FCC SAR EVALUATION REPORT

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

Product Name： Spatial Computing Box

Trademark： XREAL

Model Name： X4000

Family Model： N/A

Report No.： S24040905411001

FCC ID： 2BBNY-X4000

Prepared for

Xreal Inc.

440N. Wolfe Rd. Unit E417 Sunnyvale, CA 94085

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name ..... Xreal Inc.

Address ..... 440N. Wolfe Rd. Unit E417 Sunnyvale, CA 94085

Manufacturer's Name..... Matrixed Reality Technology Co., Ltd.

Address ..... 2-3 Xinji Rd, Wuxi, China

Product description

Product name ..... Spatial Computing Box

Trademark ..... XREAL

Model Name X4000

Family Model ..... N/A

Standards ..... FCC 47 CFR Part 2(2.1093)
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 S240409054012

Date of Test

Date (s) of performance of tests ... Apr. 21, 2024 ~ Apr. 28, 2024

Date of Issue ..... May 23, 2024

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

Prepared By	Reviewed By	Approved By
Jack Li	Aaron Cheng	Alex Li
Jack Li	Aaron Cheng	Alex Li
(Project Engineer)	(Supervisor)	(Manager)

※ ※ Revision History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	May 23, 2024	Jack Li

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1. General Information

1.1. RF exposure limits

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

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

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

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

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

Occupational/Controlled Environments:

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

General Population/Uncontrolled Environments:

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

NOTE
TRUNK LIMIT
1.6 W/kg
APPLIED TO THIS EUT

1.2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for X4000 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		N/A	0.132	0.288	N/A	0.288
1-g Body-Worn (Separation distance of 10mm)		N/A	0.080	0.206	N/A	0.206
1-g Hotspot (Separation distance of 10mm)		N/A	0.080	0.206	N/A	
Max Simultaneous Tx	Head	N/A	0.552	0.552	0.552	0.552
	Body-Worn	N/A	0.338	0.338	0.338	0.338
	Hotspot	N/A	0.338	0.338	0.338	

Note: 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	Spatial Computing Box		
Trade Name	XREAL		
Model Name	X4000		
Family Model	N/A		
FCC ID	2BBNY-X4000		
Device Phase	Identical Prototype		
Exposure Category	General population / Uncontrolled environment		
Antenna	FPC Antenna		
Battery Information	DC 3.87V, 4300mAh		
Hardware version	X4000_EVT		
Software version	X4000_X39_240410		
Device Operating Configurations			
Supporting Mode(s)	WLAN 2.4G/ 5G,Bluetooth		
Test Modulation	WLAN(DSSS/OFDM),Bluetooth(GFSK, π/4-DQPSK, 8DPSK)		
Device Class	B		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	Bluetooth	2402-2480	
	WLAN 2.4G	2412-2462	

	WLAN 5.2G	5180-5240
	WLAN 5.3G	5260-5320
	WLAN 5.6G	5500-5700
	WLAN 5.8G	5745-5825

1.4. Test specification(s)

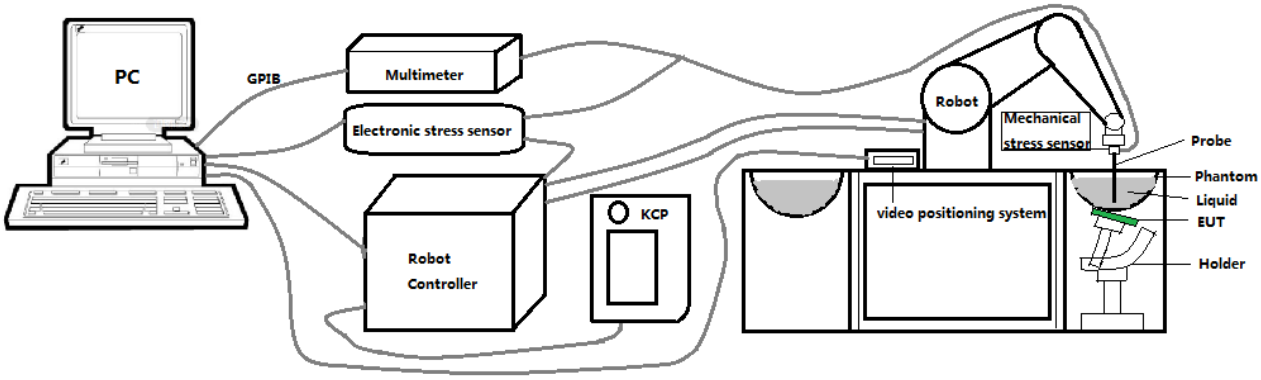
FCC 47 CFR Part 2(2.1093)
IEEE Std 1528-2013
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz
KDB 865664 D02 RF Exposure Reporting
KDB 447498 D01 General RF Exposure Guidance
KDB 248227 D01 802.11 Wi-Fi SAR
KDB 941225 D06 Hotspot SAR
KDB 648474 D04 Handset SAR

1.5. Ambient Condition

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

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 3423-EPGO-426 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 ±10%. The spherical isotropy shall be evaluated and within ±0.25dB. 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.

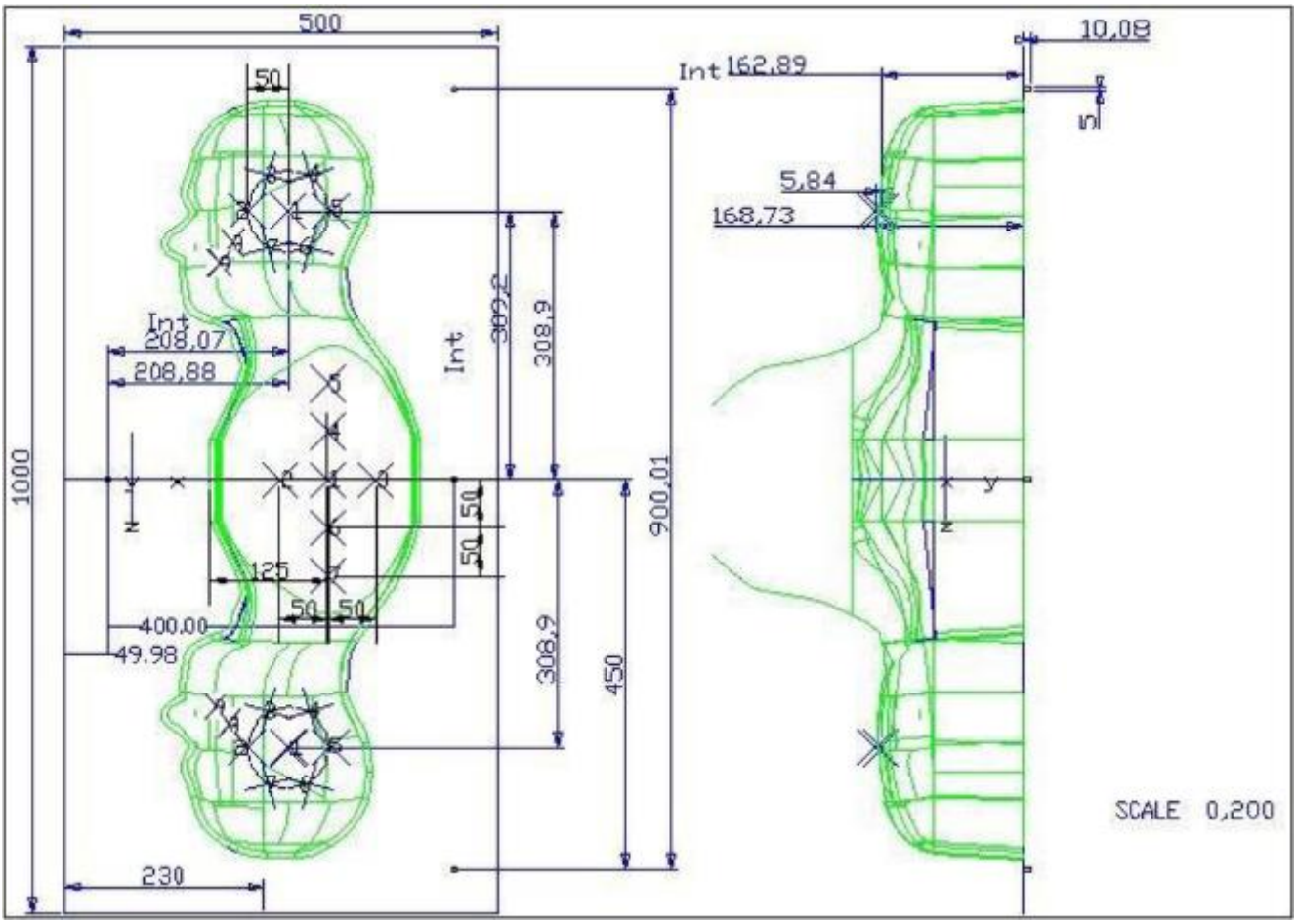
2.4. SAM phantoms

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 ±0.2 mm	27 liters	Length:1000 mm Width:500 mm Height:200 mm	Gelcoat with fiberglass	3.4	0.02

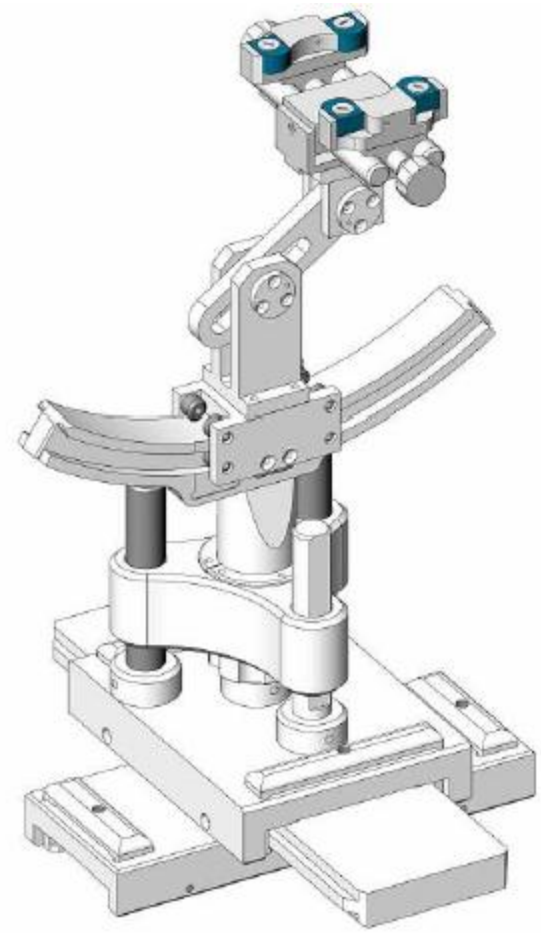


Serial Number	Left Head(mm)		Right Head(mm)		Flat Part(mm)	
SN 16/15 SAM119	2	2.02	2	2.08	1	2.09
	3	2.05	3	2.06	2	2.06
	4	2.07	4	2.07	3	2.08
	5	2.08	5	2.08	4	2.10
	6	2.05	6	2.07	5	2.10
	7	2.05	7	2.05	6	2.07
	8	2.07	8	2.06	7	2.07
	9	2.08	9	2.06	-	-

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

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	3423-EPGO-426	Sep. 18, 2023	Sep. 17, 2024
☐	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	2300 MHz Dipole	SID2300	SN 03/16 DIP 2G300-358	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	2450 MHz Dipole	SID2450	SN 03/15 DIP 2G450-352	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	2600 MHz Dipole	SID2600	SN 03/15 DIP 2G600-356	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	5000 MHz Dipole	SWG5500	SN 13/14 WGA 33	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	Liquid measurement Kit	SCLMP	SN 21/15 OCPG 72	NCR	NCR
☒	MVG	Power Amplifier	N.A	AMPLISAR_28/14_003	NCR	NCR
☒	KEITHLEY	Millivoltmeter	2000	4072790	NCR	NCR
☐	R&S	Universal radio communication tester	CMU200	117858	May 29, 2023	May 28, 2024
☐	R&S	Wideband radio communication tester	CMW500	103917	May 29, 2023	May 28, 2024
☒	HP	Network	8753D	3410J01136	May 29,	May 28,

		Analyzer			2023	2024
☒	Agilent	MXG Vector Signal Generator	N5182A	MY47070317	May 29, 2023	May 28, 2024
☒	Agilent	Power meter	E4419B	MY45102538	May 29, 2023	May 28, 2024
☒	Agilent	Power sensor	E9301A	MY41495644	May 29, 2023	May 28, 2024
☒	Agilent	Power sensor	E9301A	US39212148	May 29, 2023	May 28, 2024
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Jul. 04, 2023	Jul. 03, 2024
☒	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
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 2450	Head 2450	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5200	Head 5200	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5400	Head 5400	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5600	Head 5600	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5800	Head 5800	NCR	NCR

3. SAR Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.

(b) Read the WWAN RF power level from the base station simulator.

(c) For WLAN/Bluetooth power measurement, use engineering software to configure EUT WLAN/Bluetooth 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 WLAN/Bluetooth output power.

<SAR measurement>

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/Bluetooth 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.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>½·δ·ln(2) ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">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 reported SAR from the area scan based 1-g SAR estimation 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.</td></tr>
</table>

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 ±5%, the SAR will be retested.

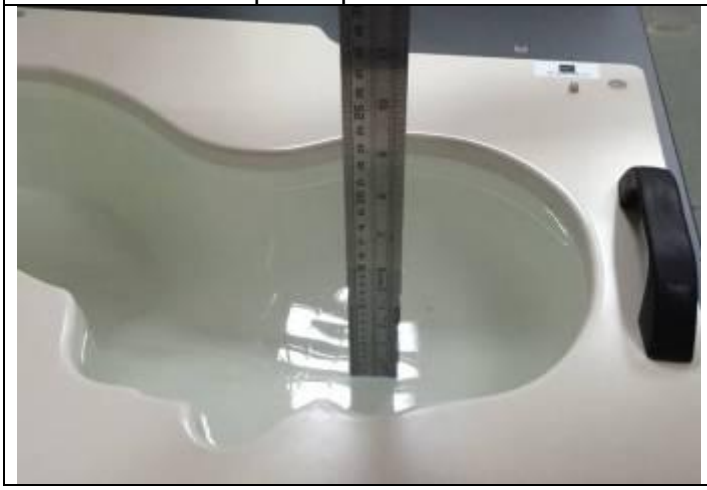
4. System Verification Procedure

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									
Frequency Band (MHz)	750	835	900	1800	1900	2000	2450	2600	5200	5800
Water	34.40	34.40	34.40	55.36	55.36	57.87	57.87	57.87	65.53	65.53
NaCl	0.79	0.79	0.79	0.35	0.35	0.16	0.16	0.16	0.00	0.00
1,2-Propanediol	64.81	64.81	64.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	30.45	30.45	19.97	19.97	19.97	24.24	24.24
DGBE	0.00	0.00	0.00	13.84	13.84	22.00	22.00	22.00	10.23	10.23
Ingredients (% of weight)	Body Tissue									
Frequency Band (MHz)	750	835	900	1800	1900	2000	2450	2600	5200	5800
Water	50.30	50.30	50.30	69.91	69.91	71.88	71.88	71.88	79.54	79.54
NaCl	0.60	0.60	0.60	0.13	0.13	0.16	0.16	0.16	0.00	0.00
1,2-Propanediol	49.10	49.10	49.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	9.99	9.99	19.97	19.97	19.97	11.24	11.24
DGBE	0.00	0.00	0.00	19.97	19.97	7.99	7.99	7.99	9.22	9.22

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 of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ±5% of the target values.

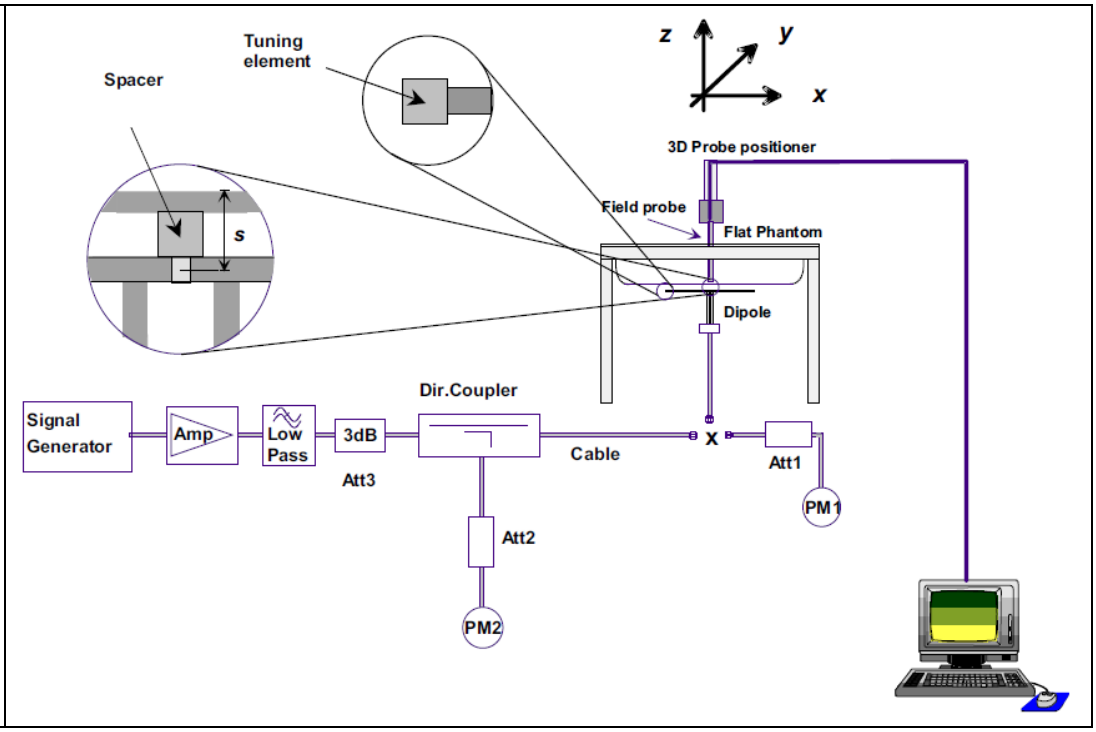
Tissue Type	Measured Frequency (MHz)	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
		εr (±5%)	σ (S/m) (±5%)	εr	σ (S/m)		
Head 2450	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	37.53	1.76	21.8 °C	Apr. 28, 2024
Head 5200	5200	36.00 (34.20~37.80)	4.66 (4.43~4.89)	34.48	4.51	21.5 °C	Apr. 21, 2024
Head 5400	5400	35.80 (34.01~37.59)	4.86 (4.62~5.10)	34.32	4.80	21.8 °C	Apr. 22, 2024
Head 5600	5600	35.50 (33.73~37.28)	5.07 (4.82~5.32)	34.39	4.92	21.3 °C	Apr. 23, 2024
Head 5800	5800	35.30 (33.54~37.07)	5.27 (5.01~5.53)	33.91	5.16	21.5 °C	Apr. 20, 2024

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

4.2. System Verification Procedure

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

The system verification is shown as below picture:



4.2.1. System Verification Results

Comparing to the original SAR value provided by SATIMO, the verification data should be within its specification of ±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) (±10%)		Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)		
2450MHz	50.05 (45.05~55.06)	23.80 (21.42~26.18)	46.59	24.62	21.8 °C	Apr. 28, 2024
5200MHz	162.59 (146.33~178.85)	56.21 (50.59~61.83)	148.08	53.25	21.5 °C	Apr. 21, 2024
5400MHz	159.81 (143.83~175.79)	55.00 (49.50~60.50)	147.57	58.19	21.8 °C	Apr. 22, 2024
5600MHz	179.15 (161.24~197.07)	61.01 (54.91~67.11)	163.42	57.79	21.3 °C	Apr. 23, 2024
5800MHz	182.20 (163.98~200.42)	61.32 (55.19~67.45)	178.10	61.18	21.5 °C	Apr. 20, 2024

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.

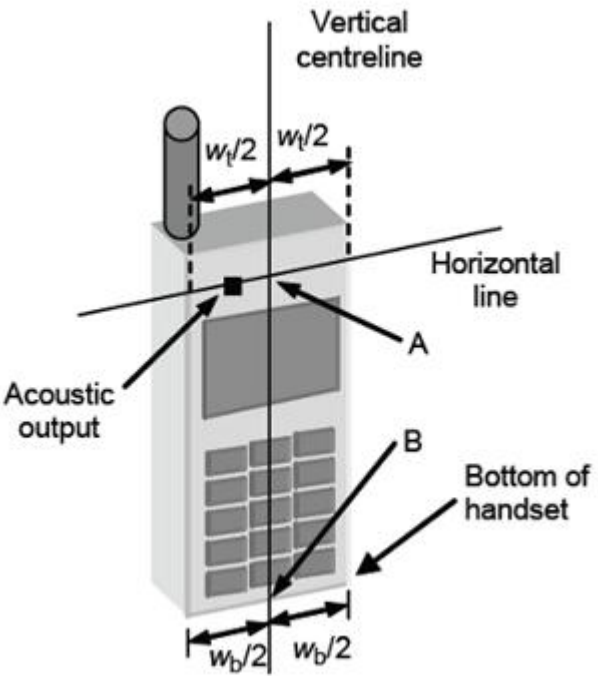


Fig 6.2.1 Handset vertical and horizontal reference lines—"fixed case

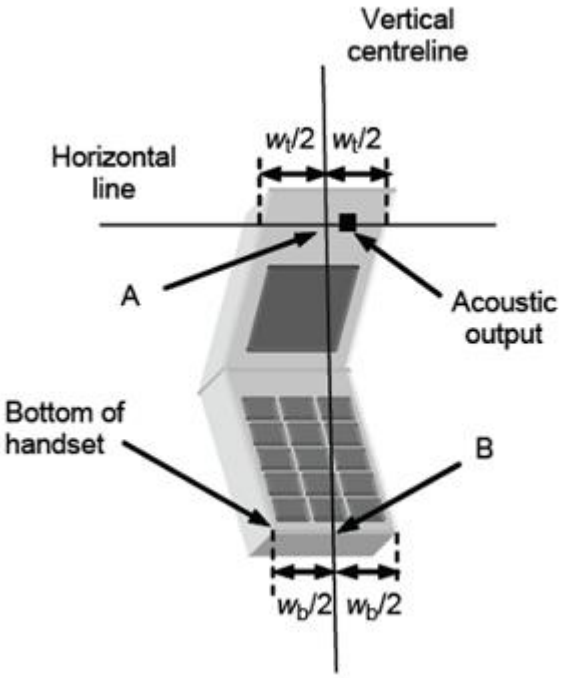


Fig 6.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

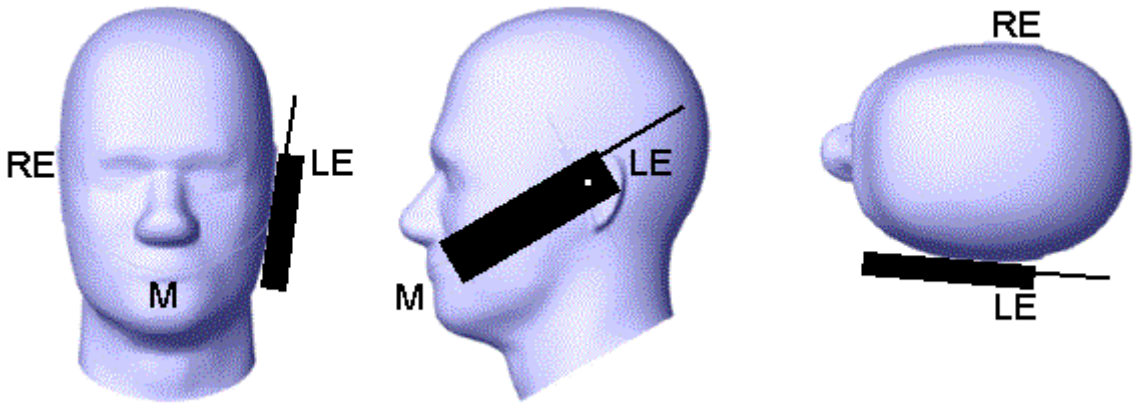


Fig 6.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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.

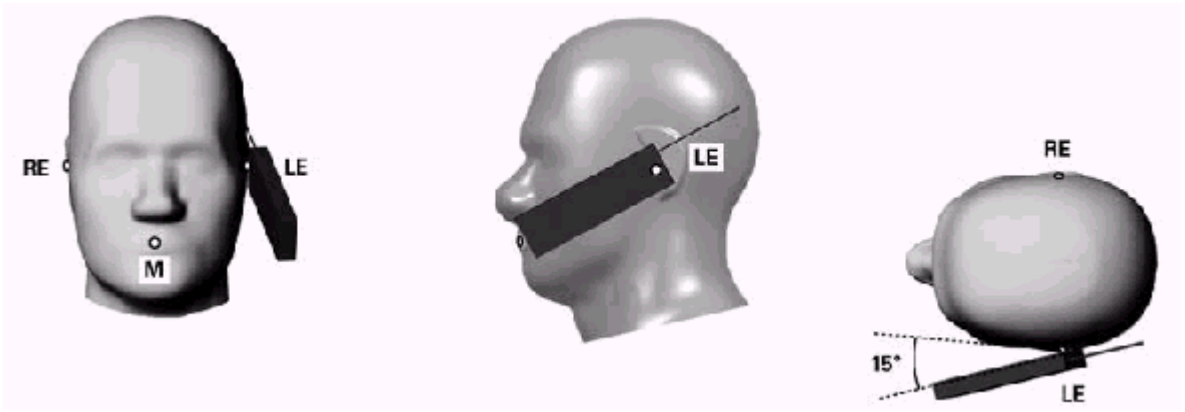


Figure 6.3.1 – Tilt position of the wireless device on the left side of SAM

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 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-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

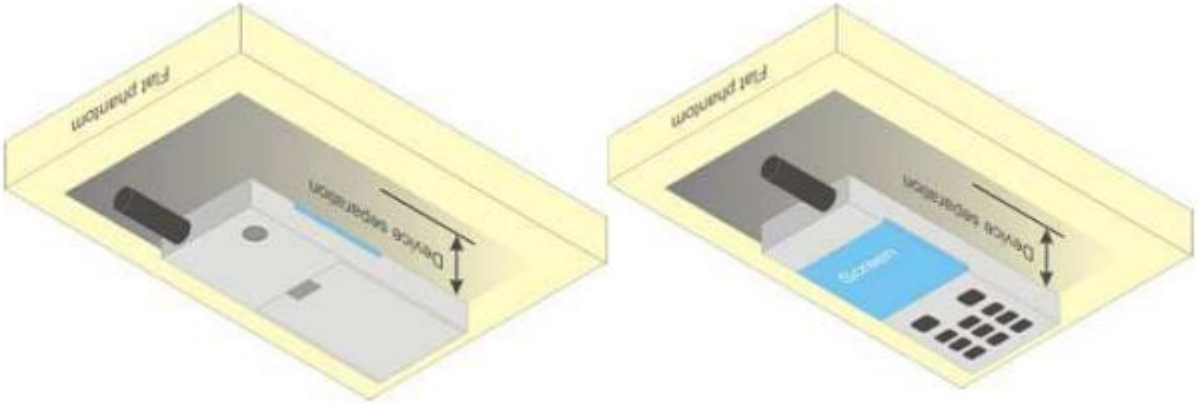


Figure 6.4.1 – Test positions for body-worn devices

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 x W ≥ 9 cm x 5 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 form 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. WLAN & Bluetooth Output Power

7.1.1. Output Power Results Of WLAN & Bluetooth

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)
			ANT1		ANT2		MIMO	
802.11b	1	2412	16.00	15.96	17.00	16.12	/	/
	6	2437	16.00	15.95	17.00	16.33	/	/
	11	2462	16.00	15.55	17.00	16.54	/	/
802.11g	1	2412	14.00	13.74	14.50	14.31	/	/
	6	2437	14.00	13.38	14.50	14.42	/	/
	11	2462	14.00	13.35	14.50	14.47	/	/
802.11n (HT20)	1	2412	12.50	11.43	12.50	12.18	15.00	14.76
	6	2437	12.50	12.22	12.50	12.23	15.00	14.76
	11	2462	12.50	12.10	12.50	12.25	15.00	14.67
802.11n (HT40)	3	2422	13.00	12.66	13.00	12.58	15.50	15.08
	6	2437	13.00	12.69	13.00	12.51	15.50	14.97
	9	2452	13.00	12.67	13.00	12.63	15.50	15.16
802.11ax 20	1	2412	13.00	12.73	12.50	12.36	16.00	14.98
	6	2437	12.50	12.44	12.50	12.38	16.00	14.99
	11	2462	12.50	12.15	12.50	12.39	16.00	15.88
802.11ax 40	3	2422	12.50	12.14	12.50	12.24	15.00	14.70
	6	2437	12.50	12.20	12.50	12.12	15.00	14.54
	9	2452	12.50	12.19	12.50	12.24	15.00	14.73

NOTE: Power measurement results of WLAN 2.4G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)
			ANT1		ANT2		MIMO	
802.11a	36	5180	12.00	11.61	13.00	12.51	/	/
	40	5200	12.00	11.66	13.00	12.42	/	/
	48	5240	12.00	11.57	13.00	11.69	/	/
802.11n HT20	36	5180	12.00	11.34	12.50	12.17	13.50	12.40
	40	5200	12.00	11.51	12.50	12.06	13.50	12.39
	48	5240	12.00	11.33	12.50	11.65	13.50	12.28
802.11n	38	5190	12.00	11.72	12.50	12.25	13.50	12.74

HT40	46	5230	12.00	11.70	12.50	12.10	13.50	12.61
802.11ac VHT20	36	5180	11.50	11.35	12.50	12.13	13.50	12.39
	40	5200	11.50	11.40	12.50	12.07	13.50	12.46
	48	5240	11.50	11.45	12.50	11.64	13.50	12.25
802.11ac VHT40	38	5190	12.00	11.76	12.50	12.42	13.50	12.68
	46	5230	12.00	11.68	12.50	12.08	13.50	12.55
802.11ac VHT80	42	5210	12.50	12.43	13.00	12.68	13.50	13.20
802.11ac VHT160	50	5250	14.00	13.96	13.50	13.05	13.50	13.38
802.11ax 20	36	5180	12.00	11.56	12.50	12.11	13.50	12.62
	40	5200	12.00	11.53	12.50	12.11	13.50	12.66
	48	5240	12.00	11.50	12.00	11.67	13.50	12.55
802.11ax 40	38	5190	12.50	11.19	13.00	11.73	13.50	12.32
	46	5230	14.50	11.47	13.50	11.62	13.50	12.22
802.11ax 80	42	5210	14.50	12.32	13.50	12.55	13.50	13.02
802.11ax 160	50	5250	14.50	14.07	13.50	13.18	13.50	13.47

NOTE: Power measurement results of WLAN 5.2G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)
			ANT1		ANT2		MIMO	
802.11a	52	5260	13.50	12.89	10.50	10.12	/	/
	56	5280	13.50	12.99	10.50	10.23	/	/
	64	5320	13.50	13.20	10.50	10.49	/	/
802.11n (HT20)	52	5260	13.00	12.69	12.50	11.63	13.50	12.19
	56	5280	13.00	12.65	12.50	11.68	13.50	12.24
	64	5320	13.00	12.90	12.50	12.15	13.50	12.43
802.11n (HT40)	54	5270	13.50	13.00	12.50	12.08	13.50	12.49
	62	5310	13.50	13.05	12.50	12.40	13.50	12.70
802.11ac (VHT20)	52	5260	13.00	12.58	12.50	11.61	13.50	12.19
	56	5280	13.00	12.64	12.50	11.68	13.50	12.17
	64	5320	11.00	10.88	12.50	12.16	13.50	12.47
802.11ac (VHT40)	54	5270	13.50	12.95	12.50	12.10	13.50	12.46
	62	5310	13.50	13.08	12.50	12.45	13.50	12.72
802.11ac (VHT80)	58	5290	14.00	13.58	13.00	12.91	13.50	13.15

802.11ax 20	52	5260	13.50	12.83	12.50	11.81	13.50	12.30
	56	5280	13.50	12.84	12.50	11.90	13.50	12.36
	64	5320	13.50	13.03	12.50	12.38	13.50	12.65
802.11ax 40	54	5270	13.00	12.54	12.50	11.72	13.50	12.08
	62	5310	13.00	12.71	12.50	12.07	13.50	12.32
802.11ax 80	58	5290	13.50	13.49	13.00	12.75	13.50	13.04

NOTE: Power measurement results of WLAN 5.3G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)
			ANT1		ANT2		MIMO	
802.11a	100	5500	12.00	11.41	10.50	10.34	/	/
	120	5600	12.00	11.20	10.50	9.75	/	/
	140	5700	12.00	11.50	10.50	10.24	/	/
802.11n (HT20)	100	5500	11.50	11.13	10.50	10.22	13.50	12.67
	120	5600	11.50	10.87	10.50	9.55	13.50	12.37
	140	5700	11.50	11.11	10.50	9.82	13.50	12.60
802.11n (HT40)	102	5510	11.50	11.30	10.50	10.33	13.50	12.94
	118	5590	11.50	11.26	10.50	9.89	13.50	12.72
	134	5670	11.50	11.25	10.50	10.12	13.50	12.92
802.11ac (VHT20)	100	5500	11.50	11.07	10.50	10.05	13.50	12.68
	120	5600	11.50	10.87	10.50	9.47	13.50	12.31
	140	5700	11.50	11.07	10.50	9.87	13.50	12.58
802.11ac (VHT40)	102	5510	11.50	11.23	10.50	10.32	13.50	12.97
	118	5590	11.50	11.12	10.50	9.93	13.50	12.71
	134	5670	11.50	11.25	10.50	10.13	13.50	12.88
802.11ac (VHT80)	106	5530	12.50	12.19	11.50	11.09	13.50	13.48
	122	5610	12.50	11.89	11.50	10.47	13.50	13.22
802.11ac (VHT160)	114	5570	12.50	12.15	11.50	11.19	14.00	13.74
802.11ax 20	100	5500	11.50	11.28	10.50	10.30	13.50	12.83
	120	5600	11.50	11.08	10.50	9.66	13.50	12.49
	140	5700	11.50	11.23	10.50	10.05	13.50	12.75
802.11ax 40	102	5510	11.00	10.93	10.00	9.95	13.50	12.51
	118	5590	11.00	10.70	10.00	9.58	13.50	12.32
	134	5670	11.00	10.86	10.00	9.73	13.50	12.48
802.11ax 80	106	5530	12.00	11.96	11.00	10.97	13.50	13.28
	122	5610	12.00	11.73	11.00	10.60	13.50	12.99

802.11ax 160	114	5570	12.50	12.33	11.50	11.25	12.00	11.05

NOTE: Power measurement results of WLAN 5.6G.

Mode	Channel	Frequency (MHz)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)	Tune-up	Output Power (dBm)
			ANT1		ANT2		MIMO	
802.11a	149	5745	11.50	11.02	11.50	10.40	/	/
	157	5785	11.50	11.45	11.50	10.52	/	/
	165	5825	11.50	11.24	11.50	11.10	/	/
802.11n HT20	149	5745	11.50	10.75	11.00	10.13	13.50	12.58
	157	5785	11.50	11.16	11.00	10.28	13.50	12.77
	165	5825	11.50	10.89	11.00	10.79	13.50	12.92
802.11n HT40	151	5755	11.50	10.91	10.50	10.30	13.50	12.82
	159	5795	11.50	11.41	10.50	10.44	13.50	13.04
802.11ac VHT20	149	5745	11.50	10.72	11.00	10.13	13.50	12.51
	157	5785	11.50	11.23	11.00	10.20	13.50	12.73
	165	5825	11.50	10.92	11.00	10.79	13.50	12.87
802.11ac VHT40	151	5755	11.50	10.94	10.50	10.20	13.50	12.87
	159	5795	11.50	11.49	10.50	10.46	13.50	13.13
802.11ac VHT80	155	5775	12.50	12.05	11.50	11.26	14.00	13.71
802.11ax 20	149	5745	11.50	10.88	11.00	10.34	13.50	12.76
	157	5785	11.50	11.29	11.00	10.40	13.50	12.92
	165	5825	11.50	11.09	11.00	10.91	13.50	13.03
802.11ax 40	151	5755	12.00	10.48	11.50	9.76	13.50	12.49
	159	5795	12.00	11.05	11.50	10.04	13.50	12.68
802.11ax 80	155	5775	12.00	11.83	11.50	11.06	14.00	13.52

NOTE: Power measurement results of WLAN 5.8G.

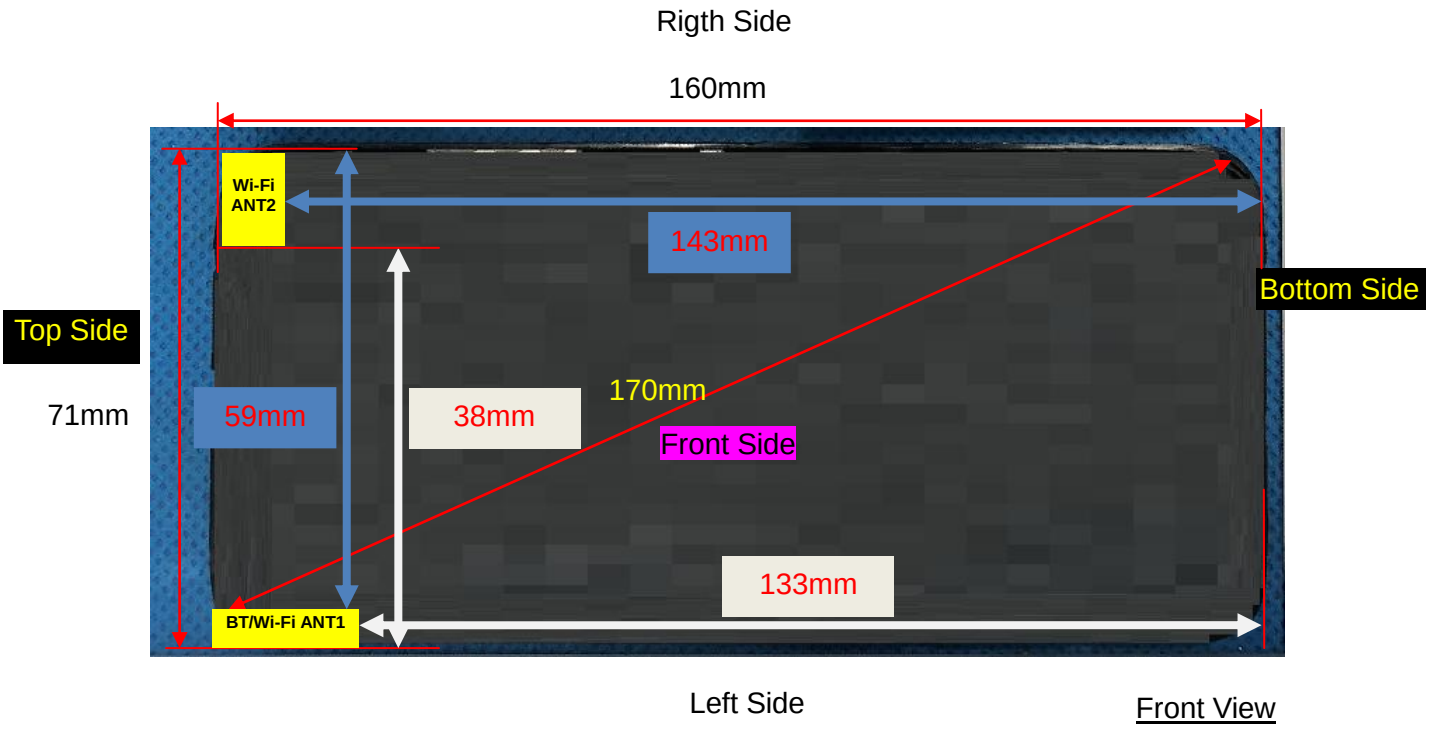
	Output Power (dBm)				
	Data Rates	Tune-up (dBm)	Channel		
			0CH	39CH	78CH
BR+EDR	1M	8.00	7.08	6.60	6.68
	2M	6.00	5.36	4.84	4.93
	3M	6.00	5.75	5.27	5.35

BLE	Channel	Tune-up	Output Power (dBm)

		(dBm)	1M	2M
	0CH	4.00	3.45	3.59
	19CH	4.00	2.93	3.10
	39CH	4.00	3.05	3.20

NOTE: Power measurement results of Bluetooth

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
WLAN & BT ANT1	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
WLAN ANT2	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
Positions for SAR tests						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WLAN & BT ANT1	Yes	Yes	Yes	NO	Yes	NO
WLAN ANT2	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:

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

- $f_{(GHZ)}$ 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	8.00	6.31	5	2.480	2	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:

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

When the minimum test separation distance is < 5 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	8.00	6.31	5	2.48	7.5	0.264
Bluetooth	Body	8.00	6.31	10	2.48	7.5	0.132
Bluetooth	Hotspot	8.00	6.31	10	2.48	7.5	0.132

NOTE: Estimated SAR calculation for Bluetooth

10. SAR Results

10.1. SAR measurement results

10.1.1. SAR measurement Result of WLAN2.4G

ANT1

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	1/2412	802.11b	0.106	0.062	4.60	15.96	16.00	0.107	2024/4/28	25#
Left Tilt 15 Degree	1/2412	802.11b	0.062	0.036	-3.97	15.96	16.00	0.063	2024/4/28	
Right Cheek	1/2412	802.11b	0.093	0.052	2.80	15.96	16.00	0.094	2024/4/28	
Right Tilt 15 Degree	1/2412	802.11b	0.050	0.028	-1.74	15.96	16.00	0.050	2024/4/28	

NOTE: Head SAR test results of WLAN2.4G

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	1/2412	802.11b	0.030	0.024	3.93	15.96	16.00	0.030	2024/4/28	
Back Side	1/2412	802.11b	0.044	0.035	1.01	15.96	16.00	0.044	2024/4/28	29#

NOTE: Body-worn SAR test results of WLAN2.4G

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	1/2412	802.11b	0.030	0.024	3.93	15.96	16.00	0.030	2024/4/28	
Back Side	1/2412	802.11b	0.044	0.035	1.01	15.96	16.00	0.044	2024/4/28	29#
Left Side	1/2412	802.11b	0.015	0.013	0.42	15.96	16.00	0.015	2024/4/28	

Top Side	1/2412	802.11b	0.021	0.016	3.95	15.96	16.00	0.021	2024/4/28	

NOTE: Hotspot SAR test results of WLAN2.4G

ANT2

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	11/2462	802.11b	0.087	0.055	2.51	16.54	17.00	0.097	2024/4/28	26#
Left Tilt 15 Degree	11/2462	802.11b	0.055	0.031	1.12	16.54	17.00	0.061	2024/4/28	
Right Cheek	11/2462	802.11b	0.084	0.052	-1.18	16.54	17.00	0.093	2024/4/28	
Right Tilt 15 Degree	11/2462	802.11b	0.051	0.028	3.61	16.54	17.00	0.057	2024/4/28	

NOTE: Head SAR test results of WLAN2.4G

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	11/2462	802.11b	0.054	0.037	-1.30	16.54	17.00	0.060	2024/4/28	
Back Side	11/2462	802.11b	0.059	0.041	-0.81	16.54	17.00	0.066	2024/4/28	30#

NOTE: Body-worn SAR test results of WLAN2.4G

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	11/2462	802.11b	0.054	0.037	-1.30	16.54	17.00	0.060	2024/4/28	
Back Side	11/2462	802.11b	0.059	0.041	-0.81	16.54	17.00	0.066	2024/4/28	30#
Right Side	11/2462	802.11b	0.018	0.016	2.44	16.54	17.00	0.020	2024/4/28	

Top Side	11/2462	802.11b	0.021	0.014	-1.23	16.54	17.00	0.023	2024/4/28	

NOTE: Hotspot SAR test results of WLAN2.4G

MIMO

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	11/2462	ax20	0.128	0.069	0.70	15.88	16.00	0.132	2024/4/28	27#
Left Tilt 15 Degree	11/2462	ax20	0.054	0.031	-2.60	15.88	16.00	0.056	2024/4/28	
Right Cheek	11/2462	ax20	0.091	0.053	-0.26	15.88	16.00	0.094	2024/4/28	
Right Tilt 15 Degree	11/2462	ax20	0.049	0.028	2.48	15.88	16.00	0.050	2024/4/28	

NOTE: Head SAR test results of WLAN2.4G

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	11/2462	ax20	0.054	0.036	0.74	15.88	16.00	0.056	2024/4/28	
Back Side	11/2462	ax20	0.078	0.053	2.20	15.88	16.00	0.080	2024/4/28	28#

NOTE: Body-worn SAR test results of WLAN2.4G

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	11/2462	ax20	0.054	0.036	0.74	15.88	16.00	0.056	2024/4/28	
Back Side	11/2462	ax20	0.078	0.053	2.20	15.88	16.00	0.080	2024/4/28	28#
Leftt Side	11/2462	ax20	0.024	0.016	0.01	15.88	16.00	0.025	2024/4/28	

Right Side	11/2462	ax20	0.021	0.014	-1.93	15.88	16.00	0.022	2024/4/28	
Top Side	11/2462	ax20	0.036	0.023	-3.82	15.88	16.00	0.037	2024/4/28	
Bottom Side	11/2462	ax20	0.015	0.008	1.02	15.88	16.00	0.015	2024/4/28	

NOTE: Hotspot SAR test results of WLAN2.4G

10.1.2. SAR measurement Result of WLAN5.2G

ANT1

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	50/5250	ax160	0.124	0.088	-3.73	14.07	14.50	0.137	2024/4/21	1#
Left Tilt 15 Degree	50/5250	ax160	0.069	0.049	3.00	14.07	14.50	0.076	2024/4/21	
Right Cheek	50/5250	ax160	0.114	0.080	-3.70	14.07	14.50	0.126	2024/4/21	
Right Tilt 15 Degree	50/5250	ax160	0.060	0.042	3.22	14.07	14.50	0.066	2024/4/21	

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	50/5250	ax160	0.072	0.059	-3.93	14.07	14.50	0.079	2024/4/21	
Back Side	50/5250	ax160	0.092	0.080	3.74	14.07	14.50	0.102	2024/4/21	13#

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	50/5250	ax160	0.072	0.059	-3.93	14.07	14.50	0.079	2024/4/21	
Back Side	50/5250	ax160	0.092	0.080	3.74	14.07	14.50	0.102	2024/4/21	13#
Left Side	50/5250	ax160	0.030	0.025	-0.54	14.07	14.50	0.033	2024/4/21	
Top Side	50/5250	ax160	0.036	0.030	3.56	14.07	14.50	0.040	2024/4/21	

NOTE: Hotspot SAR test results of WLAN5.2G

ANT2

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	50/5250	ax160	0.141	0.095	1.78	13.18	13.50	0.152	2024/4/21	2#
Left Tilt 15 Degree	50/5250	ax160	0.067	0.046	1.40	13.18	13.50	0.072	2024/4/21	
Right Cheek	50/5250	ax160	0.115	0.082	-0.02	13.18	13.50	0.124	2024/4/21	
Right Tilt 15 Degree	50/5250	ax160	0.052	0.036	-2.60	13.18	13.50	0.056	2024/4/21	

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	50/5250	ax160	0.066	0.053	0.89	13.18	13.50	0.071	2024/4/21	
Back Side	50/5250	ax160	0.105	0.084	3.62	13.18	13.50	0.113	2024/4/21	14#

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

Test Position of Hotspot with	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						

10mm										
Front Side	50/5250	ax160	0.066	0.053	0.89	13.18	13.50	0.071	2024/4/21	
Back Side	50/5250	ax160	0.105	0.084	3.62	13.18	13.50	0.113	2024/4/21	14#
Right Side	50/5250	ax160	0.033	0.026	3.53	13.18	13.50	0.036	2024/4/21	
Top Side	50/5250	ax160	0.037	0.029	1.22	13.18	13.50	0.040	2024/4/21	

NOTE: Hotspot SAR test results of WLAN5.2G

MIMO

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	50/5250	ax160	0.150	0.099	0.67	13.47	13.50	0.151	2024/4/21	3#
Left Tilt 15 Degree	50/5250	ax160	0.065	0.045	0.24	13.47	13.50	0.065	2024/4/21	
Right Cheek	50/5250	ax160	0.117	0.081	2.09	13.47	13.50	0.118	2024/4/21	
Right Tilt 15 Degree	50/5250	ax160	0.062	0.043	-0.15	13.47	13.50	0.062	2024/4/21	

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	50/5250	ax160	0.060	0.053	-2.47	13.47	13.50	0.060	2024/4/21	
Back Side	50/5250	ax160	0.097	0.085	-3.71	13.47	13.50	0.098	2024/4/21	15#

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

Test Position of Hotspot	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						

with 10mm										
Front Side	50/5250	ax160	0.060	0.053	-2.47	13.47	13.50	0.060	2024/4/21	
Back Side	50/5250	ax160	0.097	0.085	-3.71	13.47	13.50	0.098	2024/4/21	15#
Leftt Side	50/5250	ax160	0.033	0.027	1.45	13.47	13.50	0.033	2024/4/21	
Right Side	50/5250	ax160	0.028	0.025	-1.93	13.47	13.50	0.028	2024/4/21	
Top Side	50/5250	ax160	0.039	0.032	-1.46	13.47	13.50	0.039	2024/4/21	
Bottom Side	50/5250	ax160	0.018	0.013	2.38	13.47	13.50	0.018	2024/4/21	

NOTE: Hotspot SAR test results of WLAN5.2G

10.1.3. SAR measurement Result of WLAN5.3G

ANT1

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	58/5290	802.11ac VHT80	0.177	0.121	-1.04	13.58	14.00	0.195	2024/4/22	4#
Left Tilt 15 Degree	58/5290	802.11ac VHT80	0.100	0.067	-2.86	13.58	14.00	0.110	2024/4/22	
Right Cheek	58/5290	802.11ac VHT80	0.166	0.108	1.48	13.58	14.00	0.183	2024/4/22	
Right Tilt 15 Degree	58/5290	802.11ac VHT80	0.081	0.055	0.61	13.58	14.00	0.089	2024/4/22	

NOTE: Head SAR test results of WLAN5.3G

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	58/5290	802.11ac VHT80	0.078	0.055	-2.84	13.58	14.00	0.086	2024/4/22	

Back Side	58/5290	802.11ac VHT80	0.093	0.067	0.47	13.58	14.00	0.102	2024/4/22	16#

NOTE: Body-worn SAR test results of WLAN5.3G

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	58/5290	802.11ac VHT80	0.078	0.055	-2.84	13.58	14.00	0.086	2024/4/22	
Back Side	58/5290	802.11ac VHT80	0.093	0.067	0.47	13.58	14.00	0.102	2024/4/22	16#
Left Side	58/5290	802.11ac VHT80	0.030	0.021	1.34	13.58	14.00	0.033	2024/4/22	
Top Side	58/5290	802.11ac VHT80	0.036	0.025	2.91	13.58	14.00	0.040	2024/4/22	

NOTE: Hotspot SAR test results of WLAN5.3G

ANT2

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	58/5290	802.11ac VHT80	0.135	0.095	-2.57	12.91	13.00	0.138	2024/4/22	5#
Left Tilt 15 Degree	58/5290	802.11ac VHT80	0.091	0.061	3.63	12.91	13.00	0.093	2024/4/22	
Right Cheek	58/5290	802.11ac VHT80	0.127	0.091	-1.55	12.91	13.00	0.130	2024/4/22	
Right Tilt 15 Degree	58/5290	802.11ac VHT80	0.089	0.059	-0.81	12.91	13.00	0.091	2024/4/22	

NOTE: Head SAR test results of WLAN5.3G

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	58/5290	802.11ac VHT80	0.054	0.042	1.10	12.91	13.00	0.055	2024/4/22	
Back Side	58/5290	802.11ac VHT80	0.079	0.065	0.26	12.91	13.00	0.081	2024/4/22	17#

NOTE: Body-worn SAR test results of WLAN5.3G

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	58/5290	802.11ac VHT80	0.054	0.042	1.10	12.91	13.00	0.055	2024/4/22	
Back Side	58/5290	802.11ac VHT80	0.079	0.065	0.26	12.91	13.00	0.081	2024/4/22	17#
Right Side	58/5290	802.11ac VHT80	0.033	0.027	0.02	12.91	13.00	0.034	2024/4/22	
Top Side	58/5290	802.11ac VHT80	0.035	0.030	3.94	12.91	13.00	0.036	2024/4/22	

NOTE: Hotspot SAR test results of WLAN5.3G

MIMO

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	58/5290	802.11ac VHT80	0.130	0.088	0.54	13.15	13.50	0.141	2024/4/22	6#
Left Tilt 15 Degree	58/5290	802.11ac VHT80	0.090	0.059	3.26	13.15	13.50	0.098	2024/4/22	
Right Cheek	58/5290	802.11ac VHT80	0.126	0.085	2.65	13.15	13.50	0.137	2024/4/22	
Right Tilt 15 Degree	58/5290	802.11ac VHT80	0.090	0.061	-3.76	13.15	13.50	0.098	2024/4/22	

NOTE: Head SAR test results of WLAN5.3G

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

with 10mm								(W/Kg)		
Front Side	58/5290	802.11ac VHT80	0.072	0.063	2.53	13.15	13.50	0.078	2024/4/22	
Back Side	58/5290	802.11ac VHT80	0.099	0.088	2.65	13.15	13.50	0.107	2024/4/22	18#

NOTE: Body-worn SAR test results of WLAN5.3G

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	58/5290	802.11ac VHT80	0.072	0.063	2.53	13.15	13.50	0.078	2024/4/22	
Back Side	58/5290	802.11ac VHT80	0.099	0.088	2.65	13.15	13.50	0.107	2024/4/22	18#
Leftt Side	58/5290	802.11ac VHT80	0.036	0.031	1.44	13.15	13.50	0.039	2024/4/22	
Right Side	58/5290	802.11ac VHT80	0.032	0.026	1.13	13.15	13.50	0.035	2024/4/22	
Top Side	58/5290	802.11ac VHT80	0.039	0.033	-0.17	13.15	13.50	0.042	2024/4/22	
Bottom Side	58/5290	802.11ac VHT80	0.020	0.015	2.61	13.15	13.50	0.022	2024/4/22	

NOTE: Hotspot SAR test results of WLAN5.3G

10.1.4. SAR measurement Result of WLAN5.6G

ANT1

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	114/5570	ax160	0.255	0.141	-2.38	12.33	12.50	0.265	2024/4/23	7#
Left Tilt 15 Degree	114/5570	ax160	0.132	0.073	-1.75	12.33	12.50	0.137	2024/4/23	
Right Cheek	114/5570	ax160	0.219	0.115	-1.98	12.33	12.50	0.228	2024/4/23	

Right Tilt 15 Degree	114/5570	ax160	0.103	0.054	-3.77	12.33	12.50	0.107	2024/4/23	

NOTE: Head SAR test results of WLAN5.6G

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	114/5570	ax160	0.102	0.081	1.61	12.33	12.50	0.106	2024/4/23	
Back Side	114/5570	ax160	0.154	0.123	0.64	12.33	12.50	0.160	2024/4/23	19#

NOTE: Body-worn SAR test results of WLAN5.6G

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	114/5570	ax160	0.102	0.081	1.61	12.33	12.50	0.106	2024/4/23	
Back Side	114/5570	ax160	0.154	0.123	0.64	12.33	12.50	0.160	2024/4/23	19#
Left Side	114/5570	ax160	0.054	0.041	-3.75	12.33	12.50	0.056	2024/4/23	
Top Side	114/5570	ax160	0.058	0.045	1.42	12.33	12.50	0.060	2024/4/23	

NOTE: Hotspot SAR test results of WLAN5.6G

ANT2

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	114/5570	ax160	0.159	0.118	-3.93	11.25	11.50	0.168	2024/4/23	8#
Left Tilt 15 Degree	114/5570	ax160	0.095	0.059	3.31	11.25	11.50	0.101	2024/4/23	
Right	114/5570	ax160	0.145	0.107	-2.17	11.25	11.50	0.154	2024/4/23	

Cheek										
Right Tilt 15 Degree	114/5570	ax160	0.087	0.055	-1.26	11.25	11.50	0.092	2024/4/23	

NOTE: Head SAR test results of WLAN5.6G

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	114/5570	ax160	0.096	0.076	1.99	11.25	11.50	0.102	2024/4/23	
Back Side	114/5570	ax160	0.115	0.091	0.60	11.25	11.50	0.122	2024/4/23	20#

NOTE: Body-worn SAR test results of WLAN5.6G

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	114/5570	ax160	0.096	0.076	1.99	11.25	11.50	0.102	2024/4/23	
Back Side	114/5570	ax160	0.115	0.091	0.60	11.25	11.50	0.122	2024/4/23	20#
Right Side	114/5570	ax160	0.039	0.030	1.19	11.25	11.50	0.041	2024/4/23	
Top Side	114/5570	ax160	0.048	0.037	-2.33	11.25	11.50	0.051	2024/4/23	

NOTE: Hotspot SAR test results of WLAN5.6G

MIMO

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	114/5570	802.11ac (VHT160)	0.231	0.127	2.61	13.74	14.00	0.245	2024/4/23	9#
Left Tilt 15 Degree	114/5570	802.11ac (VHT160)	0.132	0.071	-1.18	13.74	14.00	0.140	2024/4/23	

Right Cheek	114/5570	802.11ac (VHT160)	0.215	0.115	2.00	13.74	14.00	0.228	2024/4/23	
Right Tilt 15 Degree	114/5570	802.11ac (VHT160)	0.119	0.064	1.12	13.74	14.00	0.126	2024/4/23	

NOTE: Head SAR test results of WLAN5.6G

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	114/5570	802.11ac (VHT160)	0.102	0.071	1.76	13.74	14.00	0.108	2024/4/23	
Back Side	114/5570	802.11ac (VHT160)	0.127	0.090	-4.81	13.74	14.00	0.135	2024/4/23	21#

NOTE: Body-worn SAR test results of WLAN5.6G

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	114/5570	802.11ac (VHT160)	0.102	0.071	1.76	13.74	14.00	0.108	2024/4/23	
Back Side	114/5570	802.11ac (VHT160)	0.127	0.090	-4.81	13.74	14.00	0.135	2024/4/23	21#
Leftt Side	114/5570	802.11ac (VHT160)	0.045	0.035	1.76	13.74	14.00	0.048	2024/4/23	
Right Side	114/5570	802.11ac (VHT160)	0.040	0.032	-2.67	13.74	14.00	0.042	2024/4/23	
Top Side	114/5570	802.11ac (VHT160)	0.050	0.039	1.02	13.74	14.00	0.053	2024/4/23	
Bottom Side	114/5570	802.11ac (VHT160)	0.024	0.018	0.41	13.74	14.00	0.025	2024/4/23	

NOTE: Hotspot SAR test results of WLAN5.6G

10.1.5. SAR measurement Result of WLAN5.8G

ANT1

Test Position	Test channel	Mode	SAR Value (W/kg)	Power Drift(%)	Conducted Power	Tune-up Power	Scaled SAR	Date	Plot

of Head	/Freq.		1-g	10-g		(dBm)	(dBm)	1-g (W/Kg)		
Left Cheek	155/5775	802.11ac VHT80	0.260	0.159	-2.57	12.05	12.50	0.288	2024/4/20	10#
Left Tilt 15 Degree	155/5775	802.11ac VHT80	0.150	0.090	0.24	12.05	12.50	0.166	2024/4/20	
Right Cheek	155/5775	802.11ac VHT80	0.224	0.132	-0.44	12.05	12.50	0.248	2024/4/20	
Right Tilt 15 Degree	155/5775	802.11ac VHT80	0.112	0.066	0.32	12.05	12.50	0.124	2024/4/20	

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	155/5775	802.11ac VHT80	0.102	0.077	-2.46	12.05	12.50	0.113	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.152	0.121	0.96	12.05	12.50	0.169	2024/4/20	22#

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	155/5775	802.11ac VHT80	0.102	0.077	-2.46	12.05	12.50	0.113	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.152	0.121	0.96	12.05	12.50	0.169	2024/4/20	22#
Left Side	155/5775	802.11ac VHT80	0.051	0.039	0.87	12.05	12.50	0.057	2024/4/20	
Top Side	155/5775	802.11ac VHT80	0.055	0.042	1.19	12.05	12.50	0.061	2024/4/20	

NOTE: Hotspot SAR test results of WLAN5.8G

ANT2

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

Position of Head	channel /Freq.		(W/kg)		Drift(%)	Power (dBm)	Power (dBm)	SAR 1-g (W/Kg)		
			1-g	10-g						
Left Cheek	155/5775	802.11ac VHT80	0.182	0.138	-4.63	11.26	11.50	0.192	2024/4/20	11#
Left Tilt 15 Degree	155/5775	802.11ac VHT80	0.130	0.078	0.92	11.26	11.50	0.137	2024/4/20	
Right Cheek	155/5775	802.11ac VHT80	0.179	0.130	3.89	11.26	11.50	0.189	2024/4/20	
Right Tilt 15 Degree	155/5775	802.11ac VHT80	0.112	0.066	0.44	11.26	11.50	0.118	2024/4/20	

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	155/5775	802.11ac VHT80	0.098	0.087	3.85	11.26	11.50	0.104	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.115	0.108	2.66	11.26	11.50	0.122	2024/4/20	23#

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	155/5775	802.11ac VHT80	0.098	0.087	3.85	11.26	11.50	0.104	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.115	0.108	2.66	11.26	11.50	0.122	2024/4/20	23#
Right Side	155/5775	802.11ac VHT80	0.042	0.037	-2.00	11.26	11.50	0.044	2024/4/20	
Top Side	155/5775	802.11ac VHT80	0.050	0.043	2.20	11.26	11.50	0.053	2024/4/20	

NOTE: Hotspot SAR test results of WLAN5.8G

MIMO

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	155/5775	802.11ac VHT80	0.239	0.142	-1.38	13.71	14.00	0.256	2024/4/20	12#
Left Tilt 15 Degree	155/5775	802.11ac VHT80	0.131	0.080	-0.83	13.71	14.00	0.140	2024/4/20	
Right Cheek	155/5775	802.11ac VHT80	0.229	0.140	-2.68	13.71	14.00	0.245	2024/4/20	
Right Tilt 15 Degree	155/5775	802.11ac VHT80	0.118	0.072	-2.47	13.71	14.00	0.126	2024/4/20	

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	155/5775	802.11ac VHT80	0.120	0.086	3.41	13.71	14.00	0.128	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.193	0.138	-2.59	13.71	14.00	0.206	2024/4/20	24#

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	155/5775	802.11ac VHT80	0.120	0.086	3.41	13.71	14.00	0.128	2024/4/20	
Back Side	155/5775	802.11ac VHT80	0.193	0.138	-2.59	13.71	14.00	0.206	2024/4/20	24#
Leftt Side	155/5775	802.11ac VHT80	0.066	0.047	-1.49	13.71	14.00	0.071	2024/4/20	
Right Side	155/5775	802.11ac VHT80	0.063	0.044	1.74	13.71	14.00	0.067	2024/4/20	
Top Side	155/5775	802.11ac VHT80	0.075	0.051	0.24	13.71	14.00	0.080	2024/4/20	

Bottom Side	155/5775	802.11ac VHT80	0.032	0.026	0.14	13.71	14.00	0.034	2024/4/20	

NOTE: Hotspot SAR test results of WLAN5.8G

10.2. Simultaneous Transmission Analysis

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

1) Scalar SAR summation < 1.6W/kg.

2) SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (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 SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.

Test Position		Scaled SAR_{MAX}		∑1-g SAR (W/Kg)	SPLSR	Remark
		WIFI 5G	BT			
Head	Left Cheek	0.288	0.264	0.552	N/A	N/A
	Left Tilt 15 Degree	0.166	0.264	0.430	N/A	N/A
	Right Cheek	0.248	0.264	0.512	N/A	N/A
	Right Tilt 15 Degree	0.126	0.264	0.390	N/A	N/A
Body-Worn	Front Side	0.128	0.132	0.260	N/A	N/A
	Back Side	0.206	0.132	0.338	N/A	N/A
Hotspot	Front Side	0.128	0.132	0.260	N/A	N/A
	Back Side	0.206	0.132	0.338	N/A	N/A
	Left Side	0.071	0.132	0.203	N/A	N/A
	Right Side	0.067	N/A	0.067	N/A	N/A
	Top Side	0.08	0.132	0.212	N/A	N/A
	Bottom Side	0.034	N/A	0.034	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 - 2450MHz
MEASUREMENT 2 System Performance Check - 5200MHz
MEASUREMENT 3 System Performance Check - 5400MHz
MEASUREMENT 4 System Performance Check - 5600MHz
MEASUREMENT 5 System Performance Check - 5800MHz

MEASUREMENT 1

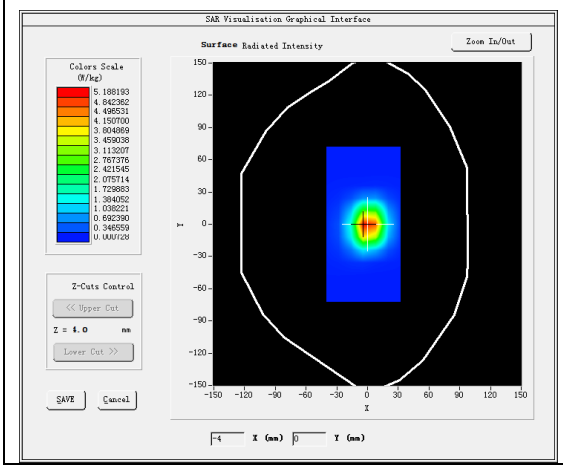
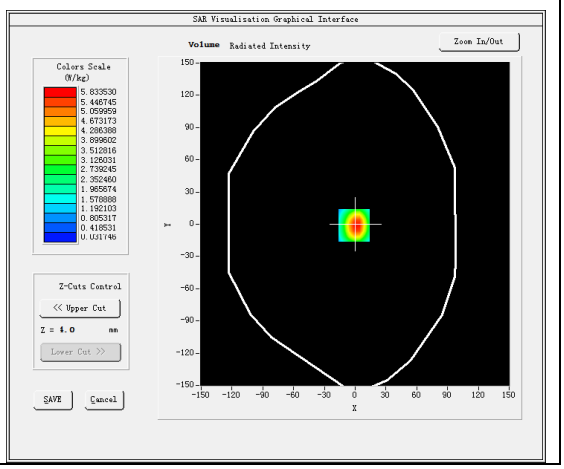
Date of measurement: 28/4/2024

A. Experimental conditions.

Area Scan	dx=12mm dy=12mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)
ConvF	2.85

B. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative permittivity (real part)	37.527114
Relative permittivity (imaginary part)	12.915778
Conductivity (S/m)	1.757981
Variation (%)	1.770000

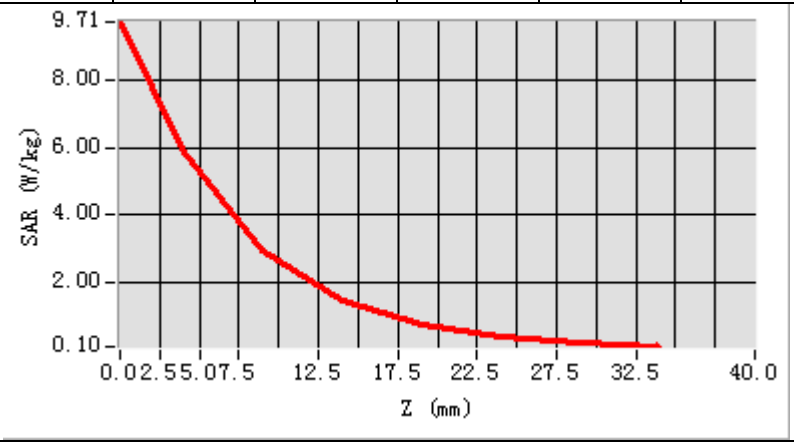
SURFACE SAR	VOLUME SAR
	

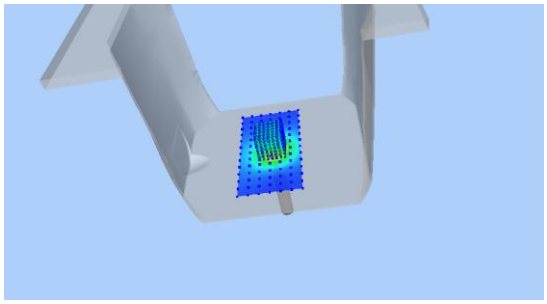
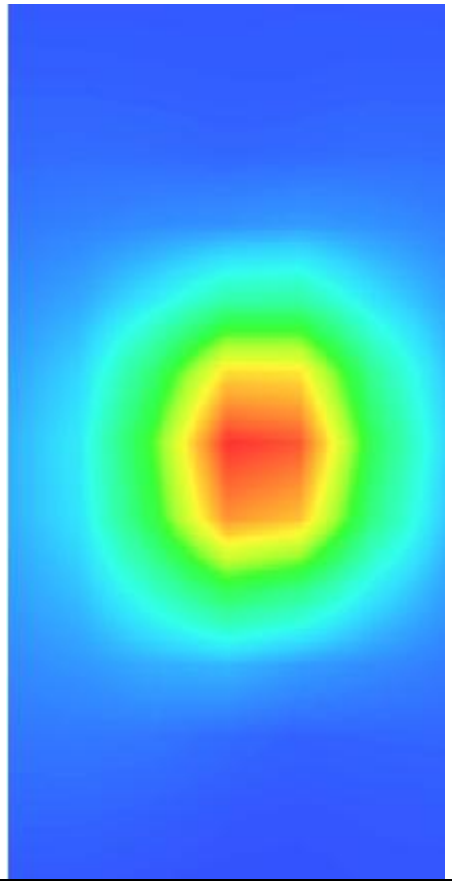
Maximum location: X=-1.00, Y=-1.00

SAR Peak: 9.83 W/kg

SAR 10g (W/Kg)	2.462267
SAR 1g (W/Kg)	4.659338

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.7167	5.8317	2.9202	1.4698	0.7421	0.3729	0.1922



3D screen shot	Hot spot position
	

MEASUREMENT 2

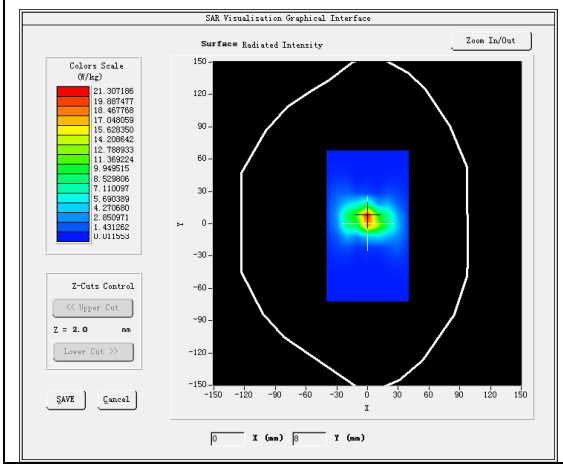
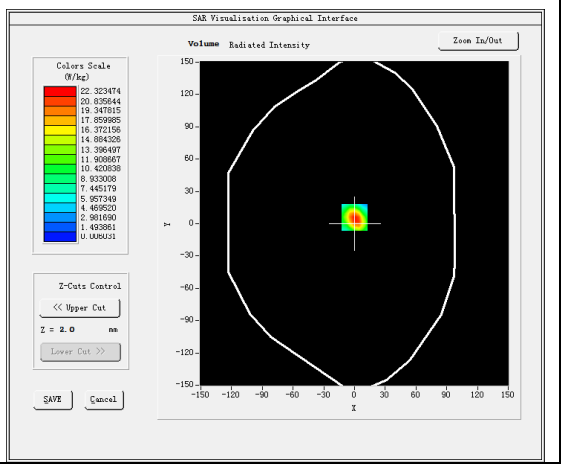
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

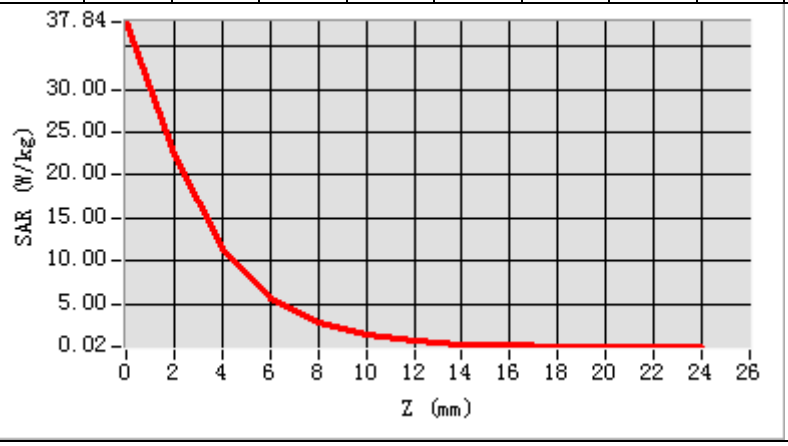
Frequency (MHz)	5200.000000
Relative permittivity (real part)	34.478385
Relative permittivity (imaginary part)	15.628512
Conductivity (S/m)	4.514903
Variation (%)	1.750000

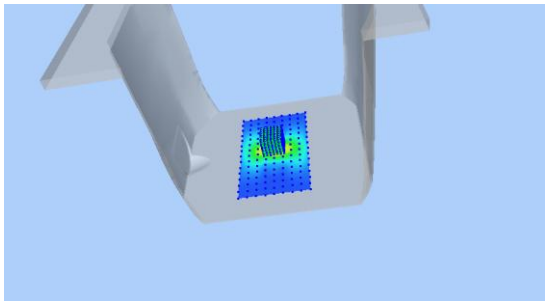
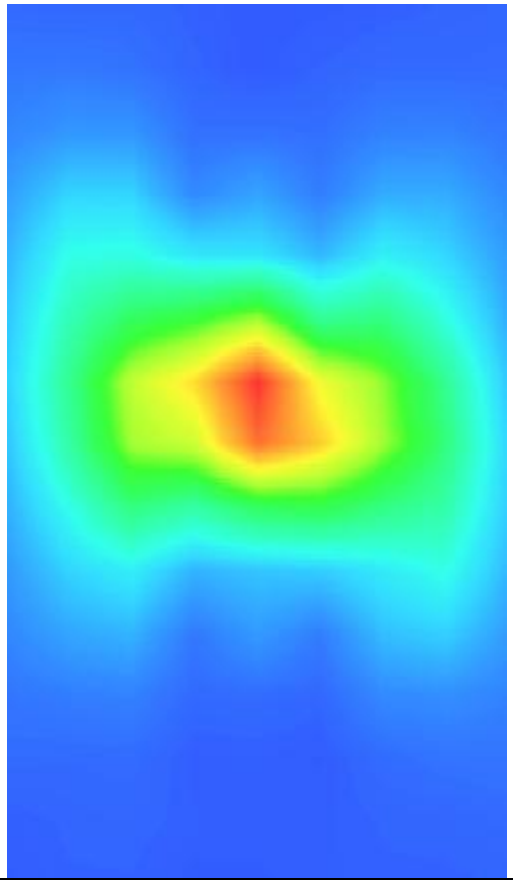
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=6.00
SAR Peak: 40.06 W/kg

SAR 10g (W/Kg)	5.325331
SAR 1g (W/Kg)	14.808173

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	37.882	22.335	11.332	5.6656	2.8210	1.4068	0.7164	0.3614	0.1897	0.1034	0.0556	0.0306



3D screen shot	Hot spot position
	

MEASUREMENT 3

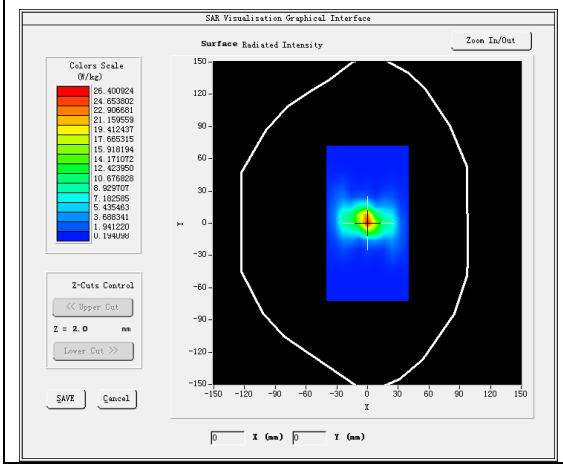
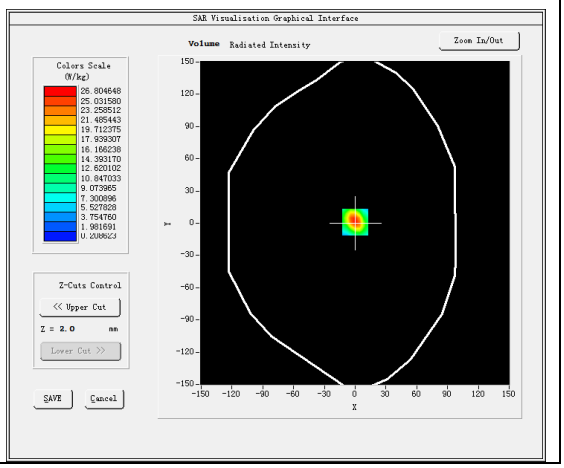
Date of measurement: 22/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5400
Channels	Middle
Signal	CW (Crest factor: 1.0)
ConvF	2.11

B. SAR Measurement Results

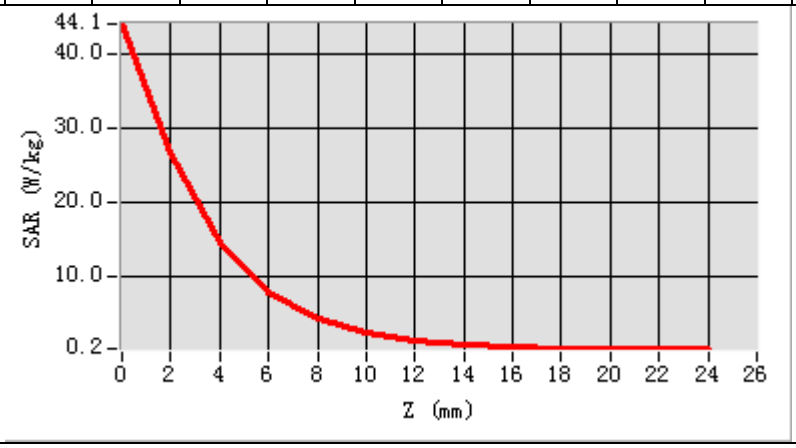
Frequency (MHz)	5400.000000
Relative permittivity (real part)	34.321516
Relative permittivity (imaginary part)	16.012871
Conductivity (S/m)	4.803861
Variation (%)	-0.700000

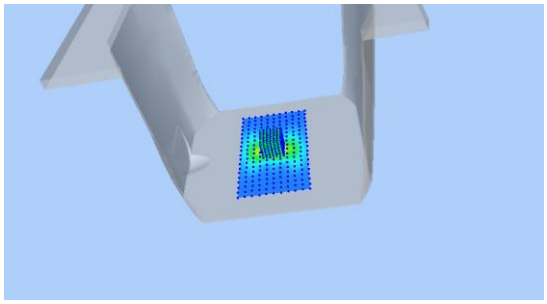
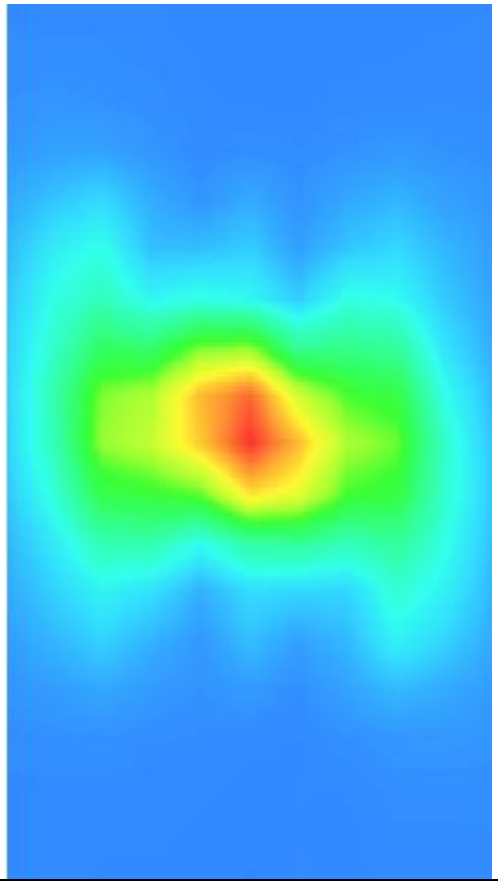
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=1.00
SAR Peak: 46.18 W/kg

SAR 10g (W/Kg)	5.819369
SAR 1g (W/Kg)	14.757356

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	44.074	26.875	14.612	7.8109	4.2226	2.3238	1.3237	0.7813	0.5004	0.3745	0.2803	0.2613



3D screen shot	Hot spot position
	

MEASUREMENT 4

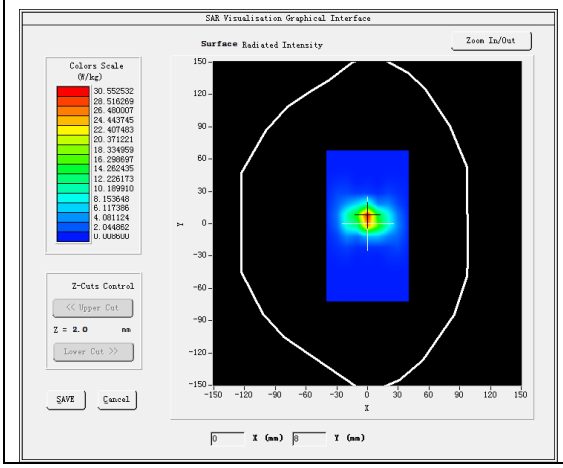
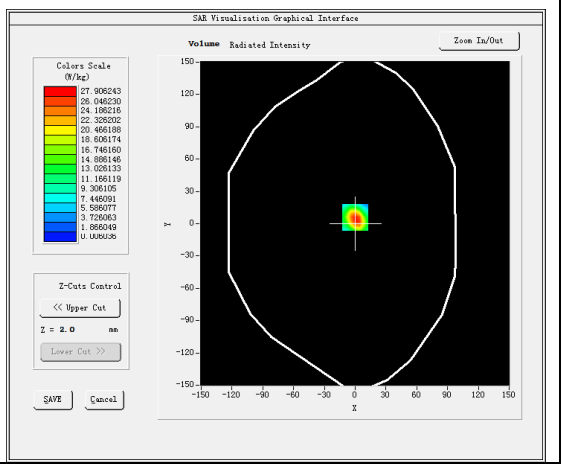
Date of measurement: 23/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5600
Channels	Middle
Signal	CW (Crest factor: 1.0)
ConvF	2.20

B. SAR Measurement Results

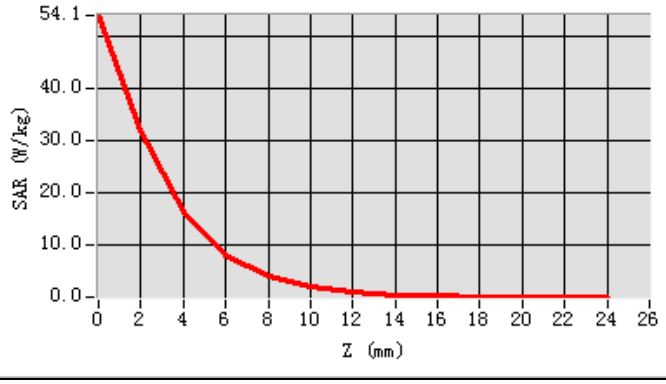
Frequency (MHz)	5600.000000
Relative permittivity (real part)	34.392813
Relative permittivity (imaginary part)	15.829971
Conductivity (S/m)	4.924880
Variation (%)	-2.480000

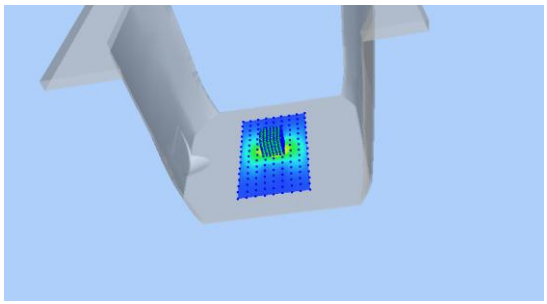
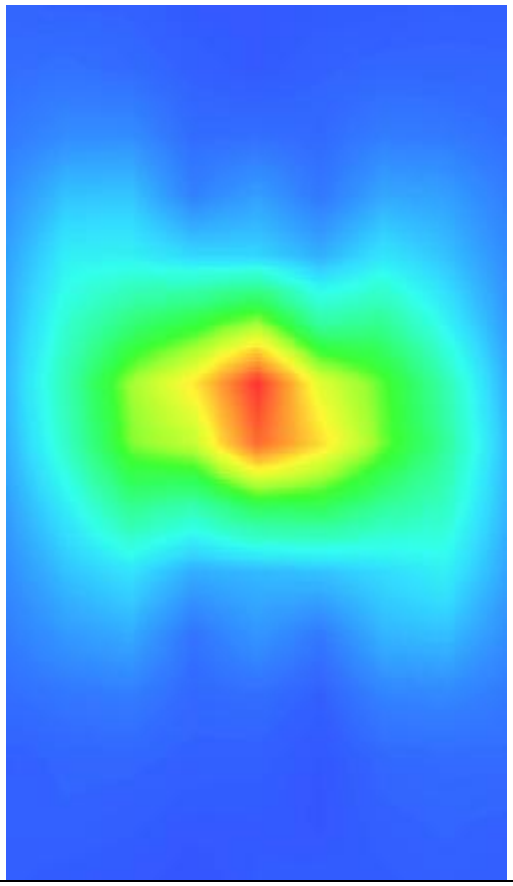
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=6.00
SAR Peak: 51.23 W/kg

SAR 10g (W/Kg)	5.779030
SAR 1g (W/Kg)	16.342274

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	54.193	31.965	16.377	8.1767	4.0825	3.8155	1.0324	0.4639	0.2755	0.1340	0.0731	0.0561



3D screen shot	Hot spot position
	

MEASUREMENT 5

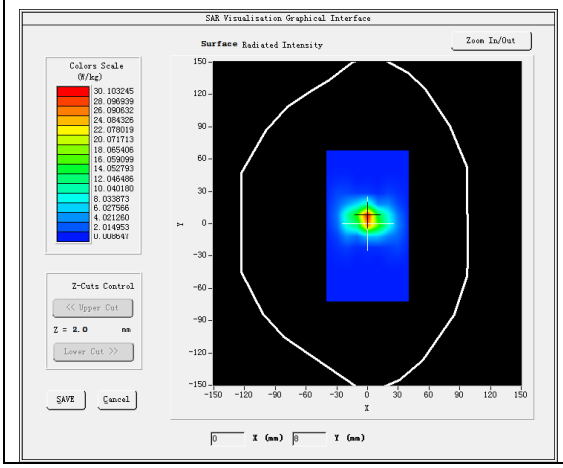
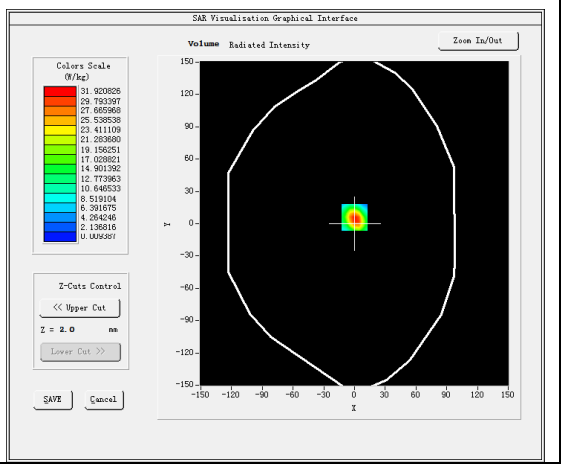
Date of measurement: 20/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW (Crest factor: 1.0)
ConvF	2.04

B. SAR Measurement Results

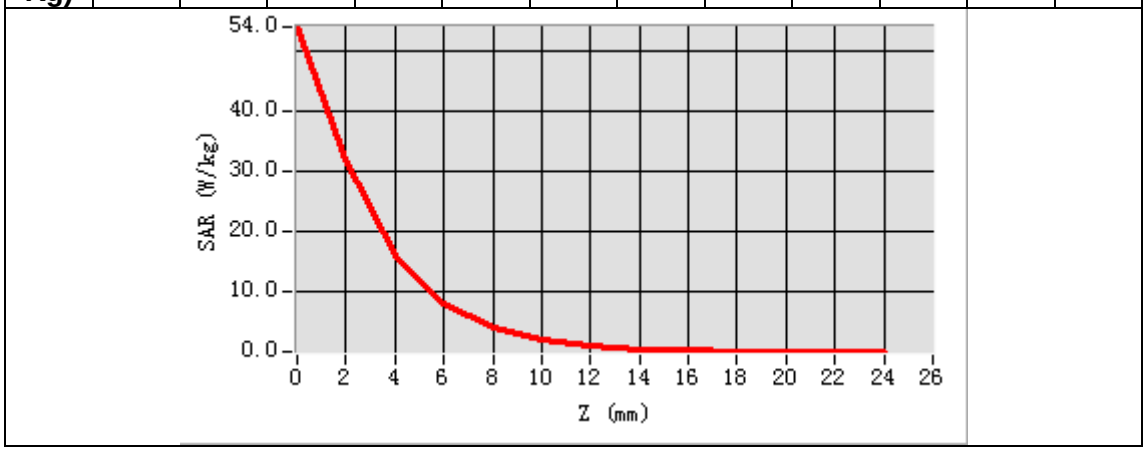
Frequency (MHz)	5800.000000
Relative permittivity (real part)	33.909535
Relative permittivity (imaginary part)	16.015283
Conductivity (S/m)	5.160480
Variation (%)	-0.630000

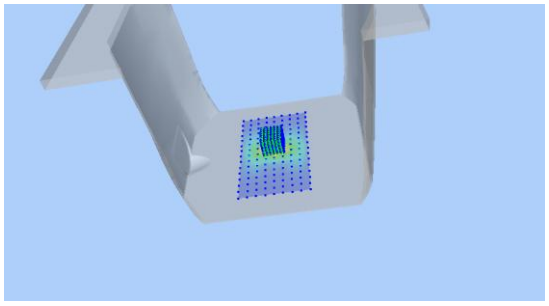
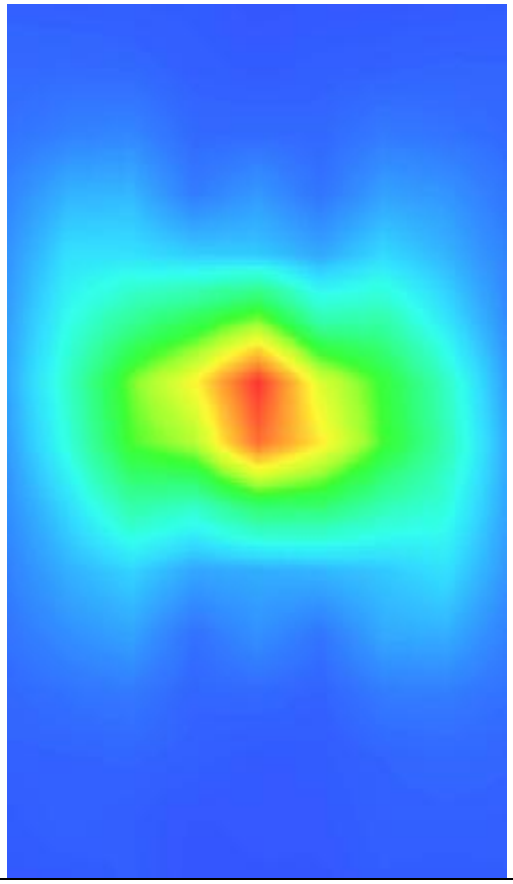
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=6.00
SAR Peak: 57.37 W/kg

SAR 10g (W/Kg)	6.118102
SAR 1g (W/Kg)	17.810336

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	54.037	31.920	16.180	8.1747	4.0878	2.0524	1.0388	0.5144	0.2732	0.1585	0.0756	0.0407



3D screen shot	Hot spot position
	

13. Appendix C. Plots of High SAR Measurement

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MEASUREMENT 1

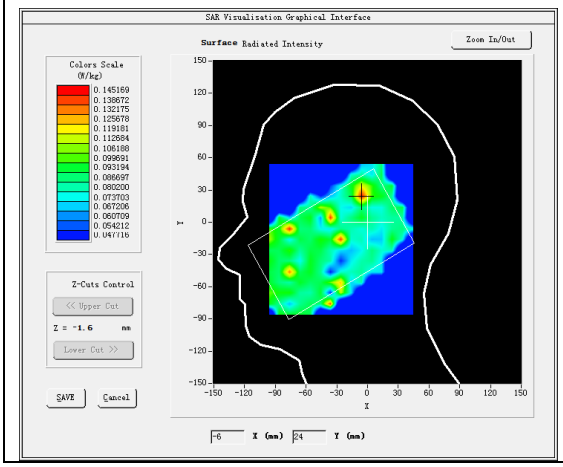
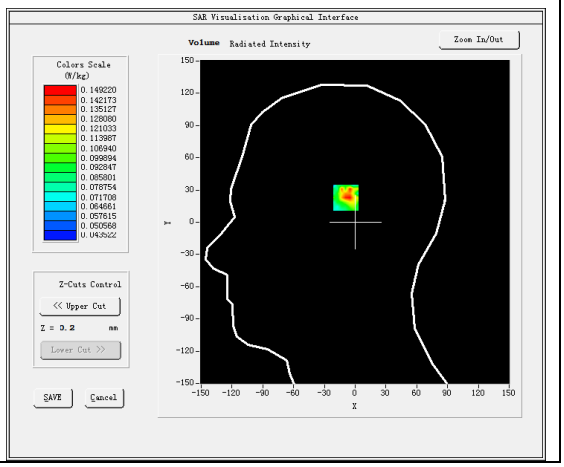
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

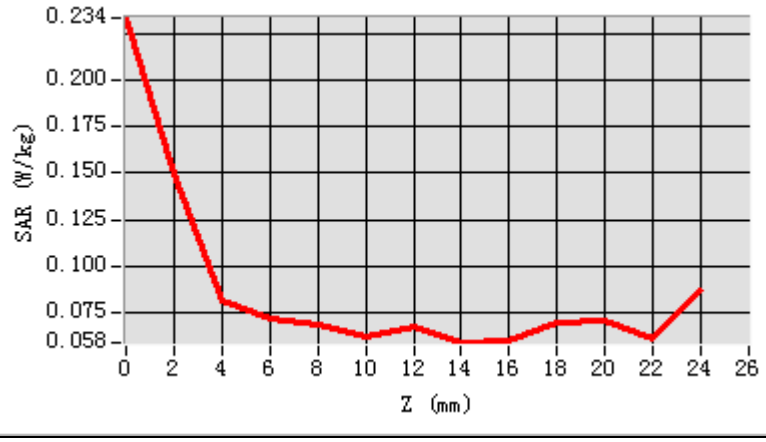
Frequency (MHz)	5250.000000
Relative permittivity (real part)	34.346088
Relative permittivity (imaginary part)	15.734910
Conductivity (S/m)	4.589349
Variation (%)	-3.730000

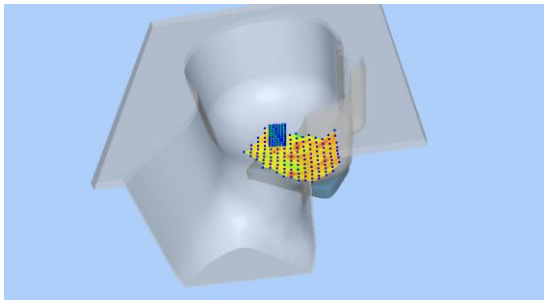
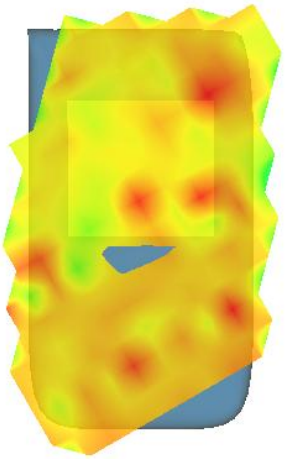
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-6.00, Y=25.00
SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.088123
SAR 1g (W/Kg)	0.123582

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2337	0.1492	0.0815	0.0717	0.0679	0.0623	0.0676	0.0585	0.0593	0.0695	0.0700	0.0612



3D screen shot	Hot spot position
	

MEASUREMENT 2

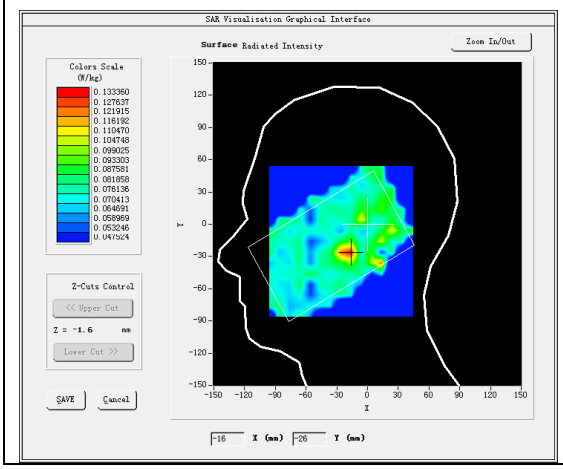
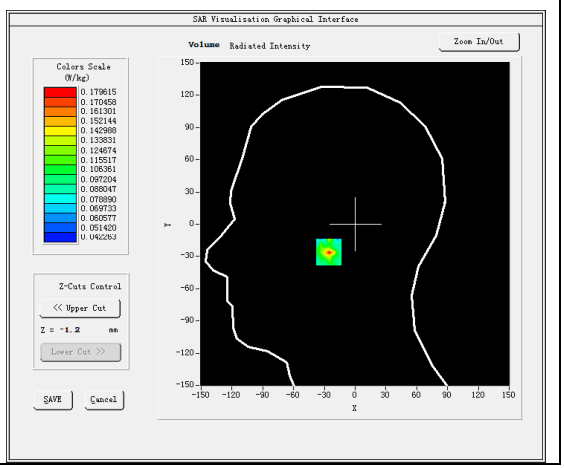
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

Frequency (MHz)	5250.000000
Relative permittivity (real part)	34.346088
Relative permittivity (imaginary part)	15.734910
Conductivity (S/m)	4.589349
Variation (%)	1.780000

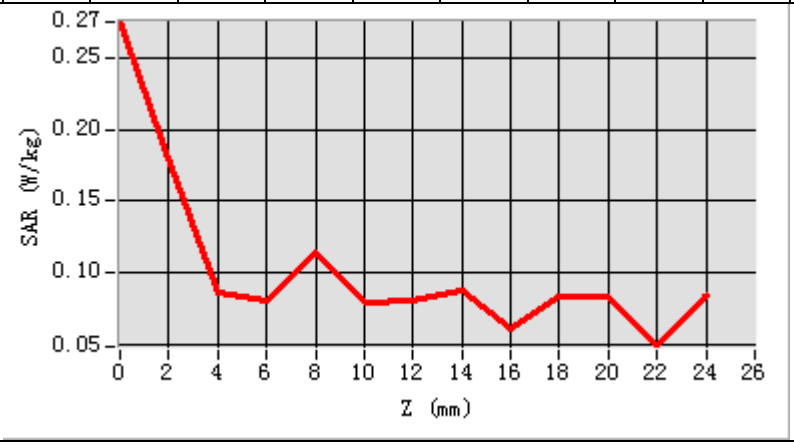
SURFACE SAR	VOLUME SAR
	

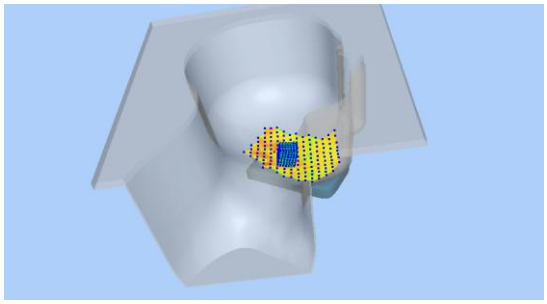
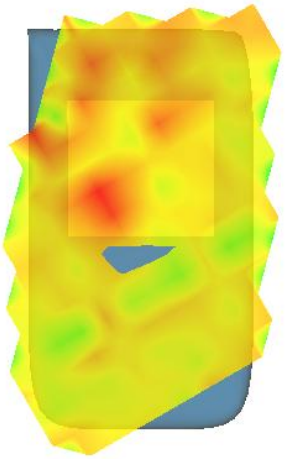
Maximum location: X=-18.00, Y=-26.00

SAR Peak: 0.49 W/kg

SAR 10g (W/Kg)	0.094733
SAR 1g (W/Kg)	0.140877

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2748	0.1796	0.0862	0.0814	0.1148	0.0799	0.0808	0.0872	0.0618	0.0835	0.0831	0.0486



3D screen shot	Hot spot position
	

MEASUREMENT 3

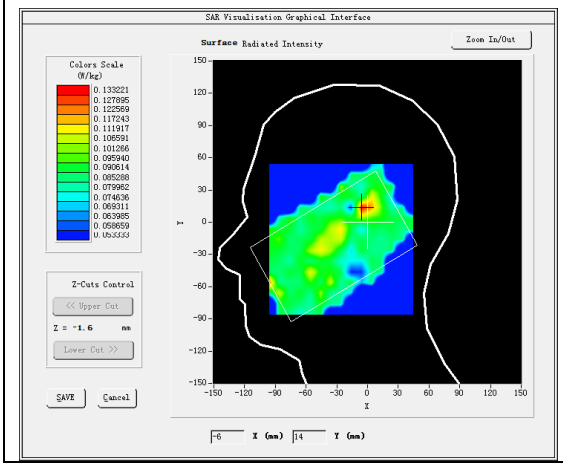
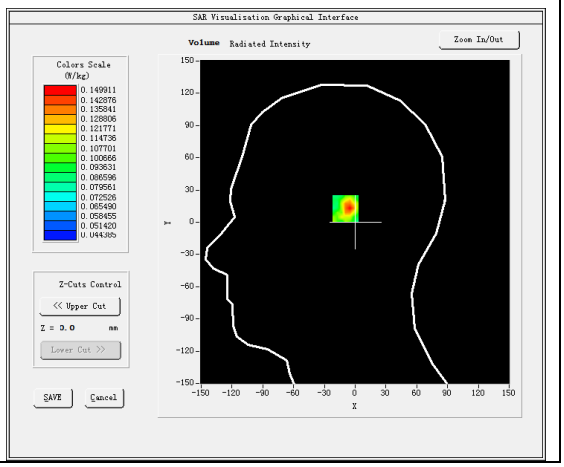
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

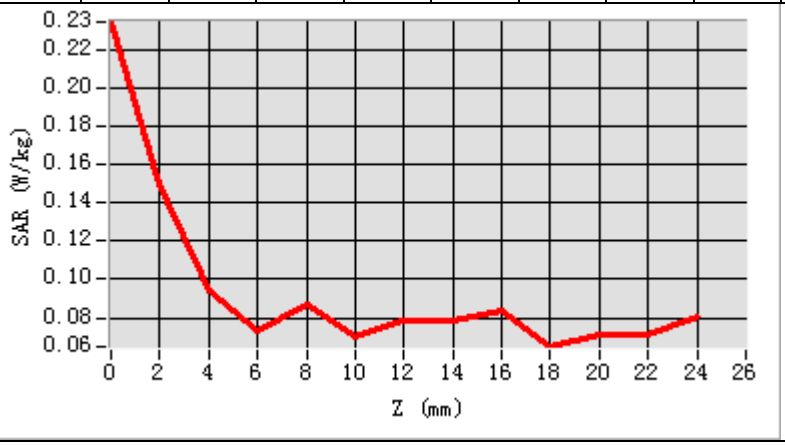
Frequency (MHz)	5250.000000
Relative permittivity (real part)	34.346088
Relative permittivity (imaginary part)	15.734910
Conductivity (S/m)	4.589349
Variation (%)	0.670000

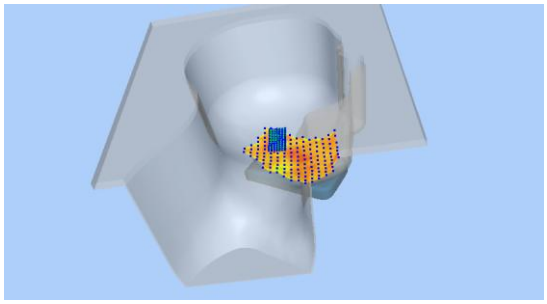
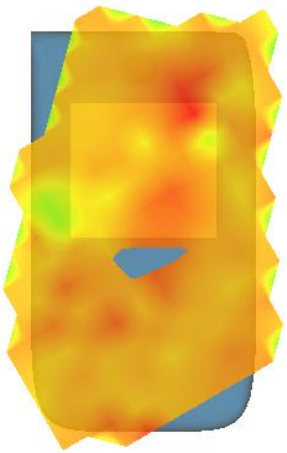
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-5.00, Y=13.00
SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.099428
SAR 1g (W/Kg)	0.149834

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2345	0.1499	0.0943	0.0734	0.0869	0.0703	0.0789	0.0790	0.0843	0.0649	0.0711	0.0716



3D screen shot	Hot spot position
	

MEASUREMENT 4

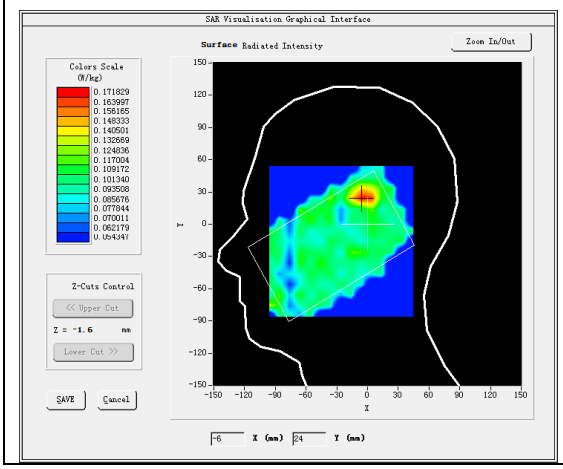
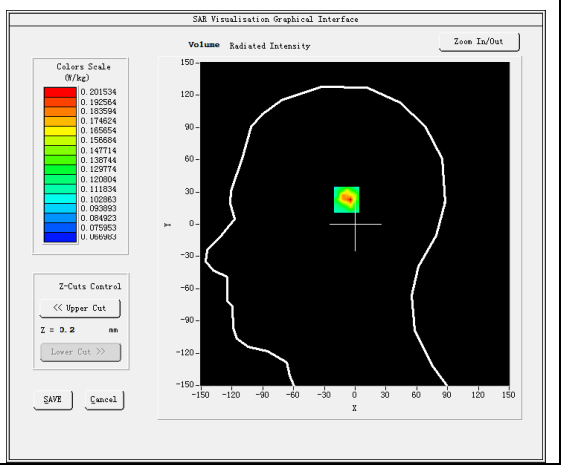
Date of measurement: 22/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.11

B. SAR Measurement Results

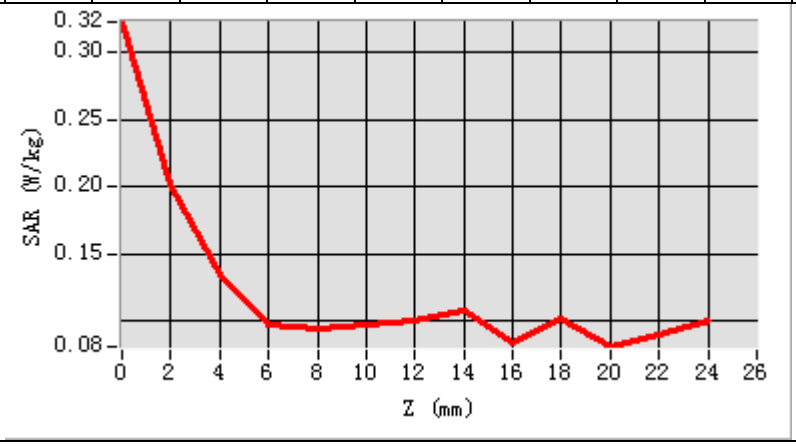
Frequency (MHz)	5290.000000
Relative permittivity (real part)	34.252480
Relative permittivity (imaginary part)	15.579937
Conductivity (S/m)	4.578770
Variation (%)	-1.040000

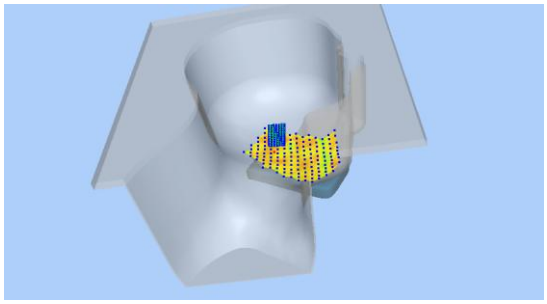
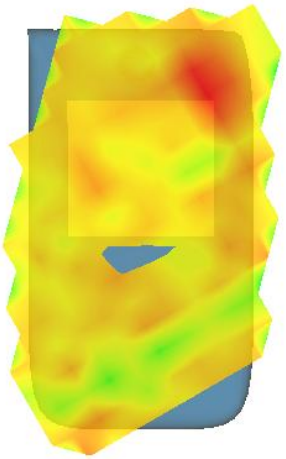
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-5.00, Y=25.00
SAR Peak: 0.47 W/kg

SAR 10g (W/Kg)	0.121393
SAR 1g (W/Kg)	0.176914

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3225	0.2015	0.1346	0.0974	0.0942	0.0975	0.1009	0.1074	0.0836	0.1024	0.0812	0.0901



3D screen shot	Hot spot position
	

MEASUREMENT 5

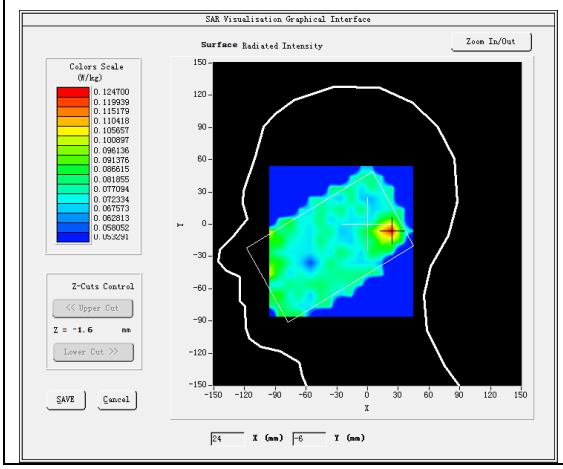
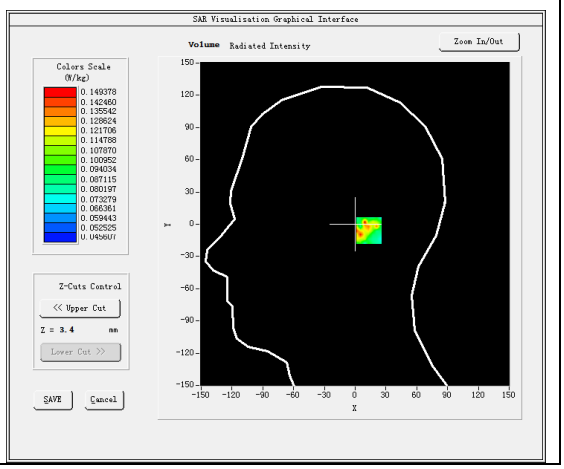
Date of measurement: 22/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.11

B. SAR Measurement Results

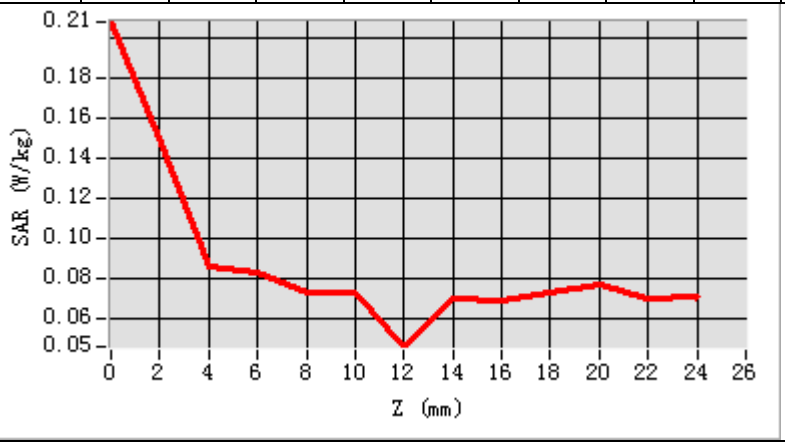
Frequency (MHz)	5290.000000
Relative permittivity (real part)	34.252480
Relative permittivity (imaginary part)	15.579937
Conductivity (S/m)	4.578770
Variation (%)	-2.570000

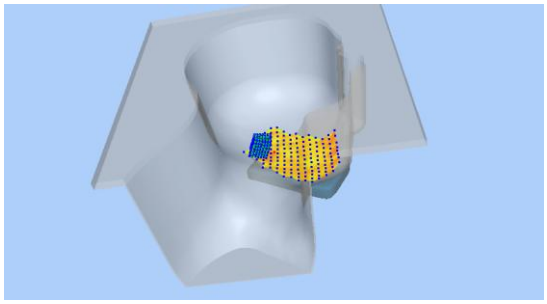
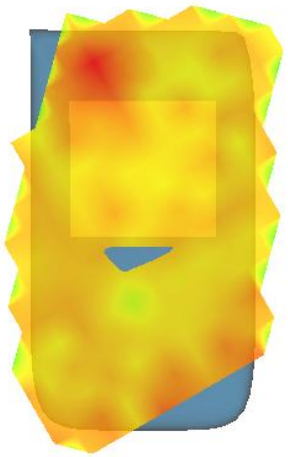
SURFACE SAR	VOLUME SAR
	

Maximum location: X=23.00, Y=-6.00
SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.095467
SAR 1g (W/Kg)	0.134572

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2076	0.1494	0.0855	0.0824	0.0722	0.0723	0.0456	0.0696	0.0683	0.0723	0.0767	0.0698



3D screen shot	Hot spot position
	

MEASUREMENT 6

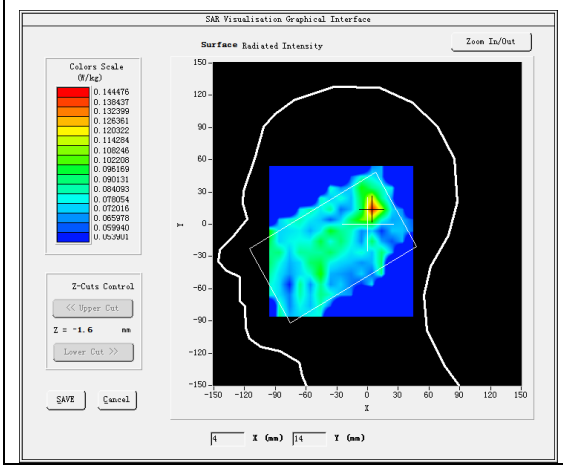
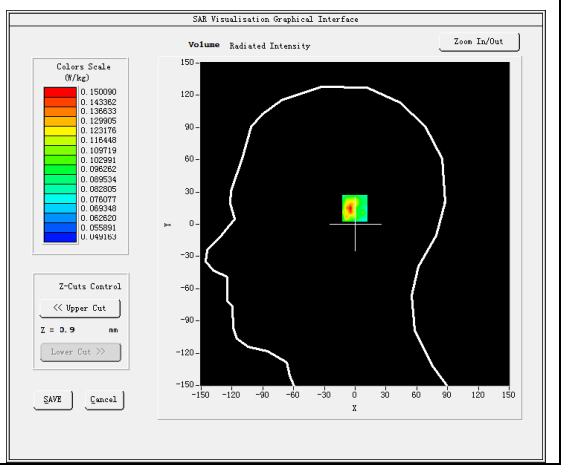
Date of measurement: 22/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.11

B. SAR Measurement Results

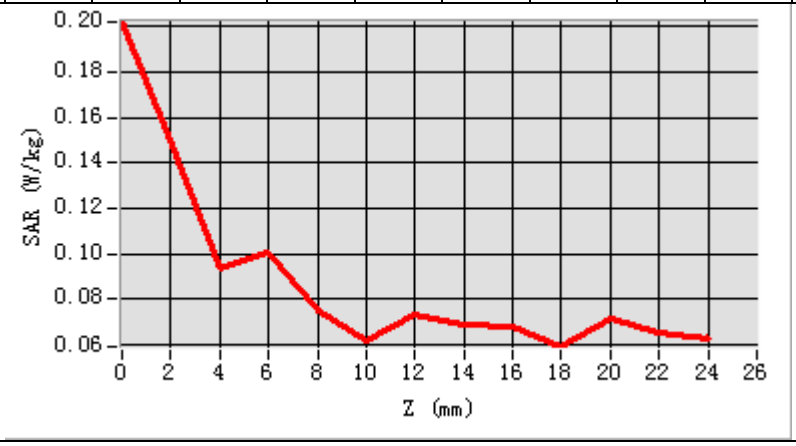
Frequency (MHz)	5290.000000
Relative permittivity (real part)	34.252480
Relative permittivity (imaginary part)	15.579937
Conductivity (S/m)	4.578770
Variation (%)	0.540000

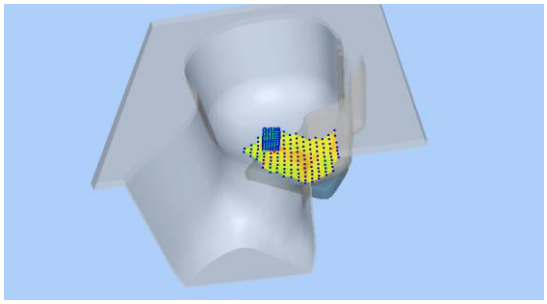
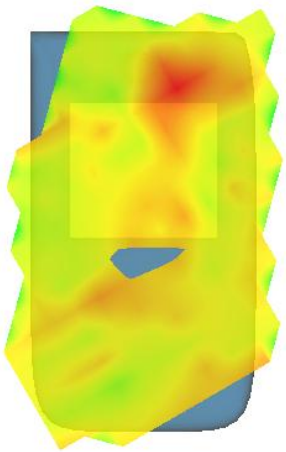
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=15.00
SAR Peak: 0.32 W/kg

SAR 10g (W/Kg)	0.087595
SAR 1g (W/Kg)	0.130424

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2019	0.1501	0.0940	0.1007	0.0747	0.0623	0.0733	0.0693	0.0679	0.0592	0.0713	0.0659



3D screen shot	Hot spot position
	

MEASUREMENT 7

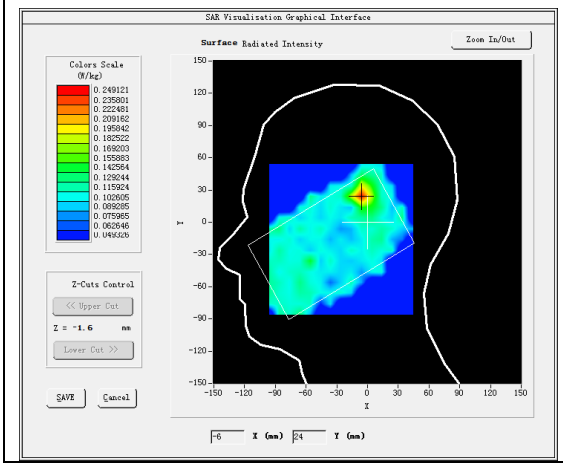
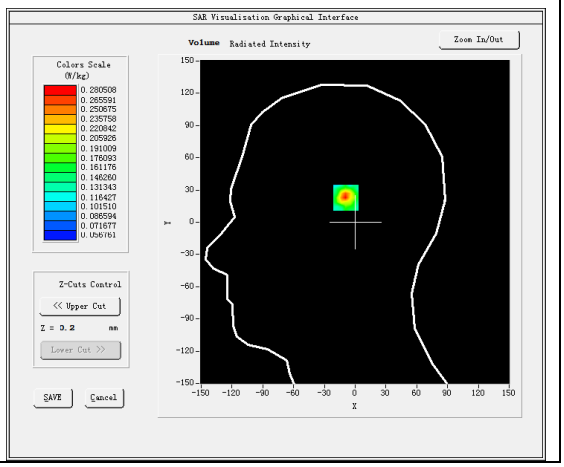
Date of measurement: 23/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.20

B. SAR Measurement Results

Frequency (MHz)	5570.000000
Relative permittivity (real part)	34.498300
Relative permittivity (imaginary part)	15.850670
Conductivity (S/m)	4.904902
Variation (%)	-2.380000

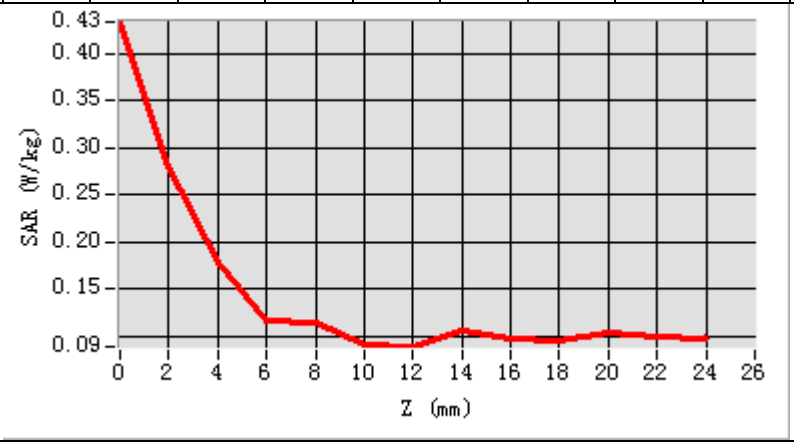
SURFACE SAR	VOLUME SAR
	

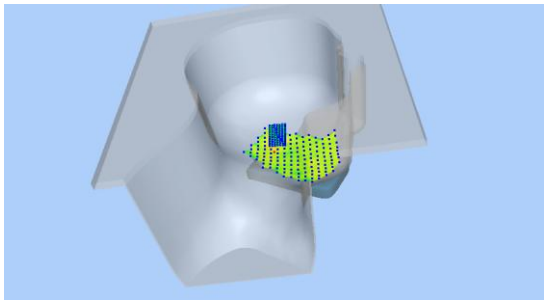
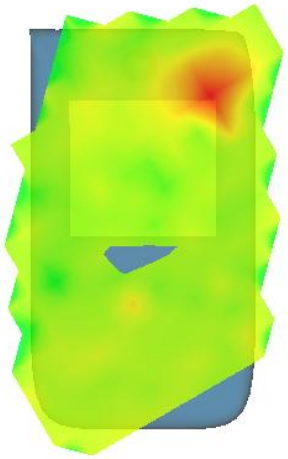
Maximum location: X=-6.00, Y=25.00

SAR Peak: 0.68 W/kg

SAR 10g (W/Kg)	0.140892
SAR 1g (W/Kg)	0.255057

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.4341	0.2805	0.1787	0.1163	0.1147	0.0921	0.0890	0.1056	0.0986	0.0958	0.1045	0.0987



3D screen shot	Hot spot position
	

MEASUREMENT 8

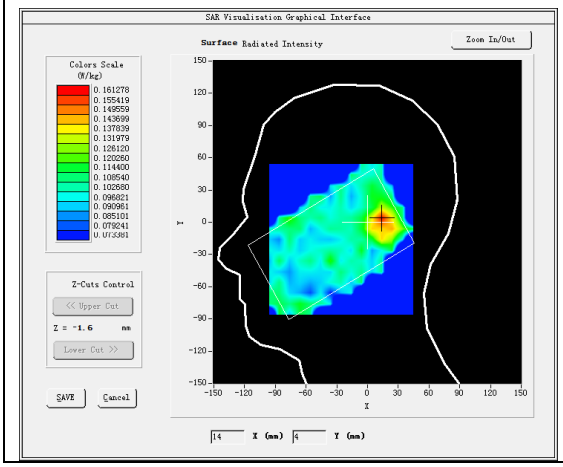
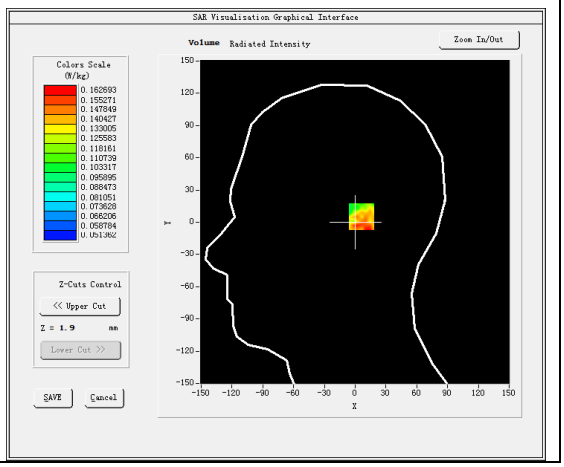
Date of measurement: 23/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.20

B. SAR Measurement Results

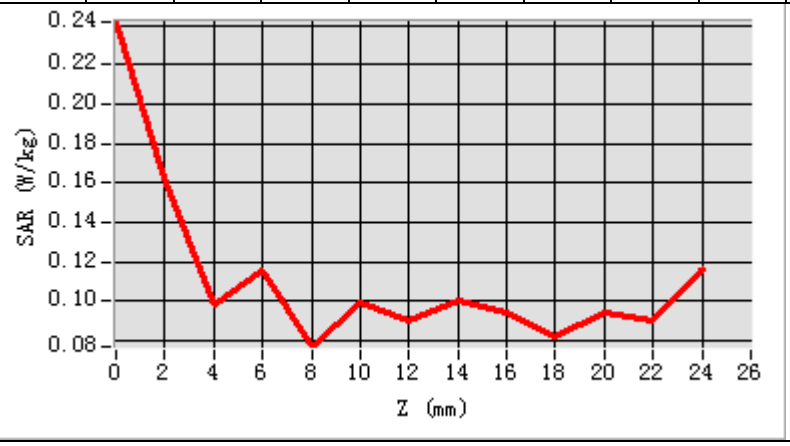
Frequency (MHz)	5570.000000
Relative permittivity (real part)	34.498300
Relative permittivity (imaginary part)	15.850670
Conductivity (S/m)	4.904902
Variation (%)	-3.930000

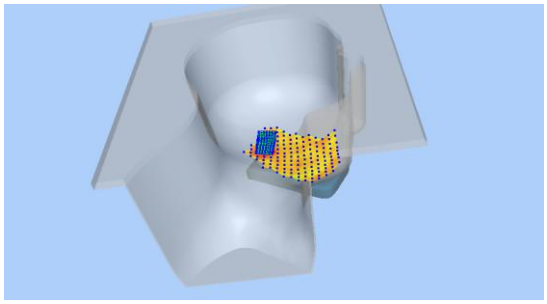
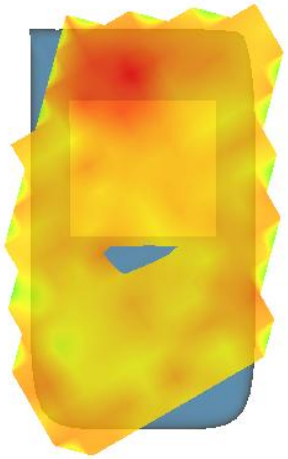
SURFACE SAR	VOLUME SAR
	

Maximum location: X=14.00, Y=5.00
SAR Peak: 0.34 W/kg

SAR 10g (W/Kg)	0.118148
SAR 1g (W/Kg)	0.159498

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2417	0.1627	0.0985	0.1156	0.0767	0.0993	0.0900	0.1000	0.0943	0.0814	0.0936	0.0902



3D screen shot	Hot spot position
	

MEASUREMENT 9

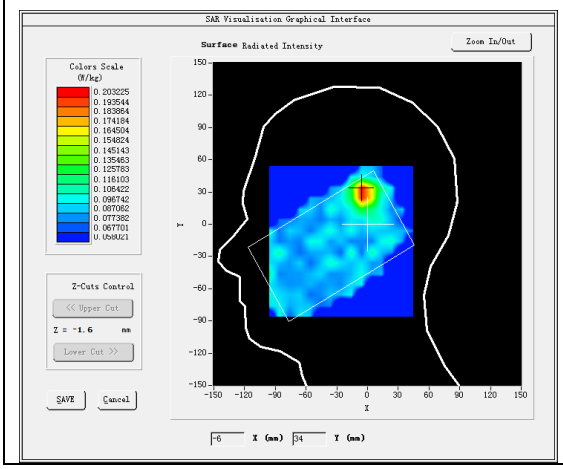
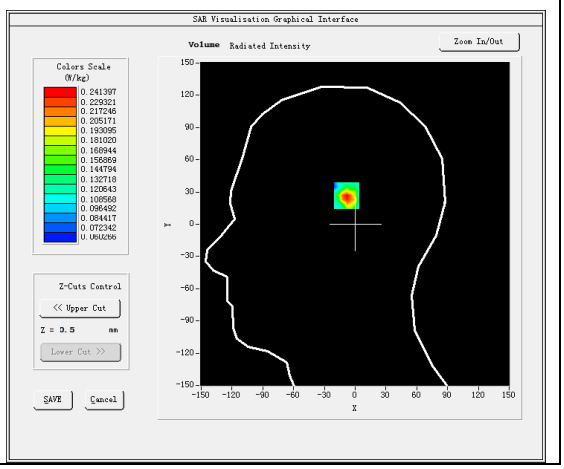
Date of measurement: 23/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.20

B. SAR Measurement Results

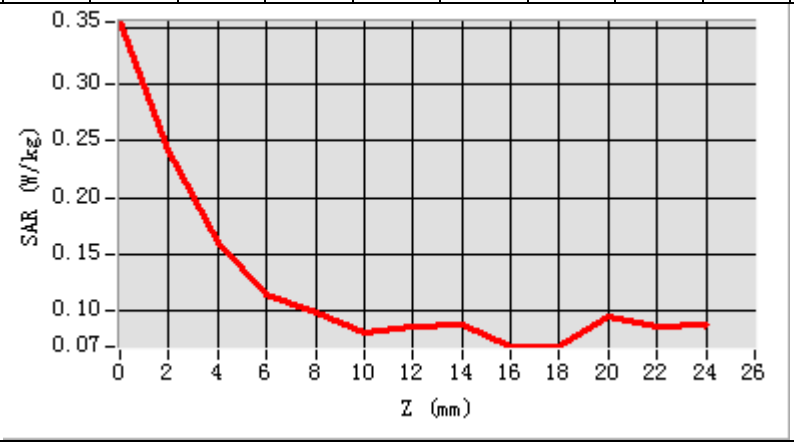
Frequency (MHz)	5570.000000
Relative permittivity (real part)	34.498300
Relative permittivity (imaginary part)	15.850670
Conductivity (S/m)	4.904902
Variation (%)	2.610000

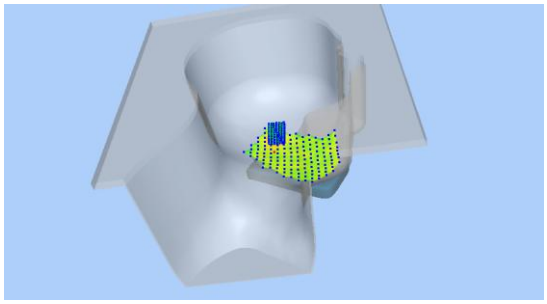
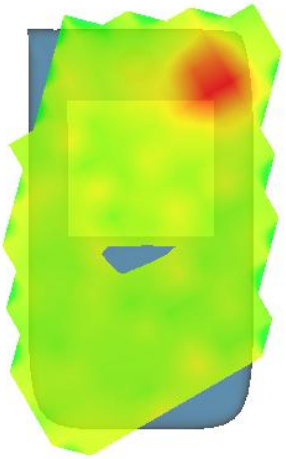
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-5.00, Y=30.00
SAR Peak: 0.57 W/kg

SAR 10g (W/Kg)	0.126553
SAR 1g (W/Kg)	0.230643

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3544	0.2414	0.1607	0.1154	0.0988	0.0817	0.0868	0.0888	0.0687	0.0692	0.0943	0.0860



3D screen shot	Hot spot position
	

MEASUREMENT 10

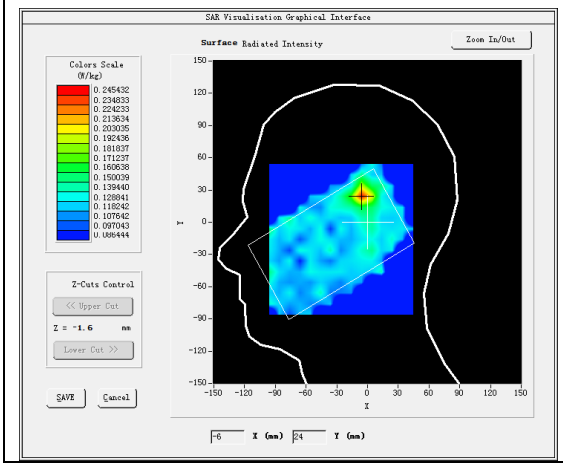
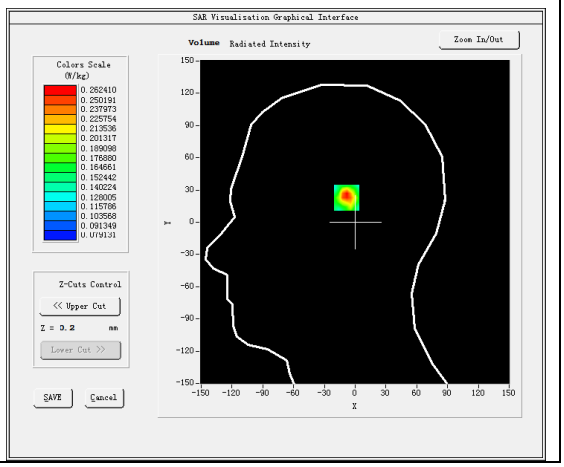
Date of measurement: 20/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.04

B. SAR Measurement Results

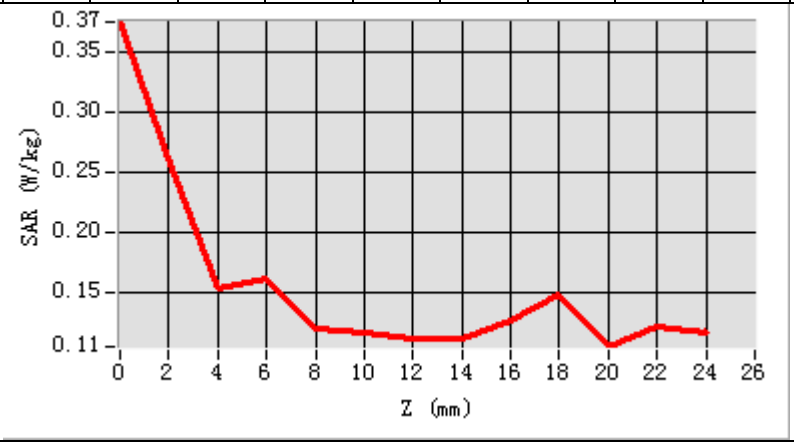
Frequency (MHz)	5775.000000
Relative permittivity (real part)	34.004556
Relative permittivity (imaginary part)	16.034719
Conductivity (S/m)	5.144472
Variation (%)	-2.570000

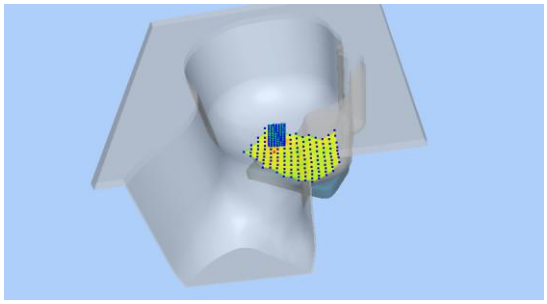
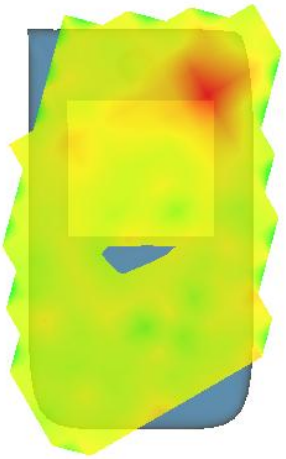
SURFACE SAR	VOLUME SAR
	

Maximum location: X=-5.00, Y=25.00
SAR Peak: 0.58 W/kg

SAR 10g (W/Kg)	0.159265
SAR 1g (W/Kg)	0.259530

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3749	0.2624	0.1525	0.1613	0.1192	0.1163	0.1109	0.1119	0.1269	0.1481	0.1050	0.1213



3D screen shot	Hot spot position
	

MEASUREMENT 11

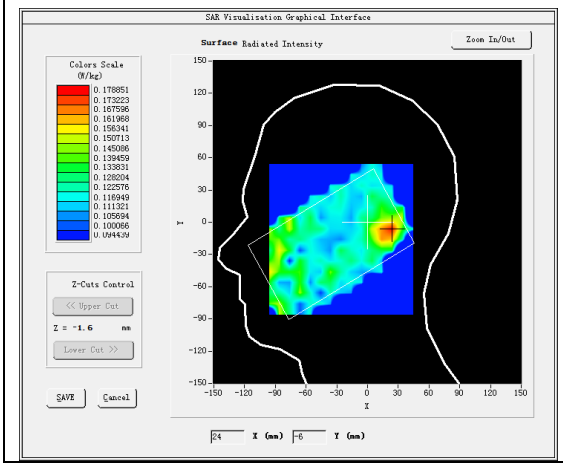
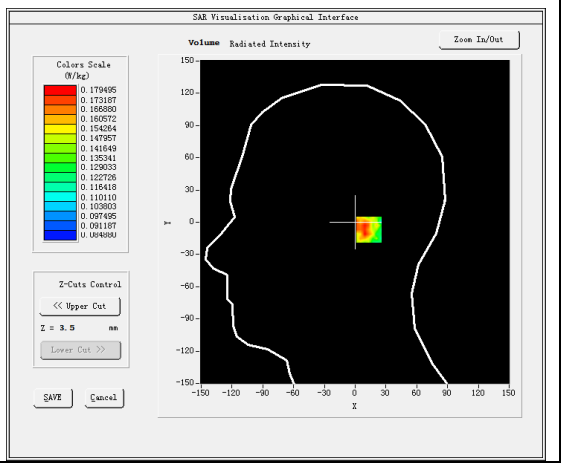
Date of measurement: 20/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.04

B. SAR Measurement Results

Frequency (MHz)	5775.000000
Relative permittivity (real part)	34.004556
Relative permittivity (imaginary part)	16.034719
Conductivity (S/m)	5.144472
Variation (%)	-4.630000

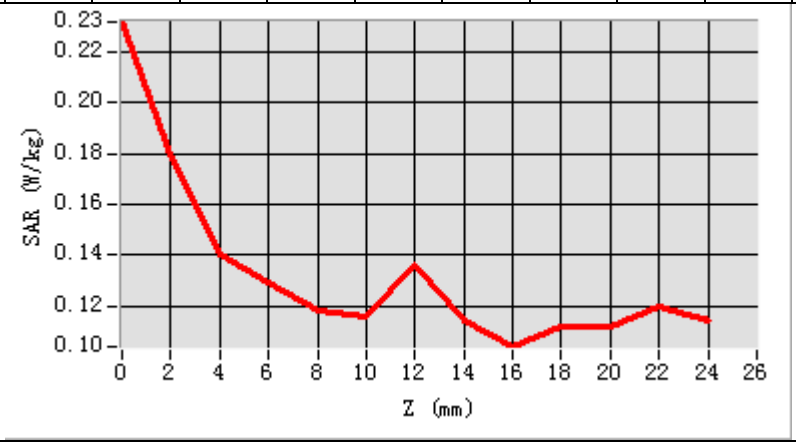
SURFACE SAR	VOLUME SAR
	

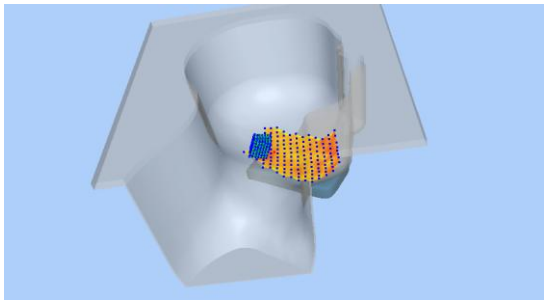
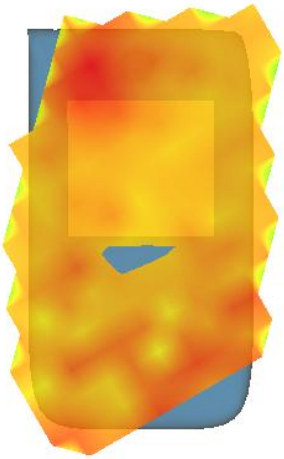
Maximum location: X=23.00, Y=-7.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.137640
SAR 1g (W/Kg)	0.181791

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.2317	0.1795	0.1402	0.1292	0.1185	0.1157	0.1365	0.1143	0.1039	0.1119	0.1117	0.1193



3D screen shot	Hot spot position
	

MEASUREMENT 12

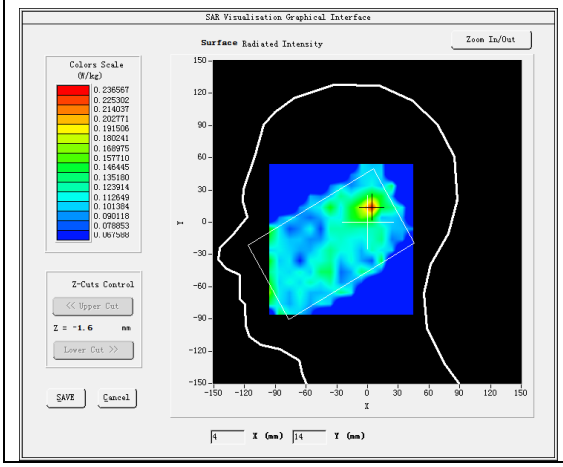
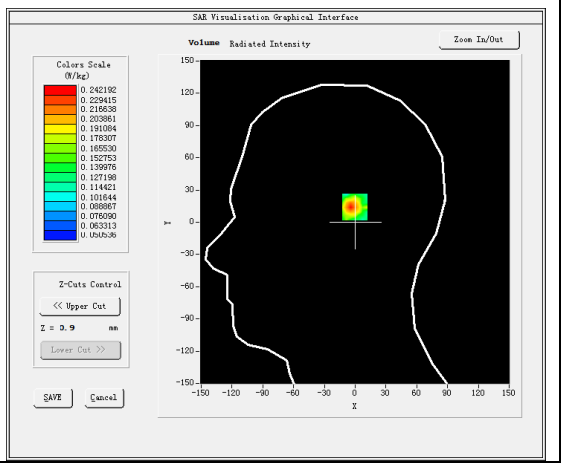
Date of measurement: 20/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11ac U-NII
Channels	Middle
Signal	IEEE802.11ac (Crest factor: 1.0)
ConvF	2.04

B. SAR Measurement Results

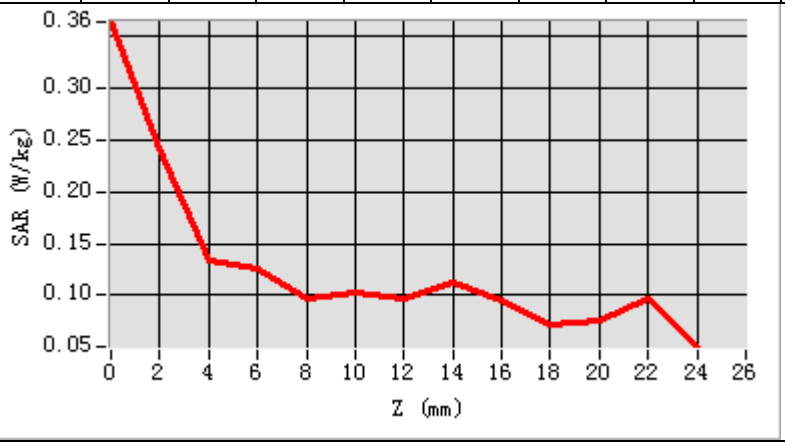
Frequency (MHz)	5775.000000
Relative permittivity (real part)	34.004556
Relative permittivity (imaginary part)	16.034719
Conductivity (S/m)	5.144472
Variation (%)	-1.380000

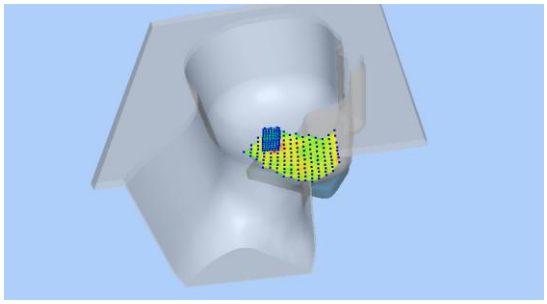
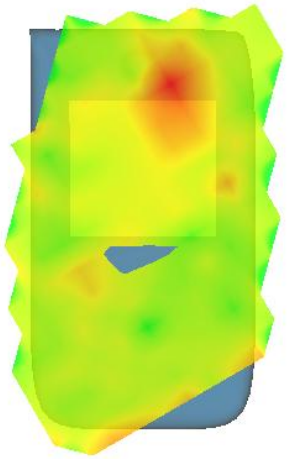
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=14.00
SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.141578
SAR 1g (W/Kg)	0.239409

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3643	0.2422	0.1343	0.1267	0.0963	0.1021	0.0961	0.1130	0.0951	0.0711	0.0759	0.0974



3D screen shot	Hot spot position
	

MEASUREMENT 13

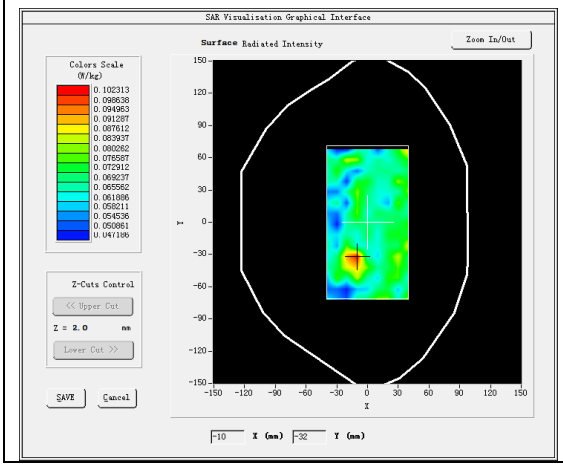
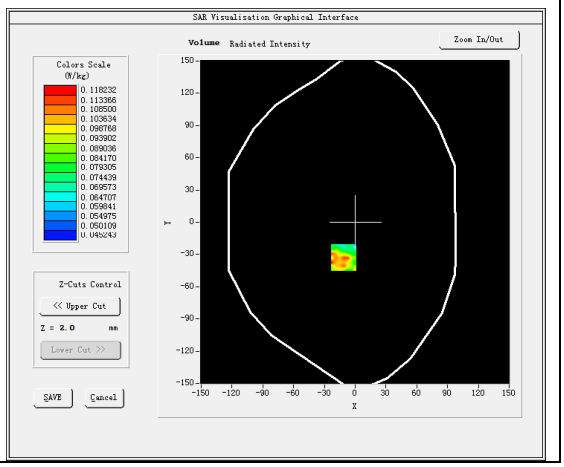
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

Frequency (MHz)	5250.000000
Relative permittivity (real part)	34.346088
Relative permittivity (imaginary part)	15.734910
Conductivity (S/m)	4.589349
Variation (%)	3.740000

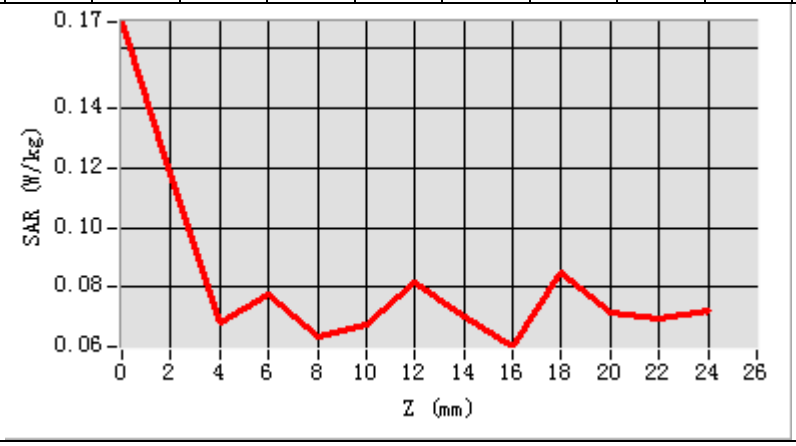
SURFACE SAR	VOLUME SAR
	

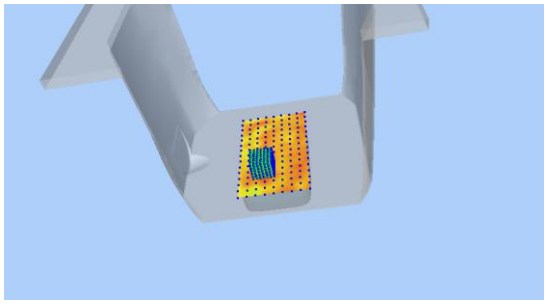
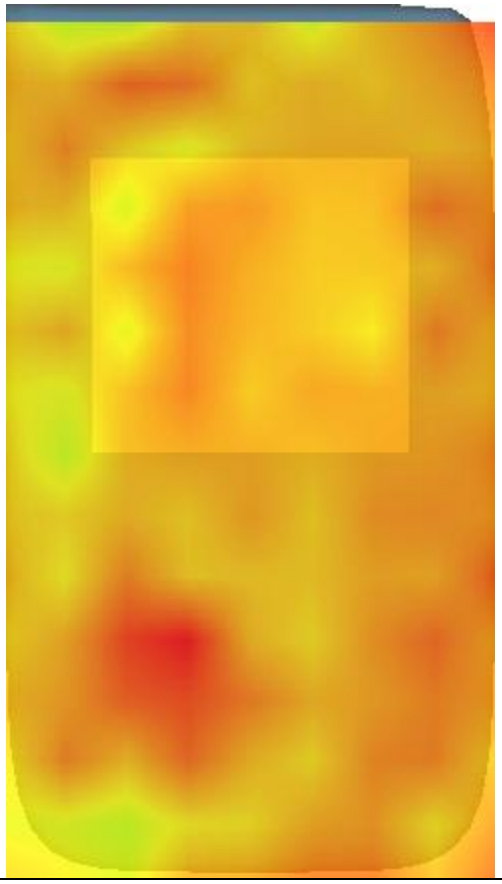
Maximum location: X=-11.00, Y=-33.00

SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.080441
SAR 1g (W/Kg)	0.092010

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.1690	0.1182	0.0681	0.0778	0.0638	0.0675	0.0815	0.0699	0.0601	0.0853	0.0713	0.0694



3D screen shot	Hot spot position
	

MEASUREMENT 14

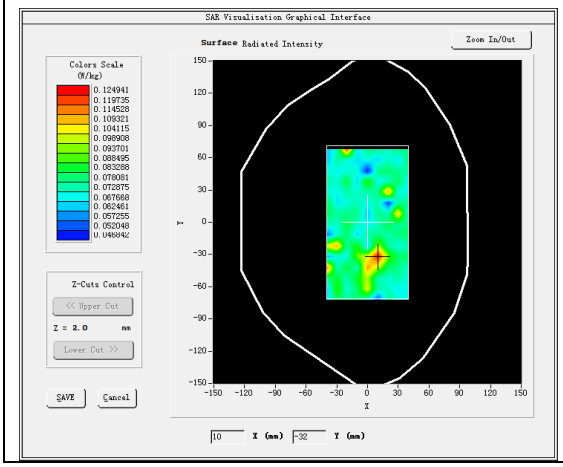
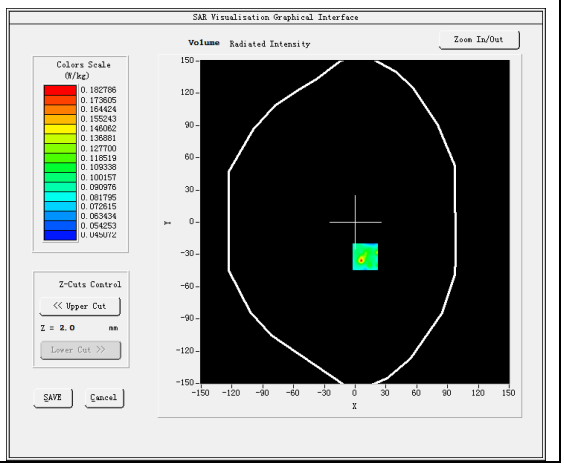
Date of measurement: 21/4/2024

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm, h= 2.00 mm
ZoomScan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11ax U-NII
Channels	Middle
Signal	IEEE802.11ax (Crest factor: 1.0)
ConvF	2.07

B. SAR Measurement Results

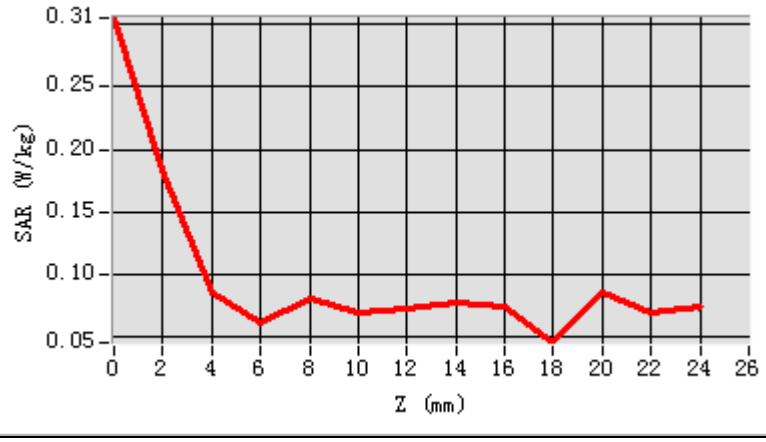
Frequency (MHz)	5250.000000
Relative permittivity (real part)	34.346088
Relative permittivity (imaginary part)	15.734910
Conductivity (S/m)	4.589349
Variation (%)	3.620000

SURFACE SAR	VOLUME SAR
	

Maximum location: X=10.00, Y=-32.00
SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.084132
SAR 1g (W/Kg)	0.104599

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
SAR (W/Kg)	0.3053	0.1828	0.0847	0.0611	0.0802	0.0686	0.0725	0.0768	0.0748	0.0451	0.0848	0.0693



3D screen shot	Hot spot position