# SAR Test Report

Report No.: AGC14075240803FH01

| | | |
|---|---|---|
| **FCC ID** | : | 2AWWH-CINSBBGA |
| **PRODUCT DESIGNATION** | : | Camera |
| **BRAND NAME** | : | Insta360 |
| **MODEL NAME** | : | CINSBBGA,CINSBBGY ( where Y would be any English letters or blank, different packing method, model designations on the marking plate for different commercial purpose) |
| **APPLICANT** | : | Arashi Vision Inc. |
| **DATE OF ISSUE** | : | Aug. 23,2024 |
| **STANDARD(S)** | : | IEEE Std. 1528:2013<br>FCC 47 CFR Part 2§2.1093<br>IEEE Std C95.1 ™-2005 |
| **REPORT VERSION** | : | V1.0 |

Attestation of Global Compliance(Shenzhen) Co., Ltd.

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## Report Revise Record

| Report Version | Revise Time | Issued Date | Valid Version | Notes |
|---|---|---|---|---|
| V1.0 | / | Aug. 23,2024 | Valid | Initial Release |

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# Test Report

| | |
|---|---|
| Applicant Name | Arashi Vision Inc. |
| Applicant Address | 11th Floor, Building 2, Jinlitong Financial Center, Bao'an District, Shenzhen, Guangdong, China |
| Manufacturer Name | Arashi Vision Inc. |
| Manufacturer Address | 11th Floor, Building 2, Jinlitong Financial Center, Bao'an District, Shenzhen, Guangdong, China |
| Factory Name | Arashi Vision Inc. |
| Factory Address | 11th Floor, Building 2, Jinlitong Financial Center, Bao'an District, Shenzhen, Guangdong, China |
| Product Designation | Camera |
| Brand Name | Insta360 |
| Test Model | CINSBBGA |
| Series Models | CINSBBGY (where Y would be any English letters or blank, different packing method, model designations on the marking plate for different commercial purpose) |
| Declaration of Difference | All the same, except for the model name. |
| EUT Voltage | DC 3.89V by battery |
| Applicable Standard | IEEE Std. 1528:2013<br>FCC 47 CFR Part 2§2.1093<br>IEEE Std C95.1 ™-2005 |
| Date of receipt of test item | Aug. 06,2024 |
| Test Date | Aug. 12,2024 to Aug. 16,2024 |
| Report Template | AGCRT-US-4G/SAR (2021-04-20) |

Note: The results of testing in this report apply to the product/system which was tested only.

| | | |
|---|---|---|
| Prepared By | Thea Huang<br>Thea Huang<br>(Project Engineer) | Aug. 23,2024 |
| Reviewed By | Calvin Liu<br>Calvin Liu<br>(Reviewer) | Aug. 23,2024 |
| Approved By | Max Zhang<br>Max Zhang<br>(Authorized Officer) | Aug. 23,2024 |

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# 1. SUMMARY OF MAXIMUM SAR VALUE

**The maximum results of Specific Absorption Rate (SAR) found during testing for EUT are as follows:**

| Frequency Band | Highest Reported 1g-SAR(W/kg) | SAR Test Limit (W/kg) |
|---|---|---|
| | Body-worn(with 5mm separation) | |
| WIFI 2.4G | 0.445 | 1.6 |
| WIFI 5.2G | 0.785 | |
| WIFI 5.8G | 0.789 | |
| BT | 0.185 | |
| SAR Test Result | PASS | |

This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/kg) specified in IEEE Std. 1528:2013; FCC 47CFR § 2.1093; IEEE/ANSI C95.1:2005 and the following specific FCC Test Procedures:

- KDB 447498 D01 General RF Exposure Guidance v06
- KDB 648474 D04 Handset SAR v01r03
- KDB 865664 D01 SAR Measurement 100MHz to 6GHz v01r04
- KDB 248227 D01 802 11 Wi-Fi SAR v02r02

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# 2. GENERAL INFORMATION

## 2.1. EUT Description

| General Information | |
|---|---|
| Product Designation | Camera |
| Test Model | CINSBBGA |
| Sample ID | 240822053 |
| Hardware Version | V07 |
| Software Version | V0.2.3 |
| Device Category | Portable |
| RF Exposure Environment | Uncontrolled Environment General Population |
| Antenna Type | Internal |
| **Bluetooth** | |
| Bluetooth Version | V5.2 |
| Operation Frequency | 2402~2480MHz |
| Type of modulation | ☒ GFSK ☒ π/4-DQPSK ☒ 8-DPSK |
| Max. Average Power | 6.66dBm |
| Antenna gain | 2.2dBi |
| **2.4GHz WIFI** | |
| WIFI Specification | ☒ 802.11b ☒ 802.11g ☒ 802.11n(20) |
| Operation Frequency | 2412~2462MHz |
| Max. Average Power | 13.78dBm |
| Antenna gain | 2.2dBi |
| **5 GHz WIFI** | |
| WIFI Specification | ☒ 802.11a ☒ 802.11n20 ☒ 802.11n40 ☒ 802.11ac20 ☒ 802.11ac40 ☒ 802.11ac80 |
| Operation Frequency | U-NII-1: 5180MHz~5240MHz; U-NII-3: 5745MHz~5825MHz |
| Max. Average Power | U-NII-1: 10.72dBm; U-NII-3: 9.19dBm |
| Antenna gain | U-NII-1: 1.6dBi; U-NII-3: 4.2dBi |
| **Accessories** | |
| Battery | Brand name: N/A<br>Voltage: DC 3.89V;<br>Capacitance: 1800mAh; |

Note:1. The sample used for testing is end product.
2. The test sample has no any deviation to the test method of standard mentioned in page 1.

| Product | Type |
|---|---|
| | ☒ Production unit ☐ Identical Prototype |

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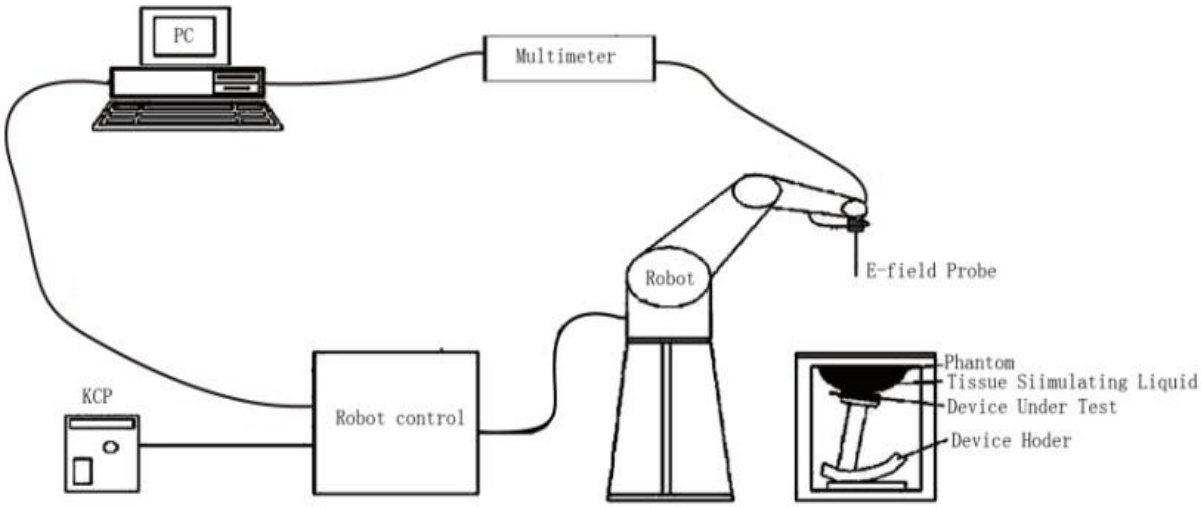
# 3. SAR MEASUREMENT SYSTEM

## 3.1. The SATIMO system used for performing compliance tests consists of following items




The COMOSAR system for performing compliance tests consists of the following items:

· The PC. It controls most of the bench devices and stores measurement data.A computer running WinXP and the Opensar software.

· The E-Field probe. The probe is a 3-axis system made of 3 distinct dipoles. Each dipole returns a voltage in function of the ambient electric field.

· The Keithley multimeter measures each probe dipole voltages.

· The SAM phantom simulates a human head. The measurement of the electric field is made inside the phantom.

· The liquids simulate the dielectric properties of the human head tissues.

· The network emulator controls the mobile phone under test.

· The validation dipoles are used to measure a reference SAR. They are used to periodically check the bench to make sure that there is no drift of the system characteristics over time.

·The phantom, the device holder and other accessories according to the targeted measurement.

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## 3.2. COMOSAR E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SATIMO. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. SATIMO conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528 and relevant KDB files.) The calibration data are in Appendix D.

Isotropic E-Field Probe Specification

| | | |
|---|---|---|
| **Model** | SSE2 | |
| **Manufacture** | MVG | |
| **Identification No.** | 2023-EPGO-414 | |
| **Frequency** | 0.15GHz-7.5GHz<br>Linearity:±0.09dB(0.15GHz-7.5GHz) | |
| **Dynamic Range** | 0.01W/kg-100W/kg<br>Linearity:±0.09dB | |
| **Dimensions** | Overall length:330mm<br>Length of individual dipoles:24.5mm<br>Maximum external diameter:8mm<br>Probe Tip external diameter:2.55mm<br>Distance between dipoles/ probe extremity:12.7mm | |
| **Application** | High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precisin of better 30%. | |

## 3.3. Robot

| | |
|---|---|
| The COMOSAR system uses the KUKA robot from SATIMO SA (France).For the 6-axis controller COMOSAR system, the KUKA robot controller version from SATIMO is used.<br>The XL robot series have many features that are important for our application:<br>High precision (repeatability 0.02 mm)<br>High reliability (industrial design)<br>Jerk-free straight movements<br>Low ELF interference (the closed metallic construction shields against motor control fields)<br>6-axis controller | |

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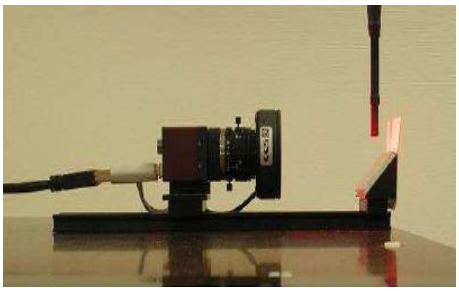
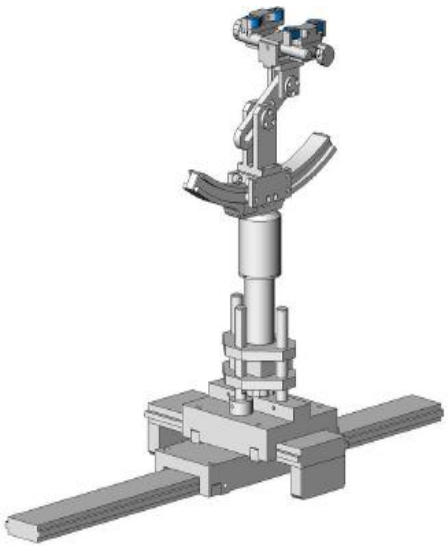
## 3.4. Video Positioning System

| | |
|---|---|
| The video positioning system is used in OpenSAR to check the probe. Which is composed of a camera, LED, mirror and mechanical parts.The camera is piloted by the main computer with firewire link.<br>During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.<br>The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position. |  |

## 3.5. Device Holder

| | |
|---|---|
| The COMOSAR device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).<br>Thus the device needs no repositioning when changing the angles.<br>The COMOSAR device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity<br>$\varepsilon r$ =3 and loss tangent $\delta$ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered. |  |

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### 3.6. SAM Twin Phantom

| | |
|---|---|
| The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:<br>Left head<br>Right head<br>Flat phantom | |

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

ELLI39 Phantom

| | |
|---|---|
| The Flat phantom is a fiberglass shellphantom with 2mm+/- 0.2 mm shell thickness. It has only one measurement area for Flat phantom | |

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# 4. SAR MEASUREMENT PROCEDURE

## 4.1. Specific Absorption Rate (SAR)

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

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

$$\mathrm{SAR} = \frac{\mathrm{d}}{\mathrm{d}t}\left(\frac{\mathrm{d}W}{\mathrm{d}m}\right) = \frac{\mathrm{d}}{\mathrm{d}t}\left(\frac{\mathrm{d}W}{\rho \mathrm{d}V}\right)$$

SAR is expressed in units of Watts per kilogram (W/kg)
SAR can be obtained using either of the following equations:

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

$$\mathrm{SAR} = c_h \left.\frac{\mathrm{d}T}{\mathrm{d}t}\right|_{t=0}$$

Where

| | |
|---|---|
| SAR | is the specific absorption rate in watts per kilogram; |
| E | is the r.m.s. value of the electric field strength in the tissue in volts per meter; |
| σ | is the conductivity of the tissue in siemens per metre; |
| ρ | is the density of the tissue in kilograms per cubic metre; |
| $c_h$ | is the heat capacity of the tissue in joules per kilogram and Kelvin; |
| $\frac{\mathrm{dT}}{\mathrm{dt}} \mid \mathrm{t} = 0$ | is the initial time derivative of temperature in the tissue in kelvins per second |

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## 4.2. SAR Measurement Procedure

Step 1: Power Reference Measurement

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

Step 2: Area Scan

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

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

| | ≤ 3 GHz | > 3 GHz |
|---|---|---|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | 5 ± 1 mm | ½·δ·ln(2) ± 0.5 mm |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location | 30° ± 1° | 20° ± 1° |
| Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$ | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm | 3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm |
| | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device. | |

Step 3: Zoom Scan

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

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

| | | | | |
|---|---|---|---|---|
| Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$ | | | ≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm* | 3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm* |
| Maximum zoom scan spatial resolution, normal to phantom surface | uniform grid: $\Delta z_{Zoom}(n)$ | | ≤ 5 mm | 3 – 4 GHz: ≤ 4 mm<br>4 – 5 GHz: ≤ 3 mm<br>5 – 6 GHz: ≤ 2 mm |
| | graded grid | $\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface | ≤ 4 mm | 3 – 4 GHz: ≤ 3 mm<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm |
| | | $\Delta z_{Zoom}(n>1)$: between subsequent points | $\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ | |
| Minimum zoom scan volume | x, y, z | | ≥ 30 mm | 3 – 4 GHz: ≥ 28 mm<br>4 – 5 GHz: ≥ 25 mm<br>5 – 6 GHz: ≥ 22 mm |

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *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.

Step 4: Power Drift Measurement

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

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## 4.3. RF Exposure Conditions

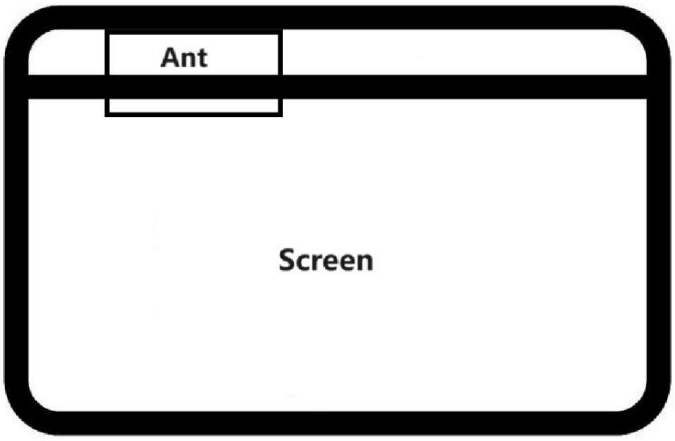
Test Configuration and setting:

The EUT is a model of Portable Mobile Station (MS).

The EUT have only one Antenna and It supports BT and WIFI function.

For WLAN testing, the EUT is configured with the WLAN continuous TX tool through engineering command.

**CINSBBGA Antenna Location: (The Front View)**




As shown above:The EUT antenna is less than 50mm away from each edge.

Therefore the **Body_front & Body_back, and 4 edges** of EUT was tested.

| EUT Sides for SAR Testing | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mode | Exposure Condition | Body_front | Body_back | Left | Right | Top | Bottom |
| BT | Body | Yes | Yes | Yes | Yes | Yes | Yes |
| WIFI 2.4G | Body | Yes | Yes | Yes | Yes | Yes | Yes |
| WIFI 5.2G | Body | Yes | Yes | Yes | Yes | Yes | Yes |
| WIFI 5.8G | Body | Yes | Yes | Yes | Yes | Yes | Yes |

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# 5. TISSUE SIMULATING LIQUID

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 15cm. For head SAR testing the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15cm For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15cm.The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 10% are listed in 6.2

## 5.1. The composition of the tissue simulating liquid

| **Ingredient** (% Weight) / **Frequency** (MHz) | **Water** | **Nacl** | **Polysorbate 20** | **DGBE** | **1,2-Propanediol** | **Triton X-100** | **Diethylen glycol monohex ylether** |
|---|---|---|---|---|---|---|---|
| 2450 Head | 71.88 | 0.16 | 0.0 | 7.99 | 0.0 | 19.97 | 0.0 |
| 5000 Head | 65.52 | 0.0 | 0.0 | 0.0 | 0.0 | 17.24 | 17.24 |

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## 5.2. Tissue Dielectric Parameters for Head and Body Phantoms

The head and body tissue dielectric parameters recommended by the IEEE Std. 1528 have been incorporated in the following table.

| Target Frequency (MHz) | head | | body | |
|---|---|---|---|---|
| | εr | σ (S/m) | εr | σ (S/m) |
| 300 | 45.3 | 0.87 | 45.3 | 0.87 |
| 450 | 43.5 | 0.87 | 43.5 | 0.87 |
| 750 | 41.9 | 0.89 | 41.9 | 0.89 |
| 835 | 41.5 | 0.90 | 41.5 | 0.90 |
| 900 | 41.5 | 0.97 | 41.5 | 0.97 |
| 915 | 41.5 | 1.01 | 41.5 | 1.01 |
| 1450 | 40.5 | 1.20 | 40.5 | 1.20 |
| 1610 | 40.3 | 1.29 | 40.3 | 1.29 |
| 1750 | 40.1 | 1.37 | 40.1 | 1.37 |
| 1800 – 2000 | 40.0 | 1.40 | 40.0 | 1.40 |
| 2300 | 39.5 | 1.67 | 39.5 | 1.67 |
| 2450 | 39.2 | 1.80 | 39.2 | 1.80 |
| 2600 | 39.0 | 1.96 | 39.0 | 1.96 |
| 3000 | 38.5 | 2.40 | 38.5 | 2.40 |
| 5200 | 36.0 | 4.66 | 36.0 | 4.66 |
| 5300 | 35.9 | 4.76 | 35.9 | 4.76 |
| 5600 | 35.5 | 5.07 | 35.5 | 5.07 |
| 5800 | 35.3 | 5.27 | 35.3 | 5.27 |

(εr = relative permittivity, σ = conductivity and ρ = 1000 kg/m3

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## 5.3. Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using SATIMO Dielectric Probe Kit and R&S Network Analyzer ZVL6.

| Tissue Stimulant Measurement for 2450MHz | | | | | |
|---|---|---|---|---|---|
| | Fr. (MHz) | Dielectric Parameters (±10%) | | Tissue Temp [°C] | Test time |
| | | εr39.2(35.28-43.12) | δ[s/m]1.80(1.62-1.98) | | |
| Head | 2402 | 39.56 | 1.80 | 22.6 | Aug. 14, 2024 |
| | 2412 | 39.51 | 1.82 | | |
| | 2437 | 39.45 | 1.84 | | |
| | 2441 | 39.42 | 1.85 | | |
| | 2450 | 39.40 | 1.89 | | |
| | 2462 | 39.34 | 1.90 | | |
| | 2480 | 39.32 | 1.93 | | |

| Tissue Stimulant Measurement for 5200MHz | | | | | |
|---|---|---|---|---|---|
| | Fr. (MHz) | Dielectric Parameters (±10%) | | Tissue Temp [°C] | Test time |
| | | εr 36.0(32.4-39.6) | δ[s/m] 4.66(4.194 -5.126) | | |
| Head | 5180 | 35.68 | 4.56 | 22.3 | Aug. 15, 2024 |
| | 5200 | 35.53 | 4.60 | | |
| | 5240 | 35.46 | 4.69 | | |

| Tissue Stimulant Measurement for 5800MHz | | | | | |
|---|---|---|---|---|---|
| | Fr. (MHz) | Dielectric Parameters (±10%) | | Tissue Temp [°C] | Test time |
| | | εr 35.3 (31.77-38.83) | δ[s/m] 5.27 (4.743-5.797) | | |
| Head | 5745 | 35.05 | 5.13 | 22.3 | Aug. 15, 2024 |
| | 5785 | 34.93 | 5.19 | | |
| | 5800 | 34.85 | 5.20 | | |
| | 5825 | 34.77 | 5.29 | | |

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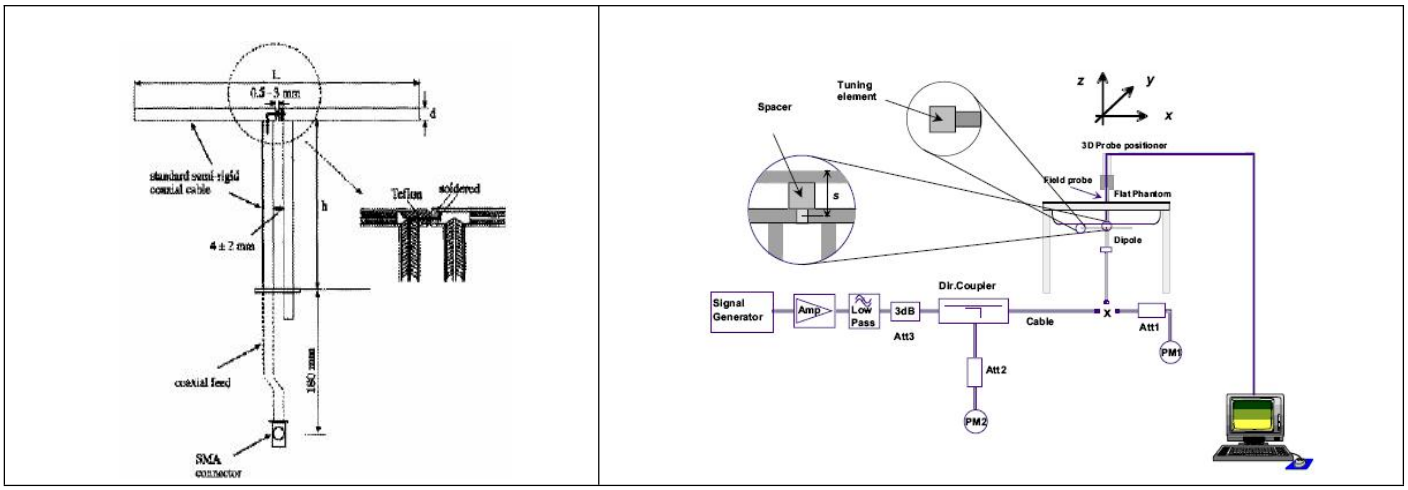
# 6. SAR SYSTEM CHECK PROCEDURE

## 6.1. SAR System Check Procedures

SAR system check is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

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

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

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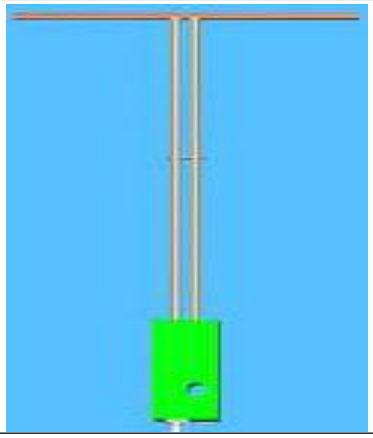
## 6.2. SAR System Check

### 6.2.1. Dipoles

| | |
|---|---|
|  | The dipoles are based on the IEEE-1528 standard, and are complied with mechanical and electrical specifications in line with the requirements of IEEE. the table below provides details for the mechanical and electrical<br>Specifications for the dipoles. |
| | The dipole is based on the IEEE-1528 standard, and is complied with mechanical and electrical specifications in line with the requirements of IEEE. The table below provides details for the mechanical and electrical specifications for the wave guide. |

| Frequency | L (mm) | h (mm) | d (mm) |
|---|---|---|---|
| 2450MHz | 51.5 | 30.4 | 3.6 |
| 5000MHz | 20.6 | 40.3 | 3.6 |

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### 6.2.2. System Check Result

| System Performance Check at 2450MHz & 5200MHz & 5800MHz for Head | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Validation Kit: SN 29/15 DIP 2G450-393 & SN 17/22 DIP 5G000-671 | | | | | | | | |
| Frequency [MHz] | Target Value(W/kg) | | Reference Result (± 10%) | | Tested Value(W/kg) | | Tissue Temp. [°C] | Test time |
| | 1g | 10g | 1g | 10g | 1g | 10g | | |
| 2450 | 54.32 | 24.25 | 48.888-59.752 | 21.825-26.675 | 53.41 | 23.83 | 22.6 | Aug. 14, 2024 |
| 5200 | 73.43 | 21.83 | 66.087-80.773 | 19.647-24.013 | 73.11 | 21.22 | 22.3 | Aug. 15, 2024 |
| 5800 | 75.69 | 22.44 | 68.121-83.259 | 20.196-24.684 | 75.05 | 22.23 | 22.3 | Aug. 15, 2024 |

Note:
(1) We use a CW signal of 18dBm for system check, and then all SAR value are normalized to 1W forward power. The result must be within ±10% of target value.

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# 7. EUT TEST POSITION

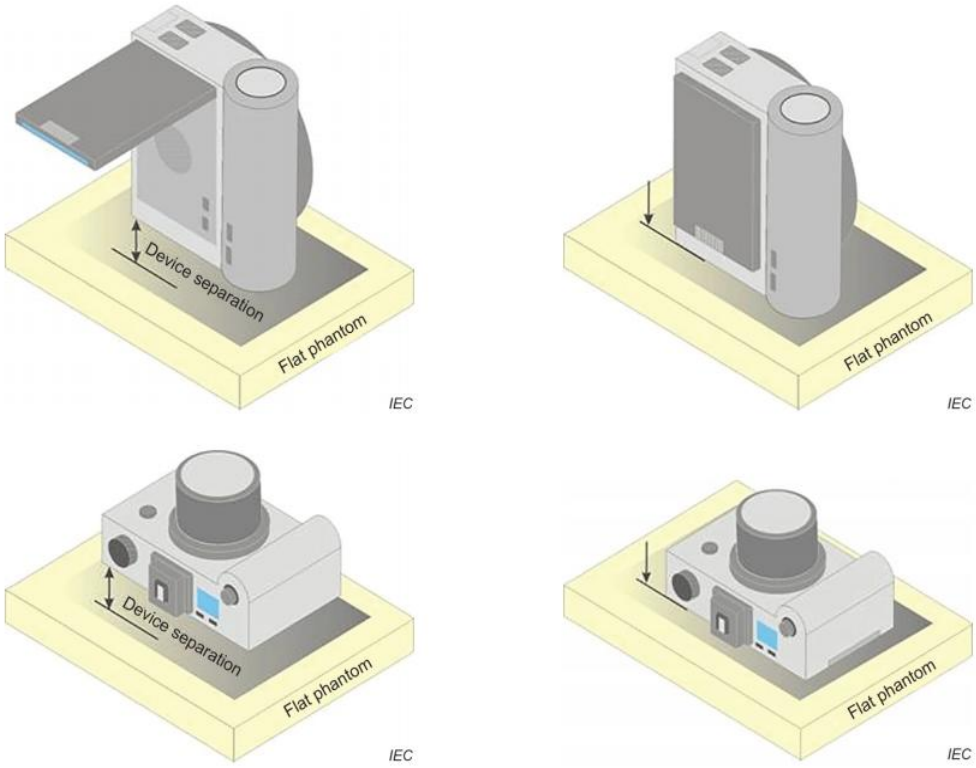
This EUT was tested in **Body front & Body back, and 4 edges.**

## 7.1. Test Position

(1) To position the EUT parallel to the phantom surface.

(2) To adjust the EUT parallel to the flat phantom.

(3) To adjust the distance between the EUT surface and the flat phantom to **5mm.**




**a) Still cameras and video cameras**

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# 8. SAR EXPOSURE LIMITS

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

| Type Exposure | Uncontrolled Environment Limit (W/kg) |
|---|---|
| Spatial Peak SAR (1g cube tissue for brain or body) | 1.60 |
| Spatial Average SAR (Whole body) | 0.08 |
| Spatial Peak SAR (Limbs) | 4.0 |

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# 9. TEST FACILITY

| | |
|---|---|
| **Test Site** | Attestation of Global Compliance (Shenzhen) Co., Ltd |
| **Location** | 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| **Designation Number** | CN1259 |
| **FCC Test Firm Registration Number** | 975832 |
| **A2LA Cert. No.** | 5054.02 |
| **Description** | Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA |

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# 10. TEST EQUIPMENT LIST

| Equipment description | Manufacturer/ Model | Identification No. | Software version | Current calibration date | Next calibration date |
|---|---|---|---|---|---|
| SAR Probe | MVG | 2023-EPGO-414 | N/A | Apr 30, 2024 | Apr 29, 2025 |
| Phantom | SATIMO | SN_4511_SAM90 | N/A | Validated. No cal required. | Validated. No cal required. |
| Liquid | SATIMO | N/A | N/A | Validated. No cal required. | Validated. No cal required. |
| Comm Tester | Agilent-8960 | GB46310822 | A.13.07 | Jun. 03, 2024 | Jun. 02, 2025 |
| Comm Tester | R&S- CMW500 | 121209 | V3.7.40 | Jun. 01, 2024 | May 31, 2025 |
| Multimeter | Keithley 2000 | 4114939 | N/A | Jun. 01, 2024 | May 31, 2025 |
| SAR Software | MVG-OpenSAR | N/A | OpenSAR V4_02_35 | N/A | N/A |
| Dipole | SATIMO SID2450 | SN 29/15 DIP 2G450-393 | N/A | Apr. 28, 2022 | Apr. 27, 2025 |
| Dipole | SID5000 | SN 17/22 DIP 5G000-671 | N/A | Apr. 28, 2022 | Apr. 27, 2025 |
| Signal Generator | Agilent-E4438C | US41461365 | V5.03 | Jun. 01, 2024 | May 31, 2025 |
| Vector Analyzer | Agilent / E4440A | MY44303916 | N/A | Jun. 01, 2024 | May 31, 2025 |
| Network Analyzer | Rhode & Schwarz ZVL6 | SN101443 | 3.2 | Sep. 21, 2023 | Sep. 20, 2024 |
| Amplifier | AS0104-55_55 | 1004793 | N/A | N/A | N/A |
| Directional Couple | Werlatone/ C5571-10 | SN99463 | N/A | Feb. 01, 2024 | Jan. 31, 2025 |
| Directional Couple | Werlatone/ C6026-10 | SN99482 | N/A | Feb. 01, 2024 | Jan. 31, 2025 |
| Power Sensor | NRP-Z21 | 1137.6000.02 | N/A | Sep. 05, 2023 | Sep. 04, 2024 |
| Power Viewer | R&S | V2.3.1.0 | N/A | N/A | N/A |
| Calibration standard parts for network sub - port | R&S/ ZV-Z132 | N/A | V2.3.1.0 | Nov. 11, 2023 | Nov. 10, 2024 |

Note: Per KDB 865664 Dipole SAR Validation, AGC Lab has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:
1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss is within 20% of calibrated measurement;
4. Impedance is within 5Ω of calibrated measurement.

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# 11. MEASUREMENT UNCERTAINTY

| SATIMO Uncertainty- 2023-EPGO-414<br>Measurement uncertainty for DUT averaged over 1 gram / 10 gram. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Uncertainty Component | Sec. | Tol (+- %) | Prob. Dist. | Div. | Ci (1g) | Ci (10g) | 1g Ui (+-%) | 10g Ui (+-%) | vi |
| **Measurement System** | | | | | | | | | |
| Probe calibration | E.2.1 | 7.000 | N | 1 | 1 | 1 | 7.000 | 7.000 | ∞ |
| Axial Isotropy | E.2.2 | 1.695 | R | 1.732 | 0.707 | 0.707 | 0.692 | 0.692 | ∞ |
| Hemispherical Isotropy | E.2.2 | 1.695 | R | 1.732 | 0.707 | 0.707 | 0.692 | 0.692 | ∞ |
| Boundary effect | E.2.3 | 1.000 | R | 1.732 | 1 | 1 | 0.577 | 0.577 | ∞ |
| Linearity | E.2.4 | 2.250 | R | 1.732 | 1 | 1 | 1.299 | 1.299 | ∞ |
| System detection limits | E.2.4 | 1.000 | R | 1.732 | 1 | 1 | 0.577 | 0.577 | ∞ |
| Modulation response | E2.5 | 3.000 | R | 1.732 | 1 | 1 | 1.732 | 1.732 | ∞ |
| Readout Electronics | E.2.6 | 0.021 | N | 1 | 1 | 1 | 0.021 | 0.021 | ∞ |
| Response Time | E.2.7 | 0.000 | R | 1.732 | 1 | 1 | 0.000 | 0.000 | ∞ |
| Integration Time | E.2.8 | 1.400 | R | 1.732 | 1 | 1 | 0.808 | 0.808 | ∞ |
| RF ambient conditions-Noise | E.6.1 | 3.000 | R | 1.732 | 1 | 1 | 1.732 | 1.732 | ∞ |
| RF ambient conditions-reflections | E.6.1 | 3.000 | R | 1.732 | 1 | 1 | 1.732 | 1.732 | ∞ |
| Probe positioner mechanical tolerance | E.6.2 | 1.400 | R | 1.732 | 1 | 1 | 0.808 | 0.808 | ∞ |
| Probe positioning with respect to phantom shell | E.6.3 | 1.400 | R | 1.732 | 1 | 1 | 0.808 | 0.808 | ∞ |
| Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation | E.5 | 2.300 | R | 1.732 | 1 | 1 | 1.328 | 1.328 | ∞ |
| **Test sample Related** | | | | | | | | | |
| Test sample positioning | E.4.2 | 2.6 | N | 1 | 1 | 1 | 2.60 | 2.60 | ∞ |
| Device holder uncertainty | E.4.1 | 3 | N | 1 | 1 | 1 | 3.00 | 3.00 | ∞ |
| Output power variation—SAR drift measurement | E.2.9 | 5 | R | 1.732 | 1 | 1 | 2.89 | 2.89 | ∞ |
| SAR scaling | E.6.5 | 5 | R | 1.732 | 1 | 1 | 2.89 | 2.89 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | | |
| Phantom shell uncertainty—shape, thickness, and permittivity | E.3.1 | 4 | R | 1.732 | 1 | 1 | 2.309 | 2.309 | ∞ |
| Uncertainty in SAR correction for deviations in permittivity and conductivity | E.3.2 | 1.9 | N | 1 | 1 | 0.84 | 1.900 | 1.596 | ∞ |
| Liquid conductivity measurement | E.3.3 | 4 | N | 1 | 0.78 | 0.71 | 3.120 | 2.840 | M |
| Liquid permittivity measurement | E.3.3 | 5 | N | 1 | 0.23 | 0.26 | 1.150 | 1.300 | M |
| Liquid conductivity—temperature uncertainty | E.3.4 | 2.5 | R | 1.732 | 0.78 | 0.71 | 1.126 | 1.025 | ∞ |
| Liquid permittivity—temperature uncertainty | E.3.4 | 2.5 | R | 1.732 | 0.23 | 0.26 | 0.332 | 0.375 | ∞ |
| Combined Standard Uncertainty | | | RSS | | | | 10.616 | 10.432 | |
| Expanded Uncertainty (95% Confidence interval) | | | K=2 | | | | 21.232 | 20.865 | |

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| SATIMO Uncertainty- 2023-EPGO-414<br>System Validation uncertainty for DUT averaged over 1 gram / 10 gram. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Uncertainty Component | Sec. | Tol (+- %) | Prob. Dist. | Div. | Ci (1g) | Ci (10g) | 1g Ui (+-%) | 10g Ui (+-%) | vi |
| **Measurement System** | | | | | | | | | |
| Probe calibration | E.2.1 | 7.000 | N | 1 | 1 | 1 | 7.000 | 7.000 | ∞ |
| Axial Isotropy | E.2.2 | 1.695 | R | 1.732 | 1.000 | 1.000 | 0.979 | 0.979 | ∞ |
| Hemispherical Isotropy | E.2.2 | 1.695 | R | 1.732 | 0.000 | 0.000 | 0.000 | 0.000 | ∞ |
| Boundary effect | E.2.3 | 1.000 | R | 1.732 | 1.000 | 1.000 | 0.577 | 0.577 | ∞ |
| Linearity | E.2.4 | 2.250 | R | 1.732 | 1.000 | 1.000 | 1.299 | 1.299 | ∞ |
| System detection limits | E.2.4 | 1.000 | R | 1.732 | 1.000 | 1.000 | 0.577 | 0.577 | ∞ |
| Modulation response | E2.5 | 3.000 | R | 1.732 | 0.000 | 0.000 | 0.000 | 0.000 | ∞ |
| Readout Electronics | E.2.6 | 0.021 | N | 1.000 | 1.000 | 1.000 | 0.021 | 0.021 | ∞ |
| Response Time | E.2.7 | 0.000 | R | 1.732 | 0.000 | 0.000 | 0.000 | 0.000 | ∞ |
| Integration Time | E.2.8 | 1.400 | R | 1.732 | 0.000 | 0.000 | 0.000 | 0.000 | ∞ |
| RF ambient conditions-Noise | E.6.1 | 3.000 | R | 1.732 | 1.000 | 1.000 | 1.732 | 1.732 | ∞ |
| RF ambient conditions-reflections | E.6.1 | 3.000 | R | 1.732 | 1.000 | 1.000 | 1.732 | 1.732 | ∞ |
| Probe positioner mechanical tolerance | E.6.2 | 1.400 | R | 1.732 | 1.000 | 1.000 | 0.808 | 0.808 | ∞ |
| Probe positioning with respect to phantom shell | E.6.3 | 1.400 | R | 1.732 | 1.000 | 1.000 | 0.808 | 0.808 | ∞ |
| Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation | E.5 | 2.300 | R | 1.732 | 1.000 | 1.000 | 1.328 | 1.328 | ∞ |
| **System validation source** | | | | | | | | | |
| Deviation of experimental dipole from numerical dipole | E.6.4 | 5 | N | 1 | 1 | 1 | 5 | 5 | ∞ |
| Input power and SAR drift measurement | 8,6.6.4 | 5 | R | 1.732 | 1 | 1 | 2.887 | 2.887 | ∞ |
| Dipole axis to liquid distance | 8,E.6.6 | 2 | R | 1.732 | 1 | 1 | 1.155 | 1.155 | ∞ |
| **Phantom and set-up** | | | | | | | | | |
| Phantom shell uncertainty—shape, thickness, and permittivity | E.3.1 | 4 | R | 1.732 | 1 | 1 | 2.309 | 2.309 | ∞ |
| Uncertainty in SAR correction for deviations in permittivity and conductivity | E.3.2 | 1.9 | N | 1 | 1 | 0.84 | 1.9 | 1.596 | ∞ |
| Liquid conductivity（temperature uncertainty） | E.3.3 | 4 | N | 1 | 0.78 | 0.71 | 3.12 | 2.84 | ∞ |
| Liquid conductivity（measured） | E.3.3 | 5 | N | 1 | 0.23 | 0.26 | 1.15 | 1.3 | M |
| Liquid permittivity（temperature uncertainty） | E.3.4 | 2.5 | R | 1.732 | 0.78 | 0.71 | 1.126 | 1.025 | ∞ |
| Liquid permittivity（measured） | E.3.4 | 2.5 | R | 1.732 | 0.23 | 0.26 | 0.332 | 0.375 | M |
| Combined Standard Uncertainty | | | RSS | | | | 10.572 | 10.387 | |
| Expanded Uncertainty (95% Confidence interval) | | | K=2 | | | | 21.143 | 20.775 | |

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| SATIMO Uncertainty- 2023-EPGO-414<br>System Check uncertainty for DUT averaged over 1 gram / 10 gram. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Uncertainty Component | Sec. | Tol (+- %) | Prob. Dist. | Div. | Ci (1g) | Ci (10g) | 1g Ui (+-%) | 10g Ui (+-%) | vi |
| **Measurement System** | | | | | | | | | |
| Probe calibration drift | E.2.1.3 | 0.5 | N | 1 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Axial Isotropy | E.2.2 | 1.695 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Hemispherical Isotropy | E.2.2 | 1.695 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Boundary effect | E.2.3 | 1.000 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Linearity | E.2.4 | 2.250 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| System detection limits | E.2.4 | 1 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Modulation response | E2.5 | 3 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Readout Electronics | E.2.6 | 0.021 | N | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Response Time | E.2.7 | 0 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Integration Time | E.2.8 | 1.4 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| RF ambient conditions-Noise | E.6.1 | 3 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| RF ambient conditions-reflections | E.6.1 | 3 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0 | ∞ |
| Probe positioner mechanical tolerance | E.6.2 | 1.4 | R | $\sqrt{3}$ | 1 | 1 | 0.81 | 0.81 | ∞ |
| Probe positioning with respect to phantom shell | E.6.3 | 1.4 | R | $\sqrt{3}$ | 1 | 1 | 0.81 | 0.81 | ∞ |
| Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation | E.5 | 2.3 | R | $\sqrt{3}$ | 0 | 0 | 0 | 0.00 | ∞ |
| **System check source (dipole)** | | | | | | | | | |
| Deviation of experimental dipoles | E.6.4 | 2 | N | 1 | 1 | 1 | 2 | 2 | ∞ |
| Input power and SAR drift measurement | 8,6.6.4 | 5 | R | $\sqrt{3}$ | 1 | 1 | 2.89 | 2.89 | ∞ |
| Dipole axis to liquid distance | 8,E.6.6 | 2 | R | $\sqrt{3}$ | 1 | 1 | 1.15 | 1.15 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | | |
| Phantom shell uncertainty—shape, thickness, and permittivity | E.3.1 | 4 | R | $\sqrt{3}$ | 1 | 1 | 2.31 | 2.31 | ∞ |
| Uncertainty in SAR correction for deviations in permittivity and conductivity | E.3.2 | 1.9 | N | 1.000 | 1 | 0.84 | 1.90 | 1.60 | ∞ |
| Liquid conductivity measurement | E.3.3 | 4 | N | 1.000 | 0.78 | 0.71 | 3.12 | 2.84 | ∞ |
| Liquid permittivity measurement | E.3.3 | 5 | N | 1.000 | 0.23 | 0.26 | 1.15 | 1.30 | M |
| Liquid conductivity—temperature uncertainty | E.3.4 | 2.5 | R | $\sqrt{3}$ | 0.78 | 0.71 | 1.13 | 1.02 | ∞ |
| Liquid permittivity—temperature uncertainty | E.3.4 | 2.5 | R | $\sqrt{3}$ | 0.23 | 0.26 | 0.33 | 0.38 | M |
| Combined Standard Uncertainty | | | RSS | | | | 5.562 | 5.203 | |
| Expanded Uncertainty (95% Confidence interval) | | | K=2 | | | | 11.124 | 10.406 | |

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# 12. CONDUCTED POWER MEASUREMENT

**Bluetooth_BT**

| BT | Average Power(dBm) | | | |
|---|---|---|---|---|
| | Max. Tune up | CH0 | CH39 | CH78 |
| | | 2402MHz | 2441MHz | 2480MHz |
| DH5 | 7.00 | 5.39 | 6.22 | 5.83 |
| 2DH5 | 7.00 | 6.14 | 6.56 | 6.25 |
| 3DH5 | 7.00 | **6.32** | **6.66** | **6.46** |

| BT | Average Power(dBm) | | | |
|---|---|---|---|---|
| | Max. Tune up | CH0 | CH19 | CH39 |
| | | 2402MHz | 2440MHz | 2480MHz |
| BLE(1M) | 5.50 | 4.84 | 5.34 | 4.99 |
| BLE(2M) | 3.00 | 2.15 | 2.58 | 2.26 |

Note:
1) The tested channel results are marks in bold.

**WIFI_WIFI2.4G**

| Band | Mode | Channel | Frequency (MHz) | Data Rate (Mbps) | Max. Tune up | Average Power(dBm) |
|---|---|---|---|---|---|---|
| 2.4G WIFI | 802.11b | 1 | 2412 | 1 | 14.00 | 13.44 |
| | | 6 | 2437 | | 14.00 | 13.02 |
| | | 11 | 2462 | | 14.00 | 13.38 |
| | 802.11g | 1 | 2412 | 6 | 14.00 | 13.61 |
| | | 6 | 2437 | | 14.00 | 13.31 |
| | | 11 | 2462 | | 14.00 | 13.15 |
| | 802.11n HT20 | 1 | 2412 | HT0 | 14.00 | **13.78** |
| | | 6 | 2437 | | 14.00 | **13.75** |
| | | 11 | 2462 | | 14.00 | **13.46** |

Note:
1) The tested channel results are marks in bold.

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**WIFI_WIFI5G**

| Band | Mode | Channel | Frequency (MHz) | Data Rate (Mbps) | Max. Tune-up | Average Power(dBm) |
|---|---|---|---|---|---|---|
| 5.2G | 802.11a | 36 | 5180 | 6 | 11.00 | **10.31** |
| | | 40 | 5200 | | 11.00 | **10.63** |
| | | 48 | 5240 | | 11.00 | **10.72** |
| | 802.11n HT20 | 36 | 5180 | HT0 | 11.00 | 9.94 |
| | | 40 | 5200 | | 11.00 | 10.25 |
| | | 48 | 5240 | | 11.00 | 10.41 |
| | 802.11n HT40 | 38 | 5190 | HT0 | 11.00 | 10.70 |
| | | 46 | 5230 | | 11.00 | 10.62 |
| | 802.11ac VHT20 | 36 | 5180 | VHT0 | 11.00 | 10.00 |
| | | 40 | 5200 | | 11.00 | 10.07 |
| | | 48 | 5240 | | 11.00 | 10.40 |
| | 802.11ac VHT40 | 38 | 5190 | VHT0 | 11.00 | 10.68 |
| | | 46 | 5230 | | 11.00 | 10.62 |
| | 802.11ac VHT80 | 42 | 5210 | VHT0 | 11.00 | 10.70 |
| 5.8G | 802.11a | 149 | 5745 | 6 | 10.00 | **8.78** |
| | | 157 | 5785 | | 10.00 | **9.01** |
| | | 165 | 5825 | | 10.00 | **9.19** |
| | 802.11n HT20 | 149 | 5745 | HT0 | 10.00 | 8.22 |
| | | 157 | 5785 | | 10.00 | 8.59 |
| | | 165 | 5825 | | 10.00 | 8.85 |
| | 802.11n HT40 | 151 | 5755 | HT0 | 10.00 | 8.74 |
| | | 159 | 5795 | | 10.00 | 9.05 |
| | 802.11ac VHT20 | 149 | 5745 | VHT0 | 10.00 | 8.22 |
| | | 157 | 5785 | | 10.00 | 8.55 |
| | | 165 | 5825 | | 10.00 | 8.87 |
| | 802.11ac VHT40 | 151 | 5755 | VHT0 | 10.00 | 8.73 |
| | | 159 | 5795 | | 10.00 | 9.08 |
| | 802.11ac VHT80 | 155 | 5775 | VHT0 | 10.00 | 8.92 |

Note:
1) The tested channel results are marks in bold.

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# 13. TEST RESULTS

## 13.1. SAR Test Results Summary

### 13.1.1. Test position and configuration

**Body_front&Body_back and 4 Edges SAR was performed with the device 5mm from the phantom.**

### 13.1.2. Operation Mode

1. Per KDB 447498 D01 v06 ,for each exposure position, if the highest 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional.
2. Per KDB 865664 D01 v01r04,for each frequency band, if the measured SAR is ≥0.8W/kg, testing for repeated SAR measurement is required , that the highest measured SAR is only to be tested. When the SAR results are near the limit, the following procedures are required for each device to verify these types of SAR measurement related variation concerns by repeating the highest measured SAR configuration in each frequency band.
   (1) When the original highest measured SAR is ≥0.8W/kg, repeat that measurement once.
   (2) 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.
   (3) Perform a third repeated measurement only if the original, first and second repeated measurement is ≥1.5 W/kg and ratio of largest to smallest SAR for the original, first and second measurement is ≥ 1.20.
3. Per KDB 248227 D01v02r02,for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤1.2W/kg.
4. Per KDB 248227 D01 v02r02 Chapter 5.3.4, SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. The initial test position procedure is applied to next to the ear, UMPC mini-tablet and hotspot mode configurations. When the same maximum output power is specified for multiple transmission modes, the procedures in 5.3.2 are applied to determine the test configuration. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. The subsequent test configuration and SAR measurement procedures are described in the following.
   (1) When SAR test exclusion provisions of KDB Publication 447498 D01 are applicable and SAR measurement is not required for the initial test configuration, SAR is also not required for the next highest maximum output power transmission mode subsequent test configuration(s) in that frequency band or aggregated band and exposure configuration.
   (2) When the highest reported SAR for the initial test configuration (when applicable, include subsequent highest output channels), according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.
5. Maximum Scaling SAR in order to calculate the Maximum SAR values to test under the standard Peak Power, Calculation method is as follows:
   Maximum Scaling SAR =tested SAR (Max.) ×[maximum turn-up power (mw)/ maximum measurement output power(mw) ]

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### 13.1.3. Test Result

| SAR MEASUREMENT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Depth of Liquid (cm):>15 | | | | Relative Humidity (%): 53.2 | | | | | |
| Product:Camera | | | | | | | | | |
| Test Mode:802.11n20 | | | | | | | | | |
| **Position** | **Mode** | **Ch.** | **Fr. (MHz)** | **Power Drift (<±5%)** | **SAR (1g) (W/kg)** | **Max. Tune-up Power(dBm)** | **Meas. output Power (dBm)** | **Scaled SAR (W/kg)** | **Limit (W/kg)** |
| Body front | 802.11n20 | 1 | 2412 | 0 | <0.01 | 14 | 13.78 | <0.01 | 1.6 |
| Body back | 802.11n20 | 1 | 2412 | 0 | <0.01 | 14 | 13.78 | <0.01 | 1.6 |
| Edge (Left) | 802.11n20 | 1 | 2412 | 0.03 | 0.069 | 14 | 13.78 | 0.073 | 1.6 |
| Edge (Right) | 802.11n20 | 1 | 2412 | 0 | <0.01 | 14 | 13.78 | <0.01 | 1.6 |
| Edge (Top) | 802.11n20 | 1 | 2412 | 0.16 | 0.335 | 14 | 13.78 | 0.352 | 1.6 |
| Edge (Bottom) | 802.11n20 | 1 | 2412 | 0 | <0.01 | 14 | 13.78 | <0.01 | 1.6 |
| Edge (Top) | 802.11n20 | 6 | 2437 | 0.13 | 0.348 | 14 | 13.75 | 0.369 | 1.6 |
| Edge (Top) | 802.11n20 | 11 | 2462 | -0.01 | 0.393 | 14 | 13.46 | **0.445** | 1.6 |

| SAR MEASUREMENT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Depth of Liquid (cm):>15 | | | | Relative Humidity (%): 53.2 | | | | | |
| Product:Camera | | | | | | | | | |
| Test Mode:BT | | | | | | | | | |
| **Position** | **Mode** | **Ch.** | **Fr. (MHz)** | **Power Drift (<±5%)** | **SAR (1g) (W/kg)** | **Max. Tune-up Power(dBm)** | **Meas. output Power (dBm)** | **Scaled SAR (W/kg)** | **Limit (W/kg)** |
| Body front | 3DH5 | 39 | 2441 | 0 | <0.01 | 7 | 6.66 | <0.01 | 1.6 |
| Body back | 3DH5 | 39 | 2441 | 0 | <0.01 | 7 | 6.66 | <0.01 | 1.6 |
| Edge (Left) | 3DH5 | 39 | 2441 | 0.07 | 0.033 | 7 | 6.66 | 0.036 | 1.6 |
| Edge (Right) | 3DH5 | 39 | 2441 | 0 | <0.01 | 7 | 6.66 | <0.01 | 1.6 |
| Edge (Top) | 3DH5 | 39 | 2441 | 0.11 | 0.171 | 7 | 6.66 | **0.185** | 1.6 |
| Edge (Bottom) | 3DH5 | 39 | 2441 | 0 | <0.01 | 7 | 6.66 | <0.01 | 1.6 |
| Edge (Top) | 3DH5 | 0 | 2402 | 0.02 | 0.126 | 7 | 6.32 | 0.147 | 1.6 |
| Edge (Top) | 3DH5 | 78 | 2480 | -0.06 | 0.133 | 7 | 6.46 | 0.151 | 1.6 |

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| SAR MEASUREMENT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Depth of Liquid (cm):>15 | | | | Relative Humidity (%): 52.6 | | | | | |
| Product:Camera | | | | | | | | | |
| Test Mode:802.11a | | | | | | | | | |
| **Position** | **Mode** | **Ch.** | **Fr. (MHz)** | **Power Drift (<±5%)** | **SAR (1g) (W/kg)** | **Max. Tune-up Power(dBm)** | **Meas. output Power (dBm)** | **Scaled SAR (W/kg)** | **Limit (W/kg)** |
| Body front | 802.11a | 48 | 5240 | 0 | <0.01 | 11 | 10.72 | <0.01 | 1.6 |
| Body back | 802.11a | 48 | 5240 | 0 | <0.01 | 11 | 10.72 | <0.01 | 1.6 |
| Edge (Left) | 802.11a | 48 | 5240 | -0.12 | 0.225 | 11 | 10.72 | 0.240 | 1.6 |
| Edge (Right) | 802.11a | 48 | 5240 | 0 | <0.01 | 11 | 10.72 | <0.01 | 1.6 |
| Edge (Top) | 802.11a | 48 | 5240 | 0.07 | 0.736 | 11 | 10.72 | **0.785** | 1.6 |
| Edge (Bottom) | 802.11a | 48 | 5240 | 0 | <0.01 | 11 | 10.72 | <0.01 | 1.6 |
| Edge (Top) | 802.11a | 40 | 5200 | 0.15 | 0.711 | 11 | 10.63 | 0.774 | 1.6 |
| Edge (Top) | 802.11a | 36 | 5180 | -0.03 | 0.663 | 11 | 10.31 | 0.777 | 1.6 |

| SAR MEASUREMENT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Depth of Liquid (cm):>15 | | | | Relative Humidity (%): 53.0 | | | | | |
| Product:Camera | | | | | | | | | |
| Test Mode:802.11a | | | | | | | | | |
| **Position** | **Mode** | **Ch.** | **Fr. (MHz)** | **Power Drift (<±5%)** | **SAR (1g) (W/kg)** | **Max. Tune-up Power(dBm)** | **Meas. output Power (dBm)** | **Scaled SAR (W/kg)** | **Limit (W/kg)** |
| Body front | 802.11a | 165 | 5825 | 0 | <0.01 | 10 | 9.19 | <0.01 | 1.6 |
| Body back | 802.11a | 165 | 5825 | 0 | <0.01 | 10 | 9.19 | <0.01 | 1.6 |
| Edge (Left) | 802.11a | 165 | 5825 | 0.07 | 0.203 | 10 | 9.19 | 0.245 | 1.6 |
| Edge (Right) | 802.11a | 165 | 5825 | 0 | <0.01 | 10 | 9.19 | <0.01 | 1.6 |
| Edge (Top) | 802.11a | 165 | 5825 | -0.19 | 0.531 | 10 | 9.19 | 0.640 | 1.6 |
| Edge (Bottom) | 802.11a | 165 | 5825 | 0 | <0.01 | 10 | 9.19 | <0.01 | 1.6 |
| Edge (Top) | 802.11a | 157 | 5785 | 0.02 | 0.560 | 10 | 9.01 | 0.703 | 1.6 |
| Edge (Top) | 802.11a | 149 | 5745 | -0.14 | 0.596 | 10 | 8.78 | **0.789** | 1.6 |

Note:
· When the 1-g Reported SAR is ≤ 0.8 W/kg, testing for low and high channel is optional. Refer to KDB 447498.
·The test separation for body_front and body_back, and 4 Edges is 5mm of all above table
·Plots are only shown for the bold markered worst case SAR results.

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## Simultaneous Multi-band Transmission Evaluation:

This device have only one antenna,don't contain multiple transmitters that operate simultaneously, and therefore simultaneous transmission analysis are not requires.

**Value of the SAR for WIFI & BT:**

| Test position | | Max 1g-SAR (W/kg) | | | |
|---|---|---|---|---|---|
| | | BT | WLAN 2.4G | WLAN 5.2G | WLAN 5.8G |
| Body | Body_Front | <0.01 | <0.01 | <0.01 | <0.01 |
| | Body_Back | <0.01 | <0.01 | <0.01 | <0.01 |
| | Edge Left | 0.036 | 0.073 | 0.240 | 0.245 |
| | Edge Right | <0.01 | <0.01 | <0.01 | <0.01 |
| | Edge Top | 0.185 | 0.445 | 0.785 | **0.789** |
| | Edge Bottom | <0.01 | <0.01 | <0.01 | <0.01 |
| **Limit** | | **1.6 W/kg** | | | |

NOTE:
1. WIFI and BT share the same antenna, and cannot transmit simultaneously.

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# APPENDIX A. SAR SYSTEM CHECK DATA

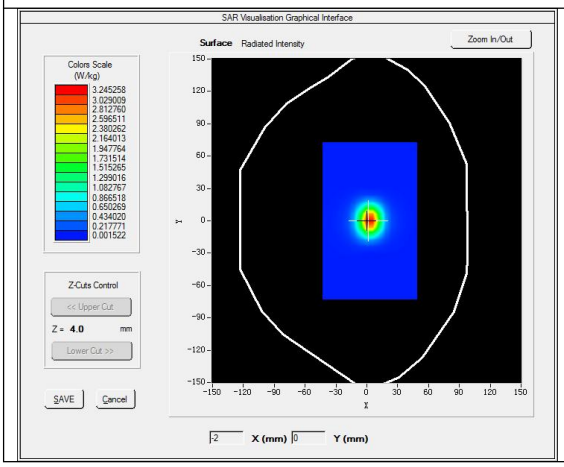
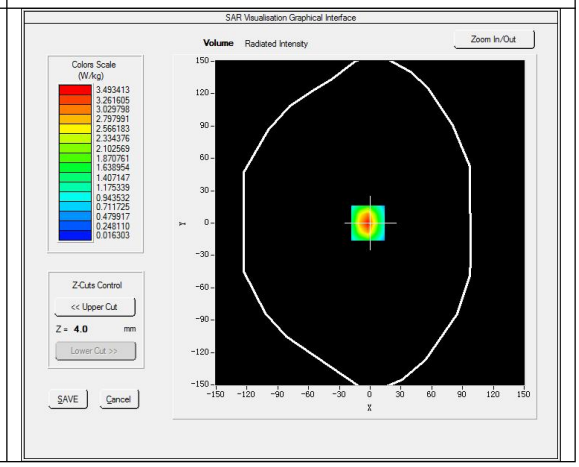
**Test Laboratory: AGC Lab** **Date: Aug. 14, 2024**
**System Check Head 2450 MHz**
**DUT: Dipole 2450 MHz Type: SID 2450**
Communication System CW; Communication System Band: D2450 (2450.0 MHz); Duty Cycle: 1:1; Conv.F=2.16
Frequency: 2450 MHz; Medium parameters used: f = 2450 MHz; σ=1.89 mho/m; εr =39.40; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃):22.9, Liquid temperature (℃): 22.6

SATIMO Configuration

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/System Check 2450MHz Head/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/System Check 2450MHz Head/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x7,dx=5mm dy=5mm dz=5mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Flat |
| **Band** | CW 2450 |
| **Channels** | Middle |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=1.00, Y=0.00**
**SAR Peak: 6.01 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 1.503381 |
| **SAR 1g (W/Kg)** | 3.370214 |

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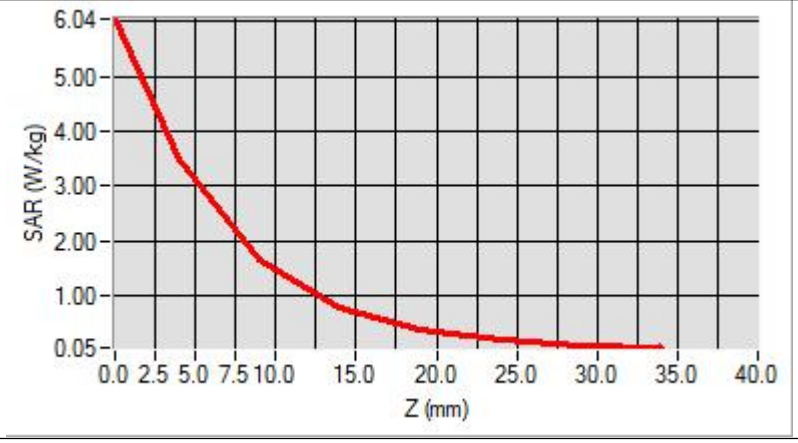
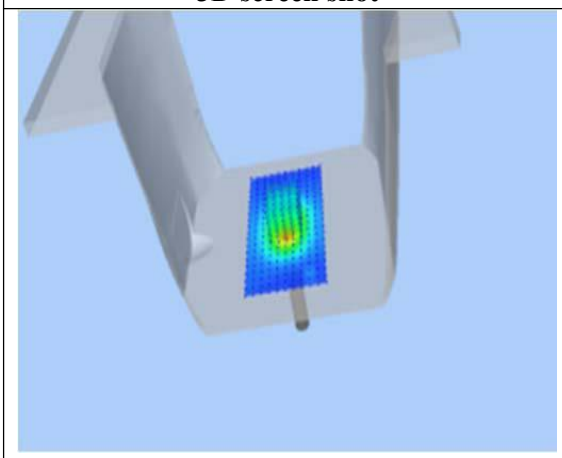
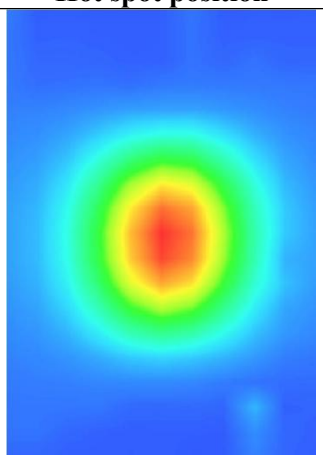
| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 6.0437 | 3.4947 | 1.6474 | 0.7958 | 0.3861 | 0.1984 | 0.0969 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

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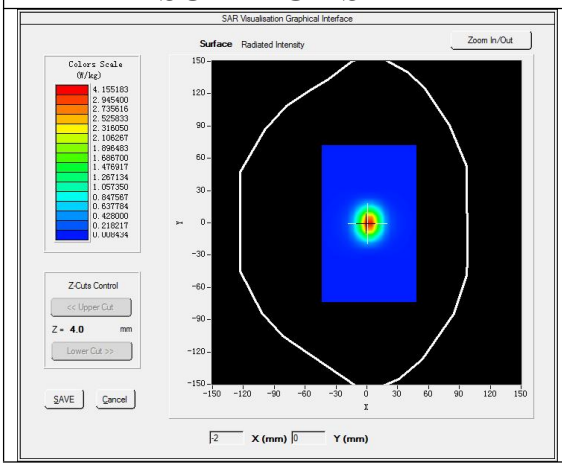
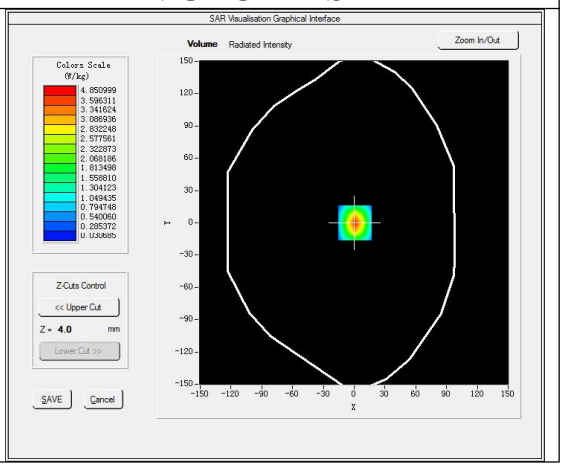
**Test Laboratory: AGC Lab** **Date: Aug. 15, 2024**
**System Check 5200 MHz**
**DUT: Dipole 5000MHz Type: SID5000**
Communication System: CW; Communication System Band: D5000 (5000.0 MHz); Duty Cycle: 1:1; Conv.F=1.53
Frequency: 5200 MHz; Medium parameters used: f = 5200 MHz; σ =4.60 mho/m; εr =35.53; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃): 22.8, Liquid temperature (℃): 22.3

SATIMO Configuration:
- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/System Check 5200 MHz Body/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/System Check 5200 MHz Body/Zoom Scan:** Measurement grid: dx=4mm,dy=4mm, dz=2mm

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x12,dx=4mm dy=4mm dz=2mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Flat |
| **Band** | CW 5200 |
| **Channels** | Middle |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=1.00, Y=0.00**
**SAR Peak: 6.86 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 1.339091 |
| **SAR 1g (W/Kg)** | 4.613129 |

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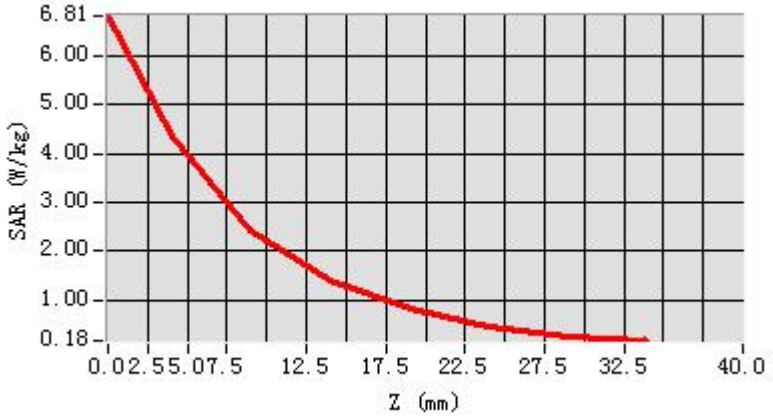
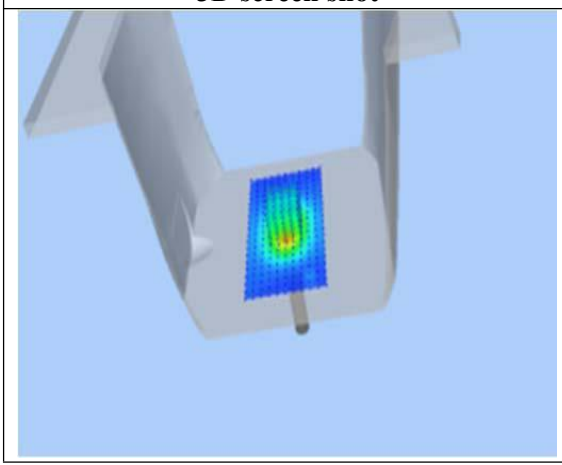
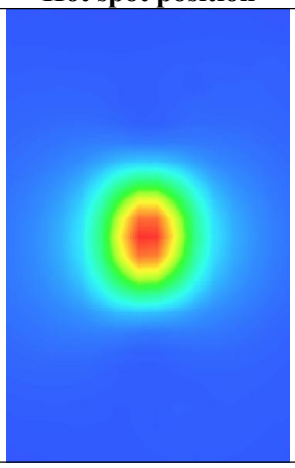
| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 6.8626 | 4.3117 | 2.4266 | 1.3735 | 0.8066 | 0.4539 | 0.2338 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

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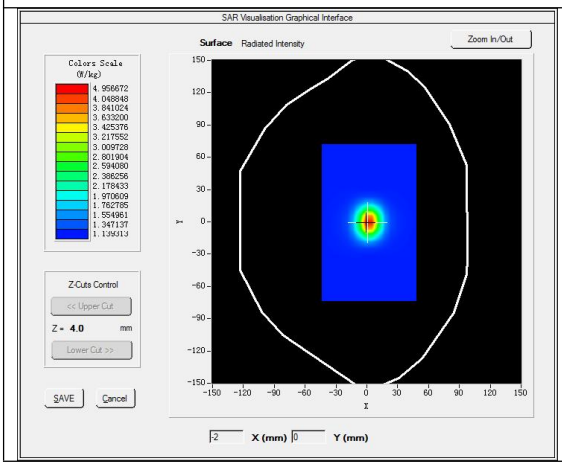
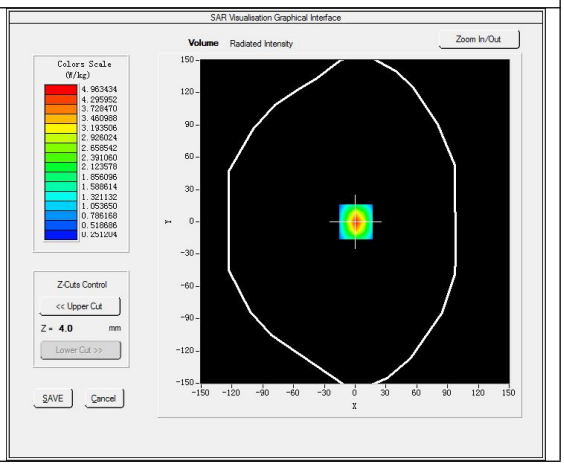
**Test Laboratory: AGC Lab** **Date: Aug. 15, 2024**
**System Check Head 5800 MHz**
**DUT: Dipole 5000MHz Type: SID5000**
Communication System: CW; Communication System Band: D5000 (5000.0 MHz); Duty Cycle: 1:1; Conv.F=1.37
Frequency: 5800 MHz; Medium parameters used: f = 5800 MHz; σ =5.20 mho/m; εr =34.85; ρ= 1000 kg/m³ ;
Phantom section: Flat Section; Input Power=18dBm
Ambient temperature (℃): 22.8, Liquid temperature (℃): 22.3

SATIMO Configuration:

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/System Check 5800 MHz Head/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/System Check 5800 MHz Head/Zoom Scan:** Measurement grid: dx=4mm,dy=4mm, dz=2mm

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x12,dx=4mm dy=4mm dz=2mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Flat |
| **Band** | CW 5800 |
| **Channels** | Middle |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



**Maximum location: X=1.00, Y=0.00**
**SAR Peak: 6.93 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 1.402733 |
| **SAR 1g (W/Kg)** | 4.735211 |

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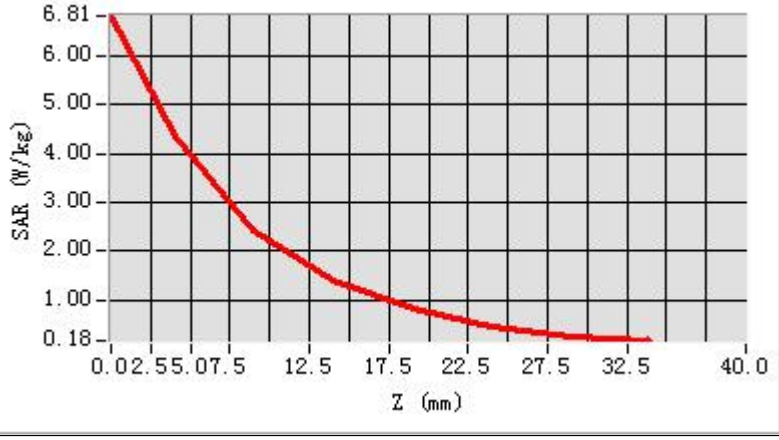
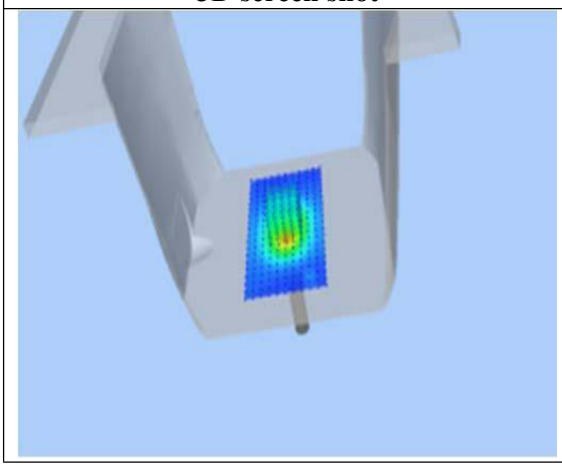
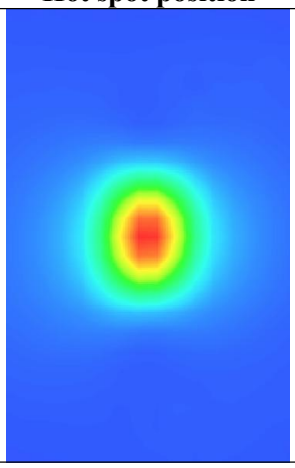
| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 6.8101 | 4.3428 | 2.4339 | 1.4046 | 0.8278 | 0.4784 | 0.2765 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

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# APPENDIX B. SAR MEASUREMENT DATA

**Test Laboratory: AGC Lab** **Date: Aug. 14, 2024**
**802.11n20 High- Edge- Top**
**DUT: Camera ; Type: CINSBBGA**

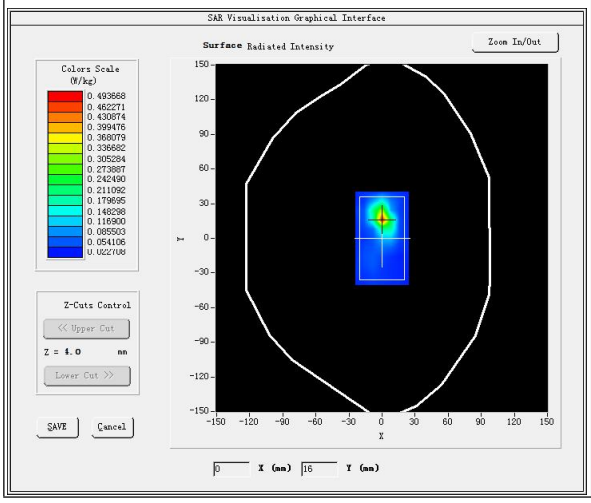
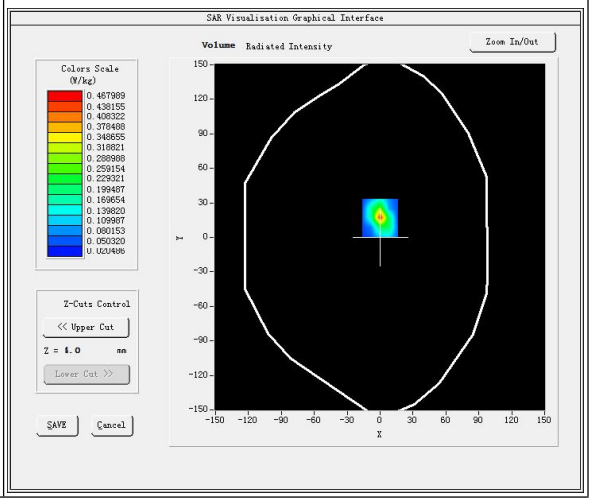
Communication System: Wi-Fi; Communication System Band: 802.11n20; Duty Cycle: 1:1; Conv.F=2.16;
Frequency: 2462 MHz; Medium parameters used: f = 2450 MHz; σ =1.90 mho/m; εr =39.34; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃):22.9, Liquid temperature (℃): 22.6

SATIMO Configuration:

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/802.11n20 High- Edge- Top /Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/802.11n20 High- Edge- Top /Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x7,dx=5mm dy=5mm dz=5mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Edge- Top |
| **Band** | 2450MHz |
| **Channels** | High |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=0.00, Y=16.00**
**SAR Peak: 0.863 W/kg**

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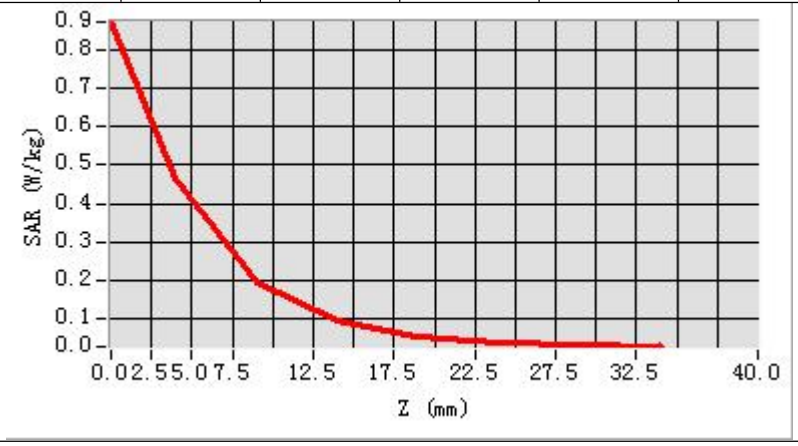
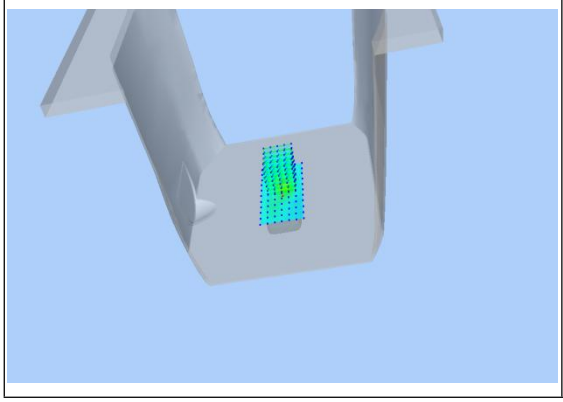
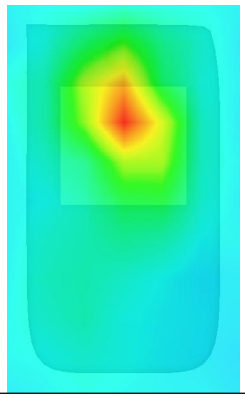
| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.140125 |
| **SAR 1g (W/Kg)** | 0.392604 |

| **Z (mm)** | **0.00** | **4.00** | **9.00** | **14.00** | **19.00** | **24.00** | **29.00** |
|---|---|---|---|---|---|---|---|
| **SAR (W/Kg)** | **0.8713** | **0.4679** | **0.1959** | **0.0991** | **0.0549** | **0.0393** | **0.0329** |




| **3D screen shot** | **Hot spot position** |
|---|---|
|  |  |

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**Test Laboratory: AGC Lab** **Date: Aug. 14, 2024**
**BT Mid- Edge- Top**
**DUT: Camera ; Type: CINSBBGA**

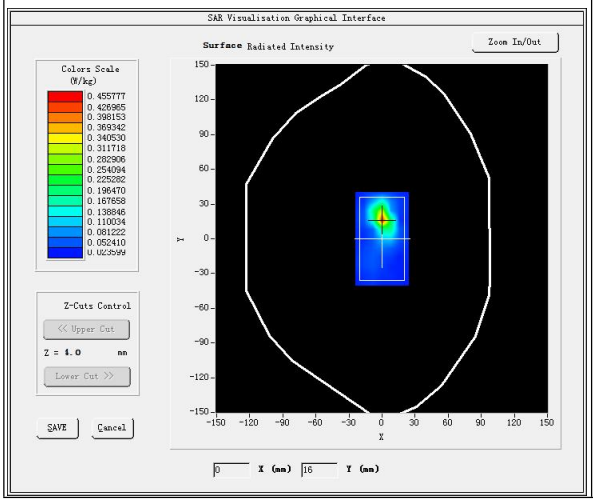
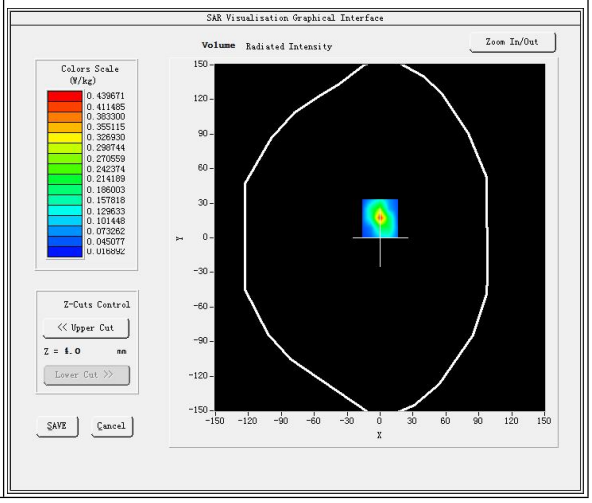
Communication System: BT; Communication System Band: 3DH5; Duty Cycle: 1:1; Conv.F=2.16;
Frequency: 2441 MHz; Medium parameters used: f = 2450 MHz; σ =1.85 mho/m; εr =39.42; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃):22.9, Liquid temperature (℃): 22.6

SATIMO Configuration:

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/BT Mid- Edge- Top/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/BT Mid- Edge- Top/Zoom Scan:** Measurement grid: dx=5mm,dy=5mm, dz=5mm;

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x7,dx=5mm dy=5mm dz=5mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Edge- Top |
| **Band** | 2450MHz |
| **Channels** | Middle |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=0.00, Y=16.00**
**SAR Peak: 0.818 W/kg**

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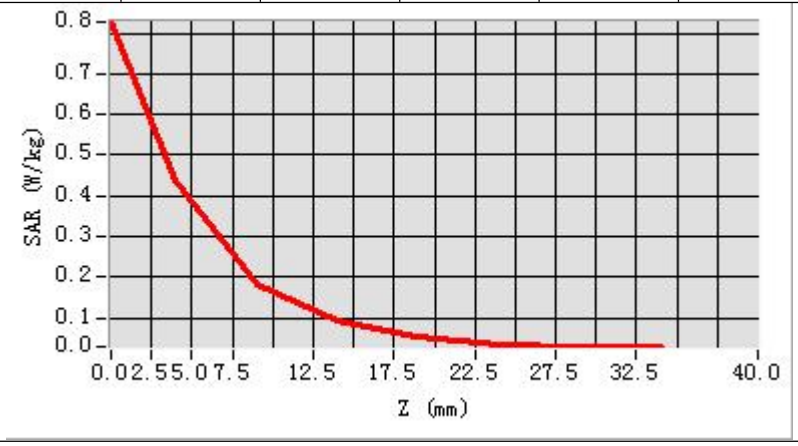
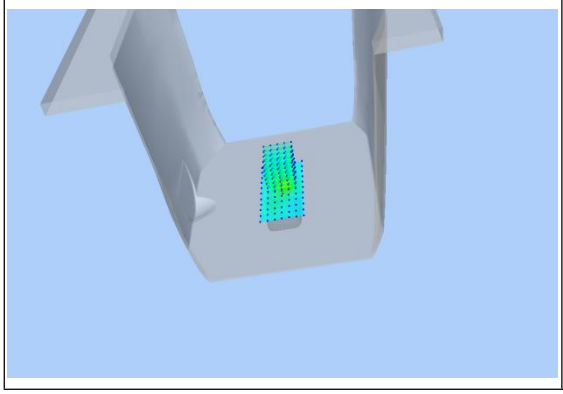
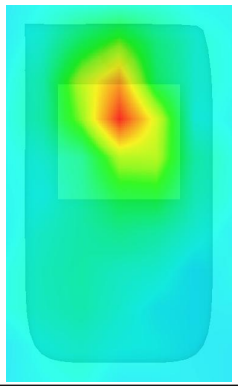
| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.092075 |
| **SAR 1g (W/Kg)** | 0.170589 |

| **Z (mm)** | **0.00** | **4.00** | **9.00** | **14.00** | **19.00** | **24.00** | **29.00** |
|---|---|---|---|---|---|---|---|
| **SAR (W/Kg)** | **0.8279** | **0.4396** | **0.1811** | **0.0950** | **0.0529** | **0.0351** | **0.0297** |




| **3D screen shot** | **Hot spot position** |
|---|---|
|  |  |

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**Test Laboratory: AGC Lab** **Date: Aug. 15, 2024**
**802.11a High- Edge- Top**
**DUT: Camera ; Type: CINSBBGA**

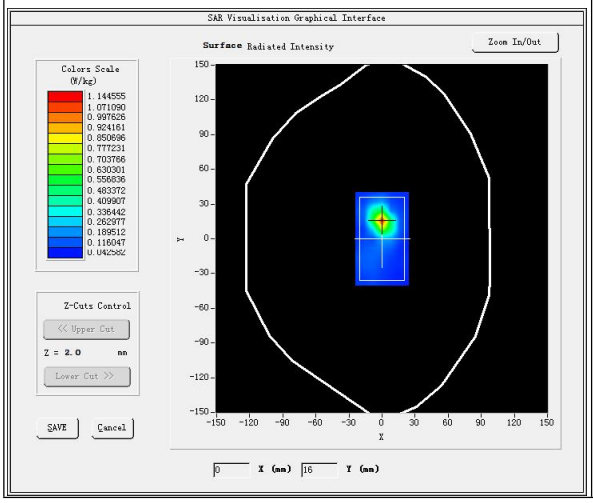
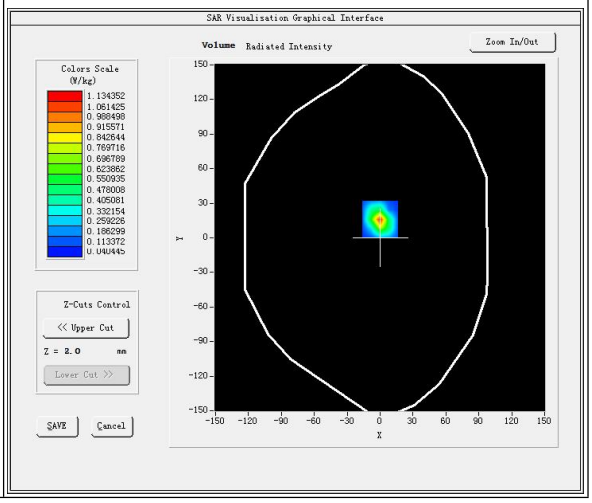
Communication System: Wi-Fi; Communication System Band: 802.11a; Duty Cycle: 1:1; Conv.F=1.53;
Frequency: 5240 MHz; Medium parameters used: f = 5200 MHz; σ =4.69 mho/m; εr =35.46; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃):22.8, Liquid temperature (℃): 22.3

SATIMO Configuration:

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/802.11a High- Edge- Top/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/802.11a High- Edge- Top/Zoom Scan:** Measurement grid: dx=4mm,dy=4mm, dz=2mm;

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x12,dx=4mm dy=4mm dz=2mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Edge- Top |
| **Band** | 5200MHz |
| **Channels** | High |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=0.00, Y=16.00**
**SAR Peak: 1.463 W/kg**

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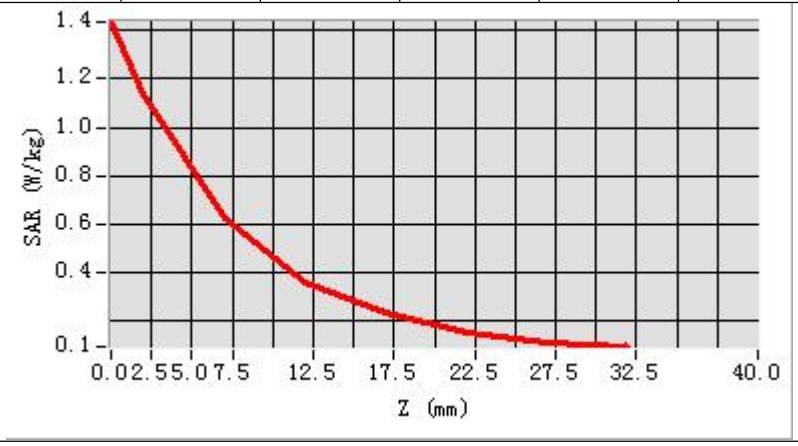
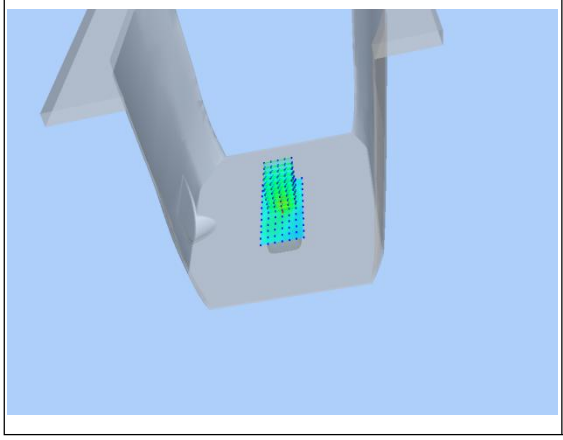
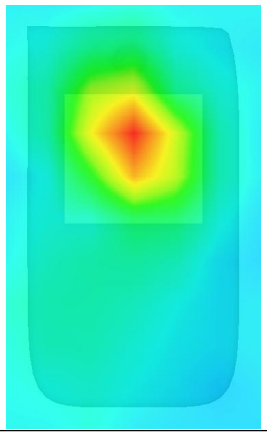
| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.323423 |
| **SAR 1g (W/Kg)** | 0.736499 |

| **Z (mm)** | **0.00** | **4.00** | **9.00** | **14.00** | **19.00** | **24.00** | **29.00** |
|---|---|---|---|---|---|---|---|
| **SAR (W/Kg)** | **1.4357** | **1.1343** | **0.6258** | **0.3593** | **0.2314** | **0.1465** | **0.1119** |




| **3D screen shot** | **Hot spot position** |
|---|---|
|  |  |

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**Test Laboratory: AGC Lab** **Date: Aug. 15, 2024**
**802.11a Low- Edge- Top**
**DUT: Camera ; Type: CINSBBGA**

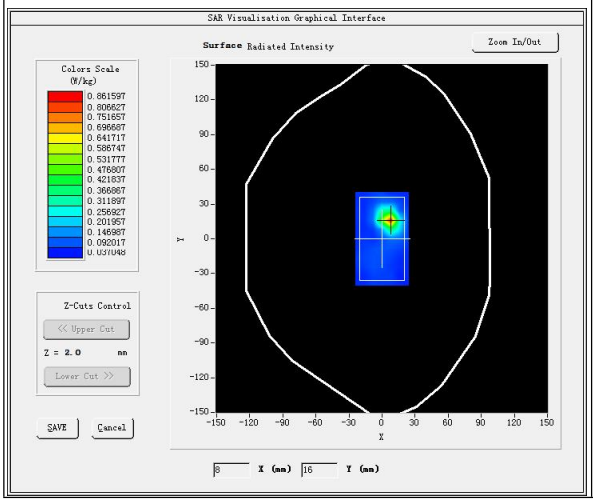
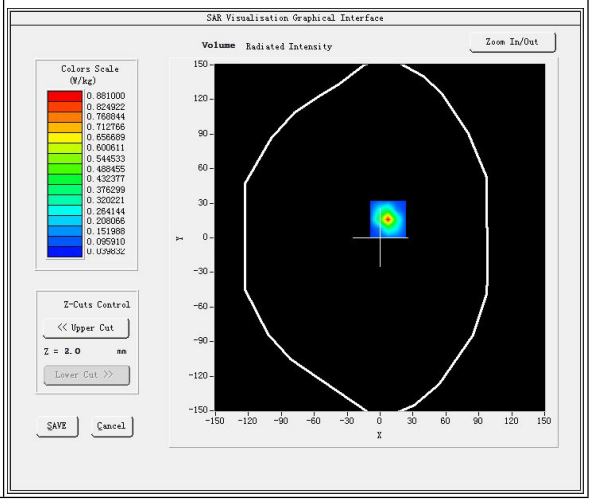
Communication System: Wi-Fi; Communication System Band: 802.11a; Duty Cycle: 1:1; Conv.F=1.37;
Frequency: 5745 MHz; Medium parameters used: f = 5800 MHz; σ =5.13 mho/m; εr =35.05; ρ= 1000 kg/m³ ;
Phantom section: Flat Section
Ambient temperature (℃):22.8, Liquid temperature (℃): 22.3

SATIMO Configuration:

- Probe: SSE2; Calibrated: Apr 30, 2024; Serial No.: 2023-EPGO-414
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM twin phantom
- Measurement SW: OpenSAR V4_02_35

**Configuration/802.11a Low- Edge- Top/Area Scan:** Measurement grid: dx=8mm, dy=8mm
**Configuration/802.11a Low- Edge- Top/Zoom Scan:** Measurement grid: dx=4mm,dy=4mm, dz=2mm;

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm, h= 5.00 mm |
| **ZoomScan** | 7x7x12,dx=4mm dy=4mm dz=2mm |
| **Phantom** | SAM twin phantom |
| **Device Position** | Edge- Top |
| **Band** | 5800MHz |
| **Channels** | Low |
| **Signal** | Crest factor: 1.0 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |





**Maximum location: X=0.00, Y=16.00**
**SAR Peak: 1.139 W/kg**

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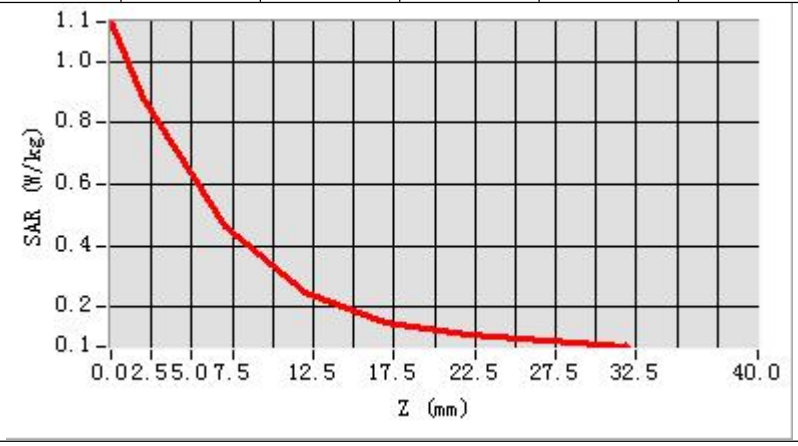
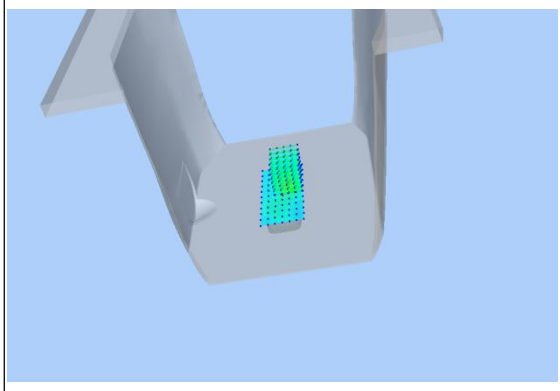
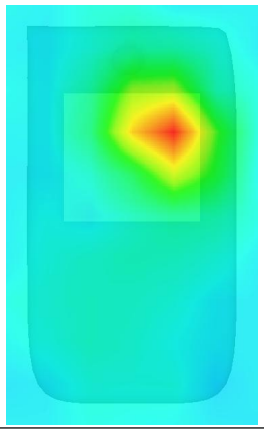
| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.216917 |
| **SAR 1g (W/Kg)** | 0.595823 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 1.1292 | 0.8810 | 0.4608 | 0.2502 | 0.1502 | 0.1072 | 0.0871 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

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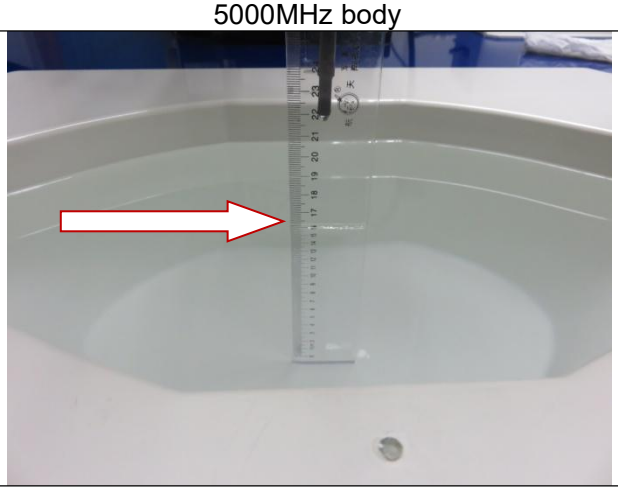
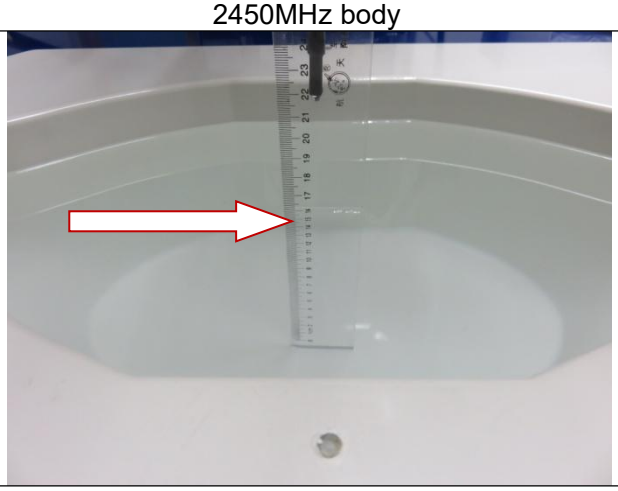
# APPENDIX C. TEST SETUP PHOTOGRAPHS

**Refer to the Report No.: AGC14075240803AP01**

## DEPTH OF THE LIQUID IN THE PHANTOM—ZOOM IN

Note：The position used in the measurement were according to IEEE 1528-2013

| 5000MHz body | 2450MHz body |
|---|---|
|  |  |

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# APPENDIX D. CALIBRATION DATA

Refer to Attached files.

**----END OF REPORT----**

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# Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

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