

FCC SAR EVALUATION REPORT

**In accordance with the requirements of
FCC 47 CFR Part 2(2.1093) and
IEEE Std 1528-2013**

Product Name: Tablet

Model No.: S26ultra

Serial Model: See page 8

Brand Name: N/A

Report No.: AiTSZ-260224002FW7

FCC ID: 2BMLZ-S26ULTRA

Prepared for

HENGXING WEIYE TECHNOLOGY CO., LIMITED

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TEST RESULT CERTIFICATION

Applicant's name: **HENGXING WEIYE TECHNOLOGY CO., LIMITED**
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Manufacturer's Name: **SHENZHEN TENG HAO DA INDUSTRIAL Co.,Ltd**
Address: Floor 5 No.4 Buliding LeZhuJiao Industrial Park Hangcheng
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Product description

Product name: Tablet
Trademark: N/A
Model and/or type reference ...: S26ultra
Serial Model.....: See page 8
FCC 47 CFR Part 2(2.1093)

Standards: IEEE Std 1528-2013
Published RF exposure KDB procedures

This device described above has been tested by Guangdong Asia Hongke Test Technology Limited. In accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 and KDB 865664 D01. Testing has shown that this device is capable of compliance with localized specific absorption rate (SAR) specified in FCC 47 CFR Part 2(2.1093). 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.

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Test Sample Number: AiTSZ-260224002-1

Date of Test

Date (s) of performance of tests: Feb. 24, 2026 ~ Mar. 03, 2026
Date of Issue.....: Apr. 25, 2026
Test Result: **Pass**

Reviewed by:

ken zou

Ken Zou

Approved by:

Jack Li

Jack Li



※ ※ Revision History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	Apr. 25, 2026	Jack Li

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1. General Information

1.1. RF exposure limits

(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.

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).

General Population/Uncontrolled Environments:

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

NOTE
TRUNK LIMIT
1.6 W/kg
APPLIED TO THIS EUT

1.2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing as follows.

Band	Max SAR Value Reported(W/kg)	
	1-g Body (Separation distance of 0mm)	Max SAR Summation
GSM850	0.446	Body: 1.119
GSM1900	0.723	
WCDMA Band II	0.542	
WCDMA Band V	0.323	
LTE band 2	0.514	
LTE band 17	0.360	
LTE band 66	0.581	
2.4GHz WLAN	0.149	
5.2GHz WLAN	0.387	
5.8GHz WLAN	0.396	
Bluetooth	0.149	

NOTE: The Max SAR Summation is calculated based on the same configuration and test position.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2(2.1093), and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 & KDB 865664 D01.

1.3. EUT Description

Device Information			
Product Name	Tablet		
Model Name	S26ultra		
Family Model	X17Ultra, X9+, X9 Ultra, S27Ultra, K26 ultra, X26Ultra, X26MAX ,Tab S10 FE+, Tab S11, Tab S11Ultra, Tab S12Ultra, i17 Pro, i17 Pro Max, Air1, Air11pro, Air13, Air13mini, Air14pro		
Model Difference	The only difference between the these models is the appearance of color and The arrangement of the cameras is different, resulting in different shapes of the camera.		
Device Phase	Identical Prototype		
Exposure Category	General population / Uncontrolled environment		
Antenna Type	PIFA Antenna		
Battery Information	DC 3.8V 5000mAh 19Wh by Rechargeable Li-ion Battery		
Hardware version	N/A		
Software version	N/A		
Device Operating Configurations			
Supporting Mode(s)	GSM 850/1900, WCDMA Band 2/5, LTE Band 2/17/66, WLAN 2.4G/5G, Bluetooth		
Test Modulation	GSM(GMSK/8PSK), WCDMA(QPSK), LTE(QPSK/16-QAM), WLAN(DSSS/OFDM), Bluetooth(GFSK, $\pi/4$ DQPSK, 8DPSK)		
Device Class	B		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM 850	824-849	869-894
	GSM 1900	1850-1910	1930-1990
	WCDMA Band 2	1850-1910	1930-1990
	WCDMA Band 5	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 17	704-716	734-746
	LTE Band 66	1710-1780	2110-2200
	WLAN 2.4G	2412-2462	
	WLAN 5.2G	5180-5240	
	WLAN 5.8G	5745-5825	
	Bluetooth	2402-2480	
	GPRS Multislot Class(12)	Max Number of Timeslots in Uplink	
Max Number of Timeslots in Downlink		4	
Max Total Timeslot		5	
EGPRS Multislot Class(12)	Max Number of Timeslots in Uplink		4
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
Power Class	4, tested with power level 5(GSM 850)		

	1, tested with power level 0(GSM 1900)
	3, tested with power control "all 1"(WCDMA Band 2)
	3, tested with power control "all 1"(WCDMA Band 5)
	3, tested with power control all Max.(LTE Band 2)
	3, tested with power control all Max.(LTE Band 17)
	3, tested with power control all Max.(LTE Band 66)

1.4. Test specification(s)

FCC 47 CFR Part 2(2.1093)
IEEE Std 1528-2013
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02 RF Exposure Reporting v01r02
KDB 447498 D01 General RF Exposure Guidance v06
KDB 248227 D01 802.11 Wi-Fi SAR v02r02
KDB 941225 D01 3G SAR Procedures v03r01
KDB 941225 D05 SAR for LTE Devices v02r05
KDB 616217 D04 SAR for laptop and tablets v01r02

1.5. Ambient Condition

Ambient temperature	20°C – 24°C
Relative Humidity	30% – 70%

1.6. Test Facility

Test Laboratory:

Guangdong Asia Hongke Test Technology Limited

B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The test facility is recognized, certified or accredited by the following organizations:

FCC-Registration No.: 251906 Designation Number: CN1376

Guangdong Asia Hongke Test Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 31737 CAB identifier: CN0165

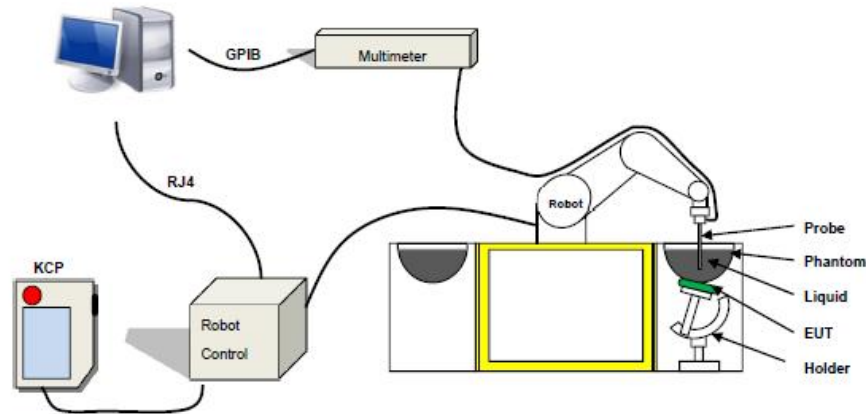
The 3m Semi-anechoic chamber of Guangdong Asia Hongke Test Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 31737

A2LA-Lab Cert. No.: 7133.01

Guangdong Asia Hongke Test Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

2. SAR Measurement System

2.1. SATIMO SAR Measurement Set-up Diagram



These measurements were performed with the automated near-field scanning system OPENSAR from SATIMO. The system is based on a high precision robot (working range: 901 mm), which positions the probes with a positional repeatability of better than ± 0.03 mm. The SAR measurements were conducted with dosimetric probe (manufactured by SATIMO), designed in the classical triangular configuration and optimized for dosimetric evaluation.

The first step of the field measurement is the evaluation of the voltages induced on the probe by the device under test. Probe diode detectors are nonlinear. Below the diode compression point, the output voltage is proportional to the square of the applied E-field; above the diode compression point, it is linear to the applied E-field. The compression point depends on the diode, and a calibration procedure is necessary for each sensor of the probe.

The Keithley multimeter reads the voltage of each sensor and send these three values to the PC. The corresponding E field value is calculated using the probe calibration factors, which are stored in the working directory. This evaluation includes linearization of the diode characteristics. The field calculation is done separately for each sensor. Each component of the E field is displayed on the "Dipole Area Scan Interface" and the total E field is displayed on the "3D Interface"

2.2. Robot

The SATIMO SAR system uses the high precision robots from KUKA. For the 6-axis controller system, the robot controller version (KUKA) from KUKA is used. The KUKA robot series have many features that are important for our application:



- High precision (repeatability ± 0.03 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

2.3. Probe

This E-field detection probe is composed of three orthogonal dipoles linked to special Schottky diodes with low detection thresholds. The probe allows the measurement of electric fields in liquids such as the one defined in the IEEE and CENELEC standards.

For the measurements the Specific Dosimetric E-Field Probe EPGO 0523-403 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°

2.3.1. E-Field Probe Calibration

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy shall be evaluated and within $\pm 0.25\text{dB}$. The sensitivity parameters (Norm X, Norm Y, and Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe are tested. The calibration data can be referred to appendix D of this report.

2.4. Phantoms

For the measurements the Elliptical 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. The Elliptical phantom has elliptic shape. The Elliptical phantom provide one reference point on its top part to position the probe tip correctly. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



Elliptical

2.5. Technical Data

Overall thickness	2±0.2mm
Internal Dimensions (Bottom part)	600 mm (L) x 400 mm (W) 170 mm (H)
External Dimensions	1000 mm (L) x 500 mm (W) x 280 mm (H)
Maximum volume	35 L
Material	Fiberglass based
Relative permittivity	3.4
Loss tangent	0.02

The test, based on ultrasonic system, allows measuring the thickness with an accuracy of 10 µm.

2.6. Device Holder



The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface.

Material properties: the positioning system is made of PETP. This material offers a low permittivity of 3.2 and low loss, with a loss tangent of 0.005 to minimize the influence of the DUT on measurement results.

Mechanical properties: 2 rows of rail to cover easily the surface of the phantom. The fixing plate is perfectly adapted to larger devices, such as a PC which can be positioned in all configurations.

Accuracy and precision: graduated scale available on each axis. The DUT is fixed with a specific adaptable grip.

2.7. Test Equipment List

This table gives a complete overview of the SAR measurement equipment.

Devices used during the test described are marked ☒

	Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
					Last Cal.	Due Date
☒	MVG	E FIELD PROBE	SSE2	EPGO 0523-403	Sep. 09, 2025	Sep. 08, 2026
☒	MVG	750 MHz Dipole	SID750	SN 03/15 DIP 0G750-355	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	835 MHz Dipole	SID835	SN 03/15 DIP 0G835-347	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	900 MHz Dipole	SID900	SN 03/15 DI P 0G900-348	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	1800 MHz Dipole	SID1800	SN 03/15 DIP 1G800-349	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	1900 MHz Dipole	SID1900	SN 03/15 DIP 1G900-350	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	2000 MHz Dipole	SID2000	SN 03/15 DIP 2G000-351	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	2300 MHz Dipole	SID2300	SN 03/16 DIP 2G300-358	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	2450 MHz Dipole	SID2450	SN 03/15 DIP 2G450-352	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	2600 MHz Dipole	SID2600	SN 03/15 DIP 2G600-356	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	5000 MHz Dipole	SWG5500	SN 13/14 WGA 33	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	Liquid measurement Kit	SCLMP	SN 21/15 OCPG 72	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	MVG	Power Amplifier	N.A	AMPLISAR_28/14_003	NCR	NCR
☒	KEITHLEY	Millivoltmeter	2000	4072790	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026

					2025	2026
☒	R&S	Wideband radio communication tester	CMW500	116581	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	HP	Network Analyzer	8753D	3410J01136	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	PSG Analog Signal Generator	E8257D	MY51110112	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	Power meter	E4419B	MY45102538	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	Power meter	E4419B	MY45102140	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	Power meter	E4419B	MY45102215	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	JFW	attenuator	50FPE-006	4360846-494-4	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025

					2024	2025
					Jun. 30, 2025	Jun. 29, 2026
☒	JFW	attenuator	50FPE-006	4360846-492-1	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	JFW	attenuator	50FPE-006	4360846-490-6	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	Power sensor	E9301A	MY41495644	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	Agilent	Power sensor	E9301A	US39212148	Jul. 02, 2023	Jul. 01, 2024
					Jul. 01, 2024	Jun. 30, 2025
					Jun. 30, 2025	Jun. 29, 2026
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Jul. 18, 2021	Jul. 17, 2024
					Jul. 17, 2024	Jul. 16, 2027
☒	N/A	Thermometer	N/A	LES-085	Sep. 23, 2024	Sep. 22, 2027
☒	MVG	Elliptical Phantom	SSM2	SN 20/11 ELLI20	NCR	NCR
☒	MVG	Device Holder	SMPPD	SN 24/11 LSH15	NCR	NCR

3. SAR Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For Wi-Fi/BT power measurement, use engineering software to configure EUT Wi-Fi/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band.
- (d) Connect EUT RF port through RF cable to the power meter, and measure Wi-Fi/BT output power.

<SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT Wi-Fi/BT continuously transmission, at maximum RF power, in the highest power channel.
- (b) Place the EUT in the positions as Appendix A demonstrates.
- (c) Set scan area, grid size and other setting on the OPENSAR software.
- (d) Measure SAR results for the highest power channel on each testing position.
- (e) Find out the largest SAR result on these testing positions of each band.
- (f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg.

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

3.1. Power Reference

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

3.2. Area scan & Zoom scan

The area scan is a 2D scan to find the hot spot location on the DUT. The zoom scan is a 3D scan

above the hot spot to calculate the 1g and 10g SAR value.

Measurement of the SAR distribution with a grid of 8 to 16 mm * 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.

From the scanned SAR distribution, identify the position of the maximum SAR value, in addition identify the positions of any local maxima with SAR values within 2 dB of the maximum value that will not be within the zoom scan of other peaks; additional peaks shall be measured only when the primary peak is within 2 dB of the SAR compliance limit (e.g., 1 W/kg for 1,6 W/kg 1 g limit, or 1,26 W/kg for 2 W/kg, 10 g limit).

Area scan & Zoom scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

			$\leq 3\text{ GHz}$	$> 3\text{ GHz}$
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.	
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 <i>reported</i> 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.				

3.3. Description of interpolation/extrapolation scheme

The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimise measurements errors, but the highest local SAR will occur at the surface of the phantom.

An extrapolation is used to determine this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1 mm step.

The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10 grams and 1 gram requires a very fine resolution in the three dimensional scanned data array.

3.4. Volumetric Scan

The volumetric scan consists to a full 3D scan over a specific area. This 3D scan is useful for multi Tx SAR measurement. Indeed, it is possible with OpenSAR to add, point by point, several volumetric scan to calculate the SAR value of the combined measurement as it is defined in the standard IEEE1528 and IEC62209.

3.5. Power Drift

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In OpenSAR measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in V/m. If the power drifts more than $\pm 5\%$, the SAR will be retested.

4. System Verification Procedure

4.1. Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% of weight)	Head Tissue									
	750	835	900	1800	1900	2000	2450	2600	5200	5800
Frequency Band (MHz)	750	835	900	1800	1900	2000	2450	2600	5200	5800
Water	34.40	34.40	34.40	55.36	55.36	57.87	57.87	57.87	65.53	65.53
NaCl	0.79	0.79	0.79	0.35	0.35	0.16	0.16	0.16	0.00	0.00
1,2-Propanediol	64.81	64.81	64.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	30.45	30.45	19.97	19.97	19.97	24.24	24.24
DGBE	0.00	0.00	0.00	13.84	13.84	22.00	22.00	22.00	10.23	10.23

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid depth from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm.



4.1.1. Tissue Dielectric Parameter Check Results

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within $\pm 5\%$ of the target values.

Tissue Type	Measured Frequency (MHz)	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
		ϵ_r ($\pm 5\%$)	σ (S/m) ($\pm 5\%$)	ϵ_r	σ (S/m)		
Head 750	709	42.12 (40.01~44.22)	0.89 (0.84~0.93)	41.41	0.86	21.1 °C	Feb. 24, 2026
Head 750	710	42.11 (40.01~44.22)	0.89 (0.84~0.93)	42.12	0.92	21.1 °C	Feb. 24, 2026
Head 750	711	42.11 (40.00~44.21)	0.89 (0.84~0.93)	41.46	0.86	21.1 °C	Feb. 24, 2026
Head 750	750	41.96 (39.86~44.06)	0.89 (0.85~0.93)	41.90	0.89	21.1 °C	Feb. 24, 2026
Head 850	824.2	41.55 (39.47~43.63)	0.90 (0.85~0.94)	41.16	0.87	21.0 °C	Feb. 25, 2026
Head 850	826.4	41.54 (39.46~43.62)	0.90 (0.85~0.94)	41.17	0.87	21.0 °C	Feb. 25, 2026
Head 850	835	41.50 (39.43~43.58)	0.90 (0.86~0.95)	40.94	0.90	21.0 °C	Feb. 25, 2026
Head 850	836.4	41.50 (39.43~43.58)	0.90 (0.85~0.94)	41.50	0.90	21.0 °C	Feb. 25, 2026
Head 850	846.6	41.50 (39.43~43.58)	0.91 (0.86~0.95)	40.83	0.90	21.0 °C	Feb. 25, 2026
Head 850	848.8	41.50 (39.43~43.58)	0.91 (0.86~0.95)	40.80	0.90	21.0 °C	Feb. 25, 2026
Head 1800	1720	40.11 (38.11~42.12)	1.35 (1.29~1.42)	39.64	1.31	21.6 °C	Feb. 26, 2026
Head 1800	1745	40.08 (38.07~42.08)	1.37 (1.30~1.44)	40.11	1.37	21.6 °C	Feb. 26, 2026
Head 1800	1770	40.04 (38.04~42.05)	1.38 (1.31~1.45)	39.51	1.38	21.6 °C	Feb. 26, 2026
Head 1800	1800	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.52	1.40	21.6 °C	Feb. 26, 2026
Head 1900	1850.2	40.00 (38.00~42.00)	1.40 (1.33~1.47)	39.00	1.41	21.2 °C	Feb. 27, 2026
Head 1900	1852.4	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.97	1.41	21.2 °C	Feb. 27, 2026

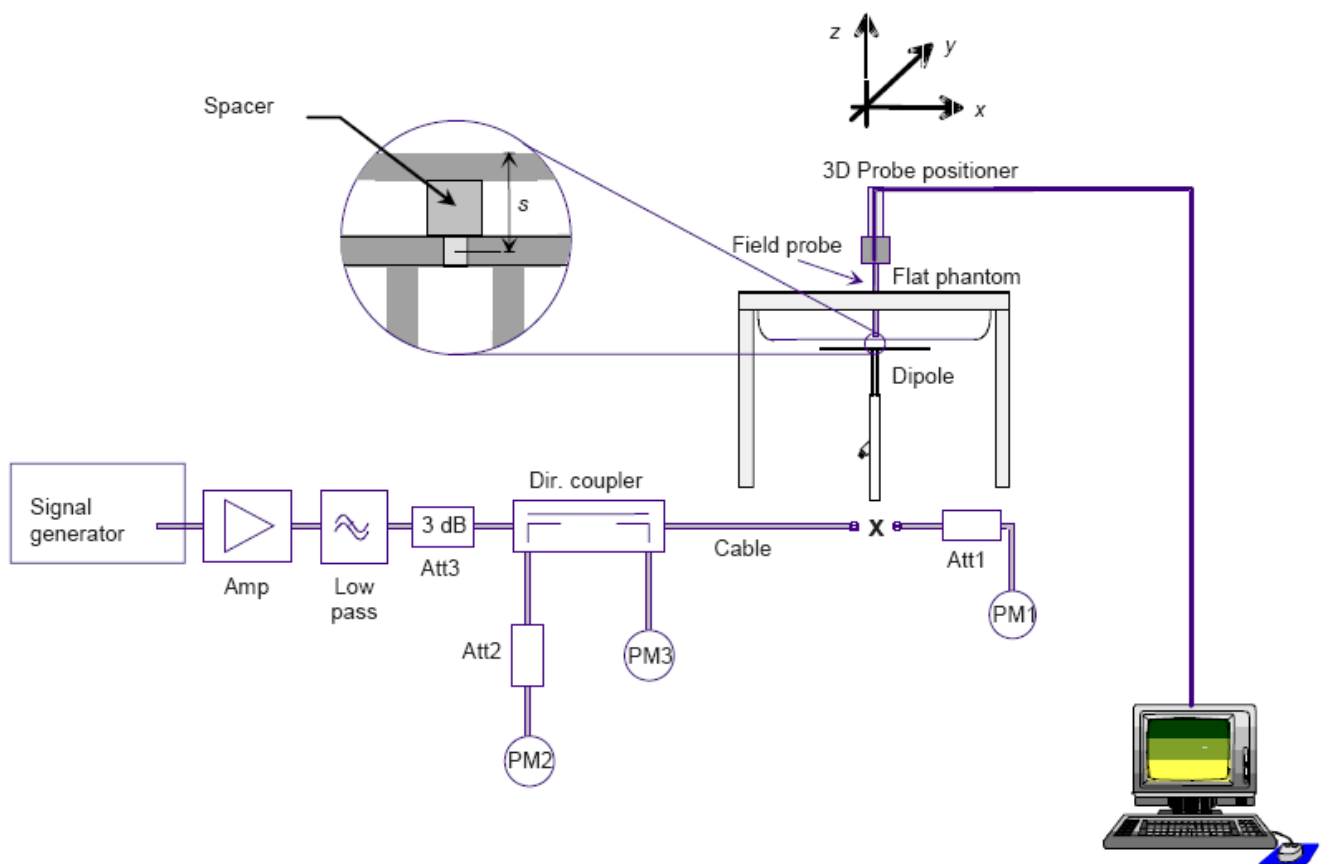
Head 1900	1860	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.94	1.41	21.2 °C	Feb. 27, 2026
Head 1900	1880	40.00 (38.00~42.00)	1.40 (1.33~1.47)	40.00	1.40	21.2 °C	Feb. 27, 2026
Head 1900	1900	40.00 (38.00~42.00)	1.40 (1.33~1.47)	41.27	1.34	21.2 °C	Feb. 27, 2026
Head 1900	1907.6	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.73	1.43	21.2 °C	Feb. 27, 2026
Head 1900	1909.8	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.72	1.44	21.2 °C	Feb. 27, 2026
Head 2450	2412	39.27 (37.30~41.23)	1.77 (1.68~1.85)	39.23	1.77	21.3 °C	Feb. 28, 2026
Head 2450	2437	39.22 (37.26~41.18)	1.79 (1.70~1.88)	39.23	1.79	21.3 °C	Feb. 28, 2026
Head 2450	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	41.04	1.80	21.3 °C	Feb. 28, 2026
Head 2450	2462	39.18 (37.22~41.14)	1.81 (1.72~1.90)	39.23	1.81	21.3 °C	Feb. 28, 2026
Head 2450	2402	39.28 (37.32~41.25)	1.76 (1.67~1.85)	39.20	1.76	21.3 °C	Feb. 28, 2026
Head 2450	2441	39.22 (37.25~41.18)	1.79 (1.70~1.88)	39.30	1.74	21.3 °C	Feb. 28, 2026
Head 2450	2480	39.16 (37.20~41.12)	1.83 (1.74~1.92)	39.20	1.82	21.3 °C	Feb. 28, 2026
Head 5200	5180	36.02 (34.22~37.82)	4.64 (4.41~4.87)	36.00	4.64	21.4 °C	Mar. 02, 2026
Head 5200	5200	36.00 (34.20~37.80)	4.66 (4.43~4.89)	36.00	4.66	21.4 °C	Mar. 02, 2026
Head 5200	5240	35.96 (34.16~37.76)	4.70 (4.47~4.94)	34.47	4.55	21.4 °C	Mar. 02, 2026
Head 5800	5745	35.36 (33.59~37.12)	5.22 (4.95~5.48)	35.31	5.22	21.5 °C	Mar. 03, 2026
Head 5800	5785	35.32 (33.55~37.08)	5.26 (4.99~5.52)	35.32	5.26	21.5 °C	Mar. 03, 2026
Head 5800	5800	35.30 (33.54~37.07)	5.27 (5.01~5.53)	35.30	5.27	21.5 °C	Mar. 03, 2026
Head 5800	5825	35.28 (33.51~37.04)	5.30 (5.03~5.56)	35.28	5.30	21.5 °C	Mar. 03, 2026

NOTE: The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.

4.2. System Verification Procedure

The system verification is performed for verifying the accuracy of the complete measurement system and performance of the software. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 100mW (below 5GHz) or 25mW (above 5GHz). To adjust this power a power meter is used. The power sensor is connected to the cable before the system verification to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the system verification to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test (result on plot).

The system verification is shown as below picture:



4.2.1. System Verification Results

Comparing to the original SAR value provided by SATIMO, the verification data should be within its specification of $\pm 10\%$. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance verification can meet the variation criterion and the plots can be referred to Appendix B of this report.

System Verification	Power fed to reference dipole (mW)	Measured SAR Value		Measured SAR (Normalized to 1W)		Target SAR Value (1W)		Deviation (%)		Test Date
		1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)	
750MHz	100	0.930	0.621	9.30	6.21	8.60	5.78	8.14%	7.44%	Feb. 24, 2026
835MHz	100	1.011	0.612	10.11	6.12	9.40	6.28	7.55%	-2.55%	Feb. 25, 2026
1800MHz	100	3.832	2.025	38.32	20.25	37.06	20.01	3.40%	1.20%	Feb. 26, 2026
1900MHz	100	4.154	2.153	41.54	21.53	39.69	20.92	4.66%	2.92%	Feb. 27, 2026
2450MHz	100	5.184	2.359	51.84	23.59	50.05	23.80	3.58%	-0.88%	Feb. 28, 2026
5200MHz	25	3.678	1.303	147.12	52.12	162.59	56.21	-9.51%	-7.28%	Mar. 02, 2026
5800MHz	25	4.106	1.406	164.24	56.24	182.2	61.32	-9.86%	-8.28%	Mar. 03, 2026

5. SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.

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 ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

6. SAR Measurement Uncertainty

Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

7. RF Exposure Positions

7.1. Tablet PC host platform exposure conditions

Refer to KDB616217 D04, when the modular approach is used, transmitters and modules must be initially tested for standalone operations in generic host conditions according to the following minimum test separation distance and antenna installation requirements for incorporation in the tablet platform. The separation distance required for incorporation in qualified hosts is described in KDB 447498; item 5) of section 4.1 and item 1) of section 5.2.2 etc.

- ≤ 5 mm between the antenna and user for both back surface and edge exposure conditions
- the antennas used by the host must have been tested for equipment approval or qualify for SAR test exclusion
- the antenna polarization, physical orientation, rotation and installation configurations used by the host must have been tested for compliance or qualify for test exclusion
- when the *SAR Test Exclusion Threshold* in KDB 447498 applies, a *test separation distance* of 5 mm is required to determine test exclusion for the tablet platform

The antennas embedded in tablets are typically ≤ 5 mm from the outer housing. The required antenna to user test separation distance is a “not to exceed test” distance required to apply the modular approach. Instead of the typical zero gap tablet edge test requirement between the edge of a tablet and the user, when an antenna has been tested at ≤ 5 mm according to the modular approach it can be incorporated into tablets with at least twice the tested distance from the outer housing of the tablet edge; otherwise, the tablet edge zero gap test requirement applies. When the dedicated host approach is applied, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom.

8. RF Output Power

8.1. GSM Conducted Power

Band GSM850	Burst-Averaged output Power (dBm)				Factor	Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	128	189	251		Tune-up	128	189	251
Frequency (MHz)		824.2	836.4	848.8			824.2	836.4	848.8
GSM (GMSK)	33.50	33.01	33.13	33.16	-9.03	24.47	23.98	24.10	24.13
GPRS(GMSK,1 Tx slot)	33.50	33.01	33.09	33.09	-9.03	24.47	23.98	24.06	24.06
GPRS(GMSK,2 Tx slot)	32.50	32.22	32.32	32.32	-6.02	26.48	26.20	26.30	26.30
GPRS(GMSK,3 Tx slot)	31.00	30.39	30.51	30.56	-4.26	26.74	26.13	26.25	26.30
GPRS(GMSK,4 Tx slot)	28.50	28.23	28.42	28.46	-3.01	25.49	25.22	25.41	25.45
EGPRS(8PSK,1 Tx slot)	27.00	27.00	26.92	26.94	-9.03	17.97	17.97	17.89	17.91
EGPRS(8PSK,2 Tx slot)	26.50	26.06	25.88	25.72	-6.02	20.48	20.04	19.86	19.70
EGPRS(8PSK,3 Tx slot)	24.00	23.76	23.69	23.45	-4.26	19.74	19.50	19.43	19.19
EGPRS(8PSK,4 Tx slot)	22.00	21.79	21.56	21.31	-3.01	18.99	18.78	18.55	18.30

Band GSM1900	Burst-Averaged output Power (dBm)				Factor	Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	512	661	810		Tune-up	512	661	810
Frequency (MHz)		1850.2	1880	1909.8			1850.2	1880	1909.8
GSM (GMSK)	30.00	29.79	29.90	29.58	-9.03	20.97	20.76	20.87	20.55
GPRS(GMSK,1 Tx slot)	30.00	29.80	29.87	29.53	-9.03	20.97	20.77	20.84	20.50
GPRS(GMSK,2 Tx slot)	29.50	28.93	29.11	28.87	-6.02	23.48	22.91	23.09	22.85
GPRS(GMSK,3 Tx slot)	27.00	26.51	26.80	26.87	-4.26	22.74	22.25	22.54	22.61
GPRS(GMSK,4 Tx slot)	26.00	25.36	25.72	25.82	-3.01	22.99	22.35	22.71	22.81
EGPRS(8PSK,1 Tx slot)	25.00	25.00	24.99	24.81	-9.03	15.97	15.97	15.96	15.78
EGPRS(8PSK,2 Tx slot)	24.00	23.85	23.77	23.49	-6.02	17.98	17.83	17.75	17.47
EGPRS(8PSK,3 Tx slot)	22.00	21.80	21.72	21.50	-4.26	17.74	17.54	17.46	17.24
EGPRS(8PSK,4 Tx slot)	22.00	21.93	20.33	20.01	-3.01	18.99	18.92	17.32	17.00

Note:

Remark: GPRS, CS4 coding scheme. EGPRS, MCS5 coding scheme.

Multi-Slot Class 8, Support Max 4 downlink, 1 uplink, 5 working link

Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link

Multi-Slot Class 12, Support Max 4 downlink, 4 uplink, 5 working link

SAR testing was performed on the maximum frame-averaged power mode.

The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum

Burst-averaged power based on time slots. The calculated method is shown as below:

Frame-averaged power = Burst averaged power (1 TX Slot) – 9.03 dB

Frame-averaged power = Burst averaged power (2 TX Slots) – 6.02 dB

Frame-averaged power = Burst averaged power (3 TX Slots) - 4.26 dB

Frame-averaged power = Burst averaged power (4 TX Slots) – 3.01 dB

8.2. WCDMA Conducted Power

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

1. Release99 Setup Configuration

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm1
	β_c/β_d	8/15

2. HSDPA Setup Configuration

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 1			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	12/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	$A_{hs} = \beta_{hs}/\beta_c$	30/15			

3. HSUPA Setup Configuration

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm1				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	15/15
	β_{ec}	209/225	12/15	30/15	2/15	24/15
	β_c/β_d	11/15	6/15	15/9	2/15	15/15
	β_{hs}	22/15	12/15	30/15	4/15	30/15
	β_{ed}	1309/225	94/75	47/15 47/15	56/75	134/15
	CM (dB)	1.0	3.0	2.0	3.0	1.0
HSDPA Specific Settings	D_{ACK}	8				
	D_{NAK}	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				

HSUPA Specific Settings	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = β_{hs}/β_c	30/15				
	D E-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9

4. WCDMA Conducted Power Results

Choose the highest output power mode RMC 12.2Kbps for Band V/II at middle channel to test SAR and determine the worst configuration for further high/low channel test.

WCDMA Band II	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
RMC12.2K	23.50	23.44	23.26	23.29
HSDPA Sub 1	21.50	21.25	21.08	21.06
HSDPA Sub 2	21.50	21.28	21.08	21.07
HSDPA Sub 3	21.50	21.24	21.08	21.04
HSDPA Sub 4	21.50	21.27	21.09	21.06
HSUPA Sub 1	19.50	18.68	18.75	19.03
HSUPA Sub 2	19.00	18.94	18.72	18.51
HSUPA Sub 3	19.00	18.99	18.97	18.99
HSUPA Sub 4	19.50	18.95	18.98	19.02
HSUPA Sub 5	20.00	19.38	19.44	19.53

WCDMA Band V	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	4132	4182	4233
Frequency (MHz)		826.4	836.4	846.6
RMC12.2K	24.50	24.20	24.15	24.22
HSDPA Sub 1	22.00	21.83	21.92	21.91
HSDPA Sub 2	22.00	21.84	21.94	21.94
HSDPA Sub 3	22.00	21.85	21.93	21.92
HSDPA Sub 4	22.00	21.84	21.93	21.90
HSUPA Sub 1	20.00	19.58	19.64	19.63
HSUPA Sub 2	19.50	19.11	19.32	19.31
HSUPA Sub 3	20.00	19.10	19.63	19.35
HSUPA Sub 4	20.00	19.12	19.61	19.36
HSUPA Sub 5	20.00	19.53	19.51	19.50

8.3. LTE Conducted Power

- The following tests were conducted according to the test requirements outlines in 3GPP TS 36.521-1 specification. A summary of these configurations are illustrated below:

Test Parameters for Channel Bandwidths				
	Downlink Configuration	Uplink Configuration		
Ch BW	N/A for Max UE output power testing	Mod'n	RB allocation	
			FDD	TDD
1.4MHz		QPSK	1	1
1.4MHz		QPSK	5	5
3MHz		QPSK	1	1
3MHz		QPSK	4	4
5MHz		QPSK	1	1
5MHz		QPSK	8	8
10MHz		QPSK	1	1
10MHz		QPSK	12	12
15MHz		QPSK	1	1
15MHz		QPSK	16	16
20MHz		QPSK	1	1
20MHz		QPSK	18	18
Note 1:	Test Channel Bandwidths are checked separately for each E-UTRA band, the applicable channel bandwidths are specified in Table 5.4.2.1-1.			
Note 2:	For E-UTRA bands not applied with Note 2 in Table 6.2.2.3-1:			
-	The 1 RB allocation shall be tested at RB#0 for low and mid range, RB #max for high range test frequency.			
-	The RBstart of non-1RB allocation shall be RB #0 for low and mid range, RB# (max +1 - RB allocation) for high range test frequency.			
Note 3:	For E-UTRA bands applied with Note 2 in Table 6.2.2.3-1:			
-	If the test channel bandwidth is larger than 4MHz, then the 1 RB allocation shall be tested at both RB #0 and RB #max.			
-	If the test channel bandwidth is smaller or equal to 4MHz, then the 1 RB allocation shall be tested at RB #0.			
-	If the test channel bandwidth = (FUL_high - FUL_low) specified by the operating band, then only one frequency range shall be tested and the 1 RB allocation shall be tested at			
-	RB #0, RB # $\left\lceil N_{RB}^{UL} / 2 \right\rceil$ and RB #max.			
-	For non-1RB allocation, test frequency is middle range, and the RBstart shall be RB #0.			

2. LTE Conducted Power Results

LTE output list

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18607/1850.7	18900/1880	19193/1909.3
LTE Band 2	1.4MHz	QPSK	1	0	23.50	22.76	23.12	22.68
			1	2	23.50	22.78	22.81	22.66
			1	5	23.50	22.82	22.72	22.69
			3	0	23.50	23.34	23.25	23.30
			3	1	23.50	23.37	23.22	23.32
			3	2	23.50	23.37	23.22	23.33
		16QAM	6	0	22.50	22.32	22.23	22.25
			1	0	22.50	21.97	21.96	21.90
			1	2	22.50	22.02	22.00	21.94
			1	5	22.50	21.98	21.91	21.92
			3	0	22.50	22.24	22.15	22.19
			3	1	22.50	22.26	22.13	22.21
			3	2	22.50	22.24	22.10	22.19
			6	0	21.50	21.24	21.25	21.15
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18615/1851.5	18900/1880	19185/1908.5
LTE Band 2	3MHz	QPSK	1	0	23.00	22.77	22.83	22.69
			1	7	23.00	22.84	22.82	22.81
			1	14	23.00	22.81	22.77	22.78
			8	0	22.50	22.30	22.25	22.23
			8	4	22.50	22.27	22.23	22.22
			8	7	22.50	22.29	22.23	22.22
			15	0	22.50	22.29	22.22	22.25
		16QAM	1	0	22.50	22.03	21.68	21.87
			1	7	22.50	22.04	21.66	21.93
			1	14	22.50	21.95	21.64	21.95
			8	0	21.50	21.34	21.28	21.30
			8	4	21.50	21.32	21.27	21.32
			8	7	21.50	21.34	21.24	21.33
			15	0	21.50	21.22	21.15	21.27
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18625/1852.5	18900/1880	19175/1907.5
LTE Band 2	5MHz	QPSK	1	0	23.00	22.92	22.91	22.82
			1	12	23.00	22.88	22.88	22.88
			1	24	23.00	22.92	22.87	22.96
			12	0	22.50	22.32	22.27	22.19
			12	6	22.50	22.34	22.22	22.25
			12	11	22.50	22.33	22.23	22.27
			25	0	22.50	22.34	22.29	22.26
		16QAM	1	0	22.50	22.05	22.03	21.80
			1	12	22.50	22.03	21.92	21.83
			1	24	22.50	22.08	21.96	21.84
			12	0	21.50	21.33	21.32	21.19

			12	6	21.50	21.36	21.24	21.26
			12	11	21.50	21.35	21.24	21.30
			25	0	21.50	21.30	21.34	21.27
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18650/1855	18900/1880	19150/1905
LTE Band 2	10MHz	QPSK	1	0	23.00	22.79	22.82	22.63
			1	24	23.00	22.85	22.83	22.72
			1	49	23.00	22.81	22.74	22.81
			25	0	22.50	22.30	22.23	22.14
			25	12	22.50	22.32	22.28	22.24
			25	24	22.50	22.35	22.23	22.40
			50	0	22.50	22.32	22.25	22.30
		16QAM	1	0	22.50	22.05	21.70	21.81
			1	24	22.50	22.06	21.69	21.86
			1	49	22.50	22.01	21.63	21.97
			25	0	21.50	21.31	21.28	21.16
			25	12	21.50	21.35	21.33	21.23
			25	24	21.50	21.40	21.26	21.39
			50	0	21.50	21.33	21.23	21.28
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18675/1857.5	18900/1880	19125/1902.5
LTE Band 2	15MHz	QPSK	1	0	23.00	22.70	22.78	22.53
			1	37	23.00	22.80	22.83	22.68
			1	74	23.00	22.74	22.69	22.75
			36	0	22.50	22.32	22.20	22.17
			36	18	22.50	22.31	22.22	22.21
			36	37	22.50	22.35	22.16	22.32
			75	0	22.50	22.33	22.25	22.28
		16QAM	1	0	22.50	22.00	21.63	21.70
			1	37	22.50	22.09	21.67	21.83
			1	74	22.50	22.05	21.54	21.92
			36	0	21.50	21.34	21.17	21.17
			36	18	21.50	21.38	21.20	21.20
			36	37	21.50	21.37	21.13	21.31
			75	0	21.50	21.30	21.25	21.23
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18700/1860	18900/1880	19100/1900
LTE Band 2	20MHz	QPSK	1	0	23.00	22.76	22.63	22.64
			1	49	23.00	22.86	22.72	22.77
			1	99	23.00	22.78	22.53	22.86
			50	0	22.50	22.31	22.21	22.27
			50	24	22.50	22.39	22.26	22.23
			50	49	22.50	22.34	22.28	22.43
			100	0	22.50	22.29	22.27	22.34
		16QAM	1	0	22.00	21.90	21.79	21.75
			1	49	22.00	21.99	21.82	21.86
			1	99	22.00	21.92	21.66	21.91
			50	0	21.50	21.30	21.28	21.25

			50	24	21.50	21.37	21.29	21.19
			50	49	21.50	21.33	21.30	21.41
			100	0	21.50	21.29	21.24	21.31

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23755/706.5	23790/710	23825/713.5
LTE Band 17	5MHz	QPSK	1	0	24.50	23.94	24.03	23.53
			1	12	24.50	23.94	23.99	23.49
			1	24	24.50	24.06	24.05	23.62
			12	0	23.00	22.82	22.90	22.99
			12	6	23.00	22.83	22.87	22.94
			12	11	23.00	22.84	22.81	22.96
			25	0	23.00	22.84	22.87	23.00
		16QAM	1	0	23.50	22.98	22.48	22.63
			1	12	23.50	22.98	22.38	22.58
			1	24	23.50	23.08	22.58	22.69
			12	0	22.50	21.83	21.90	22.02
			12	6	22.50	21.84	21.87	21.96
			12	11	22.50	21.85	21.81	22.01
			25	0	22.00	21.88	21.88	21.99
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23780/709	23790/710	23800/711
LTE Band 17	10MHz	QPSK	1	0	24.00	23.31	23.29	23.43
			1	24	24.00	23.41	23.44	23.44
			1	49	24.00	23.41	23.42	23.57
			25	0	23.00	22.86	22.89	22.98
			25	12	23.00	22.87	22.86	22.92
			25	24	23.00	22.79	22.86	22.99
			50	0	23.50	22.88	22.90	23.03
		16QAM	1	0	23.00	22.47	22.21	22.58
			1	24	23.00	22.59	22.31	22.58
			1	49	23.00	22.64	22.37	22.70
			25	0	22.00	21.89	21.91	21.97
			25	12	22.00	21.91	21.90	21.92
			25	24	22.00	21.84	21.87	21.97
			50	0	22.00	21.83	21.87	21.98

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131979/1710.7	132322/1745	132665/1779.3
LTE Band 66	1.4MHz	QPSK	1	0	22.50	22.10	22.09	22.11
			1	2	22.50	22.13	22.11	22.15
			1	5	22.50	22.09	22.07	22.11
			3	0	23.00	22.51	22.64	22.54
			3	1	23.00	22.52	22.58	22.56
			3	2	23.00	22.52	22.55	22.53
			6	0	22.00	21.54	21.55	21.64
		16QAM	1	0	21.50	20.92	20.96	21.16
			1	2	21.50	21.02	20.99	21.20

			1	5	21.50	20.93	20.94	21.18
			3	0	22.00	21.75	21.58	21.79
			3	1	22.00	21.77	21.55	21.80
			3	2	22.00	21.76	21.54	21.79
			6	0	21.00	20.56	20.51	20.57
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131987/1711.5	132322/1745	132657/1778.5
LTE Band 66	3MHz	QPSK	1	0	22.50	22.05	22.08	22.17
			1	7	22.50	22.12	22.02	22.19
			1	14	22.50	22.10	22.02	22.19
			8	0	22.00	21.55	21.57	21.62
			8	4	22.00	21.56	21.51	21.64
			8	7	22.00	21.60	21.50	21.60
		16QAM	15	0	22.00	21.58	21.51	21.64
			1	0	21.50	20.97	21.22	21.36
			1	7	21.50	21.02	21.19	21.42
			1	14	21.50	21.02	21.10	21.38
			8	0	21.00	20.58	20.58	20.61
			8	4	21.00	20.58	20.52	20.63
			8	7	21.00	20.61	20.50	20.62
			15	0	21.00	20.59	20.42	20.58
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131997/1712.5	132322/1745	132647/1777.5
LTE Band 66	5MHz	QPSK	1	0	22.50	22.00	22.11	22.16
			1	12	22.50	22.06	22.05	22.18
			1	24	22.50	22.09	22.07	22.25
			12	0	22.00	21.56	21.65	21.63
			12	6	22.00	21.60	21.59	21.64
			12	11	22.00	21.63	21.51	21.65
		16QAM	25	0	22.00	21.62	21.56	21.67
			1	0	21.50	21.27	21.26	21.29
			1	12	21.50	21.30	21.18	21.31
			1	24	21.50	21.35	21.20	21.29
			12	0	21.00	20.54	20.55	20.61
			12	6	21.00	20.62	20.50	20.61
			12	11	21.00	20.61	20.43	20.63
			25	0	21.00	20.64	20.53	20.66
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132022/1715	132322/1745	132622/1775
LTE Band 66	10MHz	QPSK	1	0	22.50	22.08	22.11	22.04
			1	24	22.50	22.20	22.10	22.16
			1	49	22.50	22.17	21.98	22.21
			25	0	22.00	21.57	21.62	21.60
			25	12	22.00	21.62	21.56	21.61
			25	24	22.00	21.76	21.57	21.71
			50	0	22.00	21.67	21.65	21.68
		16QAM	1	0	21.50	20.95	21.26	21.22
			1	24	21.50	21.02	21.20	21.33

			1	49	21.50	21.01	21.08	21.35
			25	0	21.00	20.53	20.67	20.66
			25	12	21.00	20.61	20.56	20.68
			25	24	21.00	20.71	20.57	20.76
			50	0	21.00	20.63	20.60	20.61
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132047/1717.5	132322/1745	132597/1772.5
LTE Band 66	15MHz	QPSK	1	0	22.50	22.05	22.09	21.91
			1	37	22.50	22.14	22.04	22.07
			1	74	22.50	22.15	21.86	22.15
			36	0	22.00	21.51	21.62	21.56
			36	18	22.00	21.59	21.52	21.55
			36	37	22.00	21.71	21.50	21.62
			75	0	22.00	21.65	21.61	21.61
		16QAM	1	0	21.50	21.11	21.21	21.13
			1	37	21.50	21.18	21.18	21.25
			1	74	21.50	21.20	21.00	21.32
			36	0	21.00	20.51	20.59	20.59
			36	18	21.00	20.62	20.54	20.57
			36	37	21.00	20.67	20.52	20.67
			75	0	21.00	20.63	20.56	20.60
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132072/1720	132322/1745	132572/1770
LTE Band 66	20MHz	QPSK	1	0	22.50	21.98	22.12	21.84
			1	49	22.50	22.12	22.14	22.03
			1	99	22.50	22.09	21.91	22.11
			50	0	22.00	21.45	21.69	21.62
			50	24	22.00	21.71	21.63	21.58
			50	49	22.00	21.83	21.61	21.65
			100	0	22.00	21.66	21.66	21.63
		16QAM	1	0	21.50	20.80	20.96	20.95
			1	49	21.50	21.02	20.98	21.18
			1	99	21.50	20.99	20.73	21.17
			50	0	21.00	20.44	20.66	20.58
			50	24	21.00	20.69	20.59	20.56
			50	49	21.00	20.83	20.55	20.62
			100	0	21.00	20.66	20.62	20.59

8.4. Wi-Fi & BT Output Power

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11b	1	2412	11.50	10.65
	6	2437	11.50	11.02
	11	2462	11.50	11.40
802.11g	1	2412	14.50	13.57
	6	2437	14.50	13.90
	11	2462	14.50	14.18
802.11n HT20	1	2412	14.50	13.39
	6	2437	14.50	13.71
	11	2462	14.50	14.16
802.11n HT40	3	2422	15.00	13.92
	6	2437	15.00	14.35
	9	2452	15.00	14.74

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	36	5180	6.00	5.86
	40	5200	6.00	5.91
	48	5240	6.00	5.74
802.11n HT20	36	5180	6.00	5.74
	40	5200	6.00	5.55
	48	5240	6.00	5.47
802.11n HT40	38	5190	6.00	5.66
	46	5230	6.00	5.63
802.11ac VHT20	36	5180	6.00	5.69
	40	5200	6.00	5.56
	48	5240	6.00	5.48
802.11ac VHT40	38	5190	6.00	5.68
	46	5230	6.00	5.66

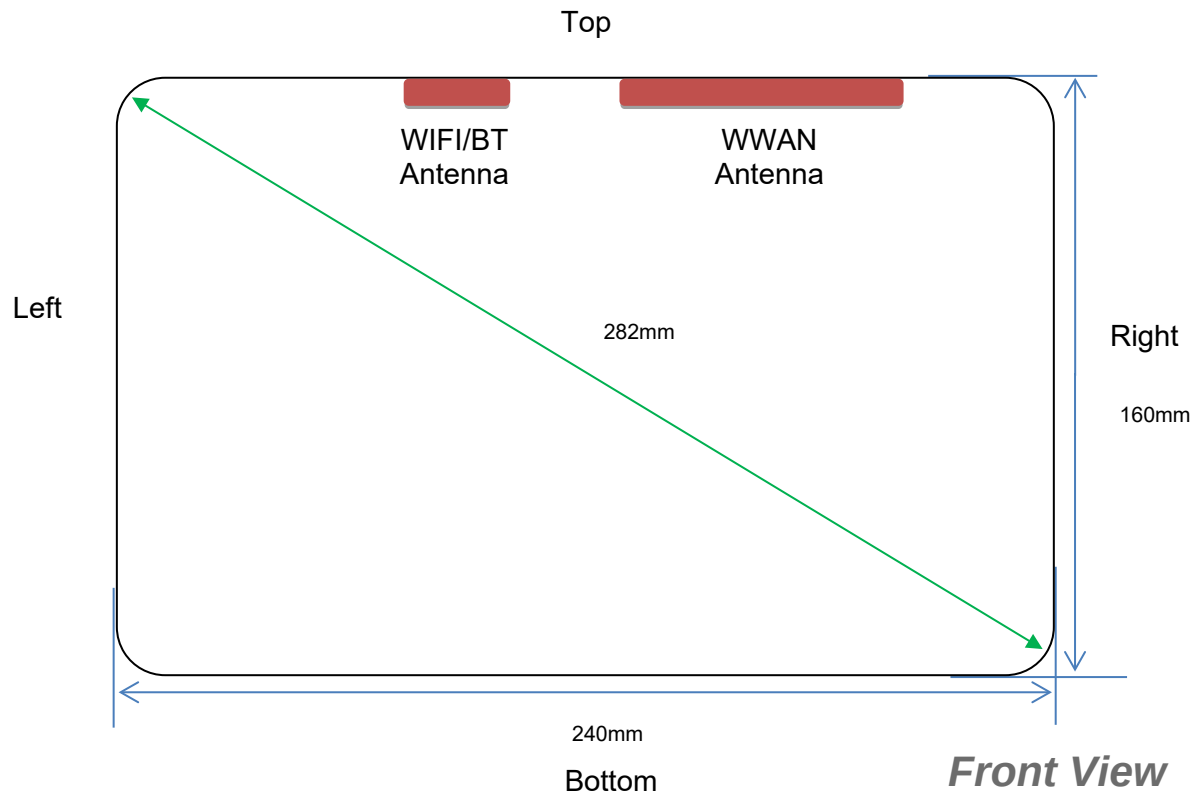
Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	149	5745	5.50	4.95
	157	5785	5.50	4.97
	165	5825	5.50	5.19
802.11n HT20	149	5745	5.50	4.68
	157	5785	5.50	4.84
	165	5825	5.50	5.10
802.11n HT40	151	5755	5.50	5.11
	159	5795	5.50	5.10
802.11ac VHT20	149	5745	5.50	4.69
	157	5785	5.50	4.82

	165	5825	5.50	5.05
802.11ac VHT40	151	5755	5.50	5.10
	159	5795	5.50	5.09

BR+EDR	Output Power (dBm)				
	Channel	Tune-up (dBm)	Data Rates		
			1M	2M	3M
	0CH	4.00	3.42	2.49	2.39
	39CH	6.00	5.09	4.16	4.06
	78CH	5/5/4	4.83	4.52	3.73

Mode	Channel	Tune-up (dBm)	Output Power (dBm)
BLE1M	CH00	5.00	4.64
	CH19	7.00	6.78
	CH39	7.00	6.60

9. Antenna Location



Antenna information:

Distance of The Antenna to the EUT surface and edge (mm)					
Antennas	Back Side	Top Side	Bottom Side	Left Side	Right Side
BT/WLAN	5	5	150	73	135
WWAN	5	5	150	124	52

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

Positions for SAR tests		
Test separation distances > 50 mm		
Exposure Positions	Tune-up Maximum power of WLAN 2.4G/BT	
	15.00 dBm/7.00 dBm	31.62 mW/5.01 mW
Left Side	Antenna to user(mm)	73
	SAR exclusion threshold(mW)	326
	SAR testing required?	NO
Right Side	Antenna to user(mm)	135
	SAR exclusion threshold(mW)	946
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1096
	SAR testing required?	NO

Exposure Positions	Tune-up Maximum power of WLAN 5.2G	
	6.00 dBm	3.98 mW
Left Side	Antenna to user(mm)	73
	SAR exclusion threshold(mW)	296
	SAR testing required?	NO
Right Side	Antenna to user(mm)	135
	SAR exclusion threshold(mW)	916
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1066
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WLAN 5.8G	
	5.50 dBm	3.55 mW
Left Side	Antenna to user(mm)	73
	SAR exclusion threshold(mW)	292
	SAR testing required?	NO
Right Side	Antenna to user(mm)	135
	SAR exclusion threshold(mW)	912
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1062
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of GSM 850	
	31.00 dBm	1258.93 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	576
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	721
	SAR testing required?	YES
Exposure Positions	Tune-up Maximum power of GSM 1900	
	29.50 dBm	891.25 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	849
	SAR testing required?	YES
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1109
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WCDMA Band 2	
	23.50 dBm	223.87 mW

Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	849
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1109
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of WCDMA Band 5	
	24.50 dBm	281.84 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	576
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	721
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band 2	
	23.00 dBm	199.53 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	849
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1109
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band 17	
	24.00 dBm	251.19 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	576
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	721
	SAR testing required?	NO
Exposure Positions	Tune-up Maximum power of LTE Band 66	
	22.50 dBm	177.83 mW
Left Side	Antenna to user(mm)	124
	SAR exclusion threshold(mW)	849
	SAR testing required?	NO
Bottom Side	Antenna to user(mm)	150
	SAR exclusion threshold(mW)	1109
	SAR testing required?	NO

NOTE: Refer to section 4.3.1 of KDB 447498 D01.

10. Stand-alone SAR test exclusion

Refer to FCC KDB 447498D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

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

Mode	Pmax (dBm)	Pmax (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	SAR test exclusion
Bluetooth	7.00	7.94	5	2.480	1.6	3	Yes

NOTE: Standalone SAR test exclusion for Bluetooth.

11. SAR Measurement Results

< GSM 850 >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
Top Side	189/836.4	GPRS(GMSK 3TS)	0.264	0.095	3.21	30.51	31.00	0.296	2026/2/25	
Back Side	189/836.4	GPRS(GMSK 3TS)	0.398	0.143	-2.95	30.51	31.00	0.446	2026/2/25	#1
Left Side	189/836.4	GPRS(GMSK 3TS)	0.041	0.015	-1.09	30.51	31.00	0.046	2026/2/25	
Right Side	189/836.4	GPRS(GMSK 3TS)	0.168	0.059	1.55	30.51	31.00	0.188	2026/2/25	
Bottom Side	189/836.4	GPRS(GMSK 3TS)	0.123	0.042	3.77	30.51	31.00	0.138	2026/2/25	

< GSM 1900 >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
Top Side	661/1880	GPRS(GMSK 2TS)	0.420	0.145	2.80	29.11	29.50	0.459	2026/2/27	
Back Side	661/1880	GPRS(GMSK 2TS)	0.661	0.238	0.55	29.11	29.50	0.723	2026/2/27	#2
Left Side	661/1880	GPRS(GMSK 2TS)	0.069	0.024	0.66	29.11	29.50	0.075	2026/2/27	
Right Side	661/1880	GPRS(GMSK 2TS)	0.284	0.099	2.51	29.11	29.50	0.311	2026/2/27	

< WCDMA Band 2 >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1- g (W/Kg)	Date	Plot
			1-g	10-g						
Top Side	9400/1880	RMC12.2K	0.312	0.136	-3.74	23.26	23.50	0.330	2026/2/27	
Back Side	9400/1880	RMC12.2K	0.513	0.228	-3.00	23.26	23.50	0.542	2026/2/27	#3
Right Side	9400/1880	RMC12.2K	0.159	0.069	2.78	23.26	23.50	0.168	2026/2/27	

< WCDMA Band 5 >

[illegible]

								(W/Kg)		
Top Side	4182/836.4	RMC12.2K	0.198	0.076	-2.39	24.15	24.50	0.215	2026/2/25	
Back Side	4182/836.4	RMC12.2K	0.298	0.116	-1.37	24.15	24.50	0.323	2026/2/25	#4
Right Side	4182/836.4	RMC12.2K	0.096	0.036	-3.82	24.15	24.50	0.104	2026/2/25	

< LTE Band2 >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			(W/kg)							
			1-g	10-g						
1RB										
Top Side	18900/1880	20M QPSK(1,49)	0.306	0.129	3.14	22.72	23.00	0.326	2026/2/27	
Back Side	18900/1880	20M QPSK(1,49)	0.482	0.205	1.82	22.72	23.00	0.514	2026/2/27	#9
Right Side	18900/1880	20M QPSK(1,49)	0.159	0.065	-0.30	22.72	23.00	0.170	2026/2/27	
50%RB										
Top Side	18900/1880	20M QPSK(50,49)	0.173	0.066	-0.43	22.28	22.50	0.182	2026/2/27	
Back Side	18900/1880	20M QPSK(50,49)	0.272	0.104	4.11	22.28	22.50	0.286	2026/2/27	
Right Side	18900/1880	20M QPSK(50,49)	0.086	0.038	-0.05	22.28	22.50	0.090	2026/2/27	

< LTE Band17 >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			(W/kg)							
			1-g	10-g						
1RB										
Top Side	23790/710	10M QPSK(1,49)	0.210	0.086	1.96	23.42	24.00	0.240	2026/2/24	
Back Side	23790/710	10M QPSK(1,49)	0.315	0.135	-0.09	23.42	24.00	0.360	2026/2/24	#10
Right Side	23790/710	10M QPSK(1,49)	0.099	0.041	2.26	23.42	24.00	0.113	2026/2/24	
50%RB										
Top Side	23790/710	10M QPSK(25,24)	0.126	0.049	1.67	22.86	23.00	0.130	2026/2/24	
Back Side	23790/710	10M QPSK(25,24)	0.172	0.069	3.69	22.86	23.00	0.178	2026/2/24	
Right Side	23790/710	10M QPSK(25,24)	0.051	0.024	-2.46	22.86	23.00	0.053	2026/2/24	

< LTE Band66 >

Test	Test channel	Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date	Plot
------	--------------	------	-----------	-------	-----------	---------	--------	------	------

Position of Body with 0mm	/Freq.		(W/kg)		Drift(%)	Power (dBm)	Power (dBm)	SAR 1-g (W/Kg)		
			1-g	10-g						
1RB										
Top Side	132322/1745	20M QPSK(1,49)	0.324	0.140	-1.19	22.14	22.50	0.352	2026/2/26	
Back Side	132322/1745	20M QPSK(1,49)	0.535	0.231	-0.76	22.14	22.50	0.581	2026/2/26	#11
Right Side	132322/1745	20M QPSK(1,49)	0.162	0.068	0.33	22.14	22.50	0.176	2026/2/26	
50%RB										
Top Side	132322/1745	20M QPSK(50,49)	0.194	0.081	1.74	21.61	22.00	0.212	2026/2/26	
Back Side	132322/1745	20M QPSK(50,49)	0.308	0.118	4.46	21.61	22.00	0.337	2026/2/26	
Right Side	132322/1745	20M QPSK(50,49)	0.084	0.037	4.36	21.61	22.00	0.092	2026/2/26	

< WLAN 2.4G >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Back Side	11/2462	802.11b	0.146	0.059	0.95	11.40	11.50	0.149	2026/2/28	#8
Back Side	9/2452	802.11n HT40	0.138	0.051	0.47	14.74	15.00	0.147	2026/2/28	
Top Side	11/2462	802.11b	0.102	0.041	0.75	11.40	11.50	0.104	2026/2/28	

< WLAN 5.2G >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Back Side	40/5200	802.11a	0.379	0.183	-0.96	5.91	6.00	0.387	2026/3/2	#6
Top Side	40/5200	802.11a	0.234	0.113	-3.79	5.91	6.00	0.239	2026/3/2	

< WLAN 5.8G >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Back Side	165/5825	802.11a	0.369	0.177	2.23	5.19	5.50	0.396	2026/3/3	#7
Top Side	165/5825	802.11a	0.222	0.105	-3.61	5.19	5.50	0.238	2026/3/3	

< Bluetooth >

Test Position of Body with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Back Side	19/2440	BLE	0.142	0.058	-1.07	6.78	7.00	0.149	2026/2/28	#5
Top Side	19/2440	BLE	0.102	0.040	0.00	6.78	7.00	0.107	2026/2/28	

Note:

- 1) When the reported SAR of the highest measured maximum output power channel for the Initial test configuration is ≤ 0.8 W/kg, no further SAR testing is required for other channels.
- 2) SAR is not required for the following 2.4 GHz OFDM conditions.
 - a) When KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
 - b) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

12. Simultaneous Transmission Analysis

Per KDB 447498 D01, simultaneous transmission SAR is compliant if,

1) Scalar SAR summation $< 1.6\text{W/kg}$.

2) $\text{SPLSR} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{(\text{min. separation distance, mm})}$, and the peak separation distance is

determined from the square root of $[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$, where

(x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.

If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

No.	Simultaneous Tx	Body-worn	Hotspot
1	WWAN+WLAN	Yes	Yes
2	WWAN+Bluetooth	Yes	Yes

Note : WiFi and Bluetooth use the same antenna and cannot be transmitted at the same time.

Exposure Position		WWAN Band	DTS/DSS/NIJ Band	Simultaneous Tx SAR(W/Kg)
		SAR(W/Kg)	SAR(W/Kg)	
Body	Front Side	/	/	/
	Back Side	0.723	0.396	1.119
	Left Side	0.075	/	0.075
	Right Side	0.311	/	0.311
	Top Side	0.459	0.239	0.698
	Bottom Side	0.138	/	0.138

Note : The Simultaneous Tx is calculated based on the same configuration and test position.

Appendix A. Photo documentation

Refer to appendix Test Setup photo-SAR

Appendix B. System Check Plots

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#1 System Performance Check - 750MHz
#2 System Performance Check - 850MHz
#3 System Performance Check - 1800MHz
#4 System Performance Check - 1900MHz
#5 System Performance Check - 2450MHz
#6 System Performance Check - 5200MHz
#7 System Performance Check - 5800MHz

#1

Date of measurement: 24/2/2026

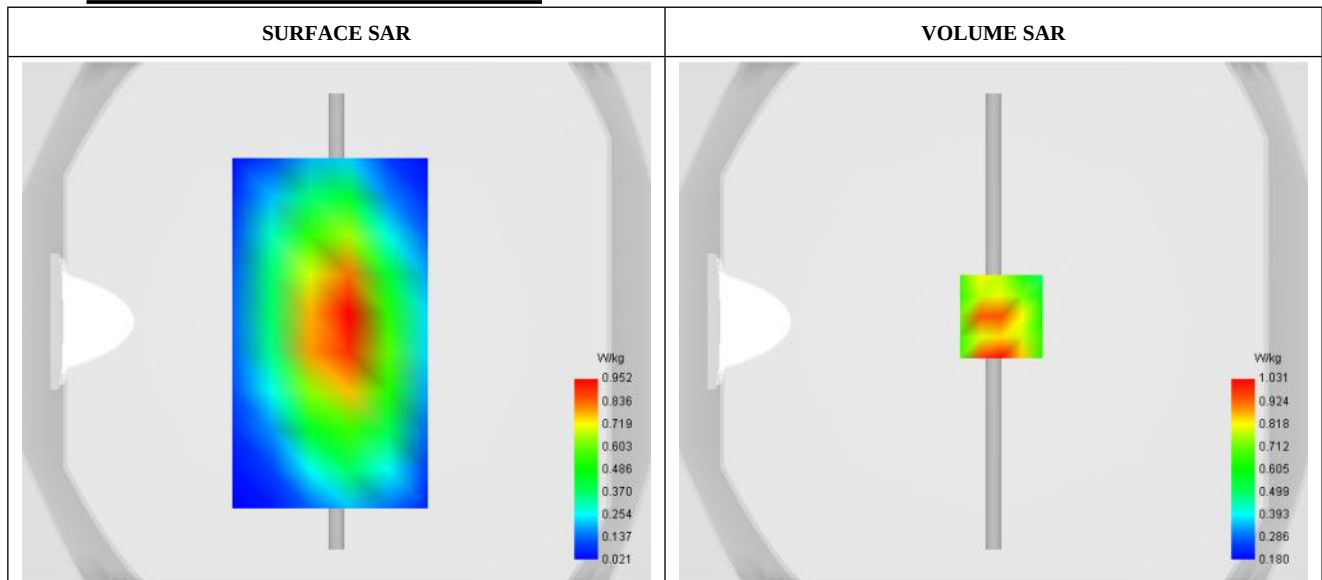
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	1.65
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	750.000
Relative permittivity (real part)	41.900
Relative permittivity (imaginary part)	21.360
Conductivity (S/m)	0.890

C. SAR Surface and Volume



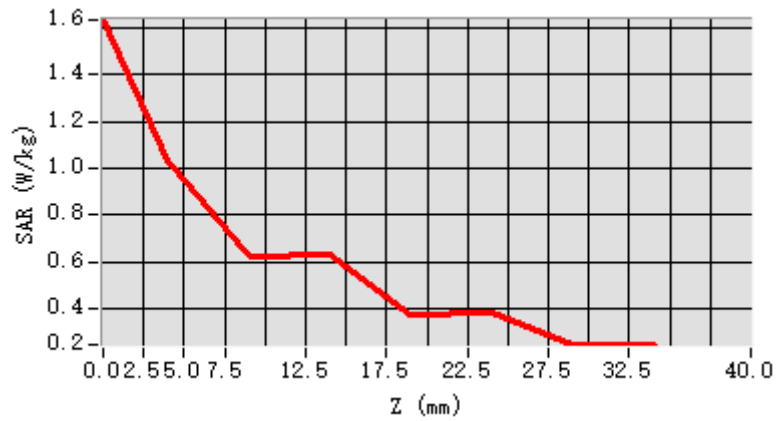
Maximum location: X=3.00, Y=2.00 ; SAR Peak: 1.54 W/kg

D. SAR 1g & 10g

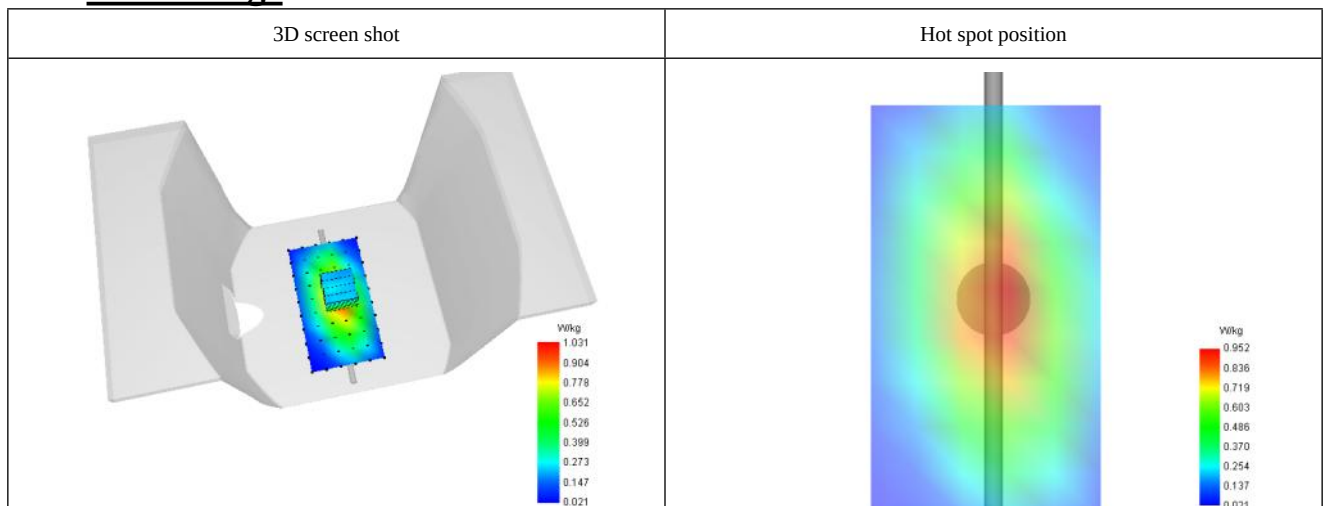
SAR 10g (W/Kg)	0.621
SAR 1g (W/Kg)	0.930
Variation (%)	0.380
Horizontal validation criteria: minimum distance (mm)	35.777088
Vertical validation criteria: SAR ratio M2/M1 (%)	60.135790

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.636	1.031	0.620	0.629	0.375	0.386	0.245



F. 3D Image



#2

Date of measurement: 25/2/2026

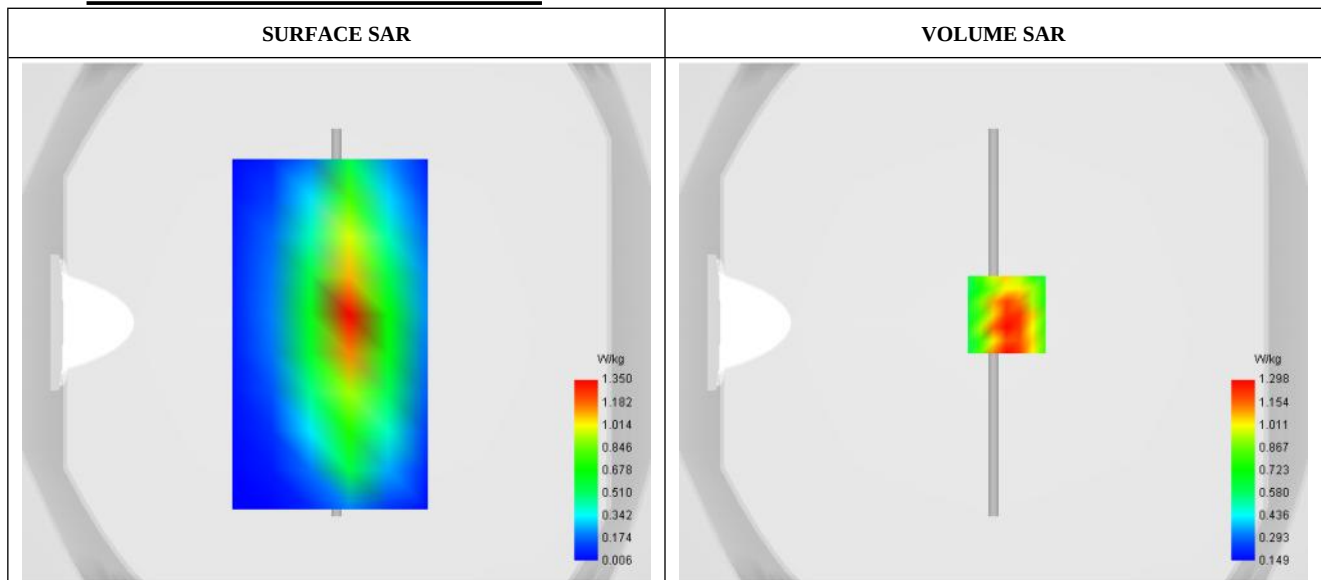
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	1.66
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	835.000
Relative permittivity (real part)	40.940
Relative permittivity (imaginary part)	19.300
Conductivity (S/m)	0.895

C. SAR Surface and Volume



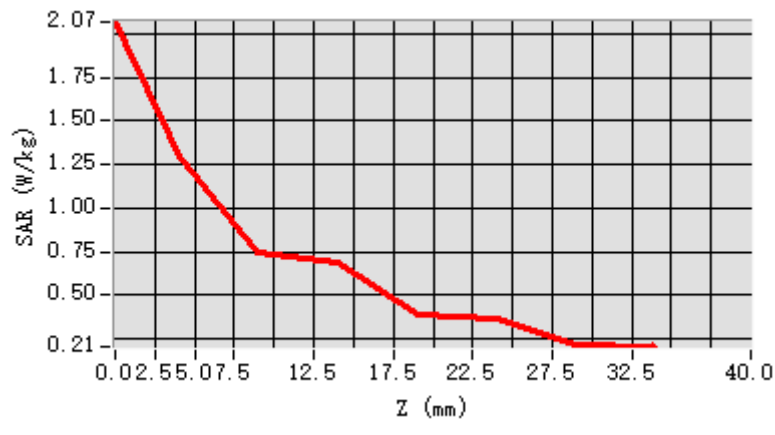
Maximum location: X=5.00, Y=3.00 ; SAR Peak: 1.90 W/kg

D. SAR 1g & 10g

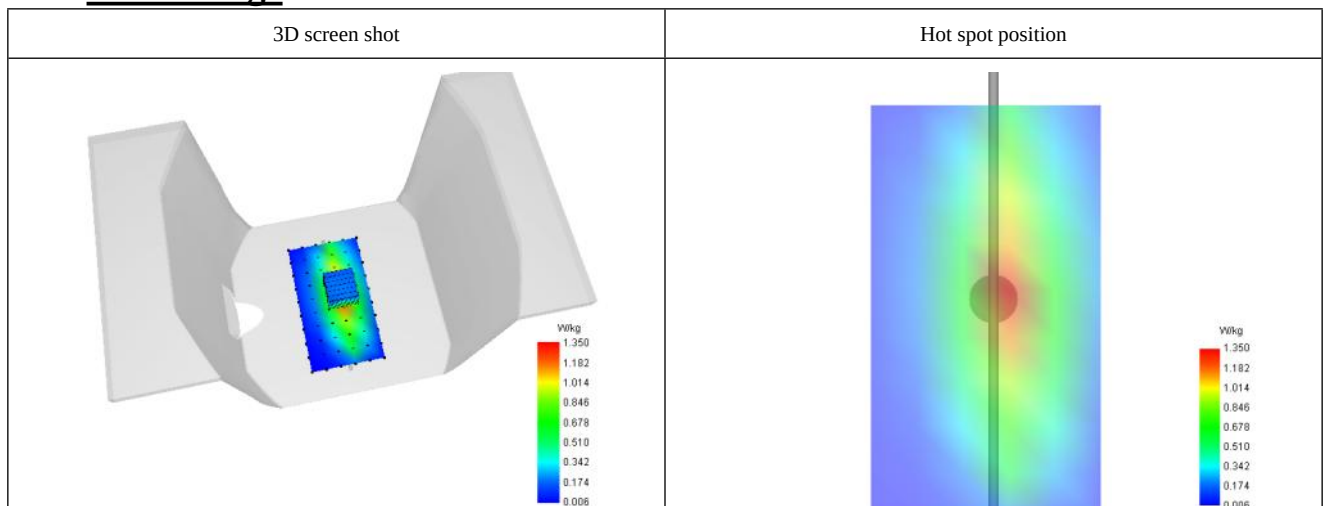
SAR 10g (W/Kg)	0.612
SAR 1g (W/Kg)	1.011
Variation (%)	2.200
Horizontal validation criteria: minimum distance (mm)	15.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	57.716049

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.064	1.296	0.748	0.687	0.392	0.367	0.223



F. 3D Image



#3

Date of measurement: 26/2/2026

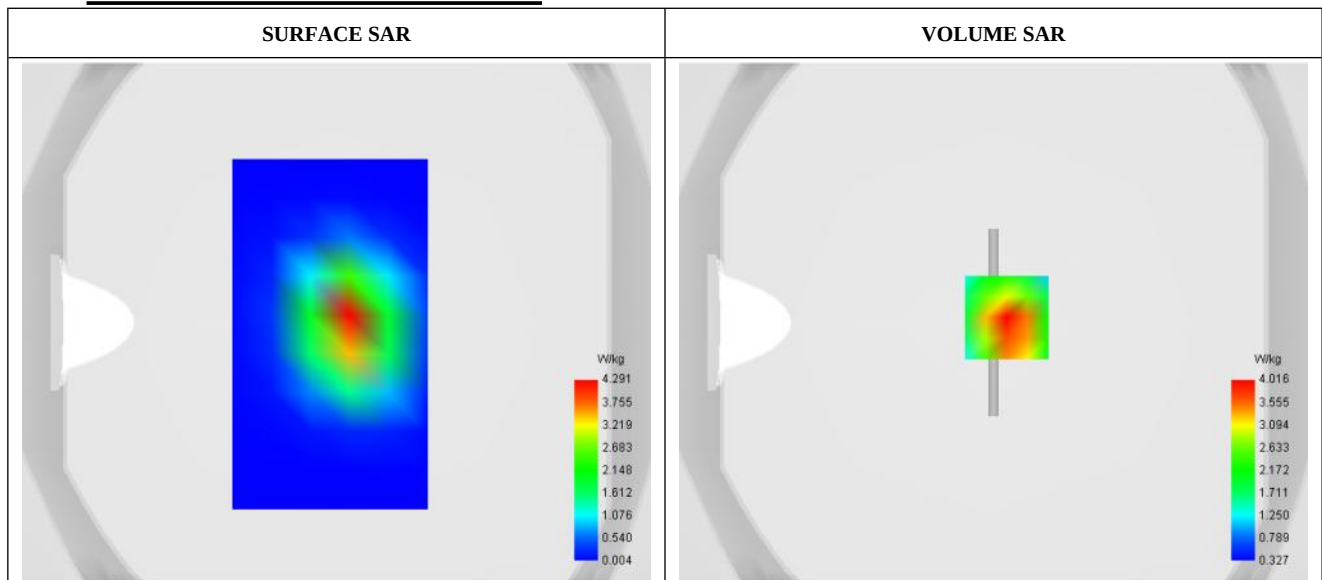
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	1800.000
Relative permittivity (real part)	41.520
Relative permittivity (imaginary part)	14.000
Conductivity (S/m)	1.400

C. SAR Surface and Volume



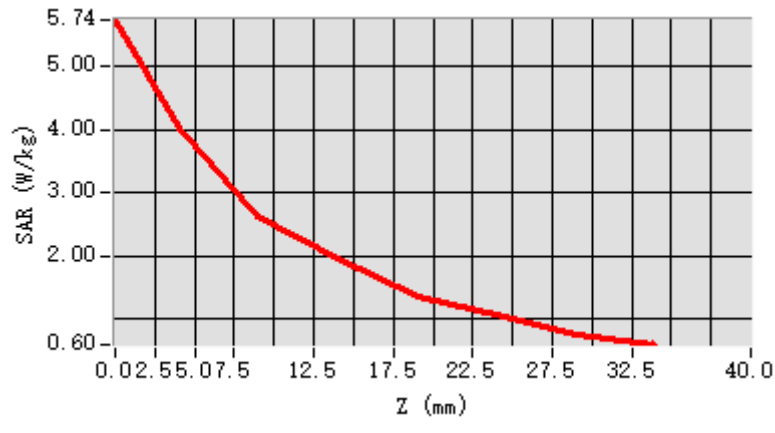
Maximum location: X=5.00, Y=2.00 ; SAR Peak: 5.78 W/kg

D. SAR 1g & 10g

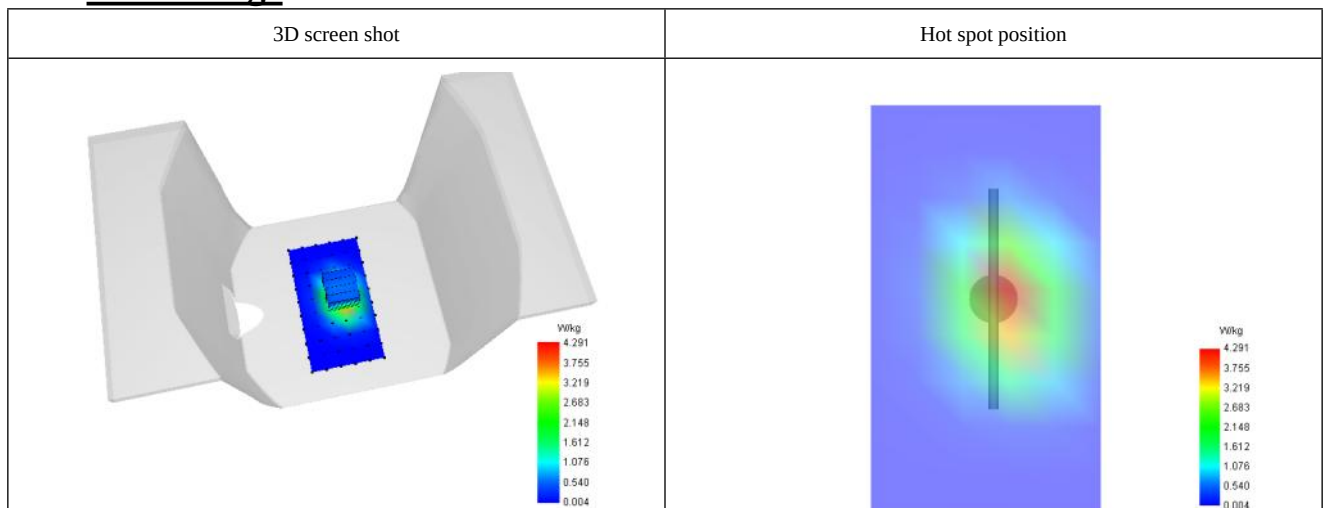
SAR 10g (W/Kg)	2.025
SAR 1g (W/Kg)	3.832
Variation (%)	0.180
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	65.811753

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	5.739	4.016	2.643	1.958	1.374	1.074	0.775



F. 3D Image



#4

Date of measurement: 27/2/2026

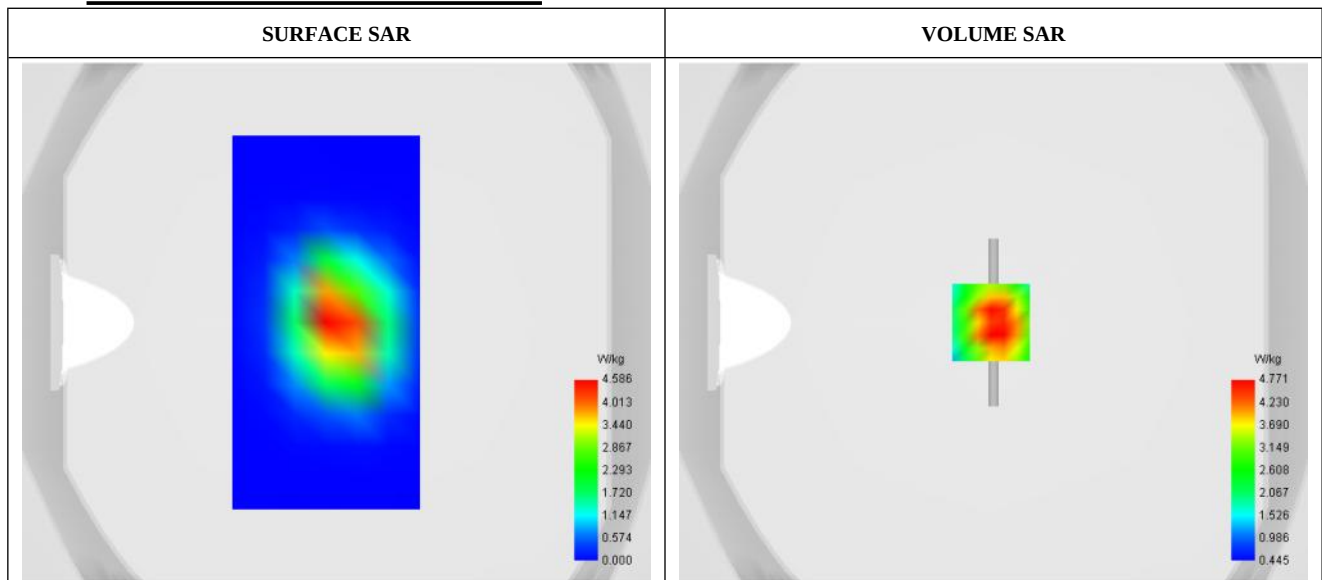
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	1900.000
Relative permittivity (real part)	41.270
Relative permittivity (imaginary part)	12.700
Conductivity (S/m)	1.341

C. SAR Surface and Volume



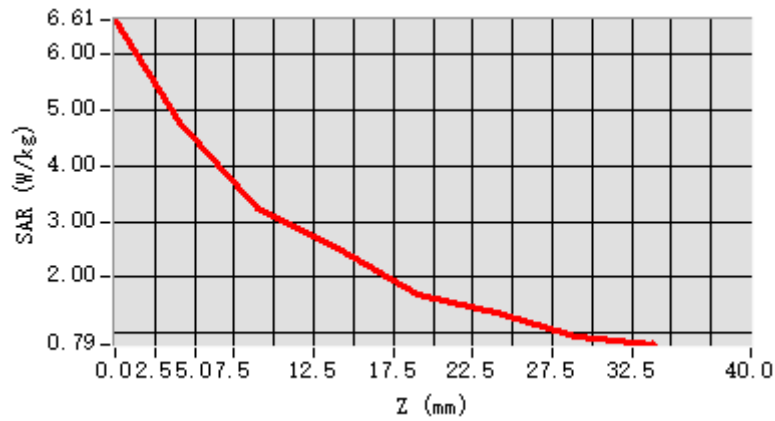
Maximum location: X=-1.00, Y=0.00 ; SAR Peak: 6.50 W/kg

D. SAR 1g & 10g

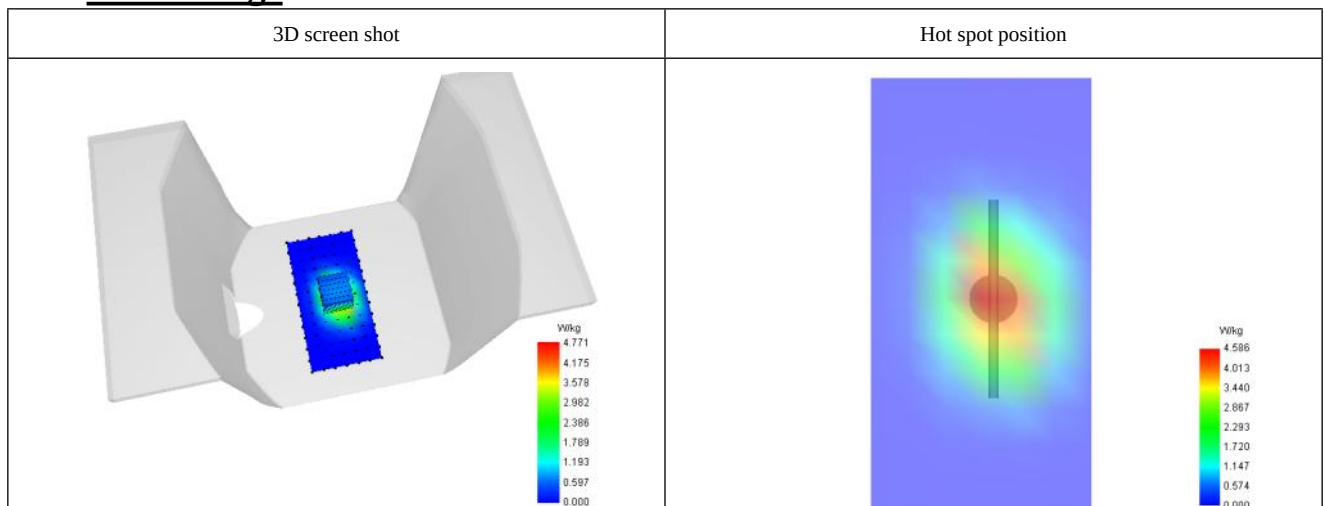
SAR 10g (W/Kg)	2.153
SAR 1g (W/Kg)	4.154
Variation (%)	1.300
Horizontal validation criteria: minimum distance (mm)	14.141203
Vertical validation criteria: SAR ratio M2/M1 (%)	67.966457

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.612	4.770	3.242	2.521	1.694	1.380	0.943



F. 3D Image



#5

Date of measurement: 28/2/2026

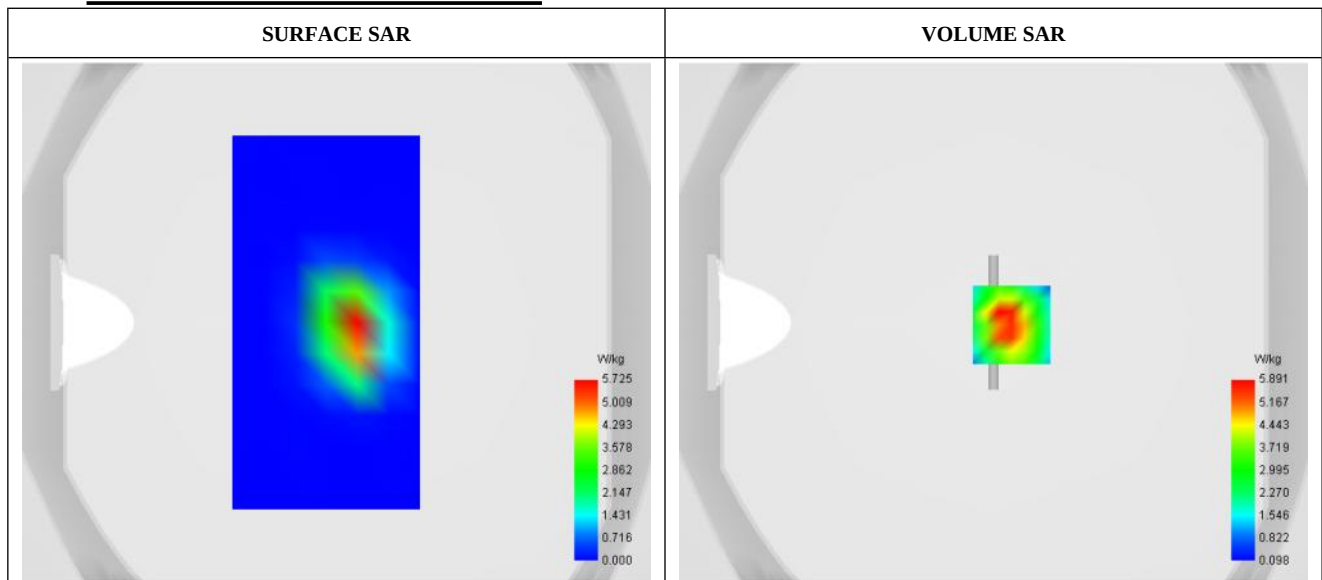
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.38
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	2450.000
Relative permittivity (real part)	41.040
Relative permittivity (imaginary part)	13.220
Conductivity (S/m)	1.799

C. SAR Surface and Volume



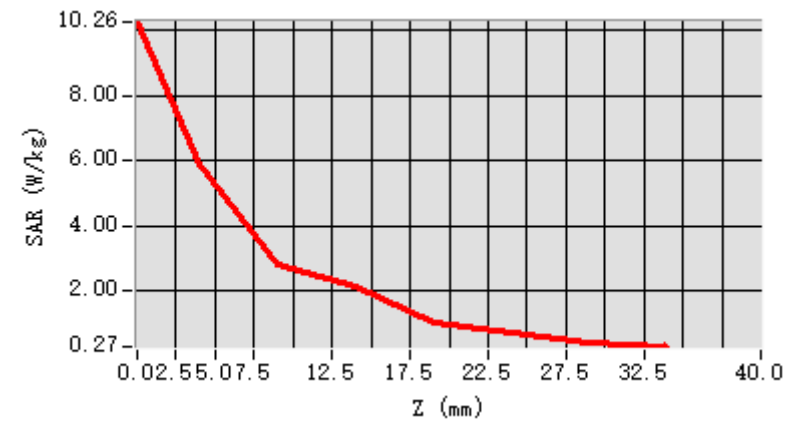
Maximum location: X=7.00, Y=-1.00 ; SAR Peak: 8.99 W/kg

D. SAR 1g & 10g

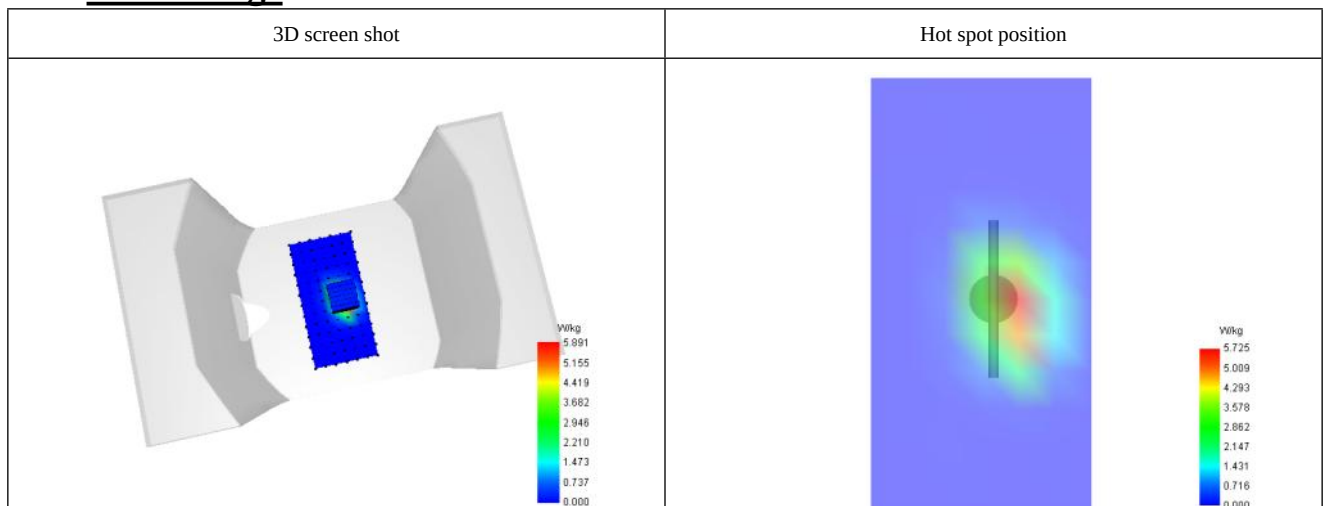
SAR 10g (W/Kg)	2.359
SAR 1g (W/Kg)	5.184
Variation (%)	-3.040
Horizontal validation criteria: minimum distance (mm)	10.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	47.564081

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	10.263	5.891	2.802	2.126	1.045	0.723	0.415



F. 3D Image



#6

Date of measurement: 2/3/2026

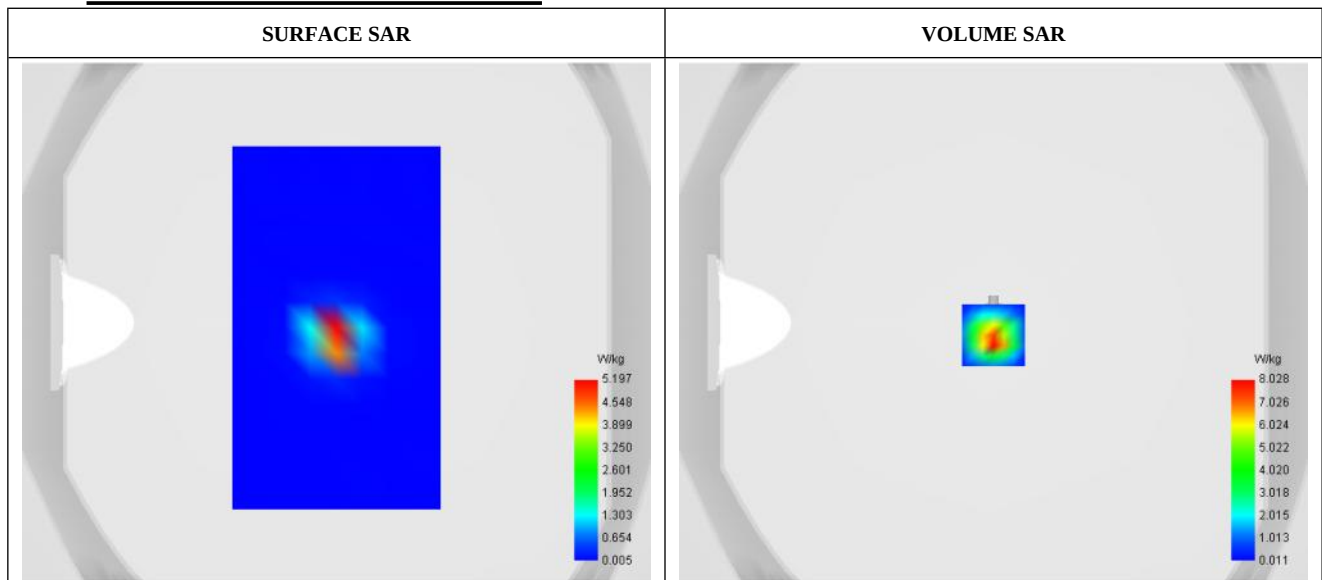
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.30
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	CW5200
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	5200.000
Relative permittivity (real part)	36.000
Relative permittivity (imaginary part)	16.130
Conductivity (S/m)	4.660

C. SAR Surface and Volume



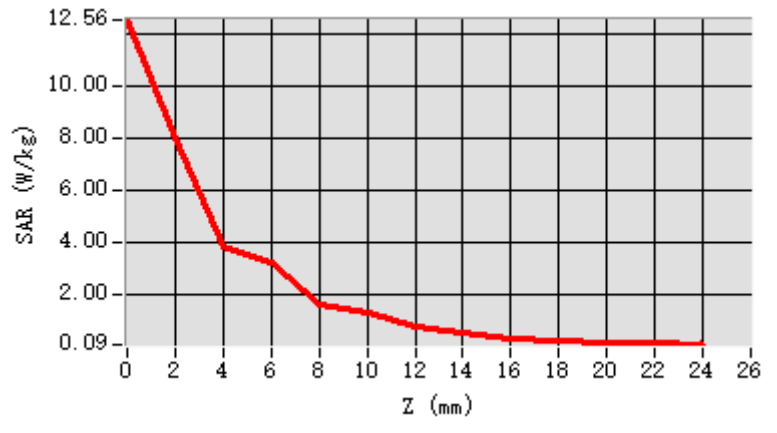
Maximum location: X=0.00, Y=-5.00 ; SAR Peak: 13.42 W/kg

D. SAR 1g & 10g

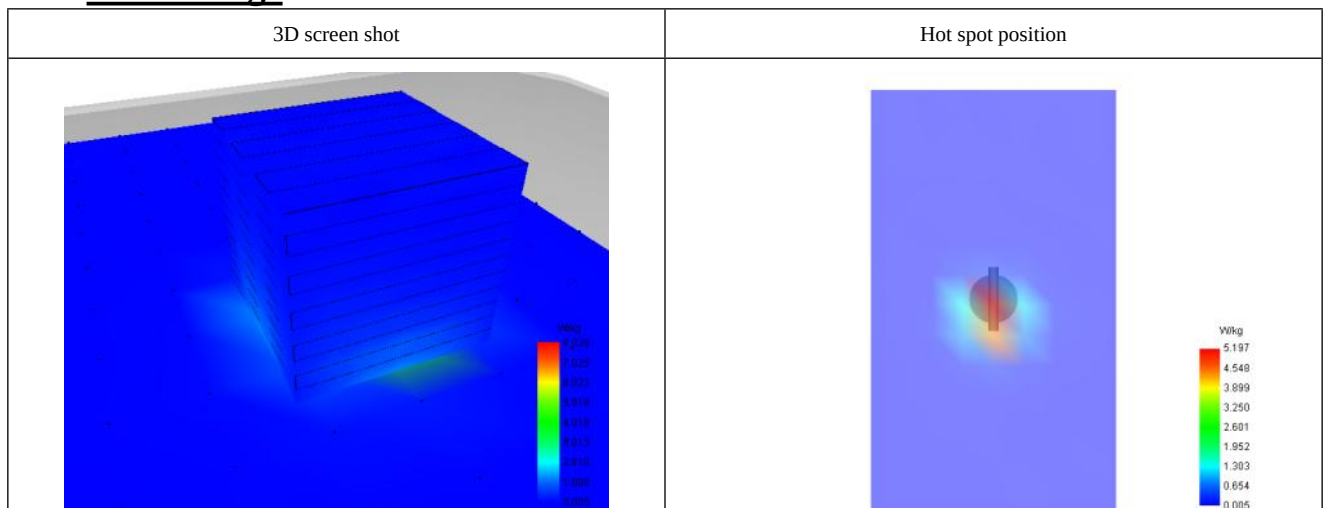
SAR 10g (W/Kg)	1.303
SAR 1g (W/Kg)	3.678
Variation (%)	4.620
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	48.169909

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)	12.564	8.028	3.867	3.214	1.625	1.324	0.785	0.581	0.314	0.263	0.145	0.126



F. 3D Image



#7

Date of measurement: 3/3/2026

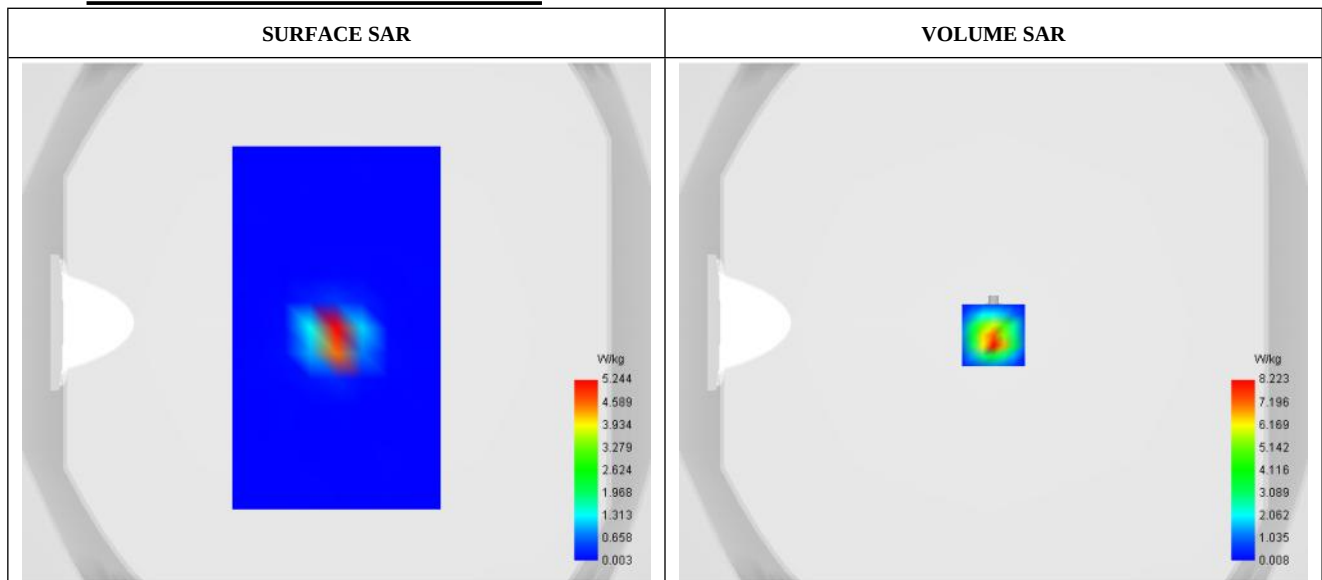
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.27
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	CW5800
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	5800.000
Relative permittivity (real part)	35.300
Relative permittivity (imaginary part)	16.360
Conductivity (S/m)	5.272

C. SAR Surface and Volume



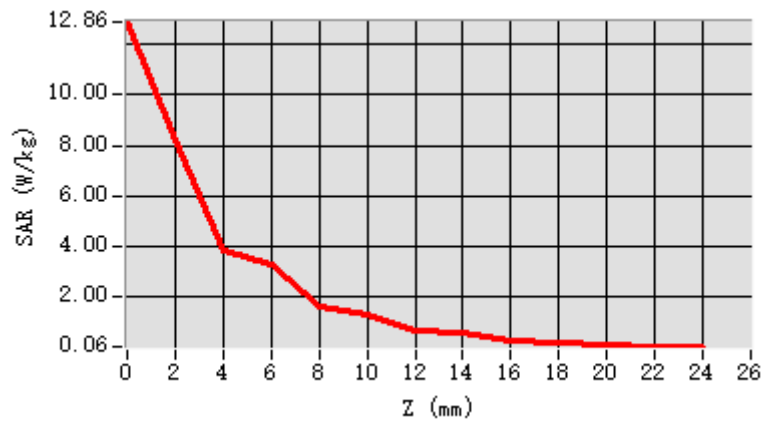
Maximum location: X=0.00, Y=-5.00 ; SAR Peak: 13.82 W/kg

D. SAR 1g & 10g

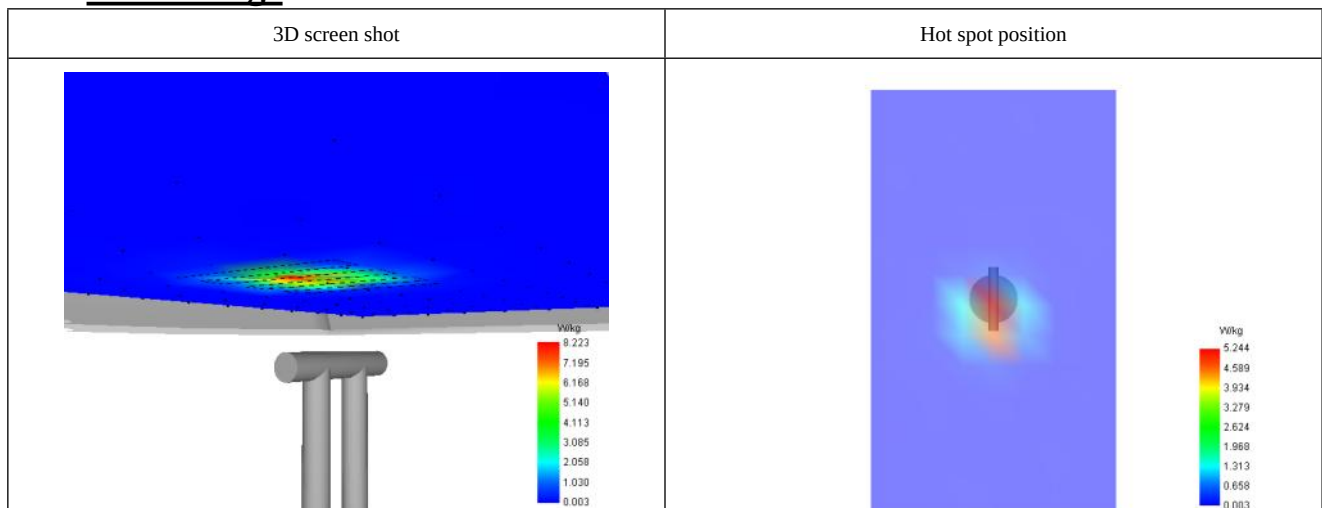
SAR 10g (W/Kg)	1.406
SAR 1g (W/Kg)	4.106
Variation (%)	1.050
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	47.257692

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)	12.863	8.223	3.886	3.302	1.611	1.337	0.671	0.582	0.287	0.232	0.129	0.083



F. 3D Image



Appendix C. SAR Test Plots

Table of contents
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#8 WALN 2.4G Body
#9 LTE Band 2 Body
#10 LTE Band 17 Body
#11 LTE Band 66 Body

#1

Date of measurement: 25/2/2026

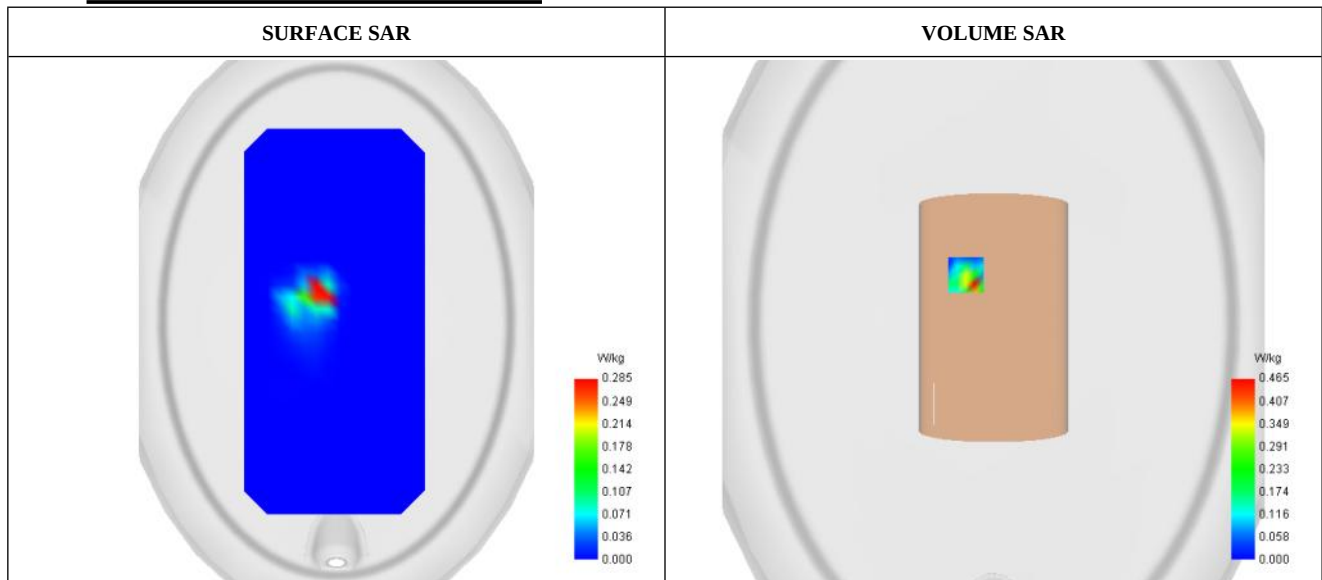
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	1.66
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	GSM850
Channels/Frequency	Middle (189)/ frequency 836.40 Mhz

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	41.500
Relative permittivity (imaginary part)	19.400
Conductivity (S/m)	0.901

C. SAR Surface and Volume



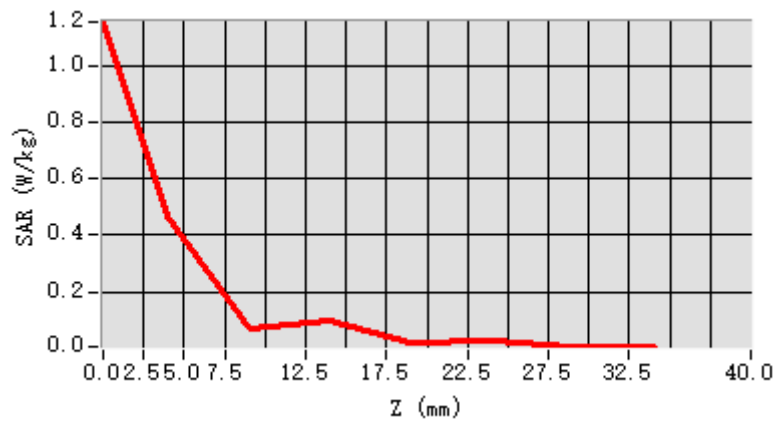
Maximum location: X=-25.00, Y=42.00 ; SAR Peak: 0.85 W/kg

D. SAR 1g & 10g

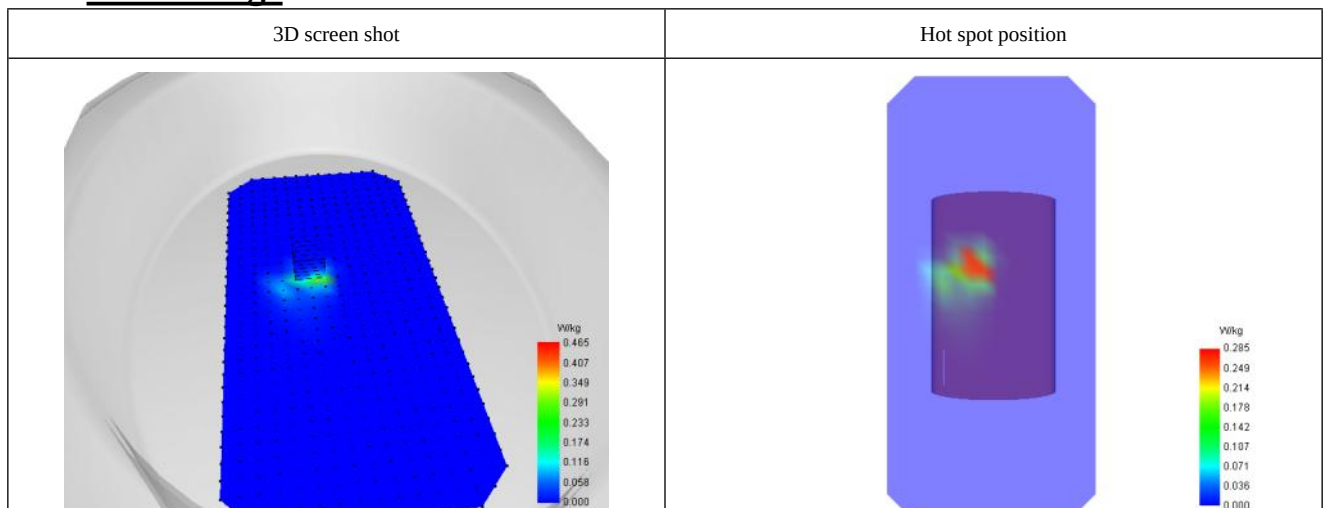
SAR 10g (W/Kg)	0.143
SAR 1g (W/Kg)	0.398
Variation (%)	-2.950
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	32.328767

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.154	0.365	0.118	0.097	0.022	0.024	0.006



F. 3D Image



#2

Date of measurement: 27/2/2026

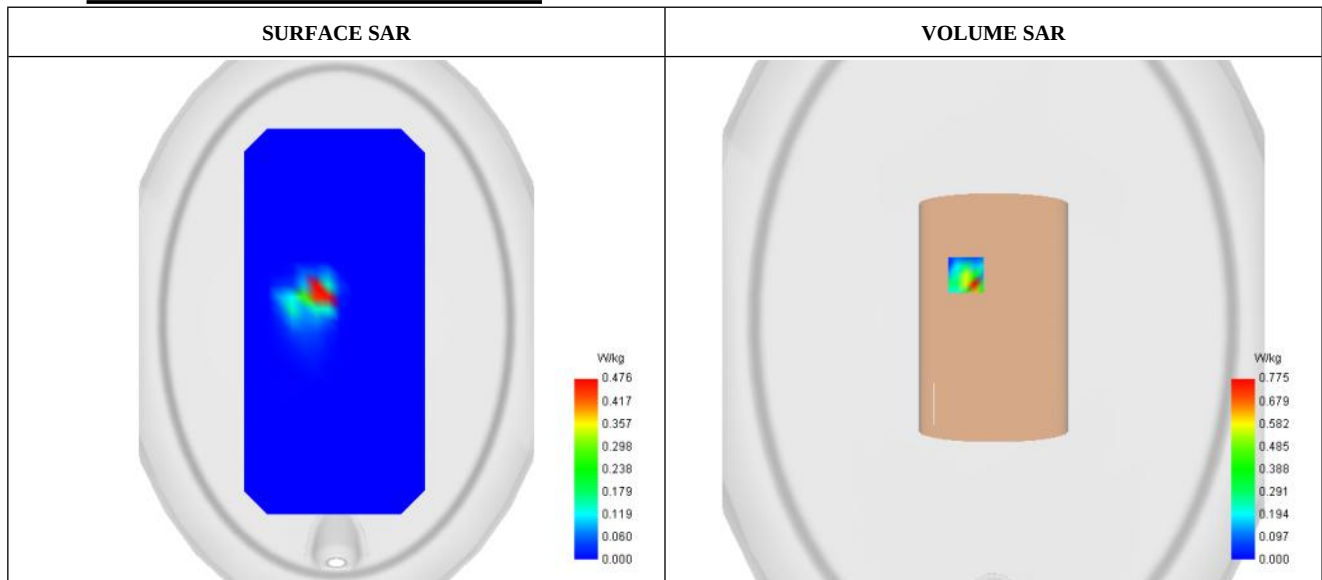
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	GSM1900
Channels/Frequency	Middle (661)/ frequency 1880.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	40.000
Relative permittivity (imaginary part)	13.408
Conductivity (S/m)	1.400

C. SAR Surface and Volume



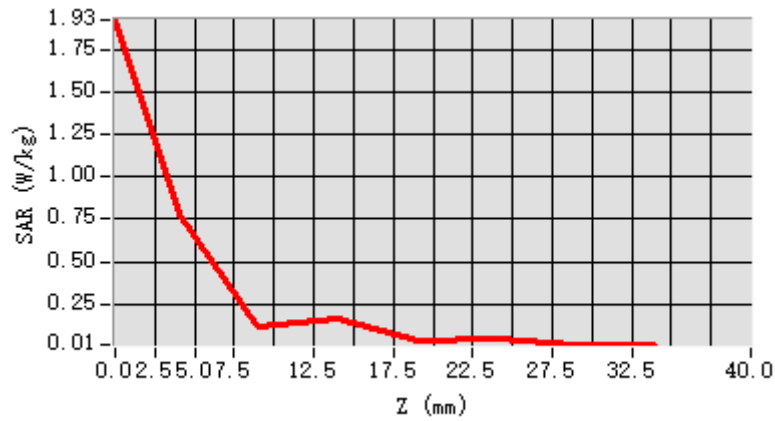
Maximum location: X=-25.00, Y=42.00 ; SAR Peak: 1.42 W/kg

D. SAR 1g & 10g

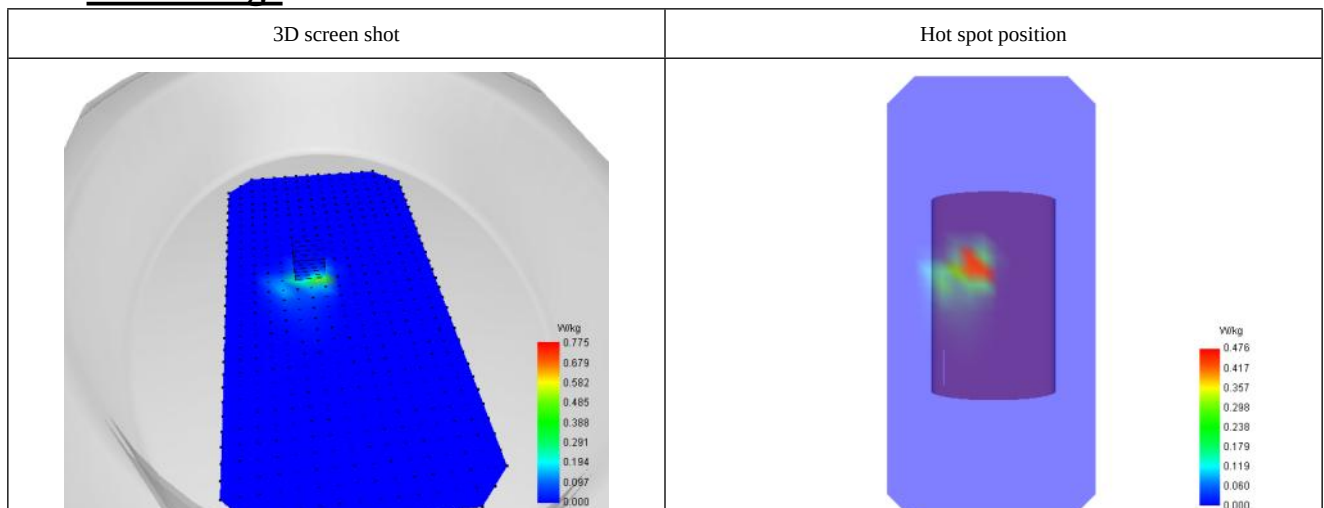
SAR 10g (W/Kg)	0.238
SAR 1g (W/Kg)	0.661
Variation (%)	0.550
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	32.839506

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.925	0.405	0.133	0.162	0.036	0.041	0.010



F. 3D Image



#3

Date of measurement: 27/2/2026

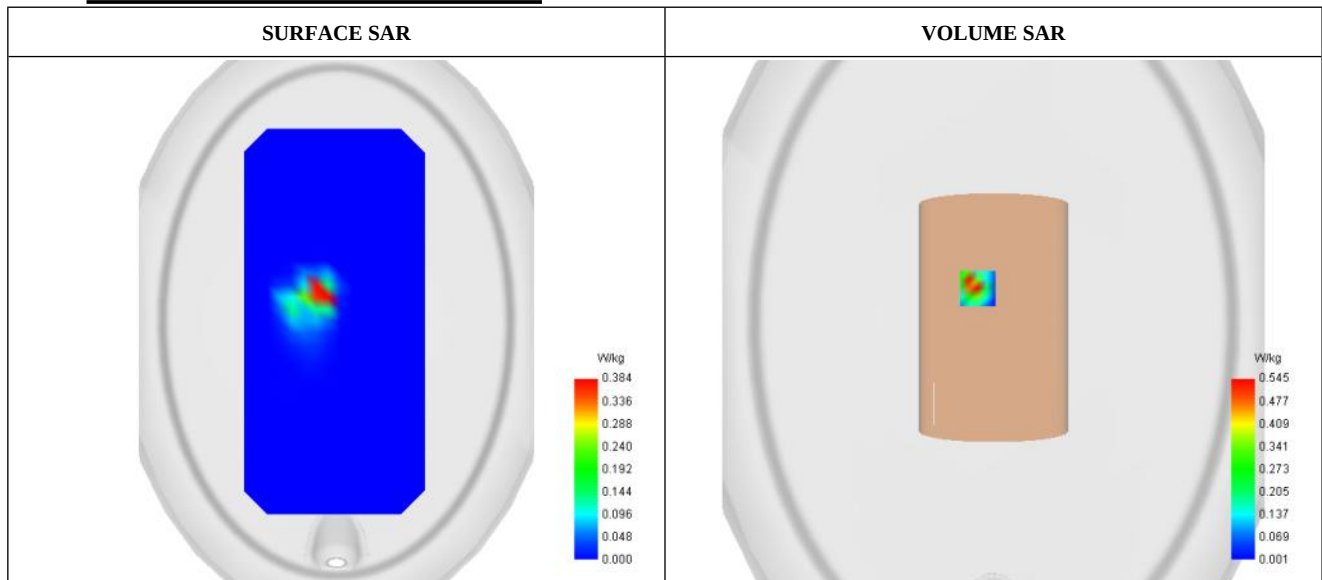
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	Band 2 (1900)
Channels/Frequency	Middle (9400)/ frequency 1880.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	40.000
Relative permittivity (imaginary part)	13.408
Conductivity (S/m)	1.400

C. SAR Surface and Volume



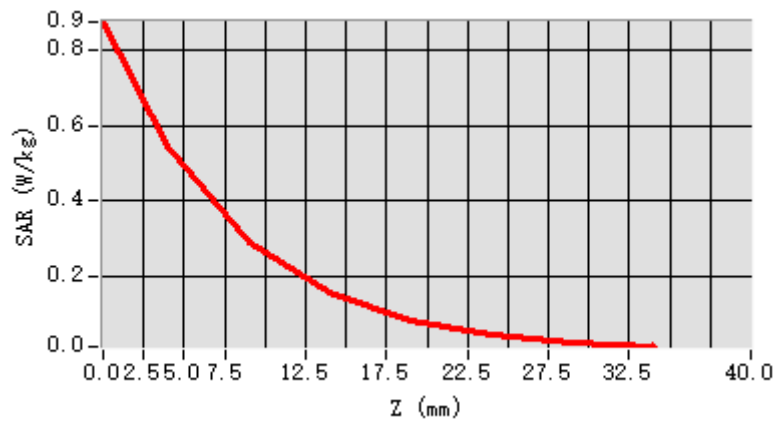
Maximum location: X=-14.00, Y=30.00 ; SAR Peak: 0.94 W/kg

D. SAR 1g & 10g

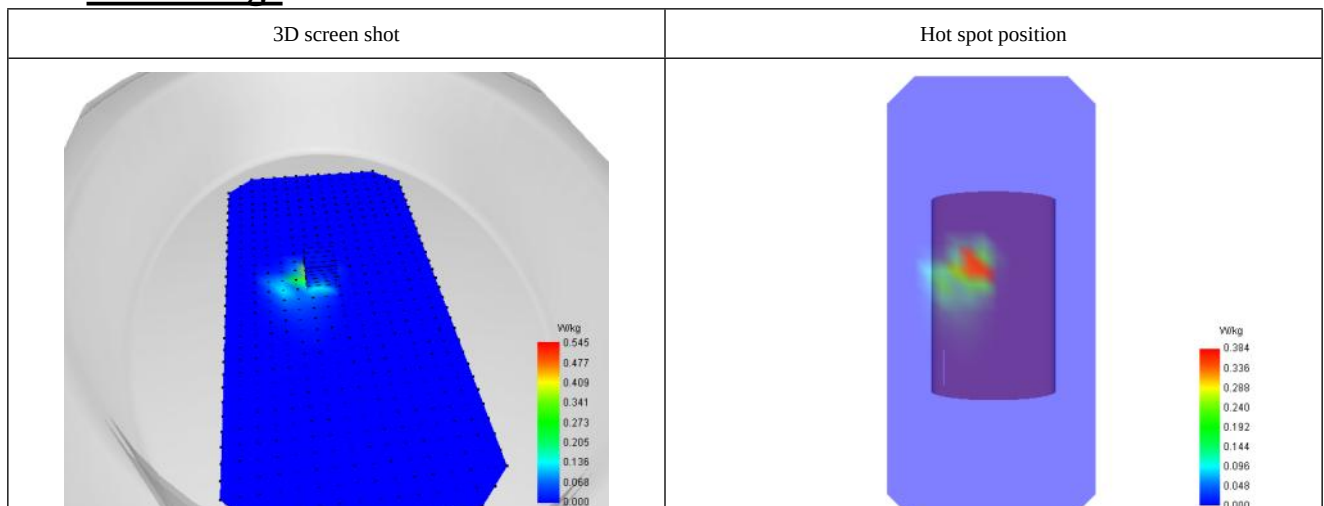
SAR 10g (W/Kg)	0.228
SAR 1g (W/Kg)	0.513
Variation (%)	-3.000
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	53.027523

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.877	0.545	0.289	0.153	0.081	0.043	0.022



F. 3D Image



#4

Date of measurement: 25/2/2026

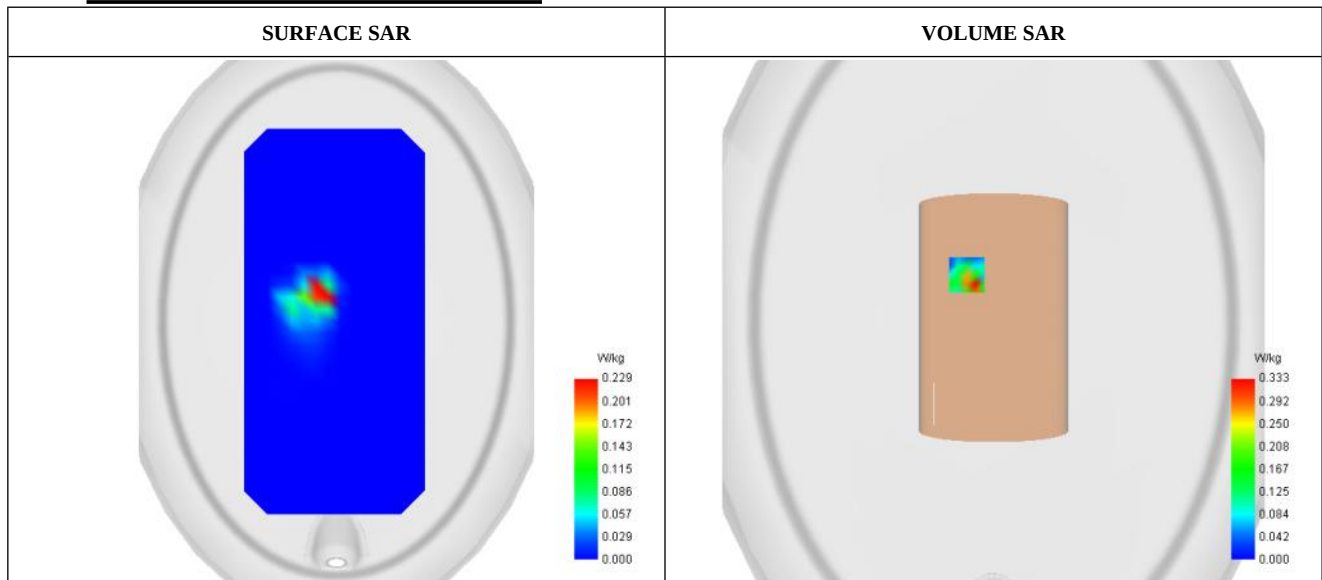
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	1.66
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	Band 5 (850)
Channels/Frequency	Middle (4182)/ frequency 836.40 Mhz

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	41.500
Relative permittivity (imaginary part)	19.400
Conductivity (S/m)	0.901

C. SAR Surface and Volume



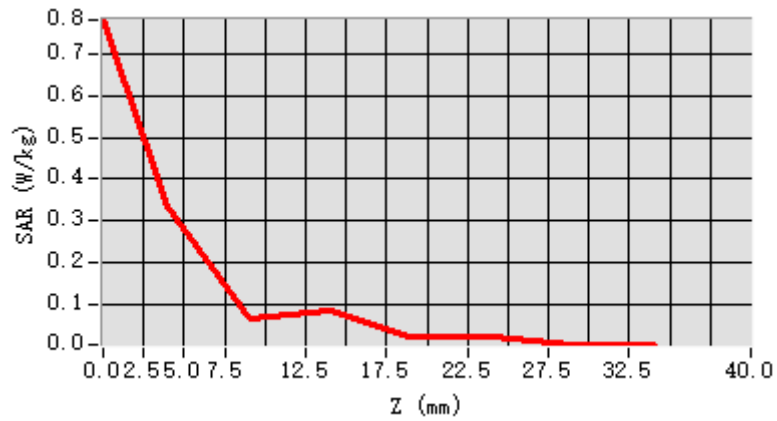
Maximum location: X=-24.00, Y=42.00 ; SAR Peak: 0.58 W/kg

D. SAR 1g & 10g

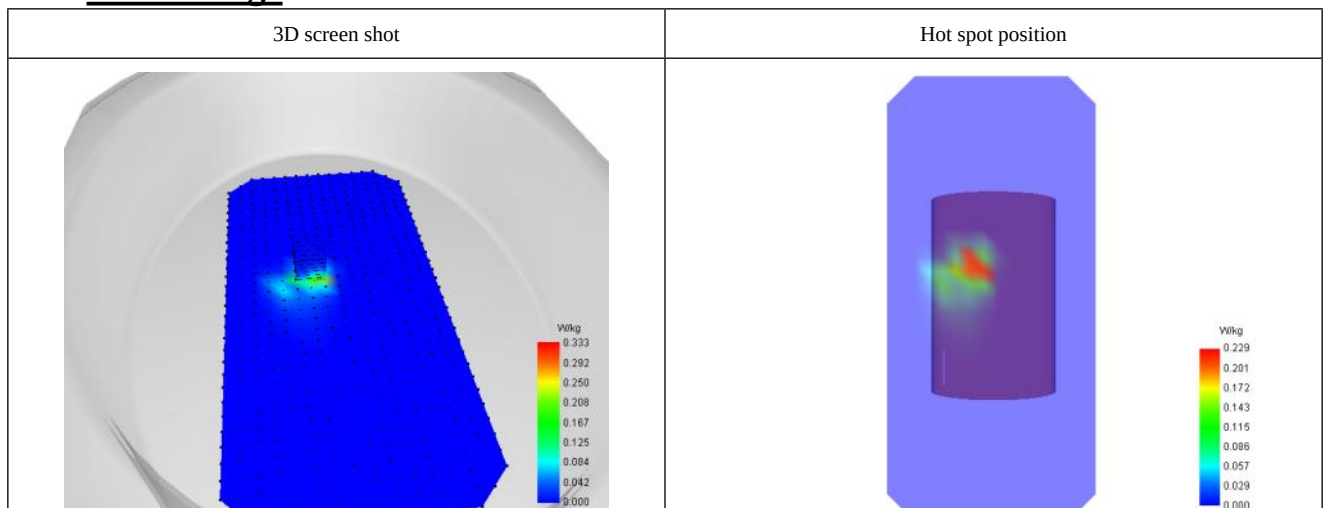
SAR 10g (W/Kg)	0.116
SAR 1g (W/Kg)	0.298
Variation (%)	-1.370
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	30.941704

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.780	0.223	0.069	0.085	0.024	0.023	0.007



F. 3D Image



#5

Date of measurement: 28/2/2026

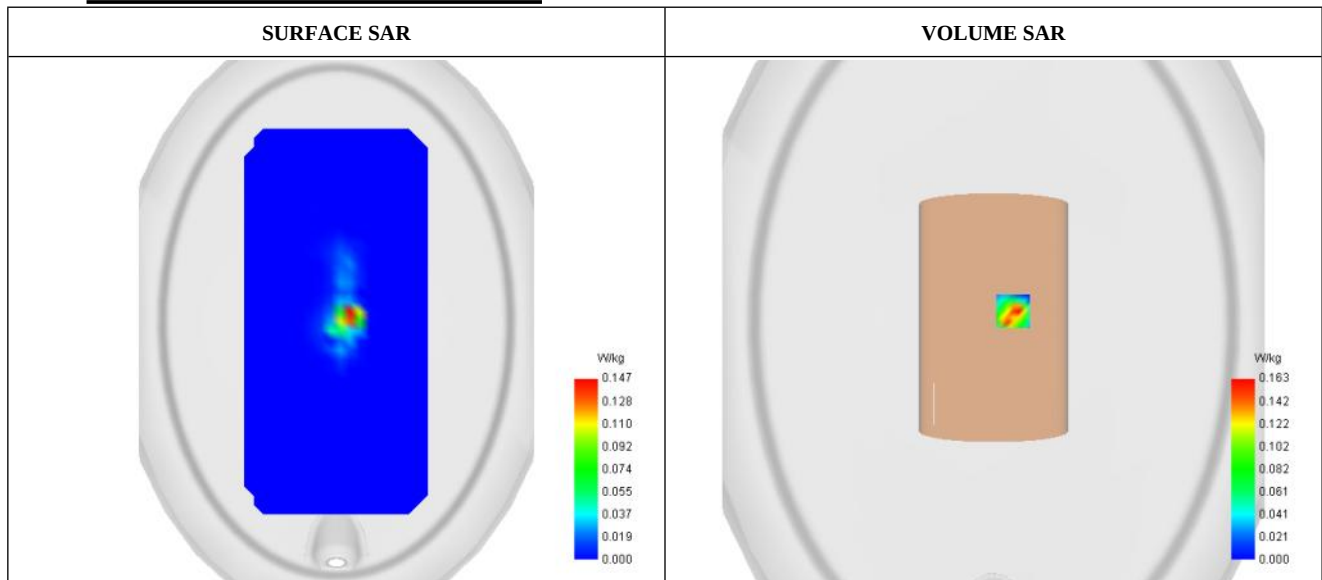
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.38
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	Bluetooth
Channels/Frequency	Mid (19)/ frequency 2440.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	2440.00
Relative permittivity (real part)	39.202
Relative permittivity (imaginary part)	13.219
Conductivity (S/m)	1.821

C. SAR Surface and Volume



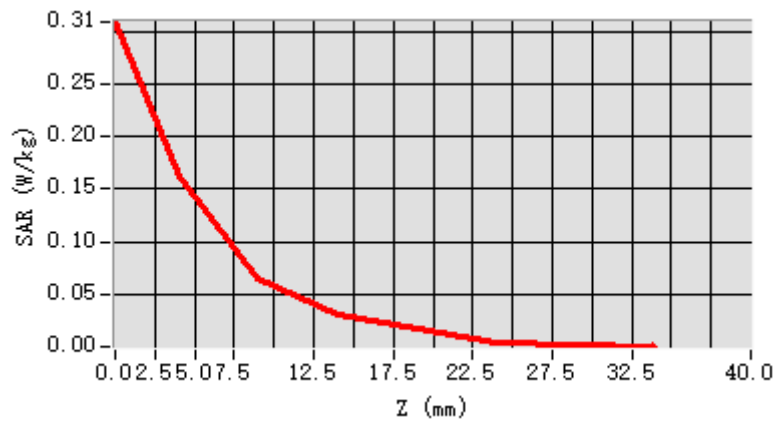
Maximum location: X=18.00, Y=9.00 ; SAR Peak: 0.29 W/kg

D. SAR 1g & 10g

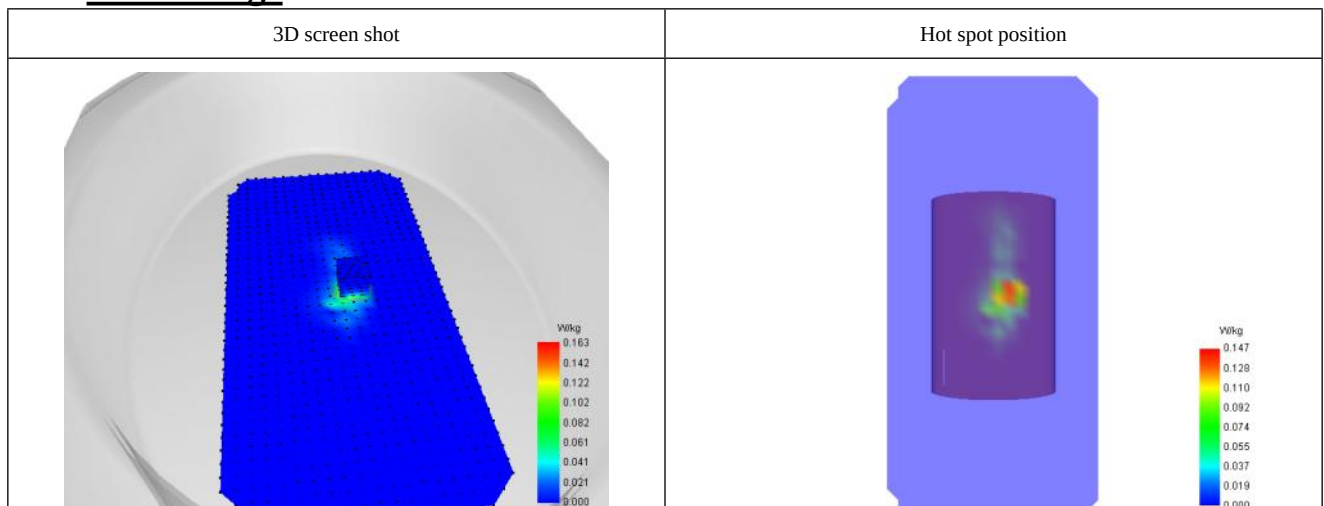
SAR 10g (W/Kg)	0.058
SAR 1g (W/Kg)	0.142
Variation (%)	-1.070
Horizontal validation criteria: minimum distance (mm)	10.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	40.490798

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.309	0.163	0.066	0.031	0.017	0.005	0.003



F. 3D Image



#6

Date of measurement: 2/3/2026

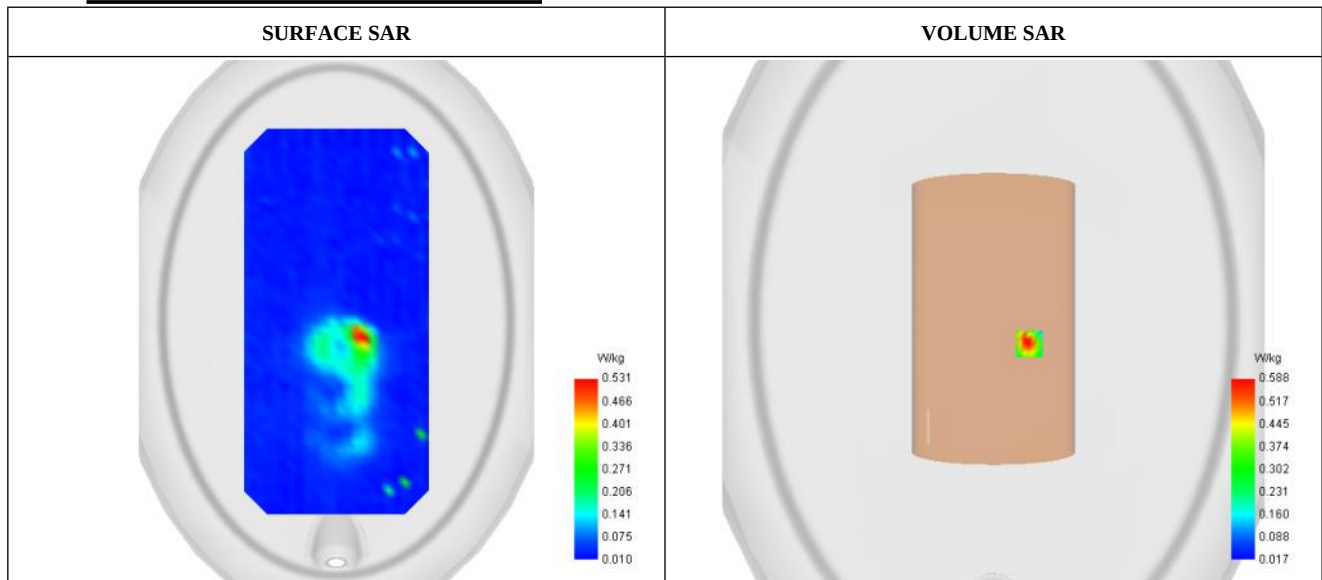
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.30
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	U-NII-1
Channels/Frequency	Middle (40)/ frequency 5200.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	5200.00
Relative permittivity (real part)	36.000
Relative permittivity (imaginary part)	16.130
Conductivity (S/m)	4.660

C. SAR Surface and Volume



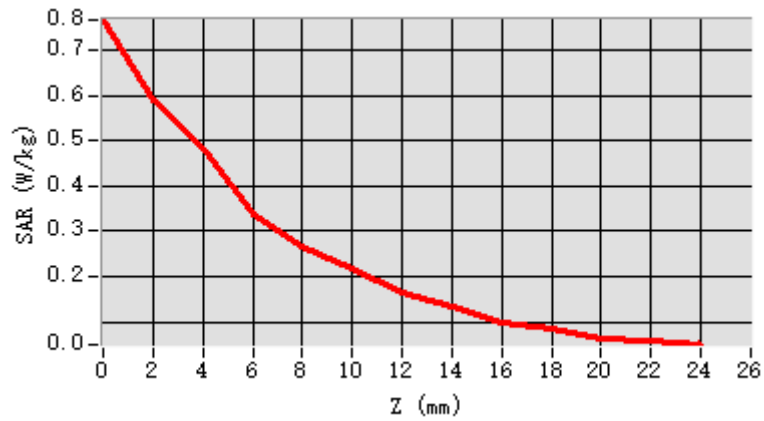
Maximum location: X=32.00, Y=-20.00 ; SAR Peak: 0.89 W/kg

D. SAR 1g & 10g

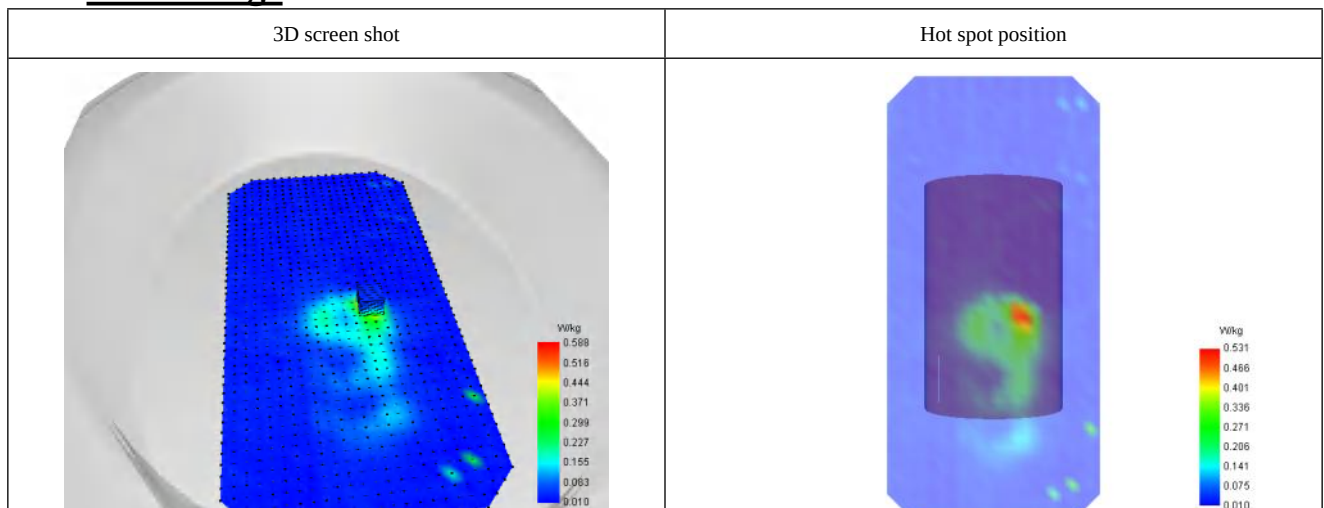
SAR 10g (W/Kg)	0.183
SAR 1g (W/Kg)	0.379
Variation (%)	-0.960
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	82.142857

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)	0.767	0.588	0.483	0.337	0.267	0.217	0.167	0.133	0.099	0.084	0.065	0.060	0.060



F. 3D Image



#7

Date of measurement: 3/3/2026

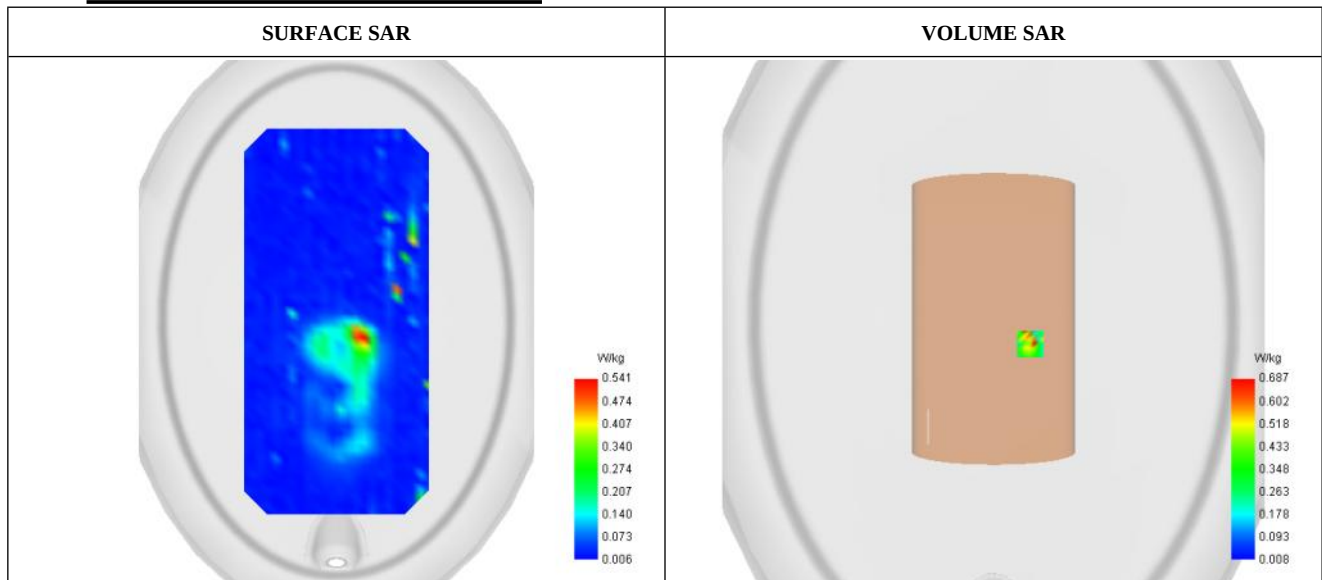
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.27
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	U-NII-3
Channels/Frequency	Higher (165)/ frequency 5825.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	5825.00
Relative permittivity (real part)	35.275
Relative permittivity (imaginary part)	16.370
Conductivity (S/m)	5.298

C. SAR Surface and Volume



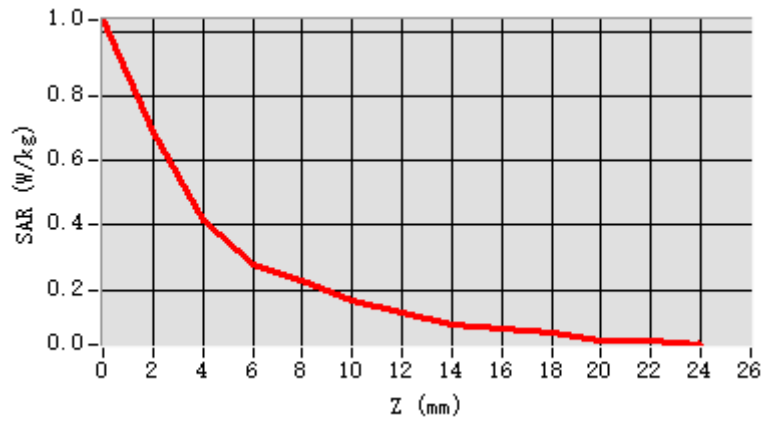
Maximum location: X=33.00, Y=-20.00 ; SAR Peak: 1.44 W/kg

D. SAR 1g & 10g

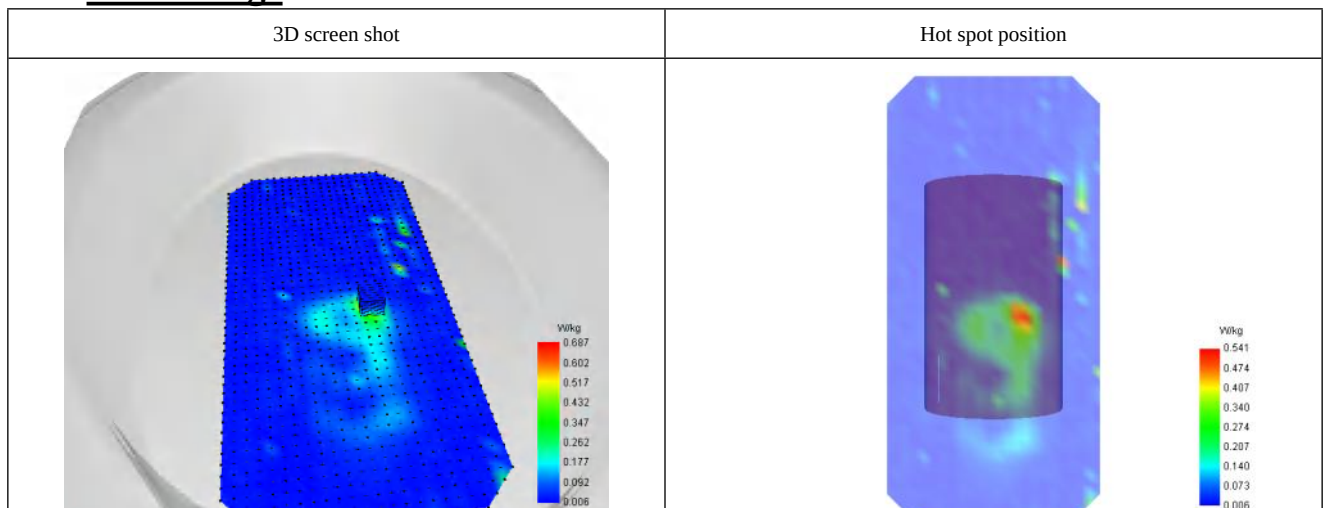
SAR 10g (W/Kg)	0.177
SAR 1g (W/Kg)	0.369
Variation (%)	2.230
Horizontal validation criteria: minimum distance (mm)	4.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	60.262009

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)	1.036	0.687	0.414	0.278	0.229	0.167	0.131	0.092	0.076	0.067	0.044	0.040



F. 3D Image



#8

Date of measurement: 28/2/2026

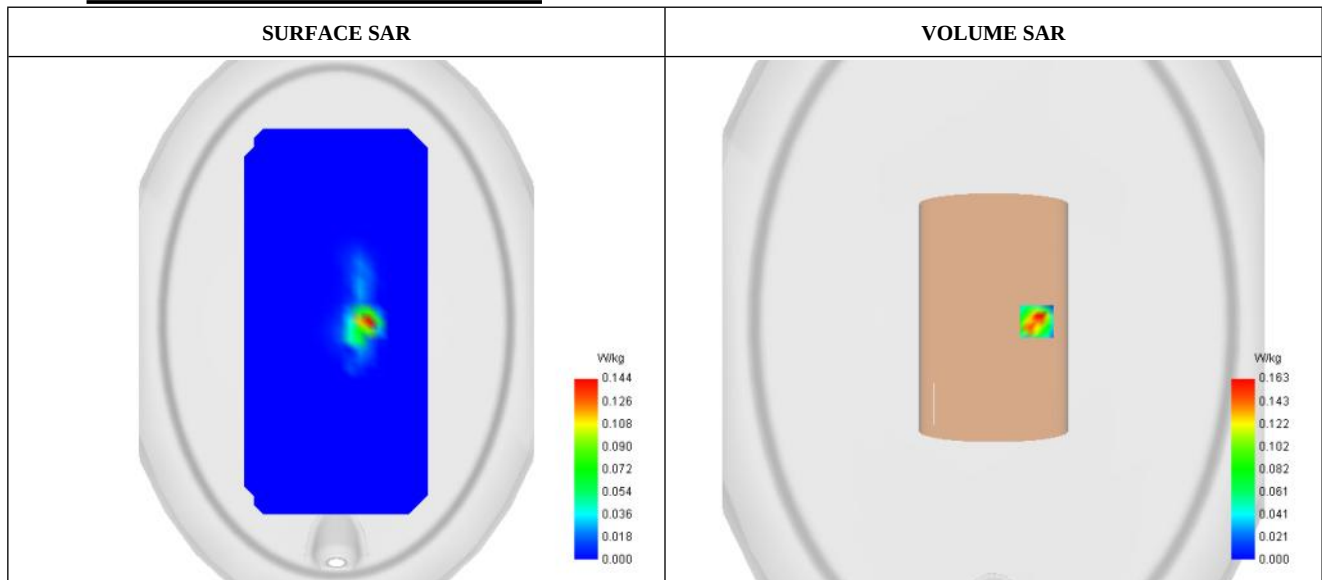
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.38
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	ISM
Channels/Frequency	High (11)/ frequency 2462.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	2462.00
Relative permittivity (real part)	39.226
Relative permittivity (imaginary part)	13.207
Conductivity (S/m)	1.806

C. SAR Surface and Volume



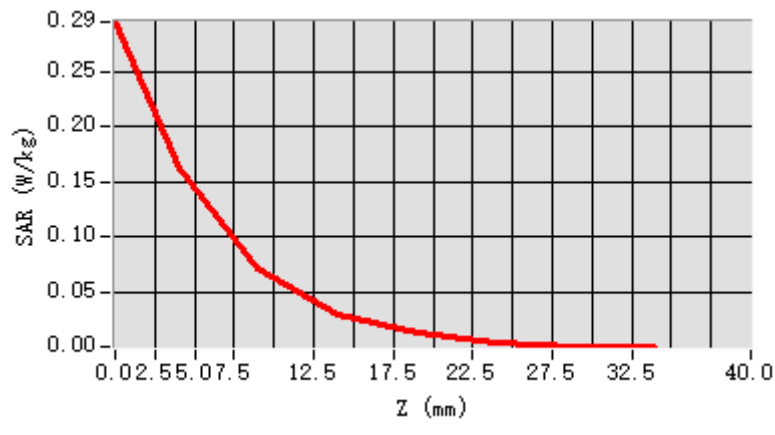
Maximum location: X=39.00, Y=0.00 ; SAR Peak: 0.30 W/kg

D. SAR 1g & 10g

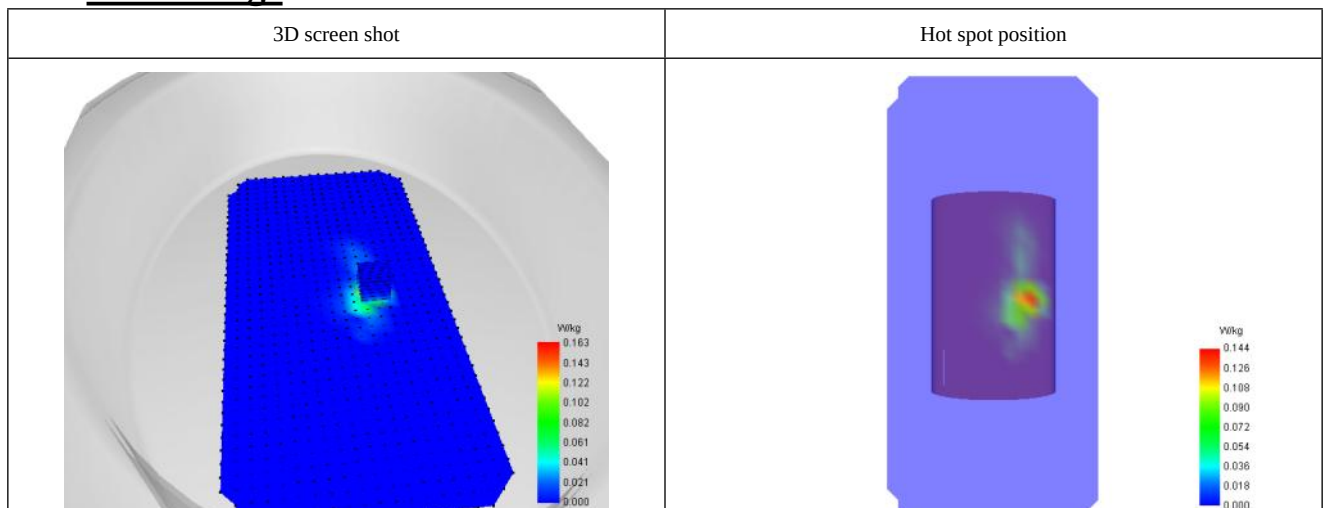
SAR 10g (W/Kg)	0.059
SAR 1g (W/Kg)	0.146
Variation (%)	0.950
Horizontal validation criteria: minimum distance (mm)	7.071068
Vertical validation criteria: SAR ratio M2/M1 (%)	43.558282

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.295	0.163	0.071	0.030	0.013	0.004	0.001



F. 3D Image



#9

Date of measurement: 27/2/2026

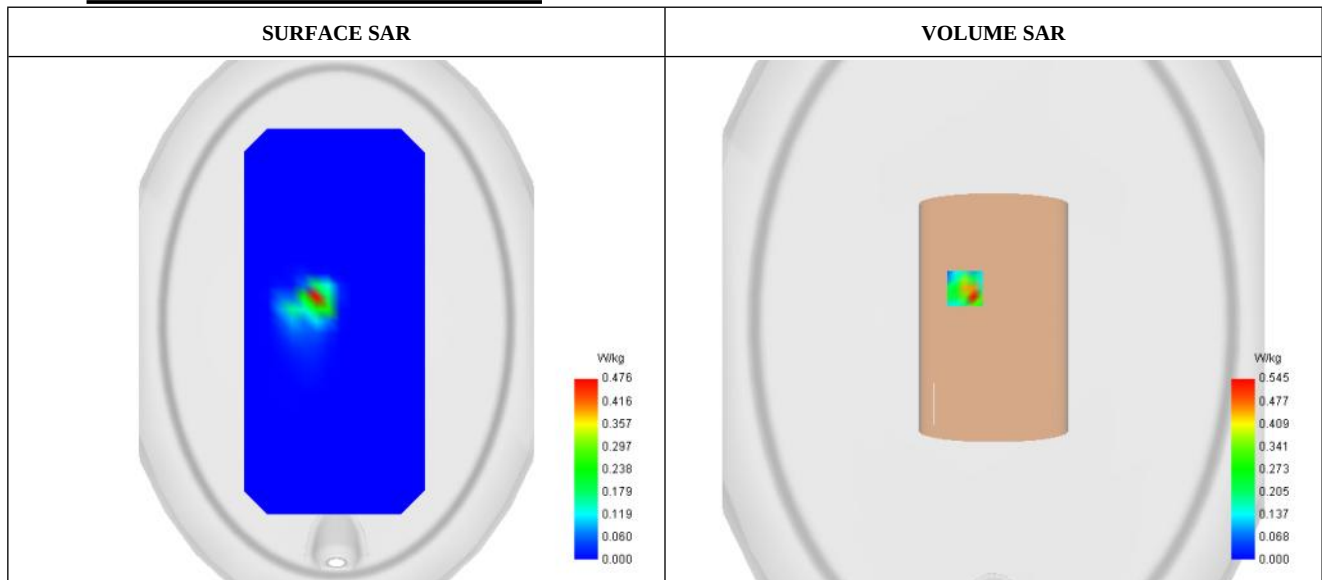
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	LTE band 2
Channel Center [EARFCN] / Channel Center [MHz]	Middle (18900)/ frequency 1880.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	40.000
Relative permittivity (imaginary part)	13.408
Conductivity (S/m)	1.400

C. SAR Surface and Volume



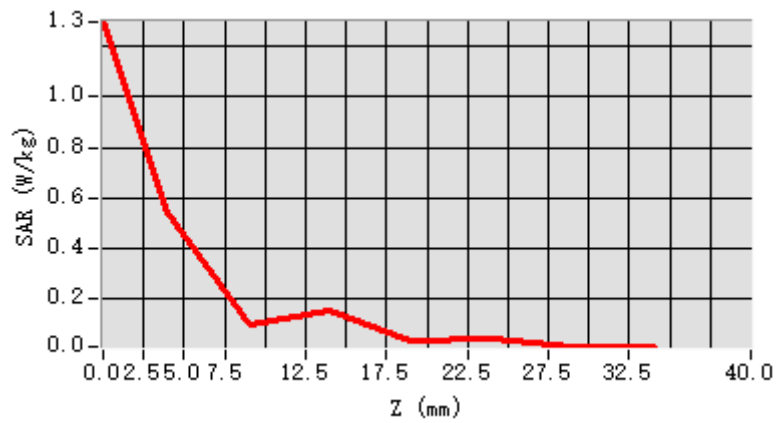
Maximum location: X=-26.00, Y=30.00 ; SAR Peak: 0.93 W/kg

D. SAR 1g & 10g

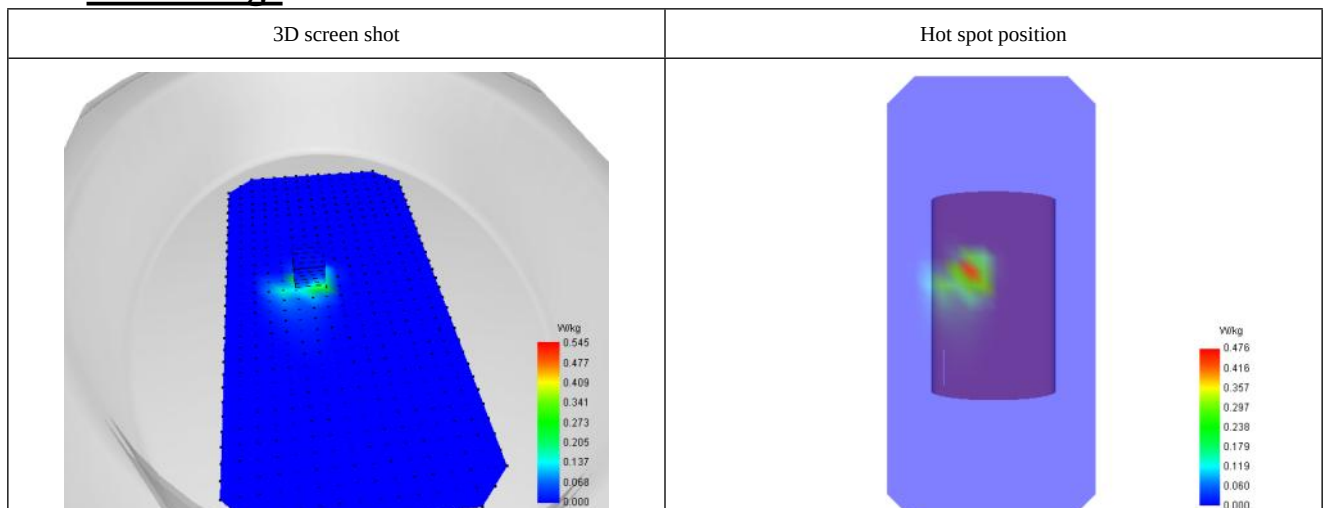
SAR 10g (W/Kg)	0.205
SAR 1g (W/Kg)	0.482
Variation (%)	1.820
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	31.746032

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.298	0.315	0.100	0.157	0.033	0.045	0.010



F. 3D Image



#10

Date of measurement: 24/2/2026

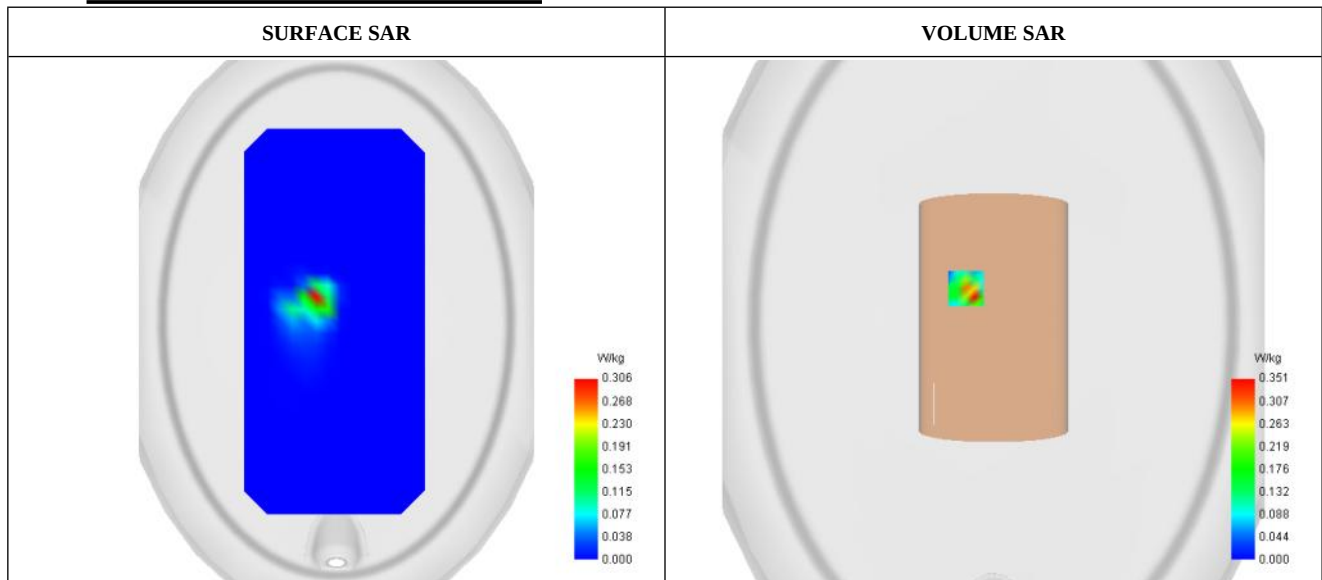
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	1.65
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	LTE band 17
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23790)/ frequency 710.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	710.000
Relative permittivity (real part)	42.123
Relative permittivity (imaginary part)	23.233
Conductivity (S/m)	0.916

C. SAR Surface and Volume



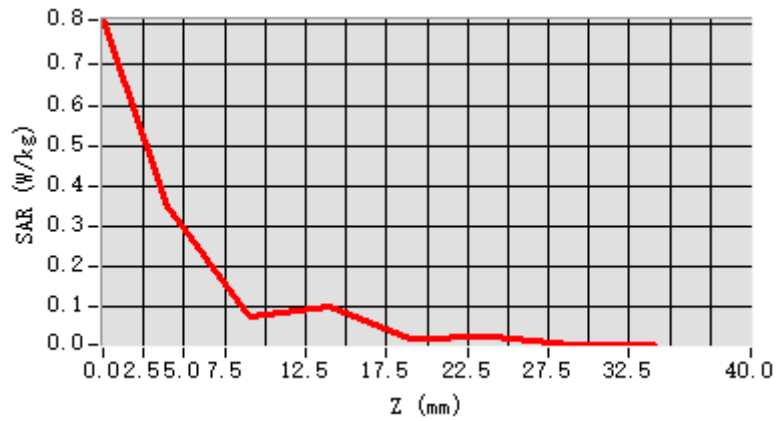
Maximum location: X=-25.00, Y=30.00 ; SAR Peak: 0.59 W/kg

D. SAR 1g & 10g

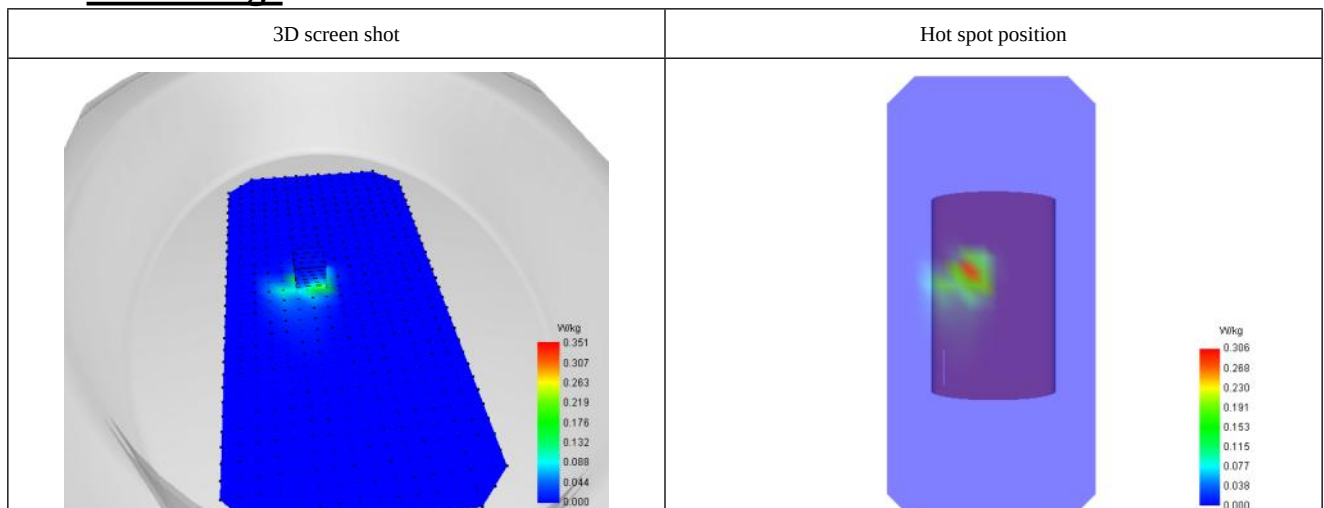
SAR 10g (W/Kg)	0.135
SAR 1g (W/Kg)	0.315
Variation (%)	-0.090
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	31.120332

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.812	0.241	0.075	0.101	0.024	0.028	0.007



F. 3D Image



#11

Date of measurement: 26/2/2026

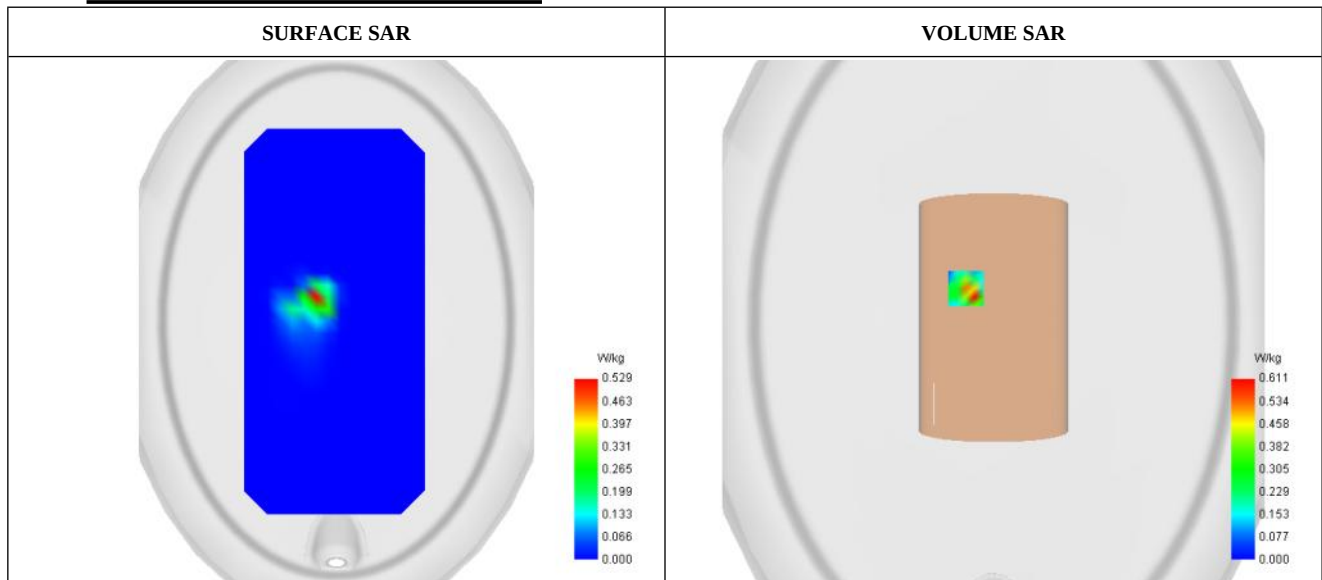
A. Experimental conditions.

Probe	0523-EPGO-403
ConvF	2.05
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5.0mm,Complete
Phantom	ELLI
Device Position	Body
Band	LTE band 66
Channel Center [EARFCN] / Channel Center [MHz]	Middle (132322)/ frequency 1745.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	1745.000
Relative permittivity (real part)	40.110
Relative permittivity (imaginary part)	14.120
Conductivity (S/m)	1.369

C. SAR Surface and Volume



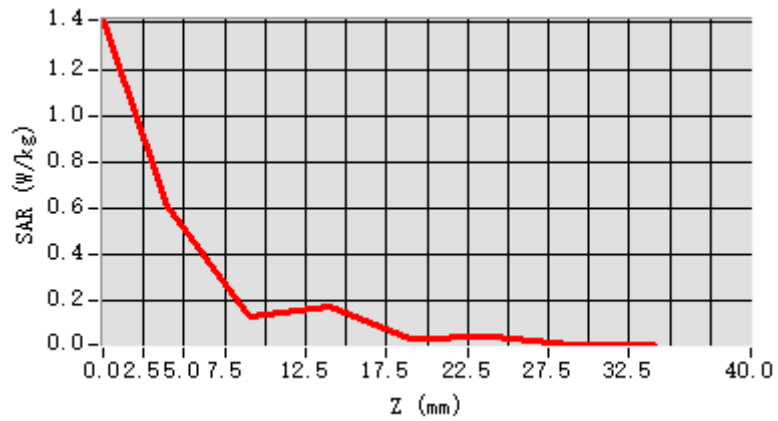
Maximum location: X=-25.00, Y=30.00 ; SAR Peak: 1.03 W/kg

D. SAR 1g & 10g

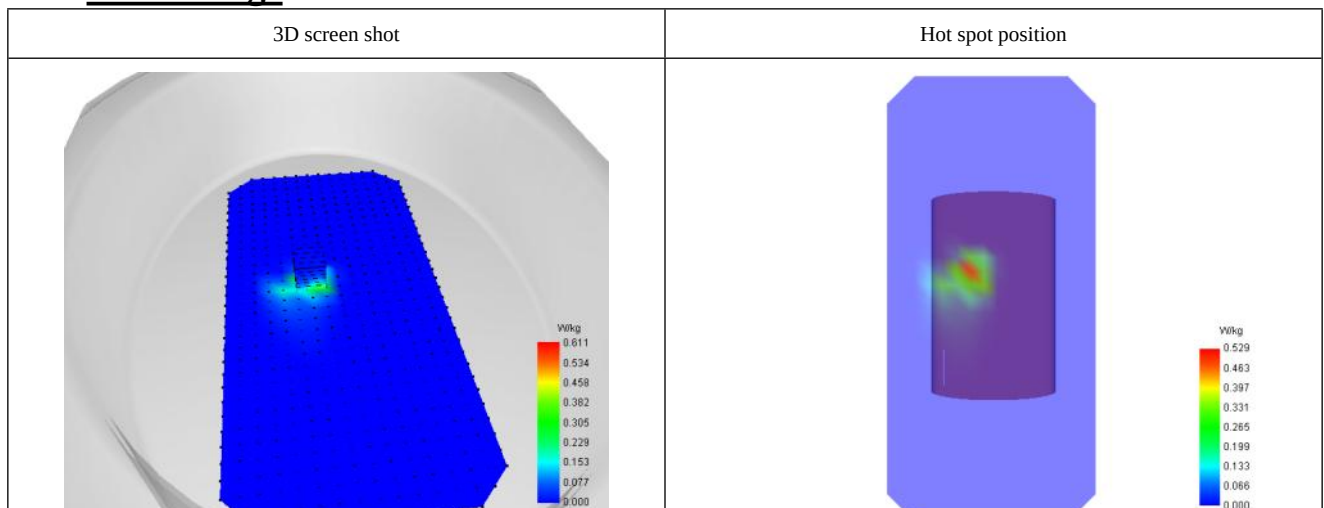
SAR 10g (W/Kg)	0.231
SAR 1g (W/Kg)	0.535
Variation (%)	-0.760
Horizontal validation criteria: minimum distance (mm)	11.313708
Vertical validation criteria: SAR ratio M2/M1 (%)	31.311155

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.413	0.511	0.160	0.175	0.042	0.049	0.012



F. 3D Image



Appendix D. Calibration Certificate

Table of contents
E Field Probe - EPGO0523-403
750 MHz Dipole - SN 03/15 DIP 0G750-355
835 MHz Dipole - SN 03/15 DIP 0G835-347
1800 MHz Dipole - SN 03/15 DIP 1G800-349
1900 MHz Dipole - SN 03/15 DIP 1G900-350
2450 MHz Dipole - SN 03/15 DIP 2G450-352
5000-6000 MHz Dipole - SN 03/14 WGA33



COMOSAR E-Field Probe Calibration Report

Ref : ACR.307.3.25.BES.A

**GUANGDONG ASIA HONGKE TEST
TECHNOLOGY CO., LTD**
NO.1/F,BUILDING B1, JUNFENG INDUSTRIAL PARK,
CHONGQING ROAD, HEPING COMMUNITY,
FUHAIHAI STREET, BAO'AN DISTRICT,SHENZHEN,
GUANGDONG 518055, P.R.CHINA
MVG COMOSAR DOSIMETRIC E-FIELD PROBE
SERIAL NO.: SN 39/21 EPG00523-403

Calibrated at MVG
Z.I. de la pointe du diable
Technopôle Brest Iroise – 295 avenue Alexis de Rochon
29280 PLOUZANE - FRANCE

Calibration date: 09/09/2025



Accreditations #2-6789
Scope available on www.cofrac.fr

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Summary:

This document presents the method and results from an accredited COMOSAR E-Field Probe calibration performed at MVG, using the CALIPROBE test bench, for use with a MVG COMOSAR system only. The test results covered by accreditation are traceable to the International System of Units (SI).



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

	<i>Name</i>	<i>Function</i>	<i>Date</i>	<i>Signature</i>
<i>Prepared by :</i>	Jérôme Le Gall	Measurement Responsible	09/08/2025	
<i>Checked by :</i>	Jérôme Luc	Technical Manager	09/08/2025	
<i>Approved by :</i>	Yann Toutain	Laboratory Director	09/09/2025	

	<i>Customer Name</i>
<i>Distribution :</i>	Shenzhen Asia Hongke

<i>Issue</i>	<i>Name</i>	<i>Date</i>	<i>Modifications</i>
A	Jérôme Luc	9/09/2025	Initial release



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

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COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

1 DEVICE UNDER TEST

Device Under Test	
Device Type	COMOSAR DOSIMETRIC E FIELD PROBE
Manufacturer	MVG
Model	SSE2
Serial Number	SN 39/21 EPGO0523-403
Product Condition (new / used)	New
Frequency Range of Probe	0.15 GHz-6GHz
Resistance of Three Dipoles at Connector	Dipole 1: R1=0.199 M Ω Dipole 2: R2=0.218 M Ω Dipole 3: R3=0.210 M Ω

2 PRODUCT DESCRIPTION

2.1 GENERAL INFORMATION

MVG's COMOSAR E field Probes are built in accordance to the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards.



Figure 1 – MVG COMOSAR Dosimetric E field Probe

Probe Length	330 mm
Length of Individual Dipoles	2 mm
Maximum external diameter	8 mm
Probe Tip External Diameter	2.5 mm
Distance between dipoles / probe extremity	1 mm

3 MEASUREMENT METHOD

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards provide recommended practices for the probe calibrations, including the performance characteristics of interest and methods by which to assess their affect. All calibrations / measurements performed meet the fore mentioned standards.

3.1 LINEARITY

The evaluation of the linearity was done in free space using the waveguide, performing a power sweep to cover the SAR range 0.01W/kg to 100W/kg.

3.2 SENSITIVITY

The sensitivity factors of the three dipoles were determined using a two step calibration method (air and tissue simulating liquid) using waveguides as outlined in the standards.

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COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

3.3 LOWER DETECTION LIMIT

The lower detection limit was assessed using the same measurement set up as used for the linearity measurement. The required lower detection limit is 10 mW/kg.

3.4 ISOTROPY

The axial isotropy was evaluated by exposing the probe to a reference wave from a standard dipole with the dipole mounted under the flat phantom in the test configuration suggested for system validations and checks. The probe was rotated along its main axis from 0 to 360 degrees in 15-degree steps. The hemispherical isotropy is determined by inserting the probe in a thin plastic box filled with tissue-equivalent liquid, with the plastic box illuminated with the fields from a half wave dipole. The dipole is rotated about its axis (0°–180°) in 15° increments. At each step the probe is rotated about its axis (0°–360°).

3.1 BOUNDARY EFFECT

The boundary effect is defined as the deviation between the SAR measured data and the expected exponential decay in the liquid when the probe is oriented normal to the interface. To evaluate this effect, the liquid filled flat phantom is exposed to fields from either a reference dipole or waveguide. With the probe normal to the phantom surface, the peak spatial average SAR is measured and compared to the analytical value at the surface.

The boundary effect uncertainty can be estimated according to the following uncertainty approximation formula based on linear and exponential extrapolations between the surface and $d_{be} + d_{step}$ along lines that are approximately normal to the surface:

$$SAR_{uncertainty} [\%] = \Delta SAR_{be} \frac{(d_{be} + d_{step})^2 (e^{-d_{be}/\delta})}{2d_{step} \delta/2} \text{ for } (d_{be} + d_{step}) < 10 \text{ mm}$$

where

$SAR_{uncertainty}$	is the uncertainty in percent of the probe boundary effect
d_{be}	is the distance between the surface and the closest <i>zoom-scan</i> measurement point, in millimetre
Δ_{step}	is the separation distance between the first and second measurement points that are closest to the phantom surface, in millimetre, assuming the boundary effect at the second location is negligible
δ	is the minimum penetration depth in millimetres of the head tissue-equivalent liquids defined in this standard, i.e., $\delta \approx 14$ mm at 3 GHz;
ΔSAR_{be}	in percent of SAR is the deviation between the measured SAR value, at the distance d_{be} from the boundary, and the analytical SAR value.

The measured worst case boundary effect SARuncertainty[%] for scanning distances larger than 4mm is 1.0% Limit ,2%).



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

4 MEASUREMENT UNCERTAINTY

The guidelines outlined in the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards were followed to generate the measurement uncertainty associated with an E-field probe calibration using the waveguide technique. All uncertainties listed below represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2, traceable to the Internationally Accepted Guides to Measurement Uncertainty.

Uncertainty analysis of the probe calibration in waveguide					
ERROR SOURCES	Uncertainty value (%)	Probability Distribution	Divisor	ci	Standard Uncertainty (%)
Expanded uncertainty 95 % confidence level k = 2					14 %

5 CALIBRATION MEASUREMENT RESULTS

Calibration Parameters	
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

5.1 SENSITIVITY IN AIR

Normx dipole 1 ($\mu\text{V}/(\text{V}/\text{m})^2$)	Normy dipole 2 ($\mu\text{V}/(\text{V}/\text{m})^2$)	Normz dipole 3 ($\mu\text{V}/(\text{V}/\text{m})^2$)
1.26	0.87	0.77

DCP dipole 1 (mV)	DCP dipole 2 (mV)	DCP dipole 3 (mV)
113	108	113

Calibration curves $e_i=f(V)$ (i=1,2,3) allow to obtain E-field value using the formula:

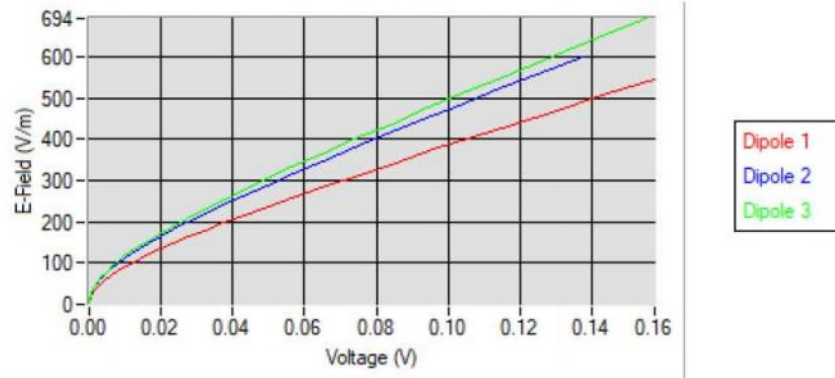
$$E = \sqrt{E_1^2 + E_2^2 + E_3^2}$$



COMOSAR E-FIELD PROBE CALIBRATION REPORT

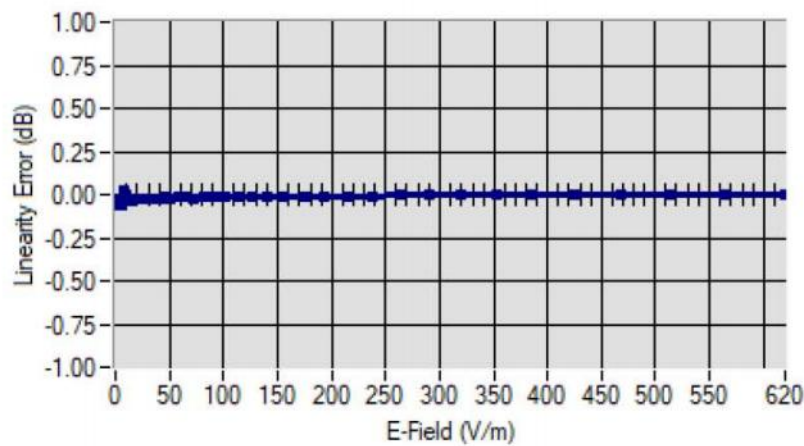
Ref: ACR.307.3.24.BES.A

Calibration curves



5.2 LINEARITY

Linearity



Linearity: +/-1.42% (+/-0.06dB)



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

5.3 SENSITIVITY IN LIQUID

Liquid	Frequency (MHz +/- 100MHz)	ConvF
HL600	600	1.62
HL750	750	1.65
HL850	835	1.66
HL900	900	1.77
HL1500	1500	2.09
HL1750	1750	2.09
HL1800	1800	2.05
HL1900	1900	2.05
HL2000	2000	2.41
HL2100	2100	2.36
HL2300	2300	2.55
HL2450	2450	2.38
HL2600	2600	2.35
HL3300	3300	2.04
HL3500	3500	1.98
HL3700	3700	2.11
HL3900	3900	2.54
HL4200	4200	2.22
HL4600	4600	2.40
HL4900	4900	2.33
HL5200	5200	2.30
HL5400	5400	2.30
HL5600	5600	2.29
HL5800	5800	2.27

LOWER DETECTION LIMIT: 8mW/kg

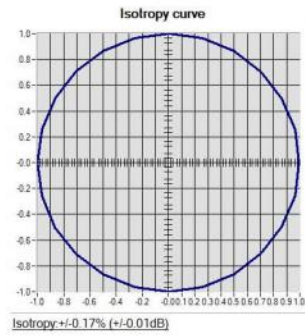


COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref. ACR.307.3.24.BES.A

5.4 ISOTROPY

HL1800 MHz





COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

6 LIST OF EQUIPMENT

Equipment Summary Sheet				
Equipment Description	Manufacturer / Model	Identification No.	Current Calibration Date	Next Calibration Date
CALIPROBE Test Bench	Version 2	NA	Validated. No cal required.	Validated. No cal required.
Network Analyzer	Rohde & Schwarz ZVM	100203	08/2024	08/2027
Network Analyzer	Agilent 8753ES	MY40003210	10/2022	10/2025
Network Analyzer – Calibration kit	Rohde & Schwarz ZV-Z235	101223	05/2024	05/2027
Network Analyzer – Calibration kit	HP 85033D	3423A08186	06/2021	06/2027
Multimeter	Keithley 2000	1160271	02/2024	02/2027
Signal Generator	Rohde & Schwarz SMB	106589	04/2024	04/2027
Amplifier	MVG	MODU-023-C-0002	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Power Meter	NI-USB 5680	170100013	06/2024	06/2027
Power Meter	Rohde & Schwarz NRVD	832839-056	11/2022	11/2025
Directional Coupler	Krytar 158020	131467	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Waveguide	MVG	SN 32/16 WG4_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_0G900_1	Validated. No cal required.	Validated. No cal required.
Waveguide	MVG	SN 32/16 WG6_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_1G500_1	Validated. No cal required.	Validated. No cal required.
Waveguide	MVG	SN 32/16 WG8_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_1G800B_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_1G800H_1	Validated. No cal required.	Validated. No cal required.
Waveguide	MVG	SN 32/16 WG10_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_3G500_1	Validated. No cal required.	Validated. No cal required.

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COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.307.3.24.BES.A

Waveguide	MVG	SN 32/16 WG12_1	Validated. No cal required.	Validated. No cal required.
Liquid transition	MVG	SN 32/16 WGLIQ_5G000_1	Validated. No cal required.	Validated. No cal required.
Temperature / Humidity Sensor	Testo 184 H1	44225320	06/2024	06/2027



SAR Reference Dipole Calibration Report

Ref : ACR.53.23.24.BES.A

**GUANGDONG ASIA HONGKE TEST
TECHNOLOGY CO., LTD**
NO.1/F,BUILDING B1, JUNFENG INDUSTRIAL PARK,
CHONGQING ROAD, HEPING COMMUNITY ,
FUHAIHAI STREET, BAO'AN DISTRICT,SHENZHEN,
GUANGDONG 518055, P.R.CHINA
MVG COMOSAR REFERENCE DIPOLE
FREQUENCY: 750MHZ
SERIAL NO.: SN 03/15 DIP0G750-355

Calibrated at MVG
Z.I. de la pointe du diable
Technopôle Brest Iroise – 295 avenue Alexis de Rochon
29280 PLOUZANE - FRANCE

Calibration date: 02/21/2024



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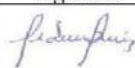
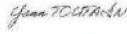
Summary:

This document presents the method and results from an accredited SAR reference dipole calibration performed in MVG using the COMOSAR test bench. All calibration results are traceable to national metrology institutions.



SAR REFERENCE DIPOLE CALIBRATION REPORT

REF : ACR.53.23.24.BES.A

	Name	Function	Date	Signature
Prepared by :	Pedro Ruiz	Measurement Responsible	2/22/2024	
Checked & approved by:	Jérôme Luc	Technical Manager	2/22/2024	
Authorized by:	Yann Toutain	Laboratory Director	2/27/2024	

Yann
Toutain ID

Signature
numérique de
Yann Toutain ID
Date : 2024.02.27
08:54:37 +01'00'

	Customer Name
Distribution :	Shenzhen Asia Hongke

Issue	Name	Date	Modifications
A	Pedro Ruiz	2/22/2024	Initial release



SAR REFERENCE DIPOLE CALIBRATION REPORT

REF: ACR.53.23.24.BES.A

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SAR REFERENCE DIPOLE CALIBRATION REPORT

REF: ACR.53.23.24.BES.A

1 INTRODUCTION

This document contains a summary of the requirements set forth by the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards for reference dipoles used for SAR measurement system validations and the measurements that were performed to verify that the product complies with the fore mentioned standards.

2 DEVICE UNDER TEST

Device Under Test	
Device Type	COMOSAR 750 MHz REFERENCE DIPOLE
Manufacturer	MVG
Model	SID750
Serial Number	SN 03/15DIP0G750-355
Product Condition (new / used)	Used

3 PRODUCT DESCRIPTION

3.1 GENERAL INFORMATION

MVG's COMOSAR Validation Dipoles are built in accordance to the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards. The product is designed for use with the COMOSAR test bench only.



Figure 1 – MVG COMOSAR Validation Dipole



4 MEASUREMENT METHOD

4.1 MECHANICAL REQUIREMENTS

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards specify the mechanical components and dimensions of the validation dipoles, with the dimension's frequency and phantom shell thickness dependent. The COMOSAR test bench employs a 2 mm phantom shell thickness therefore the dipoles sold for use with the COMOSAR test bench comply with the requirements set forth for a 2 mm phantom shell thickness. A direct method is used with a ISO17025 calibrated caliper.

4.2 S11 PARAMETER REQUIREMENTS

The dipole used for SAR system validation measurements and checks must have a S11 of -20 dB or better. The S11 measurement shall be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. A direct method is used with a network analyser and its calibration kit, both with a valid ISO17025 calibration.

4.3 SAR REQUIREMENTS

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards provide requirements for reference dipoles used for system validation measurements. The following measurements were performed to verify that the product complies with the fore-mentioned standards.

5 MEASUREMENT UNCERTAINTY

5.1 MECHANICAL DIMENSIONS

For the measurement in the range 0-300mm, the estimated expanded uncertainty (k=2) in calibration for the dimension measurement in mm is +/-0.20 mm with respect to measurement conditions.

For the measurement in the range 300-450mm, the estimated expanded uncertainty (k=2) in calibration for the dimension measurement in mm is +/-0.44 mm with respect to measurement conditions.

5.2 S11 PARAMETER

The estimated expanded uncertainty (k=2) in calibration for the S11 parameter in linear is +/-0.08 with respect to measurement conditions.

5.3 SAR

The guidelines outlined in the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards were followed to generate the measurement uncertainty for validation measurements.

The estimated expanded uncertainty (k=2) in calibration for the 1g and 10g SAR measurement in W/kg is +/-19% with respect to measurement conditions.



SAR REFERENCE DIPOLE CALIBRATION REPORT

REF: ACR.53.23.24.BES.A

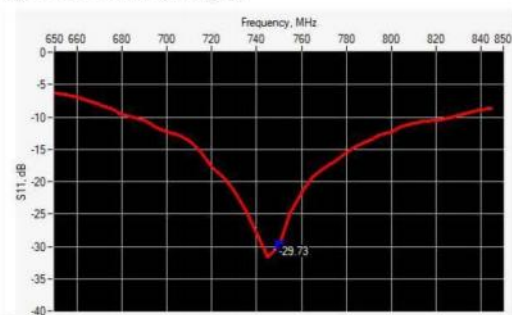
6 CALIBRATION RESULTS

6.1 MECHANICAL DIMENSIONS

L mm		h mm		d mm	
Measured	Required	Measured	Required	Measured	Required
-	176.00 +/- 2%	-	100.00 +/- 2%	-	6.35 +/- 2%

6.2 S11 PARAMETER

6.2.1 S11 parameter in Head Liquid



Frequency (MHz)	S11 parameter (dB)	Requirement (dB)	Impedance
750	-29.73	-20	$52.5\Omega + 2.2j\Omega$

6.3 SAR

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom.

6.3.1 SAR with Head Liquid

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements should produce the SAR values shown below (for phantom thickness of 2 mm), within the uncertainty for the system validation. All SAR values are normalized to 1 W forward power. In bracket, the measured SAR is given with the used input power.

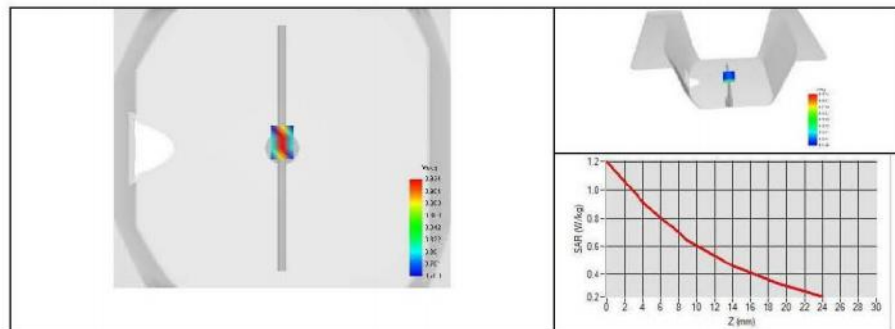


SAR REFERENCE DIPOLE CALIBRATION REPORT

REF : ACR 53.23.24.BES.A

Software	OPENSAR V5
Phantom	SN 13/09 SAM68
Probe	3523-EPGO-429
Liquid	Head Liquid Values: $\epsilon_{ps}' : 45.0$ $\sigma : 0.87$
Distance between dipole center and liquid	15.0 mm
Area scan resolution	$dx=8mm/dy=8mm$
Zoon Scan Resolution	$dx=8mm/dy=8mm/dz=5mm$
Frequency	750 MHz
Input power	20 dBm
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

Frequency	1g SAR (W/kg)			10g SAR (W/kg)		
	Measured	Measured normalized to 1W	Target normalized to 1W	Measured	Measured normalized to 1W	Target normalized to 1W
750 MHz	0.86	8.60	8.49	0.58	5.78	5.55





SAR REFERENCE DIPOLE CALIBRATION REPORT

REF: ACR 53.23.24.BES.A

7 LIST OF EQUIPMENT

Equipment Summary Sheet				
Equipment Description	Manufacturer / Model	Identification No.	Current Calibration Date	Next Calibration Date
SAM Phantom	MVG	SN 13/09 SAM68	Validated. No cal required.	Validated. No cal required.
COMOSAR Test Bench	Version 3	NA	Validated. No cal required.	Validated. No cal required.
Network Analyzer	Rohde & Schwarz ZVM	100203	08/2021	08/2024
Network Analyzer – Calibration kit	Rohde & Schwarz ZV-Z235	101223	07/2022	07/2025
Calipers	Mitutoyo	SN 0009732	11/2022	11/2025
Reference Probe	MVG	3523-EPGO-429	11/2023	11/2024
Multimeter	Keithley 2000	4013982	02/2023	02/2026
Signal Generator	Rohde & Schwarz SMB	106589	03/2022	03/2025
Amplifier	MVG	MODU-023-C-0002	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Power Meter	NI-USB 5680	170100013	06/2021	06/2024
Power Meter	Keysight U2000A	SN: MY62340002	10/2022	10/2025
Directional Coupler	Krytar 158020	131467	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Temperature / Humidity Sensor	Testo 184 H1	44225320	06/2021	06/2024



SAR Reference Dipole Calibration Report

Ref : ACR.53.24.24.BES.A

GUANGDONG ASIA HONGKE TEST TECHNOLOGY CO., LTD

NO.1/F,BUILDING B1, JUNFENG INDUSTRIAL PARK,
CHONGQING ROAD, HEPING COMMUNITY ,
FUHAIHAI STREET, BAO'AN DISTRICT, SHENZHEN,
GUANGDONG 518055, P.R.CHINA

MVG COMOSAR REFERENCE DIPOLE

FREQUENCY: 835MHZ

SERIAL NO.: SN 03/15 DIP0G835-347

Calibrated at MVG

Z.I. de la pointe du diable

Technopôle Brest Iroise – 295 avenue Alexis de Rochon

29280 PLOUZANE – FRANCE

Calibration date: 02/21/2024



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Summary:

This document presents the method and results from an accredited SAR reference dipole calibration performed in MVG using the COMOSAR test bench. All calibration results are traceable to national metrology institutions.