

FCC SAR EVALUATION REPORT

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

Product Name : Smart Phone

Brand Name : CUBOT

Model Name : A40

Family Model : N/A

Report No. : S25031404610001

FCC ID : 2AHZ5A40

Prepared for

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TEST RESULT CERTIFICATION

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Product description

Product name Smart Phone
Brand Name CUBOT
Model and/or type A40
reference
Family Model N/A
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 Shenzhen NTEK. 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 S250314046011

Date of Test

Date (s) of performance of tests... Mar. 21, 2025~ Apr. 07, 2025

Date of Issue May. 21, 2025

Test Result **Pass**

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※ ※ Revision History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	May. 21, 2025	Owen Xiao

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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

HEAD AND 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 for A40 are as follows.

RF Exposure Conditions		Equipment Class -Highest Reported SAR (W/kg)				Max. Reported SAR (W/kg)
		PCE	DTS	NII	DSS	
1-g Head		0.367	0.501	0.067	0.030	0.367
1-g Body-Worn (Separation distance of 10mm)		0.852	0.289	0.057	0.015	0.852
1-g Hotspot (Separation distance of 10mm)		0.852	0.289	0.057	0.015	
Max Simultaneous Tx	Head	0.868	0.868	0.434	0.397	0.868
	Body-Worn	1.141	1.141	0.909	0.867	1.141
	Hotspot	1.141	1.141	0.909	0.867	

Note: The Max Simultaneous Tx 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	Smart Phone
Brand Name	CUBOT
Model Name	A40
Family Model	N/A
Model Difference	N/A
FCC ID	2AHZ5A40
Device Phase	Identical Prototype
Exposure Category	General population / Uncontrolled environment
Antenna Type	PIFA Antenna
Battery Information	DC 3.87V, 5100mAh, 19.737Wh
Power supply	DC 3.87V from Battery or DC 5V from Adapter 1 or DC 5V from Adapter 2.
HW Version	G3368D-UF-V1.0
SW Version	CUBOT_A40_F061C_V01

Device Operating Configurations			
Supporting Mode(s)	GSM850/1900,WCDMABand2/4/5,LTEBand2/4/5/7/12/17/38,WLAN 2.4G/5G, Bluetooth, NFC		
Test Modulation	GSM(GMSK), WCDMA(QPSK), LTE(QPSK/16QAM), NR(DFT-s-OFDM:PI/2 BPSK/QPSK/16-QAM/64QAM/256QAMCP-OFDM:QPSK/16-QAM/64QAM/256QAM), WLAN(DSSS/OFDM), Bluetooth(GFSK, $\pi/4$ -DQPSK, 8DPSK), NFC(ASK)		
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 4	1710-1755	2110-2155
	WCDMA Band 5	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110-2155
	LTE Band 5	824-849	869-894
	LTE Band 7	2500-2570	2620-2690
	LTE Band 12	699-716	729-746
	LTE Band 17	704-716	734-746
	LTE Band 38	2570-2620	
	WLAN 2.4G	2412-2462	
	WLAN 5.2G	5180-5240	
	WLAN 5.8G	5745-5825	
	Bluetooth	2402-2480	
	NFC	13.56	
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 4)		
	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 4)		
	3, tested with power control all Max.(LTE Band 5)		
	3, tested with power control all Max.(LTE Band 7)		
	3, tested with power control all Max.(LTE Band 12)		
	3, tested with power control all Max.(LTE Band 17)		
	3, tested with power control all Max.(LTE Band 38)		

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
KDB 865664 D02 RF Exposure Reporting
KDB 447498 D01 General RF Exposure Guidance
KDB 248227 D01 802.11 Wi-Fi SAR
KDB 941225 D01 3G SAR Procedures
KDB 941225 D05 SAR for LTE Devices
KDB 941225 D06 Hotspot SAR
KDB 648474 D04 Handset SAR

1.5. Ambient Condition

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

1.6. Facilities And Accreditations

1.6.1. Facilities

All measurement facilities used to collect the measurement data are located at Building 1, No. 24 Xinfu East Road, Xiangshan Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China

The sites are constructed in conformance with the requirements of IEC/IEEE 1528:2013

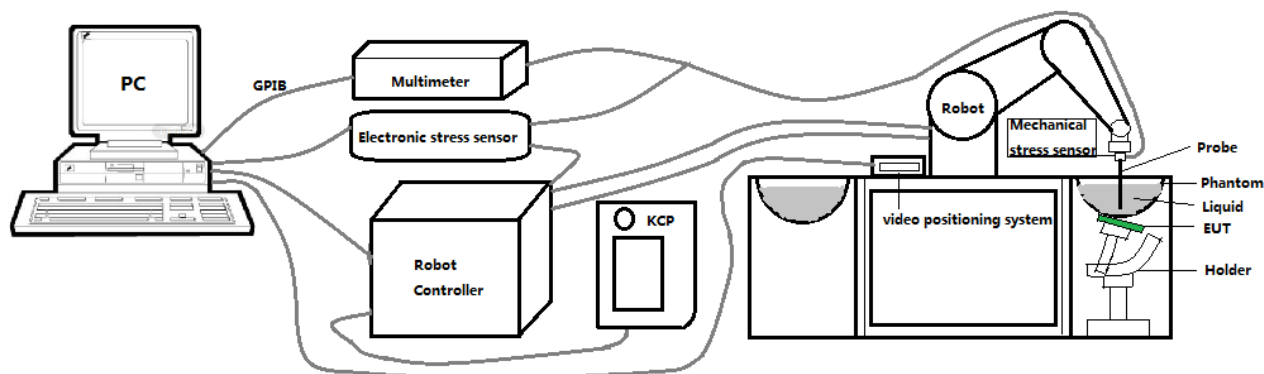
1.6.2. Laboratory Accreditations And Listings

Site Description

CNAS Lab. : The Certificate Registration Number is L5516
A2LA Lab. : The Certificate Registration Number is 4298.01
FCC Accredited : Test Firm Registration Number: 463705
Designation Number: CN1184
ISED Registration : Company Number: 9270A
CAB identifier: CN0074

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. E-Field 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 4024-EPGO-442 with following specifications is used



- Dynamic range: 0.01-100 W/kg
 - Tip Diameter : 2.5 mm
 - Distance between probe tip and sensor center: 1 mm
 - Distance between sensor center and the inner phantom surface: 2 mm (repeatability better than ± 1 mm).
 - Probe linearity: ± 0.06 dB
 - Axial isotropy: ± 0.01 dB
 - Hemispherical Isotropy: ± 0.01 dB
 - Calibration range: 650MHz to 5900MHz for head & body simulating liquid.
 - Lower detection limit: 8mW/kg
- 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 ± 0.25 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. SAM phantoms

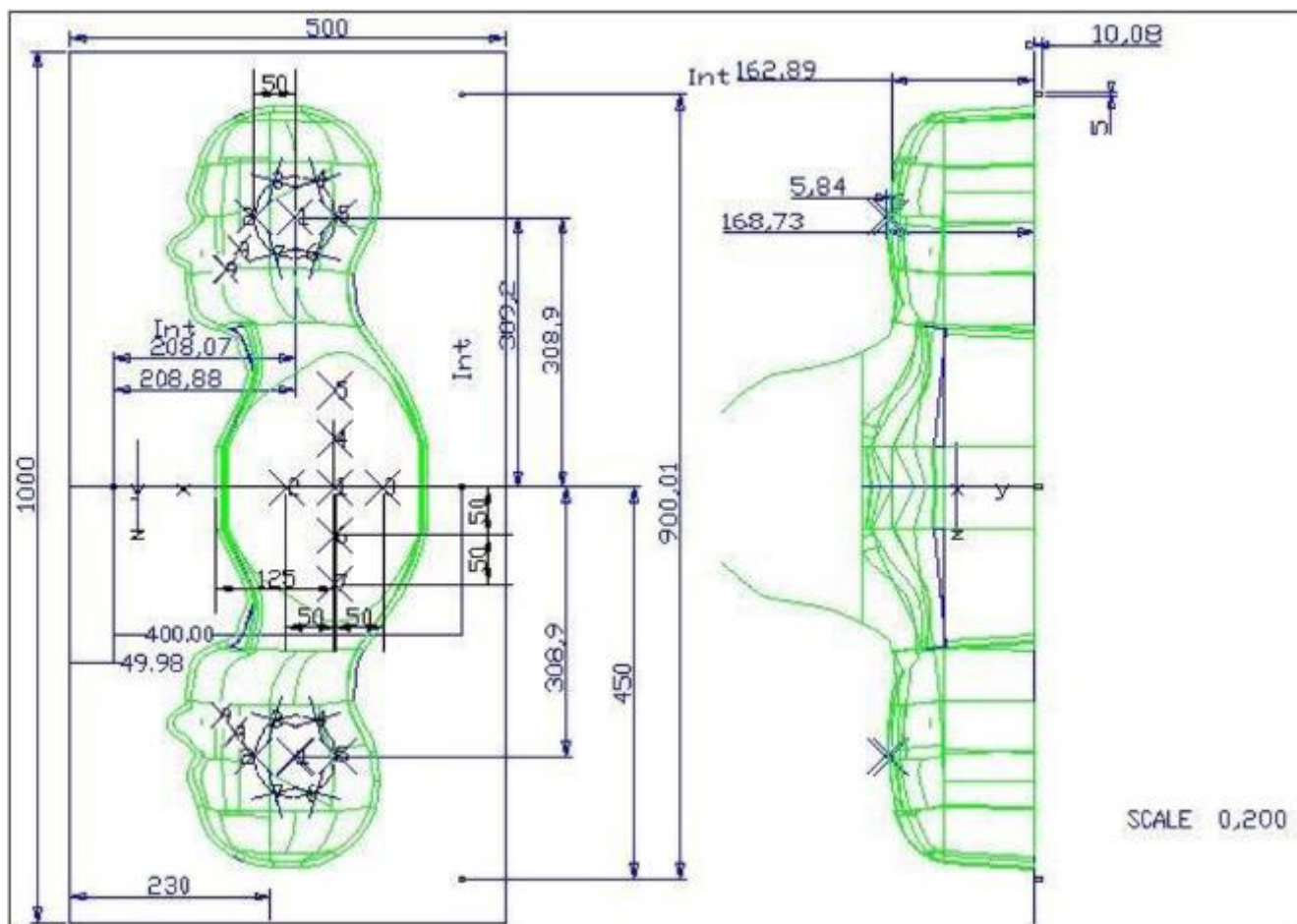
Photo of SAM phantom SN 16/15 SAM119



The SAM phantom is used to measure the SAR relative to people exposed to electro-magnetic field radiated by Mobile Phones.

2.4.1. Technical Data

Serial Number	Shell thickness	Filling volume	Dimensions	Positionner Material	Permittivity	Loss Tangent
SN 16/15 SAM119	2 mm $\pm$ 0.2 mm	27 liters	Length:1000 mm Width:500 mm Height:200 mm	Gelcoat with fiberglass	3.4	0.02

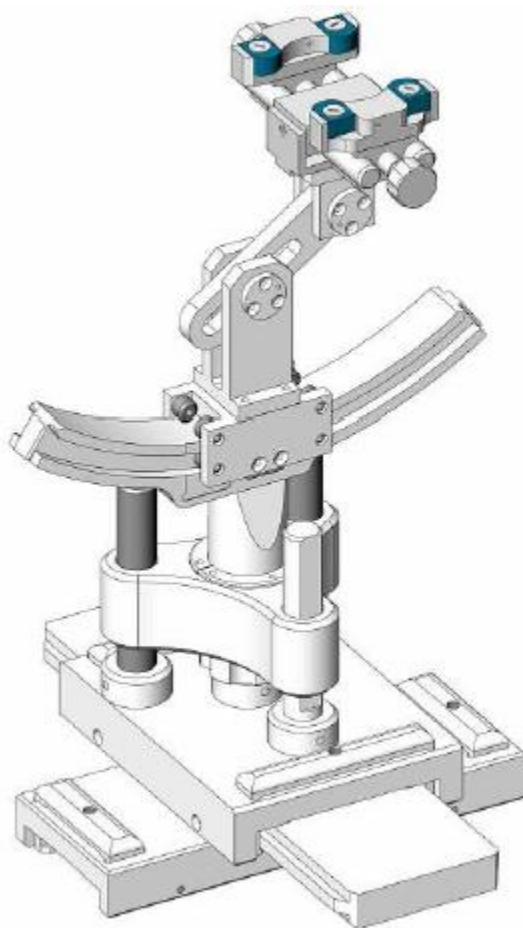


Serial Number	Left Head(mm)		Right Head(mm)		Flat Part(mm)	
SN 16/15 SAM119	2	2.02	2	2.08	1	2.09
	3	2.05	3	2.06	2	2.06
	4	2.07	4	2.07	3	2.08
	5	2.08	5	2.08	4	2.10
	6	2.05	6	2.07	5	2.10
	7	2.05	7	2.05	6	2.07
	8	2.07	8	2.06	7	2.07
	9	2.08	9	2.06	-	-

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

2.5. Device Holder

The positioning system allows obtaining cheek and tilting position with a very good accuracy. In compliance with CENELEC, the tilt angle uncertainty is lower than 1 degree.



Serial Number	Holder Material	Permittivity	Loss Tangent
SN 16/15 MSH100	Delrin	3.7	0.005

2.6. 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	4024-EPGO-442	Oct.4.2024	Oct.3.2025
☒	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 DIP 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	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	3500 MHz Dipole	SID3500	SN 09/12 DIP 3G500-360	Oct. 15, 2022	Oct. 14, 2025
☐	MVG	3700 MHz Dipole	SID3700	SN 09/12 DIP 3G/700-361	Oct. 15 2022	Oct. 14 2025
☒	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	NCR	NCR
☒	MVG	Power Amplifier	N/A	AMPLISAR_28/14_003	NCR	NCR
☒	KEITHLEY	Millivoltmeter	2000	4072790	Nov. 29, 2024	Nov. 28, 2025
☒	R&S	Universal radio communication	CMU200	105747	Apr. 17, 2025	Apr. 16, 2026

		tester				
☒	R&S	Wideband radio communication tester	CMW500	103917	May. 12, 2025	May. 11, 2026
☒	Anritsu	4G LTE comprehensive tester	MT8821C	6262192315	July.17 2024	July.16 2025
☒	Anritsu	5G NR comprehensive tester	MT8000A	6262186364	July.17 2024	July.16 2025
☒	HP	Network Analyzer	E5071C	LPS-461	Oct. 15, 2024	Oct. 14, 2025
☒	Agilent	Calibration Kit	85033E	N/A	May. 31, 2024	May. 30, 2027
☒	Agilent	MXG Vector Signal Generator	N5182A	MY47070317	Apr. 17, 2025	Apr. 16, 2026
☒	Agilent	Power sensor	E9301A	LES-413-C	May. 6, 2025	May. 5, 2026
☒	Agilent	Power sensor	E9301A	US39212148	Apr. 17, 2025	Apr. 16, 2026
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Apr. 26, 2024	Apr. 25, 2027
☒	N/A	Thermometer	N/A	LES-085	Mar. 27, 2023	Mar. 26, 2026
☒	MVG	SAM Phantom	SSM2	SN 16/15 SAM119	NCR	NCR
☒	MVG	Device Holder	SMPPD	SN 16/15 MSH100	NCR	NCR

Measurement Software

Manufacturer	Software Name	Software Version
SATIMO	OpenSAR	V5.3.15.11

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

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ 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: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 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		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 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 ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 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 using to determinate 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 form 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 define 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)										
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.

Photo of Liquid depth for Head Position	Photo of Liquid depth for Body Position
	

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 if the dielectric parameters 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		Delta(%)		Liquid Temp.	Test Date
		ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)		
Head 750	750.00	41.90	0.89	40.47	0.89	-3.42	-0.11	21.4 °C	Apr. 04, 2025
Head 850	835.00	41.50	0.90	41.05	0.88	-1.08	-2.22	21.7 °C	Apr. 06, 2025
Head 1800	1800.00	40.00	1.40	39.12	1.37	-2.20	-2.14	21.2 °C	Apr. 05, 2025
Head 1900	1900.00	40.00	1.40	38.27	1.41	-4.32	0.71	21.7 °C	Apr. 03, 2025
Head 2450	2450.00	39.20	1.80	38.15	1.77	-2.68	-1.67	21.7 °C	Mar. 21, 2025
Head 2600	2600.00	39.01	1.96	39.73	1.93	1.85	-1.38	21.2 °C	Apr. 07, 2025
Head 5200	5200.00	36.00	4.66	36.19	4.81	0.53	3.22	21.4 °C	Mar. 30, 2025
Head 5800	5800.00	35.30	5.27	35.39	5.18	0.25	-1.71	21.7 °C	Apr. 02, 2025

NOTE: 1. 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.

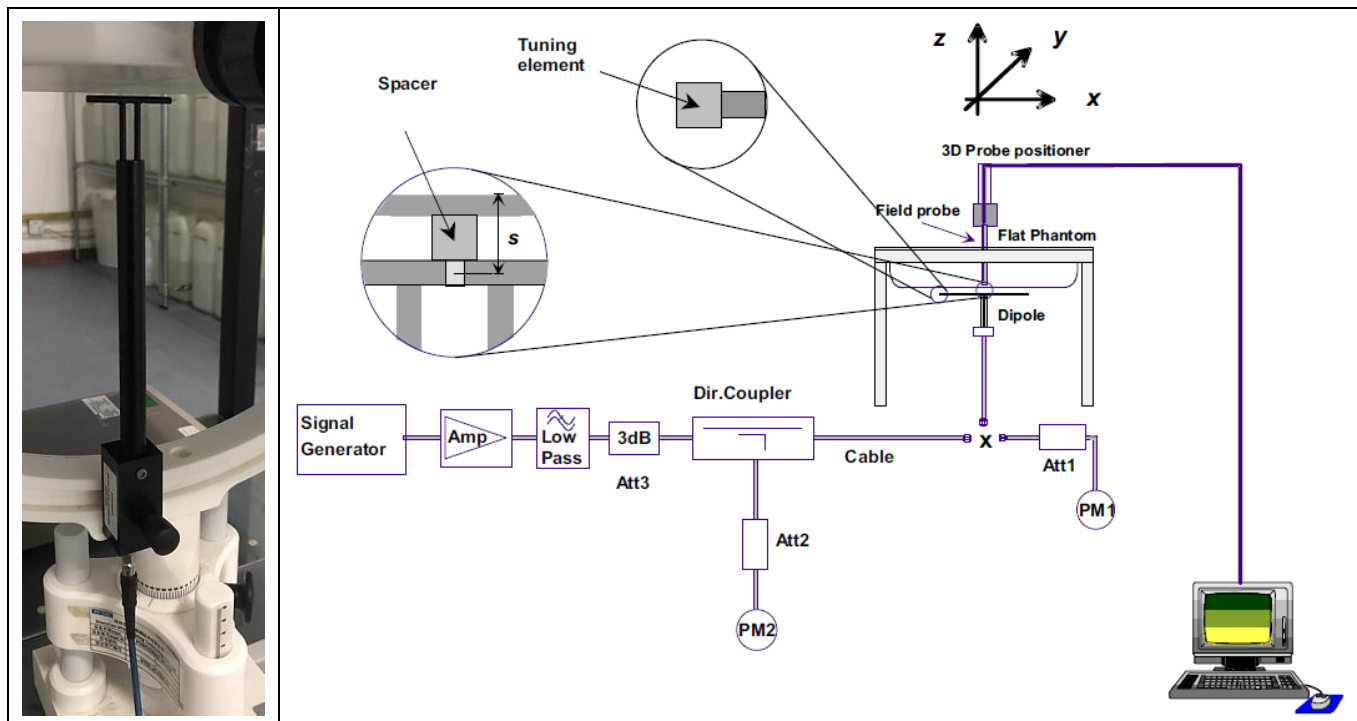
2. Tested by :

Max Zhou , Jack Peng

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. 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	Target SAR (1W)		Measured SAR			Measured SAR		Delta (%)		Liquid Temp.	Test Date
						(Normalized to 1W)					
	1-g (W/Kg)	10-g (W/Kg)	Input Power (mW)	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)	1-g (%)	10-g (%)		
750MHz	8.60	5.78	100.00	0.89	0.62	8.92	6.18	3.72	6.92	21.4 °C	Apr. 04, 2025
835MHz	9.40	6.28	100.00	0.87	0.57	8.68	5.70	-7.66	-9.24	21.7 °C	Apr. 06, 2025
1800MHz	37.06	20.01	100.00	4.03	1.98	40.25	19.78	8.61	-1.15	21.2 °C	Apr. 05, 2025
1900MHz	39.69	20.92	100.00	4.27	2.01	42.70	20.10	7.58	-3.92	21.7 °C	Apr. 03, 2025
2450MHz	50.05	23.80	100.00	5.16	2.21	51.60	22.12	3.10	-7.06	21.7 °C	Mar. 21, 2025
2600MHz	54.16	24.85	100.00	5.53	2.29	55.32	22.91	2.14	-7.81	21.2 °C	Apr. 07, 2025
5200MHz	162.59	56.21	10.00	1.61	0.55	161.20	54.78	-0.85	-2.54	21.4 °C	Mar. 30, 2025
5800MHz	182.20	61.32	10.00	1.70	0.57	169.80	56.70	-6.81	-7.53	21.7 °C	Apr. 02, 2025

Tested by : *Max Zhou* , *Jack Peng*

5. SAR Measurement variability and uncertainty

5.1. 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 (~ 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 .

5.2. 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.

6. RF Exposure Positions

6.1. Ear and handset reference point

Figure 6.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M”, the left ear reference point (ERP) is marked “LE”, and the right ERP is marked “RE”.



Fig 6.1.1 Front, back, and side views of SAM phantom

6.2. Definition of the cheek position

1. Define two imaginary lines on the handset, the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset: the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 6.2.1 and Figure 6.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 6.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 6.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
2. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 6.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
3. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP
4. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
5. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the

N-F line.

6. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 6.2.3. The actual rotation angles should be documented in the test report.

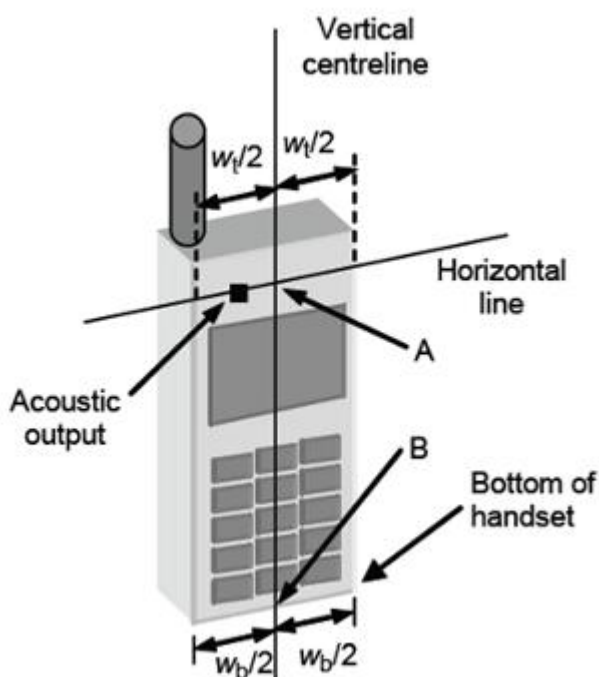


Fig 6.2.1 Handset vertical and horizontal reference lines—"fixed case"

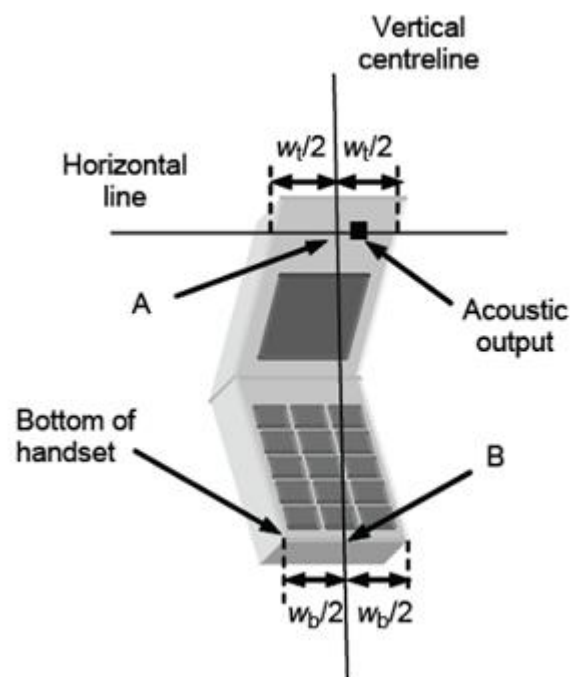


Fig 6.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

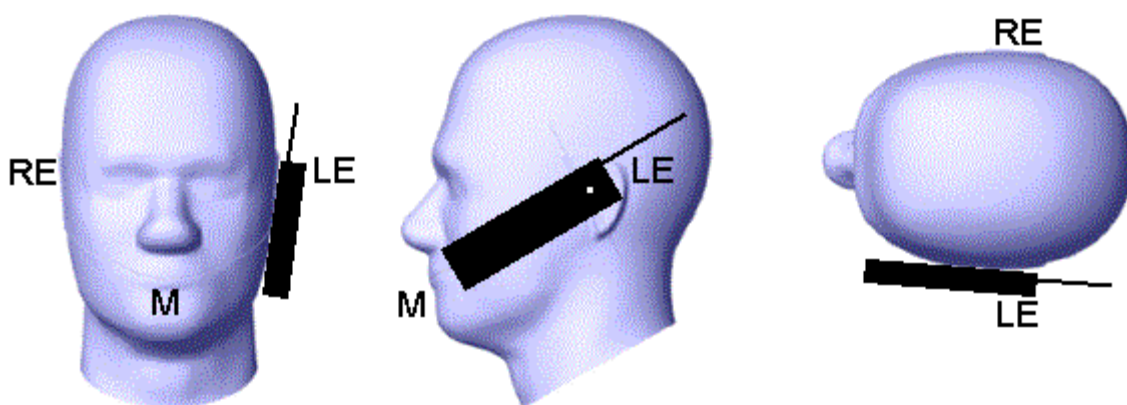


Fig 6.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

6.3. Definition of the tilt position

1. While maintaining the orientation of the handset, retract the handset parallel to the reference plane far enough away from the phantom to enable a rotation of the device by 15 degree.
2. Rotate the Handset around the horizontal line by 15 degree (see Figure 6.3.1).
3. While maintaining the orientation of the handset, move the handset towards the phantom on a line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, e.g., the antenna with the back of the phantom head, the angle of the handset shall be reduced. In this case, the tilt position is obtained if any part of the handset is in contact with the pinna as well as a second part of the handset is in contact with the phantom, e.g., the antenna with the back of the head.

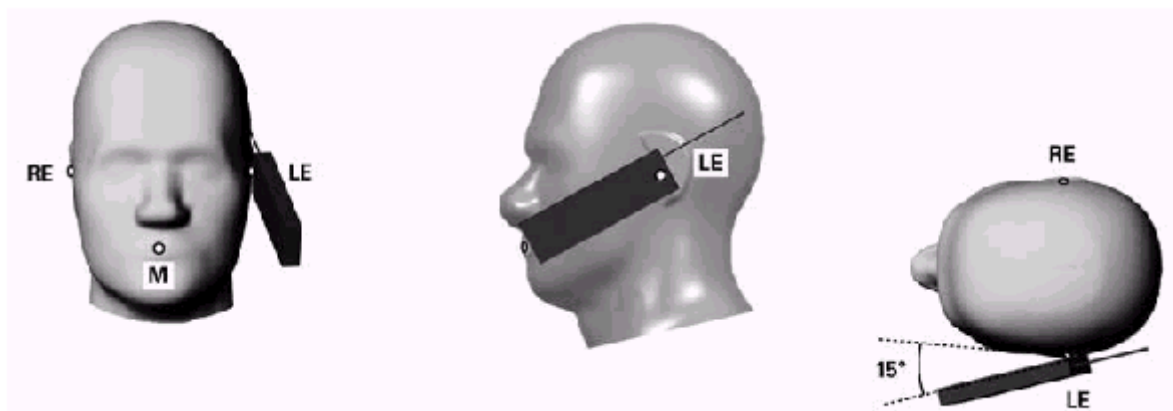


Figure 6.3.1 – Tilt position of the wireless device on the left side of SAM

6.4. Body Worn Accessory

1. Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6.4.1). Per KDB 648474 D04, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is $< 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.
2. Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components

are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

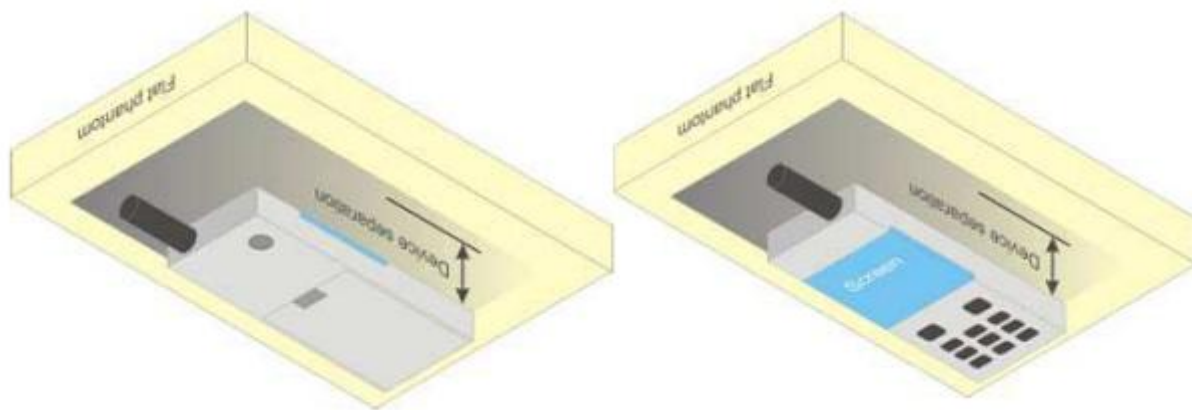


Figure 6.4.1 – Test positions for body-worn devices

6.5. Wireless Router Devices

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WLAN simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WLAN transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WLAN transmitter according to FCC KDB Publication 447498 D01 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

7. RF Output Power

7.1. GSM Conducted Power

Band GSM850	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	128	189	251	Tune-up	128	189	251
Frequency (MHz)	(dBm)	824.2	836.4	848.8	Tune-up	824.2	836.4	848.8
GSM (GMSK)	34.00	33.49	33.43	33.52	24.97	24.46	24.40	24.49
GPRS(GMSK,1 Tx slot)	34.00	33.64	33.59	33.63	24.97	24.61	24.56	24.60
GPRS(GMSK,2 Tx slot)	30.50	30.04	29.75	29.61	24.48	24.02	23.73	23.59
GPRS(GMSK,3 Tx slot)	28.00	27.91	27.57	27.41	23.74	23.65	23.31	23.15
GPRS(GMSK,4 Tx slot)	26.00	25.69	25.29	25.12	22.99	22.68	22.28	22.11
Band GSM1900	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	512	661	810	Tune-up	512	661	810
Frequency (MHz)	(dBm)	1850.2	1880	1909.8	Tune-up	1850.2	1880	1909.8
GSM (GMSK)	29.50	29.10	29.16	29.47	20.47	20.07	20.13	20.44
GPRS(GMSK,1 Tx slot)	29.50	29.05	29.16	29.43	20.47	20.02	20.13	20.40
GPRS(GMSK,2 Tx slot)	26.00	25.92	25.73	25.57	19.98	19.90	19.71	19.55
GPRS(GMSK,3 Tx slot)	24.50	24.14	24.03	23.70	20.24	19.88	19.77	19.44
GPRS(GMSK,4 Tx slot)	22.00	21.96	21.66	21.60	18.99	18.95	18.65	18.59

7.2. WCDMA Conducted Power

WCDMA Band 2	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
RMC12.2K	22.00	21.59	21.60	21.64
HSDPA Sub 1	22.00	21.45	21.78	21.70
HSDPA Sub 2	21.50	21.17	21.46	21.45
HSDPA Sub 3	21.50	20.86	20.96	21.27
HSDPA Sub 4	21.50	20.82	21.42	20.85
HSUPA Sub 1	22.00	21.38	21.51	21.36
HSUPA Sub 2	22.00	21.25	21.66	21.49
HSUPA Sub 3	21.50	21.06	21.33	20.99
HSUPA Sub 4	22.00	21.31	21.70	21.29
HSUPA Sub 5	22.00	20.98	21.65	21.30

WCDMA Band 4	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	1312	1413	1513
Frequency (MHz)		1712.4	1732.6	1752.6
RMC12.2K	22.50	22.04	21.91	21.97
HSDPA Sub 1	22.50	22.25	21.98	22.24
HSDPA Sub 2	22.50	22.02	21.84	21.93
HSDPA Sub 3	22.00	21.72	21.66	21.82
HSDPA Sub 4	22.00	21.28	21.34	21.75
HSUPA Sub 1	22.50	22.05	21.81	22.09
HSUPA Sub 2	22.50	22.17	22.01	22.26
HSUPA Sub 3	22.50	21.80	21.91	22.06
HSUPA Sub 4	22.50	22.10	21.85	22.09
HSUPA Sub 5	22.00	21.89	21.73	21.96
WCDMA Band 5	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	4132	4182	4233
Frequency (MHz)		826.4	836.4	846.6
RMC12.2K	23.50	22.97	23.07	23.00
HSDPA Sub 1	22.50	22.47	22.21	22.13
HSDPA Sub 2	22.50	22.21	21.98	21.88
HSDPA Sub 3	22.00	21.74	21.68	21.44
HSDPA Sub 4	22.00	21.76	21.47	21.40
HSUPA Sub 1	22.50	22.42	21.94	22.04
HSUPA Sub 2	22.50	22.47	22.18	22.14
HSUPA Sub 3	22.50	22.25	21.92	21.47
HSUPA Sub 4	22.50	22.48	22.20	22.12
HSUPA Sub 5	22.50	22.32	21.96	21.86

7.3. LTE Conducted Power

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	22.61	22.37	23.07
			1	2	23.50	22.64	22.23	22.98
			1	5	23.50	22.63	22.32	22.92
			3	0	22.50	21.86	22.15	22.82
			3	1	22.50	21.85	21.21	22.84
			3	2	22.50	21.88	21.17	22.76
			6	0	22.00	21.84	20.98	21.63
		16QAM	1	0	22.00	21.45	20.07	21.66
			1	2	22.00	21.33	20.37	21.68
			1	5	22.00	21.36	20.01	21.62
			3	0	22.00	20.97	20.25	21.86
			3	1	22.00	20.54	20.19	21.84
			3	2	22.00	20.10	20.08	21.81
			6	0	21.00	19.46	19.81	20.55
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	23.50	22.50	22.35	23.07
			1	7	23.50	22.85	22.14	23.09
			1	14	23.50	22.67	22.06	22.99
			8	0	21.00	20.87	20.17	20.84
			8	4	21.00	19.81	19.99	20.64
			8	7	21.00	19.93	19.97	20.65
			15	0	21.00	19.69	20.05	20.68
		16QAM	1	0	21.00	19.41	20.11	20.65
			1	7	21.00	19.32	20.04	20.71
			1	14	21.00	19.44	19.90	20.62
			8	0	21.00	19.88	19.10	20.82
			8	4	21.00	19.84	19.04	20.79
			8	7	21.00	19.98	19.02	20.82
			15	0	21.00	19.88	19.98	20.72
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	22.00	21.77	21.60	21.08
			1	12	22.00	20.01	21.57	21.99
			1	24	22.00	20.97	21.24	21.00
			12	0	21.00	19.84	20.22	20.71
			12	6	21.00	19.89	19.96	20.74
			12	11	21.00	19.83	19.93	20.78
			25	0	21.00	19.81	20.15	20.80
		16QAM	1	0	21.00	19.35	20.34	20.89
			1	12	21.00	19.46	19.99	20.84
			1	24	21.00	19.57	20.01	20.63
			12	0	21.00	20.81	19.11	20.84
			12	6	21.00	20.84	19.10	20.73
			12	11	21.00	20.94	19.94	20.85
			25	0	21.00	20.79	19.27	20.96
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	21.15	21.51	22.76
			1	24	23.00	21.36	21.29	22.09
			1	49	23.00	21.10	21.01	22.16
			25	0	22.00	20.93	20.15	21.67
			25	12	22.00	20.03	20.17	21.83
			25	24	22.00	20.35	20.95	21.73
			50	0	22.00	20.97	20.13	21.85
		16QAM	1	0	22.00	20.75	20.96	21.44
			1	24	22.00	20.13	20.58	21.78
			1	49	22.00	20.67	20.49	21.74
			25	0	21.00	20.20	19.19	20.80
			25	12	21.00	20.26	20.93	20.97
			25	24	21.00	20.45	20.85	20.99
			50	0	21.00	20.13	20.02	20.73
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	23.50	22.79	22.29	22.21
			1	37	23.50	22.51	22.92	22.96
			1	74	23.50	22.40	22.68	23.10
			36	0	22.00	21.00	20.70	21.36

			36	18	22.00	21.26	20.32	21.64
			36	37	22.00	21.74	20.08	21.80
			75	0	22.00	20.44	20.36	21.59
		16QAM	1	0	22.00	20.42	20.83	20.90
			1	37	22.00	20.63	20.31	21.66
			1	74	22.00	21.53	20.62	21.70
			36	0	21.00	19.36	19.59	20.46
			36	18	21.00	19.49	19.28	20.74
			36	37	21.00	19.01	19.21	20.85
			75	0	21.00	19.68	19.23	20.56
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	23.50	22.90	23.01	23.19
			1	49	23.50	22.85	22.39	22.68
			1	99	23.50	22.28	22.33	23.03
			50	0	22.50	21.10	21.43	21.75
			50	24	22.50	21.68	21.24	21.47
			50	49	22.50	21.36	21.10	21.69
			100	0	21.50	19.67	20.22	21.16
		16QAM	1	0	22.00	20.55	20.18	20.33
			1	49	22.00	20.28	20.47	21.41
			1	99	22.00	21.44	20.51	21.73
			50	0	21.00	19.17	19.51	19.84
			50	24	21.00	19.70	19.15	20.37
			50	49	21.00	19.27	19.98	20.74
			100	0	20.50	18.79	19.19	20.29

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19957/1710.7	20175/1732.5	20393/1754.3
LTE Band 4	1.4MHz	QPSK	1	0	23.00	22.44	22.87	21.45
			1	2	23.00	22.45	22.84	21.52
			1	5	23.00	22.51	22.72	21.47
			3	0	23.00	22.58	22.51	21.46
			3	1	23.00	22.64	22.57	21.30
			3	2	23.00	22.59	22.50	21.23
			6	0	22.00	21.58	21.51	20.34
		16QAM	1	0	22.50	22.10	22.08	20.94

			1	2	22.50	22.01	21.98	21.07
			1	5	22.50	21.96	21.85	20.99
			3	0	22.00	21.69	21.62	20.47
			3	1	22.00	21.65	21.60	20.55
			3	2	22.00	21.58	21.75	20.52
			6	0	20.50	20.34	20.40	19.14
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19965/1711.5	20175/1732.5	20385/1753.5
LTE Band 4	3MHz	QPSK	1	0	23.00	22.58	22.54	21.43
			1	7	23.00	22.82	22.78	21.41
			1	14	23.00	22.68	22.44	21.48
			8	0	22.00	21.52	21.45	20.33
			8	4	22.00	21.51	21.47	20.34
			8	7	22.00	21.39	21.40	20.37
			15	0	22.00	21.39	21.52	20.41
		16QAM	1	0	23.00	22.49	22.48	21.42
			1	7	23.00	22.50	22.56	21.44
			1	14	23.00	22.50	22.48	21.34
			8	0	21.00	20.59	20.60	19.41
			8	4	21.00	20.57	20.67	19.33
			8	7	21.00	20.52	20.66	19.50
			15	0	21.00	20.48	20.61	19.45
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19975/1712.5	20175/1732.5	20375/1752.5
LTE Band 4	5MHz	QPSK	1	0	23.00	22.84	22.84	21.61
			1	12	23.00	22.73	22.71	21.65
			1	24	23.00	22.58	22.81	21.59
			12	0	22.00	21.55	21.47	20.36
			12	6	22.00	21.32	21.52	20.38
			12	11	22.00	21.32	21.50	20.36
			25	0	21.50	21.40	21.41	20.45
		16QAM	1	0	22.50	22.08	21.97	20.97
			1	12	22.50	21.96	22.01	20.90
			1	24	22.50	21.77	21.96	20.74
			12	0	21.00	20.59	20.53	19.43
			12	6	21.00	20.44	20.56	19.28
			12	11	21.00	20.35	20.52	19.42

			25	0	21.00	20.61	20.73	19.51
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20000/1715	20175/1732.5	20350/1750
LTE Band 4	10MHz	QPSK	1	0	23.00	22.84	22.46	21.68
			1	24	23.00	22.59	22.57	21.37
			1	49	23.00	22.49	22.78	21.31
			25	0	22.00	21.47	21.44	20.56
			25	12	22.00	21.16	21.46	20.44
			25	24	22.00	21.15	21.50	20.45
			50	0	21.50	21.18	21.46	20.46
		16QAM	1	0	23.00	22.06	22.47	21.81
			1	24	23.00	21.82	22.61	21.58
			1	49	23.00	21.79	22.54	21.49
			25	0	21.00	20.62	20.39	19.55
			25	12	21.00	20.49	20.54	19.40
			25	24	21.00	20.47	20.49	19.37
			50	0	20.50	20.21	20.45	19.46
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20025/1717.5	20175/1732.5	20325/1747.5
LTE Band 4	15MHz	QPSK	1	0	23.00	22.53	22.35	22.14
			1	37	23.00	22.20	22.64	21.50
			1	74	23.00	22.35	22.57	21.37
			36	0	21.50	21.38	21.45	20.97
			36	18	21.50	21.17	21.44	20.62
			36	37	21.50	21.28	21.45	20.30
			75	0	21.50	21.27	21.48	20.66
		16QAM	1	0	23.00	22.58	22.32	22.34
			1	37	23.00	22.35	22.52	21.71
			1	74	23.00	22.29	22.34	21.52
			36	0	21.00	20.31	20.42	19.80
			36	18	21.00	20.22	20.49	19.55
			36	37	21.00	20.19	20.55	19.36
			75	0	21.00	20.35	20.55	19.67
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20050/1720	20175/1732.5	20300/1745

LTE Band 4	20MHz	QPSK	1	0	23.00	22.83	22.54	22.55
			1	49	23.00	22.43	22.75	21.93
			1	99	23.00	22.75	22.43	21.56
			50	0	22.00	21.32	21.45	21.08
			50	24	22.00	21.28	21.52	20.80
			50	49	22.00	21.38	21.46	20.53
			100	0	21.50	21.22	21.30	20.86
		16QAM	1	0	22.50	22.09	21.68	22.17
			1	49	22.50	21.71	21.99	21.43
			1	99	22.50	22.08	21.60	21.02
			50	0	20.50	20.27	20.31	20.19
			50	24	20.50	20.20	20.48	19.80
			50	49	20.50	20.31	20.44	19.53
			100	0	20.50	20.16	20.49	19.81

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20407/824.7	20525/836.5	20643/848.3
LTE Band 5	1.4MHz	QPSK	1	0	24.00	23.71	23.62	23.84
			1	2	24.00	23.62	23.67	23.47
			1	5	24.00	23.16	23.63	23.07
			3	0	24.00	23.17	23.61	23.62
			3	1	24.00	23.78	23.65	23.40
			3	2	24.00	23.84	23.60	23.23
			6	0	23.00	22.88	22.62	22.57
		16QAM	1	0	24.00	23.84	23.52	23.16
			1	2	24.00	23.73	23.59	23.10
			1	5	24.00	23.78	23.58	22.97
			3	0	23.50	23.01	22.81	22.91
			3	1	23.50	23.09	22.81	22.84
			3	2	23.50	22.99	22.93	22.86
			6	0	22.00	21.48	21.29	21.56
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20415/825.5	20525/836.5	20635/847.5
LTE Band 5	3MHz	QPSK	1	0	24.00	23.75	23.63	23.82
			1	7	24.00	23.78	23.65	23.84
			1	14	24.00	23.76	23.64	23.09
			8	0	24.00	22.72	22.62	22.69

			8	4	24.00	23.34	22.63	22.74
			8	7	24.00	23.81	22.56	22.76
			15	0	24.00	23.71	22.60	22.73
		16QAM	1	0	24.00	23.83	23.57	23.28
			1	7	24.00	23.67	23.56	23.21
			1	14	24.00	23.12	23.56	22.98
			8	0	22.00	21.89	21.71	21.76
			8	4	22.00	21.92	21.72	21.77
			8	7	22.00	21.91	21.76	21.83
			15	0	22.00	21.78	21.60	21.84
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20425/826.5	20525/836.5	20625/846.5
LTE Band 5	5MHz	QPSK	1	0	24.00	23.72	23.86	23.95
			1	12	24.00	23.67	23.00	23.97
			1	24	24.00	23.91	23.12	22.92
			12	0	23.00	22.86	22.56	22.73
			12	6	23.00	22.66	22.66	22.69
			12	11	23.00	22.78	22.46	22.70
			25	0	23.00	22.74	22.53	22.78
		16QAM	1	0	24.00	23.73	23.14	23.20
			1	12	24.00	23.71	23.12	23.28
			1	24	24.00	23.59	23.15	22.89
			12	0	22.00	21.70	21.54	21.71
			12	6	22.00	21.71	21.70	21.79
			12	11	22.00	21.70	21.56	21.75
			25	0	22.00	21.63	21.80	21.94
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20450/829	20525/836.5	20600/844
LTE Band 5	10MHz	QPSK	1	0	24.00	23.95	23.59	23.69
			1	24	24.00	23.89	23.76	23.67
			1	49	24.00	23.78	23.59	23.32
			25	0	23.00	22.79	22.60	22.68
			25	12	23.00	22.52	22.60	22.65
			25	24	23.00	22.62	22.65	22.69
			50	0	23.00	22.77	22.64	22.61
		16QAM	1	0	24.00	23.33	23.46	23.62

			1	24	24.00	23.05	23.71	23.62
			1	49	24.00	23.03	23.72	23.31
			25	0	22.00	21.84	21.59	21.66
			25	12	22.00	21.81	21.64	21.55
			25	24	22.00	21.83	21.69	21.68
			50	0	22.00	21.62	21.68	21.62

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20775/2502.5	21100/2535	21425/2567.5
LTE Band 7	5MHz	QPSK	1	0	22.50	22.25	22.30	22.16
			1	12	22.50	22.37	22.36	22.31
			1	24	22.50	22.17	22.22	22.23
			12	0	21.50	21.32	21.38	21.32
			12	6	21.50	21.41	21.45	21.39
			12	11	21.50	21.36	21.41	21.34
			25	0	21.50	21.36	21.40	21.34
		16QAM	1	0	22.00	21.60	21.57	21.40
			1	12	22.00	21.61	21.71	21.59
			1	24	22.00	21.47	21.58	21.47
			12	0	20.50	20.34	20.38	20.33
			12	6	20.50	20.46	20.49	20.38
			12	11	20.50	20.38	20.44	20.33
			25	0	20.50	20.41	20.46	20.34
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20800/2505	21100/2535	21400/2565
LTE Band 7	10MHz	QPSK	1	0	22.50	22.33	22.38	22.30
			1	24	22.50	22.34	22.42	22.30
			1	49	22.50	22.08	22.32	22.30
			25	0	21.50	21.32	21.38	21.39
			25	12	21.50	21.32	21.40	21.33
			25	24	21.50	21.28	21.42	21.32
			50	0	21.50	21.30	21.40	21.36
		16QAM	1	0	22.00	21.73	21.61	21.57
			1	24	22.00	21.71	21.64	21.59
			1	49	22.00	21.42	21.56	21.45
			25	0	20.50	20.36	20.41	20.41
			25	12	20.50	20.34	20.47	20.36

			25	24	20.50	20.33	20.46	20.34
			50	0	20.50	20.34	20.43	20.38
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20825/2507.5	21100/2535	21375/2562.5
LTE Band 7	15MHz	QPSK	1	0	22.50	22.26	22.31	22.33
			1	37	22.50	22.29	22.40	22.34
			1	74	22.50	21.95	22.25	22.21
			36	0	21.50	21.38	21.43	21.48
			36	18	21.50	21.33	21.44	21.37
			36	37	21.50	21.20	21.46	21.29
			75	0	21.50	21.27	21.42	21.42
		16QAM	1	0	22.00	21.59	21.57	21.66
			1	37	22.00	21.58	21.74	21.48
			1	74	22.00	21.17	21.57	21.47
			36	0	21.00	20.37	20.41	20.50
			36	18	21.00	20.32	20.44	20.40
			36	37	21.00	20.20	20.44	20.30
			75	0	20.50	20.30	20.44	20.43
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20850/2510	21100/2535	21350/2560
LTE Band 7	20MHz	QPSK	1	0	22.50	22.11	22.13	22.22
			1	49	22.50	22.25	22.47	22.45
			1	99	22.50	21.74	22.11	22.02
			50	0	22.00	21.25	21.43	21.47
			50	24	22.00	21.24	21.46	21.45
			50	49	22.00	21.07	21.52	21.27
			100	0	21.50	21.14	21.46	21.39
		16QAM	1	0	22.00	21.41	21.39	21.52
			1	49	22.00	21.59	21.76	21.68
			1	99	22.00	21.11	21.35	21.35
			50	0	21.00	20.28	20.46	20.50
			50	24	21.00	20.26	20.49	20.50
			50	49	21.00	20.08	20.53	20.28
			100	0	20.50	20.19	20.46	20.40

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23017/699.7	23095/707.5	23173/715.3
LTE Band 12	1.4MHz	QPSK	1	0	24.50	23.88	24.24	23.99
			1	2	24.50	23.92	24.31	23.92
			1	5	24.50	23.89	24.00	23.99
			3	0	24.50	24.05	24.34	24.27
			3	1	24.50	24.10	24.15	24.09
			3	2	24.50	24.06	24.14	24.04
			6	0	23.50	23.05	23.06	22.99
		16QAM	1	0	23.50	22.90	22.99	23.48
			1	2	23.50	22.89	23.08	23.45
			1	5	23.50	23.01	22.96	23.36
			3	0	23.50	23.21	23.25	23.17
			3	1	23.50	23.24	23.19	23.28
			3	2	23.50	23.24	23.26	23.11
			6	0	22.50	22.25	21.84	22.20
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23025/700.5	23095/707.5	23165/714.5
LTE Band 12	3MHz	QPSK	1	0	24.50	24.19	24.30	23.98
			1	7	24.50	24.24	24.29	23.95
			1	14	24.50	24.24	23.87	23.93
			8	0	23.50	23.11	23.03	22.99
			8	4	23.50	22.96	23.19	23.01
			8	7	23.50	23.06	22.98	23.05
			15	0	23.50	23.07	23.17	22.90
		16QAM	1	0	23.50	22.96	22.89	23.44
			1	7	23.50	22.88	23.09	23.35
			1	14	23.50	23.09	23.00	23.47
			8	0	23.00	22.51	22.16	22.48
			8	4	23.00	22.55	22.16	22.43
			8	7	23.00	22.01	22.17	22.45
			15	0	23.00	22.55	22.14	22.40
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23035/701.5	23095/707.5	23155/713.5
LTE	5MHz	QPSK	1	0	24.50	24.05	24.30	24.14

Band 12			1	12	24.50	24.08	24.36	24.31
			1	24	24.50	24.34	23.79	24.02
			12	0	24.00	23.15	23.09	23.10
			12	6	24.00	23.46	23.08	22.94
			12	11	24.00	23.50	23.17	22.87
			25	0	24.00	23.57	23.01	22.87
		16QAM	1	0	24.00	23.47	22.98	23.01
			1	12	24.00	23.58	22.97	23.00
			1	24	24.00	22.98	23.29	22.93
			12	0	23.00	22.62	22.05	22.02
			12	6	23.00	21.92	22.05	22.36
			12	11	23.00	22.03	22.07	22.52
			25	0	23.00	22.26	22.17	22.61
			RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23060/704	23095/707.5	23130/711
LTE Band 12	10MHz	QPSK	1	0	24.50	24.30	24.18	24.00
			1	24	24.50	24.29	24.19	24.03
			1	49	24.50	24.19	24.29	24.10
			25	0	23.50	23.07	23.09	23.03
			25	12	23.50	23.08	23.23	23.33
			25	24	23.50	23.00	23.43	22.99
			50	0	23.50	22.98	23.09	23.32
		16QAM	1	0	24.00	23.04	23.41	23.59
			1	24	24.00	22.91	23.54	23.75
			1	49	24.00	23.03	23.41	23.47
			25	0	23.00	22.24	22.01	21.96
			25	12	23.00	22.64	21.97	22.40
			25	24	23.00	22.25	22.37	22.34
			50	0	22.50	22.44	22.05	22.36

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	23.97	24.15
			1	12	24.50	24.01	24.29	24.20
			1	24	24.50	23.71	24.45	23.99
			12	0	23.50	23.08	23.01	22.98

			12	6	23.50	23.08	23.48	22.93
			12	11	23.50	23.13	23.13	22.85
			25	0	23.50	23.12	23.32	22.86
		16QAM	1	0	23.50	23.38	23.08	22.95
			1	12	23.50	23.42	23.31	22.93
			1	24	23.50	23.43	23.25	22.89
			12	0	22.50	22.05	22.02	22.23
			12	6	22.50	22.04	22.45	22.36
			12	11	22.50	22.00	22.26	22.30
			25	0	23.00	21.93	22.73	22.62
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	24.50	24.27	24.12	24.06
			1	24	24.50	24.14	24.14	23.96
			1	49	24.50	24.21	24.10	24.04
			25	0	23.50	23.04	23.27	23.19
			25	12	23.50	23.43	23.34	23.29
			25	24	23.50	23.42	23.10	22.97
			50	0	24.00	23.54	23.44	23.37
		16QAM	1	0	24.00	23.53	23.60	23.54
			1	24	24.00	23.08	23.79	23.81
			1	49	24.00	23.34	23.38	23.42
			25	0	22.50	22.00	21.98	22.00
			25	12	22.50	22.00	22.46	22.44
			25	24	22.50	22.06	21.99	22.39
			50	0	22.50	22.07	22.37	22.40

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		37775/2572.5	38000/2595	38225/2617.5
LTE Band 38	5MHz	QPSK	1	0	22.50	22.17	22.34	22.36
			1	12	22.50	22.35	22.39	22.38
			1	24	22.50	22.30	22.25	22.19
			12	0	21.50	21.24	21.33	21.33
			12	6	21.50	21.34	21.37	21.35
			12	11	21.50	21.34	21.34	21.29
			25	0	21.50	21.27	21.34	21.33
		16QAM	1	0	22.00	21.36	21.50	21.53

			1	12	22.00	21.56	21.59	21.58
			1	24	22.00	21.50	21.43	21.38
			12	0	20.50	20.29	20.37	20.37
			12	6	20.50	20.37	20.42	20.41
			12	11	20.50	20.38	20.38	20.35
			25	0	20.50	20.33	20.41	20.40
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		37800/2575	38000/2595	38200/2615
LTE Band 38	10MHz	QPSK	1	0	23.00	22.28	22.48	22.51
			1	24	23.00	22.52	22.45	22.51
			1	49	23.00	22.54	22.30	22.25
			25	0	22.00	21.33	21.31	21.47
			25	12	22.00	21.45	21.39	21.45
			25	24	22.00	21.53	21.41	21.43
			50	0	21.50	21.40	21.39	21.42
		16QAM	1	0	22.00	21.48	21.68	21.71
			1	24	22.00	21.72	21.65	21.71
			1	49	22.00	21.74	21.50	21.46
			25	0	21.00	20.40	20.44	20.56
			25	12	21.00	20.48	20.44	20.51
			25	24	21.00	20.58	20.46	20.50
			50	0	21.00	20.52	20.49	20.46
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		37825/2577.5	38000/2595	38175/2615
LTE Band 38	15MHz	QPSK	1	0	23.00	22.23	22.44	22.36
			1	37	23.00	22.55	22.39	22.49
			1	74	23.00	22.44	22.19	22.15
			36	0	22.00	21.37	21.35	21.47
			36	18	22.00	21.54	21.39	21.49
			36	37	22.00	21.58	21.35	21.45
			75	0	21.50	21.49	21.36	21.35
		16QAM	1	0	22.00	21.42	21.64	21.54
			1	37	22.00	21.73	21.57	21.68
			1	74	22.00	21.63	21.37	21.36
			36	0	21.00	20.36	20.39	20.43
			36	18	21.00	20.52	20.38	20.47
			36	37	21.00	20.54	20.32	20.43

			75	0	21.00	20.50	20.42	20.45
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		37850/2580	38000/2595	38150/2610
LTE Band 38	20MHz	QPSK	1	0	23.00	22.07	22.35	22.15
			1	49	23.00	22.67	22.45	22.48
			1	99	23.00	22.17	22.04	21.96
			50	0	22.00	21.39	21.36	21.38
			50	24	22.00	21.54	21.38	21.50
			50	49	22.00	21.59	21.34	21.47
			100	0	22.00	21.51	21.37	21.46
		16QAM	1	0	22.00	21.27	21.54	21.34
			1	49	22.00	21.87	21.65	21.68
			1	99	22.00	21.40	21.25	21.17
			50	0	21.00	20.48	20.42	20.43
			50	24	21.00	20.64	20.47	20.57
			50	49	21.00	20.68	20.40	20.55
			100	0	21.00	20.56	20.48	20.53

7.4. WLAN & Bluetooth Output Power

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11b	1	2412	15.50	15.44
	6	2437	15.50	15.06
	11	2462	15.50	15.10
802.11g	1	2412	15.00	13.65
	6	2437	15.00	14.84
	11	2462	15.00	13.45
802.11n HT20	1	2412	14.00	12.48
	6	2437	14.00	13.66
	11	2462	14.00	12.18
802.11n HT40	3	2422	13.50	11.94
	6	2437	13.50	13.10
	9	2452	13.50	11.74

NOTE: Power measurement results of WLAN 2.4G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	36	5180	14.00	13.57

	40	5200	14.00	13.95
	48	5240	14.00	13.64
802.11n HT20	36	5180	13.00	12.54
	40	5200	13.00	12.88
	48	5240	13.00	12.77
802.11n HT40	38	5190	13.50	13.14
	46	5230	13.50	12.37
802.11ac VHT20	36	5180	13.00	12.74
	40	5200	13.00	12.98
	48	5240	13.00	12.62
802.11ac VHT40	38	5190	12.50	12.23
	46	5230	12.50	12.30
802.11ac VHT80	42	5210	12.00	11.94

NOTE: Power measurement results of WLAN 5.2G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	149	5745	10.00	9.52
	157	5785	10.00	8.65
	165	5825	10.00	8.46
802.11n HT20	149	5745	9.50	9.06
	157	5785	9.50	7.77
	165	5825	9.50	7.51
802.11n HT40	151	5755	8.50	8.21
	159	5795	8.50	7.61
802.11ac VHT20	149	5745	9.00	8.97
	157	5785	9.00	8.03
	165	5825	9.00	7.57
802.11ac VHT40	151	5755	10.00	9.64
	159	5795	10.00	8.92
802.11ac VHT80	155	5775	9.50	9.14

NOTE: Power measurement results of WLAN 5.8G.

BR+EDR	Output Power (dBm)				
	Data Rates	Tune-up (dBm)	Channel		
			0CH	39CH	78CH
	1M	-1.50	-1.64	-2.81	-1.85
	2M	-3.50	-4.88	-4.30	-3.62
	3M	-3.50	-3.69	-4.13	-3.73

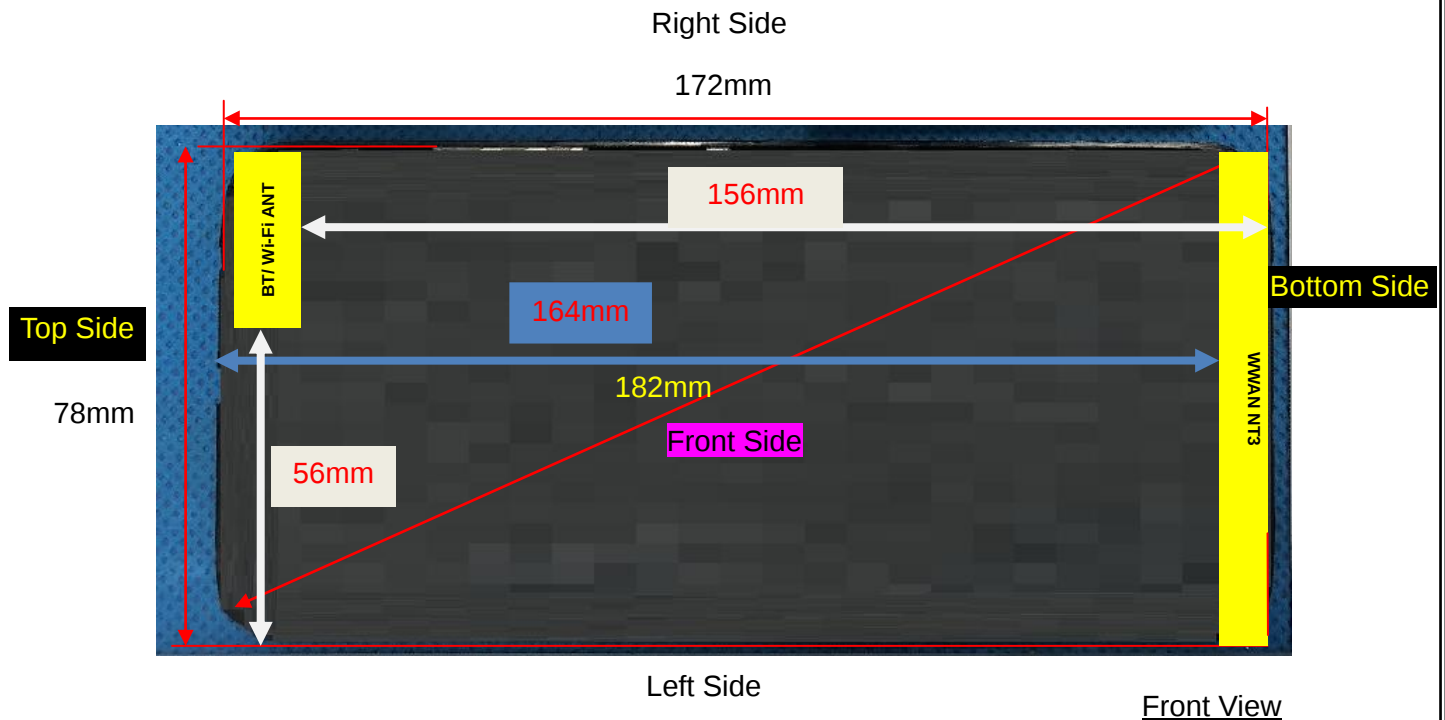
BLE	Output Power (dBm)				
	Data Rates	Tune-up (dBm)	Channe		
			0CH	19CH	39CH
	1M	-4.50	-5.25	-6.04	-4.87
	2M	-4.50	-5.20	-6.00	-4.85

NOTE: Power measurement results of Bluetooth.

7.5. NFC

Channel Freq (MHz)	Min Distance (mm)	Max power (dBm)	tune-up power (dBm)	Max power (mW)	Limits (mW)	SAR Test Exclusion
13.56	10	-33.78	-33.78 ± 1	0.00053	443	Yes

8. Antenna Location



Note: Since the confidentiality request of EUT, the antenna location example diagram see as above.

Distance of the Antenna to the EUT surface/edge						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN ANT	≤ 25mm	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm
WLAN & Bluetooth ANT	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	>25mm
Positions for SAR tests						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN ANT	Yes	Yes	Yes	Yes	NO	Yes
WLAN & Bluetooth ANT	Yes	Yes	NO	Yes	Yes	NO

9. 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:

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

- $f_{\text{(GHz)}}$ 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	P _{max} (dBm)	P _{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	SAR test exclusion
Bluetooth	-1.50	0.708	5	2.480	0.223	3	Yes

NOTE: Standalone SAR test exclusion for Bluetooth.

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{f_{\text{(GHz)}}}/x] \text{ W/kg}$ for test separation distances $\leq 50\text{mm}$, where $x = 7.5$ for 1-g SAR and $x = 18.75$ for 10-g SAR.

When the minimum test separation distance is $< 5 \text{ mm}$, a distance of 5 mm is applied to determine SAR test exclusion.

Mode	Position	P _{max} (dBm)	P _{max} (mW)	Distance (mm)	f (GHz)	x	Estimated SAR (W/Kg)
Bluetooth	Head	7.50	5.623	5	2.48	7.5	0.030
Bluetooth	Body	7.50	5.623	10	2.48	7.5	0.015
Bluetooth	Hotspot	7.50	5.623	10	2.48	7.5	0.015

NOTE: Estimated SAR calculation for Bluetooth

10. SAR Results

10.1. SAR measurement Result

10.1.1. SAR measurement Result of GSM850

Test Position of Head	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift($\pm 5\%$)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	189/836.4	GPRS(GMSK 1TS)	0.113	0.087	4.32	33.59	34.00	0.124	2025/4/06	1#
Left Tilt 15 Degree	189/836.4	GPRS(GMSK 1TS)	0.060	0.046	-0.50	33.59	34.00	0.066	2025/4/06	
Right Cheek	189/836.4	GPRS(GMSK 1TS)	0.104	0.076	0.61	33.59	34.00	0.114	2025/4/06	
Right Tilt 15	189/836.4	GPRS(GMSK 1TS)	0.054	0.041	-1.80	33.59	34.00	0.059	2025/4/06	

Degree										
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NOTE: Head SAR test results of GSM850.

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	189/836.4	GPRS(GMSK 1TS)	0.087	0.047	3.17	33.59	34.00	0.096	2025/4/06	
Back Side	189/836.4	GPRS(GMSK 1TS)	0.289	0.160	-0.88	33.59	34.00	0.318	2025/4/06	2#

NOTE: Body-Worn SAR test results of GSM850

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	189/836.4	GPRS(GMSK 1TS)	0.087	0.047	3.17	33.59	34.00	0.096	2025/4/06	
Back Side	189/836.4	GPRS(GMSK 1TS)	0.289	0.160	-0.88	33.59	34.00	0.318	2025/4/06	2#
Left Side	189/836.4	GPRS(GMSK 1TS)	0.240	0.128	1.89	33.59	34.00	0.264	2025/4/06	
Right Side	189/836.4	GPRS(GMSK 1TS)	0.062	0.033	1.42	33.59	34.00	0.068	2025/4/06	
Bottom Side	189/836.4	GPRS(GMSK 1TS)	0.224	0.118	2.66	33.59	34.00	0.246	2025/4/06	

NOTE: 1.Hotspot SAR test results of GSM850

2. Tested by : *Max Zhou*

10.1.2. SAR measurement Result of GSM1900

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	661/1880	GPRS(GMSK 1TS)	0.032	0.019	-2.64	29.16	29.50	0.035	2025/4/03	3#

Left Tilt 15 Degree	661/1880	GPRS(GMSK 1TS)	0.017	0.015	-0.68	29.16	29.50	0.018	2025/4/03	
Right Cheek	661/1880	GPRS(GMSK 1TS)	0.028	0.017	-0.02	29.16	29.50	0.030	2025/4/03	
Right Tilt 15 Degree	661/1880	GPRS(GMSK 1TS)	0.013	0.011	3.09	29.16	29.50	0.014	2025/4/03	

NOTE: Head SAR test results of GSM1900

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	661/1880	GPRS(GMSK 1TS)	0.030	0.016	-1.28	29.16	29.50	0.032	2025/4/03	
Back Side	661/1880	GPRS(GMSK 1TS)	0.094	0.049	-3.19	29.16	29.50	0.102	2025/4/03	4#

NOTE: Body-Worn SAR test results of GSM1900

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducte d power (dBm)	Tune-up power (dBm)	Scale d SAR 1g (W/K g)	Date	Plot
			1-g	10-g						
Front Side	661/1880	GPRS(GMSK 1TS)	0.030	0.016	-1.28	29.16	29.50	0.032	2025/4/03	
Back Side	661/1880	GPRS(GMSK 1TS)	0.094	0.049	-3.19	29.16	29.50	0.102	2025/4/03	4#
Left Side	661/1880	GPRS(GMSK 1TS)	0.075	0.038	2.71	29.16	29.50	0.081	2025/4/03	
Right Side	661/1880	GPRS(GMSK 1TS)	0.026	0.013	3.04	29.16	29.50	0.028	2025/4/03	
Bottom Side	661/1880	GPRS(GMSK 1TS)	0.084	0.042	-1.45	29.16	29.50	0.091	2025/4/03	

NOTE: 1.Hotspot SAR test results of GSM1900

2.Tested by :

Jack Peng

10.1.3. SAR measurement Result of WCDMA Band 2

Test Position of Head	Test channel /Freq	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Right Cheek	9400/1880	RMC12.2K	0.306	0.183	1.96	21.60	22.00	0.336	2025/4/03	5#
Right Tilt 15 Degree	9400/1880	RMC12.2K	0.154	0.089	1.34	21.60	22.00	0.169	2025/4/03	
Left Cheek	9400/1880	RMC12.2K	0.279	0.164	2.45	21.60	22.00	0.306	2025/4/03	
Left Tilt 15 Degree	9400/1880	RMC12.2K	0.145	0.083	1.32	21.60	22.00	0.159	2025/4/03	

NOTE: Head SAR test results of WCDMA Band 2

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	9400/1880	RMC12.2K	0.204	0.101	2.13	21.60	22.00	0.224	2025/4/03	
Back Side	9400/1880	RMC12.2K	0.632	0.329	0.17	21.60	22.00	0.693	2025/4/03	6#

NOTE: Body-Worn SAR test results of WCDMA Band 2

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	9400/1880	RMC12.2K	0.204	0.101	2.13	21.60	22.00	0.224	2025/4/03	
Back Side	9400/1880	RMC12.2K	0.632	0.329	0.17	21.60	22.00	0.693	2025/4/03	6#
Left Side	9400/1880	RMC12.2K	0.503	0.262	-0.89	21.60	22.00	0.552	2025/4/03	
Right Side	9400/1880	RMC12.2K	0.134	0.068	-1.59	21.60	22.00	0.147	2025/4/03	
Bottom Side	9400/1880	RMC12.2K	0.455	0.227	-3.82	21.60	22.00	0.499	2025/4/03	

NOTE: 1.Hotspot SAR test results of WCDMA Band 2

2. Tested by :

Jack Peng

10.1.4. SAR measurement Result of WCDMA Band 4

Test Position of	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR 1g	Date	Plot
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Head	/Freq		1-g	10-g	(±5%)	(dBm)	(dBm)	(W/Kg)		
Left Cheek	1413/1732.6	RMC12.2K	0.199	0.126	3.42	21.91	22.50	0.228	2025/4/05	7#
Left Tilt 15 Degree	1413/1732.6	RMC12.2K	0.105	0.066	-2.07	21.91	22.50	0.120	2025/4/05	
Right Cheek	1413/1732.6	RMC12.2K	0.184	0.117	2.04	21.91	22.50	0.211	2025/4/05	
Right Tilt 15 Degree	1413/1732.6	RMC12.2K	0.091	0.055	1.84	21.91	22.50	0.104	2025/4/05	

NOTE: Head SAR test results of WCDMA Band 4

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	1413/1732.6	RMC12.2K	0.232	0.122	0.41	21.91	22.50	0.266	2025/4/05	
Back Side	1413/1732.6	RMC12.2K	0.744	0.395	-0.23	21.91	22.50	0.852	2025/4/05	8#

NOTE: Body-Worn SAR test results of WCDMA Band 4

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	1413/1732.6	RMC12.2K	0.232	0.122	0.41	21.91	22.50	0.266	2025/4/05	
Back Side	1413/1732.6	RMC12.2K	0.744	0.395	-0.23	21.91	22.50	0.852	2025/4/05	8#
Left Side	1413/1732.6	RMC12.2K	0.428	0.283	1.49	21.91	22.50	0.490	2025/4/05	
Right Side	1413/1732.6	RMC12.2K	0.165	0.108	2.87	21.91	22.50	0.189	2025/4/05	
Bottom Side	1413/1732.6	RMC12.2K	0.557	0.348	-2.85	21.91	22.50	0.638	2025/4/05	
Back Side	1413/1732.6	RMC12.2K	0.728	0.375	-0.63	22.04	22.50	0.809	2025/4/05	
Back Side	1413/1732.6	RMC12.2K	0.719	0.384	-1.84	21.97	22.50	0.812	2025/4/05	
BackSide Repeated	1413/1732.6	RMC12.2K	0.733	0.389	-0.69	21.91	22.50	0.840	2025/4/05	

NOTE: Hotspot SAR test results of WCDMA Band 4

10.1.5. SAR measurement Result of WCDMA Band 5

Test Position of Head	Test channel /Freq	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	4182/836.4	RMC12.2K	0.285	0.213	-0.27	23.07	23.50	0.315	2025/4/06	9#
Left Tilt 15 Degree	4182/836.4	RMC12.2K	0.165	0.121	0.20	23.07	23.50	0.182	2025/4/06	
Right Cheek	4182/836.4	RMC12.2K	0.245	0.176	-2.47	23.07	23.50	0.270	2025/4/06	
Right Tilt 15 Degree	4182/836.4	RMC12.2K	0.115	0.083	-3.87	23.07	23.50	0.127	2025/4/06	

NOTE: Head SAR test results of WCDMA Band 5

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	4182/836.4	RMC12.2K	0.126	0.057	1.21	23.07	23.50	0.139	2025/4/06	
Back Side	4182/836.4	RMC12.2K	0.376	0.174	-1.61	23.07	23.50	0.415	2025/4/06	10#

NOTE: Body-Worn SAR test results of WCDMA Band 5

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	4182/836.4	RMC12.2K	0.126	0.057	1.21	23.07	23.50	0.139	2025/4/06	
Back Side	4182/836.4	RMC12.2K	0.376	0.174	-1.61	23.07	23.50	0.415	2025/4/06	10#
Left Side	4182/836.4	RMC12.2K	0.315	0.138	-0.65	23.07	23.50	0.348	2025/4/06	
Right Side	4182/836.4	RMC12.2K	0.084	0.037	3.03	23.07	23.50	0.093	2025/4/06	
Bottom Side	4182/836.4	RMC12.2K	0.280	0.127	-2.69	23.07	23.50	0.309	2025/4/06	

NOTE: 1.Hotspot SAR test results of WCDMA Band 5

2. Tested by :

Max Zhou

10.1.6. SAR measurement Result of LTE Band 2

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	18900/1880	20M QPSK(1,0)	0.263	0.151	0.70	23.01	23.50	0.294	2025/4/03	17#
Left Tilt 15 Degree	18900/1880	20M QPSK(1,0)	0.150	0.085	-1.49	23.01	23.50	0.168	2025/4/03	
Right Cheek	18900/1880	20M QPSK(1,0)	0.228	0.126	-1.88	23.01	23.50	0.255	2025/4/03	
Right Tilt 15 Degree	18900/1880	20M QPSK(1,0)	0.110	0.063	3.43	23.01	23.50	0.123	2025/4/03	
50%RB										
Left Cheek	18900/1880	20M QPSK(50,0)	0.141	0.086	4.58	20.43	22.00	0.202	2025/4/03	
Left Tilt 15 Degree	18900/1880	20M QPSK(50,0)	0.077	0.043	-1.86	20.43	22.00	0.111	2025/4/03	
Right Cheek	18900/1880	20M QPSK(50,0)	0.115	0.069	-4.13	20.43	22.00	0.165	2025/4/03	
Right Tilt 15 Degree	18900/1880	20M QPSK(50,0)	0.056	0.038	-3.17	20.43	22.00	0.080	2025/4/03	

NOTE: Head SAR test results of LTE Band 2

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						

1RB										
Front Side	18900/1880	20M QPSK(1,0)	0.402	0.200	3.51	23.01	23.50	0.450	2025/4/03	
Back Side	18900/1880	20M QPSK(1,0)	0.638	0.334	-0.53	23.01	23.50	0.714	2025/4/03	18#
50%RB										
Front Side	18900/1880	20M QPSK(50,0)	0.239	0.109	-0.14	20.43	22.00	0.343	2025/4/03	
Back Side	18900/1880	20M QPSK(50,0)	0.324	0.183	1.60	20.43	22.00	0.465	2025/4/03	

NOTE: Body-Worn SAR test results of LTE Band 2

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	18900/1880	20M QPSK(1,0)	0.402	0.200	3.51	23.01	23.50	0.450	2025/4/03	
Back Side	18900/1880	20M QPSK(1,0)	0.638	0.334	-0.53	23.01	23.50	0.714	2025/4/03	18#
Left Side	18900/1880	20M QPSK(1,0)	0.510	0.256	-0.21	23.01	23.50	0.571	2025/4/03	
Right Side	18900/1880	20M QPSK(1,0)	0.128	0.064	2.74	23.01	23.50	0.143	2025/4/03	
Bottom Side	18900/1880	20M QPSK(1,0)	0.293	0.153	1.83	23.01	23.50	0.328	2025/4/03	
50%RB										
Front Side	18900/1880	20M QPSK(50,0)	0.239	0.109	-0.14	20.43	22.00	0.343	2025/4/03	
Back Side	18900/1880	20M QPSK(50,0)	0.324	0.183	1.60	20.43	22.00	0.465	2025/4/03	
Left Side	18900/1880	20M QPSK(50,0)	0.259	0.144	-0.38	20.43	22.00	0.372	2025/4/03	
Right Side	18900/1880	20M QPSK(50,0)	0.070	0.032	-1.65	20.43	22.00	0.100	2025/4/03	
Bottom	18900/1880	20M	0.171	0.083	1.29	20.43	22.00	0.245	2025/4/03	

Side		QPSK(50,0)								
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NOTE: 1.Hotspot SAR test results of LTE Band 2

2. Tested by :

Jack Peng

10.1.7. SAR measurement Result of LTE Band 4

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	20175/1732.5	20M QPSK(1,49)	0.207	0.126	-1.65	22.75	23.00	0.219	2025/4/05	19#
Left Tilt 15 Degree	20175/1732.5	20M QPSK(1,49)	0.121	0.070	-2.23	22.75	23.00	0.128	2025/4/05	
Right Cheek	20175/1732.5	20M QPSK(1,49)	0.178	0.108	-1.46	22.75	23.00	0.189	2025/4/05	
Right Tilt 15 Degree	20175/1732.5	20M QPSK(1,49)	0.083	0.051	3.74	22.75	23.00	0.088	2025/4/05	
50%RB										
Left Cheek	20175/1732.5	20M QPSK(50,24)	0.117	0.066	0.13	21.52	22.00	0.131	2025/4/05	
Left Tilt 15 Degree	20175/1732.5	20M QPSK(50,24)	0.062	0.037	0.14	21.52	22.00	0.069	2025/4/05	
Right Cheek	20175/1732.5	20M QPSK(50,24)	0.104	0.056	0.93	21.52	22.00	0.116	2025/4/05	
Right Tilt 15 Degree	20175/1732.5	20M QPSK(50,24)	0.045	0.030	-2.16	21.52	22.00	0.050	2025/4/05	

NOTE: Head SAR test results of LTE Band 4

Test Position of Body-	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						

Worn with 10mm										
1RB										
Front Side	20175/1732.5	20M QPSK(1,49)	0.264	0.140	-0.80	22.75	23.00	0.280	2025/4/05	
Back Side	20175/1732.5	20M QPSK(1,49)	0.424	0.236	0.18	22.75	23.00	0.449	2025/4/05	20#
50%RB										
Front Side	20175/1732.5	20M QPSK(50,24)	0.133	0.071	0.08	21.52	22.00	0.149	2025/4/05	
Back Side	20175/1732.5	20M QPSK(50,24)	0.215	0.130	1.11	21.52	22.00	0.240	2025/4/05	

NOTE: Body-Worn SAR test results of LTE Band 4

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	20175/1732.5	20M QPSK(1,49)	0.264	0.140	-0.80	22.75	23.00	0.280	2025/4/05	
Back Side	20175/1732.5	20M QPSK(1,49)	0.424	0.236	0.18	22.75	23.00	0.449	2025/4/05	20#
Left Side	20175/1732.5	20M QPSK(1,49)	0.338	0.188	-1.63	22.75	23.00	0.358	2025/4/05	
Right Side	20175/1732.5	20M QPSK(1,49)	0.094	0.052	1.69	22.75	23.00	0.100	2025/4/05	
Bottom Side	20175/1732.5	20M QPSK(1,49)	0.198	0.106	-0.94	22.75	23.00	0.210	2025/4/05	
50%RB										
Front Side	20175/1732.5	20M QPSK(50,24)	0.133	0.071	0.08	21.52	22.00	0.149	2025/4/05	
Back Side	20175/1732.5	20M QPSK(50,24)	0.215	0.130	1.11	21.52	22.00	0.240	2025/4/05	
Left Side	20175/1732.5	20M QPSK(50,24)	0.199	0.100	1.45	21.52	22.00	0.222	2025/4/05	
Right Side	20175/1732.5	20M QPSK(50,24)	0.049	0.031	4.19	21.52	22.00	0.055	2025/4/05	

Bottom Side	20175/1732.5	20M QPSK(50,24)	0.116	0.062	1.11	21.52	22.00	0.130	2025/4/05	
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NOTE: 1.Hotspot SAR test results of LTE Band 4

2. Tested by :

Jack Peng

10.1.8. SAR measurement Result of LTE Band 5

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	20525/836.5	10M QPSK(1,24)	0.157	0.119	-1.17	23.76	24.00	0.166	2025/4/06	21#
Left Tilt 15 Degree	20525/836.5	10M QPSK(1,24)	0.092	0.068	3.32	23.76	24.00	0.097	2025/4/06	
Right Cheek	20525/836.5	10M QPSK(1,24)	0.137	0.103	-0.10	23.76	24.00	0.145	2025/4/06	
Right Tilt 15 Degree	20525/836.5	10M QPSK(1,24)	0.070	0.051	-2.77	23.76	24.00	0.074	2025/4/06	
50%RB										
Left Cheek	20525/836.5	10M QPSK(25,0)	0.090	0.069	-3.42	22.65	23.00	0.098	2025/4/06	
Left Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.055	0.037	-0.99	22.65	23.00	0.060	2025/4/06	
Right Cheek	20525/836.5	10M QPSK(25,0)	0.076	0.054	-0.71	22.65	23.00	0.082	2025/4/06	
Right Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.039	0.029	4.74	22.65	23.00	0.042	2025/4/06	

NOTE: Head SAR test results of LTE Band 5

Test Position of	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g	Date	Plot
			1g	10g						

Body-Worn with 10mm								(W/Kg)		
1RB										
Front Side	20525/836.5	10M QPSK(1,24)	0.230	0.122	-0.59	23.76	24.00	0.243	2025/4/06	
Back Side	20525/836.5	10M QPSK(1,24)	0.449	0.249	3.46	23.76	24.00	0.475	2025/4/06	22#
50%RB										
Front Side	20525/836.5	10M QPSK(25,0)	0.135	0.072	-2.08	22.65	23.00	0.146	2025/4/06	
Back Side	20525/836.5	10M QPSK(25,0)	0.251	0.139	2.89	22.65	23.00	0.272	2025/4/06	

NOTE: Body-Worn SAR test results of LTE Band 5

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	20525/836.5	10M QPSK(1,24)	0.230	0.122	-0.59	23.76	24.00	0.243	2025/4/06	
Back Side	20525/836.5	10M QPSK(1,24)	0.449	0.249	3.46	23.76	24.00	0.475	2025/4/06	22#
Left Side	20525/836.5	10M QPSK(1,24)	0.098	0.052	1.17	23.76	24.00	0.104	2025/4/06	
Right Side	20525/836.5	10M QPSK(1,24)	0.299	0.166	-1.97	23.76	24.00	0.316	2025/4/06	
Bottom Side	20525/836.5	10M QPSK(1,24)	0.245	0.136	-2.95	23.76	24.00	0.259	2025/4/06	
50%RB										
Front Side	20525/836.5	10M QPSK(25,0)	0.135	0.072	-2.08	22.65	23.00	0.146	2025/4/06	
Back Side	20525/836.5	10M QPSK(25,0)	0.251	0.139	2.89	22.65	23.00	0.272	2025/4/06	
Left	20525/836.5	10M	0.057	0.030	3.09	22.65	23.00	0.062	2025/4/06	

Side		QPSK(25,0)								
Right Side	20525/836.5	10M QPSK(25,0)	0.178	0.088	4.59	22.65	23.00	0.193	2025/4/06	
Bottom Side	20525/836.5	10M QPSK(25,0)	0.125	0.075	4.32	22.65	23.00	0.135	2025/4/06	

NOTE: 1.Hotspot SAR test results of LTE Band 5

2. Tested by : *Max Zhou*

10.1.9. SAR measurement Result of LTE Band 7

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	21100/2535	20M QPSK(1,49)	0.151	0.080	-0.78	22.47	22.50	0.152	2025/4/07	23#
Left Tilt 15 Degree	21100/2535	20M QPSK(1,49)	0.080	0.041	2.78	22.47	22.50	0.081	2025/4/07	
Right Cheek	21100/2535	20M QPSK(1,49)	0.130	0.067	-2.58	22.47	22.50	0.131	2025/4/07	
Right Tilt 15 Degree	21100/2535	20M QPSK(1,49)	0.065	0.034	-2.24	22.47	22.50	0.065	2025/4/07	
50%RB										
Left Cheek	21100/2535	20M QPSK(50,49)	0.086	0.042	4.16	21.52	22.00	0.096	2025/4/07	
Left Tilt 15 Degree	21100/2535	20M QPSK(50,49)	0.044	0.024	-0.37	21.52	22.00	0.049	2025/4/07	
Right Cheek	21100/2535	20M QPSK(50,49)	0.071	0.035	-4.83	21.52	22.00	0.079	2025/4/07	
Right Tilt 15 Degree	21100/2535	20M QPSK(50,49)	0.038	0.020	-0.79	21.52	22.00	0.042	2025/4/07	

NOTE: Head SAR test results of LTE Band 7

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
1RB										
Front Side	21100/2535	20M QPSK(1,49)	0.132	0.065	-0.08	22.47	22.50	0.133	2025/4/07	
Back Side	21100/2535	20M QPSK(1,49)	0.216	0.110	-1.11	22.47	22.50	0.217	2025/4/07	24#
50%RB										
Front Side	21100/2535	20M QPSK(50,49)	0.071	0.035	-1.08	21.52	22.00	0.079	2025/4/07	
Back Side	21100/2535	20M QPSK(50,49)	0.118	0.056	0.16	21.52	22.00	0.132	2025/4/07	

NOTE: Body-Worn SAR test results of LTE Band 7

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	21100/2535	20M QPSK(1,49)	0.132	0.065	-0.08	22.47	22.50	0.133	2025/4/07	
Back Side	21100/2535	20M QPSK(1,49)	0.216	0.110	-1.11	22.47	22.50	0.217	2025/4/07	24#
Left Side	21100/2535	20M QPSK(1,49)	0.075	0.037	0.06	22.47	22.50	0.076	2025/4/07	
Right Side	21100/2535	20M QPSK(1,49)	0.023	0.011	4.00	22.47	22.50	0.023	2025/4/07	
Bottom Side	21100/2535	20M QPSK(1,49)	0.130	0.064	2.45	22.47	22.50	0.131	2025/4/07	
50%RB										
Front Side	21100/2535	20M QPSK(50,49)	0.071	0.035	-1.08	21.52	22.00	0.079	2025/4/07	
Back	21100/2535	20M	0.118	0.056	0.16	21.52	22.00	0.132	2025/4/07	

Side		QPSK(50,49)								
Left Side	21100/2535	20M QPSK(50,49)	0.041	0.019	-1.23	21.52	22.00	0.046	2025/4/07	
Right Side	21100/2535	20M QPSK(50,49)	0.012	0.007	-0.06	21.52	22.00	0.013	2025/4/07	
Bottom Side	21100/2535	20M QPSK(50,49)	0.069	0.038	4.39	21.52	22.00	0.077	2025/4/07	

NOTE: 1.Hotspot SAR test results of LTE Band 7

2.Tested by :

Jack Peng

10.1.10. SAR measurement Result of LTE Band 12

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	23095/707.5	10M QPSK(1,49)	0.061	0.046	-2.43	24.29	24.50	0.064	2025/4/04	25#
Left Tilt 15 Degree	23095/707.5	10M QPSK(1,49)	0.036	0.027	-0.87	24.29	24.50	0.038	2025/4/04	
Right Cheek	23095/707.5	10M QPSK(1,49)	0.055	0.041	-3.73	24.29	24.50	0.058	2025/4/04	
Right Tilt 15 Degree	23095/707.5	10M QPSK(1,49)	0.026	0.019	-1.99	24.29	24.50	0.027	2025/4/04	
50%RB										
Left Cheek	23095/707.5	10M QPSK(25,24)	0.033	0.027	-0.13	23.43	23.50	0.034	2025/4/04	
Left Tilt 15 Degree	23095/707.5	10M QPSK(25,24)	0.021	0.016	-2.33	23.43	23.50	0.021	2025/4/04	
Right Cheek	23095/707.5	10M QPSK(25,24)	0.032	0.021	2.29	23.43	23.50	0.033	2025/4/04	
Right Tilt 15 Degree	23095/707.5	10M QPSK(25,24)	0.015	0.010	2.21	23.43	23.50	0.015	2025/4/04	

NOTE: Head SAR test results of LTE Band 12

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23095/707.5	10M QPSK(1,49)	0.135	0.087	-3.78	24.29	24.50	0.142	2025/4/04	
Back Side	23095/707.5	10M QPSK(1,49)	0.256	0.171	0.46	24.29	24.50	0.269	2025/4/04	26#
50%RB										
Front Side	23095/707.5	10M QPSK(25,24)	0.071	0.045	1.37	23.43	23.50	0.072	2025/4/04	
Back Side	23095/707.5	10M QPSK(25,24)	0.135	0.090	2.03	23.43	23.50	0.137	2025/4/04	

NOTE: Body-Worn SAR test results of LTE Band 12

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23095/707.5	10M QPSK(1,49)	0.135	0.087	-3.78	24.29	24.50	0.142	2025/4/04	
Back Side	23095/707.5	10M QPSK(1,49)	0.256	0.171	0.46	24.29	24.50	0.269	2025/4/04	26#
Left Side	23095/707.5	10M QPSK(1,49)	0.056	0.036	-3.77	24.29	24.50	0.059	2025/4/04	
Right Side	23095/707.5	10M QPSK(1,49)	0.176	0.116	-1.92	24.29	24.50	0.185	2025/4/04	
Bottom Side	23095/707.5	10M QPSK(1,49)	0.145	0.094	-3.47	24.29	24.50	0.152	2025/4/04	
50%RB										
Front Side	23095/707.5	10M QPSK(25,24)	0.071	0.045	1.37	23.43	23.50	0.072	2025/4/04	
Back Side	23095/707.5	10M QPSK(25,24)	0.135	0.090	2.03	23.43	23.50	0.137	2025/4/04	

Left Side	23095/707.5	10M QPSK(25,24)	0.030	0.021	-0.86	23.43	23.50	0.030	2025/4/04	
Right Side	23095/707.5	10M QPSK(25,24)	0.090	0.061	0.54	23.43	23.50	0.091	2025/4/04	
Bottom Side	23095/707.5	10M QPSK(25,24)	0.082	0.048	3.93	23.43	23.50	0.083	2025/4/04	

NOTE:1. Hotspot SAR test results of LTE Band 12

2. Tested by :

Jack Peng

10.1.11. SAR measurement Result of LTE Band 17

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	23790/710	10M QPSK(1,24)	0.064	0.046	-0.85	24.14	24.50	0.070	2025/4/04	27#
Left Tilt 15 Degree	23790/710	10M QPSK(1,24)	0.032	0.022	-1.99	24.14	24.50	0.035	2025/4/04	
Right Cheek	23790/710	10M QPSK(1,24)	0.058	0.041	1.43	24.14	24.50	0.063	2025/4/04	
Right Tilt 15 Degree	23790/710	10M QPSK(1,24)	0.032	0.023	-3.69	24.14	24.50	0.035	2025/4/04	
50%RB										
Left Cheek	23790/710	10M QPSK(25,0)	0.033	0.025	-2.56	23.34	23.50	0.034	2025/4/04	
Left Tilt 15 Degree	23790/710	10M QPSK(25,0)	0.018	0.011	4.86	23.34	23.50	0.019	2025/4/04	
Right Cheek	23790/710	10M QPSK(25,0)	0.029	0.024	2.23	23.34	23.50	0.030	2025/4/04	
Right Tilt 15 Degree	23790/710	10M QPSK(25,0)	0.019	0.013	-1.24	23.34	23.50	0.020	2025/4/04	

NOTE: Head SAR test results of LTE Band 17

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23790/710	10M QPSK(1,24)	0.140	0.105	0.95	24.14	24.50	0.152	2025/4/04	
Back Side	23790/710	10M QPSK(1,24)	0.247	0.185	-0.97	24.14	24.50	0.268	2025/4/04	
50%RB										
Front Side	23790/710	10M QPSK(25,0)	0.077	0.055	-1.31	23.34	23.50	0.080	2025/4/04	
Back Side	23790/710	10M QPSK(25,0)	0.141	0.110	-0.05	23.34	23.50	0.146	2025/4/04	

NOTE: Body-Worn SAR test results of LTE Band 17

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23790/710	10M QPSK(1,24)	0.140	0.105	0.95	24.14	24.50	0.152	2025/4/04	
Back Side	23790/710	10M QPSK(1,24)	0.247	0.185	-0.97	24.14	24.50	0.268	2025/4/04	28#
Left Side	23790/710	10M QPSK(1,24)	0.056	0.042	3.14	24.14	24.50	0.061	2025/4/04	
Right Side	23790/710	10M QPSK(1,24)	0.189	0.137	0.60	24.14	24.50	0.205	2025/4/04	
Bottom Side	23790/710	10M QPSK(1,24)	0.145	0.103	0.70	24.14	24.50	0.158	2025/4/04	
50%RB										
Front Side	23790/710	10M QPSK(25,0)	0.077	0.055	-1.31	23.34	23.50	0.080	2025/4/04	
Back Side	23790/710	10M QPSK(25,0)	0.141	0.110	-0.05	23.34	23.50	0.146	2025/4/04	

Left Side	23790/710	10M QPSK(25,0)	0.030	0.024	-1.37	23.34	23.50	0.031	2025/4/04	
Right Side	23790/710	10M QPSK(25,0)	0.112	0.073	-2.69	23.34	23.50	0.116	2025/4/04	
Bottom Side	23790/710	10M QPSK(25,0)	0.077	0.057	-2.92	23.34	23.50	0.080	2025/4/04	

NOTE: 1.Hotspot SAR test results of LTE Band 17

2. Tested by :

Jack Peng

10.1.12. SAR measurement Result of LTE Band 38

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	38000/2595	20M QPSK(1,49)	0.323	0.139	-0.05	22.45	23.00	0.367	2025/4/07	29#
Left Tilt 15 Degree	38000/2595	20M QPSK(1,49)	0.185	0.079	3.89	22.45	23.00	0.210	2025/4/07	
Right Cheek	38000/2595	20M QPSK(1,49)	0.277	0.116	1.35	22.45	23.00	0.314	2025/4/07	
Right Tilt 15 Degree	38000/2595	20M QPSK(1,49)	0.145	0.060	-2.55	22.45	23.00	0.165	2025/4/07	
50%RB										
Left Cheek	38000/2595	20M QPSK(50,24)	0.178	0.076	-0.73	21.38	22.00	0.205	2025/4/07	
Left Tilt 15 Degree	38000/2595	20M QPSK(50,24)	0.098	0.044	-4.12	21.38	22.00	0.113	2025/4/07	
Right Cheek	38000/2595	20M QPSK(50,24)	0.154	0.058	-4.09	21.38	22.00	0.178	2025/4/07	
Right Tilt 15	38000/2595	20M QPSK(50,24)	0.086	0.034	4.31	21.38	22.00	0.099	2025/4/07	

Degree										
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NOTE: Head SAR test results of LTE Band 38

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	38000/2595	20M QPSK(1,49)	0.198	0.084	2.77	22.45	23.00	0.225	2025/4/07	
Back Side	38000/2595	20M QPSK(1,49)	0.309	0.134	4.38	22.45	23.00	0.351	2025/4/07	30#
50%RB										
Front Side	38000/2595	20M QPSK(50,24)	0.109	0.043	-4.71	21.38	22.00	0.126	2025/4/07	
Back Side	38000/2595	20M QPSK(50,24)	0.176	0.075	-1.39	21.38	22.00	0.203	2025/4/07	

NOTE: Body-Worn SAR test results of LTE Band 38

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	38000/2595	20M QPSK(1,49)	0.198	0.084	2.77	22.45	23.00	0.225	2025/4/07	
Back Side	38000/2595	20M QPSK(1,49)	0.309	0.134	4.38	22.45	23.00	0.351	2025/4/07	30#
Left Side	38000/2595	20M QPSK(1,49)	0.093	0.039	-1.06	22.45	23.00	0.106	2025/4/07	
Right Side	38000/2595	20M QPSK(1,49)	0.033	0.014	-0.05	22.45	23.00	0.037	2025/4/07	
Top Side	38000/2595	20M QPSK(1,49)	0.175	0.076	-3.31	22.45	23.00	0.199	2025/4/07	
50%RB										
Front Side	38000/2595	20M QPSK(50,24)	0.109	0.043	-4.71	21.38	22.00	0.126	2025/4/07	

Back Side	38000/2595	20M QPSK(50,24)	0.176	0.075	-1.39	21.38	22.00	0.203	2025/4/07	
Left Side	38000/2595	20M QPSK(50,24)	0.053	0.020	1.14	21.38	22.00	0.061	2025/4/07	
Right Side	38000/2595	20M QPSK(50,24)	0.018	0.007	-3.22	21.38	22.00	0.021	2025/4/07	
Top Side	38000/2595	20M QPSK(50,24)	0.096	0.039	4.04	21.38	22.00	0.111	2025/4/07	

NOTE: 1. Hotspot SAR test results of LTE Band 38

2. Tested by : *Jack Peng*

10.1.13. SAR measurement Result of WLAN2.4G

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	6/2437	802.11b	0.453	0.237	-0.43	15.06	15.50	0.501	2025/3/21	15#
Left Tilt 15 Degree	6/2437	802.11b	0.266	0.139	3.64	15.06	15.50	0.294	2025/3/21	
Right Cheek	6/2437	802.11b	0.400	0.205	-3.03	15.06	15.50	0.443	2025/3/21	
Right Tilt 15 Degree	6/2437	802.11b	0.212	0.111	-3.63	15.06	15.50	0.235	2025/3/21	

NOTE: Head SAR test results of WLAN 2.4G

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	6/2437	802.11b	0.237	0.146	2.34	15.06	15.50	0.262	2025/3/21	
Back Side	6/2437	802.11b	0.261	0.159	-0.22	15.06	15.50	0.289	2025/3/21	16#

NOTE: Body-worn SAR test results of WLAN 2.4G

Test Position	Test channel	Test Mode	SAR Value (W/kg)	Power Drift	Conducted power	Tune-up power	Scaled SAR	Date	Plot
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of Hotspot with 10mm	/Freq.		1-g	10-g	(±5%)	(dBm)	(dBm)	1g (W/Kg)		
Front Side	6/2437	802.11b	0.237	0.146	2.34	15.06	15.50	0.262	2025/3/21	
Back Side	6/2437	802.11b	0.261	0.159	-0.22	15.06	15.50	0.289	2025/3/21	16#
Right Side	6/2437	802.11b	0.174	0.102	1.56	15.06	15.50	0.193	2025/3/21	
Top Side	6/2437	802.11b	0.103	0.058	-2.91	15.06	15.50	0.114	2025/3/21	

NOTE: 1.Hotspot SAR test results of WLAN2.4G

2. Tested by : *Max Zhou*

10.1.14. SAR measurement Result of WLAN5.2G

Test Position of Head	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						
Left Cheek	40/5200	802.11a	0.041	0.015	1.35	13.95	14.00	0.041	2025/3/30	11#
Left Tilt 15 Degree	40/5200	802.11a	0.021	0.008	-1.88	13.95	14.00	0.021	2025/3/30	
Right Cheek	40/5200	802.11a	0.037	0.013	-1.10	13.95	14.00	0.037	2025/3/30	
Right Tilt 15 Degree	40/5200	802.11a	0.020	0.018	3.16	13.95	14.00	0.020	2025/3/30	

NOTE: Head SAR test results of WLAN5.2G

Test Position of Body-Worn with 10mm	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						
Front Side	40/5200	802.11a	0.030	0.019	-2.30	13.95	14.00	0.030	2025/3/30	
Back Side	40/5200	802.11a	0.047	0.031	3.80	13.95	14.00	0.048	2025/3/30	12#

NOTE: Body-worn SAR test results of WLAN5.2G

Test Position of Hotspot with 10mm	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						
Front Side	40/5200	802.11a	0.030	0.019	-2.30	13.95	14.00	0.030	2025/3/30	
Back Side	40/5200	802.11a	0.047	0.031	3.80	13.95	14.00	0.048	2025/3/30	12#
Right Side	40/5200	802.11a	0.024	0.015	-2.77	13.95	14.00	0.024	2025/3/30	
Top Side	40/5200	802.11a	0.024	0.015	-1.98	13.95	14.00	0.024	2025/3/30	

NOTE: 1.Hotspot SAR test results of WLAN5.2G

2. Tested by : *Jack Peng*

10.1.15. SAR measurement Result of WLAN5.8G

Test Position of Head	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						
Left Cheek	149/5745	802.11a	0.060	0.021	0.44	9.52	10.00	0.067	2025/4/02	13#
Left Tilt 15 Degree	149/5745	802.11a	0.031	0.011	-3.15	9.52	10.00	0.035	2025/4/02	
Right Cheek	149/5745	802.11a	0.052	0.018	0.99	9.52	10.00	0.058	2025/4/02	
Right Tilt 15 Degree	149/5745	802.11a	0.026	0.009	-0.54	9.52	10.00	0.029	2025/4/02	

NOTE: Head SAR test results of WLAN5.8G

Test Position of Body-Worn with 10mm	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						
Front Side	149/5745	802.11a	0.042	0.022	3.59	9.52	10.00	0.047	2025/4/02	
Back Side	149/5745	802.11a	0.051	0.027	0.11	9.52	10.00	0.057	2025/4/02	14#

NOTE: Body-worn SAR test results of WLAN5.8G

Test Position of Hotspot with 10mm	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						
Front Side	149/5745	802.11a	0.042	0.022	3.59	9.52	10.00	0.047	2025/4/02	
Back Side	149/5745	802.11a	0.051	0.027	0.11	9.52	10.00	0.057	2025/4/02	14#
Right Side	149/5745	802.11a	0.024	0.012	-2.10	9.52	10.00	0.027	2025/4/02	
Top Side	149/5745	802.11a	0.024	0.013	-2.28	9.52	10.00	0.027	2025/4/02	

NOTE: 1.Hotspot SAR test results of WLAN5.8G

2. Tested by : Max Zhou

10.2. Simultaneous Transmission Analysis

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

- 1) Scalar SAR summation $< 1.6\text{W/kg}$.
- 2) $\text{SPLSR} = (\text{SAR}_1 + \text{SAR}_2)^{1.5} / (\text{min. separation distance, mm})$, 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.

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DTS			
Head	Left Cheek	0.367	0.501	0.868	N/A	N/A
	Left Tilt 15 Degree	0.210	0.294	0.504	N/A	N/A
	Right Cheek	0.336	0.443	0.779	N/A	N/A
	Right Tilt 15 Degree	0.169	0.235	0.404	N/A	N/A
Body-Worn	Front Side	0.450	0.262	0.712	N/A	N/A
	Back Side	0.852	0.289	1.141	N/A	N/A
Hotspot	Front Side	0.450	0.262	0.712	N/A	N/A
	Back Side	0.852	0.351	1.203	N/A	N/A
	Left Side	0.571	N/A	0.571	N/A	N/A
	Right Side	0.316	0.193	0.509	N/A	N/A
	Top Side	0.199	0.114	0.313	N/A	N/A
	Bottom Side	0.638	N/A	0.638	N/A	N/A

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	NII			
Head	Left Cheek	0.367	0.067	0.434	N/A	N/A
	Left Tilt 15 Degree	0.210	0.035	0.245	N/A	N/A
	Right Cheek	0.336	0.058	0.394	N/A	N/A

	Right Tilt 15 Degree	0.169	0.029	0.198	N/A	N/A
Body-Worn	Front Side	0.450	0.047	0.497	N/A	N/A
	Back Side	0.852	0.057	0.909	N/A	N/A
Hotspot	Front Side	0.450	0.047	0.497	N/A	N/A
	Back Side	0.852	0.057	0.909	N/A	N/A
	Left Side	0.571	N/A	0.571	N/A	N/A
	Right Side	0.316	0.027	0.343	N/A	N/A
	Top Side	0.199	0.027	0.226	N/A	N/A
	Bottom Side	0.638	N/A	0.638	N/A	N/A

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DSS			
Head	Left Cheek	0.367	0.030	0.397	N/A	N/A
	Left Tilt 15 Degree	0.210	0.030	0.240	N/A	N/A
	Right Cheek	0.336	0.030	0.366	N/A	N/A
	Right Tilt 15 Degree	0.169	0.030	0.199	N/A	N/A
Body-Worn	Front Side	0.450	0.015	0.465	N/A	N/A
	Back Side	0.852	0.015	0.867	N/A	N/A
Hotspot	Front Side	0.450	0.015	0.465	N/A	N/A
	Back Side	0.852	0.015	0.867	N/A	N/A
	Left Side	0.571	N/A	0.571	N/A	N/A
	Right Side	0.316	0.015	0.331	N/A	N/A
	Top Side	0.199	0.015	0.214	N/A	N/A
	Bottom Side	0.638	N/A	0.638	N/A	N/A

11. Appendix A. Photo documentation

Refer to appendix Test Setup photo---SAR

12. Appendix B. System Check Plots

Table of contents
MEASUREMENT 1 System Performance Check - 750MHz
MEASUREMENT 2 System Performance Check - 835MHz
MEASUREMENT 3 System Performance Check - 1800MHz
MEASUREMENT 4 System Performance Check - 1900MHz
MEASUREMENT 5 System Performance Check - 2450MHz
MEASUREMENT 6 System Performance Check - 2600MHz
MEASUREMENT 7 System Performance Check - 5200MHz
MEASUREMENT 8 System Performance Check - 5800MHz

1# System check at 750 MHz

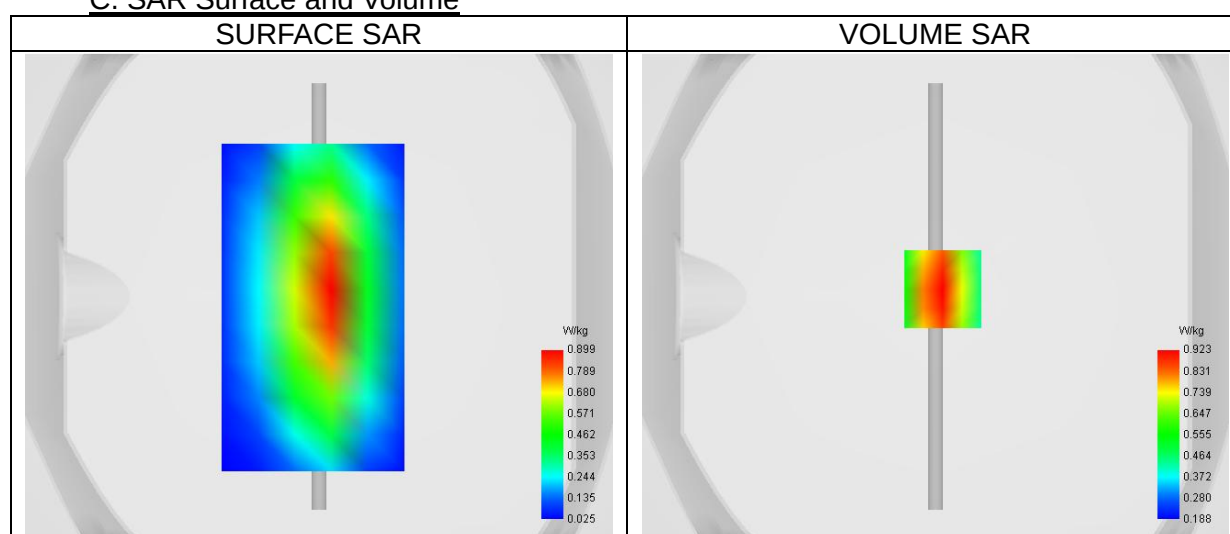
Date of measurement: 4/4/2025

A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
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
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	750.000
Relative permittivity (real part)	40.47
Relative permittivity (imaginary part)	21.35
Conductivity (S/m)	0.89

C. SAR Surface and Volume

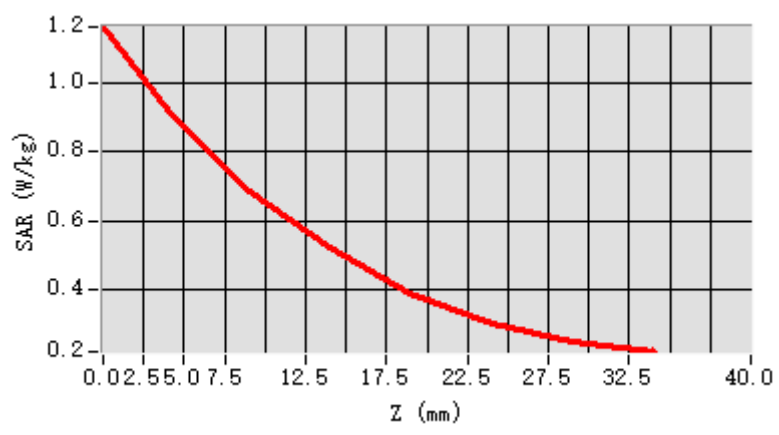
Maximum location: X=3.00, Y=3.00 ; SAR Peak: 1.17 W/kg

D. SAR 1g & 10g

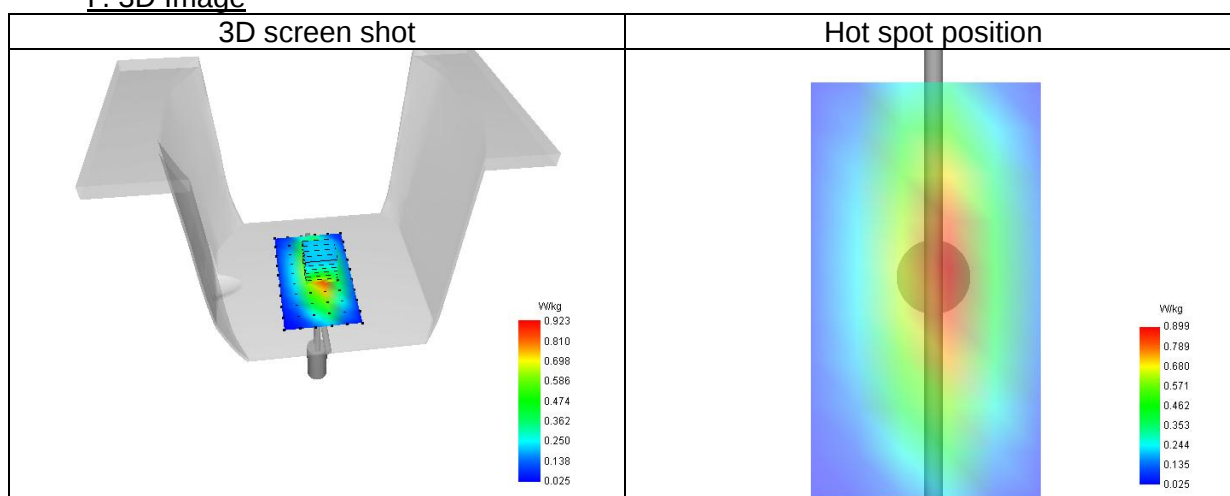
SAR 10g (W/Kg)	0.618
SAR 1g (W/Kg)	0.892
Variation (%)	-0.48
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	74.58

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.163	0.923	0.688	0.522	0.392	0.301	0.248



F. 3D Image



2# System check at 835 MHz
Date of measurement: 6/4/2025

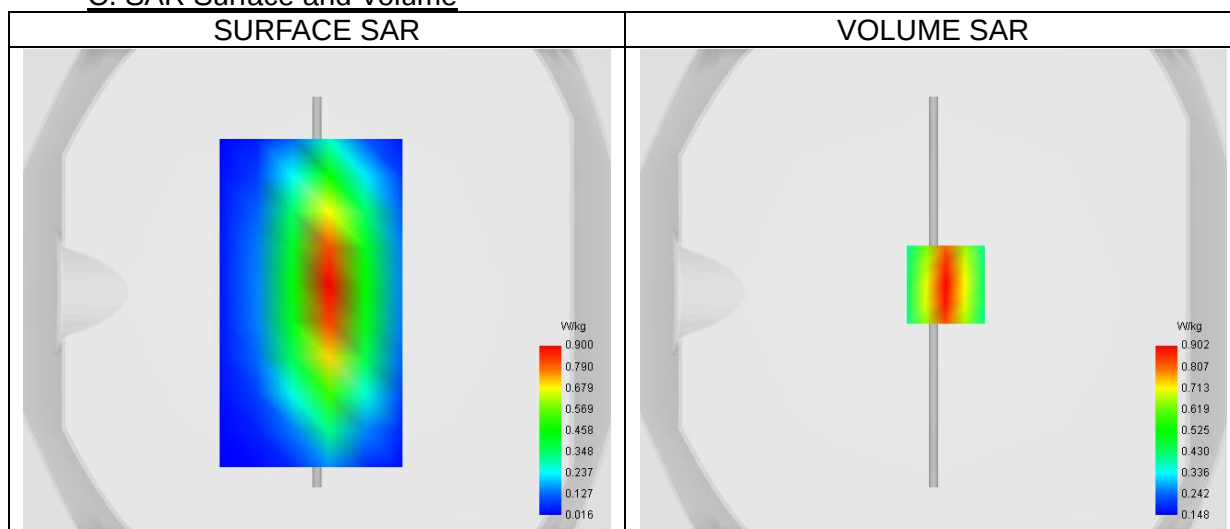
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.34
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	CW835
Channels/Frequency	Middle
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	835.000
Relative permittivity (real part)	41.05
Relative permittivity (imaginary part)	19.00
Conductivity (S/m)	0.88

C. SAR Surface and Volume



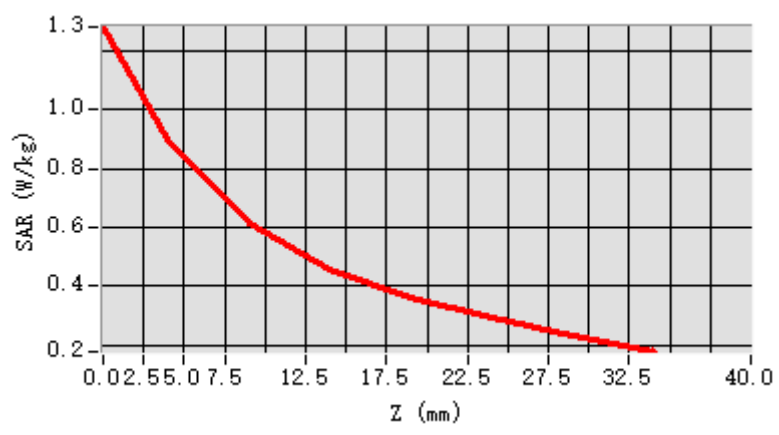
Maximum location: X=5.00, Y=3.00 ; SAR Peak: 1.27 W/kg

D. SAR 1g & 10g

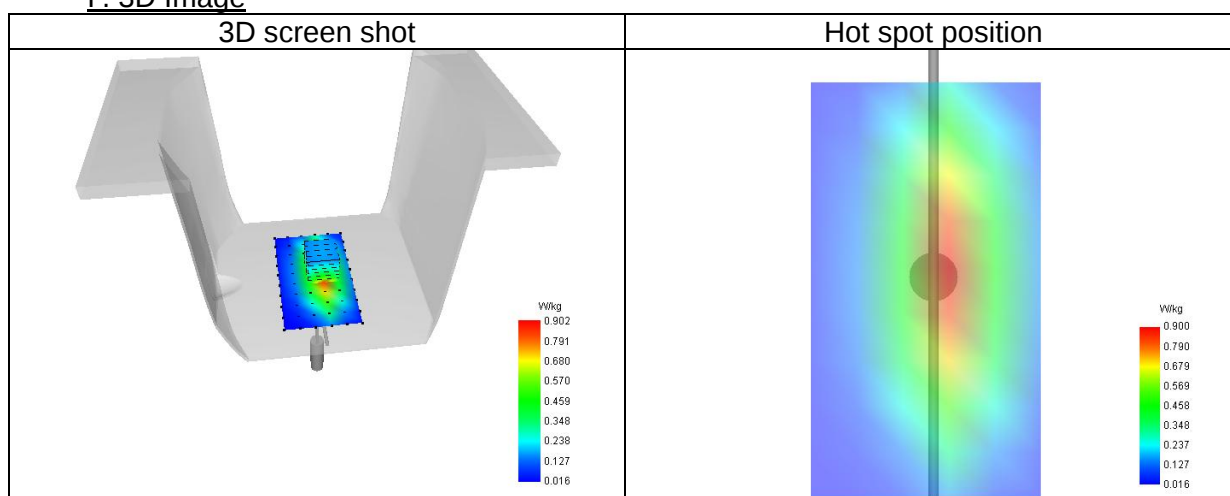
SAR 10g (W/Kg)	0.570
SAR 1g (W/Kg)	0.868
Variation (%)	-0.21
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	68.04

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.282	0.902	0.613	0.458	0.362	0.293	0.230



F. 3D Image



3# System check at 1800 MHz

Date of measurement: 5/4/2025

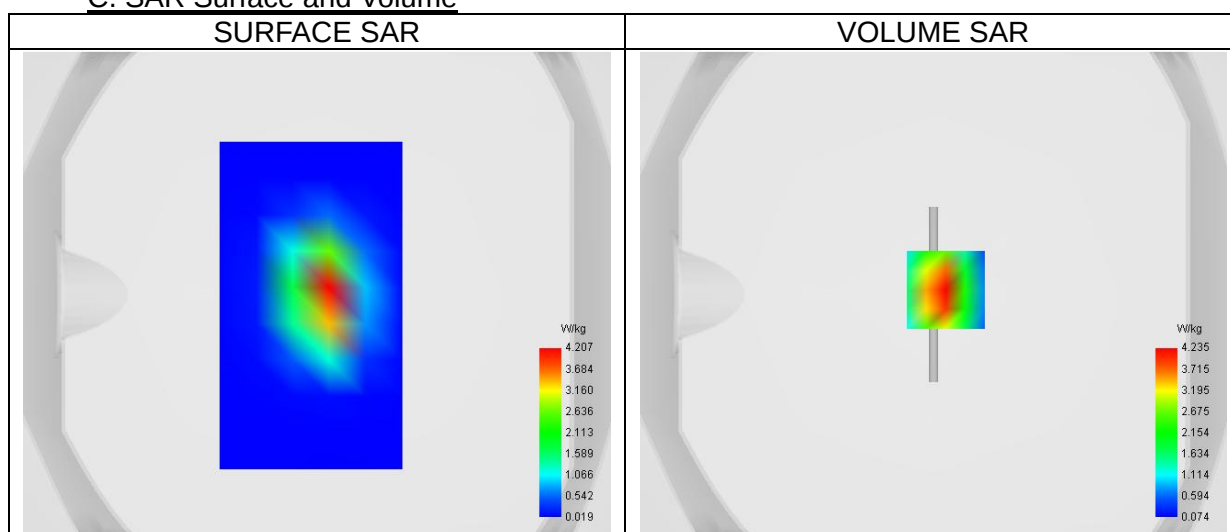
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
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
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	1800.000
Relative permittivity (real part)	39.12
Relative permittivity (imaginary part)	13.71
Conductivity (S/m)	1.37

C. SAR Surface and Volume



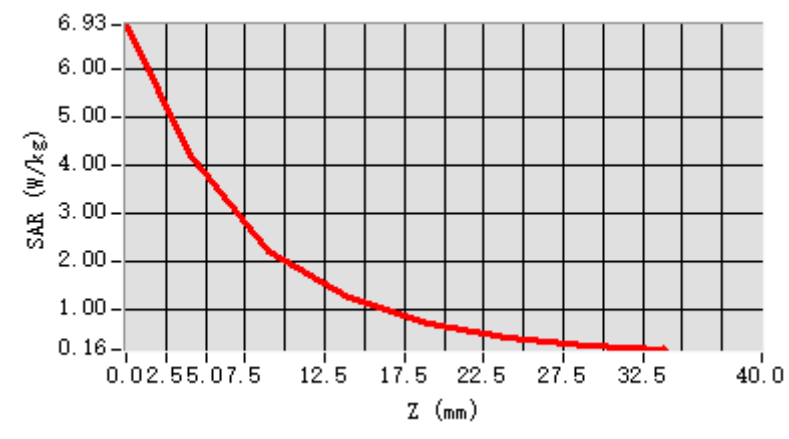
Maximum location: X=5.00, Y=2.00 ; SAR Peak: 7.04 W/kg

D. SAR 1g & 10g

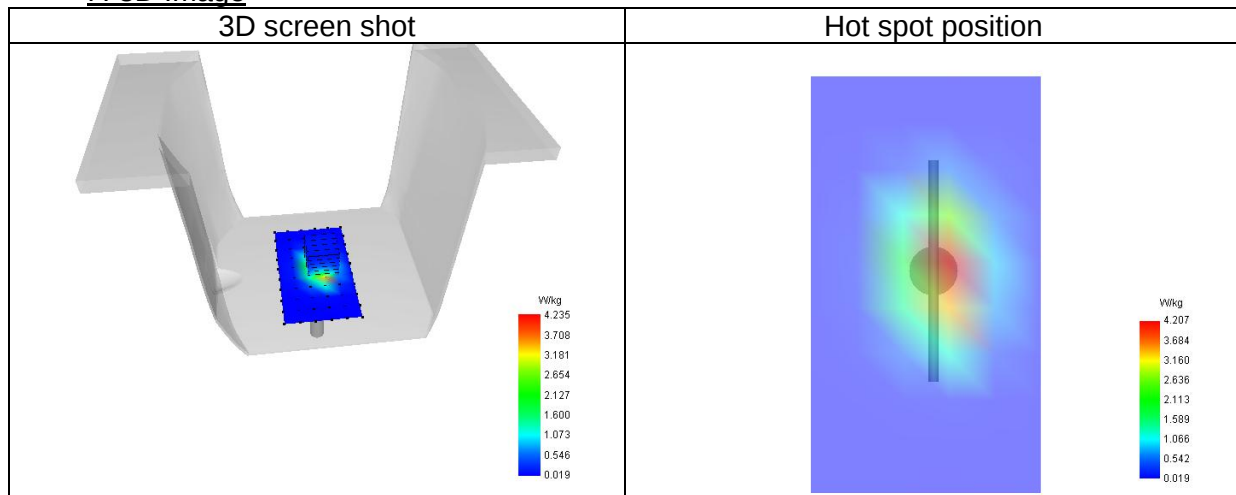
SAR 10g (W/Kg)	1.978
SAR 1g (W/Kg)	4.025
Variation (%)	-0.02
Horizontal validation criteria: minimum distance (mm)	11.31
Vertical validation criteria: SAR ratio M2/M1 (%)	52.56

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.934	4.235	2.226	1.240	0.715	0.428	0.259



F. 3D Image



4# System check at 1900 MHz

Date of measurement: 3/4/2025

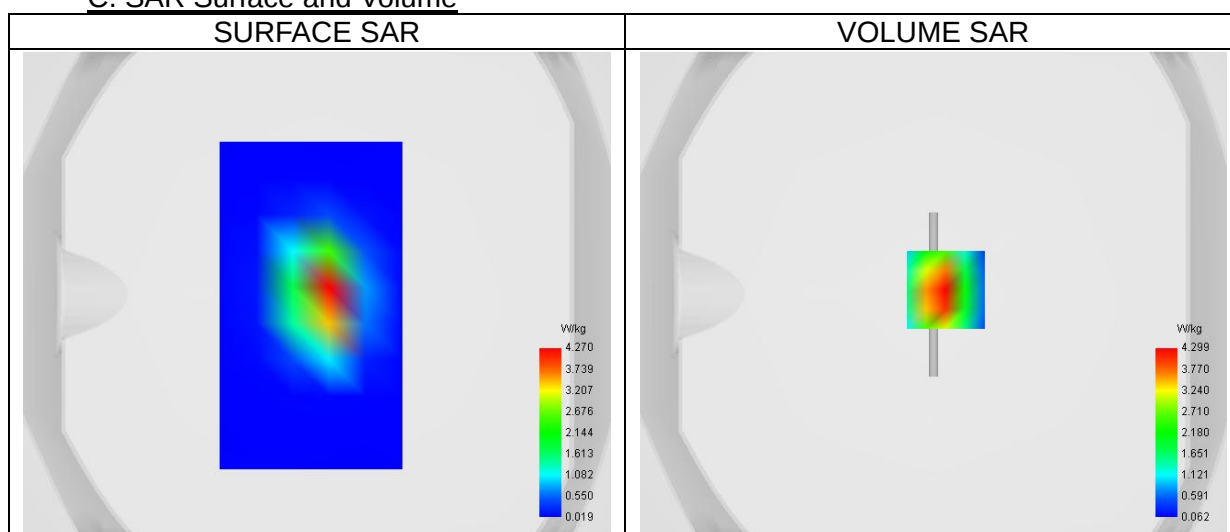
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.57
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	CW1900
Channels/Frequency	Middle
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	1900.000
Relative permittivity (real part)	38.27
Relative permittivity (imaginary part)	13.40
Conductivity (S/m)	1.41

C. SAR Surface and Volume



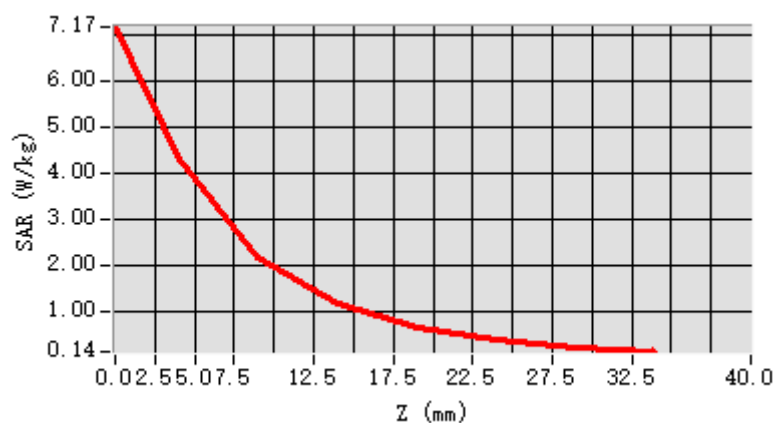
Maximum location: X=5.00, Y=2.00 ; SAR Peak: 7.36 W/kg

D. SAR 1g & 10g

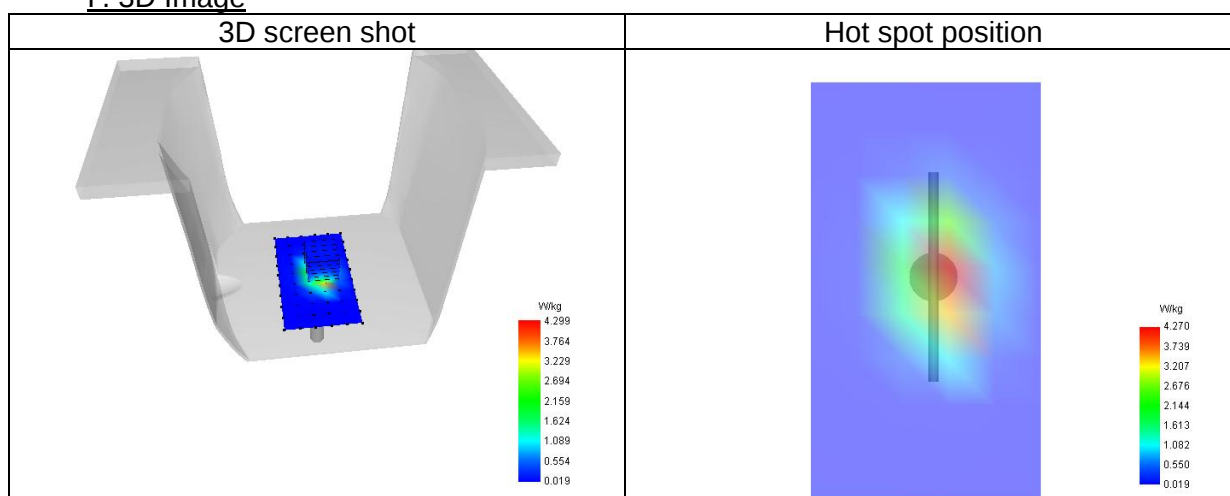
SAR 10g (W/Kg)	2.010
SAR 1g (W/Kg)	4.270
Variation (%)	-0.09
Horizontal validation criteria: minimum distance (mm)	11.31
Vertical validation criteria: SAR ratio M2/M1 (%)	50.98

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	7.167	4.299	2.192	1.190	0.668	0.388	0.230



F. 3D Image



5# System check at 2450 MHz
Date of measurement: 21/3/2025

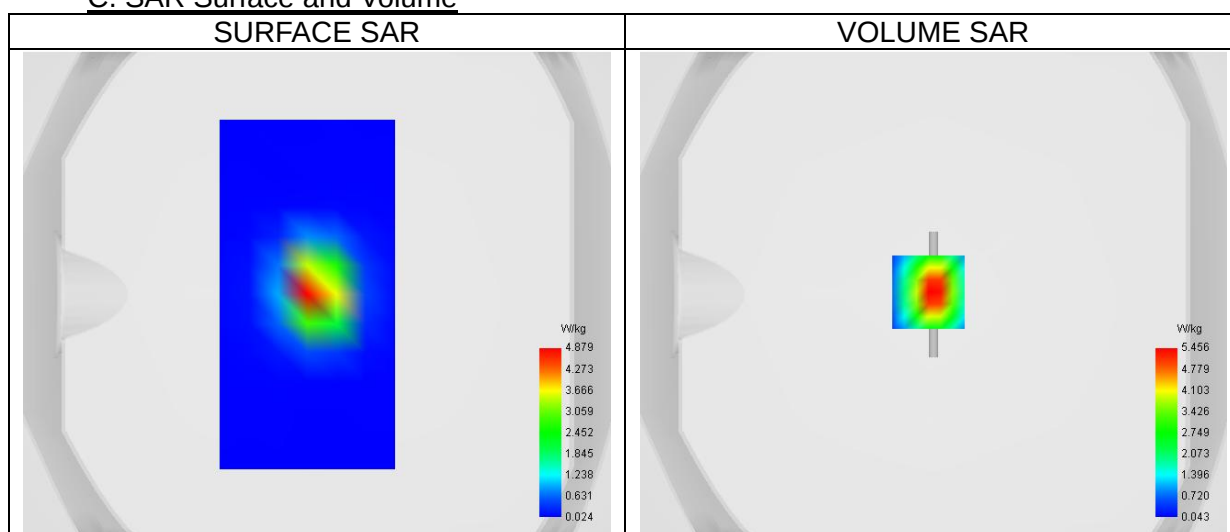
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.74
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
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	2450.000
Relative permittivity (real part)	38.15
Relative permittivity (imaginary part)	12.98
Conductivity (S/m)	1.77

C. SAR Surface and Volume



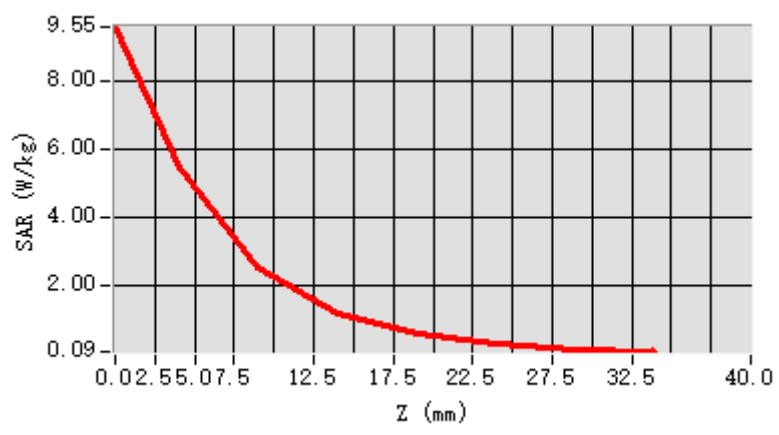
Maximum location: X=-2.00, Y=1.00 ; SAR Peak: 9.82 W/kg

D. SAR 1g & 10g

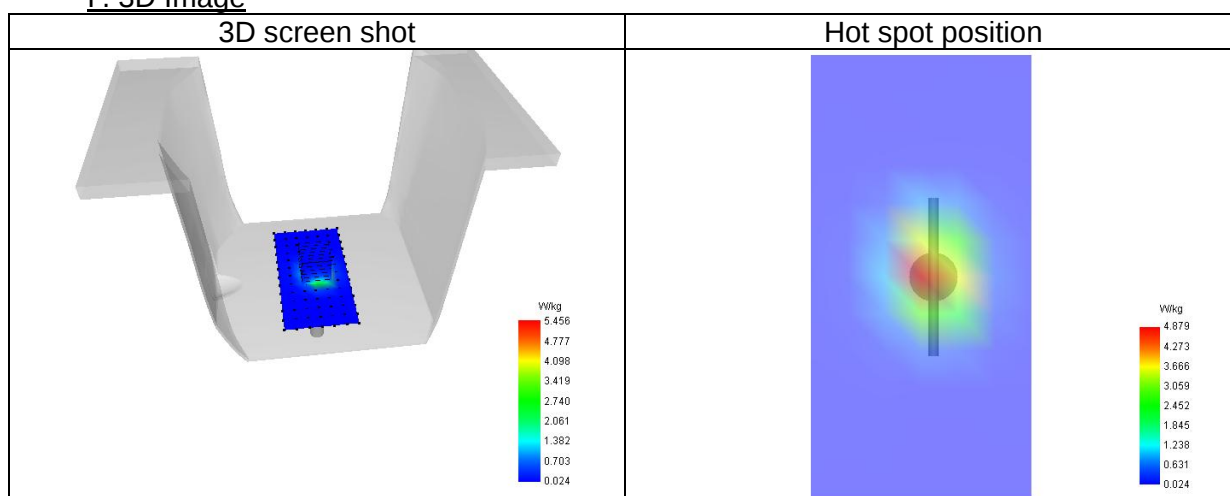
SAR 10g (W/Kg)	2.212
SAR 1g (W/Kg)	5.160
Variation (%)	-0.15
Horizontal validation criteria: minimum distance (mm)	10.00
Vertical validation criteria: SAR ratio M2/M1 (%)	46.31

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.550	5.456	2.527	1.215	0.599	0.306	0.163



F. 3D Image



6# System check at 2600 MHz

Date of measurement: 7/4/2025

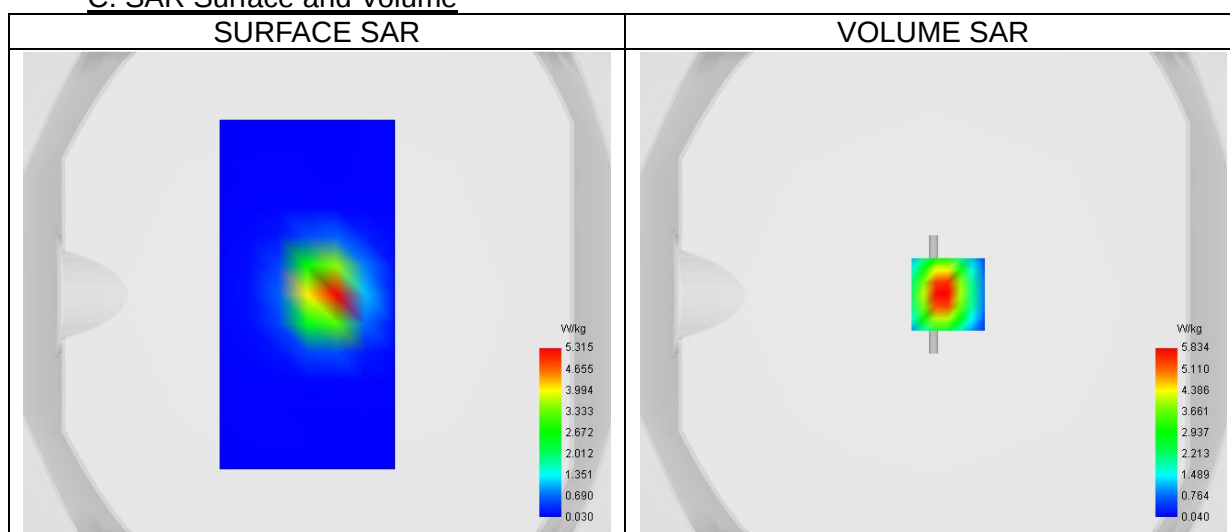
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
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	CW2600
Channels/Frequency	Middle
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	2600.000
Relative permittivity (real part)	39.73
Relative permittivity (imaginary part)	13.38
Conductivity (S/m)	1.93

C. SAR Surface and Volume



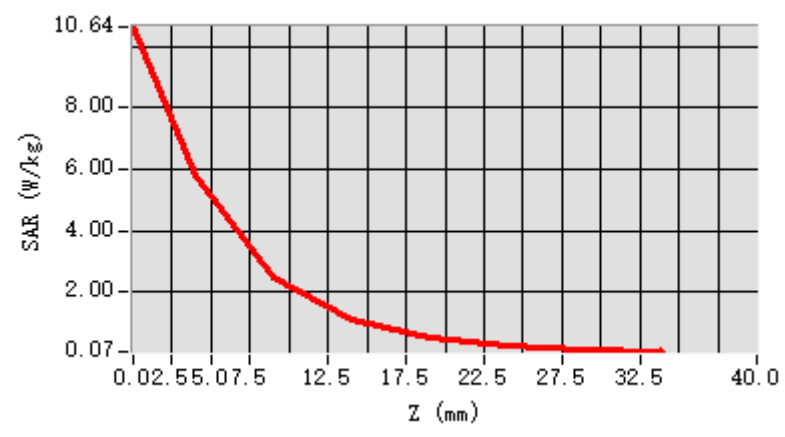
Maximum location: X=6.00, Y=0.00 ; SAR Peak: 10.95 W/kg

D. SAR 1g & 10g

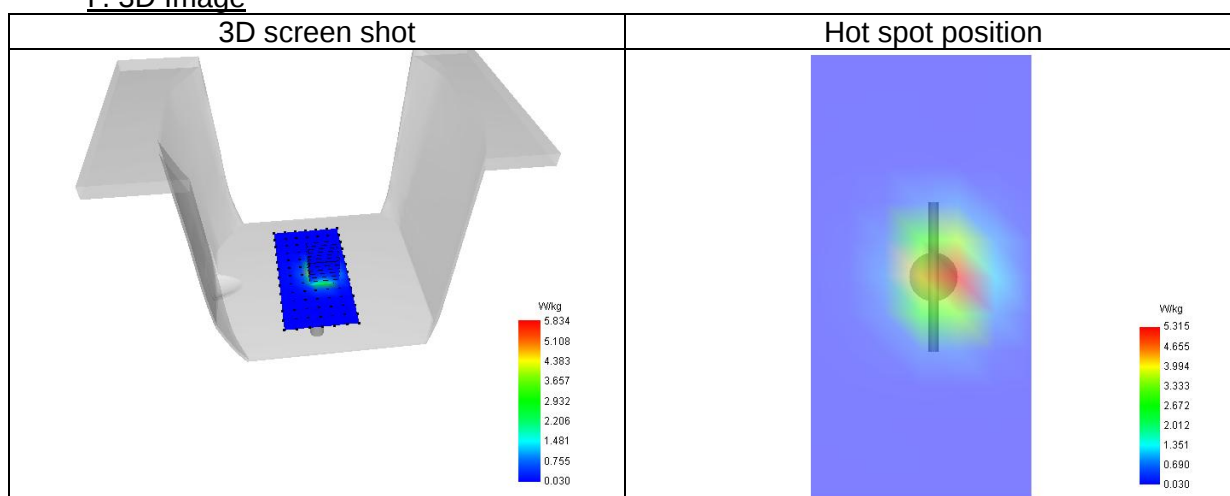
SAR 10g (W/Kg)	2.291
SAR 1g (W/Kg)	5.532
Variation (%)	0.12
Horizontal validation criteria: minimum distance (mm)	10.00
Vertical validation criteria: SAR ratio M2/M1 (%)	42.78

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	10.638	5.834	2.496	1.094	0.501	0.236	0.121



F. 3D Image



7# System check at 5200 MHz

Date of measurement: 30/3/2025

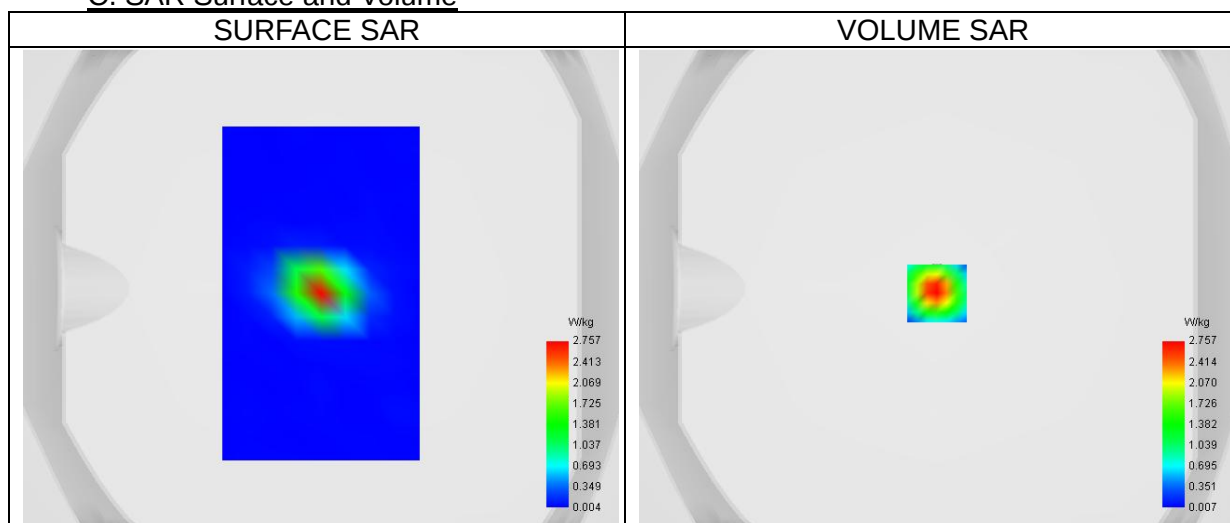
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	1.89
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Signal	CW
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	5200.00
Relative permittivity (real part)	36.19
Relative permittivity (imaginary part)	16.66
Conductivity (S/m)	4.81

C. SAR Surface and Volume



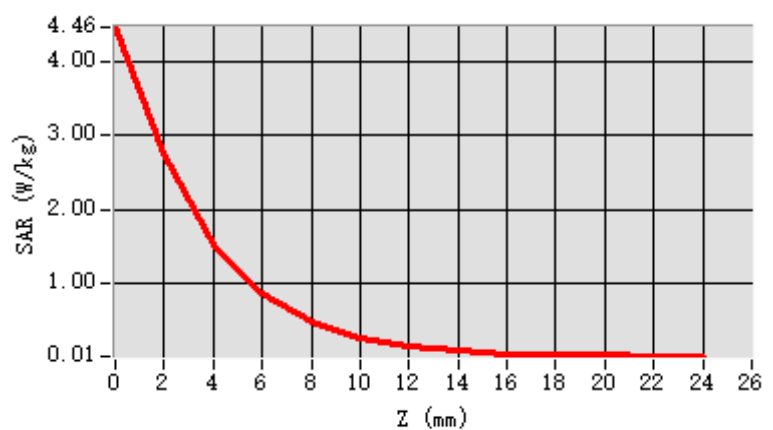
Maximum location: X=0.00, Y=-2.00 ; SAR Peak: 4.77 W/kg

D. SAR 1g & 10g

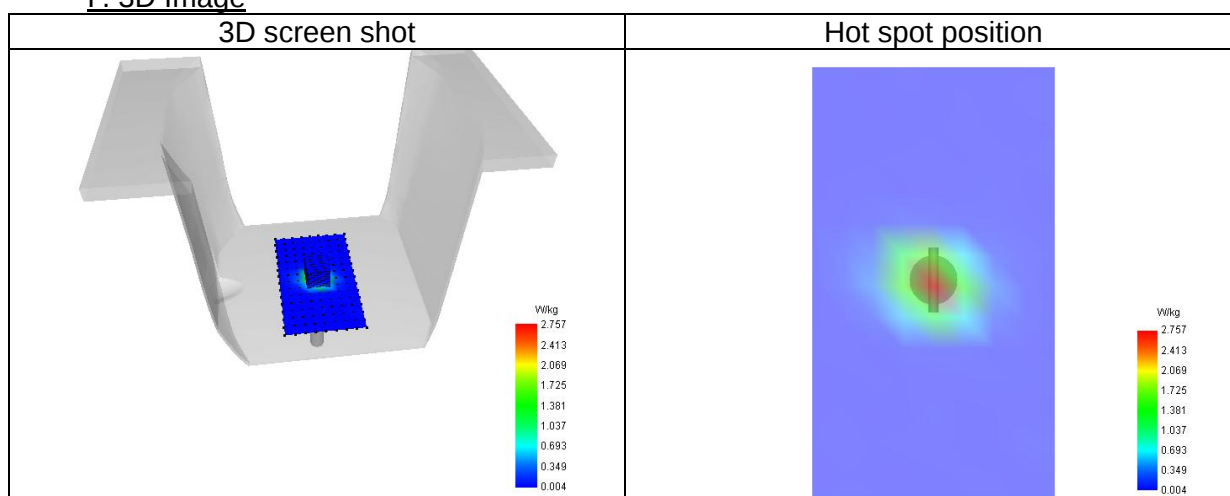
SAR 10g (W/Kg)	0.547
SAR 1g (W/Kg)	1.612
Variation (%)	1.55
Horizontal validation criteria: minimum distance (mm)	11.31
Vertical validation criteria: SAR ratio M2/M1 (%)	54.84

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.0	12.0	14.0	16.0	18.0	20.0	22.0
						0	0	0	0	0	0	0
SAR (W/Kg)	4.45	2.75	1.51	0.86	0.48	0.24	0.14	0.08	0.04	0.03	0.02	0.01
	8	7	2	0	7	9	8	9	9	8	9	1



F. 3D Image



8# System check at 5800 MHz

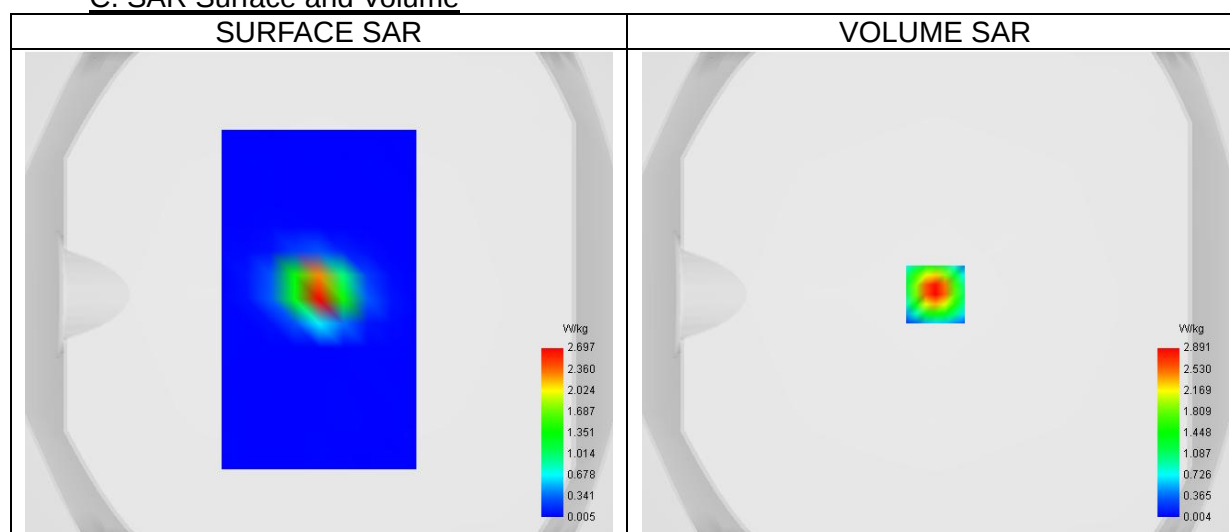
Date of measurement: 2/4/2025

A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	1.90
Area Scan	dx=10mm dy=10mm, Complete
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2.0mm,Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Signal	CW
Channels/Frequency	Middle

B. Permittivity

Middle TX Frequency (MHz)	5800.00
Relative permittivity (real part)	35.39
Relative permittivity (imaginary part)	16.09
Conductivity (S/m)	5.18

C. SAR Surface and Volume

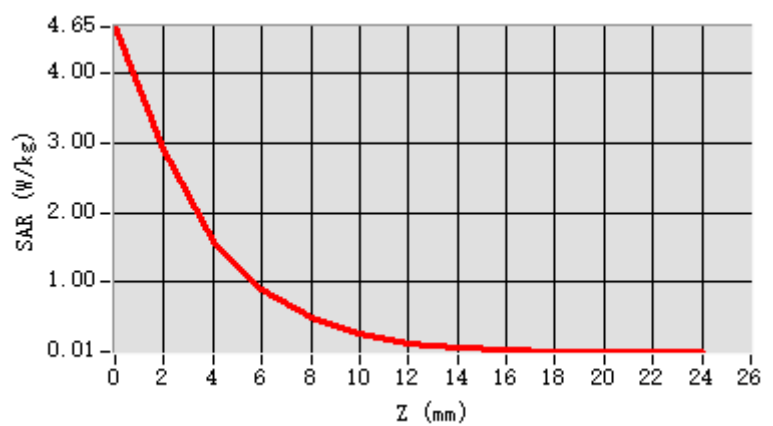
Maximum location: X=0.00, Y=0.00 ; SAR Peak: 5.08 W/kg

D. SAR 1g & 10g

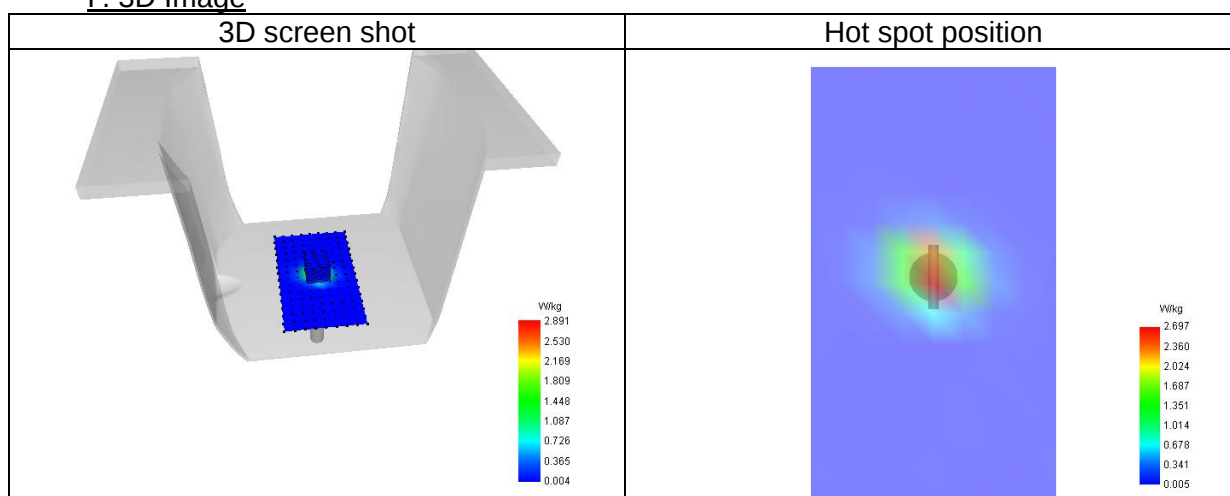
SAR 10g (W/Kg)	0.567
SAR 1g (W/Kg)	1.698
Variation (%)	0.67
Horizontal validation criteria: minimum distance (mm)	8.94
Vertical validation criteria: SAR ratio M2/M1 (%)	54.89

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.0	12.0	14.0	16.0	18.0	20.0	22.0
SAR (W/Kg)	4.65	2.89	1.58	0.90	0.50	0.27	0.13	0.06	0.04	0.01	0.01	0.01
	1	1	7	6	9	1	1	8	0	9	8	2



F. 3D Image



13. Appendix C. Plots of High SAR Measurement

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MEASUREMENT 30 LTE Band 38 Body

1# SAR Measurement at GPRS850 (Cheek, Left)

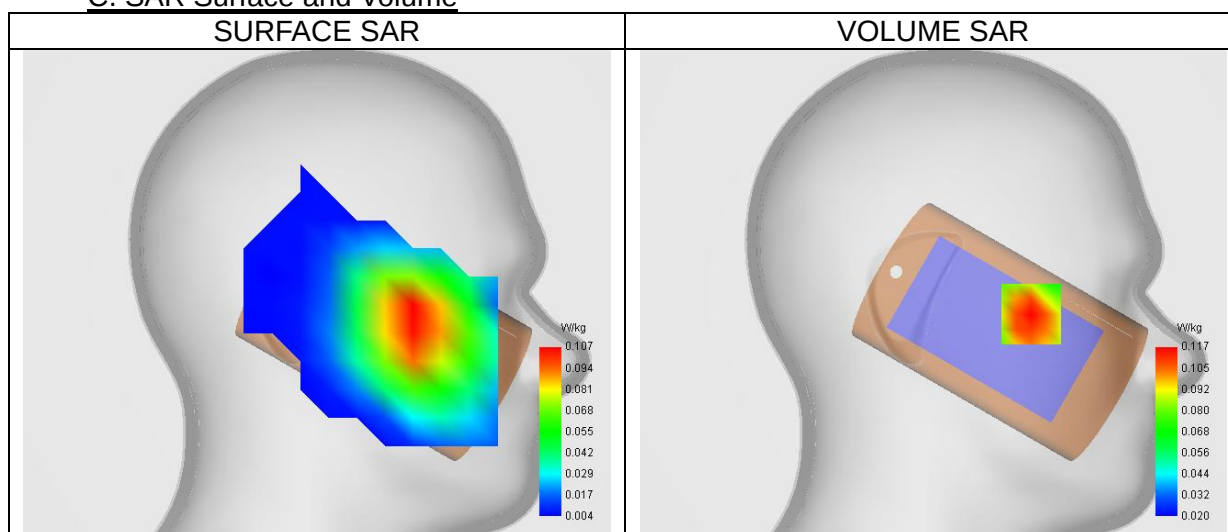
Date of measurement: 6/4/2025

A. Experimental conditions.

Probe	0725-EPGO-448
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Left head
Device Position	Cheek
Band	GPRS850
Signal	TDMA (GPRS)
Channels/Frequency	Middle (189)/ frequency 836.40 Mhz
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	40.96
Relative permittivity (imaginary part)	19.02
Conductivity (S/m)	0.88

C. SAR Surface and Volume

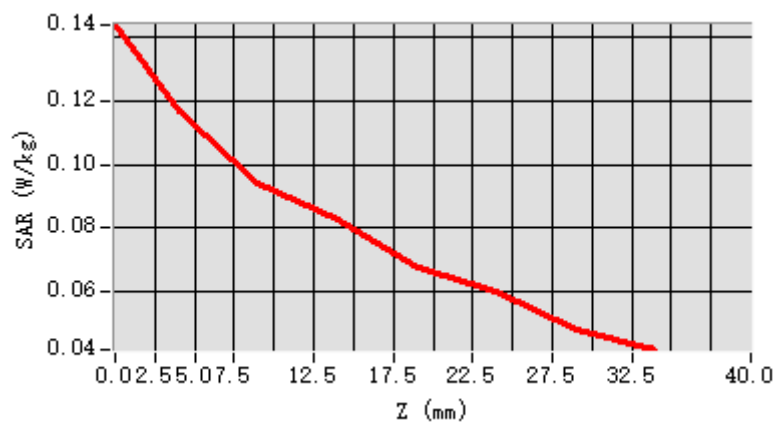
Maximum location: X=-52.00, Y=-11.00 ; SAR Peak: 0.14 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.087
SAR 1g (W/Kg)	0.113
Variation (%)	4.32
Horizontal validation criteria: minimum distance (mm)	0.00
Vertical validation criteria: SAR ratio M2/M1 (%)	0.00

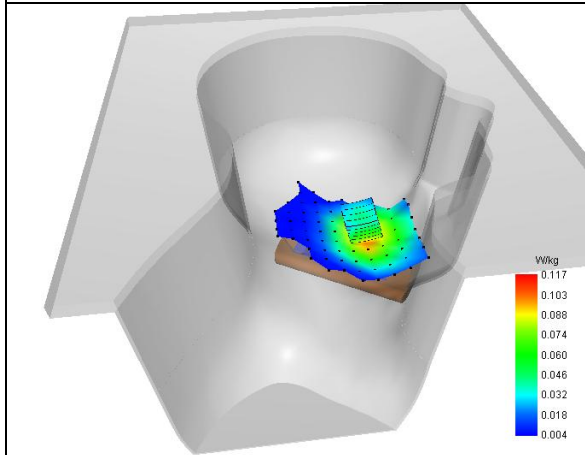
E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.144	0.117	0.094	0.083	0.067	0.060	0.048

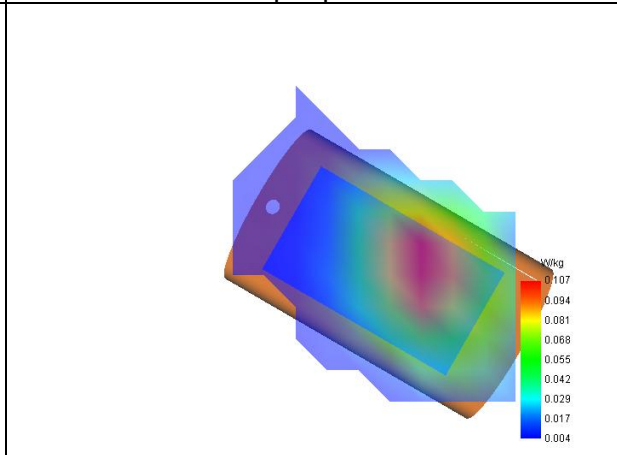


F. 3D Image

3D screen shot



Hot spot position



2# SAR Measurement at GPRS850 (Body, Validation Plane)

Date of measurement: 6/4/2025

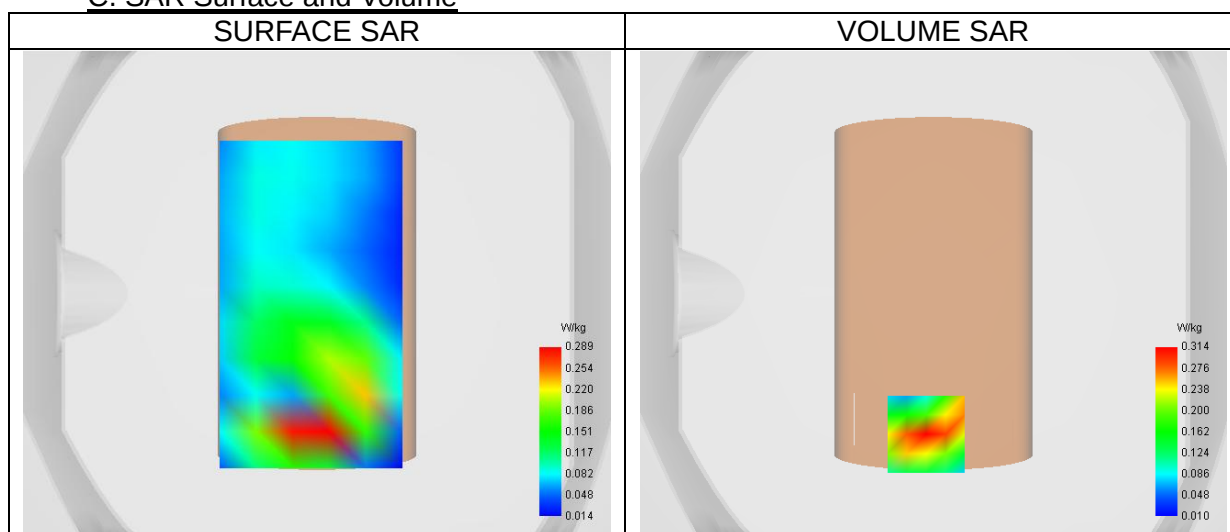
A. Experimental conditions.

Probe	0725-EPGO-448
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	GPRS850
Signal	TDMA (GPRS)
Channels/Frequency	Middle (189)/ frequency 836.40 Mhz
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	40.96
Relative permittivity (imaginary part)	19.02
Conductivity (S/m)	0.88

C. SAR Surface and Volume



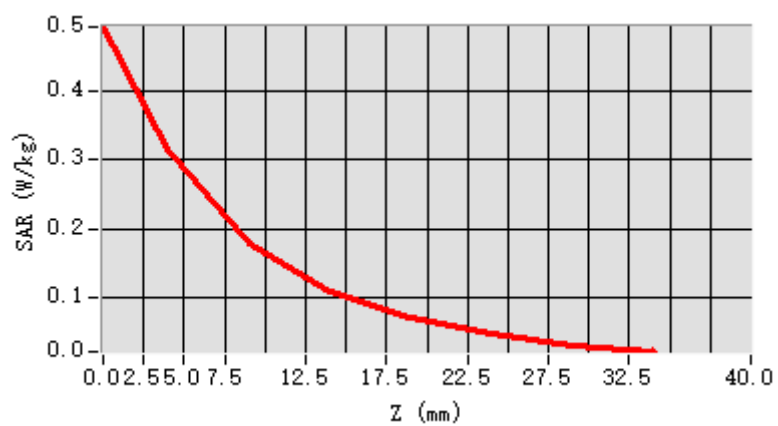
Maximum location: X=-3.00, Y=-58.00 ; SAR Peak: 0.49 W/kg

D. SAR 1g & 10g

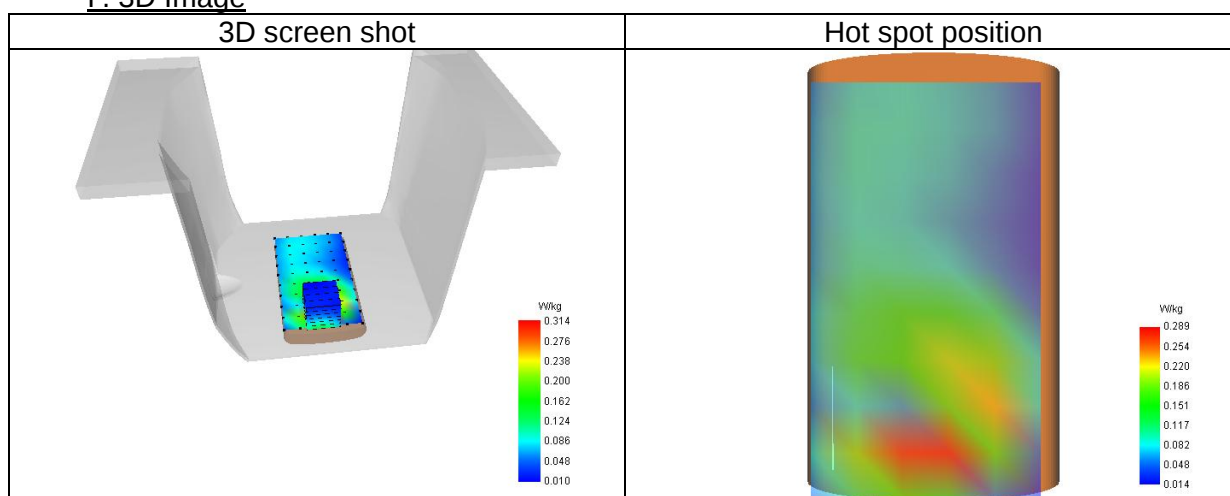
SAR 10g (W/Kg)	0.160
SAR 1g (W/Kg)	0.289
Variation (%)	-0.88
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	58.18

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.493	0.314	0.179	0.108	0.070	0.048	0.031



F. 3D Image



3# SAR Measurement at GPRS1900 (Cheek, Left)

Date of measurement: 3/4/2025

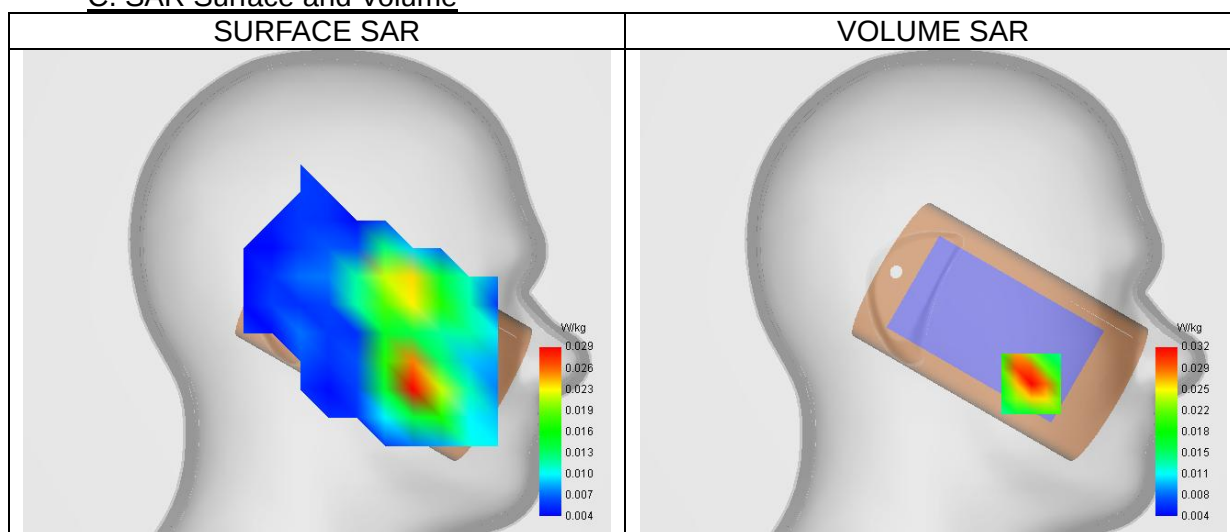
A. Experimental conditions.

Probe	0725-EPGO-448
ConvF	2.57
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Left head
Device Position	Cheek
Band	GPRS1900
Signal	TDMA (GPRS)
Channels/Frequency	Middle (661)/ frequency 1880.00 Mhz
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	38.35
Relative permittivity (imaginary part)	13.41
Conductivity (S/m)	1.40

C. SAR Surface and Volume



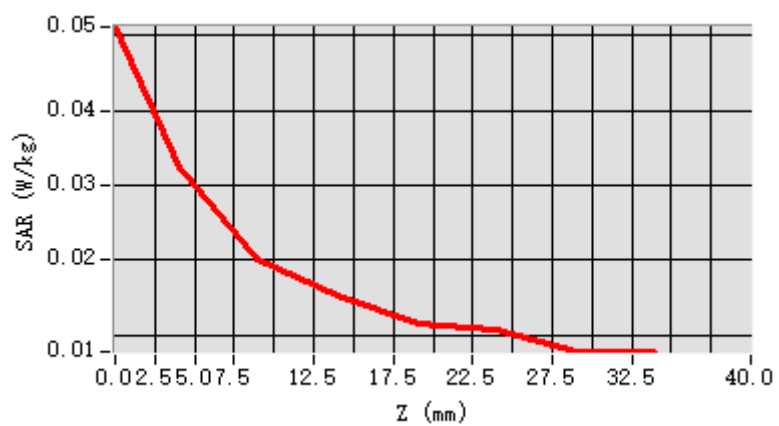
Maximum location: X=-52.00, Y=-48.00 ; SAR Peak: 0.05 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.019
SAR 1g (W/Kg)	0.032
Variation (%)	-2.64
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	62.67

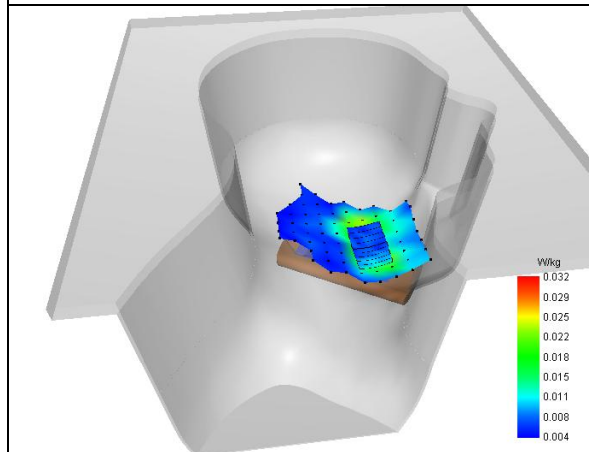
E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.051	0.032	0.020	0.015	0.011	0.011	0.008

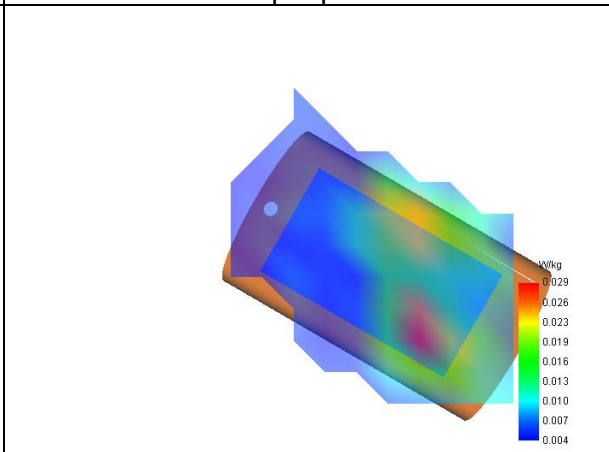


F. 3D Image

3D screen shot



Hot spot position



4# SAR Measurement at GPRS1900 (Body, Validation Plane)

Date of measurement: 3/4/2025

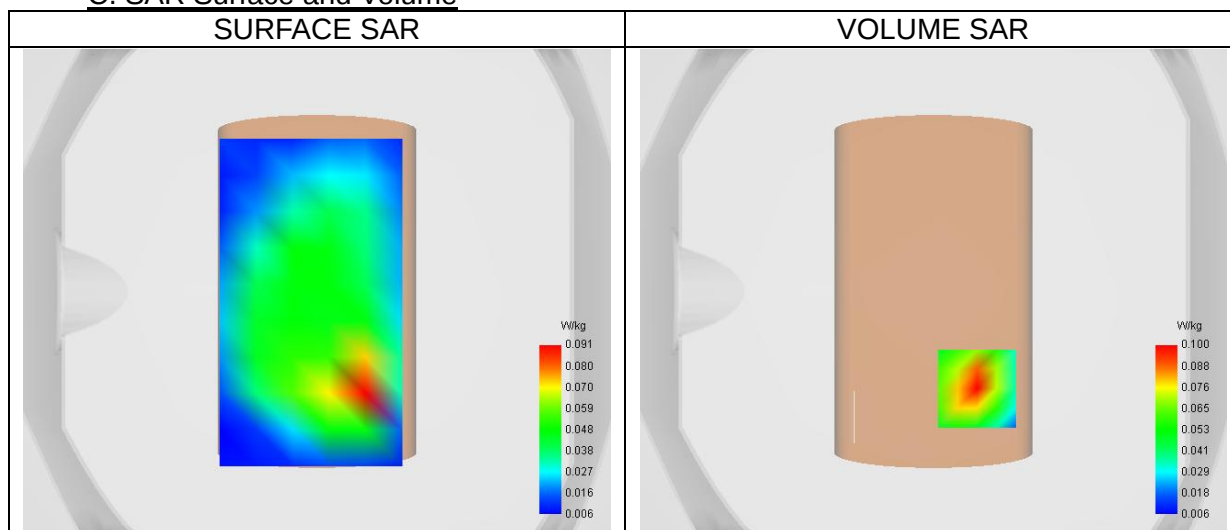
A. Experimental conditions.

Probe	0725-EPGO-448
ConvF	2.57
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	GPRS1900
Signal	TDMA (GPRS)
Channels/Frequency	Middle (661)/ frequency 1880.00 Mhz
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	38.35
Relative permittivity (imaginary part)	13.41
Conductivity (S/m)	1.40

C. SAR Surface and Volume



Maximum location: X=18.00, Y=-40.00 ; SAR Peak: 0.16 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	0.049
SAR 1g (W/Kg)	0.094
Variation (%)	-3.19
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	54.77

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.163	0.100	0.055	0.033	0.021	0.016	0.010