# TEST REPORT

| | |
|---|---|
| Report No.: | BCTC2505277200E |
| Applicant: | SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD |
| Product Name: | Smart Phone |
| Test Model: | WP53 S |
| Tested Date: | 2025-05-24 to 2025-07-02 |
| Issued Date: | 2025-07-02 |

**Shenzhen BCTC Testing Co., Ltd.**

# FCC ID: 2ANMU-WP53

| | |
|---|---|
| Product Name: | Smart Phone |
| Trademark: | OUKITEL |
| Model/Type Reference: | WP53 S<br>WP53, WP53 E, WP53 Pro, WP53 Plus, WP53 Ultra, WP53 TITAN, WP53 GT |
| Prepared For: | SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD |
| Address: | A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN, China |
| Manufacturer: | SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD |
| Address: | A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN, China |
| Prepared By: | Shenzhen BCTC Testing Co., Ltd. |
| Address: | 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China |
| Sample Received Date: | 2025-05-24 |
| Sample tested Date: | 2025-05-24 to 2025-07-02 |
| Issue Date: | 2025-07-02 |
| Test Standards: | IEEE Std C95.1-2019<br>IEEE Std 1528-2013<br>FCC Part 2.1093 |
| Test Results: | PASS |
| Remark: | This is SAR test report |

Tested by:

Min Zhi Cheng / Project Handler

Approved by:

Zero Zhou / Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

Table Of Content

(Note: N/A Means Not Applicable)

## 1. Version

| Report No. | Issue Date | Description | Approved |
|---|---|---|---|
| BCTC2505277200E | 2025-06-19 | Original | Valid |
| | | | |

## 2. Test Standards

IEEE Std C95.1-2019: IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0Hz to 300GHz. It specifies the maximum exposure limit of 1.6W/kg as averaged over any 1gram of tissue for portable devices being used within 20cm of the user in the uncontrolled environment.
IEEE Std 1528-2013: IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.
FCC Part 2.1093 Radiofrequency Radiation Exposure Evaluation: Portable Devices
KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
KDB 865664 D01 SAR Measurement 100MHz to 6GHz v01r04: SAR Measurement Requirements for 100MHz to 6GHz
KDB 865664 D02 RF Exposure Reporting v01r02: RF Exposure Compliance Reporting and Documentation Considerations
KDB 248227 D01 802.11 Wi-Fi SAR v02r02: SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS
KDB 941225 D01 3G SAR Procedures: 3G SAR MEAUREMENT PROCEDURES
KDB 941225 D05 SAR for LTE Devices: SAR EVALUATION CONSIDERATIONS FOR LTE DEVICES
KDB 941225 D06 Hotspot Mode v02r01: SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
KDB 648474 D04 Handset SAR v01r03: SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS

## 3. Test Summary

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

| Frequency Band | Maximum $SAR_{1g}$ (W/kg) | | | Limit $SAR_{1g}$ (W/kg) |
|---|---|---|---|---|
| | Head | Body (10mm Gap) | Hotspot (10mm Gap) | |
| **Bluetooth** | 0.075 | 0.075 | / | 1.6 |
| **WIFI 2.4G** | 0.207 | 0.277 | 0.211 | |
| **WIFI 5G** | 0.371 | 0.377 | 0.314 | |
| **GSM** | 0.283 | 0.704 | 0.534 | |
| **WCDMA** | 0.409 | 0.721 | 0.737 | |
| **LTE** | 0.628 | 1.163 | 1.406 | |
| **Simultaneous Transmission** | 0.943 | 1.477 | 1.406 | |

The device 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 ANSI/IEEE C95.1-2019, and had been tested in accordance with the measurement methods and procedure specified in IEEE 1528-2013.

## 4. SAR Limits

| Exposure Limits | SAR (W/kg) | |
|---|---|---|
| | General Population | Occupational |
| Spatial Average<br>(averaged over the whole body) | 0.08 | 0.4 |
| Spatial Peak<br>(Averaged over any 1g of tissue) | 1.6 | 8.0 |
| Spatial Peak<br>(Hand/wrist/foot/ankle average over 10g) | 4.0 | 20.0 |

**General Population:** Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

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

## 5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is <3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k=2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

Therefore, the measurement uncertainty is not required.

# 6. Product Information and Test Setup

## 6.1 Product Information

| | |
|---|---|
| Model/Type reference: | WP53 S<br>WP53, WP53 E, WP53 Pro, WP53 Plus, WP53 Ultra, WP53 TITAN, WP53 GT |
| Model differences: | All the model are the same circuit and RF module, except model names. |
| Bluetooth Version: | 5.2 |
| Hardware Version: | J557A_9230TMB_D4XUF_V1.1 |
| Software Version: | V05 |
| Ratings: | DC 9V from adapter/DC 3.87V from battery |
| Adapter Information: | Model: HJ-PD18W-US<br>Input: 100-240V~50/60Hz 0.6A<br>Output: DC 5.0V 3.0A 15.0W<br>OR DC 9.0V 2.0A 18.0W<br>OR DC 12.0V 1.5A 18.0W MAX |

BDR, EDR

| | |
|---|---|
| Operation Frequency: | 2402-2480MHz |
| Type of Modulation: | GFSK, π/ 4 DQPSK, 8DPSK |
| Number Of Channel | 79CH |
| Antenna installation: | Internal antenna |
| Antenna Gain: | 0.25 dBi<br>Remark:<br>☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.<br>☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information. |

BLE

| | |
|---|---|
| Operation Frequency: | 2402-2480MHz |
| Type of Modulation: | GFSK |
| Number Of Channel | 40CH |
| Antenna installation: | Internal antenna |
| Antenna Gain: | 0.25 dBi<br>Remark:<br>☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.<br>☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information. |

WIFI 2.4G

| | |
|---|---|
| Operation Frequency: | 802.11b/g/n20MHz:2412~2462 MHz<br>802.11n40MHz:2422~2452 MHz |
| Bit Rate of Transmitter | 802.11b:11/5.5/2/1 Mbps<br>802.11g:54/48/36/24/18/12/9/6Mbps<br>802.11n Up to 150Mbps |
| Type of Modulation: | OFDM/DSSS |
| Number Of Channel | 802.11b/g/n20MHz:11 CH<br>802.11n40MHz: 7 CH |
| Antenna installation: | Internal antenna |
| Antenna Gain: | 0.25 dBi<br>Remark:<br>☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.<br>☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information. |

WIFI 5G

| | |
|---|---|
| IEEE 802.11 WLAN Mode Supported | 802.11a/n/ac(20MHz channel bandwidth)<br>802.11n/ac(40MHz channel bandwidth)<br>802.11ac(80MHz channel bandwidth) |
| Operation Frequency: | 5180-5240MHz for 802.11a/n(HT20)/ac(HT20);<br>5190-5230MHz for 802.11n(HT40)/ac(HT40);<br>5210MHz for 802.11 ac(HT80);<br>5745-5825 MHz for 802.11a/n(HT20)/ac(HT20);<br>5755-5795 MHz for 802.11n(HT40)/ac(HT40);<br>5775MHz for 802.11 ac(HT80); |
| Data Rate | 802.11a: 6,9,12,18,24,36,48,54Mbps;<br>802.11n(HT20/HT40):MCS0-MCS15;<br>802.11ac(VHT20): NSS1, MCS0-MCS8<br>802.11ac(VHT40/VHT80):NSS1, MCS0-MCS |
| Type of Modulation: | OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac; |
| Number Of Channel | 4 channels for 802.11a/n20/ac20 in the 5180-5240MHz band ;<br>2 channels for 802.11 n40/ac40 in the 5190-5230MHz band ;<br>1 channels for 802.11 ac80 in the 5210MHz band ;<br>5 channels for 802.11a/n20/ac20 in the 5745-5825MHz band ;<br>2 channels for 802.11 n40/ac40 in the 5755-5795MHz band ;<br>1 channels for 802.11 ac80 in the 5775MHz band |
| Antenna installation: | Internal antenna |
| Antenna Gain: | 0.30 dBi<br>Remark:<br>☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.<br>☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information. |

2G, 3G

| | |
|---|---|
| Operation Frequency: | GSM/GPRS/EGPRS 850: TX: 824~849MHz; RX: 869~894MHz;<br>GSM/GPRS/EGPRS 1900: TX:1850~1910MHz; RX:1930~1990MHz;<br>WCDMA Band II: TX: 1852.40~1907.60MHz; Rx: 1932.60~1987.40MHz;<br>WCDMA Band IV: TX: 1712.40~1752.60MHz; RX: 2112.60 – 2452.40MHz<br>WCDMA Band V: TX: 826.40~846.60MHz; RX: 871.40~ 891.60MHz; |
| GPRS Class: | Class 12 |
| Max RF Output Power: | GSM/GPRS/EGPRS 850: 33.5 dBm,<br>GSM/GPRS/EGPRS 1900: 29.46 dBm<br>WCDMA Band II: 24.15 dBm<br>WCDMA Band IV: 23.95 dBm<br>WCDMA Band V: 24.16 dBm |
| Type of Modulation: | GSM with GMSK Modulation<br>WCDMA Mode with BPSK Modulation<br>HSDPA Mode with QPSK, 16QAM Modulation<br>HSUPA Mode with QPSK, 16QAM Modulation |
| Type of Emission: | GSM/GPRS 850: 248KGXW<br>EGPRS 850:248KGXW<br>GSM/GPRS 1900: 248KGXW<br>EGPRS 1900:251KGXW<br>WCDMA Band II: 4M17F9W<br>WCDMA Band IV: 4M15F9W<br>WCDMA Band V: 4M19F9W |
| Antenna installation: | Internal antenna |
| Antenna Gain: | GSM850: -2.15 dBi<br>GSM1900: 0.19 dBi<br>WCDMA Band II: 0.19 dBi<br>WCDMA Band IV: 0.23 dBi<br>WCDMA Band V: -2.15 dBi |

Remark:

☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.

☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information.

4G

| | |
|---|---|
| Tx Frequency: | LTE Band 2: 1850 MHz ~ 1910 MHz<br>LTE Band 4: 1710 MHz ~ 1755 MHz<br>LTE Band 5: 824 MHz ~ 849 MHz<br>LTE Band 7: 2500MHz-2570MHz<br>LTE Band 12: 699 MHz ~ 716 MHz<br>LTE Band 17: 704MHz ~ 716MHz<br>LTE Band 25: 1850MHz~1915MHz<br>LTE Band 26: 814MHz ~ 824MHz<br>824MHz ~ 849MHz<br>LTE Band 66: 1710MHz ~ 1780MHz |
| Rx Frequency: | LTE Band 2: 1930 MHz ~ 1990 MHz<br>LTE Band 4: 2110 MHz ~ 2155 MHz<br>LTE Band 5: 869 MHz ~ 894 MHz<br>LTE Band 7: 2620MHz ~ 2690MHz<br>LTE Band 12: 729 MHz ~ 746 MHz<br>LTE Band 17: 734MHz ~ 746MHz<br>LTE Band 25: 1930MHz~1995MHz<br>LTE Band 26: 859MHz ~ 869MHz<br>869MHz ~ 894MHz<br>LTE Band 66: 2110MHz ~ 2200MHz |
| Bandwidth: | LTE Band 2: 1.4MHz /3MHz /5MHz /10MHz /15MHz /20MHz<br>LTE Band 4: 1.4MHz /3MHz /5MHz /10MHz /15MHz /20MHz<br>LTE Band 5: 1.4MHz /3MHz /5MHz /10MHz<br>LTE Band 7: 5MHz /10MHz /15MHz /20MHz<br>LTE Band 12: 1.4MHz /3MHz /5MHz /10MHz<br>LTE Band 17: 5MHz /10MHz<br>LTE Band 25: 1.4MHz /3MHz /5MHz /10MHz /15MHz /20MHz<br>LTE Band 26: 1.4MHz /3MHz /5MHz /10MHz<br>1.4MHz /3MHz /5MHz /10MHz /15MHz<br>LTE Band 66: 1.4MHz /3MHz /5MHz /10MHz /15MHz /20MHz |
| The Max RF Output Power (EIRP/ERP) | LTE Band 2: 23.76 dBm<br>LTE Band 4: 25.17 dBm<br>LTE Band 5: 21.13 dBm<br>LTE Band 7: 23.15 dBm<br>LTE Band 12: 19.18 dBm<br>LTE Band 17: 19.13 dBm<br>LTE Band 25: 24.32 dBm<br>LTE Band 26: 21.56 dBm<br>21.74 dBm<br>LTE Band 66: 25.56 dBm |
| 99% Occupied Bandwidth: | LTE Band 2: 18M2W7D<br>LTE Band 4: 18M1G7D<br>LTE Band 5: 9M05G7D<br>LTE Band 7: 18M0G7D<br>LTE Band 12: 9M00G7D<br>LTE Band 17: 9M00W7D<br>LTE Band 25: 18M0W7D<br>LTE Band 26: 9M06G7D<br>13M5W7D<br>LTE Band 66: 18M2G7D |
| Type of Modulation: | QPSK/16QAM |
| Antenna Type: | Internal Antenna |
| Antenna Gain: | LTE Band 2: 0.19 dBi<br>LTE Band 4: 0.23 dBi<br>LTE Band 5: -2.15 dBi |

LTE Band 7: 0.32 dBi
LTE Band 12: -2.25 dBi
LTE Band 17: -2.20 dBi
LTE Band 25: 0.25 dBi
LTE Band 26: -2.16 dBi
LTE Band 66: 0.22 dBi
Remark:
☐ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.
☒ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information.

## 6.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

## 6.3 Support Equipment

Cable of Product

| No. | Cable Type | Quantity | Provider | Length (m) | Shielded | Note |
|---|---|---|---|---|---|---|
| 1 | -- | -- | Applicant | --- | Yes/No | -- |
| 2 | -- | -- | BCTC | -- | Yes/No | -- |

| No. | Device Type | Brand | Model | Series No. | Note |
|---|---|---|---|---|---|
| 1. | --- | --- | --- | --- | --- |
| 2. | -- | -- | -- | -- | -- |

Notes:
1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

## 6.4 Test Environment

1. Normal Test Conditions:

| | |
|---|---|
| Humidity(%): | 35-75 |
| Atmospheric Pressure(kPa): | 95-105 |
| Temperature(℃): | 18-25 |

2. Extreme Test Conditions:
N/A

# 7. Test Facility and Test Instrument Used

## 7.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: 712850
A2LA certificate registration number is: CN1212
ISED Registered No.: 23583
ISED CAB identifier: CN0017

## 7.2 Test Instrument Used

| Equipment | Manufacturer | Model# | Serial# | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| PC | DELL | \ | \ | N/A | N/A |
| SAR Measurement system | SATIMO | \ | \ | N/A | N/A |
| Signal Generator | Keysight | 83711B | US37100131 | May 14, 2025 | May 13, 2026 |
| Multimeter | Keithley | 1160271 | \ | Nov. 10, 2024 | Nov 09, 2025 |
| S-parameter Network Analyzer | R&S | ZVB 8 | 101353 | Dec. 07, 2024 | Dec. 06, 2025 |
| Wideband Radio Communication Tester | R&S | CMW500 | \ | Nov. 10, 2024 | Nov 09, 2025 |
| E SAR PROBE 6GHz | MVG | SSE2 | 2623-EPGO-420 | July 18, 2024 | July 17, 2025 |
| DIPOLE 750 | SATIMO | SID 750 | SN 47/21 DIP 0G750-620 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 835 | SATIMO | SID 835 | SN 47/21 DIP 0G835-621 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 1800 | SATIMO | SID 1800 | SN 47/21 DIP 1G800-623 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 1900 | SATIMO | SID 1900 | SN 47/21 DIP 1G900-624 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 2450 | SATIMO | SID 2450 | SN 47/21 DIP 2G450-627 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 2600 | SATIMO | SID 2600 | SN 47/21 DIP 2G600-628 | Nov. 25, 2024 | Nov. 24, 2027 |
| DIPOLE 5000 | SATIMO | SID 5000 | SN 47/21 DIP 5G000-629 | Nov. 25, 2024 | Nov. 24, 2027 |
| COMOSAR OPEN Coaxial Probe | SATIMO | \ | \ | Nov. 18, 2024 | Nov. 17, 2025 |
| SAR Locator | SATIMO | \ | \ | Nov. 18, 2024 | Nov. 17, 2025 |
| Communication Antenna | SATIMO | \ | \ | Nov. 18, 2024 | Nov. 17, 2025 |
| FEATURE PHONEPOSITIONING DEVICE | SATIMO | \ | \ | N/A | N/A |
| DUMMY PROBE | SATIMO | \ | \ | N/A | N/A |
| SAM Phantom | MVG | \ | SN 13/09 SAM68 | N/A | N/A |
| Liquid measurement Kit | HP | 85033D | 3423A08186 | N/A | N/A |
| Power meter | Keysight | E4419 | A00065 | May 14, 2025 | May 13, 2026 |
| Power sensor | Keysight | E9300A | US39211659 | May 14, 2025 | May 13, 2026 |
| Power sensor | Keysight | E9300A | US39211305 | May 14, 2025 | May 13, 2026 |
| Directional Coupler | Krytar 158020 | 131467 | \ | Nov. 10, 2024 | Nov 09, 2025 |
| Thermometer | BTE | \ | \ | Dec. 02, 2024 | Dec. 01, 2025 |
| Broad Band Tissue Simulation Liquid | Schmid | \ | \ | N/A | N/A |

Note:
Per KDB865664D01 requirements for dipole calibration, the test laboratory has adopted three year extended calibration interval. Each measured dipole is expected to evalute with following criteria at least on annual interval.

1. There is no physical damage on the dipole;
2. System check with specific dipole is within 10% of calibrated values;
3. The most recent return-loss results, measued at least annually, deviates by no more than 20% from the previous measurement;
4. The most recent measurement of the real or imaginary parts of the impedance, measured at least annually is within 5Ω from the provious measurement.

# 8. Specific Absorption Rate (SAR)

## 8.1 Introduction

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

## 8.2 SAR Definition

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

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

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$\mathbf{SAR} = \mathbf{C}\left(\frac{\boldsymbol{\delta}\mathbf{T}}{\boldsymbol{\delta}\mathbf{t}}\right)$$

Where: C is the specific heat capacity, $\delta$ T is the temperature rise and $\delta$ t is the exposure duration, or related to the

electrical field in the tissue by

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

Where: $\sigma$ is the conductivity of the tissue, $\rho$ is the mass density of the tissue and E is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

# 9. SAR Measurement System

## 9.1 The Measurement System

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

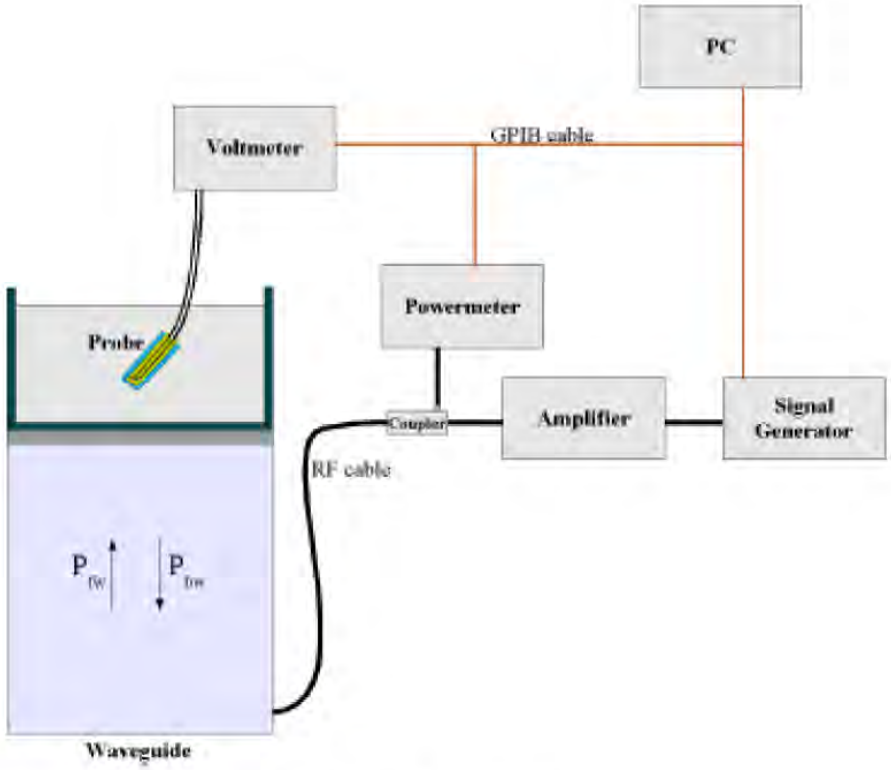
The following figure shows the system.

The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The OpenSAR software computes the results to give a SAR value in a 1g or 10g mass.

## 9.2 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 46/21 EPGO362 with following specifications is used
- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 5 mm
- Distance between probe tip and sensor center: 2.10mm
- Distance between sensor center and the inner phantom surface: 4 mm (repeatability better than +/- 1mm)
- Probe linearity: ＜0.25 dB
- Axial Isotropy: ＜0.25 dB
- Spherical Isotropy: ＜0.50 dB
- Calibration range: 835 to 2500MHz for head & body simulating liquid.

Angle between probe axis (evaluation axis) and surface normal line:1ess than 30°
Probe calibration is realized, in compliance with EN 62209-1 and IEEE 1528 STD, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1 annex technique using reference guide at the five frequencies.




$$SAR = \frac{4(p_{\int w} - p_{Pbw})}{ab\delta} cos^2 \left(\pi \frac{y}{a}\right) c^{(2\pi/\delta)}$$

Where :
Pfw = Forward Power
Pbw = Backward Power
a and b =Waveguide dimensions
l = Skin depth

Keithley configuration:
Rate = Medium; Filter = ON; RDGS = 10; Filter type = Moving Average; Range auto after each calibration, a SAR measurement is performed on a validation dipole and compared with a NPL calibrated probe, to verify it.

The calibration factors, CF(N), for the 3 sensors corresponding to dipole 1, dipole 2 and dipole 3 are:

CF(N)=SAR(N)/Vlin(N) (N=1,2,3)

The linearised output voltage Vlin(N) is obtained from the displayed output voltage V(N) using

Vlin(N)=V(N)*(1+V(N)/DCP(N)) (N=1,2,3)

where DCP is the diode compression point in mV.

## 9.3 Probe Calibration Process

**Dosimetric Assessment Procedure**
Each E-Probe/Probe Amplifier combination has unique calibration parameters. SATIMO Probe calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm2) using an with CALISAR, Antenna proprietary calibration system.

**Free Space Assessment Procedure**
The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and in a waveguide or other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1mW/cm2.

**Temperature Assessment Procedure**
E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated head tissue. The E-field in the medium correlates with the temperature rise in the dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where:
$\Delta t$ = exposure time (30 seconds),
C = heat capacity of tissue (brain or muscle),
$\Delta T$ = temperature increase due to RF exposure.

SAR is proportional to $\Delta T/\Delta t$, the initial rate of tissue heating, before thermal diffusion takes place. The electric field in the simulated tissue can be used to estimate SAR by equating the thermally derived SAR to that with the E- field component.

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

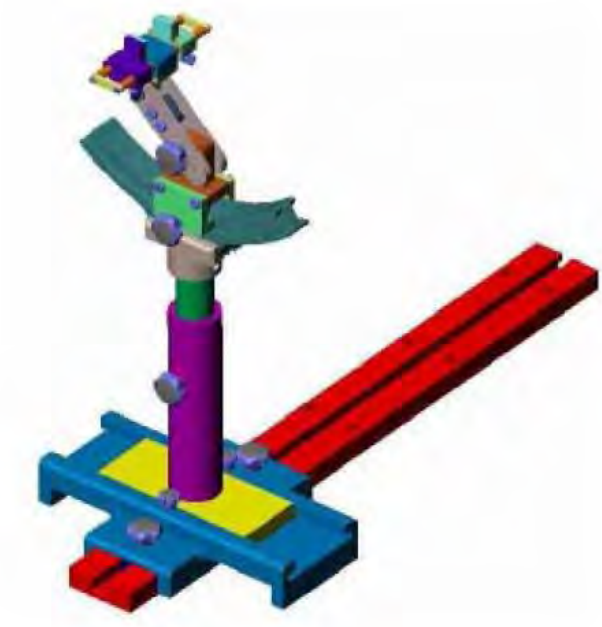
Where:
$\sigma$ = simulated tissue conductivity,
$\rho$ = Tissue density (1.25 g/cm3 for brain tissue)

## 9.4 Phantom

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

## 9.5 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°.



| System Material | Permittivity | Loss Tangent |
|---|---|---|
| Delrin | 3.7 | 0.005 |

# 10. Tissue Simulating Liquids

## 10.1 Composition of Tissue Simulating Liquid

For the measurement of the field distribution inside the SAM phantom with SMTIMO, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. Please see the following photos for the liquid height.

Liquid Height for Body SAR

The Composition of Tissue Simulating Liquid

| Frequency (MHz) | Water (%) | Salt (%) | 1,2-Propane diol (%) | HEC (%) | Preventol (%) | DGBE (%) |
|---|---|---|---|---|---|---|
| **Head/Body** | | | | | | |
| 835 | 40.3 | 1.4 | 57.9 | 0.2 | 0.2 | 0 |
| 900 | 40.3 | 1.4 | 57.9 | 0.2 | 0.2 | 0 |
| 1800-2000 | 55.2 | 0.3 | 0 | 0 | 0 | 44.5 |
| 2450 | 55.0 | 0.1 | 0 | 0 | 0 | 44.9 |
| 2600 | 54.9 | 0.1 | 0 | 0 | 0 | 45.0 |

| Frequency (MHz) | Water (%) | Hexyl Carbitol (%) | Triton X-100 (%) |
|---|---|---|---|
| **Head/Body** | | | |
| 5000-6000 | 65.52 | 17.24 | 17.24 |

## 10.2 Limit

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters

computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

| Target Frequency (MHz) | Head | |
|---|---|---|
| | Conductivity ($\sigma$) | Permittivity ($\varepsilon_r$) |
| 150 | 0.76 | 52.3 |
| 300 | 0.87 | 45.3 |
| 450 | 0.87 | 43.5 |
| 750 | 0.89 | 41.9 |
| 835 | 0.90 | 41.5 |
| 900 | 0.97 | 41.5 |
| 915 | 0.98 | 41.5 |
| 1450 | 1.20 | 40.5 |
| 1610 | 1.29 | 40.3 |
| 1800-2000 | 1.40 | 40.0 |
| 2450 | 1.80 | 39.2 |
| 2600 | 1.96 | 39.0 |
| 3000 | 2.40 | 38.5 |
| 5200 | 4.66 | 36.0 |
| 5400 | 4.86 | 35.8 |
| 5600 | 5.07 | 35.5 |
| 5800 | 5.27 | 35.3 |

## 10.3 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an R&S ZVB 8. Dielectric Probe Kit and an Agilent Network Analyzer.

Calibration Result for Dielectric Parameters of Tissue Simulating Liquid

| Frequency (MHz) | Liquid | Target | | Measured | | Deviation | | Limit | Air (°C) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ($\sigma$) | ($\varepsilon_r$) | ($\sigma$) | ($\varepsilon_r$) | ($\sigma$) | ($\varepsilon_r$) | | | |
| 750 | Head | 0.89 | 41.90 | 0.922 | 42.566 | 3.60 | 1.59 | ±5 | 24.1 | 16/6/2025 |
| 835 | Head | 0.90 | 41.50 | 0.892 | 41.133 | -0.89 | -0.88 | ±5 | 24.0 | 13/6/2025 |
| 1800 | Head | 1.40 | 40.00 | 1.449 | 41.006 | 3.50 | 2.52 | ±5 | 23.8 | 18/6/2025 |
| 1900 | Head | 1.40 | 40.00 | 1.399 | 38.870 | -0.07 | -2.83 | ±5 | 23.9 | 17/6/2025 |
| 2450 | Head | 1.80 | 39.20 | 1.818 | 37.569 | 1.00 | -4.16 | ±5 | 24.1 | 16/6/2025 |
| 2600 | Head | 1.96 | 39.00 | 1.950 | 37.490 | -0.51 | -3.87 | ±5 | 23.9 | 17/6/2025 |
| 5200 | Head | 4.66 | 36.00 | 4.508 | 34.693 | -3.26 | -3.63 | ±5 | 24.1 | 16/6/2025 |
| 5800 | Head | 5.27 | 35.30 | 5.431 | 33.957 | 3.06 | -3.80 | ±5 | 24.1 | 16/6/2025 |

**Remark:**

1. The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
2. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

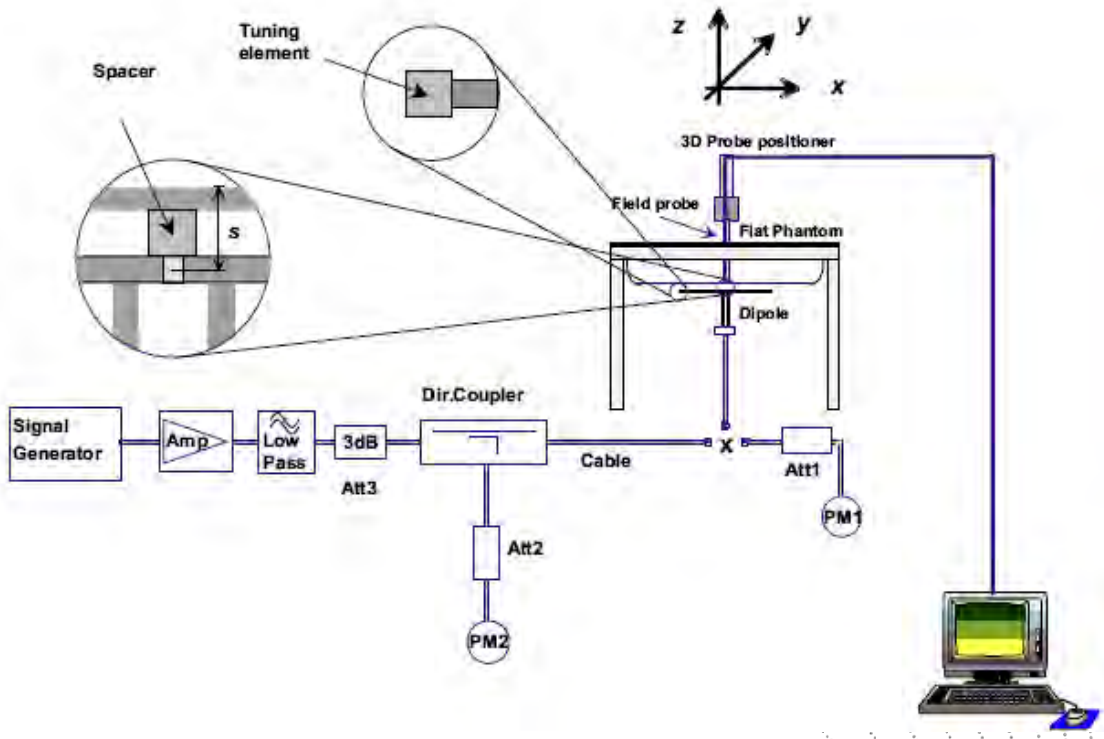
# 11. System Check

## 11.1 Purpose of System Performance Check

At the device test frequencies. System check verifies the measurement repeatability of a SAR system before compliance testing and is not a validation of all system specifications. The latter is not required for testing a device but is mandatory before the system is deployed. The system check detects possible short-term drift and unacceptable measurement errors or uncertainties in the system.

## 11.2 System Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave which comes from a signal generator at frequency 600MHz-6000MHz. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The output power on dipole port must be calibrated to 20 dBm (100 mW) before dipole is connected.




System Verification Setup Block Diagram

Setup Photo of Dipole Antenna

## 11.3 Validation Results

Comparing to the original SAR value provided by SATIMO, the validation data should be within its specification of 10 %. The following table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion.

| Frequency (MHz) | Power | Measured $SAR_{1g}$(W/Kg) | Measured Normalized | Target Normalized | Drift | Limit | Liquid (°C) | Date |
|---|---|---|---|---|---|---|---|---|
| 750 | 250mW | 2.046 | 8.183 | 8.58 | -4.63 | ±10 | 23.9 | 16/6/2025 |
| 835 | 250mW | 2.521 | 10.083 | 10.01 | 0.73 | ±10 | 23.8 | 13/6/2025 |
| 1800 | 250mW | 10.328 | 41.311 | 39.74 | 3.95 | ±10 | 23.7 | 18/6/2025 |
| 1900 | 250mW | 10.286 | 41.142 | 41.26 | -0.29 | ±10 | 23.6 | 17/6/2025 |
| 2450 | 250mW | 13.652 | 54.606 | 55.16 | -1.00 | ±10 | 23.9 | 16/6/2025 |
| 2600 | 250mW | 14.603 | 58.410 | 56.50 | 3.38 | ±10 | 23.6 | 17/6/2025 |
| 5200 | 250mW | 20.106 | 80.422 | 76.41 | 5.25 | ±10 | 23.9 | 16/6/2025 |
| 5800 | 250mW | 18.118 | 72.472 | 76.49 | -5.25 | ±10 | 23.9 | 16/6/2025 |

## 12. EUT Testing Position

### 12.1 Define Two Imaginary Lines on the Handset

(a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width wt of the handset at the level of the acoustic output, and the midpoint of the width wb of the bottom of the handset.

(b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic
output. The horizontal line is also tangential to the face of the handset at point A.

(c) 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, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

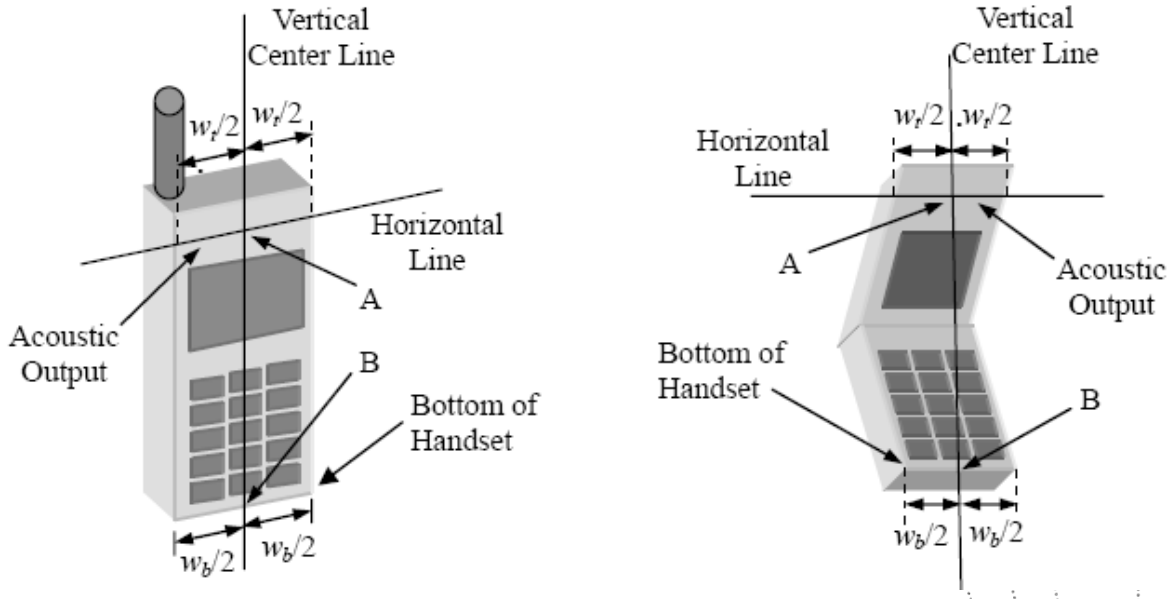



Illustration for Handset Vertical and Horizontal Reference Lines

### 12.2 Cheek Position

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see below).

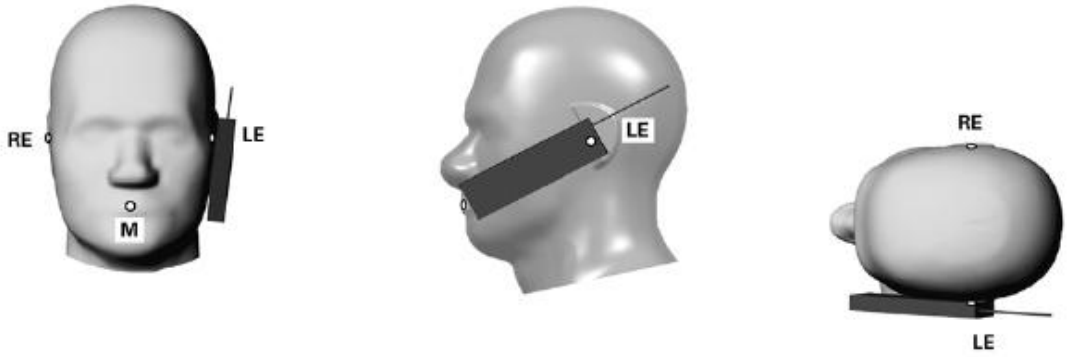



Illustration for Cheek Position

## 12.3 Tilted Position

(a) To position the device in the “cheek” position described above.

(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see below).

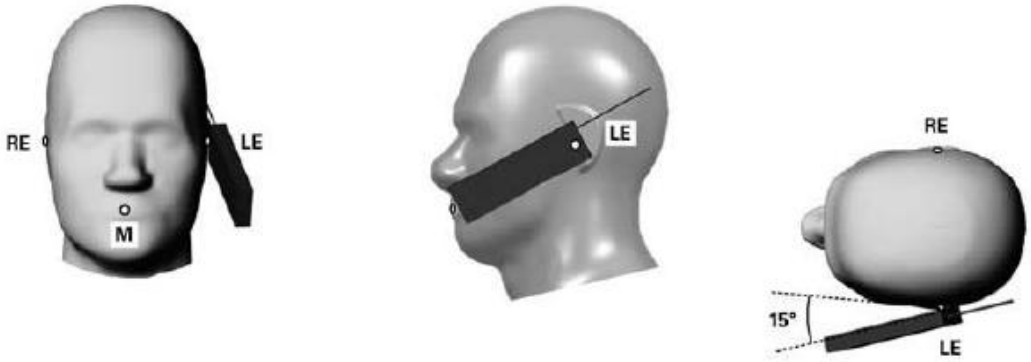
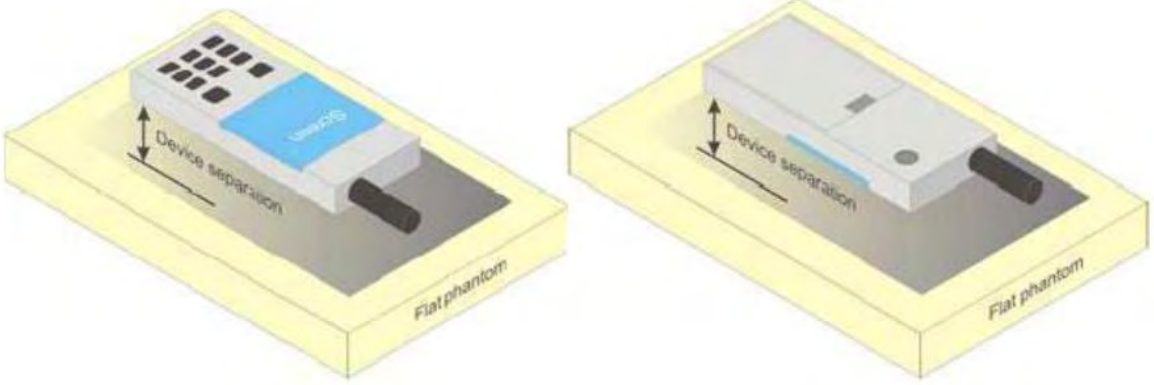



Illustration for Tilted Position

## 12.4 Body Position

A typical example of a body-worn device is a Mobile Phone , wireless enabled PDA or other battery operated wireless device with the ability to transmit while mounted on a person’s body using a carry accessory approved by the wireless device manufacturer.




Test positions for body-worn devices

# 13. SAR Measurement Procedures

## 13.1 Measurement Procedures

The measurement procedures are as follows:
(a) Use base station simulator (if applicable) or engineering software to transmit RF power continuously (continuous Tx) in the highest power channel.
(b) Keep EUT to radiate maximum output power or 100% factor (if applicable)
(c) Measure output power through RF cable and power meter.
(d) Place the EUT in the positions as Annex D demonstrates.
(e) Set scan area, grid size and other setting on the SATIMO software.
(f) Measure SAR results for the highest power channel on each testing position.
(g) Find out the largest SAR result on these testing positions of each band
(h) Measure SAR results for other channels in worst SAR testing position if the 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

## 13.2 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The SATIMO software includes all numerical procedures necessary to evaluate the spatial peak SAR value.
The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.
The entire evaluation of the spatial peak values is performed within the post-processing engine. The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:
(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

## 13.3 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures 5x5x7 points with step size 8, 8 and 5mm for 300MHz to 3GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3GHz to 6GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10g.

<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 mm ± 1 mm</td><td>½·δ·ln(2) mm ± 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: $\Delta x_{Area}$, $\Delta y_{Area}$</td><td>≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm<br>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: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$</td><td>≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*<br>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<br>4 – 5 GHz: ≤ 3 mm<br>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<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm</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<br>4 – 5 GHz: ≥ 25 mm<br>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 IEEE Std 1528-2013 for details.<br>* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 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>

## 13.4 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing (step-size is 4, 4 and 2.5 mm). When all volume scan were completed, the software can combine and subsequently superpose these measurement data to calculating the multiband SAR.

## 13.5 SAR Averaged Methods

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 minimize 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 1mm 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 10g and 1 g requires a very fine resolution in the three dimensional scanned data array.

## 13.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In SATIMO 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 dB. If the power drift more than 5%, the SAR will be retested.

# 14. SAR Test Result

## 14.1 Conducted RF Output Power

| Bluetooth | | | |
|---|---|---|---|
| **Modulation** | **Frequency (MHz)** | **Conducted Power (dBm)** | **Tune-up power (dBm)** |
| 1-DH1 | 2402 | -1.02 | -0.5 |
| | 2441 | -0.95 | |
| | 2480 | -1.05 | |
| 2-DH1 | 2402 | -3.98 | -3.5 |
| | 2441 | -3.99 | |
| | 2480 | -5.07 | |
| 3-DH1 | 2402 | -3.68 | -3.5 |
| | 2441 | -3.58 | |
| | 2480 | -4.95 | |

| BLE | | | |
|---|---|---|---|
| **Mode** | **Frequency (MHz)** | **Conducted Power (dBm)** | **Tune-up power (dBm)** |
| BLE 1M | 2402 | 2.14 | 2.5 |
| | 2440 | 1.74 | |
| | 2480 | 0.83 | |
| BLE 2M | 2402 | 1.85 | 2.0 |
| | 2440 | 1.47 | |
| | 2480 | 0.62 | |

Note:
Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances ≤ 50mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]*[ √f(GHz)] ≤ 3.0 for1-g SAR and ≤ 7.5 for 10-g extremity SAR
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

| Turn up Power (dBm) | Turn up Power (mW) | Separation Distance (mm) | Frequency (GHz) | Result | Exclusion Thresholds |
|---|---|---|---|---|---|
| 2.5 | 1.78 | 5 | 2.480 | 0.56 | 3 |

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
According to the calculation results in the table above, Bluetooth SAR does not need to be tested.

| NFC | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Modulation | Frequency (MHz) | Output Power (dBuV/m) | Output Power (dBm) | Tune-up (dBm) | Tune-up (mW) | Separation Distance (mm) | Result | exclusion thresholds for 1-g SAR |
| ASK | 13.5509 | 56.95 | -42.95 | -42.5 | 0.00006 | ⩽5.0 | 0.00002 | 3.0 |

Note:
Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
According to the calculation results in the table above, NFC SAR does not need to be tested.

| WIFI 2.4G | | | |
|---|---|---|---|
| Mode | Frequency (MHz) | Conducted Power (dBm) | Tune-up power (dBm) |
| b | 2412 | 13.08 | 16.0 |
| b | 2437 | 15.67 | |
| b | 2462 | 12.44 | |
| g | 2412 | 11.47 | 13.5 |
| g | 2437 | 13.36 | |
| g | 2462 | 10.36 | |
| n20 | 2412 | 10.49 | 12.5 |
| n20 | 2437 | 12.31 | |
| n20 | 2462 | 9.46 | |
| n40 | 2422 | 9.63 | 11.0 |
| n40 | 2437 | 10.81 | |
| n40 | 2452 | 10.26 | |

| WIFI 5.1G | | | |
|---|---|---|---|
| Mode | Frequency (MHz) | Conducted Power (dBm) | Tune-up power (dBm) |
| a | 5180 | 11.91 | 12.0 |
| a | 5200 | 10.50 | |
| a | 5240 | 10.72 | |
| n20 | 5180 | 11.07 | 11.5 |
| n20 | 5200 | 10.21 | |
| n20 | 5240 | 8.50 | |
| n40 | 5190 | 9.34 | 9.5 |
| n40 | 5230 | 8.47 | |
| ac20 | 5180 | 10.91 | 11.0 |
| ac20 | 5200 | 10.07 | |
| ac20 | 5240 | 8.63 | |
| ac40 | 5190 | 9.46 | 9.5 |
| ac40 | 5230 | 8.48 | |
| ac80 | 5210 | 7.74 | 8.0 |

| WIFI 5.8G | | | |
|---|---|---|---|
| Mode | Frequency (MHz) | Conducted Power (dBm) | Tune-up power (dBm) |
| a | 5745 | 9.03 | 9.5 |
| a | 5785 | 8.84 | |
| a | 5825 | 8.20 | |
| n20 | 5745 | 7.80 | 8.0 |
| n20 | 5785 | 7.69 | |
| n20 | 5825 | 7.18 | |
| n40 | 5755 | 6.84 | 7.5 |
| n40 | 5795 | 7.04 | |
| ac20 | 5745 | 7.95 | 8.0 |
| ac20 | 5785 | 7.82 | |
| ac20 | 5825 | 7.41 | |
| ac40 | 5755 | 7.10 | 7.5 |
| ac40 | 5795 | 6.90 | |
| ac80 | 5775 | 5.78 | 6.0 |

| GSM - Burst Average Power (dBm) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Band** | **GSM850** | | | | **GSM1900** | | | |
| **Channel** | **128** | **190** | **251** | **Tune-up** | **512** | **661** | **810** | **Tune-up** |
| **Frequency (MHz)** | **824.2** | **836.6** | **848.8** | | **1850.2** | **1880** | **1909.8** | |
| GSM | **22.57** | 21.69 | 21.56 | 23.0 | 29.32 | **29.43** | 29.35 | 29.5 |
| GPRS slots-1 | 33.32 | 33.50 | 33.15 | 34.0 | 29.35 | 29.46 | 29.36 | 29.5 |
| GPRS slots-2 | 31.34 | 31.45 | 31.45 | 31.5 | 27.39 | 28.11 | 28.16 | 28.5 |
| GPRS slots-3 | 29.66 | 29.70 | 29.71 | 30.0 | 25.95 | 26.77 | 26.89 | 27.0 |
| GPRS slots-4 | 27.68 | 27.72 | 27.73 | 28.0 | 24.01 | 24.89 | 24.98 | 25.0 |
| EGPRS slots-1 | 26.92 | 26.94 | 33.49 | 33.5 | 26.44 | 26.46 | 24.49 | 26.5 |
| EGPRS slots-2 | 26.14 | 25.41 | 25.44 | 25.5 | 26.33 | 25.78 | 24.66 | 26.5 |
| EGPRS slots-3 | 23.02 | 23.32 | 23.49 | 23.5 | 24.80 | 23.54 | 22.68 | 25.0 |
| EGPRS slots-4 | 21.08 | 20.83 | 21.11 | 21.5 | 22.64 | 21.62 | 20.57 | 22.0 |

| GSM - Source-Based Time-Average Power (dBm) | | | | | | |
|---|---|---|---|---|---|---|
| **Band** | **GSM850** | | | **GSM1900** | | |
| **Channel** | **128** | **190** | **251** | **512** | **661** | **810** |
| **Frequency (MHz)** | **824.2** | **836.6** | **848.8** | **1850.2** | **1880** | **1909.8** |
| GSM | 13.57 | 12.69 | 12.56 | 20.32 | 20.43 | 20.35 |
| GPRS slots-1 | 24.32 | 24.50 | 24.15 | 20.35 | 20.46 | 20.36 |
| GPRS slots-2 | 25.34 | 25.45 | 25.45 | 21.39 | 22.11 | 22.16 |
| GPRS slots-3 | 25.41 | 25.45 | **25.46** | 21.70 | 22.52 | **22.64** |
| GPRS slots-4 | 24.68 | 24.72 | 24.73 | 21.01 | 21.89 | 21.98 |
| EGPRS slots-1 | 17.92 | 17.94 | 24.49 | 17.44 | 17.46 | 15.49 |
| EGPRS slots-2 | 20.14 | 19.41 | 19.44 | 20.33 | 19.78 | 18.66 |
| EGPRS slots-3 | 18.77 | 19.07 | 19.24 | 20.55 | 19.29 | 18.43 |
| EGPRS slots-4 | 18.08 | 17.83 | 18.11 | 19.64 | 18.62 | 17.57 |

Notes:
Division Factors
To average the power, the division factor is as follows:
1TX-slots = 1 transmit time slots out of 8 time slots=> conducted power divided by (8/1) => -9.00dB
2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.00dB
3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB
4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.00dB

| Band | WCDMA Band II | | | | WCDMA Band IV | | | |
|---|---|---|---|---|---|---|---|---|
| Channel | 9262 | 9400 | 9538 | Tune-up | 1312 | 1450 | 1513 | Tune-up |
| Frequency (MHz) | 1852.4 | 1880.0 | 1907.6 | | 1712.4 | 1740 | 1752.6 | |
| RMC 12.2K | **24.15** | 23.57 | 23.06 | 24.5 | 23.86 | **23.95** | 23.86 | 24.0 |
| HSDPA Subtest-1 | 23.14 | 22.95 | 22.77 | 23.5 | 23.86 | 23.78 | 23.57 | 24.0 |
| HSDPA Subtest-2 | 22.95 | 22.74 | 22.40 | | 23.39 | 23.46 | 23.30 | |
| HSDPA Subtest-3 | 22.67 | 22.46 | 22.35 | | 23.30 | 23.19 | 22.79 | |
| HSDPA Subtest-4 | 22.38 | 22.32 | 22.16 | | 22.83 | 22.95 | 22.88 | |
| HSUPA Subtest-1 | 22.90 | 22.84 | 22.63 | 23.5 | 23.51 | 23.56 | 23.28 | 24.0 |
| HSUPA Subtest-2 | 23.16 | 22.95 | 22.73 | | 23.83 | 23.74 | 23.44 | |
| HSUPA Subtest-3 | 22.61 | 22.93 | 22.28 | | 23.44 | 23.08 | 22.97 | |
| HSUPA Subtest-4 | 23.07 | 22.89 | 22.80 | | 23.85 | 23.74 | 23.50 | |
| HSUPA Subtest-5 | 23.02 | 22.61 | 22.57 | | 23.65 | 23.59 | 23.22 | |

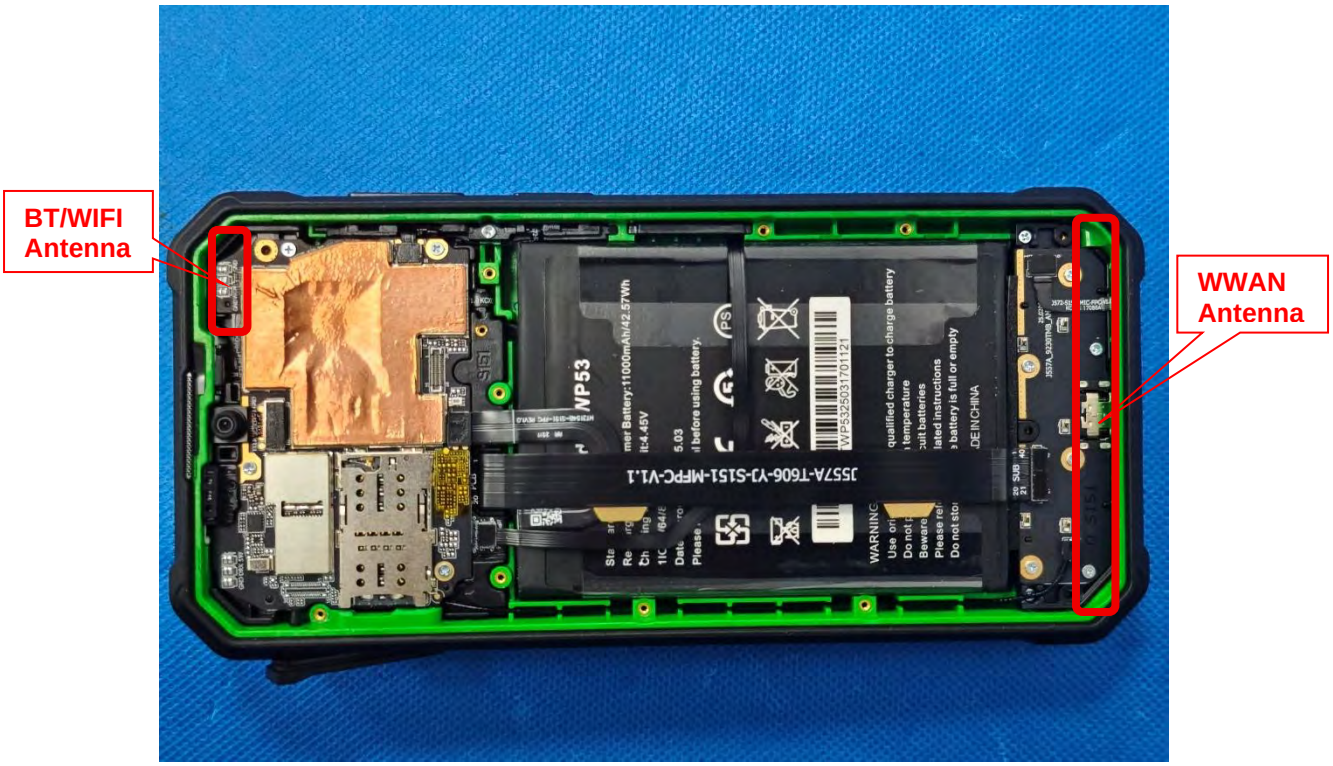
| Band | WCDMA Band V | | | | / | | | |
|---|---|---|---|---|---|---|---|---|
| Channel | 4132 | 4182 | 4233 | Tune-up | / | / | / | / |
| Frequency (MHz) | 826.4 | 836.4 | 846.6 | | / | / | / | |
| RMC 12.2K | **24.16** | 23.85 | 23.97 | 24.5 | / | / | / | / |
| HSDPA Subtest-1 | 23.46 | 23.21 | 23.76 | 24.0 | / | / | / | / |
| HSDPA Subtest-2 | 23.22 | 22.93 | 23.45 | | / | / | / | |
| HSDPA Subtest-3 | 22.88 | 22.48 | 22.88 | | / | / | / | |
| HSDPA Subtest-4 | 23.07 | 22.64 | 22.91 | | / | / | / | |
| HSUPA Subtest-1 | 23.41 | 23.05 | 23.72 | 24.0 | / | / | / | / |
| HSUPA Subtest-2 | 23.42 | 23.19 | 23.69 | | / | / | / | |
| HSUPA Subtest-3 | 23.27 | 23.25 | 23.61 | | / | / | / | |
| HSUPA Subtest-4 | 23.42 | 23.22 | 23.71 | | / | / | / | |
| HSUPA Subtest-5 | 23.10 | 22.80 | 23.48 | | / | / | / | |

Note:
1. Per KDB 941225 D01 v03, the 12.2kbps RMC mode was selected for SAR testing (the primary mode).
2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/4dB higher than the primary mode (RMC12.2kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

**See Appendix 1 for RF conduction data for LTE.**

## 14.2 Transmit Antennas and SAR Measurement Position

**EUT Antenna Location:**




| Antennas | Support Band |
|---|---|
| WWAN | GSM 850/1900 + WCDMA Band 2/4/5 + FDD LTE Band 2/4/5/7/12 |
| BT/WIFI | Bluetooth + WIFI 2.4G + WIFI 5G |

| Distance of The Antenna to the EUT surface and edge (mm) | | | | | | |
|---|---|---|---|---|---|---|
| Antennas | Front | Back | Top Side | Bottom Side | Left Side | Right Side |
| WWAN | <25 | <25 | 157 | <25 | <25 | <25 |
| BT/WIFI | <25 | <25 | <25 | 160 | 62 | <25 |

| Positions for SAR tests; Hotspot mode | | | | | | |
|---|---|---|---|---|---|---|
| Antennas | Front | Back | Top Side | Bottom Side | Left Side | Right Side |
| WWAN | Yes | Yes | No | Yes | Yes | Yes |
| BT/WIFI | Yes | Yes | Yes | No | No | Yes |

## 14.3 Measured and Reported (Scaled) SAR Results

The calculated SAR is obtained by the following formula:

1. Reported SAR for WWAN=Measured SAR * Tune-up Scaling factor
2. Reported SAR for WLAN and Bluetooth=Measured SAR * Tune-up Scaling factor * Duty Cycle Scaling factor
3. Duty Cycle Scaling factor=1/ Duty Cycle (%)

**KDB 447498 D01 General RF Exposure Guidance:**

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

**KDB 648474 D04 Handset SAR v01r03:**

1. When the *reported* SAR for a 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 the body-worn accessory with a headset attached to the handset.
2. when the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, such as UMTS, LTE and Wi-Fi, and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface)
3. For Smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

**KDB 941225 D01 3G SAR Procedures:**

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/4dB higher than the primary mode (RMC12.2kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

**KDB 941225 D05 SAR for LTE Devices:**

1. Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
2. When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
3. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
4. SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is ≤ ½ dB higher than the QPSK or when the reported SAR for the QPSK configuration is ≤ 1.45 W/kg.
5. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

| WIFI 2.4G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | 802.11b | Left Cheek | 2437 | 15.67 | 16.0 | 1.079 | 0.145 | 0.156 | |
| | | Left Tilt | 2437 | 15.67 | 16.0 | 1.079 | 0.119 | 0.128 | |
| | | Right Cheek | 2437 | 15.67 | 16.0 | 1.079 | 0.122 | 0.132 | 1 |
| | | Right Tilt | 2437 | 15.67 | 16.0 | 1.079 | 0.192 | 0.207 | |
| Body & Hotspot | 802.11b | Front Face | 2437 | 15.67 | 16.0 | 1.079 | 0.257 | **0.277** | |
| | | Back Face | 2437 | 15.67 | 16.0 | 1.079 | 0.203 | 0.219 | |
| Hotspot | 802.11b | Right Side | 2437 | 15.67 | 16.0 | 1.079 | 0.080 | 0.086 | |
| | | Top Side | 2437 | 15.67 | 16.0 | 1.079 | 0.196 | 0.211 | |

| WIFI 5.1G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | 802.11a | Left Cheek | 5180 | 11.91 | 12.0 | 1.021 | 0.179 | 0.183 | |
| | | Left Tilt | 5180 | 11.91 | 12.0 | 1.021 | 0.338 | **0.345** | 2 |
| | | Right Cheek | 5180 | 11.91 | 12.0 | 1.021 | 0.288 | 0.294 | |
| | | Right Tilt | 5180 | 11.91 | 12.0 | 1.021 | 0.283 | 0.289 | |
| Body & Hotspot | 802.11a | Front Face | 5180 | 11.91 | 12.0 | 1.021 | 0.255 | 0.260 | |
| | | Back Face | 5180 | 11.91 | 12.0 | 1.021 | 0.308 | 0.314 | |
| Hotspot | 802.11a | Right Side | 5180 | 11.91 | 12.0 | 1.021 | 0.254 | 0.259 | |
| | | Top Side | 5180 | 11.91 | 12.0 | 1.021 | 0.224 | 0.229 | |

| WIFI 5.8G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | 802.11a | Left Cheek | 5745 | 9.03 | 9.5 | 1.114 | 0.283 | 0.315 | |
| | | Left Tilt | 5745 | 9.03 | 9.5 | 1.114 | 0.261 | 0.291 | |
| | | Right Cheek | 5745 | 9.03 | 9.5 | 1.114 | 0.345 | **0.384** | 3 |
| | | Right Tilt | 5745 | 9.03 | 9.5 | 1.114 | 0.333 | 0.371 | |
| Body & Hotspot | 802.11a | Front Face | 5745 | 9.03 | 9.5 | 1.114 | 0.338 | 0.377 | |
| | | Back Face | 5745 | 9.03 | 9.5 | 1.114 | 0.260 | 0.290 | |
| Hotspot | 802.11a | Right Side | 5745 | 9.03 | 9.5 | 1.114 | 0.282 | 0.314 | |
| | | Top Side | 5745 | 9.03 | 9.5 | 1.114 | 0.245 | 0.273 | |

| GSM 850 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | GSM | Left Cheek | 824.2 | 22.57 | 23.0 | 1.104 | 0.105 | 0.116 | |
| | | Left Tilt | 824.2 | 22.57 | 23.0 | 1.104 | 0.256 | 0.283 | |
| | | Right Cheek | 824.2 | 22.57 | 23.0 | 1.104 | 0.204 | 0.225 | |
| | | Right Tilt | 824.2 | 22.57 | 23.0 | 1.104 | 0.195 | 0.215 | |
| Body & Hotspot | GSM | Front Face | 824.2 | 22.57 | 23.0 | 1.104 | 0.470 | 0.519 | |
| | | Back Face | 824.2 | 22.57 | 23.0 | 1.104 | 0.544 | **0.601** | **4** |
| | GPRS slots-3 | Front Face | 848.8 | 29.71 | 30.0 | 1.069 | 0.382 | 0.408 | |
| | | Back Face | 848.8 | 29.71 | 30.0 | 1.069 | 0.444 | 0.475 | |
| Hotspot | GSM | Left Side | 824.2 | 22.57 | 23.0 | 1.104 | 0.201 | 0.222 | |
| | | Right Side | 824.2 | 22.57 | 23.0 | 1.104 | 0.403 | 0.445 | |
| | | Bottom Side | 824.2 | 22.57 | 23.0 | 1.104 | 0.283 | 0.312 | |

| GSM 1900 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | GSM | Left Cheek | 1880 | 29.43 | 29.5 | 1.016 | 0.127 | 0.129 | |
| | | Left Tilt | 1880 | 29.43 | 29.5 | 1.016 | 0.182 | 0.185 | |
| | | Right Cheek | 1880 | 29.43 | 29.5 | 1.016 | 0.128 | 0.130 | |
| | | Right Tilt | 1880 | 29.43 | 29.5 | 1.016 | 0.160 | 0.163 | |
| Body & Hotspot | GSM | Front Face | 1880 | 29.43 | 29.5 | 1.016 | 0.401 | 0.408 | |
| | | Back Face | 1880 | 29.43 | 29.5 | 1.016 | 0.475 | 0.483 | |
| | GPRS slots-3 | Front Face | 1909.8 | 26.89 | 27.0 | 1.026 | 0.448 | 0.459 | |
| | | Back Face | 1909.8 | 26.89 | 27.0 | 1.026 | 0.686 | **0.704** | **5** |
| Hotspot | GPRS slots-3 | Left Side | 1909.8 | 26.89 | 27.0 | 1.026 | 0.164 | 0.168 | |
| | | Right Side | 1909.8 | 26.89 | 27.0 | 1.026 | 0.165 | 0.169 | |
| | | Bottom Side | 1909.8 | 26.89 | 27.0 | 1.026 | 0.521 | 0.534 | |

| WCDMA Band 2 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | RMC | Left Cheek | 1852.4 | 24.15 | 24.5 | 1.084 | 0.129 | 0.140 | |
| | | Left Tilt | 1852.4 | 24.15 | 24.5 | 1.084 | 0.377 | 0.409 | |
| | | Right Cheek | 1852.4 | 24.15 | 24.5 | 1.084 | 0.097 | 0.105 | |
| | | Right Tilt | 1852.4 | 24.15 | 24.5 | 1.084 | 0.192 | 0.208 | |
| Body & Hotspot | RMC | Front Face | 1852.4 | 24.15 | 24.5 | 1.084 | 0.665 | 0.721 | |
| | | Back Face | 1852.4 | 24.15 | 24.5 | 1.084 | 0.566 | 0.614 | |
| Hotspot | RMC | Left Side | 1852.4 | 24.15 | 24.5 | 1.084 | 0.524 | 0.568 | |
| | | Right Side | 1852.4 | 24.15 | 24.5 | 1.084 | 0.081 | 0.088 | |
| | | Bottom Side | 1852.4 | 24.15 | 24.5 | 1.084 | 0.680 | **0.737** | **6** |

| WCDMA Band 4 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | RMC | Left Cheek | 1740 | 23.95 | 24.0 | 1.012 | 0.203 | 0.205 | |
| | | Left Tilt | 1740 | 23.95 | 24.0 | 1.012 | 0.167 | 0.169 | |
| | | Right Cheek | 1740 | 23.95 | 24.0 | 1.012 | 0.138 | 0.140 | |
| | | Right Tilt | 1740 | 23.95 | 24.0 | 1.012 | 0.185 | 0.187 | |
| Body & Hotspot | RMC | Front Face | 1740 | 23.95 | 24.0 | 1.012 | 0.350 | 0.354 | |
| | | Back Face | 1740 | 23.95 | 24.0 | 1.012 | 0.574 | **0.581** | **7** |
| Hotspot | RMC | Left Side | 1740 | 23.95 | 24.0 | 1.012 | 0.347 | 0.351 | |
| | | Right Side | 1740 | 23.95 | 24.0 | 1.012 | 0.158 | 0.160 | |
| | | Bottom Side | 1740 | 23.95 | 24.0 | 1.012 | 0.573 | 0.580 | |

| WCDMA Band 5 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | RMC | Left Cheek | 826.4 | 24.16 | 24.5 | 1.081 | 0.126 | 0.136 | |
| | | Left Tilt | 826.4 | 24.16 | 24.5 | 1.081 | 0.156 | 0.169 | |
| | | Right Cheek | 826.4 | 24.16 | 24.5 | 1.081 | 0.138 | 0.149 | |
| | | Right Tilt | 826.4 | 24.16 | 24.5 | 1.081 | 0.160 | 0.173 | |
| Body & Hotspot | RMC | Front Face | 826.4 | 24.16 | 24.5 | 1.081 | 0.231 | 0.250 | |
| | | Back Face | 826.4 | 24.16 | 24.5 | 1.081 | 0.579 | **0.626** | **8** |
| Hotspot | RMC | Left Side | 826.4 | 24.16 | 24.5 | 1.081 | 0.162 | 0.175 | |
| | | Right Side | 826.4 | 24.16 | 24.5 | 1.081 | 0.296 | 0.320 | |
| | | Bottom Side | 826.4 | 24.16 | 24.5 | 1.081 | 0.172 | 0.186 | |

| LTE Band 2 (20MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 1880 | 23.55 | 24.0 | 1.109 | 0.192 | 0.213 | |
| | | Left Tilt | 1880 | 23.55 | 24.0 | 1.109 | 0.284 | 0.315 | |
| | | Right Cheek | 1880 | 23.55 | 24.0 | 1.109 | 0.142 | 0.158 | |
| | | Right Tilt | 1880 | 23.55 | 24.0 | 1.109 | 0.246 | 0.273 | |
| | QPSK, 50%RB | Left Cheek | 1860 | 22.93 | 23.0 | 1.016 | 0.120 | 0.122 | |
| | | Left Tilt | 1860 | 22.93 | 23.0 | 1.016 | 0.135 | 0.137 | |
| | | Right Cheek | 1860 | 22.93 | 23.0 | 1.016 | 0.138 | 0.140 | |
| | | Right Tilt | 1860 | 22.93 | 23.0 | 1.016 | 0.122 | 0.124 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 1880 | 23.55 | 24.0 | 1.109 | 0.795 | 0.882 | |
| | | Back Face | 1880 | 23.55 | 24.0 | 1.109 | 0.959 | 1.064 | |
| | | Back Face | 1860 | 23.48 | 24.0 | 1.127 | 1.032 | **1.163** | **9** |
| | | Back Face | 1900 | 23.28 | 24.0 | 1.180 | 0.768 | 0.906 | |
| | QPSK, 50%RB | Front Face | 1860 | 22.93 | 23.0 | 1.016 | 0.584 | 0.593 | |
| | | Back Face | 1860 | 22.93 | 23.0 | 1.016 | 0.764 | 0.776 | |
| | QPSK, 100%RB | Back Face | 1860 | 22.83 | 23.0 | 1.040 | 0.865 | 0.900 | |
| Hotspot | QPSK, 1RB | Left Side | 1880 | 23.55 | 24.0 | 1.109 | 0.587 | 0.651 | |
| | | Right Side | 1880 | 23.55 | 24.0 | 1.109 | 0.268 | 0.297 | |
| | | Bottom Side | 1880 | 23.55 | 24.0 | 1.109 | 0.753 | 0.835 | |
| | QPSK, 50%RB | Left Side | 1860 | 22.93 | 23.0 | 1.016 | 0.452 | 0.459 | |
| | | Right Side | 1860 | 22.93 | 23.0 | 1.016 | 0.263 | 0.267 | |
| | | Bottom Side | 1860 | 22.93 | 23.0 | 1.016 | 0.611 | 0.621 | |

| LTE Band 4 (20MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 1732.5 | 24.76 | 25.0 | 1.057 | 0.182 | 0.192 | |
| | | Left Tilt | 1732.5 | 24.76 | 25.0 | 1.057 | 0.498 | 0.526 | |
| | | Right Cheek | 1732.5 | 24.76 | 25.0 | 1.057 | 0.167 | 0.176 | |
| | | Right Tilt | 1732.5 | 24.76 | 25.0 | 1.057 | 0.120 | 0.127 | |
| | QPSK, 50%RB | Left Cheek | 1732.5 | 24.06 | 24.5 | 1.107 | 0.174 | 0.193 | |
| | | Left Tilt | 1732.5 | 24.06 | 24.5 | 1.107 | 0.138 | 0.153 | |
| | | Right Cheek | 1732.5 | 24.06 | 24.5 | 1.107 | 0.152 | 0.168 | |
| | | Right Tilt | 1732.5 | 24.06 | 24.5 | 1.107 | 0.114 | 0.126 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 1732.5 | 24.76 | 25.0 | 1.057 | 0.385 | 0.407 | |
| | | Back Face | 1732.5 | 24.76 | 25.0 | 1.057 | 0.553 | **0.584** | **10** |
| | QPSK, 50%RB | Front Face | 1732.5 | 24.06 | 24.5 | 1.107 | 0.372 | 0.412 | |
| | | Back Face | 1732.5 | 24.06 | 24.5 | 1.107 | 0.489 | 0.541 | |
| Hotspot | QPSK, 1RB | Left Side | 1732.5 | 24.76 | 25.0 | 1.057 | 0.434 | 0.459 | |
| | | Right Side | 1732.5 | 24.76 | 25.0 | 1.057 | 0.115 | 0.122 | |
| | | Bottom Side | 1732.5 | 24.76 | 25.0 | 1.057 | 0.519 | 0.548 | |
| | QPSK, 50%RB | Left Side | 1732.5 | 24.06 | 24.5 | 1.107 | 0.341 | 0.377 | |
| | | Right Side | 1732.5 | 24.06 | 24.5 | 1.107 | 0.113 | 0.125 | |
| | | Bottom Side | 1732.5 | 24.06 | 24.5 | 1.107 | 0.402 | 0.445 | |

| LTE Band 5 (10MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 829 | 24.82 | 25.0 | 1.042 | 0.177 | 0.184 | |
| | | Left Tilt | 829 | 24.82 | 25.0 | 1.042 | 0.146 | 0.152 | |
| | | Right Cheek | 829 | 24.82 | 25.0 | 1.042 | 0.132 | 0.138 | |
| | | Right Tilt | 829 | 24.82 | 25.0 | 1.042 | 0.145 | 0.151 | |
| | QPSK, 50%RB | Left Cheek | 829 | 24.44 | 24.5 | 1.014 | 0.166 | 0.168 | |
| | | Left Tilt | 829 | 24.44 | 24.5 | 1.014 | 0.127 | 0.129 | |
| | | Right Cheek | 829 | 24.44 | 24.5 | 1.014 | 0.141 | 0.143 | |
| | | Right Tilt | 829 | 24.44 | 24.5 | 1.014 | 0.137 | 0.139 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 829 | 24.82 | 25.0 | 1.042 | 0.231 | 0.241 | |
| | | Back Face | 829 | 24.82 | 25.0 | 1.042 | 0.438 | **0.457** | **11** |
| | QPSK, 50%RB | Front Face | 829 | 24.44 | 24.5 | 1.014 | 0.215 | 0.218 | |
| | | Back Face | 829 | 24.44 | 24.5 | 1.014 | 0.394 | 0.399 | |
| Hotspot | QPSK, 1RB | Left Side | 829 | 24.82 | 25.0 | 1.042 | 0.138 | 0.144 | |
| | | Right Side | 829 | 24.82 | 25.0 | 1.042 | 0.229 | 0.239 | |
| | | Bottom Side | 829 | 24.82 | 25.0 | 1.042 | 0.206 | 0.215 | |
| | QPSK, 50%RB | Left Side | 829 | 24.44 | 24.5 | 1.014 | 0.095 | 0.096 | |
| | | Right Side | 829 | 24.44 | 24.5 | 1.014 | 0.205 | 0.208 | |
| | | Bottom Side | 829 | 24.44 | 24.5 | 1.014 | 0.163 | 0.165 | |

| LTE Band 7 (20MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 2560 | 22.71 | 23.0 | 1.069 | 0.177 | 0.189 | |
| | | Left Tilt | 2560 | 22.71 | 23.0 | 1.069 | 0.182 | 0.195 | |
| | | Right Cheek | 2560 | 22.71 | 23.0 | 1.069 | 0.181 | 0.193 | |
| | | Right Tilt | 2560 | 22.71 | 23.0 | 1.069 | 0.198 | 0.212 | |
| | QPSK, 50%RB | Left Cheek | 2560 | 22.15 | 22.5 | 1.084 | 0.168 | 0.182 | |
| | | Left Tilt | 2560 | 22.15 | 22.5 | 1.084 | 0.154 | 0.167 | |
| | | Right Cheek | 2560 | 22.15 | 22.5 | 1.084 | 0.148 | 0.160 | |
| | | Right Tilt | 2560 | 22.15 | 22.5 | 1.084 | 0.160 | 0.173 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 2560 | 22.71 | 23.0 | 1.069 | 0.231 | 0.247 | |
| | | Back Face | 2560 | 22.71 | 23.0 | 1.069 | 0.678 | 0.725 | |
| | QPSK, 50%RB | Front Face | 2560 | 22.15 | 22.5 | 1.084 | 0.216 | 0.234 | |
| | | Back Face | 2560 | 22.15 | 22.5 | 1.084 | 0.577 | 0.625 | |
| Hotspot | QPSK, 1RB | Left Side | 2560 | 22.71 | 23.0 | 1.069 | 0.244 | 0.261 | |
| | | Right Side | 2560 | 22.71 | 23.0 | 1.069 | 0.261 | 0.279 | |
| | | Bottom Side | 2560 | 22.71 | 23.0 | 1.069 | 0.994 | 1.063 | |
| | | Bottom Side | 2510 | 22.27 | 23.0 | 1.183 | 0.886 | 1.048 | |
| | | Bottom Side | 2535 | 22.49 | 23.0 | 1.125 | 1.250 | **1.406** | **12** |
| | QPSK, 50%RB | Left Side | 2560 | 22.15 | 22.5 | 1.084 | 0.181 | 0.196 | |
| | | Right Side | 2560 | 22.15 | 22.5 | 1.084 | 0.200 | 0.217 | |
| | | Bottom Side | 2560 | 22.15 | 22.5 | 1.084 | 0.904 | 0.980 | |
| | | Bottom Side | 2510 | 21.83 | 22.5 | 1.167 | 0.863 | 1.007 | |
| | | Bottom Side | 2535 | 21.97 | 22.5 | 1.130 | 1.068 | 1.207 | |
| | QPSK, 100%RB | Bottom Side | 2560 | 22.01 | 22.5 | 1.119 | 1.087 | 1.217 | |

| LTE Band 12 (10MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 707.5 | 23.29 | 23.5 | 1.050 | 0.189 | 0.198 | |
| | | Left Tilt | 707.5 | 23.29 | 23.5 | 1.050 | 0.143 | 0.150 | |
| | | Right Cheek | 707.5 | 23.29 | 23.5 | 1.050 | 0.206 | 0.216 | |
| | | Right Tilt | 707.5 | 23.29 | 23.5 | 1.050 | 0.188 | 0.197 | |
| | QPSK, 50%RB | Left Cheek | 704 | 23.12 | 23.5 | 1.091 | 0.117 | 0.128 | |
| | | Left Tilt | 704 | 23.12 | 23.5 | 1.091 | 0.121 | 0.132 | |
| | | Right Cheek | 704 | 23.12 | 23.5 | 1.091 | 0.196 | 0.214 | |
| | | Right Tilt | 704 | 23.12 | 23.5 | 1.091 | 0.175 | 0.191 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 707.5 | 23.29 | 23.5 | 1.050 | 0.171 | 0.179 | |
| | | Back Face | 707.5 | 23.29 | 23.5 | 1.050 | 0.239 | **0.251** | **13** |
| | QPSK, 50%RB | Front Face | 704 | 23.12 | 23.5 | 1.091 | 0.169 | 0.184 | |
| | | Back Face | 704 | 23.12 | 23.5 | 1.091 | 0.209 | 0.228 | |
| Hotspot | QPSK, 1RB | Left Side | 707.5 | 23.29 | 23.5 | 1.050 | 0.145 | 0.152 | |
| | | Right Side | 707.5 | 23.29 | 23.5 | 1.050 | 0.167 | 0.175 | |
| | | Bottom Side | 707.5 | 23.29 | 23.5 | 1.050 | 0.124 | 0.130 | |
| | QPSK, 50%RB | Left Side | 704 | 23.12 | 23.5 | 1.091 | 0.129 | 0.141 | |
| | | Right Side | 704 | 23.12 | 23.5 | 1.091 | 0.155 | 0.169 | |
| | | Bottom Side | 704 | 23.12 | 23.5 | 1.091 | 0.121 | 0.132 | |

| LTE Band 17 (10MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 710 | 23.30 | 23.5 | 1.047 | 0.242 | 0.253 | |
| | | Left Tilt | 710 | 23.30 | 23.5 | 1.047 | 0.220 | 0.230 | |
| | | Right Cheek | 710 | 23.30 | 23.5 | 1.047 | 0.157 | 0.164 | |
| | | Right Tilt | 710 | 23.30 | 23.5 | 1.047 | 0.144 | 0.151 | |
| | QPSK, 50%RB | Left Cheek | 711 | 22.84 | 23.0 | 1.038 | 0.172 | 0.178 | |
| | | Left Tilt | 711 | 22.84 | 23.0 | 1.038 | 0.187 | 0.194 | |
| | | Right Cheek | 711 | 22.84 | 23.0 | 1.038 | 0.135 | 0.140 | |
| | | Right Tilt | 711 | 22.84 | 23.0 | 1.038 | 0.126 | 0.131 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 710 | 23.30 | 23.5 | 1.047 | 0.194 | 0.203 | |
| | | Back Face | 710 | 23.30 | 23.5 | 1.047 | 0.435 | **0.456** | **14** |
| | QPSK, 50%RB | Front Face | 711 | 22.84 | 23.0 | 1.038 | 0.164 | 0.170 | |
| | | Back Face | 711 | 22.84 | 23.0 | 1.038 | 0.389 | 0.404 | |
| Hotspot | QPSK, 1RB | Left Side | 710 | 23.30 | 23.5 | 1.047 | 0.116 | 0.121 | |
| | | Right Side | 710 | 23.30 | 23.5 | 1.047 | 0.133 | 0.139 | |
| | | Bottom Side | 710 | 23.30 | 23.5 | 1.047 | 0.116 | 0.121 | |
| | QPSK, 50%RB | Left Side | 711 | 22.84 | 23.0 | 1.038 | 0.089 | 0.092 | |
| | | Right Side | 711 | 22.84 | 23.0 | 1.038 | 0.122 | 0.127 | |
| | | Bottom Side | 711 | 22.84 | 23.0 | 1.038 | 0.090 | 0.093 | |

| LTE Band 25 (20MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 1860 | 24.01 | 24.5 | 1.119 | 0.561 | 0.628 | |
| | | Left Tilt | 1860 | 24.01 | 24.5 | 1.119 | 0.148 | 0.166 | |
| | | Right Cheek | 1860 | 24.01 | 24.5 | 1.119 | 0.146 | 0.163 | |
| | | Right Tilt | 1860 | 24.01 | 24.5 | 1.119 | 0.168 | 0.188 | |
| | QPSK, 50%RB | Left Cheek | 1860 | 23.49 | 24.0 | 1.125 | 0.157 | 0.177 | |
| | | Left Tilt | 1860 | 23.49 | 24.0 | 1.125 | 0.137 | 0.154 | |
| | | Right Cheek | 1860 | 23.49 | 24.0 | 1.125 | 0.132 | 0.148 | |
| | | Right Tilt | 1860 | 23.49 | 24.0 | 1.125 | 0.126 | 0.142 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 1860 | 24.01 | 24.5 | 1.119 | 0.476 | 0.533 | |
| | | Back Face | 1860 | 24.01 | 24.5 | 1.119 | 0.771 | **0.863** | **15** |
| | QPSK, 50%RB | Front Face | 1860 | 23.49 | 24.0 | 1.125 | 0.419 | 0.471 | |
| | | Back Face | 1860 | 23.49 | 24.0 | 1.125 | 0.630 | 0.709 | |
| Hotspot | QPSK, 1RB | Left Side | 1860 | 24.01 | 24.5 | 1.119 | 0.570 | 0.638 | |
| | | Right Side | 1860 | 24.01 | 24.5 | 1.119 | 0.095 | 0.106 | |
| | | Bottom Side | 1860 | 24.01 | 24.5 | 1.119 | 0.677 | 0.758 | |
| | QPSK, 50%RB | Left Side | 1860 | 23.49 | 24.0 | 1.125 | 0.424 | 0.477 | |
| | | Right Side | 1860 | 23.49 | 24.0 | 1.125 | 0.084 | 0.094 | |
| | | Bottom Side | 1860 | 23.49 | 24.0 | 1.125 | 0.495 | 0.557 | |

| LTE Band 26 (10MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 819 | 25.40 | 25.5 | 1.023 | 0.219 | 0.224 | |
| | | Left Tilt | 819 | 25.40 | 25.5 | 1.023 | 0.234 | 0.239 | |
| | | Right Cheek | 819 | 25.40 | 25.5 | 1.023 | 0.188 | 0.192 | |
| | | Right Tilt | 819 | 25.40 | 25.5 | 1.023 | 0.164 | 0.168 | |
| | QPSK, 50%RB | Left Cheek | 819 | 25.03 | 25.5 | 1.114 | 0.183 | 0.204 | |
| | | Left Tilt | 819 | 25.03 | 25.5 | 1.114 | 0.158 | 0.176 | |
| | | Right Cheek | 819 | 25.03 | 25.5 | 1.114 | 0.082 | 0.091 | |
| | | Right Tilt | 819 | 25.03 | 25.5 | 1.114 | 0.133 | 0.148 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 819 | 25.40 | 25.5 | 1.023 | 0.243 | 0.249 | |
| | | Back Face | 819 | 25.40 | 25.5 | 1.023 | 0.424 | **0.434** | **16** |
| | QPSK, 50%RB | Front Face | 819 | 25.03 | 25.5 | 1.114 | 0.207 | 0.231 | |
| | | Back Face | 819 | 25.03 | 25.5 | 1.114 | 0.370 | 0.412 | |
| Hotspot | QPSK, 1RB | Left Side | 819 | 25.40 | 25.5 | 1.023 | 0.132 | 0.135 | |
| | | Right Side | 819 | 25.40 | 25.5 | 1.023 | 0.162 | 0.166 | |
| | | Bottom Side | 819 | 25.40 | 25.5 | 1.023 | 0.167 | 0.171 | |
| | QPSK, 50%RB | Left Side | 819 | 25.03 | 25.5 | 1.114 | 0.127 | 0.142 | |
| | | Right Side | 819 | 25.03 | 25.5 | 1.114 | 0.149 | 0.166 | |
| | | Bottom Side | 819 | 25.03 | 25.5 | 1.114 | 0.117 | 0.130 | |

| LTE Band 26 (15MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 821.5 | 25.42 | 25.5 | 1.019 | 0.447 | 0.455 | |
| | | Left Tilt | 821.5 | 25.42 | 25.5 | 1.019 | 0.130 | 0.132 | |
| | | Right Cheek | 821.5 | 25.42 | 25.5 | 1.019 | 0.115 | 0.117 | |
| | | Right Tilt | 821.5 | 25.42 | 25.5 | 1.019 | 0.120 | 0.122 | |
| | QPSK, 50%RB | Left Cheek | 821.5 | 24.84 | 25.0 | 1.038 | 0.082 | 0.085 | |
| | | Left Tilt | 821.5 | 24.84 | 25.0 | 1.038 | 0.088 | 0.091 | |
| | | Right Cheek | 821.5 | 24.84 | 25.0 | 1.038 | 0.101 | 0.105 | |
| | | Right Tilt | 821.5 | 24.84 | 25.0 | 1.038 | 0.117 | 0.121 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 821.5 | 25.42 | 25.5 | 1.019 | 0.284 | 0.289 | |
| | | Back Face | 821.5 | 25.42 | 25.5 | 1.019 | 0.475 | **0.484** | **17** |
| | QPSK, 50%RB | Front Face | 821.5 | 24.84 | 25.0 | 1.038 | 0.283 | 0.294 | |
| | | Back Face | 821.5 | 24.84 | 25.0 | 1.038 | 0.450 | 0.467 | |
| Hotspot | QPSK, 1RB | Left Side | 821.5 | 25.42 | 25.5 | 1.019 | 0.163 | 0.166 | |
| | | Right Side | 821.5 | 25.42 | 25.5 | 1.019 | 0.262 | 0.267 | |
| | | Bottom Side | 821.5 | 25.42 | 25.5 | 1.019 | 0.191 | 0.195 | |
| | QPSK, 50%RB | Left Side | 821.5 | 24.84 | 25.0 | 1.038 | 0.133 | 0.138 | |
| | | Right Side | 821.5 | 24.84 | 25.0 | 1.038 | 0.253 | 0.262 | |
| | | Bottom Side | 821.5 | 24.84 | 25.0 | 1.038 | 0.160 | 0.166 | |

| LTE Band 66 (20MHz Bandwidth) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RF Exposure Conditions | Mode | Test Position | Freq. (MHz) | Power (dBm) | | Scaling Factor | $SAR_{1g}$ (W/kg) | | Plot No. |
| | | | | Meas. | Tuen-up | | Meas. | Scaled | |
| Head | QPSK, 1RB | Left Cheek | 1745 | 25.34 | 25.5 | 1.038 | 0.138 | 0.143 | |
| | | Left Tilt | 1745 | 25.34 | 25.5 | 1.038 | 0.115 | 0.119 | |
| | | Right Cheek | 1745 | 25.34 | 25.5 | 1.038 | 0.135 | 0.140 | |
| | | Right Tilt | 1745 | 25.34 | 25.5 | 1.038 | 0.221 | 0.229 | |
| | QPSK, 50%RB | Left Cheek | 1770 | 24.72 | 25.0 | 1.067 | 0.129 | 0.138 | |
| | | Left Tilt | 1770 | 24.72 | 25.0 | 1.067 | 0.103 | 0.110 | |
| | | Right Cheek | 1770 | 24.72 | 25.0 | 1.067 | 0.127 | 0.135 | |
| | | Right Tilt | 1770 | 24.72 | 25.0 | 1.067 | 0.123 | 0.131 | |
| Body & Hotspot | QPSK, 1RB | Front Face | 1745 | 25.34 | 25.5 | 1.038 | 0.510 | 0.529 | |
| | | Back Face | 1745 | 25.34 | 25.5 | 1.038 | 0.710 | **0.737** | **18** |
| | QPSK, 50%RB | Front Face | 1770 | 24.72 | 25.0 | 1.067 | 0.410 | 0.437 | |
| | | Back Face | 1770 | 24.72 | 25.0 | 1.067 | 0.684 | 0.730 | |
| Hotspot | QPSK, 1RB | Left Side | 1745 | 25.34 | 25.5 | 1.038 | 0.499 | 0.518 | |
| | | Right Side | 1745 | 25.34 | 25.5 | 1.038 | 0.146 | 0.151 | |
| | | Bottom Side | 1745 | 25.34 | 25.5 | 1.038 | 0.487 | 0.505 | |
| | QPSK, 50%RB | Left Side | 1770 | 24.72 | 25.0 | 1.067 | 0.440 | 0.469 | |
| | | Right Side | 1770 | 24.72 | 25.0 | 1.067 | 0.116 | 0.124 | |
| | | Bottom Side | 1770 | 24.72 | 25.0 | 1.067 | 0.426 | 0.454 | |

## 14.4 SAR Measurement Variability

According to KDB865664, Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg. If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with ≤ 20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.19 The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB 690783.Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

1) When the original highest measured SAR is ≥ 0.80 W/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 (~ 10% from the 1-g SAR limit).
3) 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.
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

| Test Mode | Frequency (MHz) | RF Exposure Configuration | Test Position | Repeated SAR (yes/no) | Highest Measured SAR1-g (W/Kg) | First Repeated | |
|---|---|---|---|---|---|---|---|
| | | | | | | Measured SAR1-g (W/Kg) | Largest to Smallest SAR Ratio |
| LTE Band 2 QPSK, 1RB | 1880 | Body&Hotspot | Back Face | Yes | 0.959 | 0.913 | 1.050 |
| LTE Band 2 QPSK, 1RB | 1860 | Body&Hotspot | Back Face | Yes | 1.032 | 0.980 | 1.053 |
| LTE Band 2 QPSK, 100%RB | 1860 | Body&Hotspot | Back Face | Yes | 0.865 | 0.827 | 1.046 |
| LTE Band 7 QPSK, 1RB | 2560 | Hotspot | Bottom Side | Yes | 0.994 | 0.951 | 1.045 |
| LTE Band 7 QPSK, 1RB | 2510 | Hotspot | Bottom Side | Yes | 0.886 | 0.822 | 1.078 |
| LTE Band 7 QPSK, 1RB | 2535 | Hotspot | Bottom Side | Yes | 1.250 | 1.197 | 1.044 |
| LTE Band 7 QPSK, 50%RB | 2560 | Hotspot | Bottom Side | Yes | 0.904 | 0.859 | 1.052 |
| LTE Band 7 QPSK, 50%RB | 2510 | Hotspot | Bottom Side | Yes | 0.863 | 0.819 | 1.054 |
| LTE Band 7 QPSK, 50%RB | 2535 | Hotspot | Bottom Side | Yes | 1.068 | 0.996 | 1.072 |
| LTE Band 7 QPSK, 100%RB | 2560 | Hotspot | Bottom Side | Yes | 1.087 | 0.983 | 1.106 |

## 14.5 Simultaneous Transmission Evaluation

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmiting antenna.

Application Simultaneous Transmission information:

| No. | Configurations | Head SAR | Body SAR | Hotspot SAR |
|---|---|---|---|---|
| **1** | WWAN+WIFI | Yes | Yes | Yes |
| **2** | WWAN+Bluetooth | Yes | Yes | Yes |
| **3** | WIFI+Bluetooth | No | No | No |

**Remark:**
1. WWAN cannot transmit simultaneously.
2. Bluetooth and WIFI share the same antenna and cannot transmit data at the same time.
3. According to the KDB 447498 D01 v06, 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)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;
where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
● 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm

| Estimated stand alone SAR | | | | | | |
|---|---|---|---|---|---|---|
| **Mode** | **Frequency (MHz)** | **Maximum Power (dBm)** | **Maximum Power (mW)** | **Separation Distance (mm)** | **X** | **Estimated SAR1-g (W/kg)** |
| Bluetooth | 2480 | 2.5 | 1.78 | 5 | 7.5 | 0.075 |

Note:
1. Bluetooth*- Including Lower power Bluetooth
2. Maximum average power including tune-up tolerance;
3. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

4. Per FCC KD B447498 D01, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the transmitting antenna in a specific a physical test configuration is ≤1.6 W/Kg. When the sum is greater than the SAR limit, SAR test exclusion is determined by the SAR to peak location separation ratio.

$$\text{Ratio}=\frac{(SAR_1+SAR_2)^{1.5}}{(\text{peak location separation,mm})}<0.04$$

5. Simultaneous transmission of maximum SAR sum calculation.

| RF Exposure Conditions | Test Position | Scaled $SAR_{1g}$ (W/kg) | | Summed $SAR_{1g}$ (W/kg) | Limit $SAR_{1g}$ (W/kg) |
|---|---|---|---|---|---|
| | | BT/WIFI | WWAN | | |
| Head | Left Cheek | 0.315 | 0.628 | **0.943** | 1.6 |
| | Left Tilt | 0.345 | 0.526 | 0.871 | 1.6 |
| | Right Cheek | 0.384 | 0.225 | 0.609 | 1.6 |
| | Right Tilt | 0.371 | 0.273 | 0.644 | 1.6 |
| Body& Hotspot | Front Face | 0.377 | 0.882 | 1.259 | 1.6 |
| | Back Face | 0.314 | 1.163 | **1.477** | 1.6 |
| Hotspot | Left Side | / | 0.651 | 0.651 | 1.6 |
| | Right Side | 0.314 | 0.445 | 0.759 | 1.6 |
| | Top Side | 0.273 | / | 0.273 | 1.6 |
| | Bottom Side | / | 1.406 | **1.406** | 1.6 |

# 15. Test Plots

## 15.1 System Performance Check

**System check at 750 MHz**
Date of measurement: 16/6/2025

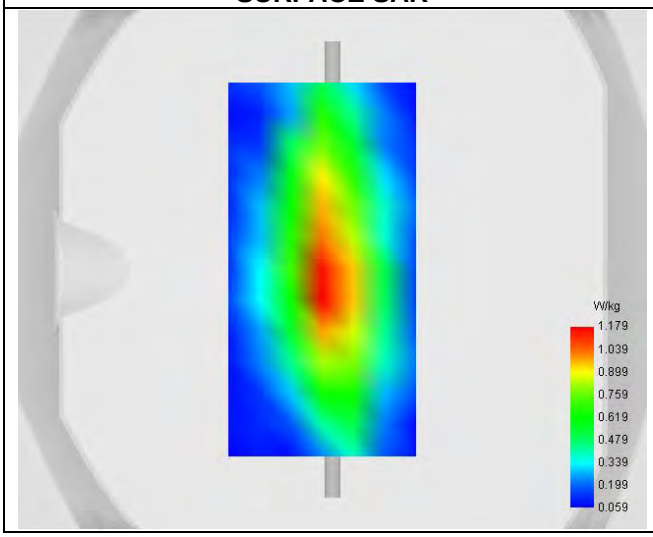
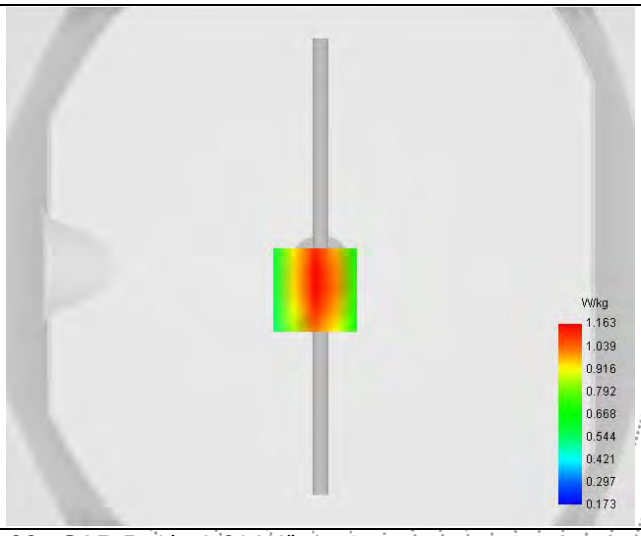
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 0.80 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW750 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 750.000 |
| **Relative permitivity (real part)** | 42.566 |
| **Relative permitivity (imaginary part)** | 24.595 |
| **Conductivity (S/m)** | 0.922 |

**C. SAR Surface and Volume**

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



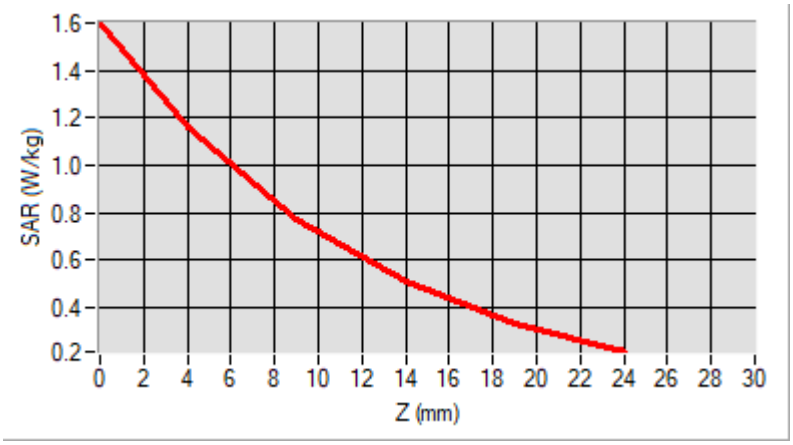
Maximum location: X=-2.00, Y=-9.00 ; SAR Peak: 1.61 W/kg

**D. SAR 1g & 10g**

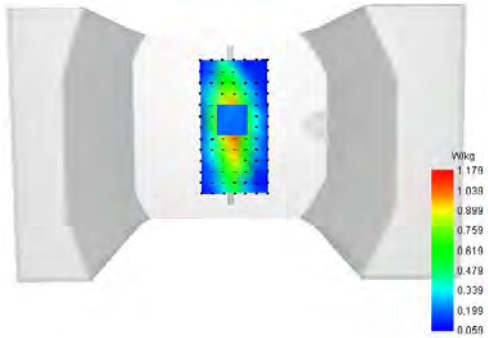
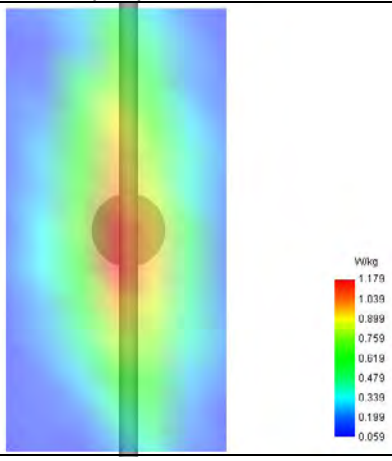
| | |
|---|---|
| SAR 10g (W/Kg) | 1.381 |
| SAR 1g (W/Kg) | 2.046 |
| Variation (%) | -0.227 |

**E. Z Axis Scan**

| | | | | | |
|---|---|---|---|---|---|
| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
| SAR (W/Kg) | 1.603 | 1.163 | 0.769 | 0.506 | 0.333 |




**F. 3D Image**

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

**System check at 835 MHz**
Date of measurement: 13/6/2025

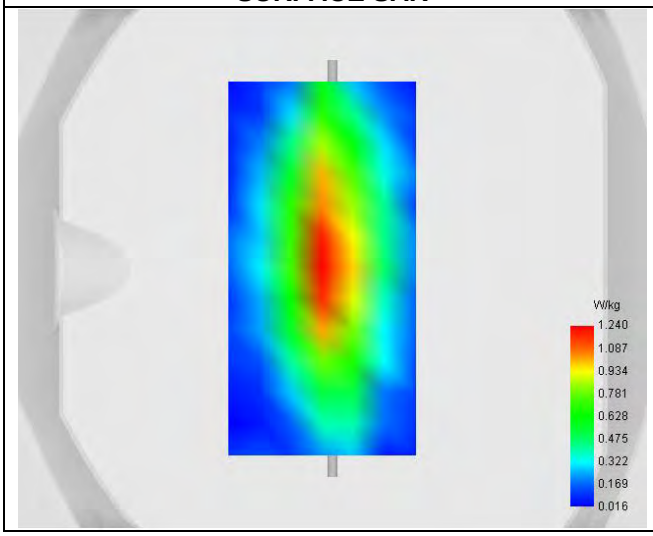
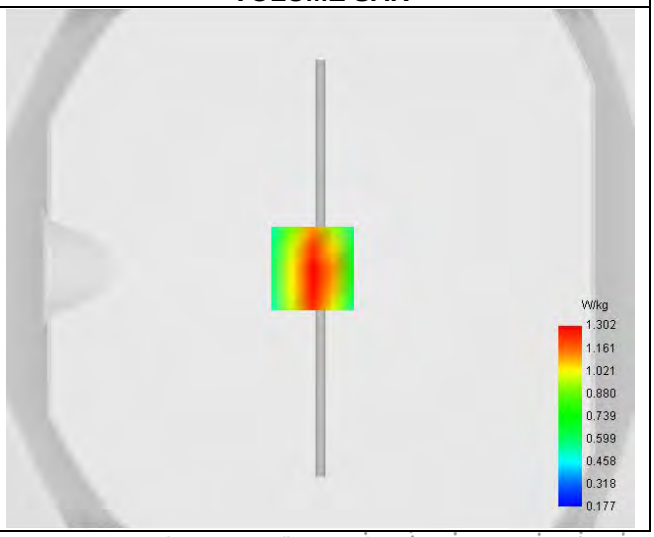
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 0.81 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW835 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 835.000 |
| **Relative permitivity (real part)** | 41.133 |
| **Relative permitivity (imaginary part)** | 20.910 |
| **Conductivity (S/m)** | 0.892 |

**C. SAR Surface and Volume**

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



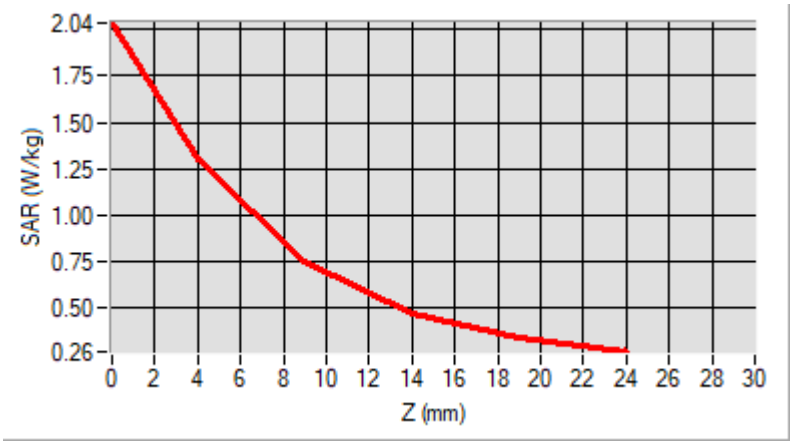
Maximum location: X=-3.00, Y=0.00 ; SAR Peak: 2.06 W/kg

**D. SAR 1g & 10g**

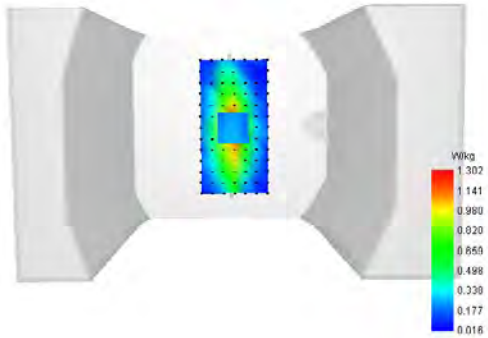
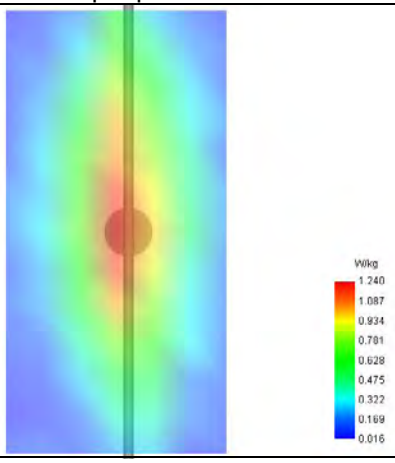
| | |
|---|---|
| SAR 10g (W/Kg) | 1.542 |
| SAR 1g (W/Kg) | 2.521 |
| Variation (%) | -3.727 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
|---|---|---|---|---|---|
| SAR (W/Kg) | 2.036 | 1.302 | 0.747 | 0.462 | 0.331 |




**F. 3D Image**

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

**System check at 1800 MHz**

Date of measurement: 18/6/2025

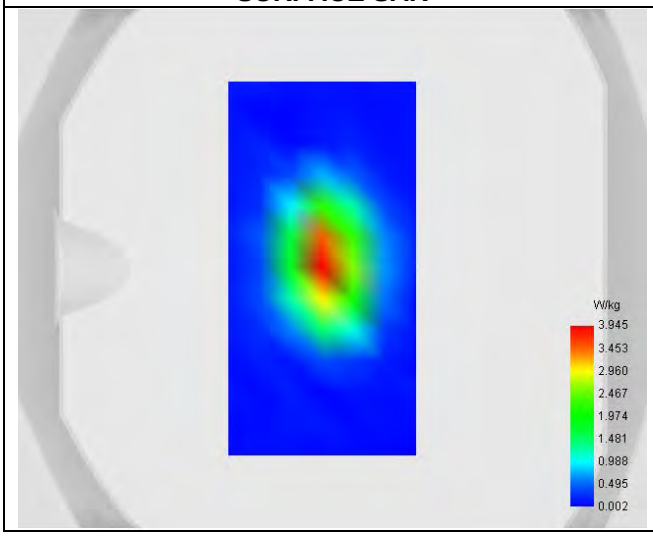
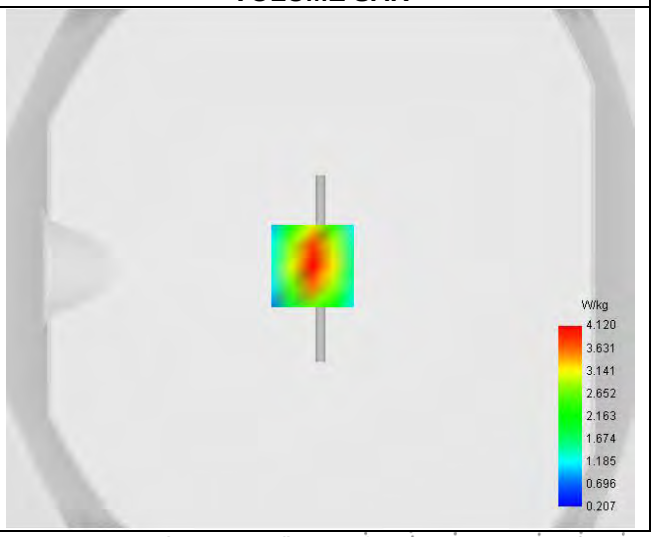
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 0.96 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW1800 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 1800.000 |
| **Relative permitivity (real part)** | 41.006 |
| **Relative permitivity (imaginary part)** | 15.200 |
| **Conductivity (S/m)** | 1.449 |

**C. SAR Surface and Volume**

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



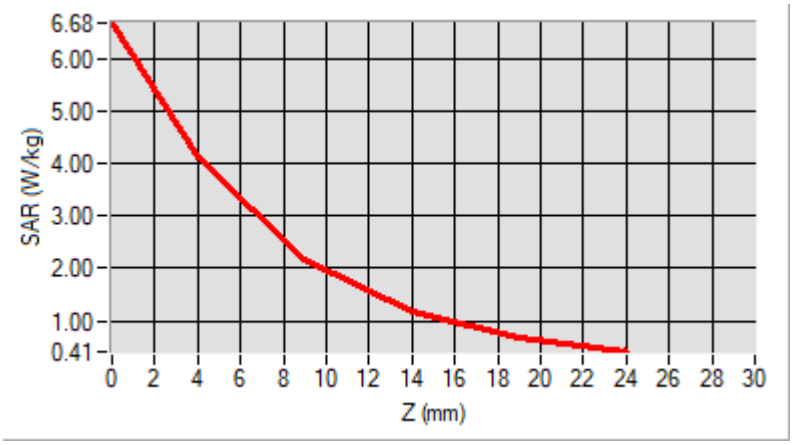
Maximum location: X=-3.00, Y=1.00 ; SAR Peak: 6.69 W/kg

**D. SAR 1g & 10g**

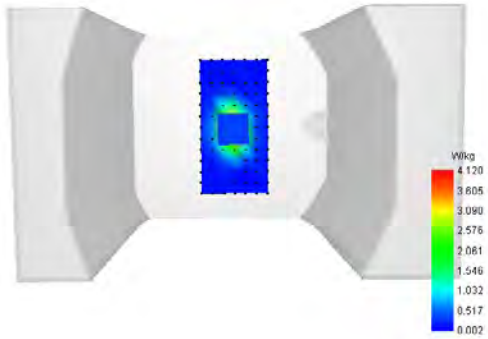
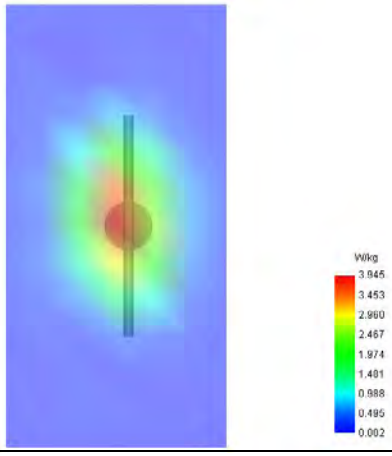
| | |
|---|---|
| SAR 10g (W/Kg) | 5.062 |
| SAR 1g (W/Kg) | 10.328 |
| Variation (%) | -1.616 |

**E. Z Axis Scan**

| | | | | | |
|---|---|---|---|---|---|
| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
| SAR (W/Kg) | 6.684 | 4.120 | 2.184 | 1.177 | 0.685 |




**F. 3D Image**

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

**System check at 1900 MHz**
Date of measurement: 17/6/2025

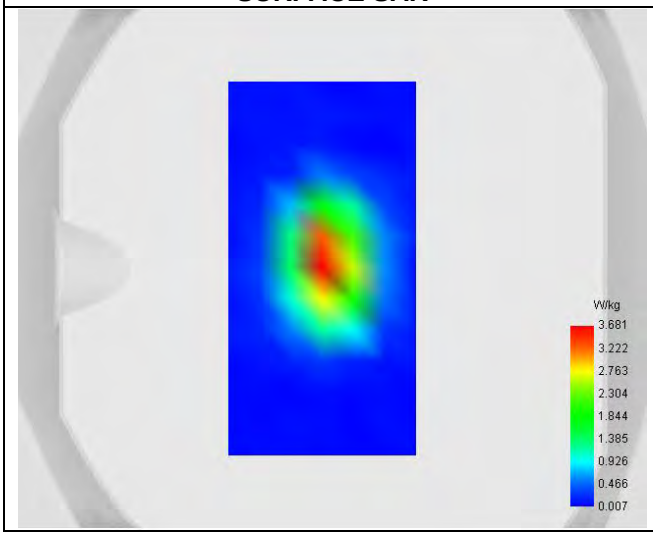
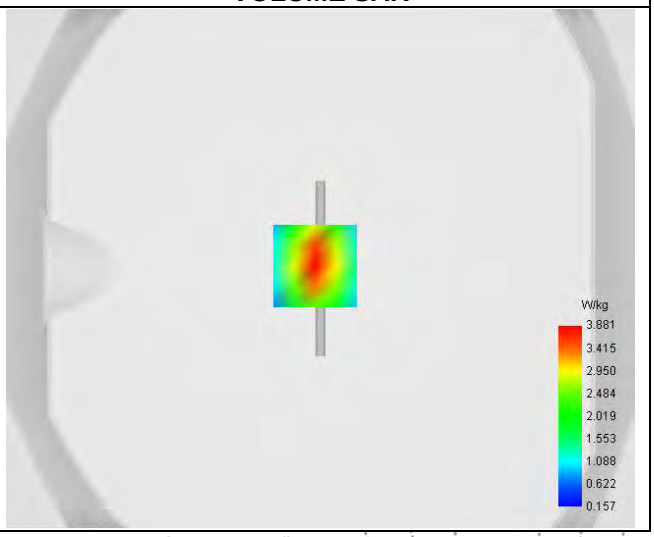
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.04 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW1900 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 1900.000 |
| **Relative permitivity (real part)** | 38.870 |
| **Relative permitivity (imaginary part)** | 14.400 |
| **Conductivity (S/m)** | 1.399 |

**C. SAR Surface and Volume**

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





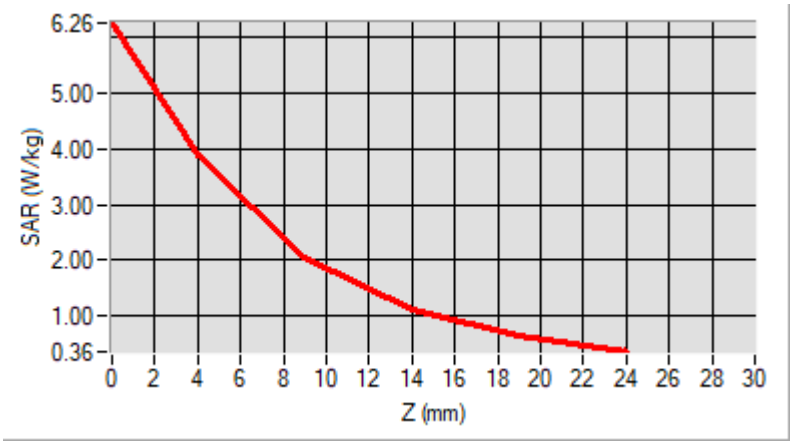
Maximum location: X=-2.00, Y=1.00 ; SAR Peak: 6.27 W/kg

**D. SAR 1g & 10g**

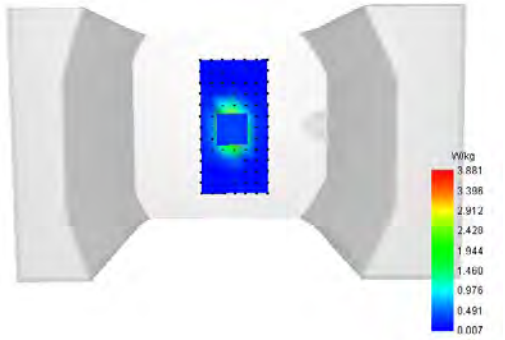
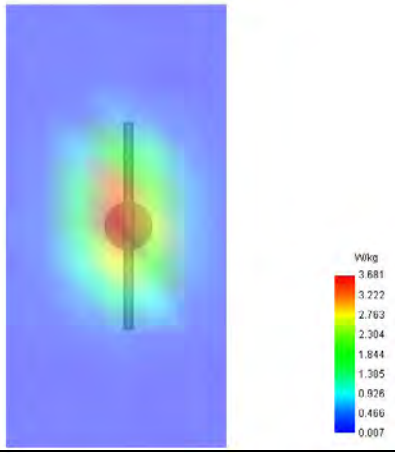
| | |
|---|---|
| SAR 10g (W/Kg) | 5.511 |
| SAR 1g (W/Kg) | 10.286 |
| Variation (%) | -0.673 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
|---|---|---|---|---|---|
| SAR (W/Kg) | 6.259 | 3.881 | 2.069 | 1.111 | 0.634 |




**F. 3D Image**

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

**System check at 2450 MHz**

Date of measurement: 16/6/2025

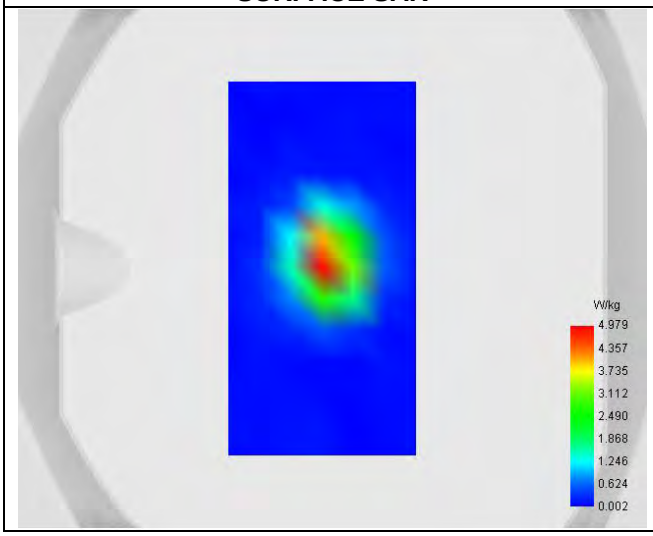
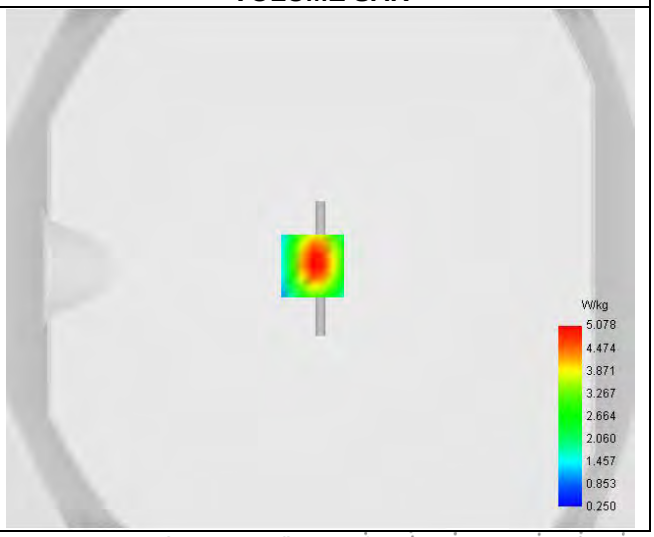
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.11 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 7x7x12,dx=4mm dy=4mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW2450 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 2450.000 |
| **Relative permitivity (real part)** | 37.569 |
| **Relative permitivity (imaginary part)** | 14.330 |
| **Conductivity (S/m)** | 1.818 |

**C. SAR Surface and Volume**

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



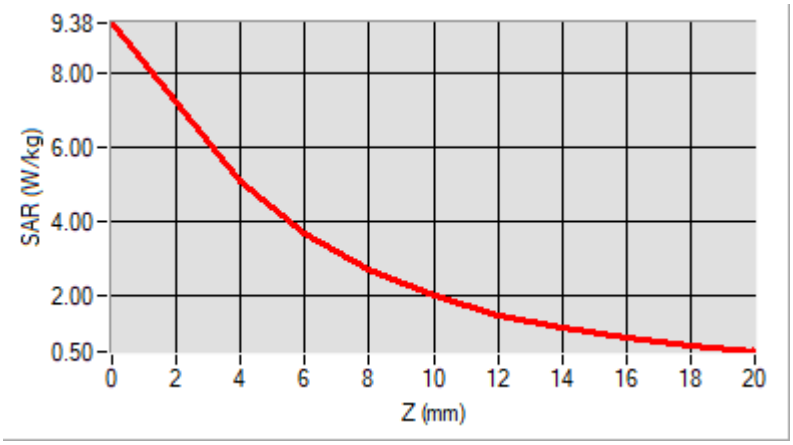
Maximum location: X=-3.00, Y=1.00 ; SAR Peak: 9.50 W/kg

**D. SAR 1g & 10g**

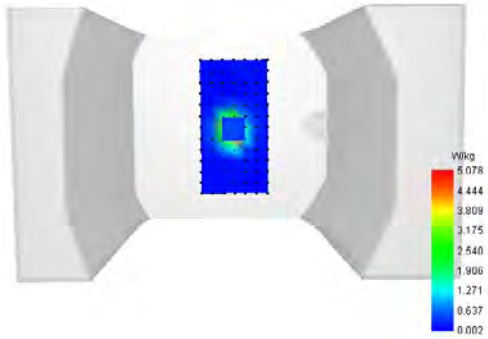
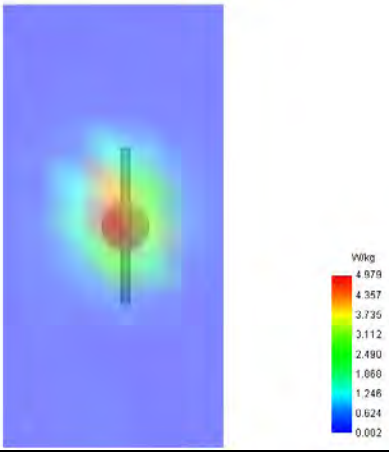
| | |
|---|---|
| SAR 10g (W/Kg) | 6.107 |
| SAR 1g (W/Kg) | 13.652 |
| Variation (%) | -1.061 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 4.00 | 6.00 | 8.00 | 10.00 | 12.00 | 14.00 | 16.00 | 18.00 |
|---|---|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 9.380 | 5.078 | 3.712 | 2.709 | 2.001 | 1.499 | 1.138 | 0.871 | 0.667 |




**F. 3D Image**

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

**System check at 2600 MHz**
Date of measurement: 17/6/2025

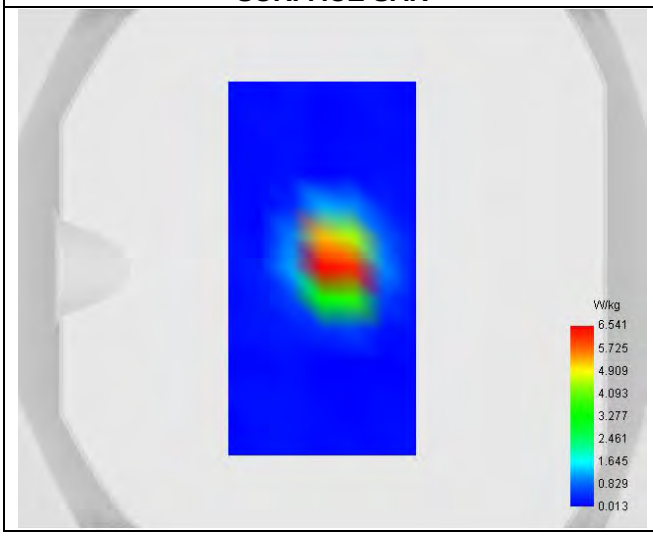
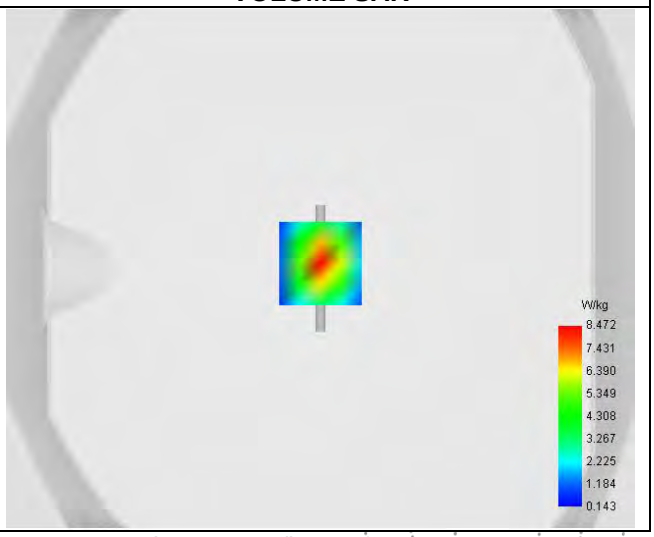
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.03 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW2600 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 2600.000 |
| **Relative permitivity (real part)** | 37.490 |
| **Relative permitivity (imaginary part)** | 14.889 |
| **Conductivity (S/m)** | 1.950 |

**C. SAR Surface and Volume**

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



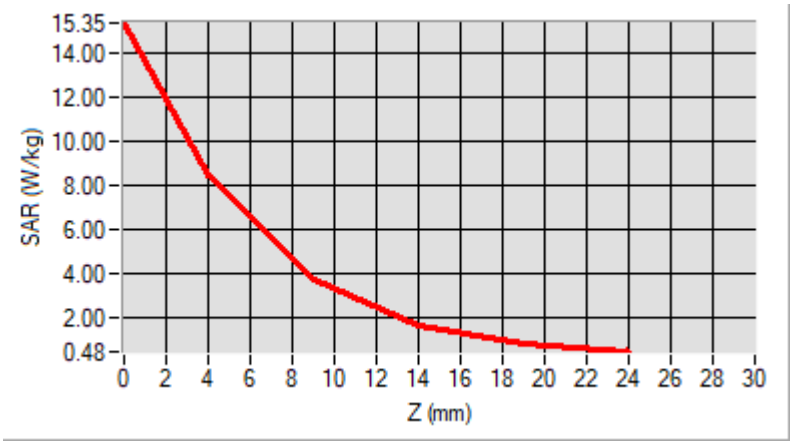
Maximum location: X=0.00, Y=2.00 ; SAR Peak: 15.35 W/kg

**D. SAR 1g & 10g**

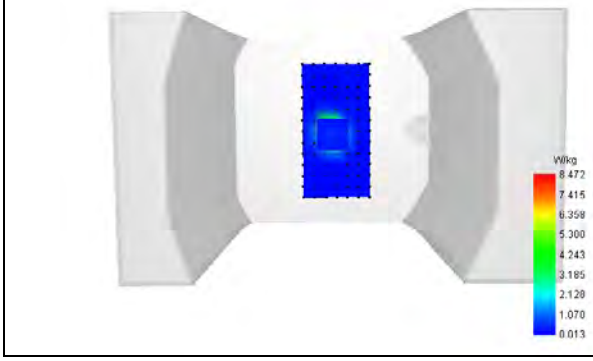
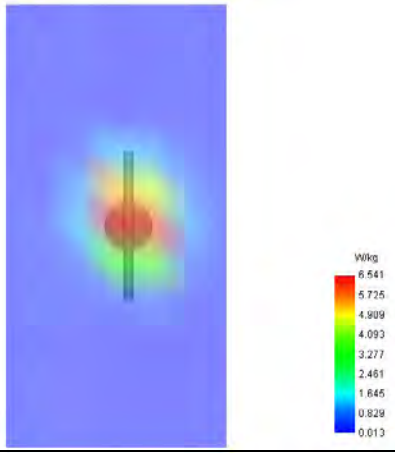
| | |
|---|---|
| SAR 10g (W/Kg) | 5.852 |
| SAR 1g (W/Kg) | 14.603 |
| Variation (%) | 4.026 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
|---|---|---|---|---|---|
| SAR (W/Kg) | 15.347 | 8.472 | 3.768 | 1.677 | 0.856 |




**F. 3D Image**

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

**System check at 5200 MHz**

Date of measurement: 16/6/2025

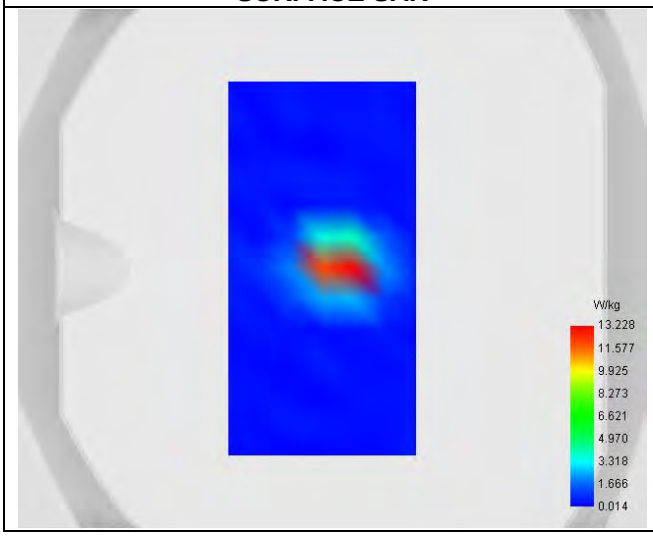
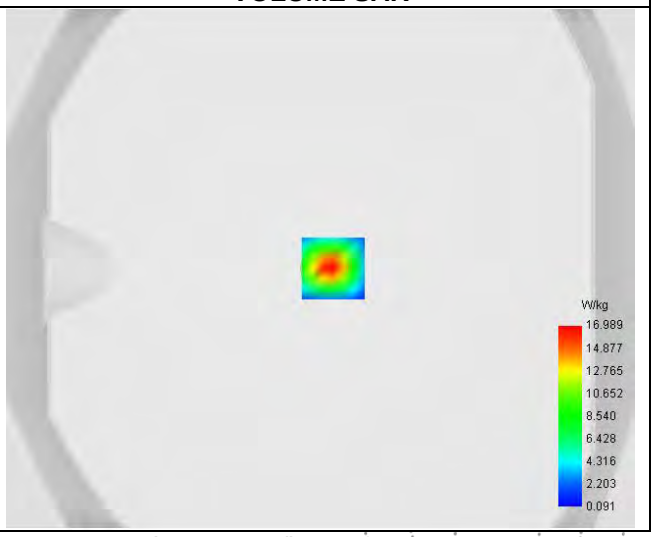
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.18 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 7x7x12,dx=4mm dy=4mm dz=2.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW5200 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 5200.000 |
| **Relative permitivity (real part)** | 34.693 |
| **Relative permitivity (imaginary part)** | 18.140 |
| **Conductivity (S/m)** | 4.508 |

**C. SAR Surface and Volume**

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



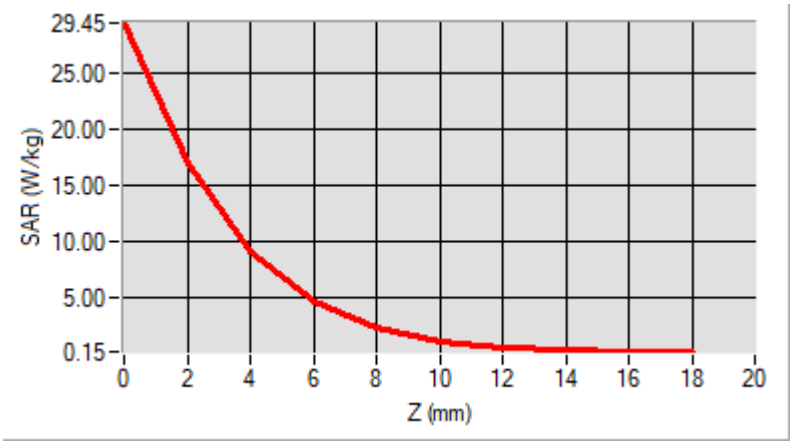
Maximum location: X=5.00, Y=0.00 ; SAR Peak: 30.79 W/kg

**D. SAR 1g & 10g**

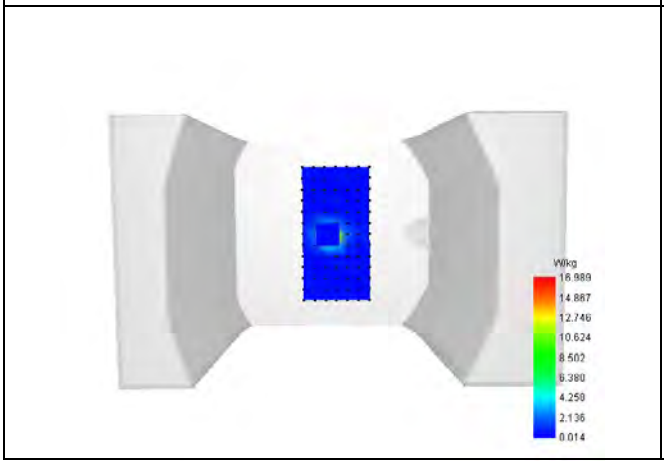
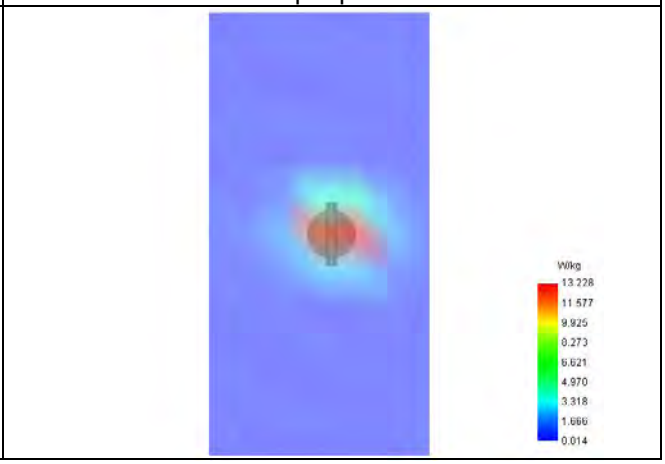
| | |
|---|---|
| SAR 10g (W/Kg) | 5.792 |
| SAR 1g (W/Kg) | 20.106 |
| Variation (%) | 1.878 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 2.00 | 4.00 | 6.00 | 8.00 | 10.00 | 12.00 | 14.00 | 16.00 |
|---|---|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 29.452 | 16.989 | 9.130 | 4.585 | 2.232 | 1.083 | 0.552 | 0.315 | 0.209 |




**F. 3D Image**

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

**System check at 5800 MHz**

Date of measurement: 16/6/2025

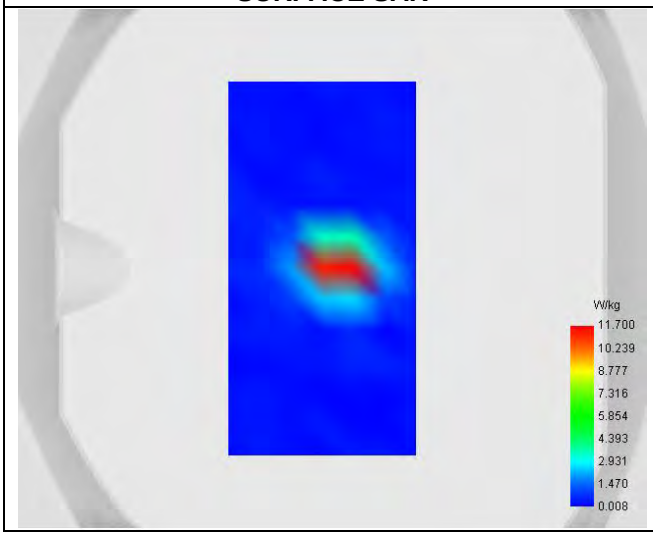
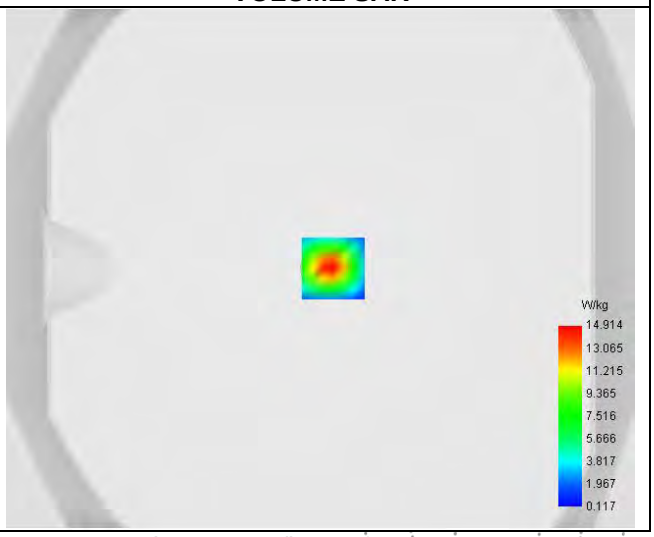
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.15 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 7x7x12,dx=4mm dy=4mm dz=2.0mm |
| Phantom | Validation plane |
| Device Position | Dipole |
| Band | CW5800 |
| Signal | CW |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 5800.000 |
| **Relative permitivity (real part)** | 33.957 |
| **Relative permitivity (imaginary part)** | 18.620 |
| **Conductivity (S/m)** | 5.431 |

**C. SAR Surface and Volume**

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



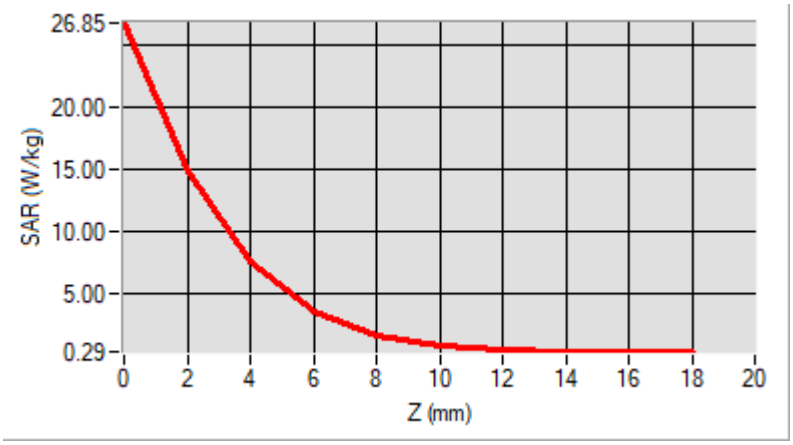
Maximum location: X=5.00, Y=0.00 ; SAR Peak: 28.22 W/kg

**D. SAR 1g & 10g**

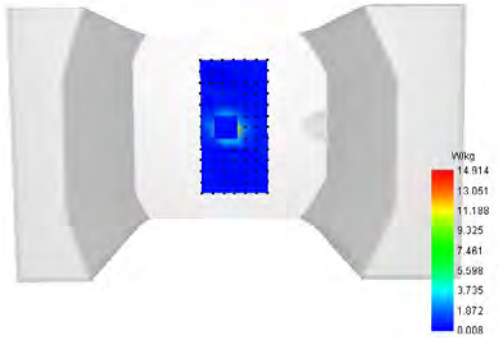
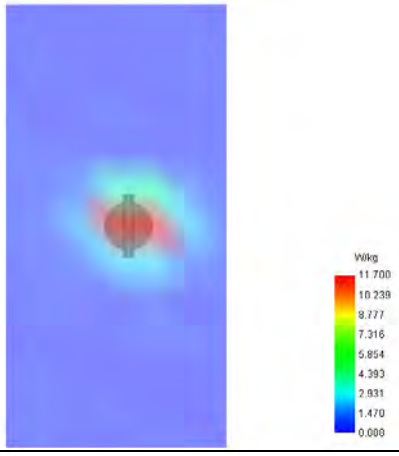
| | |
|---|---|
| SAR 10g (W/Kg) | 5.657 |
| SAR 1g (W/Kg) | 18.118 |
| Variation (%) | -1.663 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 2.00 | 4.00 | 6.00 | 8.00 | 10.00 | 12.00 | 14.00 | 16.00 |
|---|---|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 26.852 | 14.914 | 7.581 | 3.559 | 1.627 | 0.770 | 0.423 | 0.303 | 0.288 |




**F. 3D Image**

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

## 15.2 SAR Test Graph Results

**Plot 1**
Date of measurement: 16/6/2025

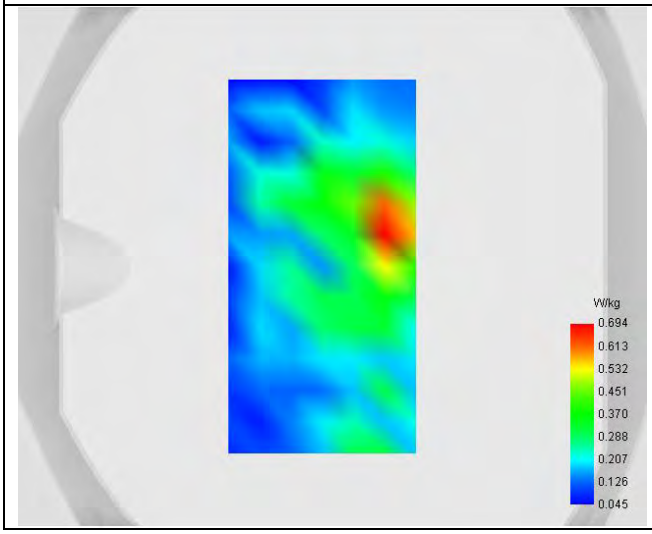
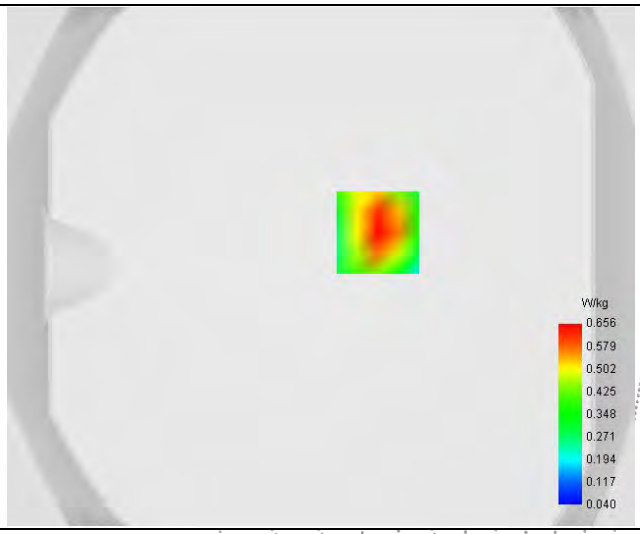
**A. Experimental conditions.**

| | |
|---|---|
| Probe | SN 26/23 EPGO420 |
| ConvF | 1.11 |
| Area Scan | surf_sam_plan.txt |
| Zoom Scan | 5x5x7,dx=8mm dy=8mm dz=5.0mm |
| Phantom | Validation plane |
| Device Position | Body |
| Band | ISM |
| Signal | IEEE 802.11 b |

**B. Permitivity**

| | |
|---|---|
| **Frequency (MHz)** | 2437.000 |
| **Relative permitivity (real part)** | 37.569 |
| **Relative permitivity (imaginary part)** | 13.207 |
| **Conductivity (S/m)** | 1.818 |

**C. SAR Surface and Volume**

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



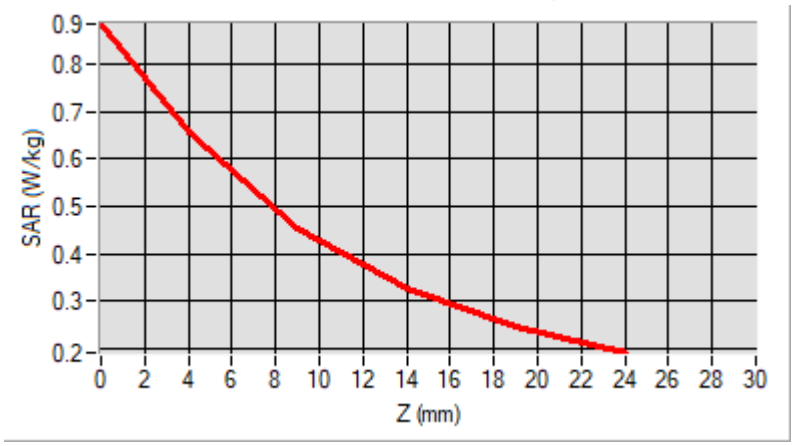
Maximum location: X=22.00, Y=13.00 ; SAR Peak: 0.92 W/kg

**D. SAR 1g & 10g**

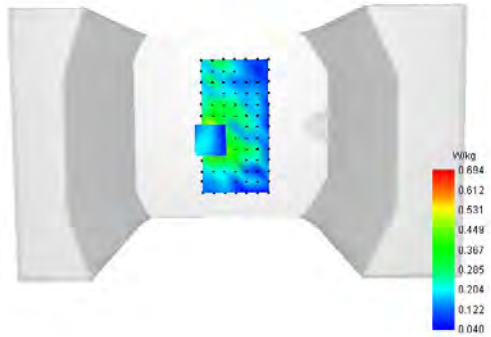
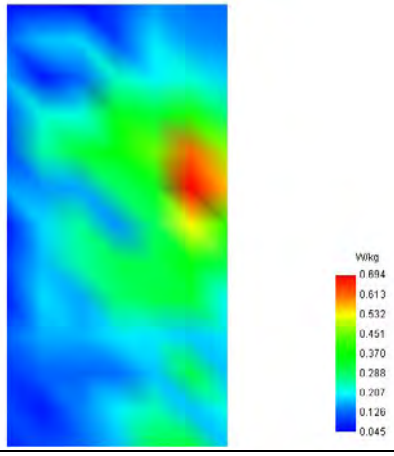
| | |
|---|---|
| SAR 10g (W/Kg) | 0.195 |
| SAR 1g (W/Kg) | 0.257 |
| Variation (%) | 3.860 |

**E. Z Axis Scan**

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 |
|---|---|---|---|---|---|
| SAR (W/Kg) | 0.886 | 0.656 | 0.454 | 0.326 | 0.246 |




**F. 3D Image**

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