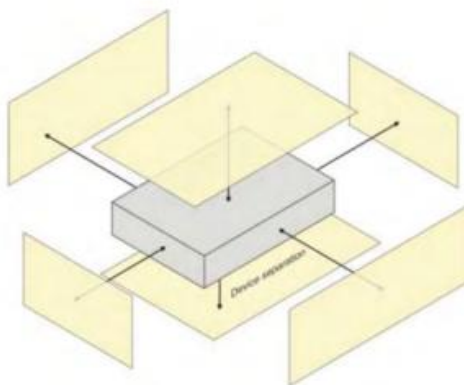
7. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8. for each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode, thus the SAR can be excluded.
8. Per KDB 616217 D04, SAR evaluation for the front surface of tablet display screens are generally not necessary.
9. Per KDB 248227, as maximum rated power for U-NII-2A > U-NII-1, U-NII-2A was chosen for SAR evaluation. Based on the measurements obtained, SAR measurements on U-NII-1 are not required as highest reported SAR from U-NII-2A band is $\leq 1.2\text{W/Kg}$.

8. EUT Test Position

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

8.1 Body-worn Position Conditions:

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D04 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative *test separation distance* configuration may be used to support both SAR conditions. When the *reported* SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest *reported* SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.





9. Uncertainty

9.1 Measurement Uncertainty

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

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	



10. Conducted Power Measurement

10.1 Test Result

2.4G WLAN

2.4GWIFI				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
802.11b	1	2412	19.73	93.97
	7	2437	20.46	111.17
	11	2462	20.52	112.72
802.11g	1	2412	18.64	73.11
	7	2437	19.51	89.33
	11	2462	19.58	90.78
802.11 n-HT20	1	2412	18.7	74.13
	7	2437	19.15	82.22
	11	2462	18.93	78.16

Bluetooth

BT				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	1.17	1.31
	39	2441	3.33	2.15
	78	2480	1.91	1.55
$\pi/4$ -QPSK(2Mbps)	0	2402	0.44	1.11
	39	2441	2.61	1.82
	78	2480	1.2	1.32
8DPSK(3Mbps)	0	2402	0.48	1.12
	39	2441	2.62	1.83
	78	2480	1.22	1.32

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Conducted Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	-5.53	0.28
	19	2440	-3.29	0.47
	39	2480	-4.5	0.35
GFSK(2Mbps)	0	2402	-5.57	0.28
	19	2440	-3.3	0.47
	39	2480	-4.55	0.35

**WLAN (5.2Gband)**

5.2G WLAN				
Mode	Channel Number	Frequency (MHz)	Total Power (dBm)	Output Power (mW)
802.11a	36	5180	12.19	16.56
	40	5200	12.61	18.24
	48	5240	13.87	24.38
802.11 n-HT20	36	5180	11.33	13.58
	40	5200	11.79	15.10
	48	5240	13.11	20.46
802.11 n-HT40	38	5190	11.81	15.17
	46	5230	12.98	19.86
802.11ac-VHT20	36	5180	11.56	14.32
	40	5200	12.13	16.33
	48	5240	13.19	20.84
802.11ac-VHT40	38	5190	12.07	16.11
	46	5230	13.26	21.18
802.11ac-VHT80	42	5210	12.68	18.54

WLAN (5.3Gband)

5.3G WLAN				
Mode	Channel Number	Frequency (MHz)	Total Power (dBm)	Output Power (mW)
802.11a	52	5260	12.84	19.23
	60	5300	13.56	22.70
	64	5320	13.86	24.32
802.11 n-HT20	52	5260	11.6	14.45
	60	5300	12.55	17.99
	64	5320	12.82	19.14
802.11 n-HT40	54	5270	10.94	12.42
	62	5310	11.57	14.35
802.11ac-VHT20	52	5260	10.93	12.39
	60	5300	11.5	14.13
	64	5320	11.81	15.17
802.11ac-VHT40	54	5270	10.97	12.50
	62	5310	12.57	18.07
802.11ac-VHT80	58	5290	11.36	13.68



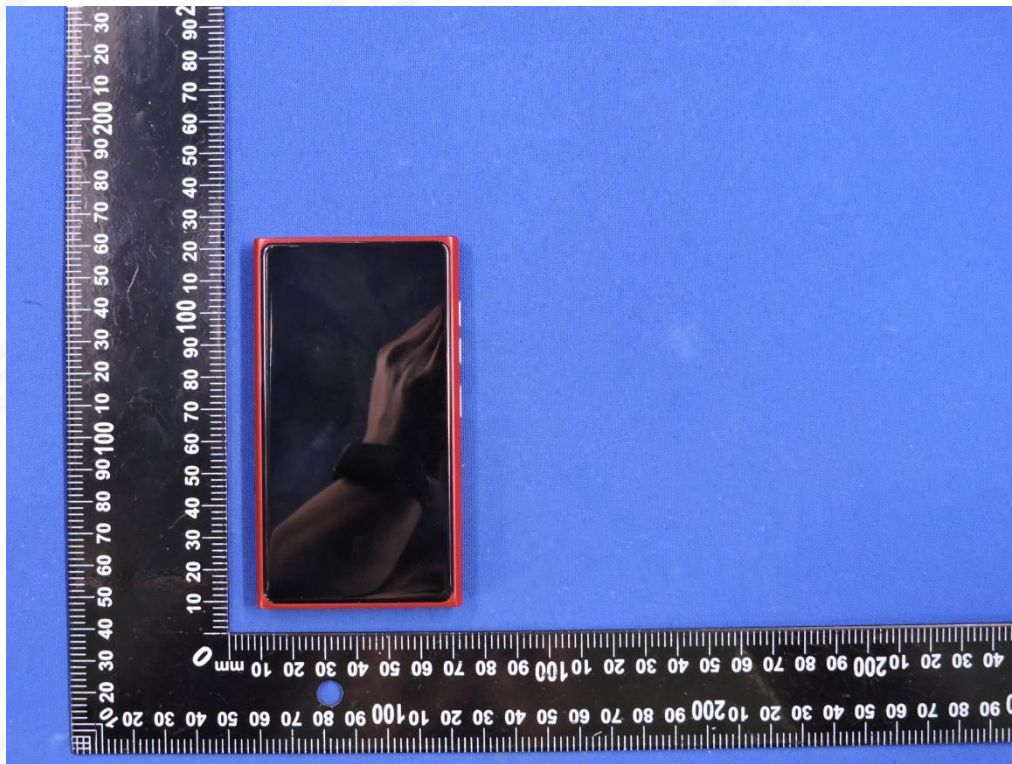
WLAN (5.6Gband)

5.6G WLAN				
Mode	Channel Number	Frequency (MHz)	Total Power (dBm)	Output Power (mW)
802.11a	100	5500	12.49	17.74
	116	5580	10.59	11.46
	140	5700	10.7	11.75
802.11 n-HT20	100	5500	11.5	14.13
	116	5580	9.86	9.68
	140	5700	10.09	10.21
802.11 n-HT40	102	5510	11.77	15.03
	110	5550	11	12.59
	134	5670	10.05	10.12
802.11ac-VHT20	100	5500	11.74	14.93
	116	5580	10.03	10.07
	140	5700	9.87	9.71
802.11ac-VHT40	102	5510	11.46	14.00
	110	5550	10.71	11.78
	134	5670	9.86	9.68
802.11ac-VHT80	106	5530	11.34	13.61
	122	5610	10.35	10.84

11. EUT and Test Setup Photo

11.1 EUT Photo

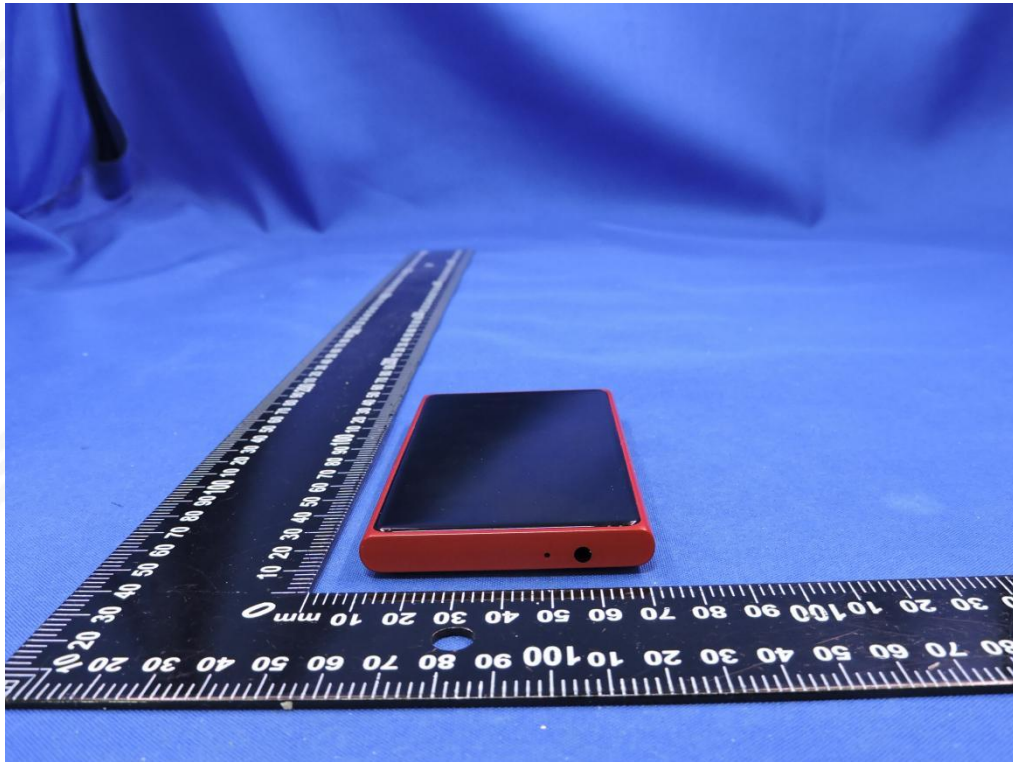
Front side



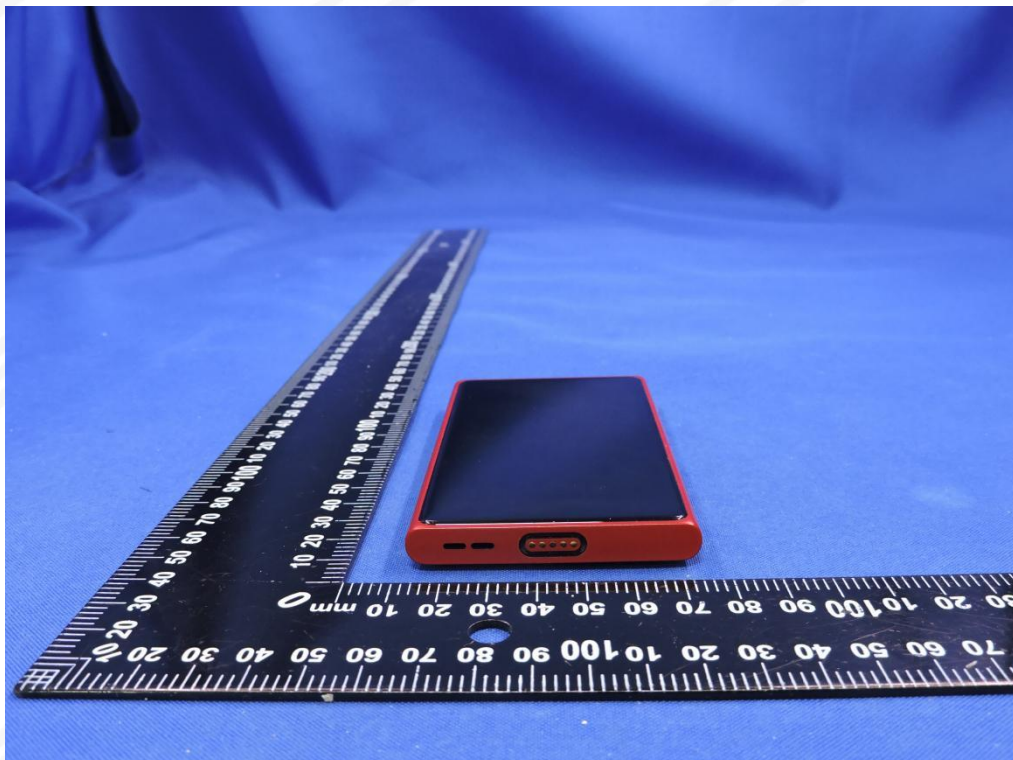
Back side



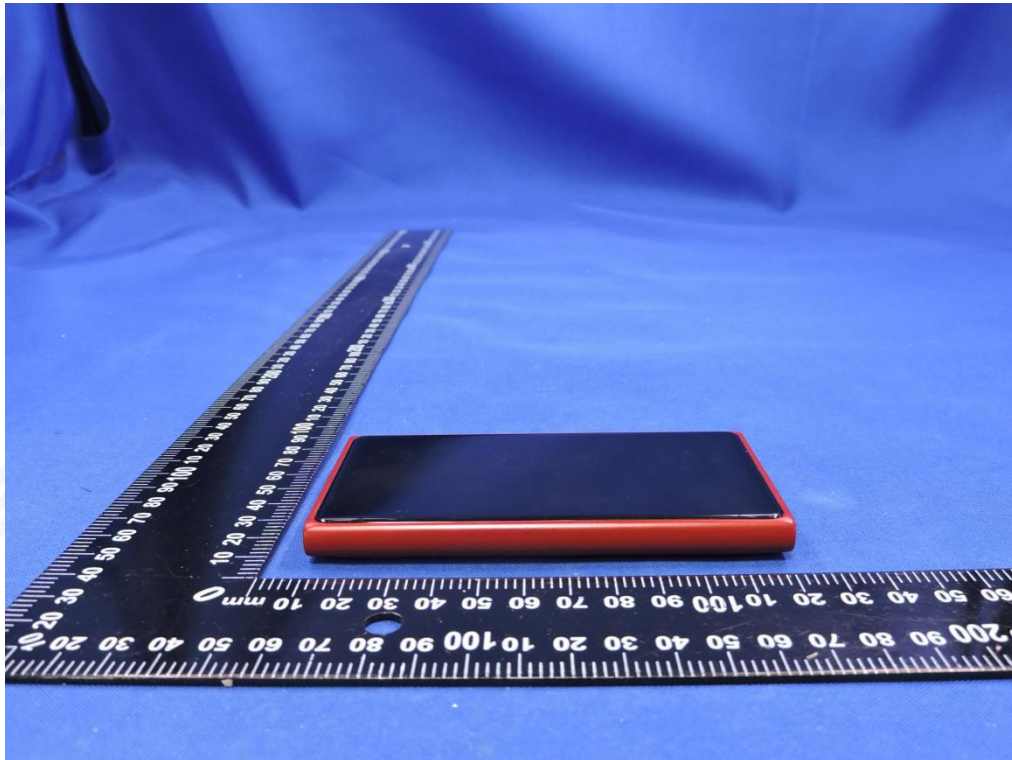
Top side



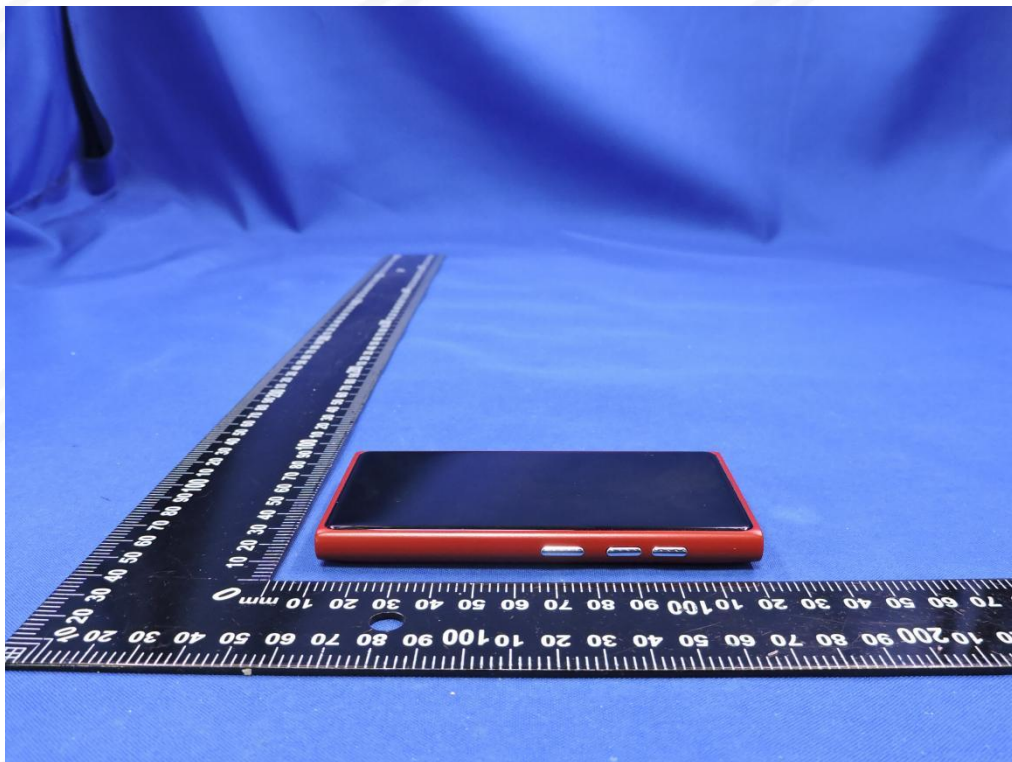
Bottom side



Left side



Right side



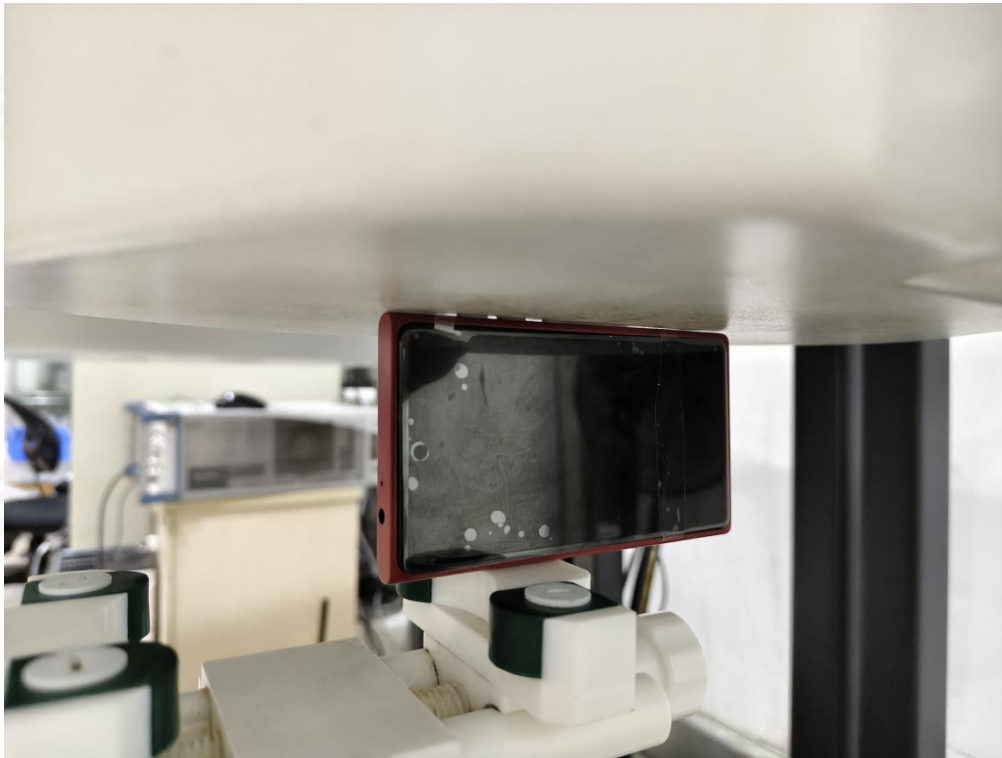
Body Front side(separation distance is 0mm)



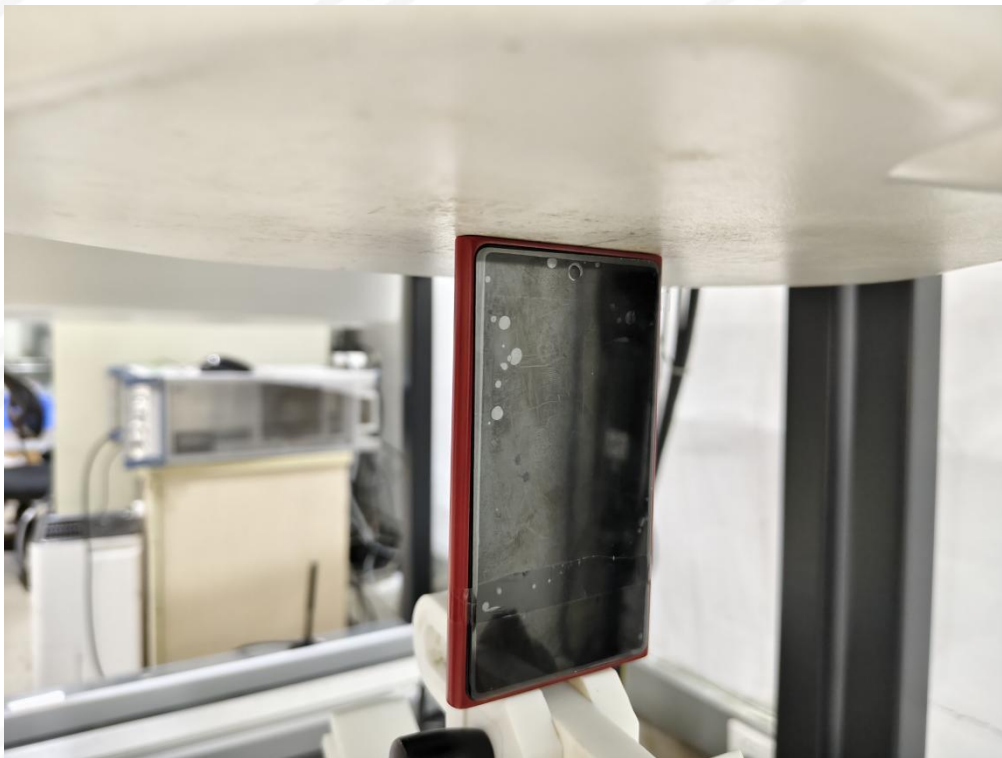
Body Back side(separation distance is 0mm)



Body Right side(separation distance is 0mm)

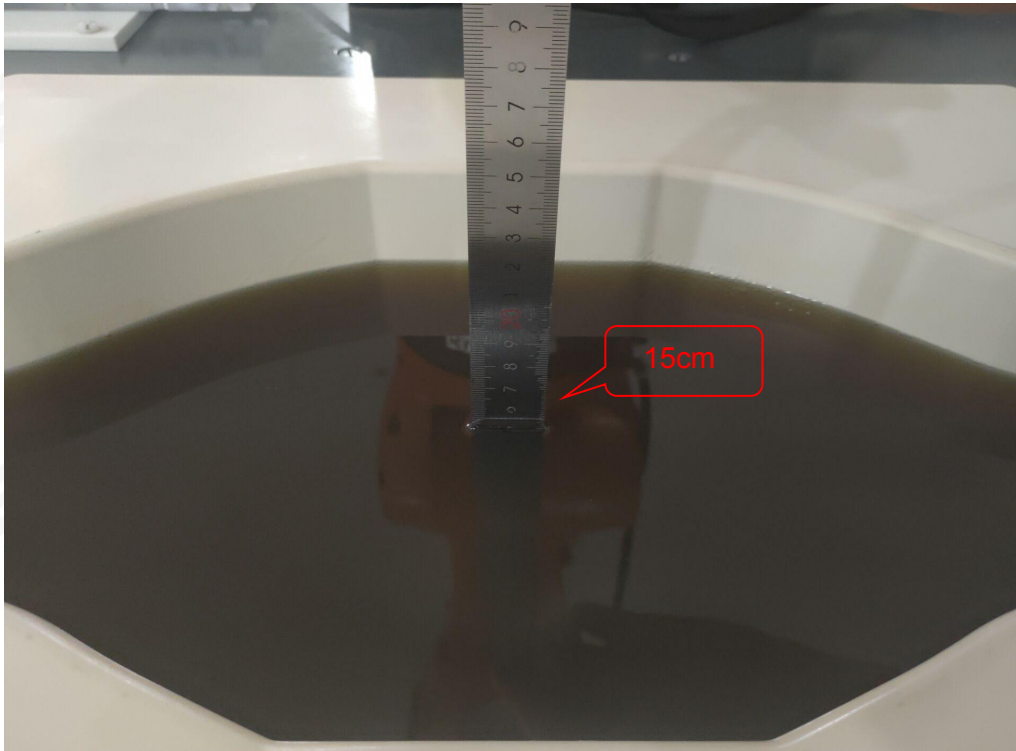


Body Top side(separation distance is 0mm)





Liquid depth (15 cm)





12. SAR Result Summary

12.1 Body-worn SAR

Band	Mod.	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaling Factor	Scaled SAR (W/Kg)	Meas.No.
2.4GHz WLAN	802.11b	Front Side	2412	0.787	-0.70	20.00	19.73	1.064	0.837	/
		Front Side	2437	0.801	-2.36	20.50	20.46	1.009	0.808	/
		Front Side	2462	0.814	-3.64	21.00	20.52	1.117	0.909	1
		Back Side	2462	0.764	-1.79	21.00	20.52	1.117	0.853	/
		Right Side	2462	0.639	0.86	21.00	20.52	1.117	0.714	/
		Top Side	2462	0.661	0.92	21.00	20.52	1.117	0.738	/
5.2GHz WLAN	802.11a	Front Side	5180	1.115	0.18	12.50	12.19	1.074	1.197	/
		Front Side	5200	1.109	-0.35	13.00	12.61	1.094	1.213	/
		Front Side	5240	1.208	0.15	14.00	13.87	1.030	1.245	2
		Back Side	5240	1.041	3.76	14.00	13.87	1.030	1.073	/
		Right Side	5240	0.895	3.54	14.00	13.87	1.030	0.922	/
		Top Side	5240	0.813	-1.07	14.00	13.87	1.030	0.838	/
5.3GHz WLAN	802.11a	Front Side	5260	0.924	-0.93	13.00	12.84	1.038	0.959	/
		Front Side	5300	1.012	3.87	14.00	13.56	1.107	1.120	/
		Front Side	5320	1.194	-2.67	14.00	13.86	1.033	1.233	3
		Back Side	5320	0.956	-1.39	14.00	13.86	1.033	0.987	/
		Right Side	5320	0.818	2.16	14.00	13.86	1.033	0.845	/
		Top Side	5320	0.769	-1.75	14.00	13.86	1.033	0.794	/
5.65GHz WLAN	802.11a	Front Side	5500	1.158	3.70	12.50	12.49	1.002	1.161	4
		Front Side	5580	0.958	2.72	11.00	10.59	1.099	1.053	/
		Front Side	5700	0.919	-2.85	11.00	10.70	1.072	0.985	/
		Back Side	5500	1.020	-2.99	12.50	12.49	1.002	1.022	/
		Right Side	5500	0.914	1.08	12.50	12.49	1.002	0.916	/
		Top Side	5500	0.847	-2.07	12.50	12.49	1.002	0.849	/

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

**12.3 Repeated SAR**

Band	Mode	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)	Meas. No.
2.4GHz WLAN	802.11b	Front Side	2462	0.811	-2.53	21	20.52	0.906	-
5.2GHz WLAN	802.11a	Front Side	5240	1.203	-1.92	14	13.87	1.239	-
5.3GHz WLAN	802.11a	Front Side	5320	1.183	-3.63	14.00	13.86	1.221	-
5.6GHz WLAN	802.11a	Front Side	5500	1.153	3.94	12.5	12.49	1.156	-

12.4 Repeated SAR measurement

Band	Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 1g(W/kg)	2nd Repeated SAR 1g	Ratio
2.4GHz WLAN	802.11b	Front Side	2462	0.814	0.811	1.003	-	-	-
5.2GHz WLAN	802.11a	Front Side	5240	1.208	1.203	1.004	-	-	-
5.3GHz WLAN	802.11a	Front Side	5320	1.194	1.183	1.010	-	-	-
5.65GHz WLAN	802.11a	Front Side	5500	1.158	1.153	1.004	-	-	-

Note:

1. Per KDB 447498 D04,for each frequency band ,repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/Kg}$.
2. Per KDB 447498 D04,if the ratio of largest to smallest SAR for the original and first repeated measurement is ≤ 1.2 and the measured SAR $< 1.45\text{W/Kg}$, only one repeated measurement is required.
3. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is $\geq 1.45\text{W/Kg}$.
4. The ratio is the difference in percentage between original and repeated measured SAR.



12.5 Simultaneous Multi-band Transmission Evaluation

Application Simultaneous Transmission information:

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

NOTE:

1. Bluetooth and WLAN can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
- 3 Based upon KDB 447498 D04, BT SAR is excluded as below table
4. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
5. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion: a) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f (GHz) /x] W/kg for test separation distances≤ 50 mm; Where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR. b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is >50mm.

Estimated SAR		Maximum Average Power		Dis.	Frequency(GHz)	Stand alone SAR(1&10g) [W/kg]
		dBm	mW			
BT	Body	3.33	2.153	5	2.441	0.090



Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
2.4G WLAN + BT	Body	2.4G WLAN	0.909	0.999
		Bluetooth	0.090	
5.2G WLAN + BT	Body	5.2G WLAN	1.245	1.335
		Bluetooth	0.090	
5.3G WLAN + BT	Body	5.3G WLAN	1.333	1.423
		Bluetooth	0.090	
5.6G WLAN + BT	Body	5.6G WLAN	1.161	1.251
		Bluetooth	0.090	

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

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



13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	SID750	SN 30/14 DIP0G750-331	2023.07.04	2026.07.03
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2023.07.04	2026.07.03
900MHz Dipole	MVG	SID900	5023-DIP0G900-746	2023.12.20	2026.12.19
1800MHz Dipole	MVG	SID1800	5023-DIP1G800-747	2023.12.20	2026.12.19
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2023.09.14	2026.09.13
2000MHz Dipole	MVG	SID2000	SN 30/14 DIP2G000-334	2023.07.04	2026.07.03
2450MHzDipole	MVG	SID2450	SN 30/14 DIP2G450-335	2023.07.04	2026.07.03
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2023.07.04	2026.07.03
3500MHz Dipole	MVG	SID3500	SN 08/21 DIP3G 500-553	2024-02-14	2027-02-13
3700MHz Dipole	MVG	SID3700	SN 08/21 DIP3G 700-554	2024-02-14	2027-02-13
Waveguide	MVG	SWG5500	SN 13/14 WGA32	2023.07.04	2026.07.03
E-Field Probe	MVG	SSE2	SN 08/21 EPOG352	2024.09.18	2025.09.17
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2024.09.18	2025.09.17
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 ELL148	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-OA08-20 dB	211123-4-3	2025-02-22	2026-02-21
Network Analyzer	Agilent	E5071C	MY46520378	2024-09-25	2025-09-26
Multi Meter	Keithley	Multi Meter 2000	4050073	2024-09-25	2025-09-26
Signal Generator	Agilent	N5182A	MY50140530	2024-09-25	2025-09-26
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2025-02-22	2026-02-21
Wireless Communication Test Set	R&S	CMW500	156324	2024-09-25	2025-09-26
Power Amplifier	DESAY	ZHL-42W	9638	2024-09-25	2025-09-26
Power Meter	R&S	NRP	100510	2024-09-25	2025-09-26
Power Sensor	R&S	NRP-Z11	101919	2024-09-25	2025-09-26
Power Sensor	Keysight	U2021XA	MY56280002	2024-09-25	2025-09-26
Temperature hygrometer	SuWei	SW-108	N/A	2024.10.15	2025.10.14
Thermograph	Elitech	RC-4	S/N EF7176501537	2024.10.15	2025.10.14



Appendix A. System Validation Plots

System Performance Check Data (2450MHz)

Type: Phone measurement (Complete)

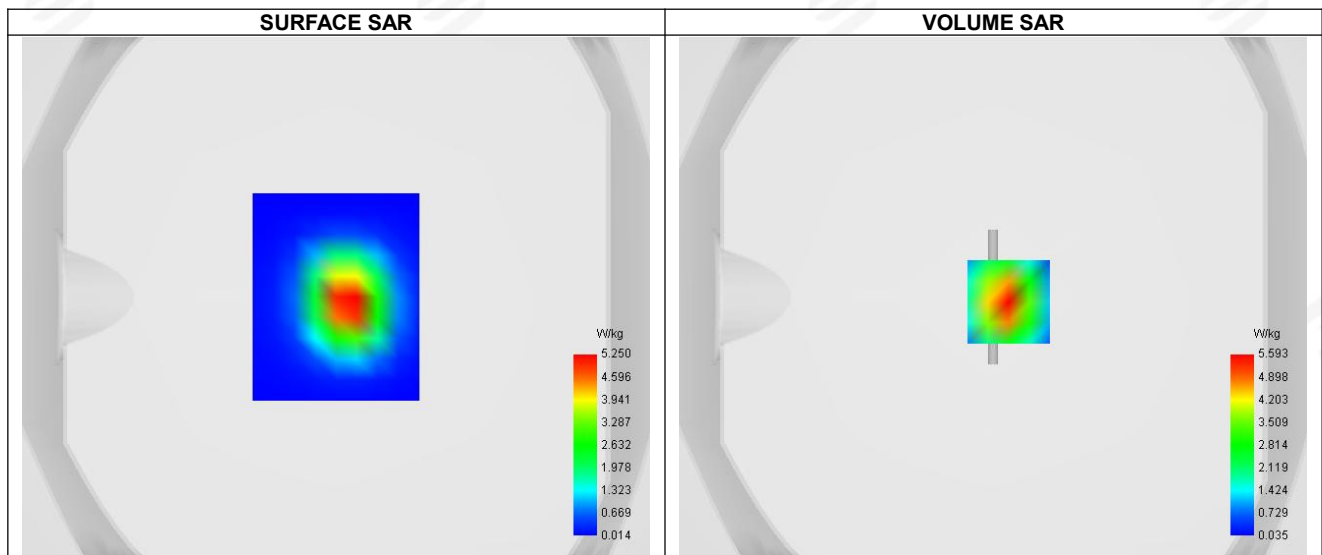
Area scan resolution: dx=8mm, dy=8mm

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

Date of measurement: 2026-05-21

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	2450MHz
Channels	Middle
Signal	CW
Frequency (MHz)	2450
Relative permittivity	39.55
Conductivity (S/m)	1.80
Probe	SN 08/21 EPGO352
ConvF	1.82
Crest factor:	1:1



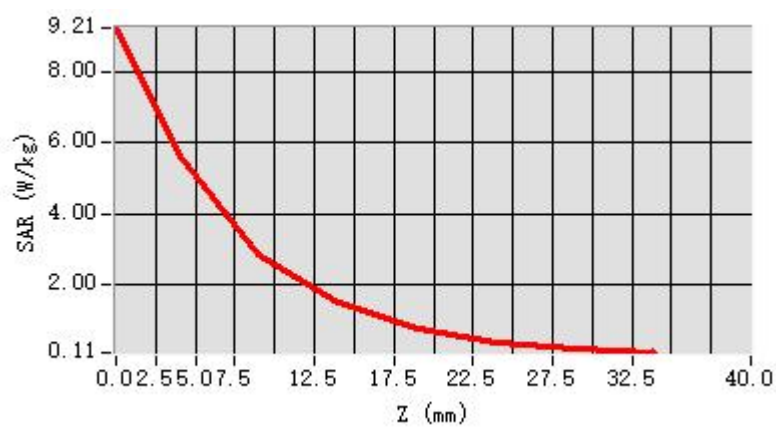
Maximum location: X=6.00, Y=-2.00 ; SAR Peak: 9.20 W/kg

D. SAR 1g & 10g

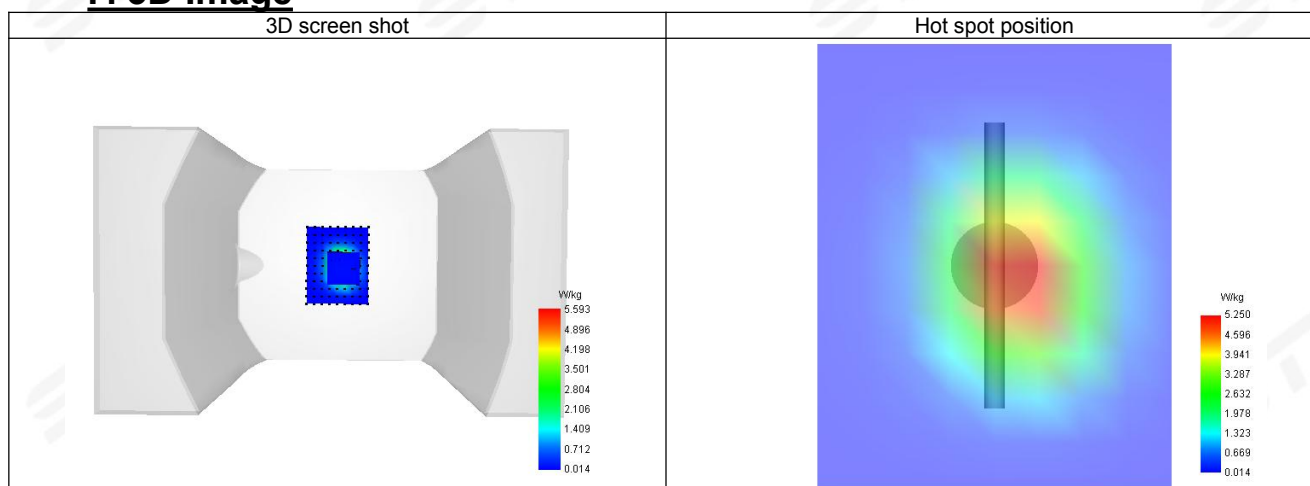
SAR 10g (W/Kg)	2.418
SAR 1g (W/Kg)	5.463
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	51.205640

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.208	5.593	2.864	1.497	0.776	0.402	0.208



F. 3D Image



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

Type: Dipole measurement (Complete)

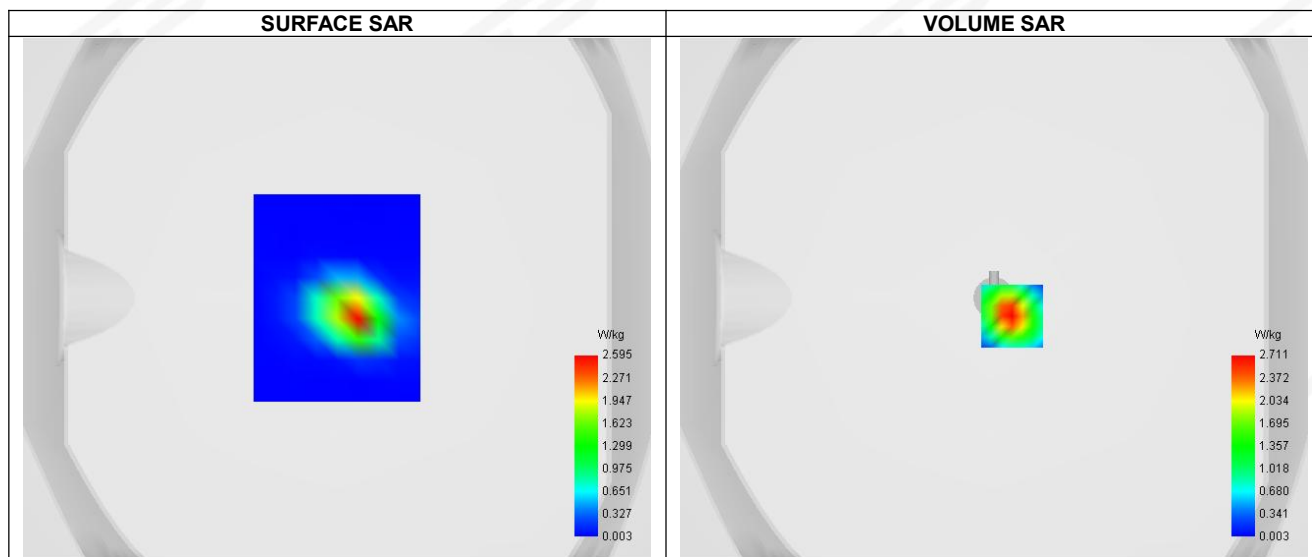
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2026-05-29

Experimental conditions.

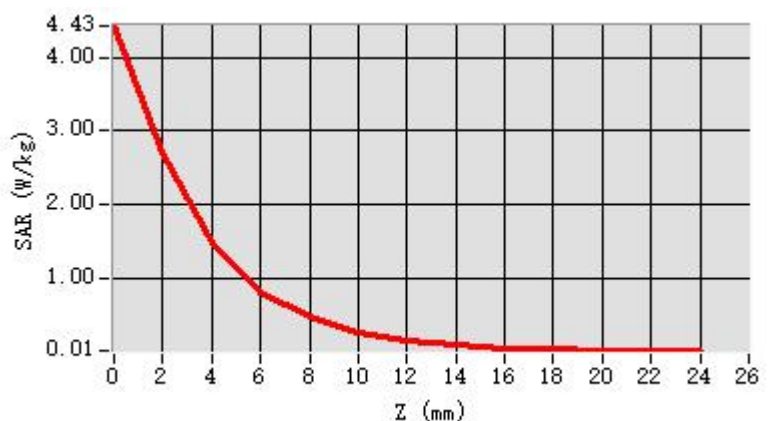
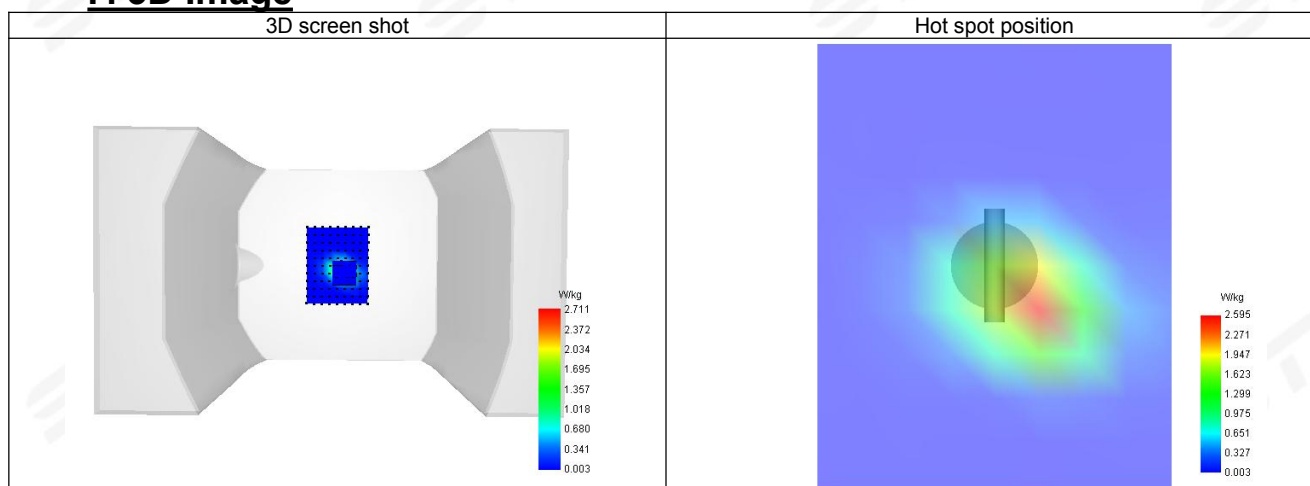
Phantom	Validation plane
Device Position	Dipole
Band	5200MHz
Channels	Middle
Signal	CW
Frequency (MHz)	5200
Relative permittivity	36.85
Conductivity (S/m)	4.65
Probe	SN 08/21 EPGO352
ConvF	1.37
Crest factor:	1:1

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

SAR 10g (W/Kg)	0.611
SAR 1g (W/Kg)	1.563
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	55.122794

**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)	4.430	2.711	1.494	0.798	0.469	0.263	0.147	0.082	0.046	0.026	0.014	0.008

**F. 3D Image**

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

Type: Dipole measurement (Complete)

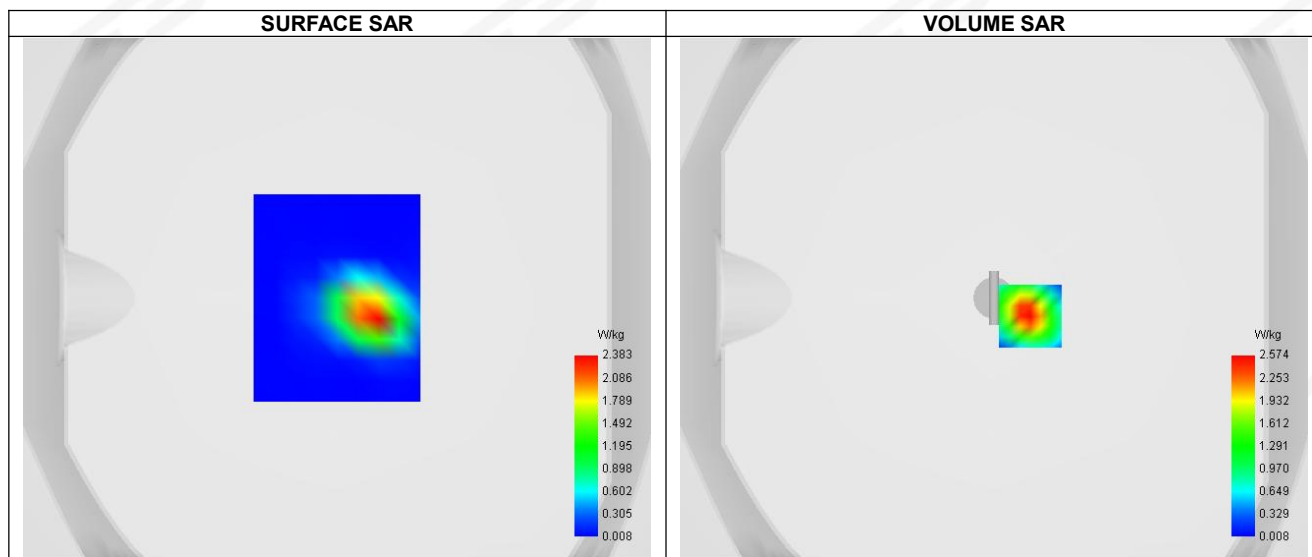
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2026-05-21

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	5400MHz
Channels	Middle
Signal	CW
Frequency (MHz)	5400
Relative permittivity	36.16
Conductivity (S/m)	4.86
Probe	SN 08/21 EPGO352
ConvF	1.26
Crest factor:	1:1



Maximum location: X=14.00, Y=-7.00 ; SAR Peak: 4.31 W/kg

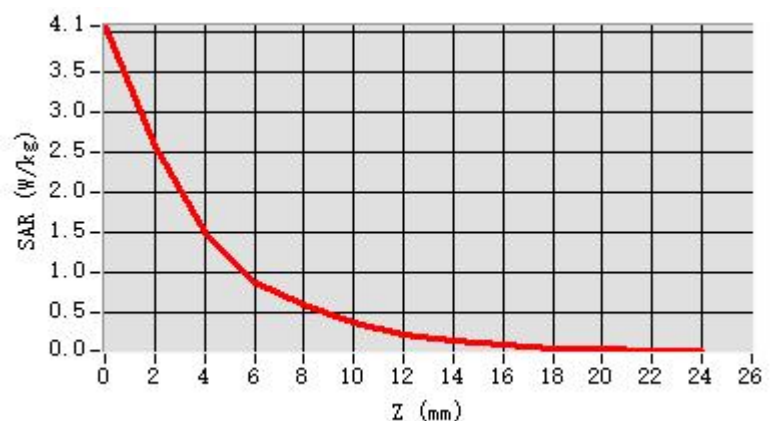
D. SAR 1g & 10g

SAR 10g (W/Kg)	0.543
SAR 1g (W/Kg)	1.696
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	58.377129

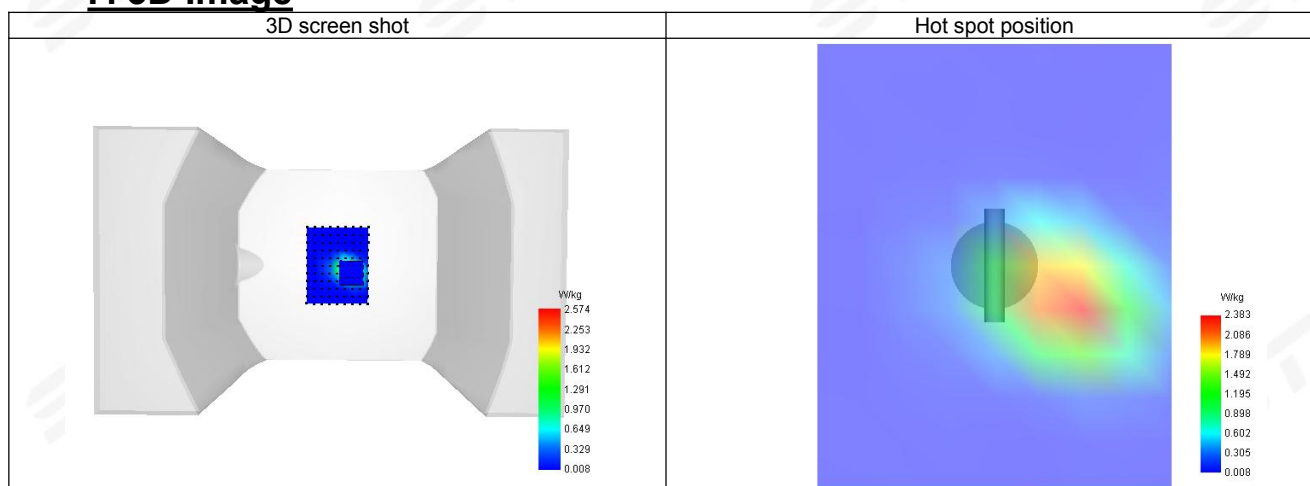


E. Z Axis Scan

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)	4.066	2.574	1.503	0.859	0.588	0.364	0.226	0.140	0.087	0.054	0.033	0.021



F. 3D Image



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

Type: Dipole measurement (Complete)

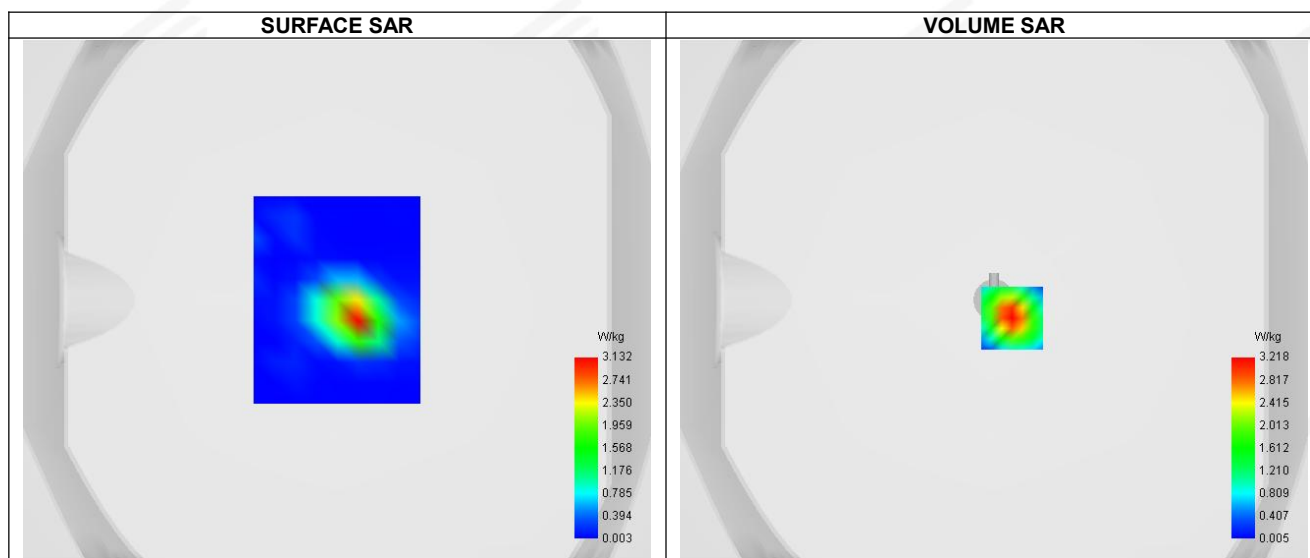
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2026-05-21

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	5600MHz
Channels	Middle
Signal	CW
Frequency (MHz)	5600
Relative permittivity	35.68
Conductivity (S/m)	5.06
Probe	SN 08/21 EPG0352
ConvF	1.21
Crest factor:	1:1



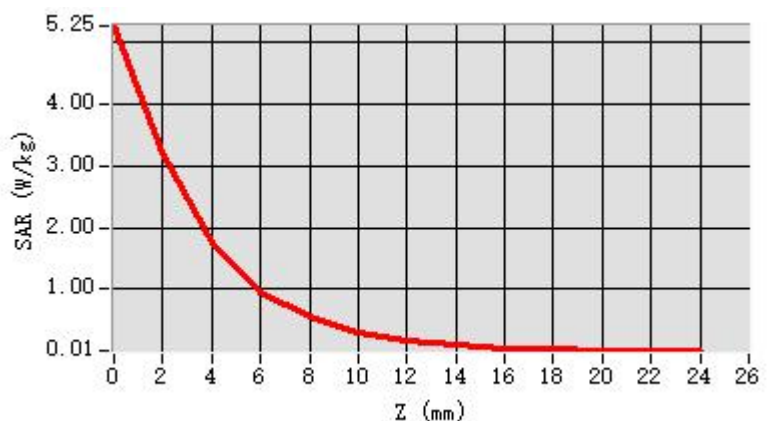
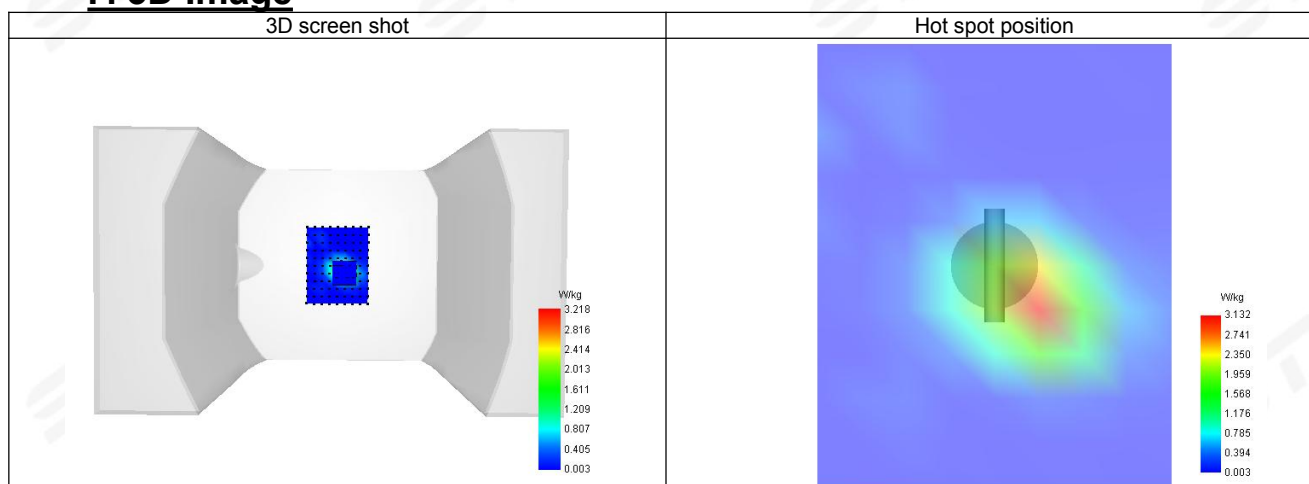
Maximum location: X=7.00, Y=-7.00 ; SAR Peak: 5.48 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.647
SAR 1g (W/Kg)	1.726
Horizontal validation criteria: minimum distance (mm)	8.944272
Vertical validation criteria: SAR ratio M2/M1 (%)	54.979660

**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)	5.253	3.218	1.769	0.955	0.559	0.314	0.176	0.099	0.055	0.031	0.017	0.010	0.010

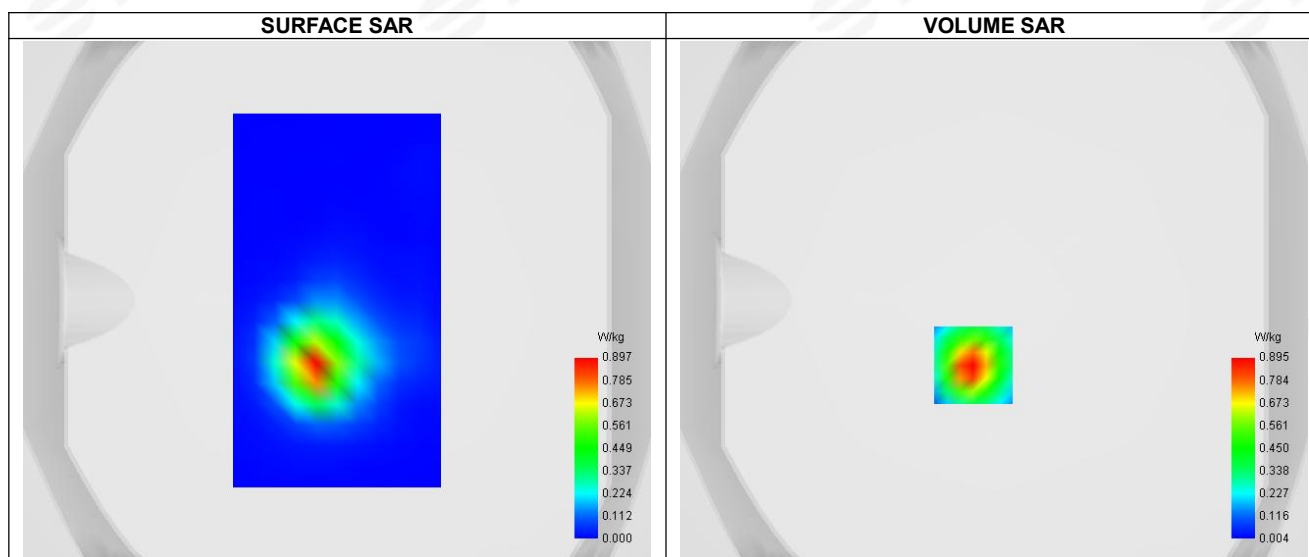
**F. 3D Image**



Appendix B. SAR Test Plots

Plot 1: DUT: 24Six Solo 4 ; EUT Model: 24Six Solo 4

Test Date	2026-05-21
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	Back Side
Band	IEEE 802.11b ISM
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2462
Relative permittivity (real part)	39.70
Conductivity (S/m)	1.80



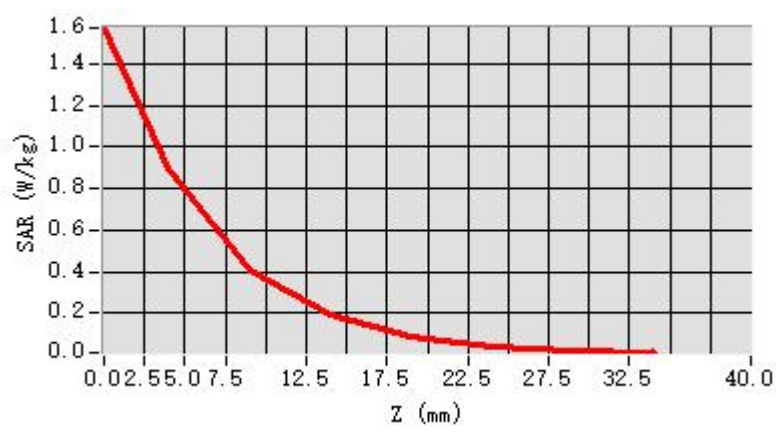
Maximum location: X=-8.00, Y=-25.00 ; SAR Peak: 1.59 W/kg

D. SAR 1g & 10g

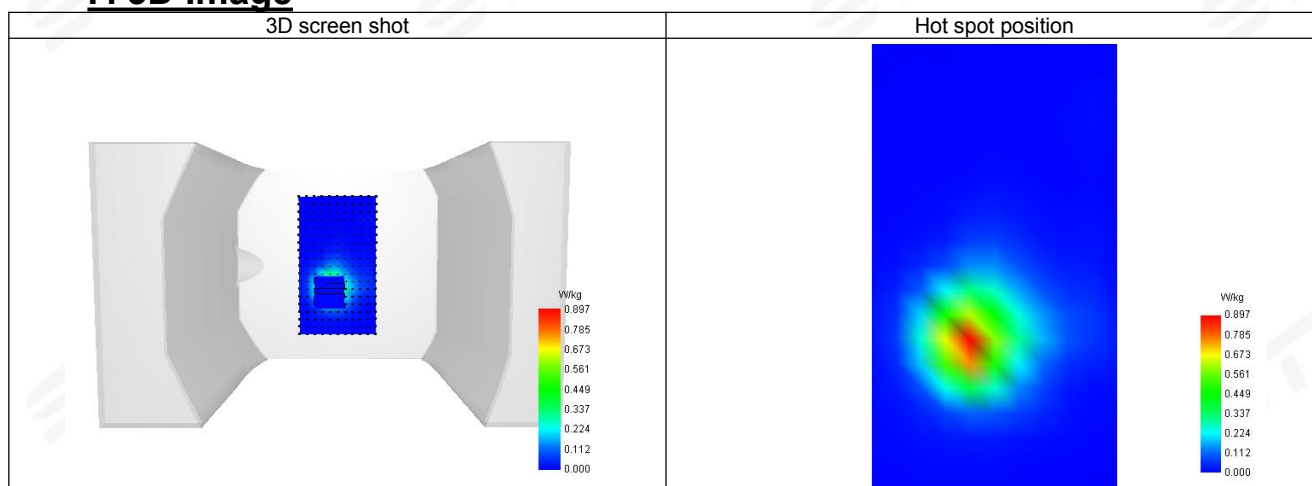
SAR 10g (W/Kg)	0.353
SAR 1g (W/Kg)	0.814
Horizontal validation criteria: minimum distance (mm)	11.180340
Vertical validation criteria: SAR ratio M2/M1 (%)	45.829509

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.573	0.895	0.410	0.197	0.092	0.043	0.020



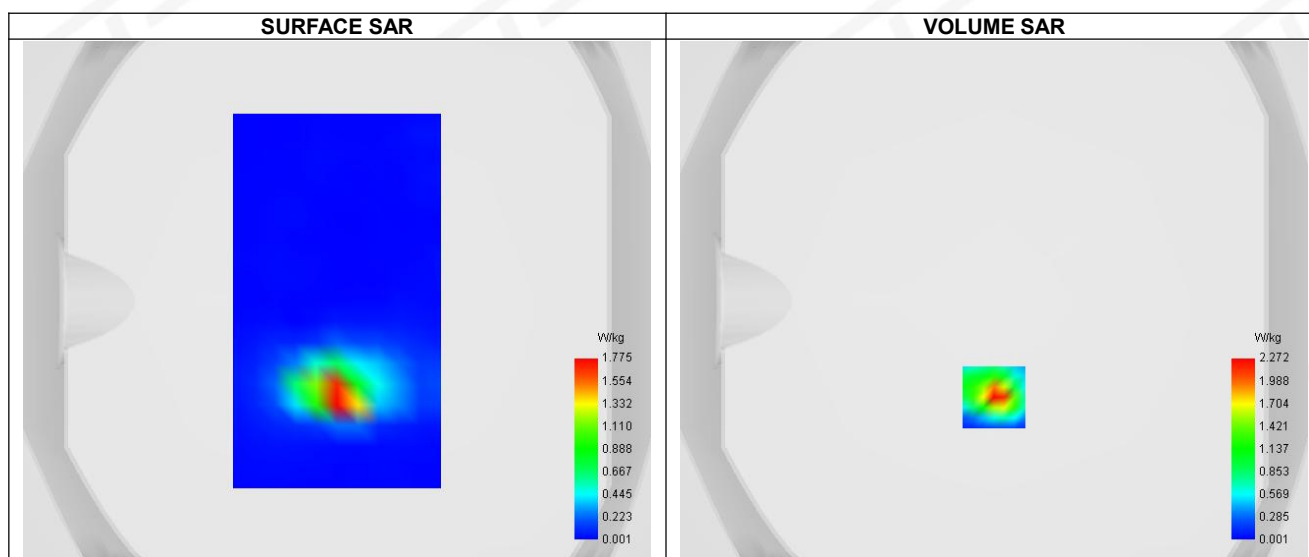
F. 3D Image





Plot 2: DUT: 24Six Solo 4 ; EUT Model: 24Six Solo 4

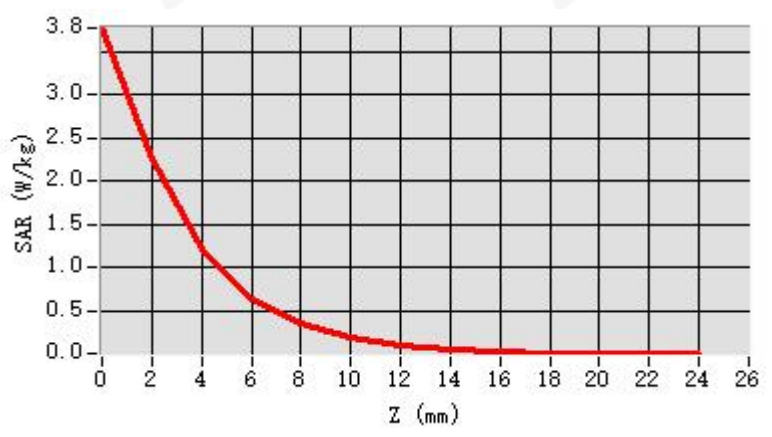
Test Date	2026-05-21
ConvF	1.37
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5240
Relative permittivity (real part)	35.89
Conductivity (S/m)	4.71

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

SAR 10g (W/Kg)	0.360
SAR 1g (W/Kg)	1.208
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	53.054953

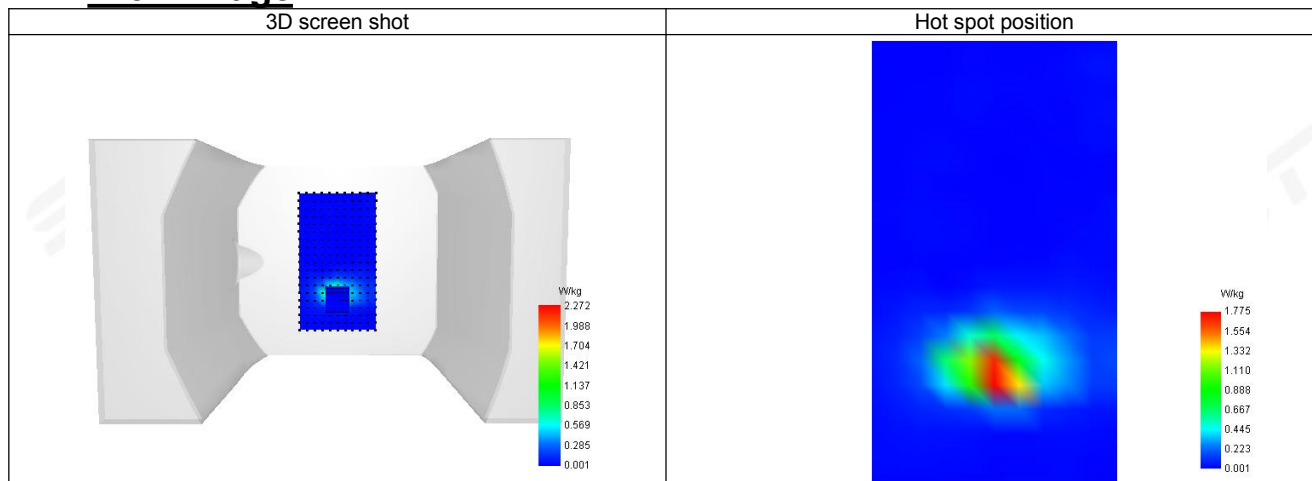
E. Z Axis Scan

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	26.00
SAR (W/Kg)	3.776	2.272	1.206	0.626	0.348	0.186	0.100	0.054	0.029	0.015	0.008	0.004	0.002	0.001



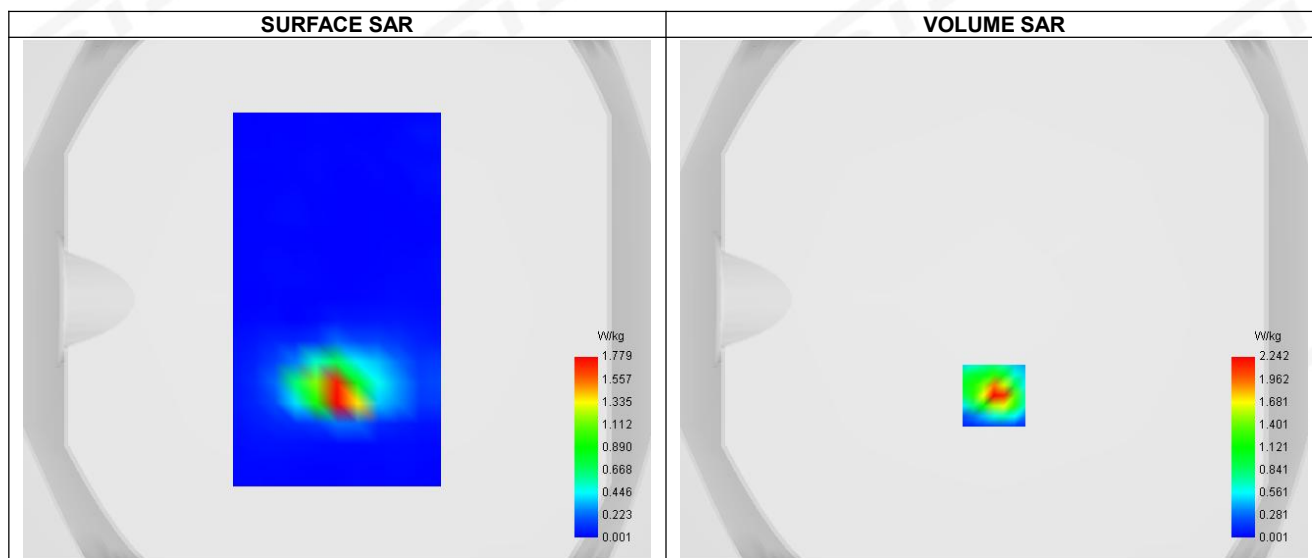


F. 3D Image



**Plot 3: DUT: 24Six Solo 4 ; EUT Model: 24Six Solo 4**

Test Date	2026-05-21
ConvF	1.26
Probe	SN 08/21 EPG0352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5320
Relative permittivity (real part)	36.16
Conductivity (S/m)	4.76



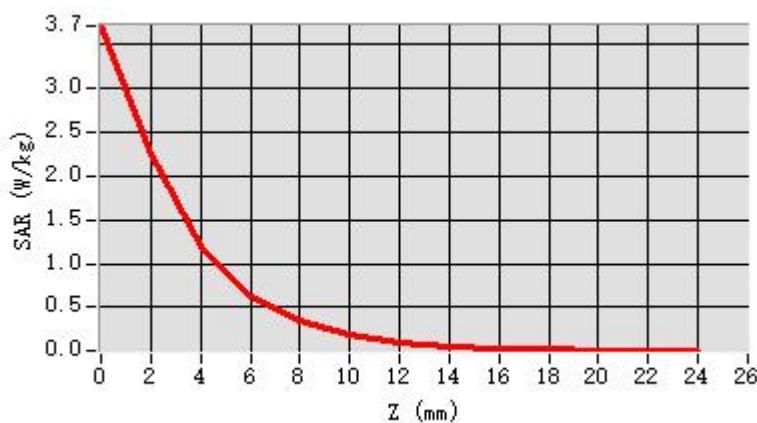
Maximum location: X=0.00, Y=-37.00 ; SAR Peak: 3.99 W/kg

D. SAR 1g & 10g

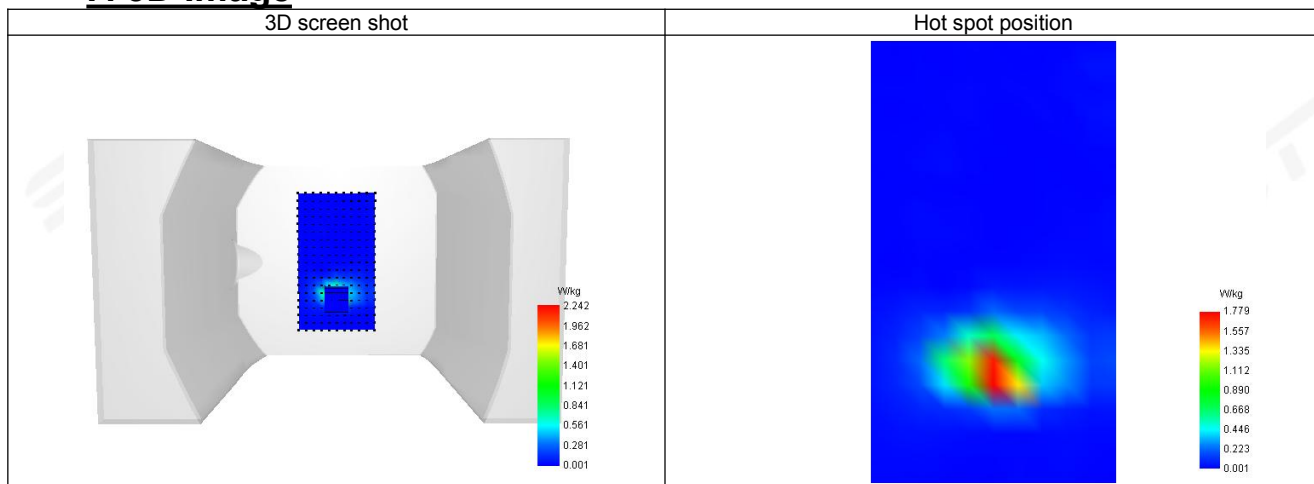
SAR 10g (W/Kg)	0.350
SAR 1g (W/Kg)	1.194
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	53.146203

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	26.00
SAR (W/Kg)	3.716	2.242	1.191	0.622	0.359	0.196	0.107	0.058	0.032	0.017	0.010	0.005	0.003	0.002

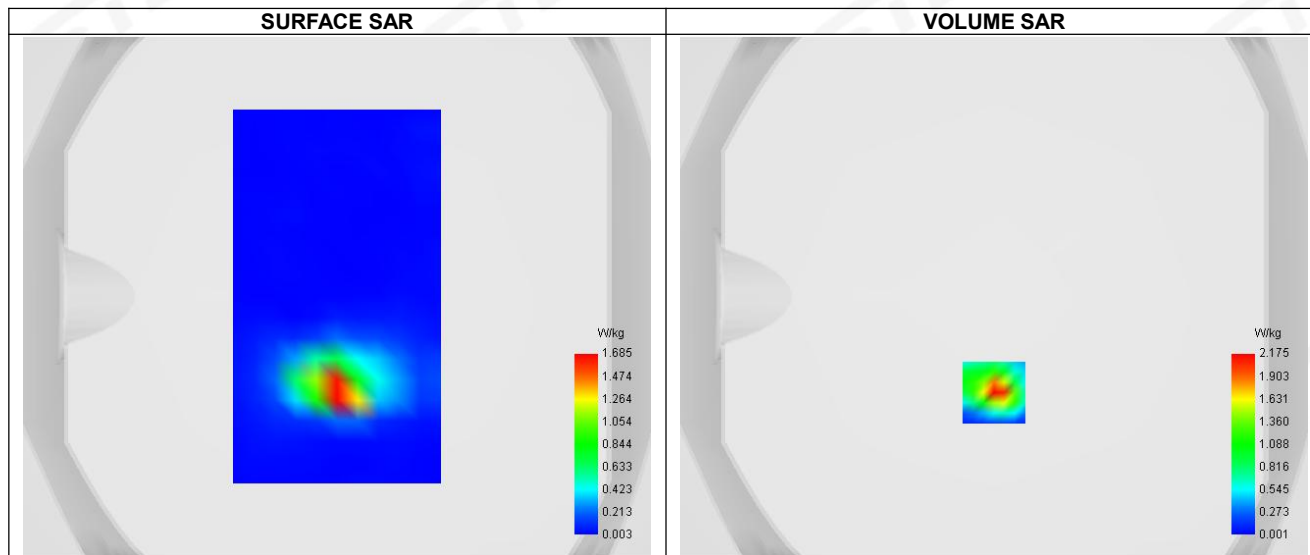


F. 3D Image



**Plot 4: DUT: 24Six Solo 4 ; EUT Model: 24Six Solo 4**

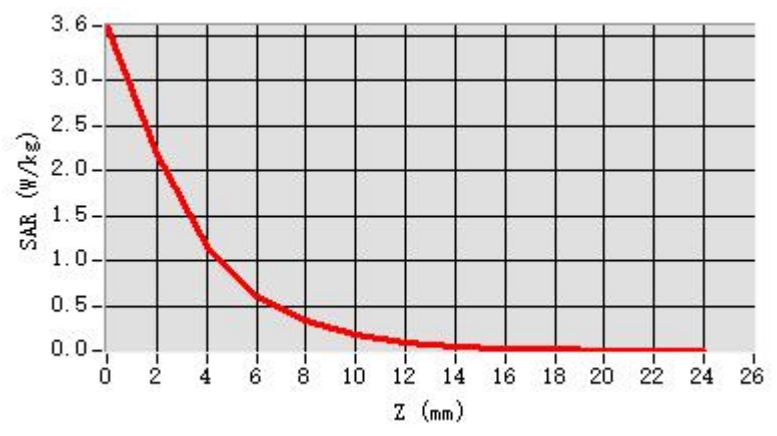
Test Date	2026-05-21
ConvF	1.21
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	7x7x12, dx=4mm, dy=4mm, dz=2mm,
Phantom	Validation plane
Device Position	Back Side
Band	IEEE 802.11a ISM
Signal	IEEE802.a (Crest factor: 1.0)
Frequency (MHz)	5500
Relative permittivity (real part)	36.19
Conductivity (S/m)	4.96

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

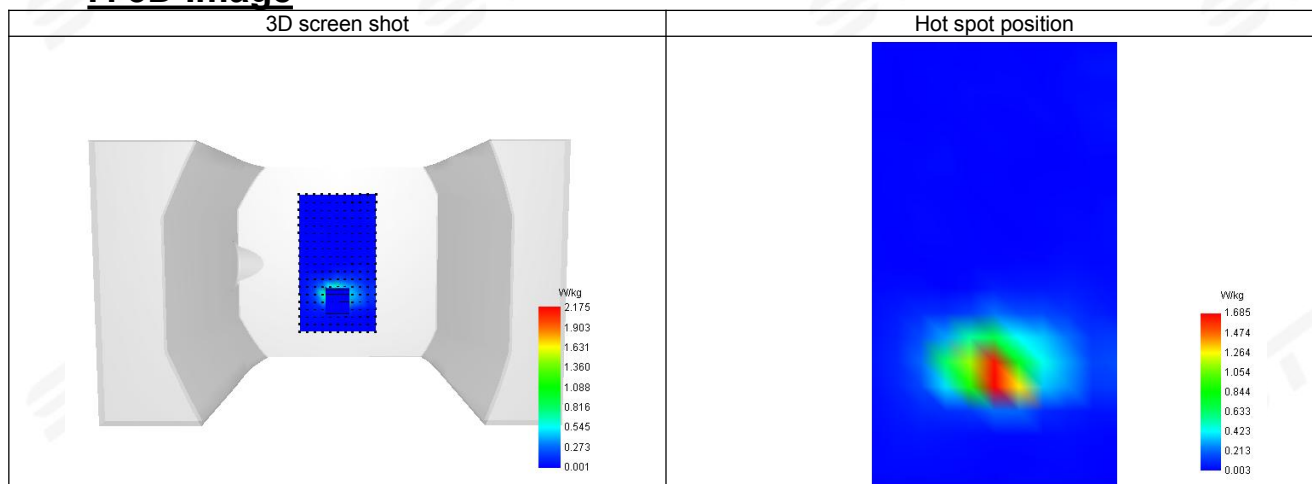
SAR 10g (W/Kg)	0.336
SAR 1g (W/Kg)	1.158
Horizontal validation criteria: minimum distance (mm)	5.656854
Vertical validation criteria: SAR ratio M2/M1 (%)	53.186583

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)	3.606	2.175	1.157	0.604	0.340	0.184	0.100	0.054	0.029	0.016	0.009	0.005



F. 3D Image





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※