SAR TEST REPORT

Product Name: Walkie Talkie Kit

Model Name: eUTSAK, eUTSAK2501-H, eUTSAK2305-H, eUTSAK2305CC-H, eUTSAK2504-H, eUTSAK2308-H, eUTSAK2308CF-H, eUTSAK2301-H, eUTSAK2105-H, eUTSAK2105CF-H, eUTSAK2304-H, eUTSAK2108-H, eUTSAK2108CC-H, eUTSAK2501, eUTSAK2305, eUTSAK2305CC, eUTSAK2504, eUTSAK2308, eUTSAK2308CF, eUTSAK2301, eUTSAK2105, eUTSAK2105CF, eUTSAK2304, eUTSAK2108, eUTSAK2108CC, DJJ0217, DJJ0218, DJJ0219, DJJ0220, DJJ0221, DJJ0222, DJJ0223, DJJ0224, DJJ0225, DJJ0226

FCC ID: 2BSAQ-EUTSAK

Issued For	:	eUda Plus Inc. 84 W Santa Clara Street, Suite 700, San Jose, CA, 95113, United States
Issued By	:	Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number:	LGT25F090HA01
Sample Received Date:	June. 11, 2025
Date of Test	Aug. 27, 2025
Date of Issue	Sep. 10, 2025
Max. SAR (1g)	Body: 1.323 W/kg

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Revision History

Rev.	Issue Date	Contents
00	Sep. 10, 2025	Initial Issue

TEST REPORT CERTIFICATION

Applicant	eUda Plus Inc.
Address	84 W Santa Clara Street, Suite 700, San Jose, CA, 95113, United States
Manufacture	eUda Plus Inc.
Address	Zone B, 1866 Hutai Road, Baoshan District, Shanghai, 200444, China
Product Name	Walkie Talkie Kit
Trademark	eUda+
Model Name	eUTSAK, eUTSAK2501-H, eUTSAK2305-H, eUTSAK2305CC-H, eUTSAK2504-H, eUTSAK2308-H, eUTSAK2308CF-H, eUTSAK2301-H, eUTSAK2105-H, eUTSAK2105CF-H, eUTSAK2304-H, eUTSAK2108-H, eUTSAK2108CC-H, eUTSAK2501, eUTSAK2305, eUTSAK2305CC, eUTSAK2504, eUTSAK2308, eUTSAK2308CF, eUTSAK2301, eUTSAK2105, eUTSAK2105CF, eUTSAK2304, eUTSAK2108, eUTSAK2108CC, DJJ0217, DJJ0218, DJJ0219, DJJ0220, DJJ0221, DJJ0222, DJJ0223, DJJ0224, DJJ0225, DJJ0226
Sample number	LGT2506067

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
ANSI/IEEE Std. C95.1-2019 FCC 47 CFR Part 2 (2.1093) IEEE 1528: 2013	PASS

Prepared by:

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Approved by:

Vita Li
Manager

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

<table>
<tr><td>Product Name</td><td colspan="3">Walkie Talkie Kit</td></tr>
<tr><td>Trademark</td><td colspan="3">eUda+</td></tr>
<tr><td>Test Model Name</td><td colspan="3">eUTSAK</td></tr>
<tr><td>Series Model</td><td colspan="3">eUTSAK2501-H, eUTSAK2305-H, eUTSAK2305CC-H, eUTSAK2504-H, eUTSAK2308-H, eUTSAK2308CF-H, eUTSAK2301-H, eUTSAK2105-H, eUTSAK2105CF-H, eUTSAK2304-H, eUTSAK2108-H, eUTSAK2108CC-H, eUTSAK2501, eUTSAK2305, eUTSAK2305CC, eUTSAK2504, eUTSAK2308, eUTSAK2308CF, eUTSAK2301, eUTSAK2105, eUTSAK2105CF, eUTSAK2304, eUTSAK2108, eUTSAK2108CC, DJJ0217, DJJ0218, DJJ0219, DJJ0220, DJJ0221, DJJ0222, DJJ0223, DJJ0224, DJJ0225, DJJ0226</td></tr>
<tr><td>Model Difference</td><td colspan="3">All model's the function, software and electric circuit are the same, only with appearance, product color and model named different. Test sample model: eUTSAK.</td></tr>
<tr><td>Device Category</td><td colspan="3">Portable</td></tr>
<tr><td>Product stage</td><td colspan="3">Production unit</td></tr>
<tr><td>RF Exposure Environment</td><td colspan="3">General Population / Uncontrolled</td></tr>
<tr><td>Frequency Range</td><td colspan="3">462.600-462.650MHz</td></tr>
<tr><td>Modulation Type:</td><td colspan="3">FM</td></tr>
<tr><td rowspan="3">Max. Reported SAR(1g):
Test distance:
Face up:25mm
Back Touch:0mm</td><td>Mode</td><td>Face up (with 25mm separation)</td><td>Back Touch (with 0mm separation)</td></tr>
<tr><td>Analog</td><td>0.460</td><td>1.323</td></tr>
<tr><td>Limit</td><td colspan="2">1.6 W/kg</td></tr>
<tr><td>Battery</td><td colspan="3">Capacity: 1500mAh
Rated Voltage: 3.7V</td></tr>
<tr><td>Operating Mode</td><td colspan="3">Maximum continuous output</td></tr>
<tr><td>Antenna Specification</td><td colspan="3">External Antenna</td></tr>
</table>

1.2 Test Environment

Ambient conditions in the SAR laboratory:

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

1.3 Test Factory

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

2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-2019	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets

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

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

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

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

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

Population/Uncontrolled Environments:
Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

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

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

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

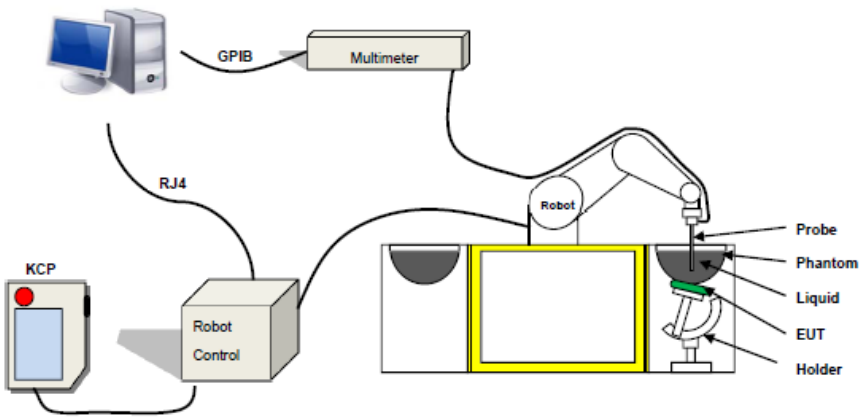
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue;
ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:
- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.

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

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe 2225-EPGO-450 with following specifications is used
- Probe Length: 330 mm
- Length of Individual Dipoles: 2mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 0.15 GHz to 7.5 GHz for head simulating liquid.
-Angle between probe axis (evaluation axis) and surface normal line: less than 30°

Figure 1-MVG COMOSAR Dosimetric E field Probe

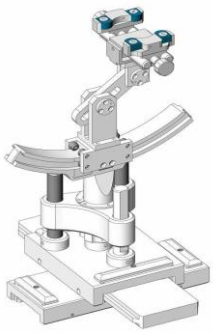
3.2.2 Phantom

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

Figure-SN 06/22 SAM 148

Figure-SN 06/22 ELLI 51

3.2.3 Device Holder



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

4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameters are within the tolerances of the specified target values

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

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

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

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

LIQUID MEASUREMENT RESULTS

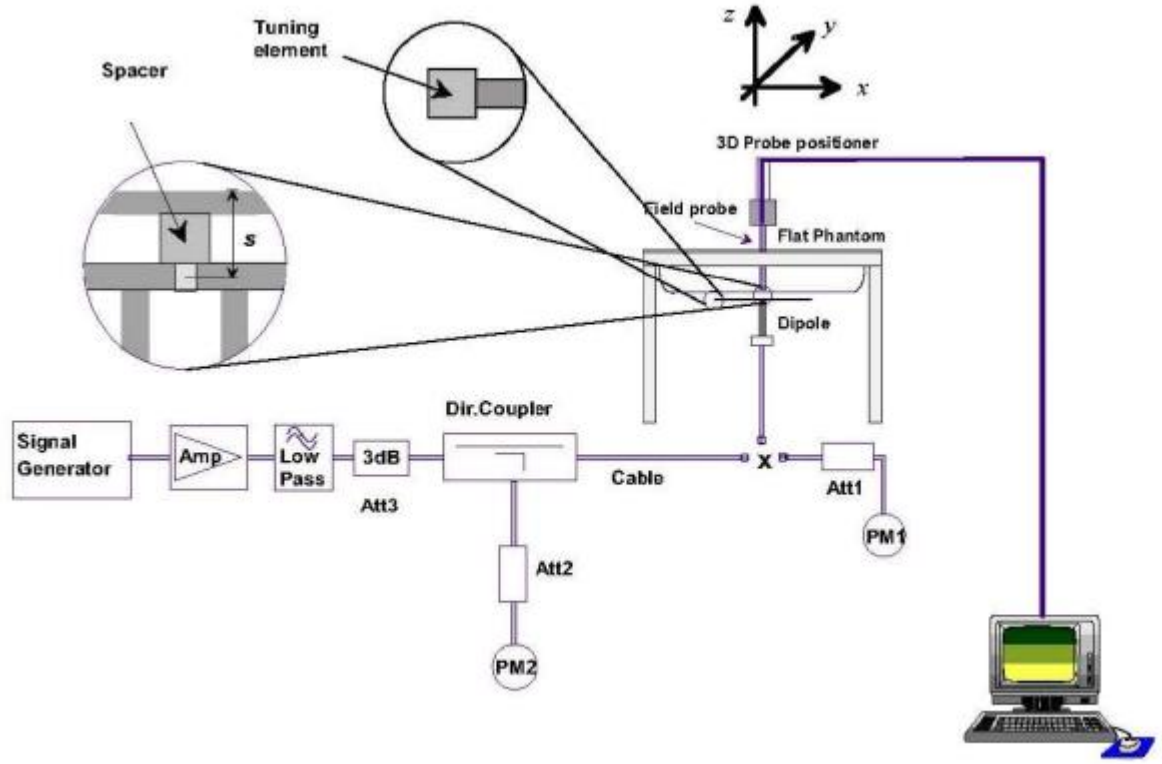
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2025-08-27	23.2	43	450	22.8	Permittivity	43.50	43.79	0.67	±10
					Conductivity	0.87	0.89	2.30	±10

5. SAR System Validation

5.1 Validation System

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

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



5.2 Validation Result

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

Date	Freq.	Power	Power drift	Tested Value	Normalized SAR	Target SAR	Tolerance
	(MHz)	(mW)	(%)	(W/Kg)	(W/kg)	1g(W/kg)	(%)
2025-08-27	450	100	0.417	4.17	4.45	-6.29	10

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

6. SAR Evaluation Procedures

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

The following steps are used for each test position

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

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

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

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

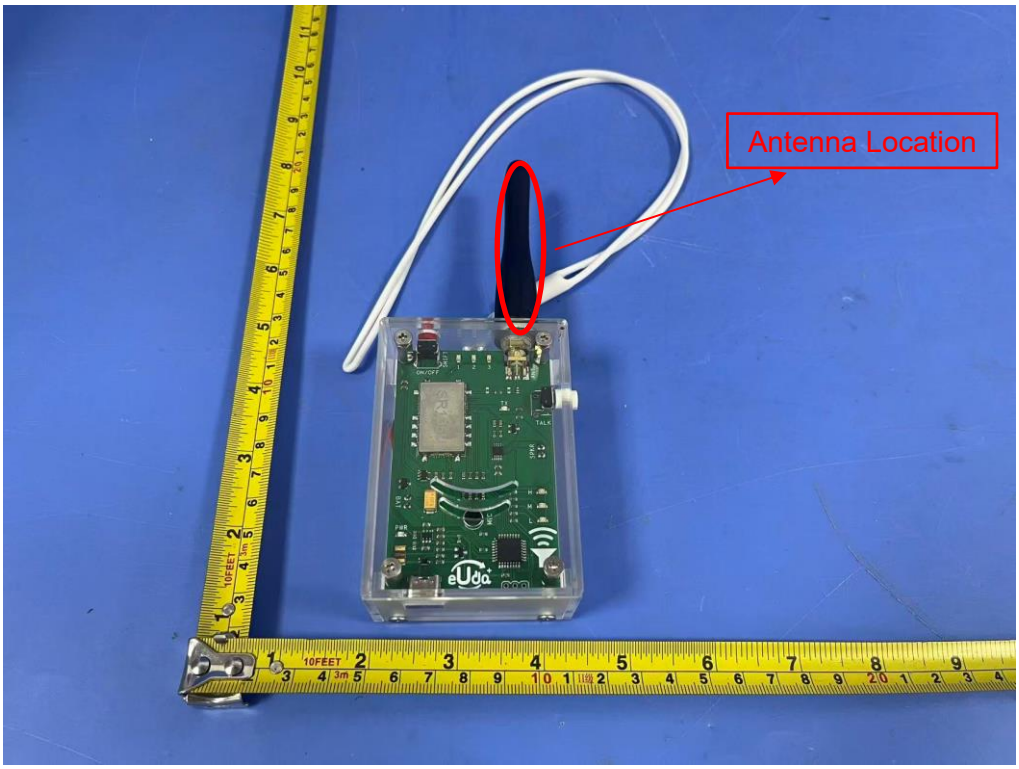
➢ Area Scan& Zoom Scan

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

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

7. EUT Antenna Location Sketch

It is a Walkie Talkie Kit, support PTT mode.



(Front view)

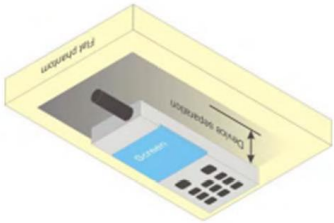
Note 1: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

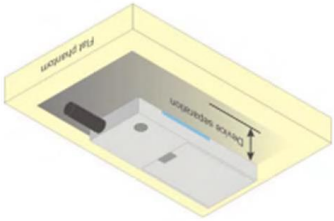
8. EUT Test Position

This EUT was tested in, Front Face and Rear Face.

8.1 Body-worn Position Conditions

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





9. Uncertainty

9.1 Measurement Uncertainty

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

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

9.2 System validation Uncertainty

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

10. Conducted Power Measurement

10.1 Test Result

Power			
Mode	Test Frequency (MHz)	Output Power (dBm)	Output Power (mW)
FM	462.60000	29.512	893.72
	462.62500	29.485	888.18
	462.65000	29.475	886.14

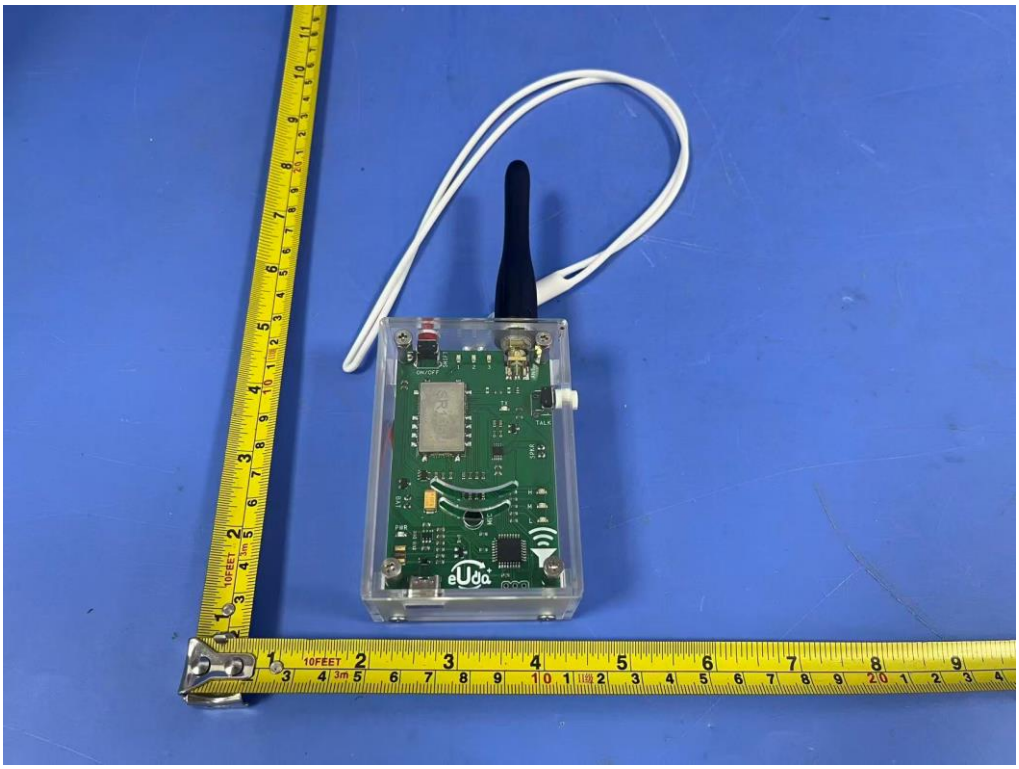
10.2 Tune up Power

Mode	Power	
FM	Low	29±1dBm
	Middle	29±1dBm
	High	29±1dBm

11. EUT and Test Setup Photo

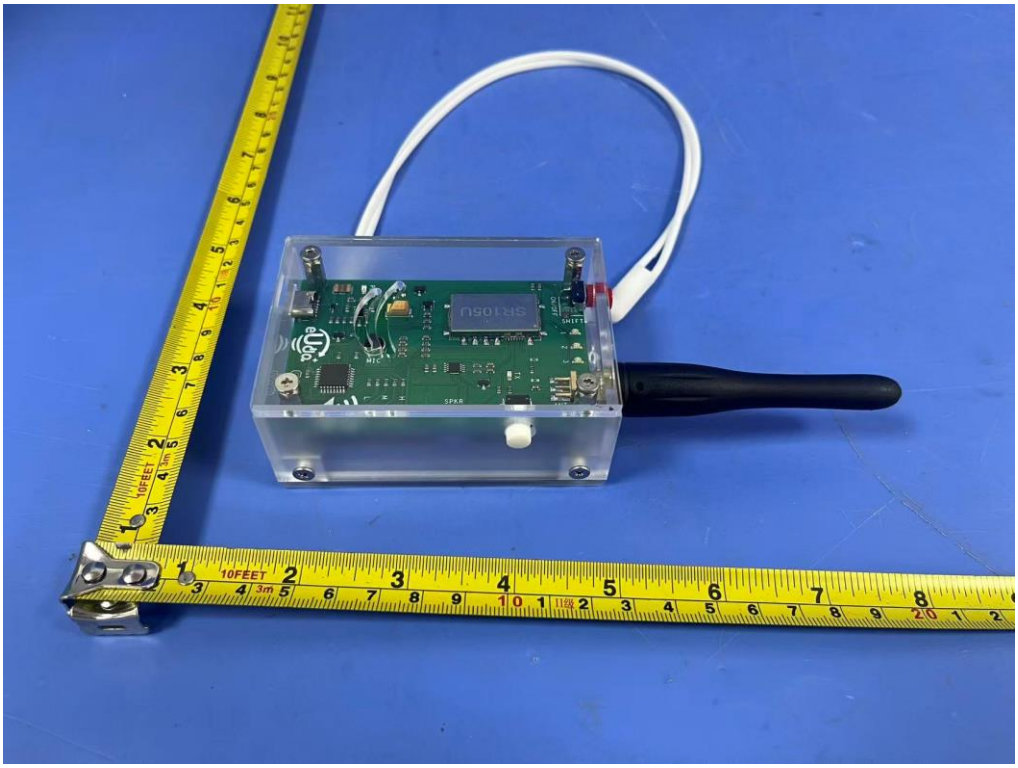
11.1 EUT Photos

Face up

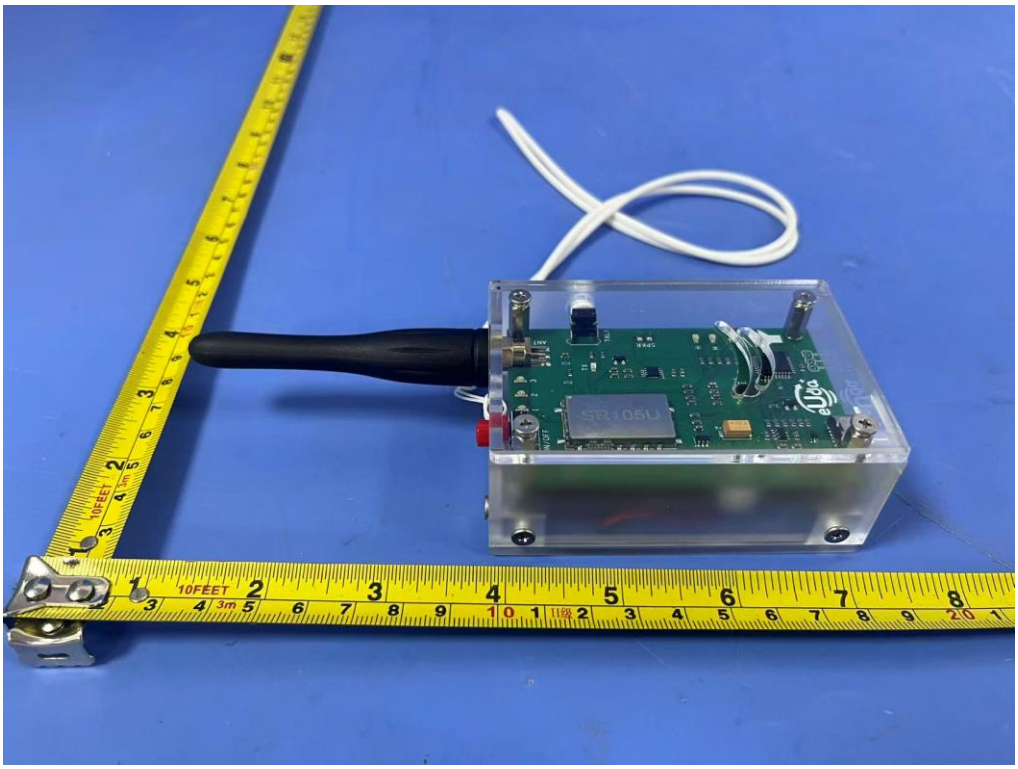


Back Touch

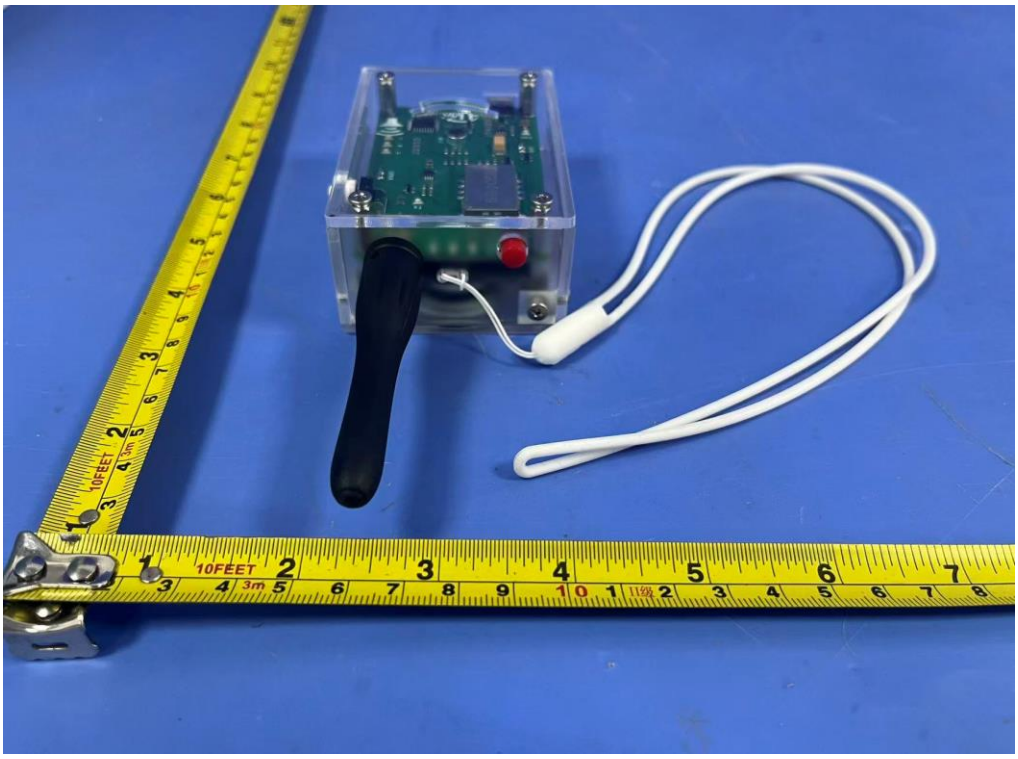
Right Edge



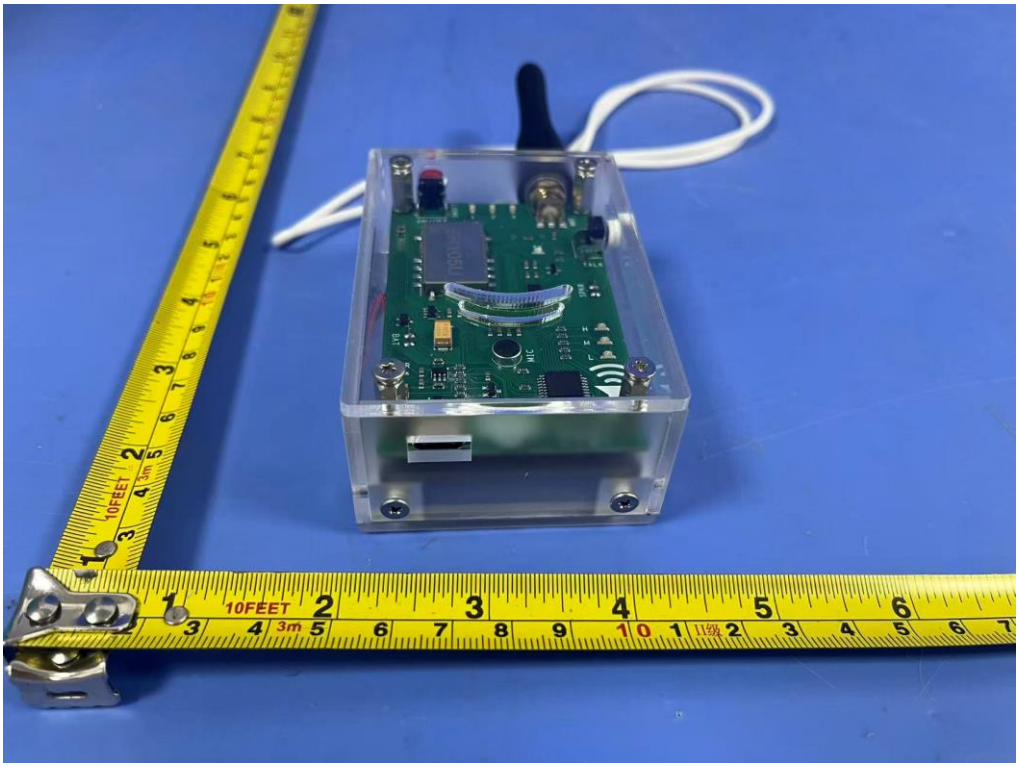
Left Edge



Top Edge

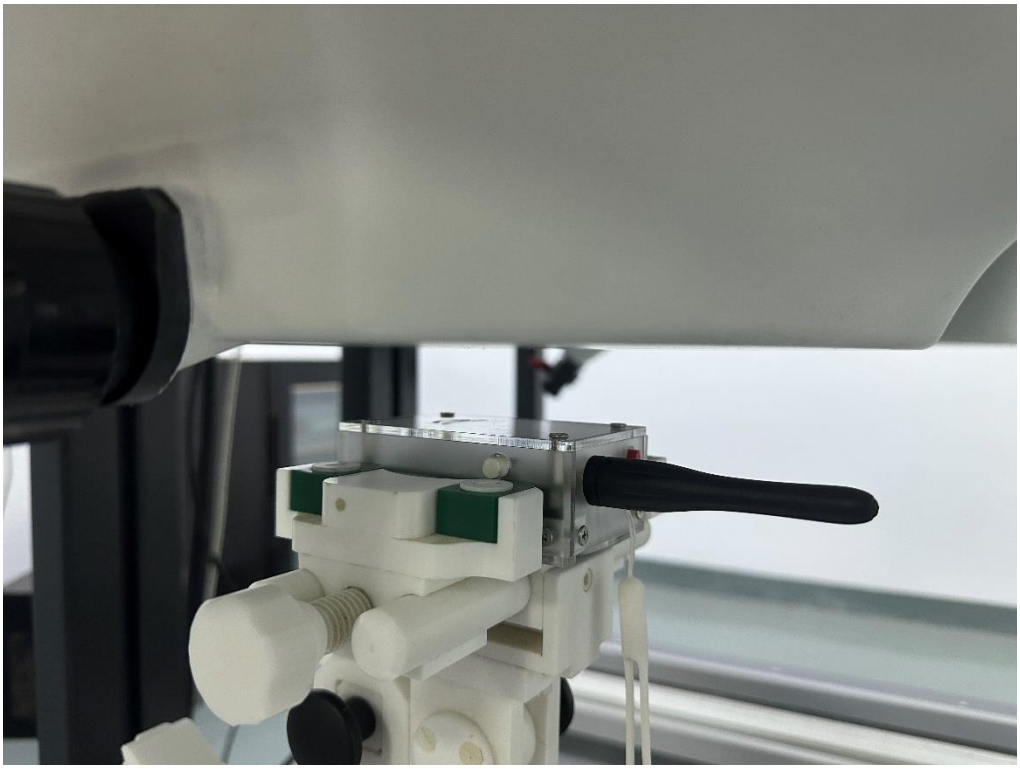


Bottom Edge

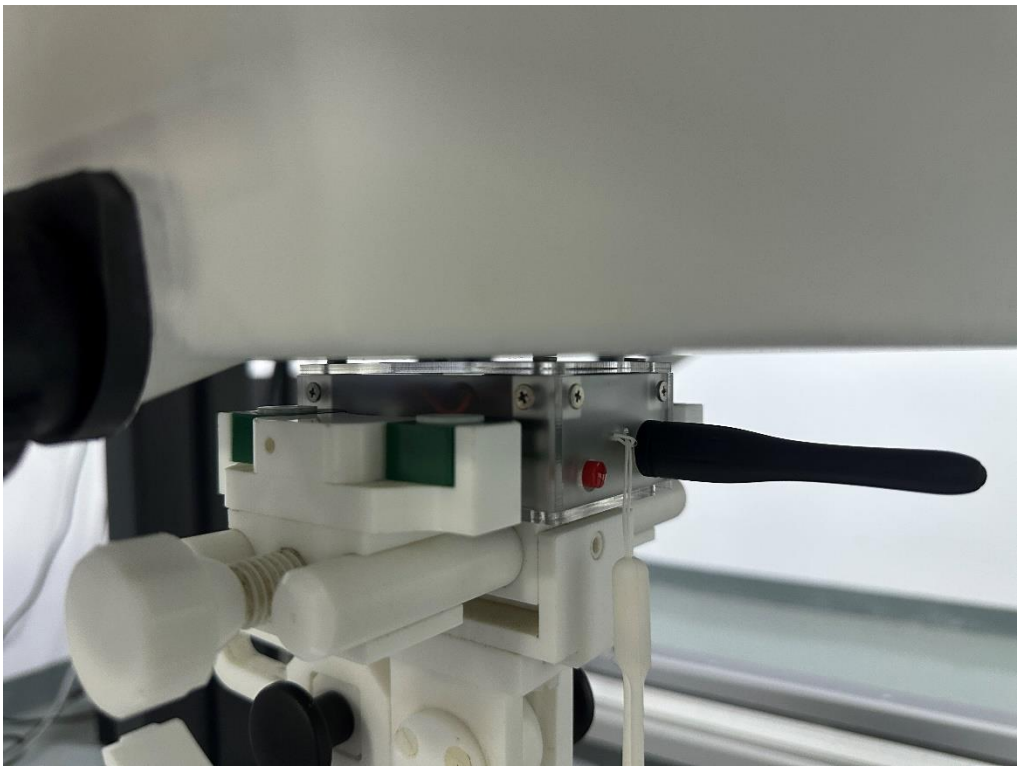


11.2 Setup Photos

Face up (separation distance is 25mm)



Back Touch (separation distance 0mm)



12. SAR Result Summary

12.1 Body-worn SAR

Model	Test Position	Freq.	SAR (1g) (W/kg) with 100% Duty cycle (W/kg)	SAR (1g) (W/kg) with 50% Duty cycle (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaling Factor	Scaled SAR (W/Kg)	Meas. No.
FM	Face Up	462.600	0.823	0.412	-0.26	30.00	29.51	1.119	**0.460**	**1**
	Back Touch	462.600	2.364	1.182	-3.70	30.00	29.51	1.119	**1.323**	**2**
	Back Touch	462.625	2.128	1.064	2.32	30.00	29.49	1.126	1.198	/
	Back Touch	462.650	2.063	1.032	0.86	30.00	29.48	1.128	1.164	/

Note:
1. During the test, EUT with 100% duty cycle.
2. Per KDB 447498 D01, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. Scaled SAR(W/kg) = Measured SAR(W/kg) *Tune-up Scaling Factor

12.2 Repeated SAR

Model	Test Position	Freq.	SAR (1g) (W/kg) with 100% Duty cycle (W/kg)	SAR (1g) (W/kg) with 50% Duty cycle (W/kg)	Power Drift (%)	Max. Turn-up Power (dBm)	Meas. Output Power (dBm)	Scaling Factor	Scaled SAR (W/Kg)
FM	Back Touch	462.600	2.333	1.166	-3.88	30.00	29.51	1.119	1.305
	Back Touch	462.625	2.113	1.056	-3.36	30.00	29.49	1.126	1.189
	Back Touch	462.650	2.000	1.000	1.20	30.00	29.48	1.128	1.128

12.3 Repeated SAR measurement

Mode	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio
FM	Back Touch	462.6	2.364	2.333	1.013
	Back Touch	462.625	2.128	2.113	1.007
	Back Touch	462.65	2.063	2.000	1.032

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

13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
450MHz Dipole	MVG	DIP0G450	SN 06/22 DIP0G750-638	2025.05.20	2028.05.19
E-Field Probe	MVG	SSE2	2225-EPGO-450	2025.06.06	2026.06.05
Liquid Calibration Kit	MVG	OCPG 87	SN 06/22 OCPG87	2025.06.02	2026.06.01
Antenna	MVG	ANTA 73	SN 06/22 ANTA 73	N/A	N/A
Ellipsoid Phantom	MVG	ELLI 51	SN 06/22 ELLI 51	N/A	N/A
Phantom	MVG	SAM 148	SN 06/22 SAM148	N/A	N/A
Phone holder	MVG	MSH 117	SN 06/22 MSH 117	N/A	N/A
Laptop positioner	MVG	LSH 36	SN 06/22 LSH 38	N/A	N/A
Directional coupler	SHW	SHWDCP	202203280013	N/A	N/A
Network Analyzer	ZVL	R&S	116184	2025.03.05	2026.03.04
Multi Meter	DMM6500	Keithley	4527252	2025.03.06	2026.03.05
Signal Generator	Keysight	N5182B	MY59100717	2025.03.05	2026.03.04
Wireless Communication Test Set	R&S	CMW500	137737	2025.03.05	2026.03.04
Power Sensor	R&S	Z11	116184	2025.03.05	2026.03.04
Electronic Temperature hygrometer	N/A	ST-W2318	N/A	2025.03.05	2026.03.04
Temperature hygrometer	N/A	TP101	N/A	2025.03.05	2026.03.04

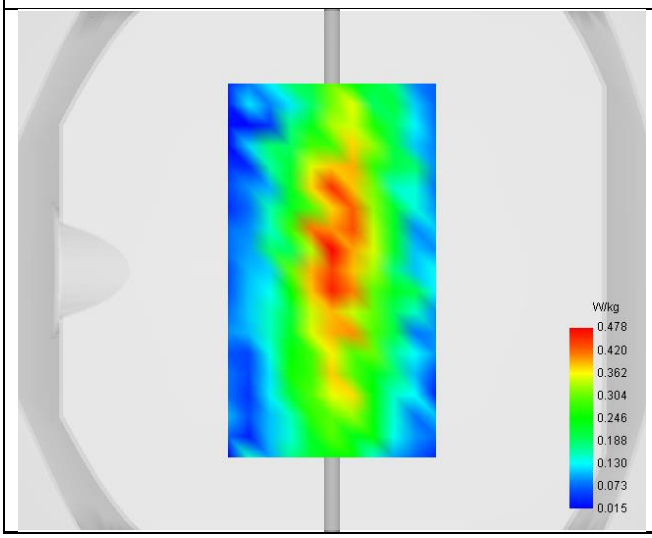
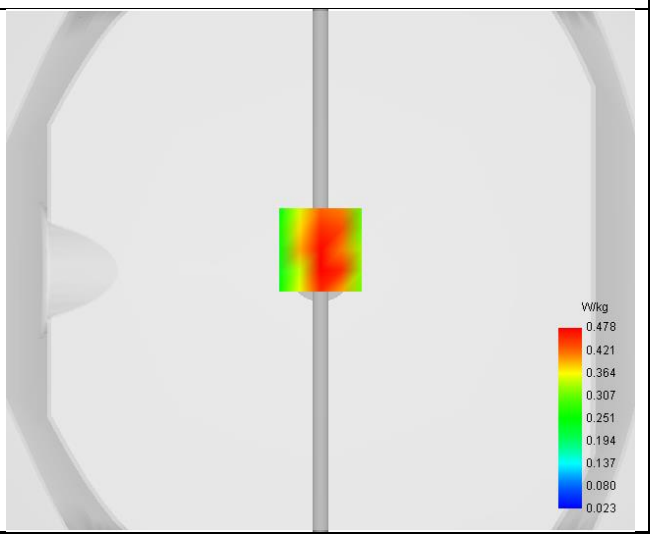
Appendix A. System Validation Plots

System Performance Check Data (450MHz)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
Date of measurement: 2025-08-27

Experimental conditions.

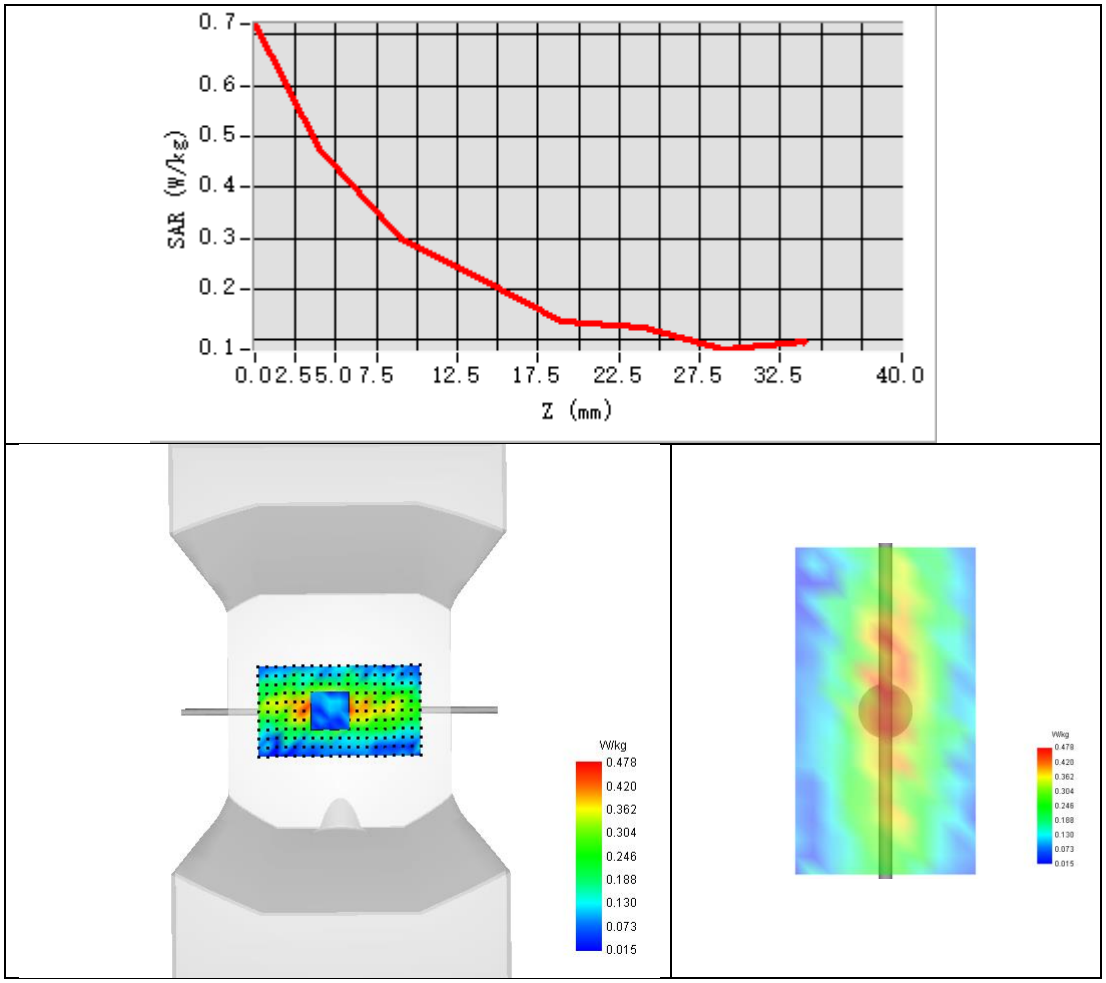
Phantom	Validation plane
Device Position	Dipole
Band	CW450
Channels	Middle
Signal	CW
Frequency (MHz)	450.000
Relative permittivity	43.79
Conductivity (S/m)	0.89
Probe	2225-EPGO-450
ConvF	0.95
Crest factor:	1:1

SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=8.00 ; SAR Peak: 0.84 W/kg

SAR 10g (W/Kg)	0.307
SAR 1g (W/Kg)	0.417

Z Axis Scan

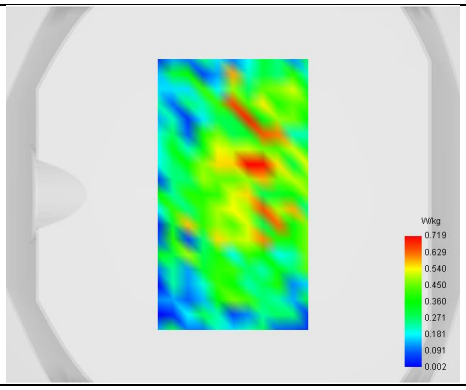
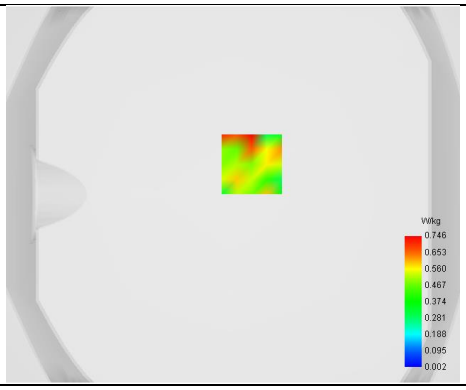
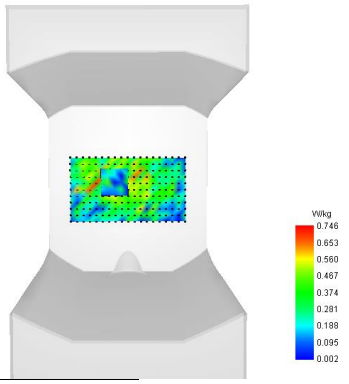
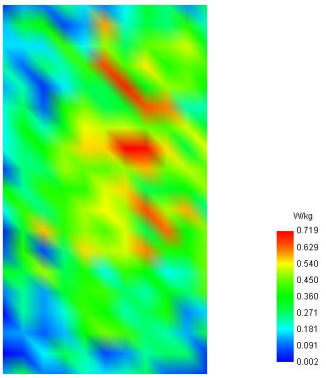

0.7
0.6
0.5
0.4
0.3
0.2
0.1
SAR (W/kg)
0.0 2.5 5.0 7.5 12.5 17.5 22.5 27.5 32.5 40.0
Z (mm)
W/kg
0.478
0.420
0.362
0.304
0.246
0.188
0.130
0.073
0.015

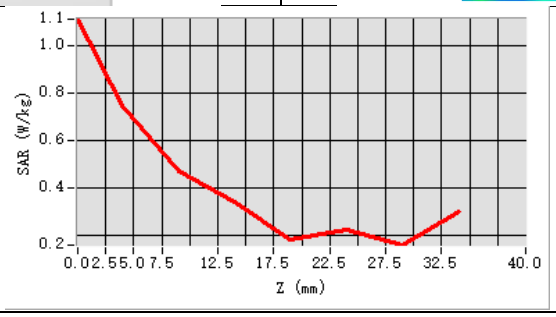
Appendix B. SAR Test Plots

Plot 1:

Test Date	2025-08-27
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Face up
Band	450MHz
Signal	--
Frequency	462.6000
SAR 10g (W/Kg)	0.376
SAR 1g (W/Kg)	0.823
ConvF	0.95
Relative permittivity	43.79
Conductivity (S/m)	0.89

Maximum location: X=10.00, Y=16.00 ; SAR Peak: 1.68 W/kg

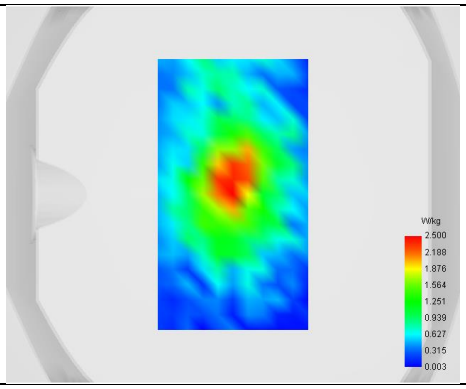
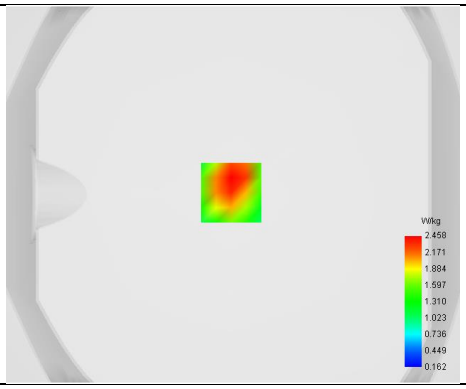
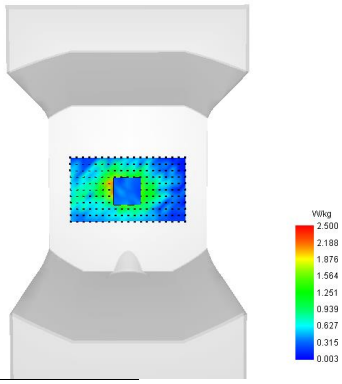
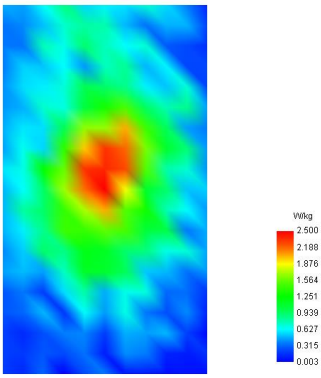
SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	

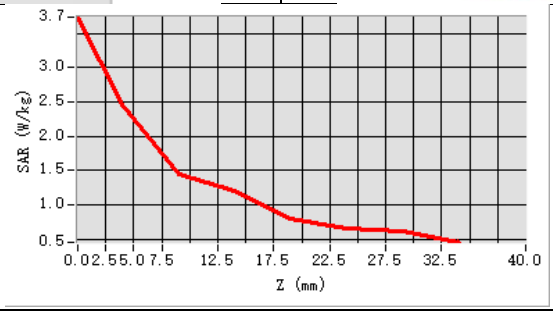


Plot 2:

Test Date	2025-08-27
Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back Touch
Band	450MHz
Signal	--
Frequency	462.6000
SAR 10g (W/Kg)	1.440
SAR 1g (W/Kg)	2.364
ConvF	0.95
Relative permittivity	43.79
Conductivity (S/m)	0.89

Maximum location: X=-1.00, Y=1.00 ; SAR Peak: 3.66 W/kg

SURFACE SAR	VOLUME SAR
	
3D screen shot	**Hot spot position**
	



Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※