

TEST REPORT

Reference No...... : WTX25X09245775W007
FCC ID..... : 2AEPIBLACKS
Applicant..... : COLOMBIANA DE COMERCIO S.A.
Address..... : Car. 43E No 8-71, Medellin, Colombia
Manufacturer..... : Mobiwire Mobiles (Ningbo) Co.,Ltd
Address..... : No. 518, Changting East Road, Yuelin Street, Fenghua District, Ningbo City,
Zhejiang Province, China
Product Name..... : Smart Phone
Model No...... : Black S
Standards..... : FCC Part 2.1093
IEEE Std C95.1: 2019
IEEE C95.3: 2021
Date of Receipt sample.... : 2025-07-25
Date of Test..... : 2025-08-04 to 2025-09-12
Date of Issue..... : 2025-09-12
Test Report Form No...... : WTX_IEEE_1528W
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

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Report version

Version No.	Date of issue	Description
Rev.00	2025-09-12	Original
/	/	/

1. General Information

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT:	
Product Name:	Smart Phone
Brand Name:	Kalley
Model No.:	Black S
Adding Model(s):	/
Rated Voltage:	Battery: DC 3.8V DC 5V, 1A charging from adapter
Battery Capacity:	2950mAh
Power Adapter:	Model: 495 Input: 100-240V~, 50/60Hz, 0.3A Output: 5.0V  1.0A 5.0W
Software Version:	Kalley_BLACK_S_V01_20250712
Hardware Version:	V01
<i>Note: 1. The test data is gathered from a production sample provided by the manufacturer.</i> <i>2. This EUT has two SIM card slots, and use same one RF module. We found that RF parameters are the same, when we insert the card 1 and card 2. So we usually performed the test under main card slot 1.</i>	

Technical Characteristics of EUT:	
2G	
Support Networks:	GSM, GPRS, EDGE
Support Band:	GSM850/PCS1900
Uplink Frequency:	GSM/GPRS/EDGE 850: 824~849MHz GSM/GPRS/EDGE 1900: 1850~1910MHz
Downlink Frequency:	GSM/GPRS/EDGE 850: 869~894MHz GSM/GPRS/EDGE 1900: 1930~1990MHz
RF Output Power:	Receiver ON: GSM850: 32.01dBm, GSM1900: 29.26dBm EDGE850: 24.22dBm, EDGE1900: 24.21 dBm Receiver OFF: GSM1900: 28.84dBm; EDGE1900: 23.92 dBm
Type of Modulation:	GMSK, 8PSK
Type of Antenna:	FPC Antenna
Antenna Gain:	GSM850: -0.7dBi; GSM1900: 0.5dBi
GPRS/EDGE Class:	Class 12
3G	
Support Networks:	WCDMA, HSDPA, HSUPA
Support Band:	WCDMA Band 2, WCDMA Band 4, WCDMA Band 5
Uplink Frequency:	WCDMA Band 2: 1850~1910MHz WCDMA Band 4: 1710-1755MHz WCDMA Band 5: 824~849MHz
Downlink Frequency:	WCDMA Band 2: 1930~1990MHz WCDMA Band 4: 2110-2155MHz WCDMA Band 5: 869~894MHz
RF Output Power:	Receiver ON: WCDMA Band 2: 22.57dBm, WCDMA Band 4: 21.49dBm, WCDMA Band 5: 21.96dBm Receiver OFF: WCDMA Band 2: 20.91dBm, WCDMA Band 4: 21.05dBm,
Type of Modulation:	BPSK
Antenna Type:	FPC Antenna
Antenna Gain:	WCDMA Band 2: 0.5dBi, WCDMA Band 4: -0.8dBi, WCDMA Band 5: -0.7dBi
4G	
Support Networks:	FDD-LTE
Support Band:	FDD-LTE Band 2, 4, 5, 7, 13

Uplink Frequency:	FDD-LTE Band 2: Tx: 1850-1910MHz, FDD-LTE Band 4: Tx: 1710-1755MHz, FDD-LTE Band 5: Tx: 824-849MHz, FDD-LTE Band 7: Tx: 2500~2570MHz, FDD-LTE Band 13: Tx: 777-787MHz,
Downlink Frequency:	FDD-LTE Band 2: Rx: 1930-1990MHz, FDD-LTE Band 4: Rx: 2110-2155MHz, FDD-LTE Band 5: Rx: 869-894MHz, FDD-LTE Band 7: Rx: 2620-2690MHz, FDD-LTE Band 13: Rx: 746-756MHz,
RF Output Power:	Receiver ON: LTE Band 2: 22.94dBm; LTE Band 4: 22.91dBm LTE Band 5: 23.86dBm; LTE Band 7: 22.98dBm LTE Band 13: 23.74dBm Receiver OFF: LTE Band 2: 21.23dBm; LTE Band 4: 22.52dBm
Type of Modulation:	QPSK, 16QAM
Antenna Type:	FPC Antenna
Antenna Gain:	LTE Band 2: 0.5dBi; LTE Band 4: 0.2dBi; LTE Band 5: -0.7dBi; LTE Band 7: 1.2dBi; LTE Band 13: -3.6dBi
WiFi(2.4GHz)	
Support Standards:	802.11b, 802.11g, 802.11n-HT20
Frequency Range:	2412-2462MHz for 11b/g/n(HT20),
Max. RF Output Power:	17.10dBm (Conducted)
Type of Modulation:	DSSS, OFDM
Quantity of Channels:	11 for 802.11b/g/n-HT20
Channel Separation:	5MHz
Antenna Type:	FPC Antenna
Antenna Gain:	1.5dBi
Bluetooth	
Bluetooth Version:	Bluetooth V5.0
Frequency Range:	2402-2480MHz
Max. RF Output Power:	7.58dBm(Conducted)
Data Rate:	1Mbps, 2Mbps, 3Mbps
Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Quantity of Channels:	79/40
Channel Separation:	1MHz/2MHz
Antenna Type:	FPC Antenna
Antenna Gain:	1.5dBi
<i>Note: The Antenna Gain is provided by the customer and can affect the validity of results.</i> <i>2. Please refer to WTX25X08213514W for the 5GHz WiFi SAR report</i>	

1.2 Test Standards

The following report is accordance with FCC 47 CFR Part 2.1093, IEEE Std C95.1: 2019, IEEE C95.3: 2021, KDB 447498 D01 v06, KDB 648474 D04 v01r03, KDB 248227 D01 v02r02, KDB 941225 D01 v03r01, KDB 941225 D05 v02r05 , and KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02.

The objective is to determine compliance with FCC Part 2.1093 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which is result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02. The public notice KDB 447498 D01 v06 for Mobile and Portable Devices RF Exposure Procedure also.

1.4 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road,Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010. Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A and the CAB identifier is CN0057.

2. Summary of Test Results

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

Frequency Band	Head SAR	Body-worn (10mm Gap)	Hotspot (10mm Gap)	SAR _{1g} Limit (W/kg)
	Maximum SAR _{1g} (W/kg)	Maximum SAR _{1g} (W/kg)	Maximum SAR _{1g} (W/kg)	
GSM	0.533	0.990	1.115	1.6
WCDMA	0.709	1.035	1.123	1.6
LTE	0.735	1.124	1.124	1.6
WLAN 2.4GHz	0.455	0.187	0.187	1.6
Simultaneous Transmission	1.135	1.288	1.288	1.6

Remark:

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2.1093 and IEEE Std C95.1: 2019, and had been tested in accordance with the measurement methods and procedure specified in KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02.

3. Specific Absorption Rate (SAR)

3.1 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 techniques 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.

3.2 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 (ρ). The equation description is as below:

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

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

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

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

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ 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.

4. SAR Measurement System

4.1 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.

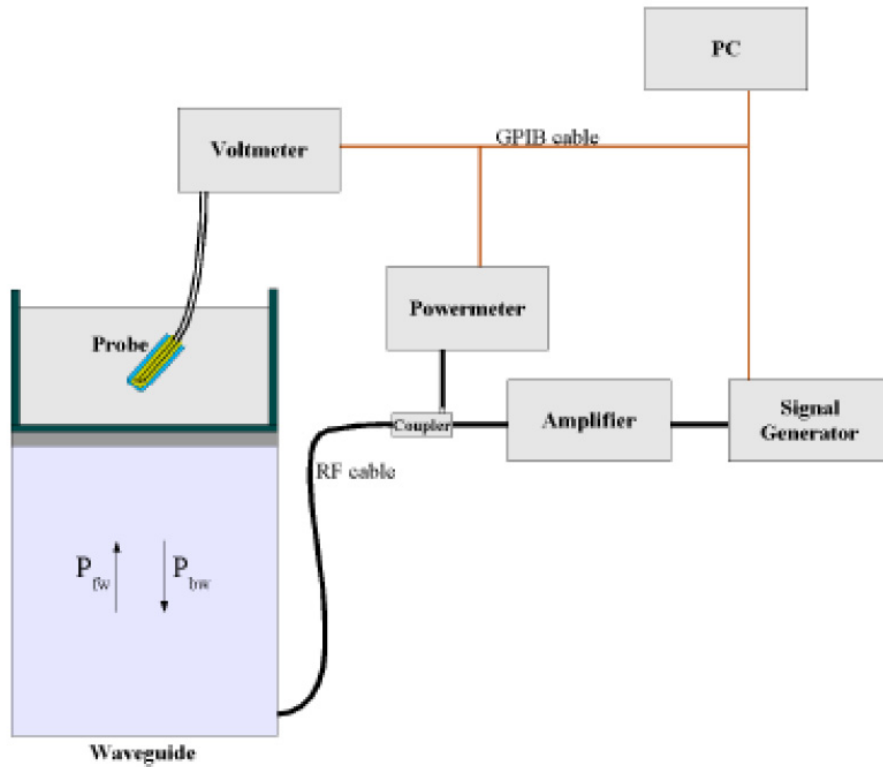


The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The OpenSAR software computes the results to give a SAR value in a 1g or 10g mass.

4.2 Probe

For the measurements the Specific Dosimetric E-Field Probe SSE2 0725-EPGO-446, and refer to the calibration report for probe parameters.

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528:2020 STD, with CALISAR, Antenna proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528:2020 annexes technique using reference guide at the five frequencies.



$$SAR = \frac{4(P_{fw} - P_{bw})}{ab\delta} \cos^2\left(\pi \frac{y}{a}\right) e^{-(2z/\delta)}$$

Where :

P_{fw} = Forward Power

P_{bw} = Backward Power

a and b = Waveguide dimensions

δ = 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:

$$CF(N) = SAR(N)/V_{lin}(N) \quad (N=1,2,3)$$

The linearised output voltage $V_{lin}(N)$ is obtained from the displayed output voltage $V(N)$ using

$$V_{lin}(N) = V(N) * (1 + V(N)/DCP(N)) \quad (N=1,2,3)$$

where DCP is the diode compression point in mV.

4.3 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:
 Δt = exposure time (30 seconds),
 C = heat capacity of tissue (brain or muscle),
 ΔT = 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:

σ = simulated tissue conductivity,

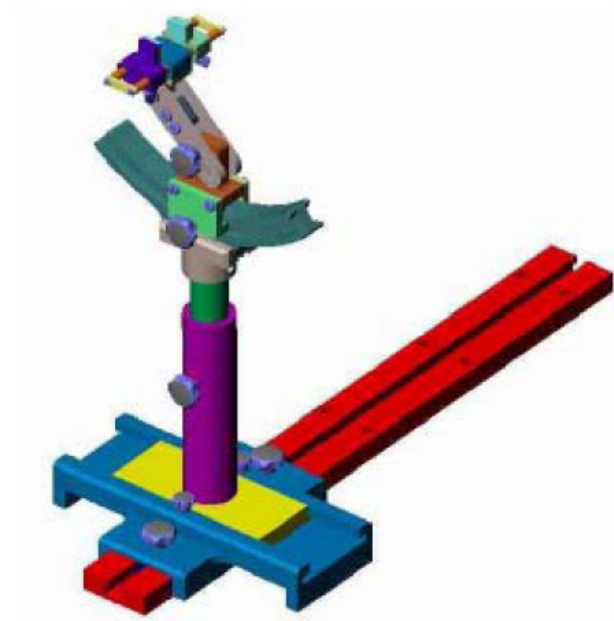
ρ = Tissue density (1.25 g/cm³ for brain tissue)

4.4 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.

4.5 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

4.6 Test Equipment List

Fixed asset Number	Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
WTXE1105A1002	E-Field Probe	MVG	SSE2	0725-EPGO-446	2025-02-12	2026-02-11
WTXE1053A1001-001	750MHz Dipole	MVG	SID750	SN 47/12 DIP 0G750-203	2023-08-20	2026-08-19
WTXE1053A1001-002	835MHz Dipole	MVG	SID835	SN 47/12 DIP 0G835-204	2023-08-20	2026-08-19
WTXE1053A1001-004	1800MHz Dipole	MVG	SID1800	SN 47/12 DIP 1G800-206	2023-08-20	2026-08-19
WTXE1053A1001-005	1900MHz Dipole	MVG	SID1900	SN 47/12 DIP 1G900-207	2023-08-20	2026-08-19
WTXE1053A1001-007	2450MHz Dipole	MVG	SID2450	SN 13/15 DIP 2G450-364	2023-08-20	2026-08-19
WTXE1053A1006-002	2600MHz Dipole	MVG	SID2600	SN 28/21 DIP 2G600-590	2024-07-11	2027-07-10
WTXE1053A1001-010	Dielectric Probe	SATIMO	SCLMP	SN 47/12 OCPG49	2025-02-23	2026-02-22
WTXE1075A1003	Power meter	Keithley	3500	1232959	2025-02-23	2026-02-22
WTXE1075A1002	Power meter	Keithley	3500	1162591	2025-02-23	2026-02-22
WTXE1104A1003	EXG Analog Signal Generator	KEYSIGHT	N5173B	MY61252892	2025-02-23	2026-02-22
WTXE1022A1002	GSM Tester	Rohde & Schwarz	CMU200	114403	2025-02-23	2026-02-22
WTXE1041A1002	Communications Tester	Rohde & Schwarz	CMW500	148650	2025-02-23	2026-02-22
WTXE1036A1001	Network Analyzer	Rohde & Schwarz	ZVB 8	101353	2024-10-15	2025-10-14
WTXE1076A1001	Power Divider	HP	11636B	JC-2017-10-002	2025-02-23	2026-02-22
WTXE1103A1001	Attenuator	Pasternack	PE4007-4	/	2025-02-23	2026-02-22
WTXE1103A1002	Attenuator	Pasternack	PE4007-4	/	2025-02-23	2026-02-22
WTXE1103A1003	Attenuator	Pasternack	PE4007-4	/	2025-02-23	2026-02-22

5. Tissue Simulating Liquids

5.1 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 Head/Body SAR

The Composition of Tissue Simulating Liquid

Frequency (MHz)	Water (%)	Salt (%)	Sugar (%)	HEC (%)	Preventol (%)	DGBE (%)
Head/Body						
750	41.1	1.4	57.0	0.2	0.3	0
835	40.3	1.4	57.9	0.2	0.2	0
1700-1900	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			
5200-5800	65.52	17.24	17.24

5.2 Tissue Dielectric Parameters for Head and Body Phantoms

According to FCC KDBs, IEC/IEEE 62209-1528:2020 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom.

Target Frequency (MHz)	Head		Body	
	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity (σ)	Permittivity (ϵ_r)
150	0.76	52.3	0.80	61.9
300	0.87	45.3	0.92	58.2
450	0.87	43.5	0.94	56.7
750	0.89	41.9	0.96	55.5
835	0.90	41.5	0.97	55.2
900	0.97	41.5	1.05	55.0
915	0.98	41.5	1.06	55.0
1450	1.20	40.5	1.30	54.0
1610	1.29	40.3	1.40	53.8
1800-2000	1.40	40.0	1.52	53.3
2450	1.80	39.2	1.95	52.7
2600	1.96	39.0	2.16	52.5
3000	2.40	38.5	2.73	52.0
5200	4.66	36.0	5.30	49.0
5400	4.86	35.8	5.53	48.7
5600	5.07	35.5	5.77	48.5
5800	5.27	35.3	6.00	48.2

5.3 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using COMOSAR Dielectric Probe Kit and an Agilent Network Analyzer.

Calibration Result for Dielectric Parameters of Tissue Simulating Liquid

Head Tissue Simulating Liquid									
Freq. MHz	Temp. (°C)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ϵ_r)	Target (ϵ_r)	Delta (%)		
750	22.2	0.93	0.89	4.49	42.45	41.9	1.31	±5	2025-08-07
835	22.2	0.88	0.90	-2.22	41.27	41.5	-0.55	±5	2025-08-08
1800	22.2	1.37	1.40	-2.14	39.35	40.0	-1.63	±5	2025-08-24
1900	22.2	1.42	1.40	1.43	41.27	40.0	3.18	±5	2025-08-24
2450	22.2	1.75	1.80	-2.78	38.67	39.2	-1.35	±5	2025-08-04
2600	22.2	1.93	1.96	-1.53	38.76	39.0	-0.62	±5	2025-08-04

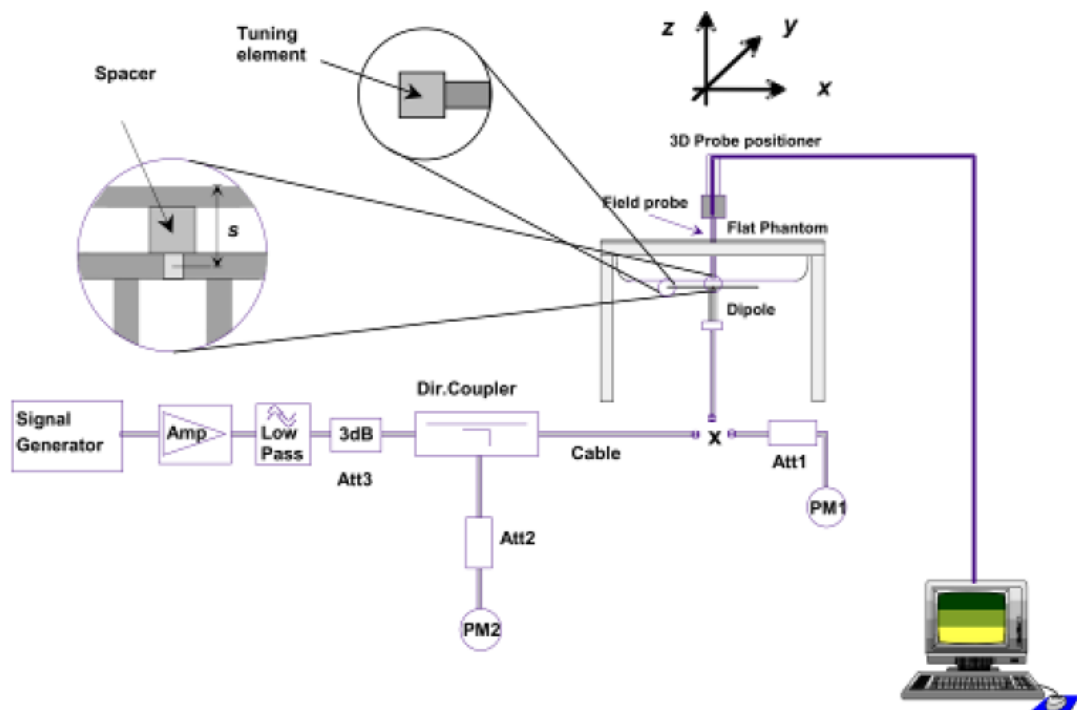
6. SAR Measurement Evaluation

6.1 Purpose of System Performance Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

6.2 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 835MHz, 1800MHz, 1900MHz, 2450MHz, 2600MHz, and 5GHz. 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.



System Verification Setup Block Diagram



Setup Photo of Dipole Antenna

The output power on dipole port must be calibrated to 24 dBm(250 mW) before dipole is connected.

6.3 Validation Results

Comparing to the original SAR value provided by SATIMO, the validation data should be within its specification of 10 %. Table 6.1 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	Power	Targeted SAR _{1g}	Measured SAR _{1g}	Normalized SAR _{1g}	Tolerance	Date
(MHz)	(mw)	(W/kg)	(W/kg)	(W/kg)	(%)	
750	250	8.78	2.165	8.660	-1.37	2025-08-07
835	250	9.65	2.411	9.644	-0.06	2025-08-08
1800	250	38.49	9.611	38.444	-0.12	2025-08-24
1900	250	39.59	9.913	39.652	0.16	2025-08-24
2450	250	53.76	13.452	53.808	0.09	2025-08-04
2600	250	56.81	13.670	54.680	-3.75	2025-08-04

Remark: Referring to IEC/IEEE 62209-1528:2020, the system check shall be performed at a test frequency that is within ±10% or ±100 MHz of the compliance test mid-band frequency, so the 1750 MHz system verification is made of 1800MHz Dipole.

Targeted and Measurement SAR

Please refer to Annex A for the plots of system performance check.

7. EUT Testing Position

7.1 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 w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b 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.

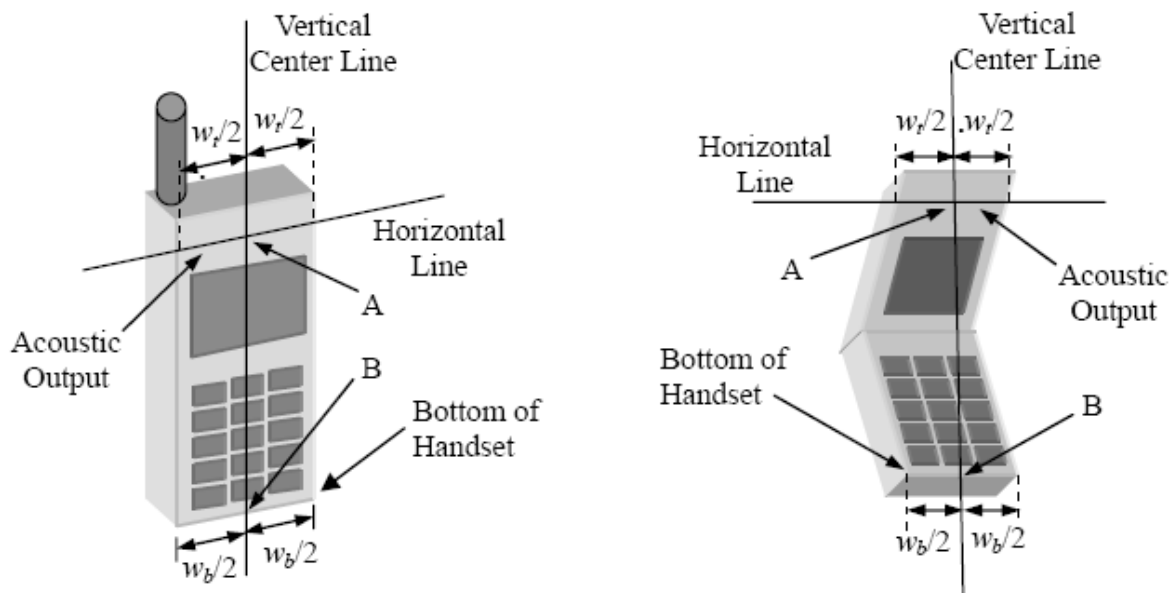


Illustration for Handset Vertical and Horizontal Reference Lines

7.2 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 Fig. 7.2).

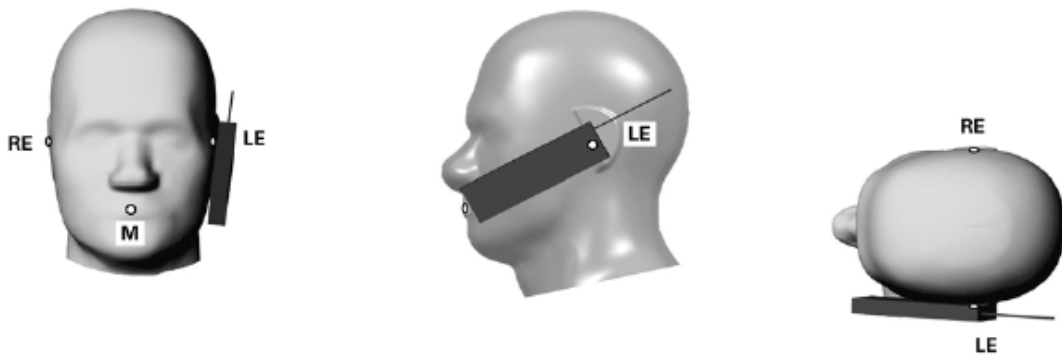


Illustration for Cheek Position

7.3 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 Fig. 7.3).

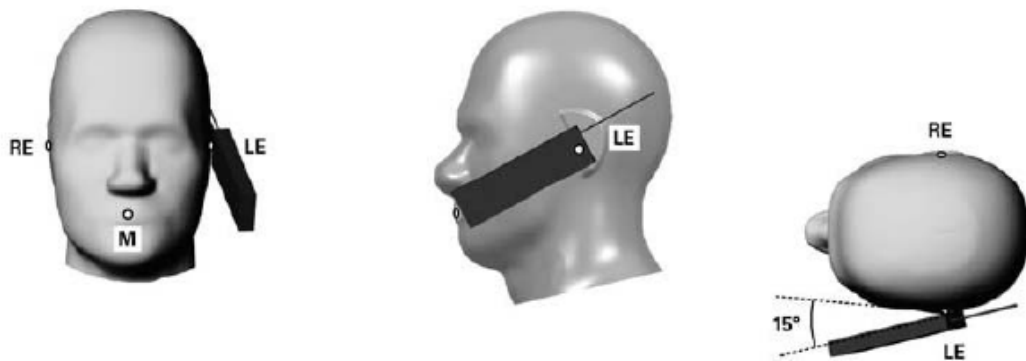


Illustration for Tilted Position

7.4 Body Position

- (a) To position the device parallel to the phantom surface with each side.
- (b) To adjust the device parallel to the flat phantom.
- (c) To adjust the distance between the device surface and the flat phantom to 10mm.

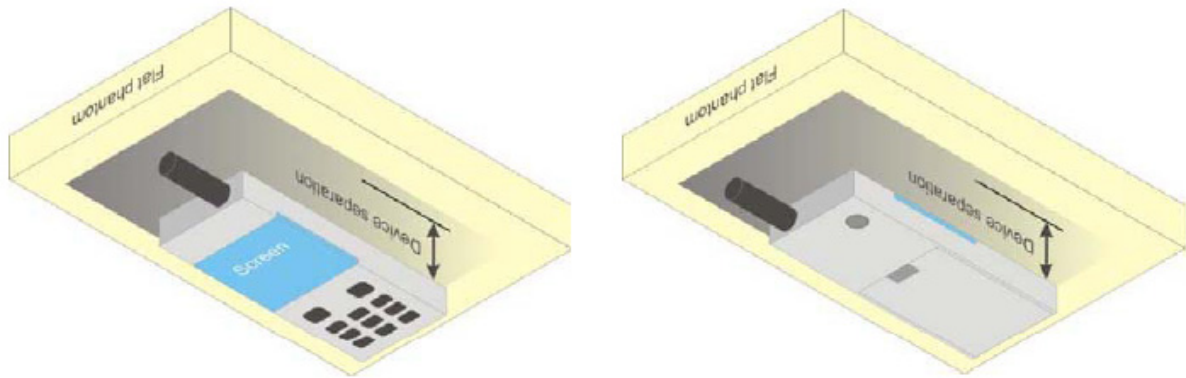
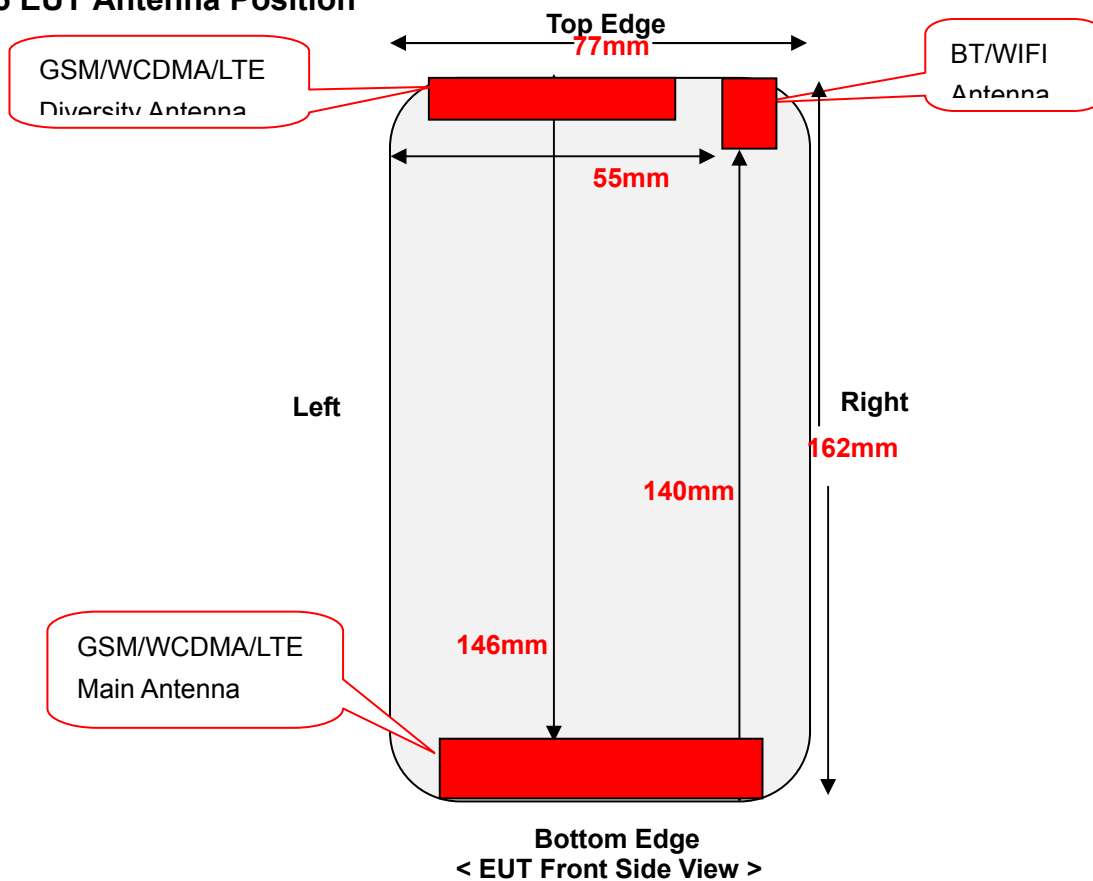


Illustration for Body Position

7.5 EUT Antenna Position



Block Diagram for EUT Antenna Position

Distance of EUT antenna-to-edge/surface(mm),						
Antennas	Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
WWAN	<25	<25	<25	<25	146	<25
Bluetooth /WIFI	<25	<25	55	<25	<25	140

7.6 EUT Testing Position

Head/Body mode SAR assessments are required for this device. This EUT was tested in different positions for different SAR test modes, more information as below:

Head SAR tests				
Antennas	Right Cheek	Left Cheek	Right Tilted	Left Tilted
WWAN	Yes	Yes	Yes	Yes
Bluetooth /WIFI	Yes	Yes	Yes	Yes

Body SAR tests, Test distance: 10mm						
Antennas	Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
WWAN	Yes	Yes	Yes	Yes	No	Yes
Bluetooth /WIFI	Yes	Yes	No	Yes	Yes	No

Note:

1. The WWAN Antenna is GSM/WCDMA/LTE Main Antenna. The GSM/WCDMA/LTE Diversity Antenna is Down Antenna.
2. Head/Body SAR/Hotspot mode assessments are required.

Remark:

1. Referring to KDB 941225 D06, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test separation distances is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
2. Per KDB 447498 D01v06, for handsets the test separation distance is determined by the smallest distance between the outer surface of the device and the user, which is 0 mm for head SAR, 10 mm for body SAR.

Please refer to Annex D for the EUT test setup photos.

8. SAR Measurement Procedures

8.1 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

8.2 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 from 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

8.3 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 5 mm for 300 MHz to 3 GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3 GHz to 6 GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

8.4 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.

8.5 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.

8.6 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.

9. SAR Test Result

9.1 Conducted RF Output Power

Summary of Power Reduction:

1. Device is support Receiver ON/OFF. There are Bluetooth & Wi-Fi & GSM850&WCDMA B5 <E B5/7/13 support Receiver ON. There are GSM1900 & WCDMA B2/4 & LTE B2/4 support Receiver OFF reduced power.

Receiver ON	Receiver OFF
Power Level P1	Power Level P2

Note:

The power management for SAR compliance at different exposure conditions (head, hotspot).

The device will invoke corresponding work scenarios power level base on frequency bands/antennas.

Refer to the KDB388624 D02 Pre-Approval Guidance List v18r03.

Power Level P1:

GSM - Burst Average Power (dBm)								
Band	GSM850			Tune-up power (dBm)	PCS1900			Tune-up power (dBm)
Channel	128	190	251		512	661	810	
Frequency (MHz)	824.2	836.6	848.8		1850.2	1880	1909.8	
GSM	31.78	31.93	32.01	33.0	28.28	28.17	29.26	30.0
GPRS (1 slot)	31.12	31.26	31.37	32.0	25.72	25.98	26.68	27.5
GPRS (2 slots)	30.61	30.74	30.95	32.0	25.20	25.54	26.18	27.0
GPRS (3 slots)	30.27	30.46	30.72	31.5	25.00	25.30	25.91	27.0
GPRS (4 slots)	29.96	30.06	30.31	31.0	24.68	24.88	25.61	26.5
EGPRS (1 slot)	23.97	24.22	24.16	25.0	24.13	24.21	23.16	25.0
EGPRS (2 slots)	23.54	23.76	23.73	25.0	23.69	23.74	22.70	24.5
EGPRS (3 slots)	23.28	23.55	23.41	24.5	23.37	23.46	22.49	24.0
EGPRS (4 slots)	23.06	23.35	23.15	24.0	23.20	23.20	22.22	24.0

GSM - Source-Based Time-Average Power (dBm)								
Band	GSM850			Tune-up power (dBm)	PCS1900			Tune-up power (dBm)
Channel	128	190	251		512	661	810	
Frequency (MHz)	824.2	836.6	848.8		1850.2	1880	1909.8	
GSM	22.75	22.90	22.98	23.0	19.25	19.14	20.23	20.5
GPRS (1 slot)	22.09	22.23	22.34	23.0	16.69	16.95	17.65	17.0
GPRS (2 slots)	24.59	24.72	24.93	25.0	19.18	19.52	20.16	20.5
GPRS (3 slots)	26.01	26.20	26.46	27.0	20.74	21.04	21.65	22.0
GPRS (4 slots)	26.95	27.05	27.30	28.0	21.67	21.87	22.60	23.0

EGPRS (1 slot)	14.94	15.19	15.13	16.0	15.10	15.18	14.13	15.5
EGPRS (2 slots)	17.52	17.74	17.71	18.0	17.67	17.72	16.68	18.0
EGPRS (3 slots)	19.02	19.29	19.15	20.0	19.11	19.20	18.23	19.5
EGPRS (4 slots)	20.05	20.34	20.14	21.0	20.19	20.19	19.21	210.5

Note: The source-based time-averaged power is linearly scaled the maximum burst averaged power based on time slots. The calculated method are shown as below:

Source based time-average power = Burst averaged power - Duty cycle factor in dB

Duty cycle factor = 9 dB for 1 Tx slot, 6 dB for 2 Tx slots, 4.25 dB for 3 Tx slots, 3 dB for 4 Tx slots

Power Level P2:

GSM - Burst Average Power (dBm)								
Band	PCS1900			Tune-up power (dBm)				
Channel	512	661	810					
Frequency (MHz)	1850.2	1880	1909.8					
GSM	28.01	28.13	28.84	30.0				
GPRS (1 slot)	24.79	24.81	25.63	26.5				
GPRS (2 slots)	24.31	24.33	25.18	26.0				
GPRS (3 slots)	24.06	24.09	24.92	26.0				
GPRS (4 slots)	23.61	23.76	24.48	25.5				
EGPRS (1 slot)	23.59	23.92	22.89	24.5				
EGPRS (2 slots)	23.05	23.38	22.42	24.0				
EGPRS (3 slots)	22.77	23.08	22.08	24.0				
EGPRS (4 slots)	22.50	22.83	21.89	23.5				

GSM - Source-Based Time-Average Power (dBm)								
Band	PCS1900			Tune-up power (dBm)				
Channel	512	661	810					
Frequency (MHz)	1850.2	1880	1909.8					
GSM	18.98	19.10	19.81	20.0				
GPRS (1 slot)	15.76	15.78	16.60	17.0				
GPRS (2 slots)	18.29	18.31	19.16	20.0				
GPRS (3 slots)	19.80	19.83	20.66	21.0				
GPRS (4 slots)	20.60	20.75	21.47	22.0				
EGPRS (1 slot)	14.56	14.89	13.86	15.0				
EGPRS (2 slots)	17.03	17.36	16.40	18.0				
EGPRS (3 slots)	18.51	18.82	17.82	19.0				
EGPRS (4 slots)	19.49	19.82	18.88	20.0				

Note: The source-based time-averaged power is linearly scaled the maximum burst averaged power based on time slots. The calculated method are shown as below:

Source based time-average power = Burst averaged power - Duty cycle factor in dB
Duty cycle factor = 9 dB for 1 Tx slot, 6 dB for 2 Tx slots, 4.25 dB for 3 Tx slots, 3 dB for 4 Tx slots

Remark:

1. For Head SAR testing, GSM should be evaluated; therefore the EUT was set in GSM for GSM850 and GSM1900 due to its highest source-based time-average power.
2. For Body SAR testing, GPRS should be evaluated; therefore the EUT was set in GPRS (4TX slots) for GSM850 and GPRS (4TX slots) for GSM1900, due to its highest source-based time-average power.
3. Per KDB 447498 D01 v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.

Power Level P1:

WCDMA - Average Power (dBm)								
Band	WCDMA Band II				WCDMA Band V			
Channel	9262	9400	9538	Tune-up power (dBm)	4132	4182	4233	Tune-up power (dBm)
Frequency (MHz)	1852.4	1880.0	1907.6		826.4	836.4	846.6	
RMC 12.2k	22.57	22.40	22.32	23.5	21.96	21.94	21.88	23.0
HSDPA Subtest-1	19.51	20.06	20.32	21.0	21.77	21.05	21.37	22.5
HSDPA Subtest-2	18.98	19.57	19.84	20.5	21.25	20.58	20.88	22.0
HSDPA Subtest-3	18.65	19.33	19.58	20.5	20.94	20.37	20.67	22.0
HSDPA Subtest-4	18.27	19.02	19.19	20.0	20.63	20.00	20.33	21.5
HSUPA Subtest-1	19.69	20.19	20.48	21.5	21.85	21.14	21.40	22±1
HSUPA Subtest-2	19.23	19.76	19.97	21.0	21.33	20.68	20.93	22.0
HSUPA Subtest-3	18.99	19.56	19.73	20.5	21.09	20.47	20.61	22.0
HSUPA Subtest-4	18.69	19.33	19.57	20.5	20.79	20.19	20.42	21.5
HSUPA Subtest-5	18.39	18.97	19.23	20.0	20.50	19.92	20.02	21.5

Power Level P1:

WCDMA - Average Power (dBm)								
Band	WCDMA Band IV							
Channel	1312	1413	1513	Tune-up power (dBm)				
Frequency (MHz)	1712.4	1732.6	1752.6					
RMC 12.2k	21.16	21.36	21.49	22.5				
HSDPA Subtest-1	20.85	19.84	21.11	21.8				
HSDPA Subtest-2	20.40	19.35	20.66	21.0				
HSDPA Subtest-3	20.12	19.15	20.31	21.0				
HSDPA Subtest-4	19.72	18.75	19.90	20.5				
HSUPA Subtest-1	20.82	19.82	20.99	21.5				
HSUPA Subtest-2	20.36	19.37	20.44	21.0				
HSUPA Subtest-3	20.04	19.14	20.12	21.0				
HSUPA Subtest-4	19.78	18.94	19.96	20.5				

HSUPA Subtest-5	19.41	18.57	19.60	20.5				
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Power Level P2:

WCDMA - Average Power (dBm)								
Band	WCDMA Band II				WCDMA Band IV			
Channel	9262	9400	9538	Tune-up power (dBm)	1312	1413	1513	Tune-up power (dBm)
Frequency (MHz)	1852.4	1880.0	1907.6		1712.4	1732.6	1752.6	
RMC 12.2k	20.91	20.83	20.74	22.0	20.69	20.83	21.05	22.0
HSDPA Subtest-1	19.29	19.57	19.78	21.0	20.34	20.19	20.76	21.5
HSDPA Subtest-2	18.74	19.08	19.32	20.0	19.86	19.71	20.22	21.0
HSDPA Subtest-3	18.47	18.79	19.02	20.0	19.53	19.46	19.95	21.0
HSDPA Subtest-4	18.03	18.48	18.65	19.5	19.12	19.05	19.59	20.5
HSUPA Subtest-1	19.38	19.67	19.81	21.0	19.49	19.03	19.68	21.0
HSUPA Subtest-2	18.90	19.14	19.28	20.0	19.02	18.48	19.21	20.0
HSUPA Subtest-3	18.55	18.88	19.03	20.0	18.75	18.15	18.95	20.0
HSUPA Subtest-4	18.37	18.68	18.78	20.0	18.60	17.99	18.69	19.5
HSUPA Subtest-5	18.00	18.40	18.39	19.5	18.26	17.60	18.40	19.0

Remark:

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 $\leq 1/4$ dB higher than the primary mode 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.

Power Level P1:**LTE Band 2:**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	18607	1850.7	QPSK	1	0	22.81	22.5±1	/
				1	2	22.84	22.5±1	/
				1	5	22.83	22.5±1	/
				3	0	22.84	22.5±1	/
				3	1	22.85	22.5±1	/
				3	2	22.75	22.5±1	/
				6	0	21.62	22.5±1	1.0
			16QAM	1	0	22.24	22.0±1	1.0
				1	2	22.07	22.0±1	1.0
				1	5	22.19	22.0±1	1.0
				3	0	21.83	22.0±1	1.0
				3	1	21.79	22.0±1	1.0
				3	2	21.84	22.0±1	1.0
				6	0	20.87	21.0±1	1.0
	18900	1880	QPSK	1	0	22.73	22.5±1	/
				1	2	22.75	22.5±1	/
				1	5	22.77	22.5±1	/
				3	0	22.63	22.5±1	/
				3	1	22.59	22.5±1	/
				3	2	22.49	22.5±1	/
				6	0	21.59	22.5±1	1.0
			16QAM	1	0	21.38	21.0±1	1.0
				1	2	21.18	21.0±1	1.0
				1	5	21.26	21.0±1	1.0
				3	0	21.5	21.0±1	1.0
				3	1	21.48	21.0±1	1.0
				3	2	21.5	21.0±1	1.0
				6	0	20.28	21.0±1	1.0
	19193	1909.3	QPSK	1	0	22.51	22.3±1	/
				1	2	22.51	22.3±1	/
				1	5	22.53	22.3±1	/
				3	0	22.41	22.3±1	/
				3	1	22.43	22.3±1	/
				3	2	22.3	22.3±1	/
				6	0	21.35	22.3±1	1.0
			16QAM	1	0	21.25	21.5±1	1.0

				1	2	21.25	21.5±1	1.0
				1	5	21.23	21.5±1	1.0
				3	0	21.86	21.5±1	1.0
				3	1	21.78	21.5±1	1.0
				3	2	21.77	21.5±1	1.0
				6	0	20.57	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	18615	1851.5	QPSK	1	0	22.78	22.5±1	/
				1	8	22.78	22.5±1	/
				1	14	22.68	22.5±1	/
				6	0	21.77	22.5±1	1.0
				6	4	21.79	22.5±1	1.0
				6	9	21.72	22.5±1	1.0
				15	0	21.74	22.5±1	1.0
			16QAM	1	0	21.96	21.5±1	1.0
				1	8	21.87	21.5±1	1.0
				1	14	21.9	21.5±1	1.0
				6	0	20.76	21.5±1	1.0
				6	4	20.67	21.5±1	1.0
				6	9	20.62	21.5±1	1.0
				15	0	20.87	21.5±1	1.0
	18900	1880	QPSK	1	0	22.73	23.0±1	/
				1	8	22.79	23.0±1	/
				1	14	22.77	23.0±1	/
				6	0	21.43	22.0±1	1.0
				6	4	21.5	22.0±1	1.0
				6	9	21.38	22.0±1	1.0
				15	0	21.44	22.0±1	1.0
			16QAM	1	0	21.4	21.5±1	1.0
				1	8	21.41	21.5±1	1.0
				1	14	21.3	21.5±1	1.0
				6	0	20.66	21.5±1	1.0
				6	4	20.74	21.5±1	1.0
				6	9	20.74	21.5±1	1.0
				15	0	20.59	21.5±1	1.0
	19185	1908.5	QPSK	1	0	22.52	22.5±1	/
				1	8	22.53	22.5±1	/
				1	14	22.51	22.5±1	/
				6	0	21.36	22.0±1	1.0

				6	4	21.26	22.0±1	1.0
				6	9	21.32	22.0±1	1.0
				15	0	21.24	22.0±1	1.0
			16QAM	1	0	21.31	21.5±1	1.0
				1	8	21.28	21.5±1	1.0
				1	14	21.32	21.5±1	1.0
				6	0	20.43	21.0±1	1.0
				6	4	20.45	21.0±1	1.0
				6	9	20.41	21.0±1	1.0
				15	0	20.33	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	18625	1852.5	QPSK	1	0	22.65	22.5±1	/
				1	12	22.6	22.5±1	/
				1	24	22.57	22.5±1	/
				12	0	21.69	22.5±1	1.0
				12	6	21.6	22.5±1	1.0
				12	11	21.68	22.5±1	1.0
				25	0	21.69	22.5±1	1.0
			16QAM	1	0	21.02	21.5±1	1.0
				1	12	20.91	21.5±1	1.0
				1	24	20.85	21.5±1	1.0
				12	0	20.78	21.5±1	1.0
				12	6	20.7	21.5±1	1.0
				12	11	20.71	21.5±1	1.0
				25	0	20.75	21.5±1	1.0
	18900	1880	QPSK	1	0	22.73	22.5±1	/
				1	12	22.63	22.5±1	/
				1	24	22.63	22.5±1	/
				12	0	21.59	22.0±1	1.0
				12	6	21.45	22.0±1	1.0
				12	11	21.5	22.0±1	1.0
				25	0	21.54	22.0±1	1.0
			16QAM	1	0	20.84	21.0±1	1.0
				1	12	20.87	21.0±1	1.0
				1	24	20.86	21.0±1	1.0
				12	0	20.65	21.0±1	1.0
				12	6	20.69	21.0±1	1.0
				12	11	20.65	21.0±1	1.0

	19175	1907.5	QPSK	25	0	20.77	21.0±1	1.0
				1	0	22.3	22.5±1	/
				1	12	22.18	22.5±1	/
				1	24	22.22	22.5±1	/
				12	0	21.43	22.0±1	1.0
				12	6	21.36	22.0±1	1.0
				12	11	21.31	22.0±1	1.0
			16QAM	25	0	21.37	22.0±1	1.0
				1	0	20.88	21.0±1	1.0
				1	12	20.81	21.0±1	1.0
				1	24	20.75	21.0±1	1.0
				12	0	20.4	21.0±1	1.0
				12	6	20.36	21.0±1	1.0
				12	11	20.43	21.0±1	1.0
				25	0	20.41	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	18650	1855	QPSK	1	0	22.74	22.5±1	/
				1	24	22.6	22.5±1	/
				1	49	22.56	22.5±1	/
				25	0	21.64	22.5±1	1.0
				25	12	21.64	22.5±1	1.0
				25	24	21.73	22.5±1	1.0
				50	0	21.65	22.5±1	1.0
			16QAM	1	0	21.85	21.5±1	1.0
				1	24	21.78	21.5±1	1.0
				1	49	21.77	21.5±1	1.0
				25	0	20.77	21.5±1	1.0
				25	12	20.66	21.5±1	1.0
				25	24	20.7	21.5±1	1.0
				50	0	20.71	21.5±1	1.0
	18900	1880	QPSK	1	0	22.57	22.5±1	/
				1	24	22.56	22.5±1	/
				1	49	22.55	22.5±1	/
				25	0	21.48	22.0±1	1.0
				25	12	21.54	22.0±1	1.0
				25	24	21.48	22.0±1	1.0
				50	0	21.6	22.0±1	1.0
			16QAM	1	0	21.97	21.5±1	1.0

				1	24	21.93	21.5±1	1.0
				1	49	21.99	21.5±1	1.0
				25	0	20.67	21.0±1	1.0
				25	12	20.68	21.0±1	1.0
				25	24	20.67	21.0±1	1.0
				50	0	20.66	21.0±1	1.0
	19150	1905	QPSK	1	0	22.72	22.5±1	/
				1	24	22.66	22.5±1	/
				1	49	22.56	22.5±1	/
				25	0	21.43	22.0±1	1.0
				25	12	21.29	22.0±1	1.0
				25	24	21.32	22.0±1	1.0
				50	0	21.41	22.0±1	1.0
			16QAM	1	0	21.1	21.0±1	1.0
				1	24	21.03	21.0±1	1.0
				1	49	21.03	21.0±1	1.0
				25	0	20.52	21.0±1	1.0
				25	12	20.54	21.0±1	1.0
				25	24	20.48	21.0±1	1.0
				50	0	20.46	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	18675	1857.5	QPSK	1	0	22.88	22.5±1	/
				1	37	22.76	22.5±1	/
				1	74	22.6	22.5±1	/
				36	0	21.72	22.0±1	1.0
				36	16	21.55	22.0±1	1.0
				36	35	21.59	22.0±1	1.0
				75	0	21.63	22.0±1	1.0
			16QAM	1	0	21.98	22.0±1	1.0
				1	37	21.85	22.0±1	1.0
				1	74	21.85	22.0±1	1.0
				36	0	20.6	21.0±1	1.0
				36	16	20.69	21.0±1	1.0
				36	35	20.6	21.0±1	1.0
				75	0	20.66	21.0±1	1.0
	18900	1880	QPSK	1	0	22.65	22.5±1	/
				1	37	22.58	22.5±1	/
				1	74	22.53	22.5±1	/

				36	0	21.5	22.0±1	1.0
				36	16	21.5	22.0±1	1.0
				36	35	21.48	22.0±1	1.0
				75	0	21.5	22.0±1	1.0
			16QAM	1	0	22.06	21.0±1	1.0
				1	37	22.09	21.0±1	1.0
				1	74	22.03	21.0±1	1.0
				36	0	20.75	21.0±1	1.0
				36	16	20.77	21.0±1	1.0
				36	35	20.66	21.0±1	1.0
				75	0	20.61	21.0±1	1.0
	19125	1902.5	QPSK	1	0	22.5	22.5±1	/
				1	37	22.35	22.5±1	/
				1	74	22.29	22.5±1	/
				36	0	21.41	22.0±1	1.0
				36	16	21.44	22.0±1	1.0
				36	35	21.44	22.0±1	1.0
				75	0	21.37	22.0±1	1.0
			16QAM	1	0	21.99	22.0±1	1.0
				1	37	21.85	22.0±1	1.0
				1	74	21.79	22.0±1	1.0
				36	0	20.58	21.0±1	1.0
				36	16	20.49	21.0±1	1.0
				36	35	20.41	21.0±1	1.0
				75	0	20.46	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	18700	1860	QPSK	1	0	22.94	23.0±1	/
				1	49	22.7	23.0±1	/
				1	99	22.74	23.0±1	/
				50	0	21.59	22.0±1	1.0
				50	24	21.68	22.0±1	1.0
				50	49	21.51	22.0±1	1.0
				100	0	21.61	22.0±1	1.0
			16QAM	1	0	21.05	21.0±1	1.0
				1	49	20.96	21.0±1	1.0
				1	99	20.97	21.0±1	1.0
				50	0	20.75	21.0±1	1.0
				50	24	20.69	21.0±1	1.0

				50	49	20.67	21.0±1	1.0
				100	0	20.61	21.0±1	1.0
	18900	1880	QPSK	1	0	22.5	22.5±1	/
				1	49	22.48	22.5±1	/
				1	99	22.45	22.5±1	/
				50	0	21.58	22.0±1	1.0
				50	24	21.55	22.0±1	1.0
				50	49	21.55	22.0±1	1.0
				100	0	21.49	22.0±1	1.0
				1	0	20.96	21.0±1	1.0
	19100	1900	QPSK	1	49	20.95	21.0±1	1.0
				1	99	20.83	21.0±1	1.0
				50	0	20.64	21.0±1	1.0
				50	24	20.69	21.0±1	1.0
				50	49	20.57	21.0±1	1.0
				100	0	20.61	21.0±1	1.0
			16QAM	1	0	22.4	22.0±1	/
				1	49	22.32	22.0±1	/
				1	99	22.24	22.0±1	/
				50	0	21.55	22.0±1	1.0
				50	24	21.52	22.0±1	1.0
				50	49	21.45	22.0±1	1.0
				100	0	21.35	22.0±1	1.0
			QPSK	1	0	21.51	21.0±1	1.0
				1	49	21.4	21.0±1	1.0
				1	99	21.35	21.0±1	1.0
				50	0	20.6	21.0±1	1.0
				50	24	20.54	21.0±1	1.0
				50	49	20.47	21.0±1	1.0
				100	0	20.5	21.0±1	1.0

LTE Band 4:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	19957	1710.7	QPSK	1	0	22.82	22.5±1	/
				1	2	22.73	22.5±1	/
				1	5	22.83	22.5±1	/
				3	0	22.54	22.5±1	/
				3	1	22.57	22.5±1	/
				3	2	22.52	22.5±1	/
				6	0	21.54	22.5±1	1.0

			16QAM	1	0	22.04	22.0±1	1.0
				1	2	22.01	22.0±1	1.0
				1	5	22.08	22.0±1	1.0
				3	0	21.69	21.0±1	1.0
				3	1	21.71	21.0±1	1.0
				3	2	21.7	21.0±1	1.0
				6	0	20.81	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.62	22.5±1	/
				1	2	22.59	22.5±1	/
				1	5	22.65	22.5±1	/
				3	0	22.65	22.5±1	/
				3	1	22.62	22.5±1	/
				3	2	22.64	22.5±1	/
				6	0	21.62	22.5±1	1.0
			16QAM	1	0	22.07	22.0±1	1.0
				1	2	22.06	22.0±1	1.0
				1	5	21.95	22.0±1	1.0
				3	0	21.6	21.0±1	1.0
				3	1	21.66	21.0±1	1.0
				3	2	21.63	21.0±1	1.0
				6	0	20.3	21.0±1	1.0
	20393	1754.3	QPSK	1	0	22.88	23.0±1	/
				1	2	22.88	23.0±1	/
				1	5	22.89	23.0±1	/
				3	0	22.72	23.0±1	/
				3	1	22.71	23.0±1	/
				3	2	22.69	23.0±1	/
				6	0	21.65	22.0±1	1.0
			16QAM	1	0	21.88	22.0±1	1.0
				1	2	21.74	22.0±1	1.0
				1	5	21.77	22.0±1	1.0
				3	0	22.09	22.0±1	1.0
				3	1	22.05	22.0±1	1.0
				3	2	22.05	22.0±1	1.0
				6	0	20.88	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	19965	1711.5	QPSK	1	0	22.59	22.5±1	/
				1	8	22.62	22.5±1	/
				1	14	22.46	22.5±1	/
				6	0	21.56	21.5±1	1.0
				6	4	21.5	21.5±1	1.0
				6	9	21.47	21.5±1	1.0
				15	0	21.5	21.5±1	1.0
			16QAM	1	0	21.72	21.5±1	1.0
				1	8	21.63	21.5±1	1.0
				1	14	21.73	21.5±1	1.0
				8	0	20.59	21.0±1	1.0
				8	4	20.5	21.0±1	1.0
				8	9	20.47	21.0±1	1.0
				15	0	20.67	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.64	22.5±1	/
				1	8	22.63	22.5±1	/
				1	14	22.65	22.5±1	/
				6	0	21.63	22.5±1	1.0
				6	4	21.56	22.5±1	1.0
				6	9	21.54	22.5±1	1.0
				15	0	21.51	22.5±1	1.0
			16QAM	1	0	22	22.0±1	1.0
				1	8	21.97	22.0±1	1.0
				1	14	21.96	22.0±1	1.0
				6	0	20.96	21.0±1	1.0
				6	4	20.93	21.0±1	1.0
				6	9	20.92	21.0±1	1.0
				15	0	20.74	21.0±1	1.0
	20385	1753.5	QPSK	1	0	22.9	23.0±1	/
				1	8	22.9	23.0±1	/
				1	14	22.91	23.0±1	/
				6	0	21.61	22.5±1	1.0
				6	4	21.62	22.5±1	1.0
				6	9	21.63	22.5±1	1.0
				15	0	21.69	22.5±1	1.0
			16QAM	1	0	21.73	21.5±1	1.0
				1	8	21.79	21.5±1	1.0
				1	14	21.75	21.5±1	1.0
				8	0	20.8	21.5±1	1.0

				8	4	20.82	21.5±1	1.0
				8	9	20.84	21.5±1	1.0
				15	0	20.63	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	19975	1712.5	QPSK	1	0	22.55	22.0±1	/
				1	49	22.32	22.0±1	/
				1	99	22.43	22.0±1	/
				12	0	21.45	22.0±1	1.0
				12	24	21.43	22.0±1	1.0
				12	49	21.53	22.0±1	1.0
				25	0	21.44	22.0±1	1.0
			16QAM	1	0	20.82	21.0±1	1.0
				1	49	20.81	21.0±1	1.0
				1	99	20.82	21.0±1	1.0
				12	0	20.49	21.0±1	1.0
				12	24	20.48	21.0±1	1.0
				12	49	20.57	21.0±1	1.0
				25	0	20.64	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.68	22.5±1	/
				1	49	22.71	22.5±1	/
				1	99	22.76	22.5±1	/
				12	0	21.5	21.5±1	1.0
				12	24	21.44	21.5±1	1.0
				12	49	21.45	21.5±1	1.0
				25	0	21.53	21.5±1	1.0
			16QAM	1	0	20.89	21.0±1	1.0
				1	49	20.88	21.0±1	1.0
				1	99	20.97	21.0±1	1.0
				12	0	20.66	21.0±1	1.0
				12	24	20.7	21.0±1	1.0
				12	49	20.65	21.0±1	1.0
				25	0	20.78	21.0±1	1.0
	20375	1752.5	QPSK	1	0	22.59	22.5±1	/
				1	49	22.54	22.5±1	/
				1	99	22.57	22.5±1	/
				12	0	21.65	22.5±1	1.0
				12	24	21.73	22.5±1	1.0
				12	49	21.69	22.5±1	1.0

				25	0	21.68	22.5±1	1.0
			16QAM	1	0	21.12	21.0±1	1.0
				1	49	21.16	21.0±1	1.0
				1	99	21.16	21.0±1	1.0
				12	0	20.72	21.0±1	1.0
				12	24	20.77	21.0±1	1.0
				12	49	20.68	21.0±1	1.0
				25	0	20.69	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20000	1715	QPSK	1	0	22.53	22.5±1	/
				1	49	22.5	22.5±1	/
				1	99	22.58	22.5±1	/
				25	0	21.4	22.0±1	1.0
				25	24	21.59	22.0±1	1.0
				25	49	21.59	22.0±1	1.0
				50	0	21.56	22.0±1	1.0
			16QAM	1	0	21.56	21.5±1	1.0
				1	49	21.69	21.5±1	1.0
				1	99	21.7	21.5±1	1.0
				25	0	20.61	21.5±1	1.0
				25	24	20.63	21.5±1	1.0
				25	49	20.59	21.5±1	1.0
				50	0	20.67	21.5±1	1.0
	20175	1732.5	QPSK	1	0	22.61	22.5±1	/
				1	49	22.66	22.5±1	/
				1	99	22.63	22.5±1	/
				25	0	21.51	21.5±1	1.0
				25	24	21.5	21.5±1	1.0
				25	49	21.69	21.5±1	1.0
				50	0	21.47	21.5±1	1.0
			16QAM	1	0	21.27	21.0±1	1.0
				1	49	21.22	21.0±1	1.0
				1	99	21.4	21.0±1	1.0
				25	0	20.7	21.0±1	1.0
				25	24	20.67	21.0±1	1.0
				25	49	20.74	21.0±1	1.0
				50	0	20.7	21.0±1	1.0
	20350	1750	QPSK	1	0	22.87	23.0±1	/

				1	49	22.86	23.0±1	/
				1	99	22.88	23.0±1	/
				25	0	21.61	22.0±1	1.0
				25	24	21.58	22.0±1	1.0
				25	49	21.6	22.0±1	1.0
				50	0	21.59	22.0±1	1.0
			16QAM	1	0	22.11	22.0±1	1.0
				1	49	22.21	22.0±1	1.0
				1	99	22.17	22.0±1	1.0
				25	0	20.78	21.0±1	1.0
				25	24	20.86	21.0±1	1.0
				25	49	20.9	21.0±1	1.0
				50	0	20.71	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	20025	1717.5	QPSK	1	0	22.66	22.0±1	/
				1	49	22.59	22.0±1	/
				1	99	22.57	22.0±1	/
				36	0	21.53	22.0±1	1.0
				36	24	21.58	22.0±1	1.0
				36	49	21.54	22.0±1	1.0
				75	0	21.48	22.0±1	1.0
			16QAM	1	0	21.47	21.5±1	1.0
				1	49	21.61	21.5±1	1.0
				1	99	21.76	21.5±1	1.0
				36	0	20.68	21.0±1	1.0
				36	24	20.59	21.0±1	1.0
				36	49	20.72	21.0±1	1.0
				75	0	20.58	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.58	22.5±1	/
				1	49	22.67	22.5±1	/
				1	99	22.72	22.5±1	/
				36	0	21.68	22.0±1	1.0
				36	24	21.47	22.0±1	1.0
				36	49	21.55	22.0±1	1.0
				75	0	21.63	22.0±1	1.0
			16QAM	1	0	21.28	21.0±1	1.0
				1	49	21.22	21.0±1	1.0
				1	99	21.31	21.0±1	1.0

	20325	1747.5		36	0	20.73	21.0±1	1.0
				36	24	20.81	21.0±1	1.0
				36	49	20.78	21.0±1	1.0
				75	0	20.73	21.0±1	1.0
			QPSK	1	0	22.69	22.5±1	/
				1	49	22.7	22.5±1	/
				1	99	22.73	22.5±1	/
				36	0	21.64	22.0±1	1.0
				36	24	21.74	22.0±1	1.0
				36	49	21.62	22.0±1	1.0
				75	0	21.67	22.0±1	1.0
			16QAM	1	0	22.12	21.0±1	1.0
				1	49	22.07	21.0±1	1.0
				1	99	22.11	21.0±1	1.0
				36	0	20.77	21.0±1	1.0
				36	24	20.68	21.0±1	1.0
				36	49	20.79	21.0±1	1.0
				75	0	20.75	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	20050	1720	QPSK	1	0	22.66	22.5±1	/
				1	49	22.69	22.5±1	/
				1	99	22.85	22.5±1	/
				50	0	21.5	21.5±1	1.0
				50	24	21.57	21.5±1	1.0
				50	49	21.61	21.5±1	1.0
				100	0	21.6	21.5±1	1.0
			16QAM	1	0	20.82	21.0±1	1.0
				1	49	20.93	21.0±1	1.0
				1	99	21.08	21.0±1	1.0
				50	0	20.76	21.0±1	1.0
				50	24	20.68	21.0±1	1.0
				50	49	20.71	21.0±1	1.0
				100	0	20.66	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.38	22.5±1	/
				1	49	22.49	22.5±1	/
				1	99	22.59	22.5±1	/
				50	0	21.58	21.5±1	1.0
				50	24	21.56	21.5±1	1.0

				50	49	21.65	21.5±1	1.0
				100	0	21.65	21.5±1	1.0
			16QAM	1	0	21.39	21.5±1	1.0
				1	49	21.44	21.5±1	1.0
				1	99	21.58	21.5±1	1.0
				50	0	20.73	21.5±1	1.0
				50	24	20.75	21.5±1	1.0
				50	49	20.74	21.5±1	1.0
				100	0	20.68	21.5±1	1.0
	20300	1745	QPSK	1	0	22.56	22.5±1	/
				1	49	22.54	22.5±1	/
				1	99	22.64	22.5±1	/
				50	0	21.58	21.5±1	1.0
				50	24	21.72	21.5±1	1.0
				50	49	21.74	21.5±1	1.0
				100	0	21.7	21.5±1	1.0
			16QAM	1	0	21.5	21.5±1	1.0
				1	49	21.42	21.5±1	1.0
				1	99	21.51	21.5±1	1.0
				50	0	20.63	21.0±1	1.0
				50	24	20.63	21.0±1	1.0
				50	49	20.7	21.0±1	1.0
				100	0	20.68	21.0±1	1.0

LTE Band 5:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	20407	824.7	QPSK	1	0	23.63	23.5±1	/
				1	2	23.62	23.5±1	/
				1	5	23.71	23.5±1	/
				3	0	23.67	23.5±1	/
				3	1	23.64	23.5±1	/
				3	2	23.61	23.5±1	/
				6	0	22.54	23.5±1	1.0
			16QAM	1	0	23.42	23.5±1	1.0
				1	2	23.45	23.5±1	1.0
				1	5	23.45	23.5±1	1.0
				3	0	22.65	22.0±1	1.0
				3	1	22.65	22.0±1	1.0
				3	2	22.62	22.0±1	1.0
				6	0	21.62	22.0±1	1.0

	20525	836.5	QPSK	1	0	23.62	23.5±1	/
				1	2	23.61	23.5±1	/
				1	5	23.67	23.5±1	/
				3	0	23.62	23.5±1	/
				3	1	23.64	23.5±1	/
				3	2	23.56	23.5±1	/
				6	0	22.58	23.5±1	1.0
			16QAM	1	0	23.5	23.5±1	1.0
				1	2	23.39	23.5±1	1.0
				1	5	23.42	23.5±1	1.0
				3	0	22.52	22.0±1	1.0
				3	1	22.55	22.0±1	1.0
				3	2	22.51	22.0±1	1.0
				6	0	21.18	22.0±1	1.0
	20634	848.3	QPSK	1	0	23.65	23.5±1	/
				1	2	23.68	23.5±1	/
				1	5	23.72	23.5±1	/
				3	0	23.48	23.5±1	/
				3	1	23.5	23.5±1	/
				3	2	23.56	23.5±1	/
				6	0	22.42	22.5±1	1.0
			16QAM	1	0	22.81	22.5±1	1.0
				1	2	22.78	22.5±1	1.0
				1	5	22.79	22.5±1	1.0
				3	0	22.48	22.5±1	1.0
				3	1	22.43	22.5±1	1.0
				3	2	22.4	22.5±1	1.0
				6	0	21.9	22.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	20415	825.5	QPSK	1	0	23.61	23.5±1	/
				1	8	23.6	23.5±1	/
				1	14	23.67	23.5±1	/
				6	0	22.53	22.5±1	1.0
				6	4	22.57	22.5±1	1.0
				6	9	22.62	22.5±1	1.0
				15	0	22.5	22.5±1	1.0
			16QAM	1	0	22.98	23.0±1	1.0
				1	8	22.97	23.0±1	1.0

				1	14	22.98	23.0±1	1.0
				8	0	21.57	21.5±1	1.0
				8	4	21.55	21.5±1	1.0
				8	9	21.56	21.5±1	1.0
				15	0	21.67	21.5±1	1.0
	20525	836.5	QPSK	1	0	23.59	23.5±1	/
				1	8	23.64	23.5±1	/
				1	14	23.59	23.5±1	/
				6	0	22.54	22.5±1	1.0
				6	4	22.61	22.5±1	1.0
				6	9	22.51	22.5±1	1.0
				15	0	22.48	22.5±1	1.0
			16QAM	1	0	23.36	23.5±1	1.0
				1	8	23.41	23.5±1	1.0
				1	14	23.38	23.5±1	1.0
				6	0	21.81	21.5±1	1.0
				6	4	21.74	21.5±1	1.0
				6	9	21.71	21.5±1	1.0
				15	0	21.6	21.5±1	1.0
	20635	847.5	QPSK	1	0	23.73	23.5±1	/
				1	8	23.75	23.5±1	/
				1	14	23.69	23.5±1	/
				6	0	22.54	22.5±1	1.0
				6	4	22.57	22.5±1	1.0
				6	9	22.53	22.5±1	1.0
				15	0	22.58	22.5±1	1.0
			16QAM	1	0	22.82	22.5±1	1.0
				1	8	22.8	22.5±1	1.0
				1	14	22.91	22.5±1	1.0
				8	0	21.65	21.5±1	1.0
				8	4	21.62	21.5±1	1.0
				8	9	21.99	21.5±1	1.0
				15	0	21.49	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	20425	826.5	QPSK	1	0	23.48	23.5±1	/
				1	49	23.51	23.5±1	/
				1	99	23.43	23.5±1	/
				12	0	22.53	22.5±1	1.0
				12	24	22.58	22.5±1	1.0
				12	49	22.6	22.5±1	1.0
				25	0	22.66	22.5±1	1.0
			16QAM	1	0	22.36	22.0±1	1.0
				1	49	22.34	22.0±1	1.0
				1	99	22.28	22.0±1	1.0
				12	0	21.57	22.0±1	1.0
				12	24	21.56	22.0±1	1.0
				12	49	21.55	22.0±1	1.0
				25	0	21.64	22.0±1	1.0
	20525	836.5	QPSK	1	0	23.61	23.5±1	/
				1	49	23.6	23.5±1	/
				1	99	23.71	23.5±1	/
				12	0	22.58	22.5±1	1.0
				12	24	22.61	22.5±1	1.0
				12	49	22.49	22.5±1	1.0
				25	0	22.62	22.5±1	1.0
			16QAM	1	0	22.83	22.5±1	1.0
				1	49	22.83	22.5±1	1.0
				1	99	22.79	22.5±1	1.0
				12	0	21.6	21.5±1	1.0
				12	24	21.6	21.5±1	1.0
				12	49	21.6	21.5±1	1.0
				25	0	21.65	21.5±1	1.0
	20625	846.5	QPSK	1	0	23.56	23.5±1	/
				1	49	23.5	23.5±1	/
				1	99	23.55	23.5±1	/
				12	0	22.6	22.5±1	1.0
				12	24	22.45	22.5±1	1.0
				12	49	22.62	22.5±1	1.0
				25	0	22.46	22.5±1	1.0
			16QAM	1	0	22.86	23.0±1	1.0
				1	49	22.9	23.0±1	1.0
				1	99	22.94	23.0±1	1.0
				12	0	21.55	21.5±1	1.0

				12	24	21.49	21.5±1	1.0
				12	49	21.56	21.5±1	1.0
				25	0	21.67	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20450	829	QPSK	1	0	23.6	23.5±1	/
				1	49	23.54	23.5±1	/
				1	99	23.51	23.5±1	/
				25	0	22.53	22.5±1	1.0
				25	24	22.73	22.5±1	1.0
				25	49	22.5	22.5±1	1.0
				50	0	22.69	22.5±1	1.0
			16QAM	1	0	23.25	23.0±1	1.0
				1	49	23.25	23.0±1	1.0
				1	99	23.19	23.0±1	1.0
				25	0	21.47	21.5±1	1.0
				25	24	21.54	21.5±1	1.0
				25	49	21.52	21.5±1	1.0
				50	0	21.63	21.5±1	1.0
	20525	836.5	QPSK	1	0	23.59	23.5±1	/
				1	49	23.65	23.5±1	/
				1	99	23.59	23.5±1	/
				25	0	22.72	22.5±1	1.0
				25	24	22.63	22.5±1	1.0
				25	49	22.61	22.5±1	1.0
				50	0	22.66	22.5±1	1.0
			16QAM	1	0	22.67	22.5±1	1.0
				1	49	22.79	22.5±1	1.0
				1	99	22.71	22.5±1	1.0
				25	0	21.72	21.5±1	1.0
				25	24	21.64	21.5±1	1.0
				25	49	21.62	21.5±1	1.0
				50	0	21.64	21.5±1	1.0
	20600	844	QPSK	1	0	23.86	24.0±1	/
				1	49	23.69	24.0±1	/
				1	99	23.72	24.0±1	/
				25	0	22.54	22.5±1	1.0
				25	24	22.55	22.5±1	1.0
				25	49	22.59	22.5±1	1.0

			16QAM	50	0	22.56	22.5±1	1.0
				1	0	22.92	23.0±1	1.0
				1	49	22.83	23.0±1	1.0
				1	99	22.8	23.0±1	1.0
				25	0	21.71	22.5±1	1.0
				25	24	21.79	22.5±1	1.0
				25	49	21.69	22.5±1	1.0
				50	0	21.61	22.5±1	1.0

LTE Band 7:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	20775	2502.5	QPSK	1	0	22.55	22.5±1	/
				1	49	22.55	22.5±1	/
				1	99	22.62	22.5±1	/
				12	0	21.54	22.5±1	1.0
				12	24	21.57	22.5±1	1.0
				12	49	21.5	22.5±1	1.0
				25	0	21.58	22.5±1	1.0
			16QAM	1	0	21.04	21.0±1	1.0
				1	49	21.08	21.0±1	1.0
				1	99	21.13	21.0±1	1.0
				12	0	20.6	21.0±1	1.0
				12	24	20.65	21.0±1	1.0
				12	49	20.68	21.0±1	1.0
				25	0	20.81	21.0±1	1.0
	21100	2535	QPSK	1	0	22.49	22.5±1	/
				1	49	22.48	22.5±1	/
				1	99	22.51	22.5±1	/
				12	0	21.58	22.5±1	1.0
				12	24	21.52	22.5±1	1.0
				12	49	21.65	22.5±1	1.0
				25	0	21.67	22.5±1	1.0
			16QAM	1	0	21.05	21.0±1	1.0
				1	49	20.99	21.0±1	1.0
				1	99	21.21	21.0±1	1.0
				12	0	20.65	21.0±1	1.0
				12	24	20.61	21.0±1	1.0
				12	49	20.62	21.0±1	1.0
				25	0	20.79	21.0±1	1.0
	21425	2567.5	QPSK	1	0	22.72	22.5±1	/

				1	49	22.8	22.5±1	/
				1	99	22.7	22.5±1	/
				12	0	21.81	22.5±1	1.0
				12	24	21.7	22.5±1	1.0
				12	49	21.68	22.5±1	1.0
				25	0	21.67	22.5±1	1.0
			16QAM	1	0	20.91	21.0±1	1.0
				1	49	20.91	21.0±1	1.0
				1	99	20.88	21.0±1	1.0
				12	0	20.67	21.0±1	1.0
				12	24	20.62	21.0±1	1.0
				12	49	20.61	21.0±1	1.0
				25	0	20.92	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20800	2505	QPSK	1	0	22.55	22.5±1	/
				1	49	22.61	22.5±1	/
				1	99	22.57	22.5±1	/
				25	0	21.51	22.5±1	1.0
				25	24	21.59	22.5±1	1.0
				25	49	21.58	22.5±1	1.0
				50	0	21.5	22.5±1	1.0
			16QAM	1	0	21.78	21.5±1	1.0
				1	49	21.82	21.5±1	1.0
				1	99	21.89	21.5±1	1.0
				25	0	20.6	21.5±1	1.0
				25	24	20.65	21.5±1	1.0
				25	49	20.67	21.5±1	1.0
				50	0	20.73	21.5±1	1.0
	21100	2535	QPSK	1	0	22.65	22.5±1	/
				1	49	22.74	22.5±1	/
				1	99	22.67	22.5±1	/
				25	0	21.52	22.5±1	1.0
				25	24	21.59	22.5±1	1.0
				25	49	21.54	22.5±1	1.0
				50	0	21.46	22.5±1	1.0
			16QAM	1	0	21.36	21.5±1	1.0
				1	49	21.23	21.5±1	1.0
				1	99	21.29	21.5±1	1.0

	21400	2565		25	0	20.71	21.5±1	1.0
				25	24	20.72	21.5±1	1.0
				25	49	20.75	21.5±1	1.0
				50	0	20.69	21.5±1	1.0
			QPSK	1	0	22.96	23.0±1	/
				1	49	22.93	23.0±1	/
				1	99	22.86	23.0±1	/
				25	0	21.62	22.0±1	1.0
				25	24	21.68	22.0±1	1.0
				25	49	21.67	22.0±1	1.0
				50	0	21.55	22.0±1	1.0
			16QAM	1	0	21.48	21.5±1	1.0
				1	49	21.45	21.5±1	1.0
				1	99	21.37	21.5±1	1.0
				25	0	20.87	21.5±1	1.0
				25	24	20.8	21.5±1	1.0
				25	49	20.81	21.5±1	1.0
				50	0	20.73	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	20825	2507.5	QPSK	1	0	22.32	22.5±1	/
				1	49	22.3	22.5±1	/
				1	99	22.54	22.5±1	/
				36	0	21.4	21.0±1	1.0
				36	24	21.47	21.0±1	1.0
				36	49	21.46	21.0±1	1.0
				75	0	21.37	21.0±1	1.0
			16QAM	1	0	21.54	21.0±1	1.0
				1	49	21.72	21.0±1	1.0
				1	99	21.67	21.0±1	1.0
				36	0	20.62	21.0±1	1.0
				36	24	20.6	21.0±1	1.0
				36	49	20.72	21.0±1	1.0
	75	0	20.5	21.0±1	1.0			
	21100	2535	QPSK	1	0	22.54	23.0±1	/
				1	49	22.98	23.0±1	/
				1	99	22.57	23.0±1	/
				36	0	21.52	21.5±1	1.0
				36	24	21.43	21.5±1	1.0

				36	49	21.49	21.5±1	1.0
				75	0	21.55	21.5±1	1.0
			16QAM	1	0	22.01	22.0±1	1.0
				1	49	21.94	22.0±1	1.0
				1	99	21.89	22.0±1	1.0
				36	0	20.77	21.0±1	1.0
				36	24	20.72	21.0±1	1.0
				36	49	20.77	21.0±1	1.0
				75	0	20.63	21.0±1	1.0
	21375	2562.5	QPSK	1	0	22.65	22.5±1	/
				1	49	22.33	22.5±1	/
				1	99	22.34	22.5±1	/
				36	0	21.63	22.0±1	1.0
				36	24	21.62	22.0±1	1.0
				36	49	21.53	22.0±1	1.0
				75	0	21.49	22.0±1	1.0
			16QAM	1	0	22.45	22.5±1	1.0
				1	49	22.55	22.5±1	1.0
				1	99	22.37	22.5±1	1.0
				36	0	20.78	21.0±1	1.0
				36	24	20.71	21.0±1	1.0
				36	49	20.69	21.0±1	1.0
				75	0	20.73	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	20850	2510	QPSK	1	0	22.38	22.5±1	/
				1	49	22.46	22.5±1	/
				1	99	22.57	22.5±1	/
				50	0	21.5	21.5±1	1.0
				50	24	21.45	21.5±1	1.0
				50	49	21.62	21.5±1	1.0
				100	0	21.48	21.5±1	1.0
			16QAM	1	0	20.8	21.0±1	1.0
				1	49	20.94	21.0±1	1.0
				1	99	21.01	21.0±1	1.0
				50	0	20.65	21.0±1	1.0
				50	24	20.67	21.0±1	1.0
				50	49	20.67	21.0±1	1.0
				100	0	20.59	21.0±1	1.0

	21100	2535	QPSK	1	0	22.39	22.5±1	/
				1	49	22.41	22.5±1	/
				1	99	22.38	22.5±1	/
				50	0	21.44	21.5±1	1.0
				50	24	21.46	21.5±1	1.0
				50	49	21.58	21.5±1	1.0
				100	0	21.48	21.5±1	1.0
			16QAM	1	0	21.24	21.0±1	1.0
				1	49	21.34	21.0±1	1.0
				1	99	21.32	21.0±1	1.0
				50	0	20.58	21.0±1	1.0
				50	24	20.59	21.0±1	1.0
				50	49	20.66	21.0±1	1.0
				100	0	20.6	21.0±1	1.0
	21350	2560	QPSK	1	0	22.73	22.5±1	/
				1	49	22.7	22.5±1	/
				1	99	22.55	22.5±1	/
				50	0	21.72	21.5±1	1.0
				50	24	21.63	21.5±1	1.0
				50	49	21.5	21.5±1	1.0
				100	0	21.6	21.5±1	1.0
			16QAM	1	0	21.23	21.0±1	1.0
				1	49	21.18	21.0±1	1.0
				1	99	21.21	21.0±1	1.0
				50	0	20.74	21.0±1	1.0
				50	24	20.69	21.0±1	1.0
				50	49	20.59	21.0±1	1.0
				100	0	20.75	21.0±1	1.0

LTE Band 13:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	23205	779.5	QPSK	1	0	23.61	23.5±1	/
				1	49	23.58	23.5±1	/
				1	99	23.57	23.5±1	/
				12	0	22.69	23.0±1	1.0
				12	24	22.69	23.0±1	1.0
				12	49	22.67	23.0±1	1.0
				25	0	22.77	23.0±1	1.0
			16QAM	1	0	23.01	23.0±1	1.0

				1	49	23.13	23.0±1	1.0
				1	99	22.99	23.0±1	1.0
				12	0	21.56	21.5±1	1.0
				12	24	21.57	21.5±1	1.0
				12	49	21.53	21.5±1	1.0
				25	0	21.73	21.5±1	1.0
	23230	782.0	QPSK	1	0	23.71	23.5±1	/
				1	49	23.69	23.5±1	/
				1	99	23.7	23.5±1	/
				12	0	22.66	23.0±1	1.0
				12	24	22.62	23.0±1	1.0
				12	49	22.72	23.0±1	1.0
				25	0	22.6	23.0±1	1.0
			16QAM	1	0	22.42	22.0±1	1.0
				1	49	22.24	22.0±1	1.0
				1	99	22.3	22.0±1	1.0
				12	0	21.58	22.0±1	1.0
				12	24	21.67	22.0±1	1.0
				12	49	21.55	22.0±1	1.0
				25	0	21.68	22.0±1	1.0
	23255	784.5	QPSK	1	0	23.74	24.0±1	/
				1	49	23.65	24.0±1	/
				1	99	23.65	24.0±1	/
				12	0	22.65	22.5±1	1.0
				12	24	22.63	22.5±1	1.0
				12	49	22.47	22.5±1	1.0
				25	0	22.51	22.5±1	1.0
			16QAM	1	0	22.35	22.5±1	1.0
				1	49	22.35	22.5±1	1.0
				1	99	22.68	22.5±1	1.0
				12	0	21.41	21.5±1	1.0
				12	24	21.51	21.5±1	1.0
				12	49	21.61	21.5±1	1.0
				25	0	21.53	21.5±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	23230	782.0	QPSK	1	0	23.64	23.5±1	/
				1	49	23.41	23.5±1	/
				1	99	23.6	23.5±1	/
				25	0	22.62	22.5±1	1.0
				25	24	22.47	22.5±1	1.0
				25	49	22.59	22.5±1	1.0
				50	0	22.38	22.5±1	1.0
			16QAM	1	0	23.06	23.0±1	1.0
				1	49	23.17	23.0±1	1.0
				1	99	23.04	23.0±1	1.0
				25	0	21.4	21.5±1	1.0
				25	24	21.28	21.5±1	1.0
				25	49	21.42	21.5±1	1.0
				50	0	21.52	21.5±1	1.0

Power Level P2:**LTE Band 2:**

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	18607	1850.7	QPSK	1	0	21.17	21.0±1	/
				1	2	21.19	21.0±1	/
				1	5	21.16	21.0±1	/
				3	0	21.21	21.0±1	/
				3	1	21.12	21.0±1	/
				3	2	21.15	21.0±1	/
				6	0	20.04	21.0±1	1.0
			16QAM	1	0	20.54	20.5±1	1.0
				1	2	20.55	20.5±1	1.0
				1	5	20.53	20.5±1	1.0
				3	0	20.2	20.5±1	1.0
				3	1	20.22	20.5±1	1.0
				3	2	20.2	20.5±1	1.0
				6	0	19.47	19.5±1	1.0
	18900	1880	QPSK	1	0	21.09	21.0±1	/
				1	2	21.14	21.0±1	/
				1	5	21.09	21.0±1	/
				3	0	20.93	21.0±1	/

				3	1	20.94	21.0±1	/
				3	2	20.78	21.0±1	/
				6	0	19.96	19.0±1	1.0
			16QAM	1	0	19.02	19.0±1	1.0
				1	2	18.99	19.0±1	1.0
				1	5	18.96	19.0±1	1.0
				3	0	19.67	19.0±1	1.0
				3	1	19.6	19.0±1	1.0
				3	2	19.79	19.0±1	1.0
				6	0	18.49	19.0±1	1.0
	19193	1909.3	QPSK	1	0	20.89	21.0±1	/
				1	2	20.84	21.0±1	/
				1	5	20.89	21.0±1	/
				3	0	20.74	21.0±1	/
				3	1	20.76	21.0±1	/
				3	2	20.74	21.0±1	/
				6	0	19.75	19.0±1	1.0
			16QAM	1	0	19.61	20.0±1	1.0
				1	2	19.61	20.0±1	1.0
				1	5	19.6	20.0±1	1.0
				3	0	20.2	20.0±1	1.0
				3	1	20.18	20.0±1	1.0
				3	2	20.14	20.0±1	1.0
				6	0	19.29	20.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	18615	1851.5	QPSK	1	0	21	21.0±1	/
				1	8	21.09	21.0±1	/
				1	14	20.97	21.0±1	/
				6	0	20.1	20.0±1	1.0
				6	4	20.13	20.0±1	1.0
				6	9	19.95	20.0±1	1.0
				15	0	20.07	20.0±1	1.0
			16QAM	1	0	20.27	20.0±1	1.0
				1	8	20.28	20.0±1	1.0
				1	14	20.21	20.0±1	1.0
				6	0	19.68	20.0±1	1.0
				6	4	19.7	20.0±1	1.0
				6	9	19.64	20.0±1	1.0
				15	0	19.6	20.0±1	1.0

	18900	1880	QPSK	1	0	21.01	21.0±1	/
				1	8	21.02	21.0±1	/
				1	14	20.99	21.0±1	/
				6	0	19.93	20.0±1	1.0
				6	4	19.86	20.0±1	1.0
				6	9	19.82	20.0±1	1.0
				15	0	19.8	20.0±1	1.0
			16QAM	1	0	19.54	20.0±1	1.0
				1	8	19.57	20.0±1	1.0
				1	14	19.52	20.0±1	1.0
				6	0	18.95	19.0±1	1.0
				6	4	18.92	19.0±1	1.0
				6	9	18.72	19.0±1	1.0
				15	0	18.78	19.0±1	1.0
	19185	1908.5	QPSK	1	0	20.86	21.0±1	/
				1	8	20.84	21.0±1	/
				1	14	20.81	21.0±1	/
				6	0	19.5	20.0±1	1.0
				6	4	19.74	20.0±1	1.0
				6	9	19.66	20.0±1	1.0
				15	0	19.52	20.0±1	1.0
			16QAM	1	0	19.65	20.0±1	1.0
				1	8	19.62	20.0±1	1.0
				1	14	19.27	20.0±1	1.0
				6	0	19.48	20.0±1	1.0
				6	4	19.29	20.0±1	1.0
				6	9	19.12	20.0±1	1.0
				15	0	19.27	20.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	18625	1852.5	QPSK	1	0	20.96	21.0±1	/
				1	12	20.91	21.0±1	/
				1	24	20.84	21.0±1	/
				12	0	19.96	20.0±1	1.0
				12	6	19.96	20.0±1	1.0
				12	11	20.09	20.0±1	1.0
				25	0	19.87	20.0±1	1.0
			16QAM	1	0	19.27	20.0±1	1.0
				1	12	19.22	20.0±1	1.0

				1	24	19.15	20.0±1	1.0
				12	0	18.53	19.0±1	1.0
				12	6	18.68	19.0±1	1.0
				12	11	18.54	19.0±1	1.0
				25	0	18.39	19.0±1	1.0
	18900	1880	QPSK	1	0	20.95	21.0±1	/
				1	12	20.88	21.0±1	/
				1	24	20.83	21.0±1	/
				12	0	19.71	20.0±1	1.0
				12	6	19.76	20.0±1	1.0
				12	11	19.67	20.0±1	1.0
				25	0	19.6	20.0±1	1.0
			16QAM	1	0	19.61	20.0±1	1.0
				1	12	19.57	20.0±1	1.0
				1	24	19.64	20.0±1	1.0
				12	0	19.42	19.0±1	1.0
				12	6	19.33	19.0±1	1.0
				12	11	18.94	19.0±1	1.0
				25	0	19.12	19.0±1	1.0
	19175	1907.5	QPSK	1	0	20.74	21.0±1	/
				1	12	20.75	21.0±1	/
				1	24	20.67	21.0±1	/
				12	0	19.7	20.0±1	1.0
				12	6	19.7	20.0±1	1.0
				12	11	19.63	20.0±1	1.0
				25	0	19.81	20.0±1	1.0
			16QAM	1	0	19.8	20.0±1	1.0
				1	12	19.67	20.0±1	1.0
				1	24	19.64	20.0±1	1.0
				12	0	20.03	20.0±1	1.0
				12	6	19.76	20.0±1	1.0
				12	11	19.17	20.0±1	1.0
				25	0	19.53	20.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	18650	1855	QPSK	1	0	21.05	21.0±1	/
				1	24	20.92	21.0±1	/
				1	49	20.94	21.0±1	/
				25	0	20.06	20.0±1	1.0

				25	12	19.97	20.0±1	1.0
				25	24	19.37	20.0±1	1.0
				50	0	19.25	20.0±1	1.0
			16QAM	1	0	19.19	19.0±1	1.0
				1	24	18.56	19.0±1	1.0
				1	49	18.69	19.0±1	1.0
				25	0	18.64	19.0±1	1.0
				25	12	18.59	19.0±1	1.0
				25	24	20.92	21.0±1	1.0
				50	0	20.14	20.0±1	1.0
	18900	1880	QPSK	1	0	20.81	21.0±1	/
				1	24	20.77	21.0±1	/
				1	49	20.83	21.0±1	/
				25	0	19.93	20.0±1	1.0
				25	12	19.83	20.0±1	1.0
				25	24	19.74	20.0±1	1.0
				50	0	19.74	20.0±1	1.0
			16QAM	1	0	20.26	20.0±1	1.0
				1	24	20.25	20.0±1	1.0
				1	49	20.22	20.0±1	1.0
				25	0	19.94	20.0±1	1.0
				25	12	19.57	20.0±1	1.0
				25	24	19.29	20.0±1	1.0
				50	0	19.59	20.0±1	1.0
	19150	1905	QPSK	1	0	20.87	21.0±1	/
				1	24	20.91	21.0±1	/
				1	49	20.82	21.0±1	/
				25	0	19.61	20.0±1	1.0
				25	12	19.66	20.0±1	1.0
				25	24	19.63	20.0±1	1.0
				50	0	19.83	20.0±1	1.0
			16QAM	1	0	19.73	20.0±1	1.0
				1	24	19.55	20.0±1	1.0
				1	49	19.59	20.0±1	1.0
				25	0	20.77	20.0±1	1.0
				25	12	20.29	20.0±1	1.0
				25	24	19.57	20.0±1	1.0
				50	0	20.1	20.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	18675	1857.5	QPSK	1	0	21.01	21.0±1	/
				1	37	20.92	21.0±1	/
				1	74	20.83	21.0±1	/
				36	0	20.01	20.0±1	1.0
				36	16	19.82	20.0±1	1.0
				36	35	19.69	20.0±1	1.0
				75	0	19.89	20.0±1	1.0
			16QAM	1	0	20.31	20.0±1	1.0
				1	37	20.06	20.0±1	1.0
				1	74	20.03	20.0±1	1.0
				36	0	17.06	18.0±1	1.0
				36	16	17.53	18.0±1	1.0
				36	35	18.39	18.0±1	1.0
				75	0	17.77	18.0±1	1.0
	18900	1880	QPSK	1	0	20.73	21.0±1	/
				1	37	20.75	21.0±1	/
				1	74	20.72	21.0±1	/
				36	0	19.67	20.0±1	1.0
				36	16	19.78	20.0±1	1.0
				36	35	19.78	20.0±1	1.0
				75	0	19.88	20.0±1	1.0
			16QAM	1	0	20.12	20.0±1	1.0
				1	37	20.2	20.0±1	1.0
				1	74	20.17	20.0±1	1.0
				36	0	20.72	20.0±1	1.0
				36	16	19.88	20.0±1	1.0
				36	35	19.34	20.0±1	1.0
				75	0	20.01	20.0±1	1.0
	19125	1902.5	QPSK	1	0	20.51	20.0±1	/
				1	37	20.53	20.0±1	/
				1	74	20.44	20.0±1	/
				36	0	19.77	20.0±1	1.0
				36	16	19.54	20.0±1	1.0
				36	35	19.57	20.0±1	1.0
				75	0	19.72	20.0±1	1.0
			16QAM	1	0	20.46	20.0±1	1.0
				1	37	20.34	20.0±1	1.0
				1	74	20.29	20.0±1	1.0
				36	0	21.07	21.0±1	1.0

				36	16	21.01	21.0±1	1.0
				36	35	20.12	21.0±1	1.0
				75	0	20.72	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	18700	1860	QPSK	1	0	21.23	21.0±1	/
				1	49	20.88	21.0±1	/
				1	99	20.84	21.0±1	/
				50	0	19.66	20.0±1	1.0
				50	24	19.88	20.0±1	1.0
				50	49	19.7	20.0±1	1.0
				100	0	19.8	20.0±1	1.0
			16QAM	1	0	19.6	20.0±1	1.0
				1	49	19.53	20.0±1	1.0
				1	99	19.49	20.0±1	1.0
				50	0	15.09	16.0±1	1.0
				50	24	15.82	16.0±1	1.0
				50	49	17.27	17.0±1	1.0
				100	0	15.97	16.0±1	1.0
	18900	1880	QPSK	1	0	20.96	21.0±1	/
				1	49	20.84	21.0±1	/
				1	99	20.78	21.0±1	/
				50	0	19.69	20.0±1	1.0
				50	24	19.73	20.0±1	1.0
				50	49	19.63	20.0±1	1.0
				100	0	19.54	20.0±1	1.0
			16QAM	1	0	19.05	19.0±1	1.0
				1	49	18.96	19.0±1	1.0
				1	99	18.97	19.0±1	1.0
				50	0	18.84	19.0±1	1.0
				50	24	17.71	18.0±1	1.0
				50	49	17.35	18.0±1	1.0
				100	0	18.01	18.0±1	1.0
	19100	1900	QPSK	1	0	20.76	21.0±1	/
				1	49	20.76	21.0±1	/
				1	99	20.69	21.0±1	/
				50	0	19.53	20.0±1	1.0
				50	24	19.59	20.0±1	1.0
				50	49	19.63	20.0±1	1.0

			16QAM	100	0	19.6	20.0±1	1.0
				1	0	19.38	20.0±1	1.0
				1	49	19.31	20.0±1	1.0
				1	99	19.11	20.0±1	1.0
				50	0	18.29	19.0±1	1.0
				50	24	19.03	19.0±1	1.0
				50	49	18.88	19.0±1	1.0
				100	0	18.62	19.0±1	1.0

LTE Band 4:

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
1.4MHz	19957	1710.7	QPSK	1	0	21.09	22.0±1	/
				1	2	22.25	22.0±1	/
				1	5	22.28	22.0±1	/
				3	0	21.98	22.0±1	/
				3	1	22.15	22.0±1	/
				3	2	21.99	22.0±1	/
				6	0	21	22.0±1	1.0
			16QAM	1	0	21.48	21.0±1	1.0
				1	2	21.41	21.0±1	1.0
				1	5	21.54	21.0±1	1.0
				3	0	21.11	21.0±1	1.0
				3	1	21.16	21.0±1	1.0
				3	2	21.14	21.0±1	1.0
				6	0	20.11	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.18	22.0±1	/
				1	2	22.2	22.0±1	/
				1	5	22.1	22.0±1	/
				3	0	22.15	22.0±1	/
				3	1	22.19	22.0±1	/
				3	2	22.13	22.0±1	/
				6	0	21.1	22.0±1	1.0
			16QAM	1	0	21.51	21.0±1	1.0
				1	2	21.5	21.0±1	1.0
				1	5	21.47	21.0±1	1.0
				3	0	21.19	21.0±1	1.0
				3	1	21.15	21.0±1	1.0
				3	2	21.21	21.0±1	1.0
				6	0	19.87	20.0±1	1.0
	20393	1754.3	QPSK	1	0	22.44	22.0±1	/

				1	2	22.4	22.0±1	/
				1	5	22.46	22.0±1	/
				3	0	22.28	22.0±1	/
				3	1	22.31	22.0±1	/
				3	2	22.34	22.0±1	/
				6	0	21.09	22.0±1	1.0
			16QAM	1	0	21.2	21.0±1	1.0
				1	2	21.31	21.0±1	1.0
				1	5	21.28	21.0±1	1.0
				3	0	21.53	21.0±1	1.0
				3	1	21.58	21.0±1	1.0
				3	2	21.48	21.0±1	1.0
				6	0	20.31	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
3MHz	19965	1711.5	QPSK	1	0	22.01	22.0±1	/
				1	8	22.03	22.0±1	/
				1	14	22.1	22.0±1	/
				6	0	21	21.0±1	1.0
				6	4	21.04	21.0±1	1.0
				6	9	21	21.0±1	1.0
				15	0	20.99	21.0±1	1.0
			16QAM	1	0	21.13	21.0±1	1.0
				1	8	21.13	21.0±1	1.0
				1	14	21.19	21.0±1	1.0
				8	0	19.98	20.0±1	1.0
				8	4	20.03	20.0±1	1.0
				8	9	20	20.0±1	1.0
				15	0	20.17	20.0±1	1.0
	20175	1732.5	QPSK	1	0	22.2	22.0±1	/
				1	8	22.16	22.0±1	/
				1	14	22.19	22.0±1	/
				6	0	20.95	21.0±1	1.0
				6	4	21	21.0±1	1.0
				6	9	20.96	21.0±1	1.0
				15	0	21.07	21.0±1	1.0
			16QAM	1	0	20.81	21.0±1	1.0
				1	8	20.75	21.0±1	1.0
				1	14	20.8	21.0±1	1.0
				6	0	20.29	21.0±1	1.0

				6	4	20.34	21.0±1	1.0
				6	9	20.33	21.0±1	1.0
				15	0	20.25	21.0±1	1.0
	20385	1753.5	QPSK	1	0	22.42	22.5±1	/
				1	8	22.4	22.5±1	/
				1	14	22.52	22.5±1	/
				6	0	21.12	21.0±1	1.0
				6	4	21.13	21.0±1	1.0
				6	9	21.22	21.0±1	1.0
				15	0	21.2	21.0±1	1.0
			16QAM	1	0	21.32	21.0±1	1.0
				1	8	21.22	21.0±1	1.0
				1	14	21.29	21.0±1	1.0
				8	0	20.26	21.0±1	1.0
				8	4	20.28	21.0±1	1.0
				8	9	20.3	21.0±1	1.0
				15	0	20.17	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
5MHz	19975	1712.5	QPSK	1	0	21.97	22.0±1	/
				1	49	22.04	22.0±1	/
				1	99	22	22.0±1	/
				12	0	21.05	21.0±1	1.0
				12	24	20.94	21.0±1	1.0
				12	49	21.08	21.0±1	1.0
				25	0	21.11	21.0±1	1.0
			16QAM	1	0	20.22	20.0±1	1.0
				1	49	20.27	20.0±1	1.0
				1	99	20.27	20.0±1	1.0
				12	0	20.02	20.0±1	1.0
				12	24	20.04	20.0±1	1.0
				12	49	20.06	20.0±1	1.0
				25	0	20.21	20.0±1	1.0
	20175	1732.5	QPSK	1	0	22.26	22.0±1	/
				1	49	22.21	22.0±1	/
				1	99	22.24	22.0±1	/
				12	0	21.07	21.0±1	1.0
				12	24	21.01	21.0±1	1.0
				12	49	21.13	21.0±1	1.0

				25	0	21.1	21.0±1	1.0
			16QAM	1	0	20.46	20.0±1	1.0
				1	49	20.38	20.0±1	1.0
				1	99	20.51	20.0±1	1.0
				12	0	20.11	20.0±1	1.0
				12	24	20.18	20.0±1	1.0
				12	49	20.17	20.0±1	1.0
				25	0	20.36	20.0±1	1.0
	20375	1752.5	QPSK	1	0	22.26	22.5±1	/
				1	49	22.24	22.5±1	/
				1	99	22.22	22.5±1	/
				12	0	21.17	21.0±1	1.0
				12	24	21.14	21.0±1	1.0
				12	49	21.2	21.0±1	1.0
				25	0	21.16	21.0±1	1.0
			16QAM	1	0	21.05	21.0±1	1.0
				1	49	21.06	21.0±1	1.0
				1	99	21.04	21.0±1	1.0
				12	0	20.14	21.0±1	1.0
				12	24	20.21	21.0±1	1.0
				12	49	20.25	21.0±1	1.0
				25	0	20.27	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
10MHz	20000	1715	QPSK	1	0	21.95	22.0±1	/
				1	49	22.08	22.0±1	/
				1	99	22	22.0±1	/
				25	0	20.94	21.0±1	1.0
				25	24	21.12	21.0±1	1.0
				25	49	20.96	21.0±1	1.0
				50	0	21.04	21.0±1	1.0
			16QAM	1	0	21.13	21.0±1	1.0
				1	49	21.22	21.0±1	1.0
				1	99	21.2	21.0±1	1.0
				25	0	19.95	20.0±1	1.0
				25	24	19.93	20.0±1	1.0
				25	49	20	20.0±1	1.0
				50	0	19.97	20.0±1	1.0
	20175	1732.5	QPSK	1	0	22.09	22.0±1	/

				1	49	22.16	22.0±1	/
				1	99	22.22	22.0±1	/
				25	0	21.07	21.0±1	1.0
				25	24	21.04	21.0±1	1.0
				25	49	21.09	21.0±1	1.0
				50	0	21.14	21.0±1	1.0
			16QAM	1	0	20.73	21.0±1	1.0
				1	49	20.84	21.0±1	1.0
				1	99	20.82	21.0±1	1.0
				25	0	20.11	21.0±1	1.0
				25	24	20.23	21.0±1	1.0
				25	49	20.17	21.0±1	1.0
				50	0	20.2	21.0±1	1.0
	20350	1750	QPSK	1	0	22.41	22.5±1	/
				1	49	22.47	22.5±1	/
				1	99	22.51	22.5±1	/
				25	0	21.19	21.0±1	1.0
				25	24	21.16	21.0±1	1.0
				25	49	21.16	21.0±1	1.0
				50	0	21.17	21.0±1	1.0
			16QAM	1	0	20.95	21.0±1	1.0
				1	49	21.02	21.0±1	1.0
				1	99	21.06	21.0±1	1.0
				25	0	20.32	21.0±1	1.0
				25	24	20.31	21.0±1	1.0
				25	49	20.32	21.0±1	1.0
				50	0	20.27	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
15MHz	20025	1717.5	QPSK	1	0	22.13	22.0±1	/
				1	49	22.17	22.0±1	/
				1	99	22.23	22.0±1	/
				36	0	20.99	21.0±1	1.0
				36	24	21.09	21.0±1	1.0
				36	49	21.09	21.0±1	1.0
				75	0	21.07	21.0±1	1.0
			16QAM	1	0	21.2	21.0±1	1.0
				1	49	21.23	21.0±1	1.0
				1	99	21.25	21.0±1	1.0

				36	0	20.01	21.0±1	1.0
				36	24	20	21.0±1	1.0
				36	49	20.13	21.0±1	1.0
				75	0	20.13	21.0±1	1.0
	20175	1732.5	QPSK	1	0	22.11	22.0±1	/
				1	49	22.15	22.0±1	/
				1	99	22.2	22.0±1	/
				36	0	20.93	21.0±1	1.0
				36	24	21.13	21.0±1	1.0
				36	49	21.19	21.0±1	1.0
				75	0	21.05	21.0±1	1.0
			16QAM	1	0	20.76	21.0±1	1.0
				1	49	20.8	21.0±1	1.0
				1	99	20.81	21.0±1	1.0
				36	0	20.28	21.0±1	1.0
				36	24	20.22	21.0±1	1.0
				36	49	20.22	21.0±1	1.0
				75	0	20.15	21.0±1	1.0
	20325	1747.5	QPSK	1	0	22.21	22.0±1	/
				1	49	22.18	22.0±1	/
				1	99	22.22	22.0±1	/
				36	0	21.18	21.0±1	1.0
				36	24	21.21	21.0±1	1.0
				36	49	21.08	21.0±1	1.0
				75	0	21.23	21.0±1	1.0
			16QAM	1	0	21.62	21.0±1	1.0
				1	49	21.61	21.0±1	1.0
				1	99	21.58	21.0±1	1.0
				36	0	20.15	21.0±1	1.0
				36	24	20.25	21.0±1	1.0
				36	49	20.15	21.0±1	1.0
				75	0	20.2	21.0±1	1.0

BW(MHz)	Ch	Freq(MHz)	Mode	UL RB Allocation	UL RB Offset	Average Power (dbm)	Tune up limited(dBm)	MPR (dB)
20MHz	20050	1720	QPSK	1	0	22.17	22.0±1	/
				1	49	22.15	22.0±1	/
				1	99	22.31	22.0±1	/
				50	0	20.89	21.0±1	1.0
				50	24	20.95	21.0±1	1.0

				50	49	20.98	21.0±1	1.0		
				100	0	21.08	21.0±1	1.0		
			16QAM	1	0	20.3	21.0±1	1.0		
				1	49	20.32	21.0±1	1.0		
				1	99	20.4	21.0±1	1.0		
				50	0	20.09	21.0±1	1.0		
				50	24	20.14	21.0±1	1.0		
				50	49	20.29	21.0±1	1.0		
				100	0	20.08	21.0±1	1.0		
	20175	1732.5	QPSK	1	0	21.81	22.0±1	/		
				1	49	21.98	22.0±1	/		
				1	99	22.08	22.0±1	/		
				50	0	21.1	21.0±1	1.0		
				50	24	21.01	21.0±1	1.0		
				50	49	21.07	21.0±1	1.0		
				100	0	20.96	21.0±1	1.0		
			16QAM	1	0	20.78	21.0±1	1.0		
				1	49	20.9	21.0±1	1.0		
				1	99	20.97	21.0±1	1.0		
				50	0	20.19	21.0±1	1.0		
				50	24	20.2	21.0±1	1.0		
				50	49	20.24	21.0±1	1.0		
				100	0	20.17	21.0±1	1.0		
			20300	1745	QPSK	1	0	22.01	22.0±1	/
						1	49	22.11	22.0±1	/
						1	99	22.16	22.0±1	/
						50	0	21.14	21.0±1	1.0
	50	24				21.08	21.0±1	1.0		
	50	49				21.2	21.0±1	1.0		
	100	0				21.16	21.0±1	1.0		
	16QAM	1			0	20.95	21.0±1	1.0		
		1			49	20.98	21.0±1	1.0		
		1			99	21.01	21.0±1	1.0		
		50			0	20.06	21.0±1	1.0		
		50			24	20.07	21.0±1	1.0		
		50			49	20.17	21.0±1	1.0		
		100			0	20.16	21.0±1	1.0		

Remark:

1. Per KDB941225 D05 v02r05, Start with the largest channel bandwidth then measure SAR for QPSK with 1 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. When the

reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. 6 When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2. Per KDB941225 D05 v02r05, the procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.

3. Per KDB941225 D05 v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations, and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

4. Per KDB941225 D05 v02r05, for each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in 5.2.1, 5.2.2, and 5.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

Power Level P1:

WLAN(2.4GHz)					
Test Mode	Data Rate	Channel	Frequency (MHz)	Conducted Power (dBm)	Tune-up power (dBm)
802.11b	11Mbps	CH 01	2412	15.56	15.5±1
		CH 06	2437	15.86	16.0±1
		CH 11	2462	16.33	16.0±1
802.11g	54Mbps	CH 01	2412	16.48	16.5±1
		CH 06	2437	16.61	16.5±1
		CH 11	2462	17.10	17.0±1
802.11n-HT20	MCS7	CH 01	2412	14.71	15.0±1
		CH 06	2437	15.30	15.0±1
		CH 11	2462	15.87	16.0±1

Remark:

1. Per KDB 248227 D01 v02r02, For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.
2. Per KDB 248227 D01 v02r02, For 802.11b DSSS SAR measurements ,when the reported SAR of the highest measured maximum output power channel (see 3.1) for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.
3. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is ≤ 1.2 W/kg.
4. Per KDB 248227 D01 v02r02, When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is determined by applying the following steps sequentially.
 - 1) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same specified maximum output power.
 - 2) If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
 - 3) If multiple configurations have the same specified maximum output power, largest channel bandwidth and lowest order modulation, the lowest data rate configuration among these configurations is selected.
 - 4) When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n.

Power Level P1:

Bluetooth - Maximum Average Power				
Test Mode	Data Rate	Frequency (MHz)	Conducted Power(dBm)	Tune-up power (dBm)
GFSK	1Mbps	2402	6.60	6.5±1
		2441	6.52	6.5±1
		2480	7.25	7.0±1
π/4 DQPSK	2Mbps	2402	7.14	7.0±1
		2441	5.93	6.0±1
		2480	6.81	7.0±1
8DPSK	3Mbps	2402	7.58	7.5±1
		2441	6.27	6.0±1
		2480	7.18	7.0±1

Bluetooth - Maximum Average Power					
Test Mode	Data Rate	Channel	Frequency (MHz)	Conducted Power(dBm)	Tune-up power (dBm)
LE	1Mbps	CH 00	2402	-2.80	-2.0±1
		CH 19	2440	-3.27	-3.0±1
		CH 39	2480	-2.44	-2.0±1

Remark:

Bluetooth maximum output power is 7.58dBm and Maximum Tune-Up output power is 8.5dBm. Per KDB 447498 D01 V06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- f(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

Bluetooth:

Tune-Up Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
8.5	7.08	5	2.48	2.229	3

The exclusion threshold is $2.229 < 3$, therefore, the RF exposure evaluation is not required.

9.2 Test Results for Standalone SAR Test

Head SAR

GSM850(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
1.	GSM	Right Cheek	251	848.8	32.01	33	1.256	0.424	0.533
	GSM	Right Tilted	251	848.8	32.01	33	1.256	0.407	0.511
	GSM	Left Cheek	251	848.8	32.01	33	1.256	0.336	0.422
	GSM	Left Tilted	251	848.8	32.01	33	1.256	0.312	0.392
	GPRS_4TX	Right Cheek	251	848.8	30.31	31	1.172	0.416	0.488
	GPRS_4TX	Right Tilted	251	848.8	30.31	31	1.172	0.393	0.461
	GPRS_4TX	Left Cheek	251	848.8	30.31	31	1.172	0.320	0.375
	GPRS_4TX	Left Tilted	251	848.8	30.31	31	1.172	0.308	0.361

GSM1900(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
2.	GSM	Right Cheek	810	1909.8	29.26	30	1.186	0.427	0.506
	GSM	Right Tilted	810	1909.8	29.26	30	1.186	0.414	0.491
	GSM	Left Cheek	810	1909.8	29.26	30	1.186	0.238	0.282
	GSM	Left Tilted	810	1909.8	29.26	30	1.186	0.223	0.264
	GPRS_4TX	Right Cheek	810	1909.8	24.48	25.5	1.265	0.399	0.505
	GPRS_4TX	Right Tilted	810	1909.8	24.48	25.5	1.265	0.391	0.495
	GPRS_4TX	Left Cheek	810	1909.8	24.48	25.5	1.265	0.211	0.267
	GPRS_4TX	Left Tilted	810	1909.8	24.48	25.5	1.265	0.196	0.248

WCDMA Band 2(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
3.	RMC	Right Cheek	9262	1852.4	22.57	23.5	1.239	0.572	0.709
	RMC	Right Tilted	9262	1852.4	22.57	23.5	1.239	0.559	0.692
	RMC	Left Cheek	9262	1852.4	22.57	23.5	1.239	0.423	0.524
	RMC	Left Tilted	9262	1852.4	22.57	23.5	1.239	0.411	0.509

WCDMA Band 4(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
4.	RMC	Right Cheek	1513	1752.6	21.49	22.5	1.262	0.496	0.626
	RMC	Right Tilted	1513	1752.6	21.49	22.5	1.262	0.482	0.608
	RMC	Left Cheek	1513	1752.6	21.49	22.5	1.262	0.483	0.609
	RMC	Left Tilted	1513	1752.6	21.49	22.5	1.262	0.469	0.592

WCDMA Band 5(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
5.	RMC	Right Cheek	4132	826.4	21.96	23	1.271	0.499	0.634
	RMC	Right Tilted	4132	826.4	21.96	23	1.271	0.473	0.601
	RMC	Left Cheek	4132	826.4	21.96	23	1.271	0.409	0.520
	RMC	Left Tilted	4132	826.4	21.96	23	1.271	0.386	0.490

LTE Band 2(P1)– Head SAR Test								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
6.	QPSK 20MHz 1RB	Right Cheek	1860	22.94	24	1.276	0.329	0.420
	QPSK 20MHz 1RB	Right Tilted	1860	22.94	24	1.276	0.317	0.405
	QPSK 20MHz 1RB	Left Cheek	1860	22.94	24	1.276	0.194	0.248
	QPSK 20MHz 1RB	Left Tilted	1860	22.94	24	1.276	0.178	0.227
	QPSK 20MHz 50%RB	Right Cheek	1860	22.94	24	1.276	0.312	0.398
	QPSK 20MHz 50%RB	Right Tilted	1860	22.94	24	1.276	0.301	0.384
	QPSK 20MHz 50%RB	Left Cheek	1860	22.94	24	1.276	0.176	0.225
	QPSK 20MHz 50%RB	Left Tilted	1860	22.94	24	1.276	0.153	0.195

LTE Band 4(P1)– Head SAR Test								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
7.	QPSK 3MHz 1RB	Right Cheek	1753.5	22.91	24	1.285	0.286	0.368
	QPSK 3MHz 1RB	Right Tilted	1753.5	22.91	24	1.285	0.271	0.348
	QPSK 3MHz 1RB	Left Cheek	1753.5	22.91	24	1.285	0.204	0.262
	QPSK 3MHz 1RB	Left Tilted	1753.5	22.91	24	1.285	0.188	0.242
	QPSK 3MHz 50%RB	Right Cheek	1753.5	22.91	24	1.285	0.275	0.353
	QPSK 3MHz 50%RB	Right Tilted	1753.5	22.91	24	1.285	0.259	0.333
	QPSK 3MHz 50%RB	Left Cheek	1753.5	22.91	24	1.285	0.195	0.251
	QPSK 3MHz 50%RB	Left Tilted	1753.5	22.91	24	1.285	0.177	0.227
	QPSK 20MHz 1RB	Right Cheek	1720	22.85	23.5	1.161	0.274	0.318
	QPSK 20MHz 1RB	Right Tilted	1720	22.85	23.5	1.161	0.259	0.301
	QPSK 20MHz 1RB	Left Cheek	1720	22.85	23.5	1.161	0.198	0.230
	QPSK 20MHz 1RB	Left Tilted	1720	22.85	23.5	1.161	0.185	0.215
	QPSK 20MHz 50%RB	Right Cheek	1720	22.85	23.5	1.161	0.257	0.298
	QPSK 20MHz 50%RB	Right Tilted	1720	22.85	23.5	1.161	0.251	0.292
	QPSK 20MHz 50%RB	Left Cheek	1720	22.85	23.5	1.161	0.186	0.216
	QPSK 20MHz 50%RB	Left Tilted	1720	22.85	23.5	1.161	0.167	0.194

LTE Band 5(P1)– Head SAR Test								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
8.	QPSK 10MHz 1RB	Right Cheek	844	23.86	25	1.300	0.448	0.582
	QPSK 10MHz 1RB	Right Tilted	844	23.86	25	1.300	0.431	0.560
	QPSK 10MHz 1RB	Left Cheek	844	23.86	25	1.300	0.426	0.554
	QPSK 10MHz 1RB	Left Tilted	844	23.86	25	1.300	0.412	0.536
	QPSK 10MHz 50%RB	Right Cheek	844	23.86	25	1.300	0.439	0.571
	QPSK 10MHz 50%RB	Right Tilted	844	23.86	25	1.300	0.426	0.554
	QPSK 10MHz 50%RB	Left Cheek	844	23.86	25	1.300	0.422	0.549
	QPSK 10MHz 50%RB	Left Tilted	844	23.86	25	1.300	0.405	0.527

LTE Band 7(P1)– Head SAR Test								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
9.	QPSK 15MHz 1RB	Right Cheek	2535	22.98	24	1.265	0.581	0.735
	QPSK 15MHz 1RB	Right Tilted	2535	22.98	24	1.265	0.568	0.718
	QPSK 15MHz 1RB	Left Cheek	2535	22.98	24	1.265	0.529	0.669
	QPSK 15MHz 1RB	Left Tilted	2535	22.98	24	1.265	0.512	0.648
	QPSK 15MHz 50%RB	Right Cheek	2535	22.98	24	1.265	0.576	0.728
	QPSK 15MHz 50%RB	Right Tilted	2535	22.98	24	1.265	0.562	0.711
	QPSK 15MHz 50%RB	Left Cheek	2535	22.98	24	1.265	0.517	0.654
	QPSK 15MHz 50%RB	Left Tilted	2535	22.98	24	1.265	0.505	0.639
	QPSK 20MHz 1RB	Right Cheek	2560	22.73	23.5	1.194	0.565	0.675
	QPSK 20MHz 1RB	Right Tilted	2560	22.73	23.5	1.194	0.549	0.655
	QPSK 20MHz 1RB	Left Cheek	2560	22.73	23.5	1.194	0.511	0.610
	QPSK 20MHz 1RB	Left Tilted	2560	22.73	23.5	1.194	0.503	0.601
	QPSK 20MHz 50%RB	Right Cheek	2560	22.73	23.5	1.194	0.557	0.665
	QPSK 20MHz 50%RB	Right Tilted	2560	22.73	23.5	1.194	0.549	0.655
	QPSK 20MHz 50%RB	Left Cheek	2560	22.73	23.5	1.194	0.505	0.603
	QPSK 20MHz 50%RB	Left Tilted	2560	22.73	23.5	1.194	0.49	0.585

LTE Band 13(P1)– Head SAR Test								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 5MHz 1RB	Right Cheek	784.5	23.74	25	1.337	0.255	0.341
	QPSK 5MHz 1RB	Right Tilted	784.5	23.74	25	1.337	0.241	0.322
10.	QPSK 5MHz 1RB	Left Cheek	784.5	23.74	25	1.337	0.279	0.373
	QPSK 5MHz 1RB	Left Tilted	784.5	23.74	25	1.337	0.264	0.353
	QPSK 5MHz 50%RB	Right Cheek	784.5	23.74	25	1.337	0.242	0.323
	QPSK 5MHz 50%RB	Right Tilted	784.5	23.74	25	1.337	0.236	0.315
	QPSK 5MHz 50%RB	Left Cheek	784.5	23.74	25	1.337	0.266	0.356
	QPSK 5MHz 50%RB	Left Tilted	784.5	23.74	25	1.337	0.251	0.335
	QPSK 10MHz 1RB	Right Tilted	782	23.64	24.5	1.219	0.236	0.288
	QPSK 10MHz 1RB	Left Cheek	782	23.64	24.5	1.219	0.271	0.330
	QPSK 10MHz 1RB	Left Tilted	782	23.64	24.5	1.219	0.257	0.313
	QPSK 10MHz 50%RB	Right Cheek	782	23.64	24.5	1.219	0.238	0.290
	QPSK 10MHz 50%RB	Right Tilted	782	23.64	24.5	1.219	0.225	0.274
	QPSK 10MHz 50%RB	Left Cheek	782	23.64	24.5	1.219	0.260	0.317

	QPSK 10MHz 50%RB	Left Tilted	782	23.64	24.5	1.219	0.246	0.300
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WLAN 2.4GHz(P1) – Head SAR Test									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	802.11b	Right Cheek	11	2462	17.10	18	1.230	0.325	0.400
	802.11b	Right Tilted	11	2462	17.10	18	1.230	0.318	0.391
11.	802.11b	Left Cheek	11	2462	17.10	18	1.230	0.370	0.455
	802.11b	Left Tilted	11	2462	17.10	18	1.230	0.356	0.438

Remark: Per KDB 447498 D01 v06, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Body-worn SAR

GSM850(P1) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	GSM	Front Side	251	848.8	32.01	33	1.256	0.175	0.220
12.	GSM	Back Side	251	848.8	32.01	33	1.256	0.282	0.354

GSM1900(P2) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	GSM	Front Side	810	1909.8	28.84	30.0	1.306	0.125	0.163
13.	GSM	Back Side	810	1909.8	28.84	30.0	1.306	0.758	0.990
	GSM	Back Side	512	1850.2	28.01	30.0	1.581	0.605	0.957
	GSM	Back Side	661	1880	28.13	30.0	1.538	0.612	0.941

WCDMA Band 2(P2) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	9262	1852.4	20.91	22	1.285	0.428	0.550
14.	RMC 12.2k	Back Side	9262	1852.4	20.91	22	1.285	0.805	1.035
	RMC 12.2k	Back Side	9400	1880	20.83	22	1.309	0.779	1.020
	RMC 12.2k	Back Side	9538	1907.6	20.74	22	1.337	0.765	1.022

WCDMA Band 4(P2)– Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	1513	1752.6	21.05	22	1.245	0.386	0.480
15.	RMC 12.2k	Back Side	1513	1752.6	21.05	22	1.245	0.808	1.006
	RMC 12.2k	Back Side	1313	1712.4	20.69	22	1.352	0.738	0.998
	RMC 12.2k	Back Side	1413	1732.6	20.83	22	1.309	0.749	0.981

WCDMA Band 5(P1) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	4132	826.4	21.96	23	1.271	0.241	0.306
16.	RMC 12.2k	Back Side	4132	826.4	21.96	23	1.271	0.398	0.506

LTE Band 2(P2)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 20MHz 1RB	Front Side	1860	21.23	22	1.194	0.513	0.613
17.	QPSK 20MHz 1RB	Back Side	1860	21.23	22	1.194	0.621	0.741
	QPSK 20MHz 50%RB	Front Side	1860	21.23	22	1.194	0.502	0.599
	QPSK 20MHz 50%RB	Back Side	1860	21.23	22	1.194	0.613	0.732

LTE Band 4(P2)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 3MHz 1RB	Front Side	1753.5	22.52	23.5	1.253	0.396	0.496
18.	QPSK 3MHz 1RB	Back Side	1753.5	22.52	23.5	1.253	0.583	0.731
	QPSK 3MHz 50%RB	Front Side	1753.5	22.52	23.5	1.253	0.386	0.484
	QPSK 3MHz 50%RB	Back Side	1753.5	22.52	23.5	1.253	0.574	0.719
	QPSK 20MHz 1RB	Front Side	1720	22.31	23	1.172	0.381	0.447
	QPSK 20MHz 1RB	Back Side	1720	22.31	23	1.172	0.576	0.675
	QPSK 20MHz 50%RB	Front Side	1720	22.31	23	1.172	0.374	0.438
	QPSK 20MHz 50%RB	Back Side	1720	22.31	23	1.172	0.565	0.662

LTE Band 5(P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 10MHz 1RB	Front Side	844	23.86	25	1.300	0.245	0.319
19.	QPSK 10MHz 1RB	Back Side	844	23.86	25	1.300	0.262	0.341
	QPSK 10MHz 50%RB	Front Side	844	23.86	25	1.300	0.238	0.309
	QPSK 10MHz 50%RB	Back Side	844	23.86	25	1.300	0.250	0.325

LTE Band 7(P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
20.	QPSK 15MHz 1RB	Front Side	2535	22.98	24	1.265	0.333	0.421
	QPSK 15MHz 1RB	Back Side	2535	22.98	24	1.265	0.889	1.124
	QPSK 15MHz 1RB	Back Side	2507.5	23.5	22.54	1.247	0.869	1.084
	QPSK 15MHz 1RB	Back Side	2562.5	23.5	22.65	1.216	0.875	1.064
	QPSK 15MHz 50%RB	Front Side	2535	22.98	24	1.265	0.321	0.406
	QPSK 15MHz 50%RB	Back Side	2535	22.98	24	1.265	0.868	1.098
	QPSK 15MHz 50%RB	Back Side	2507.5	23.5	22.54	1.247	0.848	1.058
	QPSK 15MHz 50%RB	Back Side	2562.5	23.5	22.65	1.216	0.856	1.041
	QPSK 20MHz 1RB	Front Side	2560	22.73	23.5	1.194	0.319	0.381
	QPSK 20MHz 1RB	Back Side	2560	22.73	23.5	1.194	0.871	1.040
	QPSK 20MHz 1RB	Back Side	2510	22.57	23.5	1.239	0.841	1.042
	QPSK 20MHz 1RB	Back Side	2535	22.41	23.5	1.285	0.829	1.066
	QPSK 20MHz 50%RB	Front Side	2560	22.73	23.5	1.194	0.313	0.374
	QPSK 20MHz 50%RB	Back Side	2560	22.73	23.5	1.194	0.852	1.017
	QPSK 20MHz 50%RB	Back Side	2510	22.57	23.5	1.239	0.822	1.018
	QPSK 20MHz 50%RB	Back Side	2535	22.41	23.5	1.285	0.806	1.036

LTE Band 13(P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
21.	QPSK 5MHz 1RB	Front Side	784.5	23.74	25	1.337	0.172	0.230
	QPSK 5MHz 1RB	Back Side	784.5	23.74	25	1.337	0.226	0.302
	QPSK 5MHz 50%RB	Front Side	784.5	23.74	25	1.337	0.164	0.219
	QPSK 5MHz 50%RB	Back Side	784.5	23.74	25	1.337	0.218	0.291
	QPSK 10MHz 1RB	Front Side	782	23.64	24.5	1.219	0.165	0.201
	QPSK 10MHz 1RB	Back Side	782	23.64	24.5	1.219	0.221	0.269
	QPSK 10MHz 50%RB	Front Side	782	23.64	24.5	1.219	0.157	0.191
	QPSK 10MHz 50%RB	Back Side	782	23.64	24.5	1.219	0.212	0.258

WLAN 2.4GHz (P1)–Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
22.	802.11b	Front Side	11	2462	17.10	18	1.230	0.152	0.187
	802.11b	Back Side	11	2462	17.10	18	1.230	0.133	0.164

Hotspot SAR

GSM850 (P1)– Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	GPRS_4TX	Front Side	251	848.8	30.31	31	1.172	0.171	0.200
23.	GPRS_4TX	Back Side	251	848.8	30.31	31	1.172	0.275	0.322
	GPRS_4TX	Left Edge	251	848.8	30.31	31	1.172	0.124	0.145
	GPRS_4TX	Right Edge	251	848.8	30.31	31	1.172	0.236	0.277
	GPRS_4TX	Bottom Edge	251	848.8	30.31	31	1.172	0.163	0.191

GSM1900(P2) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	GPRS_4TX	Front Side	810	1909.8	24.48	25.5	1.265	0.117	0.148
	GPRS_4TX	Back Side	810	1909.8	24.48	25.5	1.265	0.752	0.951
	GPRS_4TX	Back Side	512	1850.2	23.61	25.5	1.545	0.598	0.924
	GPRS_4TX	Back Side	661	1880	23.76	25.5	1.493	0.603	0.900
	GPRS_4TX	Left Edge	810	1909.8	24.48	25.5	1.265	0.099	0.125
	GPRS_4TX	Right Edge	810	1909.8	24.48	25.5	1.265	0.084	0.106
24.	GPRS_4TX	Bottom Edge	810	1909.8	24.48	25.5	1.265	0.882	1.115
	GPRS_4TX	Bottom Edge	512	1850.2	23.61	25.5	1.545	0.715	1.105
	GPRS_4TX	Bottom Edge	661	1880	23.76	25.5	1.493	0.728	1.087

WCDMA Band 2(P2) – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	9262	1852.4	20.91	22	1.285	0.428	0.550
	RMC 12.2k	Back Side	9262	1852.4	20.91	22	1.285	0.805	1.035
	RMC 12.2k	Back Side	9400	1880	20.83	22	1.309	0.779	1.020
	RMC 12.2k	Back Side	9538	1907.6	20.74	22	1.337	0.765	1.022
	RMC 12.2k	Left Edge	9262	1852.4	20.91	22	1.285	0.174	0.224
	RMC 12.2k	Right Edge	9262	1852.4	20.91	22	1.285	0.107	0.138
25.	RMC 12.2k	Bottom Edge	9262	1852.4	20.91	22	1.285	0.874	1.123
	RMC 12.2k	Bottom Edge	9400	1880	20.83	22	1.309	0.833	1.091
	RMC 12.2k	Bottom Edge	9538	1907.6	20.74	22	1.337	0.819	1.095

WCDMA Band 4 (P2)– Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	1513	1752.6	21.05	22	1.245	0.386	0.480
26.	RMC 12.2k	Back Side	1513	1752.6	21.05	22	1.245	0.808	1.006
	RMC 12.2k	Back Side	1313	1712.4	20.69	22	1.352	0.738	0.998
	RMC 12.2k	Back Side	1413	1732.6	20.83	22	1.309	0.749	0.981
	RMC 12.2k	Left Edge	1513	1752.6	21.05	22	1.245	0.394	0.490
	RMC 12.2k	Right Edge	1513	1752.6	21.05	22	1.245	0.094	0.117
	RMC 12.2k	Bottom Edge	1513	1752.6	21.05	22	1.245	0.502	0.625

WCDMA Band 5 (P1)– Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
	RMC 12.2k	Front Side	4132	826.4	21.96	23	1.271	0.241	0.306
27.	RMC 12.2k	Back Side	4132	826.4	21.96	23	1.271	0.398	0.506
	RMC 12.2k	Left Edge	4132	826.4	21.96	23	1.271	0.175	0.222
	RMC 12.2k	Right Edge	4132	826.4	21.96	23	1.271	0.343	0.436
	RMC 12.2k	Bottom Edge	4132	826.4	21.96	23	1.271	0.241	0.306

LTE Band 2(P2)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 20MHz 1RB	Front Side	1860	21.23	22	1.194	0.513	0.613
	QPSK 20MHz 1RB	Back Side	1860	21.23	22	1.194	0.621	0.741
	QPSK 20MHz 1RB	Left Edge	1860	21.23	22	1.194	0.127	0.152
	QPSK 20MHz 1RB	Right Edge	1860	21.23	22	1.194	0.084	0.100
28.	QPSK 20MHz 1RB	Bottom Edge	1860	21.23	22	1.194	0.836	0.998
	QPSK 20MHz 1RB	Bottom Edge	1880	20.96	22	1.271	0.781	0.992
	QPSK 20MHz 1RB	Bottom Edge	1900	20.76	22	1.330	0.749	0.997
	QPSK 20MHz 50%RB	Front Side	1860	21.23	22	1.194	0.502	0.599
	QPSK 20MHz 50%RB	Back Side	1860	21.23	22	1.194	0.613	0.732
	QPSK 20MHz 50%RB	Left Edge	1860	21.23	22	1.194	0.115	0.137
	QPSK 20MHz 50%RB	Right Edge	1860	21.23	22	1.194	0.079	0.094
	QPSK 20MHz 50%RB	Bottom Edge	1860	21.23	22	1.194	0.824	0.984
	QPSK 20MHz 50%RB	Bottom Edge	1880	20.96	22	1.271	0.766	0.973
	QPSK 20MHz 50%RB	Bottom Edge	1900	20.76	22	1.330	0.734	0.977

LTE Band 4(P2)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 3MHz 1RB	Front Side	1753.5	22.52	23.5	1.253	0.396	0.496
	QPSK 3MHz 1RB	Back Side	1753.5	22.52	23.5	1.253	0.583	0.731
	QPSK 3MHz 1RB	Left Edge	1753.5	22.52	23.5	1.253	0.349	0.437
	QPSK 3MHz 1RB	Right Edge	1753.5	22.52	23.5	1.253	0.104	0.130
29.	QPSK 3MHz 1RB	Bottom Edge	1753.5	22.52	23.5	1.253	0.784	0.982
	QPSK 3MHz 1RB	Bottom Edge	1711.5	22.1	23	1.230	0.743	0.914
	QPSK 3MHz 1RB	Bottom Edge	1732.5	22.2	23	1.202	0.761	0.915
	QPSK 3MHz 50%RB	Front Side	1753.5	22.52	23.5	1.253	0.386	0.484
	QPSK 3MHz 50%RB	Back Side	1753.5	22.52	23.5	1.253	0.574	0.719
	QPSK 3MHz 50%RB	Left Edge	1753.5	22.52	23.5	1.253	0.337	0.422
	QPSK 3MHz 50%RB	Right Edge	1753.5	22.52	23.5	1.253	0.094	0.118
	QPSK 3MHz 50%RB	Bottom Edge	1753.5	22.52	23.5	1.253	0.777	0.974
	QPSK 3MHz 50%RB	Bottom Edge	1711.5	22.1	23	1.230	0.724	0.891
	QPSK 3MHz 50%RB	Bottom Edge	1732.5	22.2	23	1.202	0.738	0.887
	QPSK 20MHz 1RB	Front Side	1720	22.31	23	1.172	0.381	0.447
	QPSK 20MHz 1RB	Back Side	1720	22.31	23	1.172	0.576	0.675
	QPSK 20MHz 1RB	Left Edge	1720	22.31	23	1.172	0.336	0.394
	QPSK 20MHz 1RB	Right Edge	1720	22.31	23	1.172	0.097	0.114
	QPSK 20MHz 1RB	Bottom Edge	1720	22.31	23	1.172	0.766	0.898
	QPSK 20MHz 1RB	Bottom Edge	1732.5	22.08	23	1.236	0.732	0.905
	QPSK 20MHz 1RB	Bottom Edge	1745	22.16	23	1.213	0.741	0.899
	QPSK 20MHz 50%RB	Front Side	1720	22.31	23	1.172	0.374	0.438
	QPSK 20MHz 50%RB	Back Side	1720	22.31	23	1.172	0.565	0.662
	QPSK 20MHz 50%RB	Left Edge	1720	22.31	23	1.172	0.332	0.389
	QPSK 20MHz 50%RB	Right Edge	1720	22.31	23	1.172	0.085	0.100
	QPSK 20MHz 50%RB	Bottom Edge	1720	22.31	23	1.172	0.749	0.878
	QPSK 20MHz 50%RB	Bottom Edge	1732.5	22.08	23	1.236	0.717	0.886
	QPSK 20MHz 50%RB	Bottom Edge	1745	22.16	23	1.213	0.725	0.880

LTE Band 5 (P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 10MHz 1RB	Front Side	844	23.86	25	1.300	0.245	0.319
30.	QPSK 10MHz 1RB	Back Side	844	23.86	25	1.300	0.262	0.341
	QPSK 10MHz 1RB	Left Edge	844	23.86	25	1.300	0.201	0.261
	QPSK 10MHz 1RB	Right Edge	844	23.86	25	1.300	0.169	0.220
	QPSK 10MHz 1RB	Bottom Edge	844	23.86	25	1.300	0.195	0.254
	QPSK 10MHz 50%RB	Front Side	844	23.86	25	1.300	0.238	0.309
	QPSK 10MHz 50%RB	Back Side	844	23.86	25	1.300	0.250	0.325
	QPSK 10MHz 50%RB	Left Edge	844	23.86	25	1.300	0.195	0.254
	QPSK 10MHz 50%RB	Right Edge	844	23.86	25	1.300	0.158	0.205
	QPSK 10MHz 50%RB	Bottom Edge	844	23.86	25	1.300	0.177	0.230

LTE Band 7 (P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 15MHz 1RB	Front Side	2535	22.98	24	1.265	0.333	0.421
31.	QPSK 15MHz 1RB	Back Side	2535	22.98	24	1.265	0.889	1.124
	QPSK 15MHz 1RB	Back Side	2507.5	22.98	24	1.265	0.869	1.084
	QPSK 15MHz 1RB	Back Side	2562.5	22.98	24	1.265	0.875	1.064
	QPSK 15MHz 1RB	Left Edge	2535	22.98	24	1.265	0.299	0.378
	QPSK 15MHz 1RB	Right Edge	2535	22.98	24	1.265	0.227	0.287
	QPSK 15MHz 1RB	Bottom Edge	2535	22.98	24	1.265	0.795	1.005
	QPSK 15MHz 1RB	Bottom Edge	2507.5	22.54	23.5	1.247	0.759	0.947
	QPSK 15MHz 1RB	Bottom Edge	2562.5	22.65	23.5	1.216	0.765	0.930
	QPSK 15MHz 50%RB	Front Side	2535	22.98	24	1.265	0.321	0.406
	QPSK 15MHz 50%RB	Back Side	2535	22.98	24	1.265	0.868	1.098
	QPSK 15MHz 50%RB	Back Side	2507.5	22.98	24	1.265	0.848	1.058
	QPSK 15MHz 50%RB	Back Side	2562.5	22.98	24	1.265	0.856	1.041
	QPSK 15MHz 50%RB	Left Edge	2535	22.98	24	1.265	0.287	0.363
	QPSK 15MHz 50%RB	Right Edge	2535	22.98	24	1.265	0.219	0.277
	QPSK 15MHz 50%RB	Bottom Edge	2535	22.98	24	1.265	0.784	0.992
	QPSK 15MHz 50%RB	Bottom Edge	2507.5	22.54	23.5	1.247	0.744	0.928
	QPSK 15MHz 50%RB	Bottom Edge	2562.5	22.65	23.5	1.216	0.751	0.913
	QPSK 20MHz 1RB	Front Side	2560	22.73	23.5	1.194	0.319	0.381
	QPSK 20MHz 1RB	Back Side	2560	22.73	23.5	1.194	0.871	1.040

	QPSK 20MHz 1RB	Back Side	2510	22.73	23.5	1.194	0.841	1.042
	QPSK 20MHz 1RB	Back Side	2535	22.73	23.5	1.194	0.829	1.066
	QPSK 20MHz 1RB	Left Edge	2560	22.73	23.5	1.194	0.283	0.338
	QPSK 20MHz 1RB	Right Edge	2560	22.73	23.5	1.194	0.218	0.260
	QPSK 20MHz 1RB	Bottom Edge	2560	22.73	23.5	1.194	0.779	0.930
	QPSK 20MHz 1RB	Bottom Edge	2510	22.57	23.5	1.239	0.755	0.935
	QPSK 20MHz 1RB	Bottom Edge	2535	22.41	23.5	1.285	0.742	0.954
	QPSK 20MHz 50%RB	Front Side	2560	22.73	23.5	1.194	0.313	0.374
	QPSK 20MHz 50%RB	Back Side	2560	22.73	23.5	1.194	0.852	1.017
	QPSK 20MHz 50%RB	Back Side	2510	22.73	23.5	1.194	0.822	1.018
	QPSK 20MHz 50%RB	Back Side	2535	22.73	23.5	1.194	0.806	1.036
	QPSK 20MHz 50%RB	Left Edge	2560	22.73	23.5	1.194	0.271	0.324
	QPSK 20MHz 50%RB	Right Edge	2560	22.73	23.5	1.194	0.202	0.241
	QPSK 20MHz 50%RB	Bottom Edge	2560	22.73	23.5	1.194	0.768	0.917
	QPSK 20MHz 50%RB	Bottom Edge	2510	22.57	23.5	1.239	0.736	0.912
	QPSK 20MHz 50%RB	Bottom Edge	2535	22.41	23.5	1.285	0.717	0.922

LTE Band 13 (P1)–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR 1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
	QPSK 5MHz 1RB	Front Side	784.5	25	23.74	1.337	0.172	0.230
	QPSK 5MHz 1RB	Back Side	784.5	25	23.74	1.337	0.226	0.302
	QPSK 5MHz 1RB	Left Edge	784.5	25	23.74	1.337	0.167	0.223
32.	QPSK 5MHz 1RB	Right Edge	784.5	25	23.74	1.337	0.383	0.512
	QPSK 5MHz 1RB	Bottom Edge	784.5	25	23.74	1.337	0.130	0.174
	QPSK 5MHz 50%RB	Front Side	784.5	25	23.74	1.337	0.164	0.219
	QPSK 5MHz 50%RB	Back Side	784.5	25	23.74	1.337	0.218	0.291
	QPSK 5MHz 50%RB	Left Edge	784.5	25	23.74	1.337	0.159	0.213
	QPSK 5MHz 50%RB	Right Edge	784.5	25	23.74	1.337	0.375	0.501
	QPSK 5MHz 50%RB	Bottom Edge	784.5	25	23.74	1.337	0.122	0.163
	QPSK 10MHz 1RB	Front Side	782	24.5	23.64	1.219	0.165	0.201
	QPSK 10MHz 1RB	Back Side	782	24.5	23.64	1.219	0.221	0.269
	QPSK 10MHz 1RB	Left Edge	782	24.5	23.64	1.219	0.162	0.197
	QPSK 10MHz 1RB	Right Edge	782	24.5	23.64	1.219	0.374	0.456
	QPSK 10MHz 1RB	Bottom Edge	782	24.5	23.64	1.219	0.126	0.154
	QPSK 10MHz 50%RB	Front Side	782	24.5	23.64	1.219	0.157	0.191
	QPSK 10MHz 50%RB	Back Side	782	24.5	23.64	1.219	0.212	0.258
	QPSK 10MHz 50%RB	Left Edge	782	24.5	23.64	1.219	0.153	0.187
	QPSK 10MHz 50%RB	Right Edge	782	24.5	23.64	1.219	0.370	0.451
	QPSK 10MHz 50%RB	Bottom Edge	782	24.5	23.64	1.219	0.113	0.138

WLAN 2.4GHz (P1) –Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
33.	802.11b	Front Side	11	2462	17.10	18	1.230	0.152	0.187
	802.11b	Back Side	11	2462	17.10	18	1.230	0.133	0.164
	802.11b	Right Side	11	2462	17.10	18	1.230	0.047	0.058
	802.11b	Top Side	11	2462	17.10	18	1.230	0.097	0.119

Remark:

1. Per KDB 447498 D01 v06, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Repeated SAR**Body-worn SAR & Hotspot SAR**

GSM1900(P2) – Body SAR Test (Gap: 10mm)							
Mode	Test Position	Frequency	SAR1g (W/kg)	Repeated SAR		Ratio	
		MHz		1	2	1	2
GPRS_4TX	Bottom Edge	1909.8	0.882	0.853	/	1.034	/

WCDMA Band 2(P2) – Body SAR Test (Gap: 10mm)							
Mode	Test Position	Frequency	SAR1g (W/kg)	Repeated SAR		Ratio	
		MHz		1	2	1	2
RMC 12.2k	Back Side	1852.4	0.805	0.796	/	1.011	/
RMC 12.2k	Bottom Edge	1852.4	0.874	0.859	/	1.017	/
RMC 12.2k	Bottom Edge	1880	0.833	0.811	/	1.027	/
RMC 12.2k	Bottom Edge	1907.6	0.819	0.804	/	1.019	/

WCDMA Band 4(P2)– Body SAR Test (Gap: 10mm)							
Mode	Test Position	Frequency	SAR1g (W/kg)	Repeated SAR		Ratio	
		MHz		1	2	1	2
RMC 12.2k	Back Side	1752.6	0.808	0.792	/	1.020	/

LTE Band 2(P2)–Body SAR Test (Gap: 10mm)							
Mode	Test Position	Frequency	SAR1g (W/kg)	Repeated SAR		Ratio	
		MHz		1	2	1	2
QPSK 20MHz 1RB	Bottom Edge	1860	0.836	0.805	/	1.039	/
QPSK 20MHz 50%RB	Bottom Edge	1860	0.824	0.799	/	1.031	/

LTE Band 7(P1)–Body SAR Test (Gap: 10mm)							
Mode	Test Position	Frequency	SAR1g (W/kg)	Repeated SAR		Ratio	
		MHz		1	2	1	2
QPSK 15MHz 1RB	Back Side	2535	0.889	0.865	/	1.028	/
QPSK 15MHz 1RB	Back Side	2507.5	0.869	0.846	/	1.027	/
QPSK 15MHz 1RB	Back Side	2562.5	0.875	0.852	/	1.027	/
QPSK 15MHz 50%RB	Back Side	2535	0.868	0.842	/	1.031	/
QPSK 15MHz 50%RB	Back Side	2507.5	0.848	0.827	/	1.025	/
QPSK 15MHz 50%RB	Back Side	2562.5	0.856	0.831	/	1.030	/
QPSK 20MHz 1RB	Back Side	2560	0.871	0.852	/	1.022	/
QPSK 20MHz 1RB	Back Side	2510	0.841	0.817	/	1.029	/
QPSK 20MHz 1RB	Back Side	2535	0.829	0.803	/	1.032	/
QPSK 20MHz 50%RB	Back Side	2560	0.852	0.825	/	1.033	/
QPSK 20MHz 50%RB	Back Side	2510	0.822	0.804	/	1.022	/
QPSK 20MHz 50%RB	Back Side	2535	0.806	0.786	/	1.025	/

Remark:

- 1) Per KDB 447498 D01 v06, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.
- 2) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 3) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 4) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 5) 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 .

9.3 Simultaneous Multi-band Transmission SAR Analysis

List of Mode for Simultaneous Multi-band Transmission

No.	Configurations	Head SAR	Body SAR
1	GSM(Voice/Data) + WLAN(2.4GHz)(Data)	Yes	Yes
2	WCDMA (Voice/Data)+ WLAN(2.4GHz)(Data)	Yes	Yes
3	LTE(Data) + WLAN(2.4GHz)(Data)	Yes	Yes
4	GSM(Voice/Data) + Bluetooth(Data)	Yes	Yes
5	WCDMA (Voice/Data) + Bluetooth(Data)	Yes	Yes
6	LTE(Data) + Bluetooth(Data)	Yes	Yes

Remark:

1. GSM, WCDMA and LTE share the same antenna, and cannot transmit simultaneously.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
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:

$(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f(\text{GHz})} / x]$
W/kg for test separation distances ≤ 50 mm;

where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.

For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 v06 as below:

Bluetooth:

Tune-Up Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	X	SAR(1g) 5mm	SAR(1g) 10mm
8.5	7.08	5/10	2.480	7.5	0.293	0.146

4. The maximum SAR summation is calculated based on the same configuration and test position.

Head SAR**WWAN and WLAN**

	WWAN		WLAN(2.4GHz)	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Right Cheek	GSM	0.533	0.400	0.933
Right Tilted	GSM	0.511	0.391	0.902
Left Cheek	GSM	0.422	0.455	0.877
Left Tilted	GSM	0.392	0.438	0.830
Right Cheek	WCDMA	0.709	0.400	1.109
Right Tilted	WCDMA	0.692	0.391	1.083
Left Cheek	WCDMA	0.609	0.455	1.064
Left Tilted	WCDMA	0.592	0.438	1.030
Right Cheek	LTE	0.735	0.400	1.135
Right Tilted	LTE	0.718	0.391	1.109
Left Cheek	LTE	0.669	0.455	1.124
Left Tilted	LTE	0.648	0.438	1.086

WWAN and Bluetooth

	WWAN		Bluetooth	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Right Cheek	GSM	0.533	0.293	0.826
Right Tilted	GSM	0.511	0.293	0.804
Left Cheek	GSM	0.422	0.293	0.715
Left Tilted	GSM	0.392	0.293	0.685
Right Cheek	WCDMA	0.709	0.293	1.002
Right Tilted	WCDMA	0.692	0.293	0.985
Left Cheek	WCDMA	0.609	0.293	0.902
Left Tilted	WCDMA	0.592	0.293	0.885
Right Cheek	LTE	0.735	0.293	1.028
Right Tilted	LTE	0.718	0.293	1.011
Left Cheek	LTE	0.669	0.293	0.962
Left Tilted	LTE	0.648	0.293	0.941

Remark: BT the 1g SAR value is not being captured by the measurement system, the 1g-SAR value is conservatively used for simultaneous transmission analysis.

Body-worn SAR**WWAN and WLAN**

	WWAN		WLAN(2.4GHz)	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Front	GSM	0.220	0.187	0.407
Back	GSM	0.990	0.164	1.154
Front	WCDMA	0.550	0.187	0.737
Back	WCDMA	1.035	0.164	1.199
Front	LTE	0.613	0.187	0.800
Back	LTE	1.124	0.164	1.288

WWAN and Bluetooth

	WWAN		Bluetooth	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Front	GSM	0.220	0.146	0.366
Back	GSM	0.990	0.146	1.136
Front	WCDMA	0.550	0.146	0.696
Back	WCDMA	1.035	0.146	1.181
Front	LTE	0.613	0.146	0.759
Back	LTE	1.124	0.146	1.270

Remark: BT the 1g SAR value is not being captured by the measurement system, the 1g-SAR value is conservatively used for simultaneous transmission analysis.

Hotspot SAR**WWAN and WLAN**

	WWAN		WLAN(2.4GHz)	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Front	GSM	0.200	0.187	0.387
Back	GSM	0.951	0.164	1.115
Left side	GSM	0.145	-	0.145
Right side	GSM	0.277	0.058	0.335
Top side	GSM	-	0.119	0.119
Bottom side	GSM	1.115	-	1.115
Front	WCDMA	0.550	0.187	0.737
Back	WCDMA	1.035	0.164	1.199
Left side	WCDMA	0.490	-	0.490
Right side	WCDMA	0.436	0.058	0.494
Top side	WCDMA	-	0.119	0.119
Bottom side	WCDMA	1.123	-	1.123
Front	LTE	0.613	0.187	0.800
Back	LTE	1.124	0.164	1.288
Left side	LTE	0.437	-	0.437
Right side	LTE	0.512	0.058	0.570
Top side	LTE	-	0.119	0.119
Bottom side	LTE	1.005	-	1.005

WWAN and Bluetooth

	WWAN		Bluetooth	Summed SAR (W/kg)
Position	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Front	GSM	0.200	0.146	0.346
Back	GSM	0.951	0.146	1.097
Left side	GSM	0.145	-	0.145
Right side	GSM	0.277	0.146	0.423
Top side	GSM	-	0.146	0.146
Bottom side	GSM	1.115	-	1.115
Front	WCDMA	0.550	0.146	0.696
Back	WCDMA	1.035	0.146	1.181
Left side	WCDMA	0.490	-	0.490
Right side	WCDMA	0.436	0.146	0.582
Top side	WCDMA	-	0.146	0.146
Bottom side	WCDMA	1.123	-	1.123
Front	LTE	0.613	0.146	0.759
Back	LTE	1.124	0.146	1.270
Left side	LTE	0.437	-	0.437
Right side	LTE	0.512	0.146	0.658
Top side	LTE	-	0.146	0.146
Bottom side	LTE	1.005	-	1.005

Remark: BT the 1g SAR value is not being captured by the measurement system, the 1g-SAR value is conservatively used for simultaneous transmission analysis.

10. Measurement Uncertainty

10.1 Uncertainty for SAR Test

Input quantity X_i (source of uncertainty)	Ref.	Prob. Dist PDF_i	Unc. $a(x_i)$	Div. q_i	$u(x_i) =$ $a(x_i)/q_i$	c_i (1 g; 10 g)	$u(y)$ $=c_i \cdot u(x_i)$	v_i or v_{eff}
Measurement System errors								
Probe calibration	8.4.1.1	N	7.00					
Probe calibration drift	8.4.1.2	R	0					
Probe linearity and detection limit	8.4.1.3	R	5.00					
Broadband signal	8.4.1.4	R	0					
Probe isotropy	8.4.1.5	R	2.50					
Other probe and data acquisition errors	8.4.1.6	N	0.02					
RF ambient and noise	8.4.1.7	N	0					
Probe positioning errors	8.4.1.8	N	1.40					
Data processing errors	8.4.1.9	N	0.05					
Phantom and device (DUT or validation antenna) errors								
Measurement of phantom conductivity(σ)	8.4.2.1	N	4.00		4.00	c_ϵ, c_σ	4.00	
Temperature effects (medium)	8.4.2.2	R	2.50		1.44	c_ϵ, c_σ	1.44	
Shell permittivity	8.4.2.3	R	5.00		2.88	See 8.4.2.3	2.88	
Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	N	0.03		0.03	2	0.02	
Repeatability of positioning the DUT or source against the phantom	8.4.2.5	N	0.05		0.05	1	0.05	
Device holder effects	8.4.2.6	N	5.00		5.00	1	5.00	
Effect of operating mode on probe sensitivity	8.4.2.7	R	0		0	1	0	
Time-average SAR	8.4.2.8	R	0		0	1	0	
Variation in SAR due to drift in output of DUT	8.4.2.9	N	5.00		5.00	1	5.00	
Validation antenna uncertainty (validation measurement only)	8.4.2.10	N	0		0	1	0	
Uncertainty in accepted power	8.4.2.11	N	0		0	1	0	

(validation measurement only)								
Corrections to the SAR result								
Phantom deviation from target (ϵ' , σ)	8.4.3.1	N	0.05			1	0.05	
SAR scaling	8.4.3.2	R	2.00		1.15	1	1.15	
Combined Standard Uncertainty		RSS			10.11		10.11	$V_{\text{eff}} =$
Expanded uncertainty, U		K=2			20.23		20.23	

Annex A. Plots of System Performance Check

MEASUREMENT 1

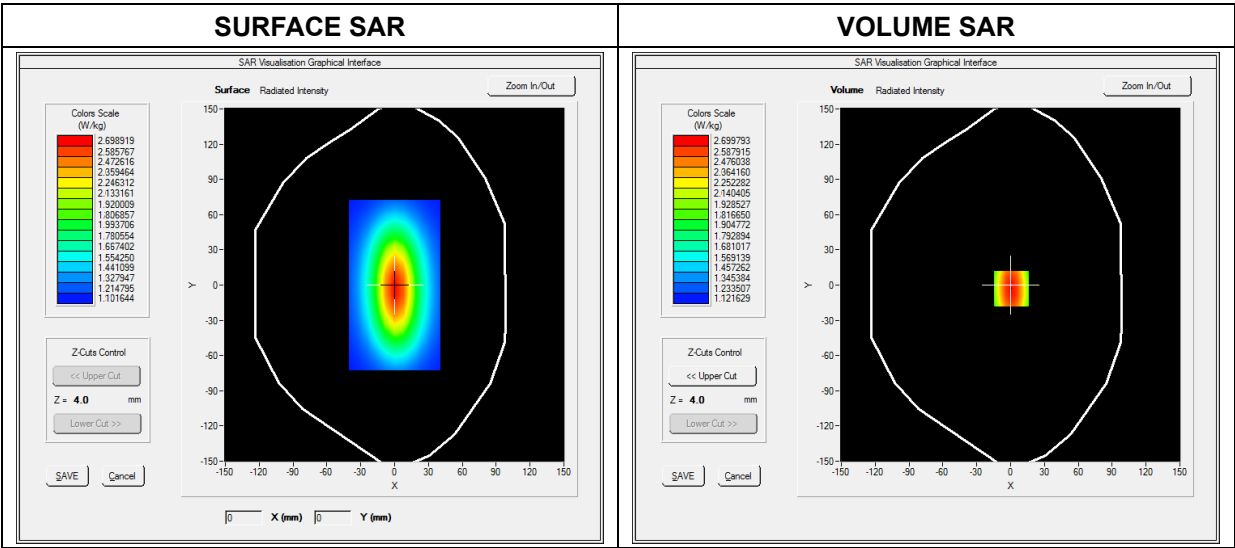
Type: Validation measurement (Fast, 75.00 %)
Date of measurement: 2025-08-07
Measurement duration: 7 minutes 21 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.08; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	750.000000
Relative Permittivity (real part)	42.4545745
Conductivity (S/m)	0.932338
Power Variation (%)	3.861300
Ambient Temperature	22.2
Liquid Temperature	22.2

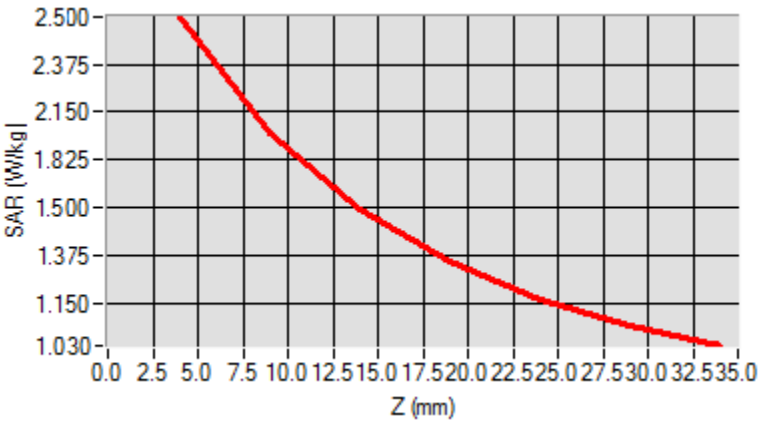


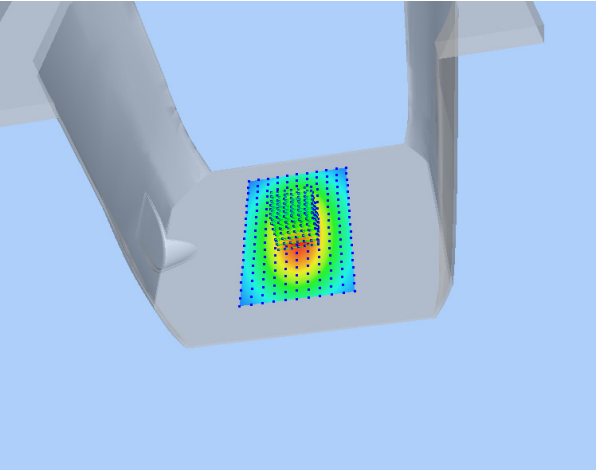
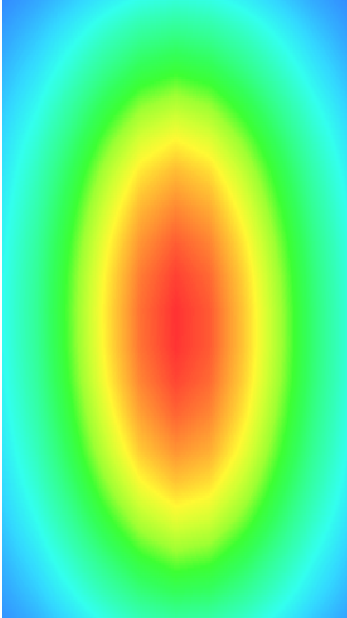
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.042744
SAR 1g (W/Kg)	2.164534

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.3634	1.8023	1.4523	1.2514	1.1005	1.0245



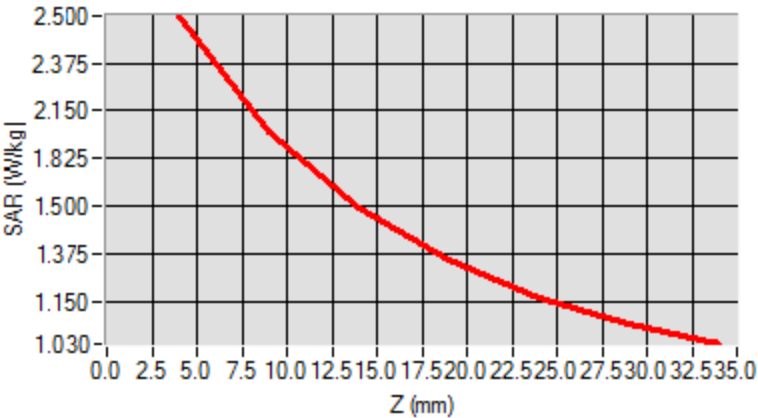
3D screen shot	Hot spot position
	

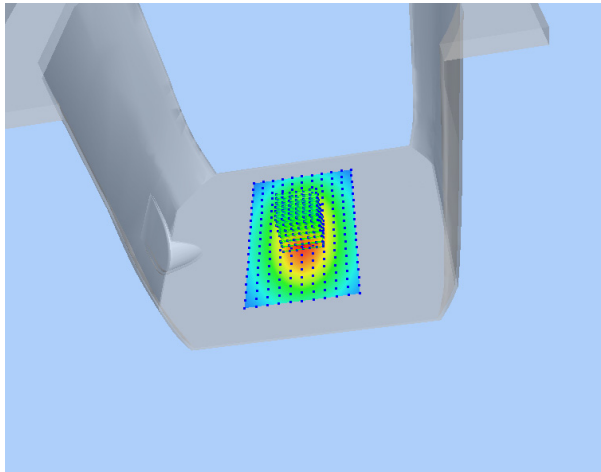
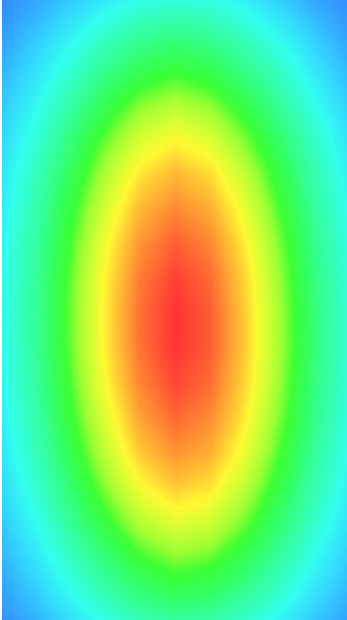
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.519489
SAR 1g (W/Kg)	2.411253

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.4900	1.8942	1.4811	1.3541	1.1123	1.0539



3D screen shot	Hot spot position
	

MEASUREMENT 3

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 2025-08-24

Measurement duration: 12 minutes 21 seconds

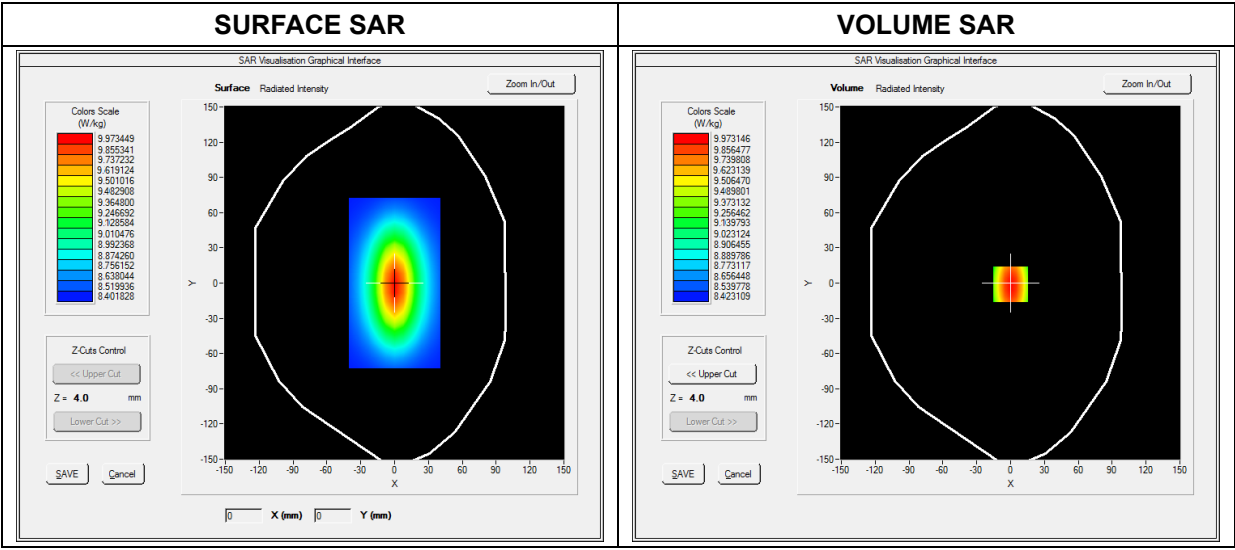
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1800.000000
Relative Permittivity (real part)	39.352895
Conductivity (S/m)	1.372588
Power Variation (%)	1.432900
Ambient Temperature	22.2
Liquid Temperature	22.2

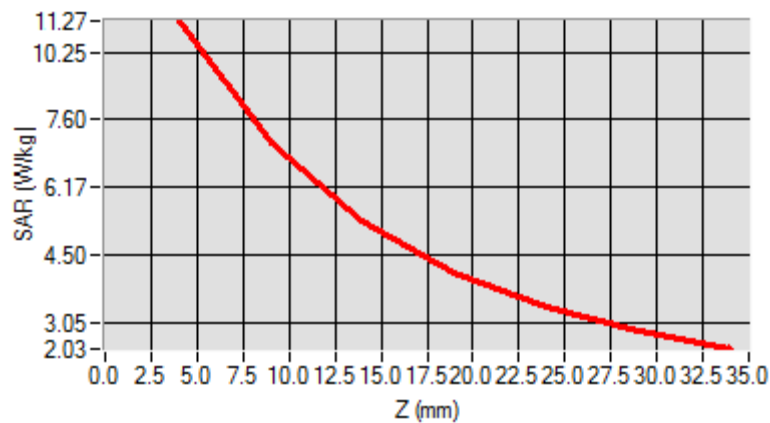


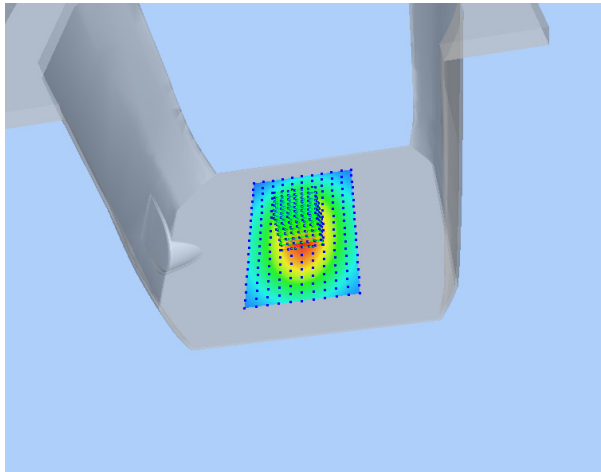
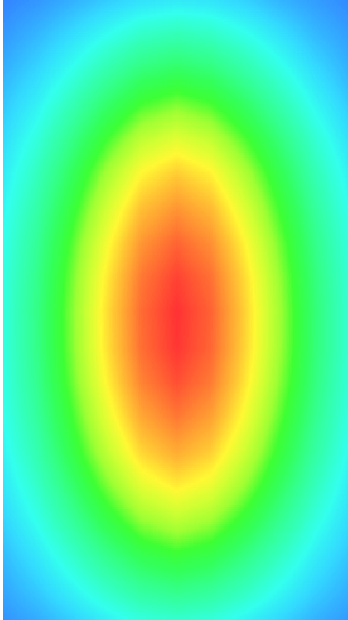
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.171252
SAR 1g (W/Kg)	9.611250

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.3455	7.1125	5.1026	3.425	3.0242	2.1125



3D screen shot	Hot spot position
	

MEASUREMENT 4

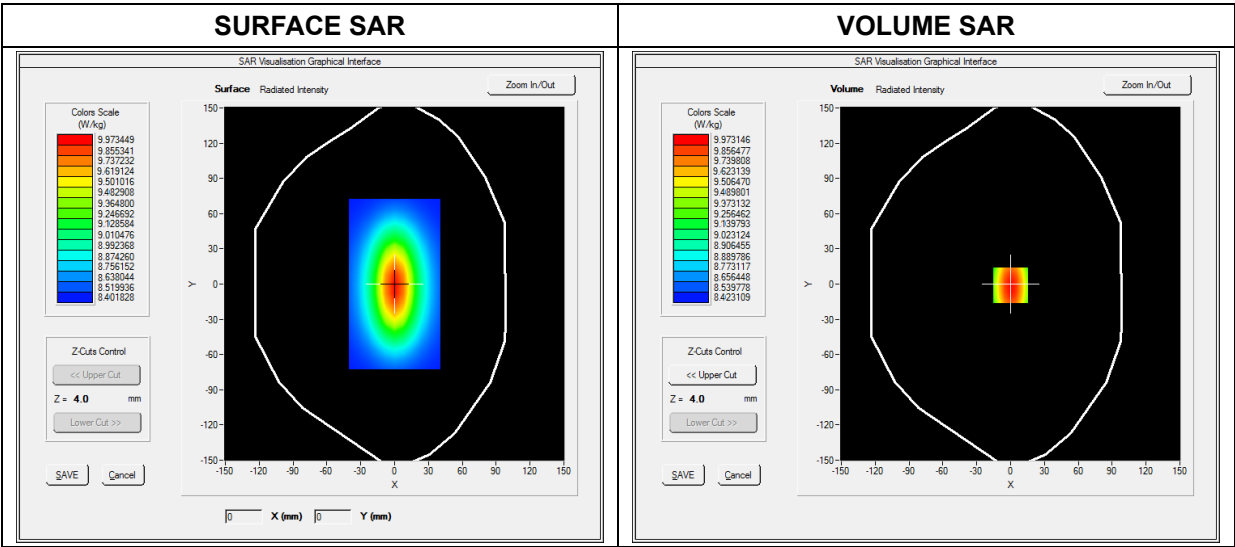
Type: Validation measurement (Fast, 75.00 %)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 21 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.39; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	41.273149
Conductivity (S/m)	1.423473
Power Variation (%)	2.272400
Ambient Temperature	22.2
Liquid Temperature	22.2

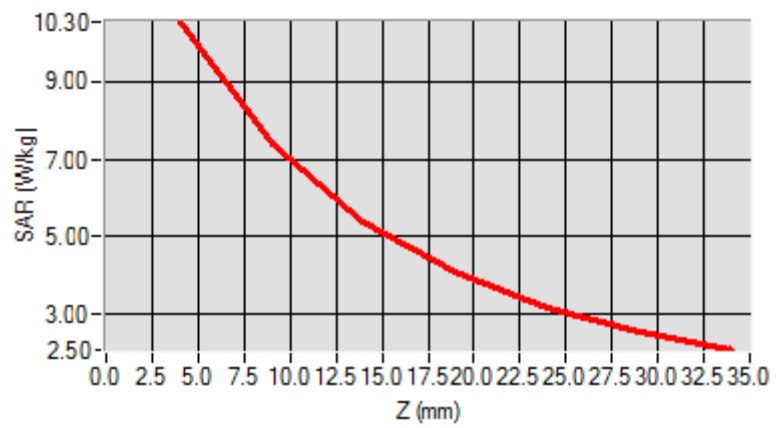


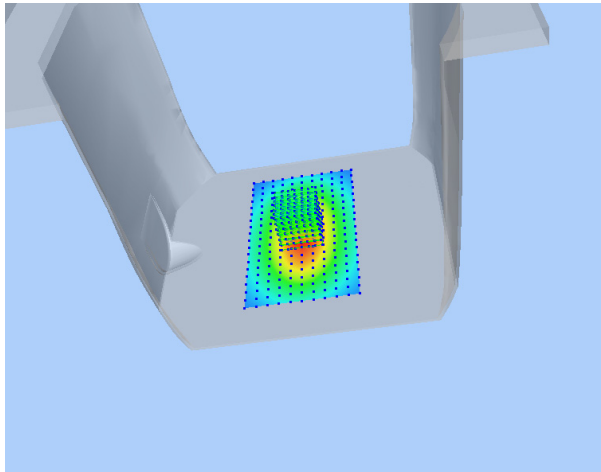
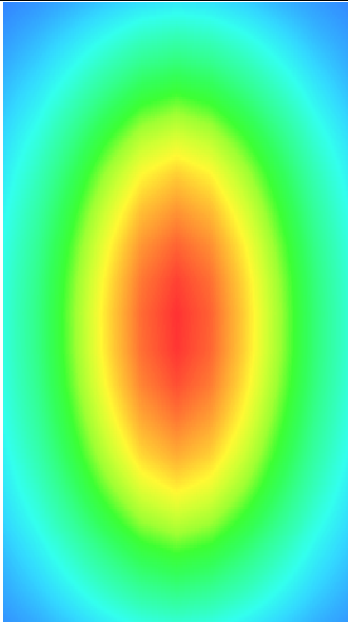
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.174526
SAR 1g (W/Kg)	9.913214

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.2354	6.8400	5.0121	4.1189	3.0522	2.8424



3D screen shot	Hot spot position
	

MEASUREMENT 5

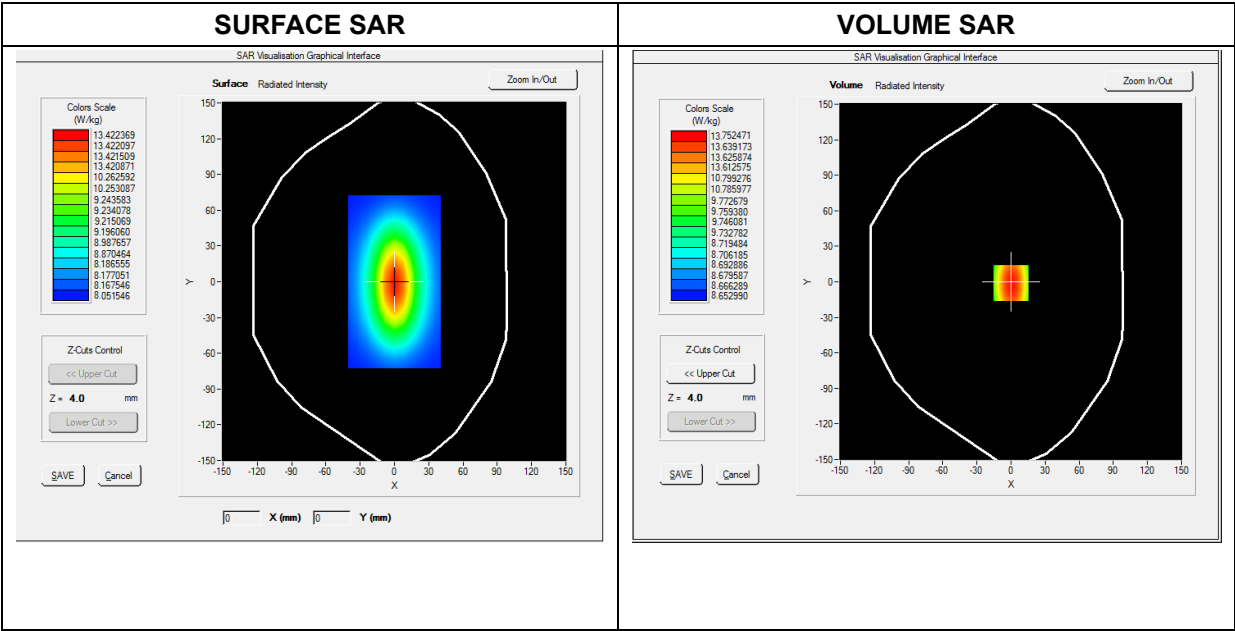
Type: Validation measurement (Fast, 75.00 %)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 21 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.45; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	38.674366
Conductivity (S/m)	1.754361
Power Variation (%)	2.114800
Ambient Temperature	22.2
Liquid Temperature	22.2

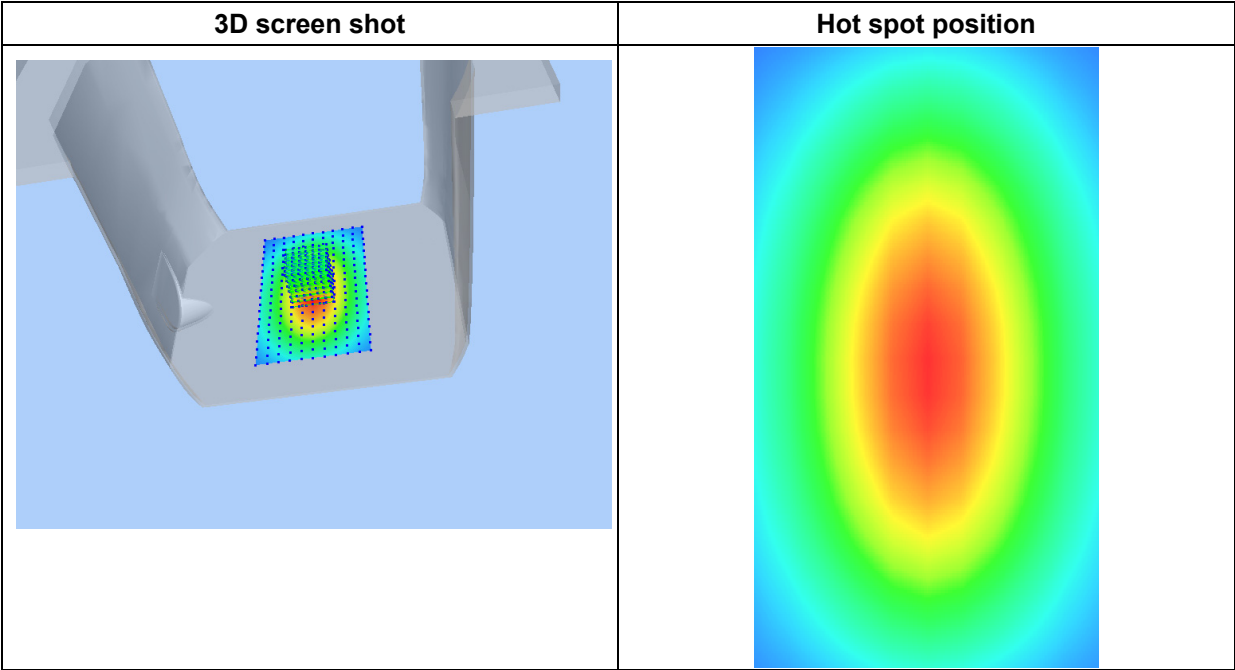
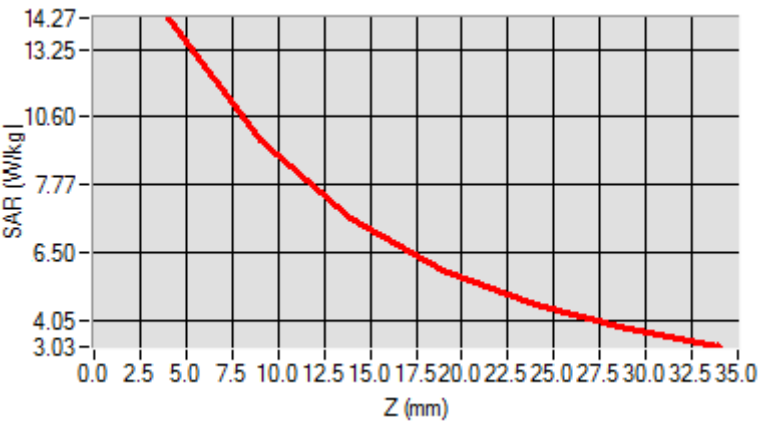


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	8.020427
SAR 1g (W/Kg)	13.452457

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	14.1034	12.0012	10.2624	7.4715	5.9022	4.5114



MEASUREMENT 6

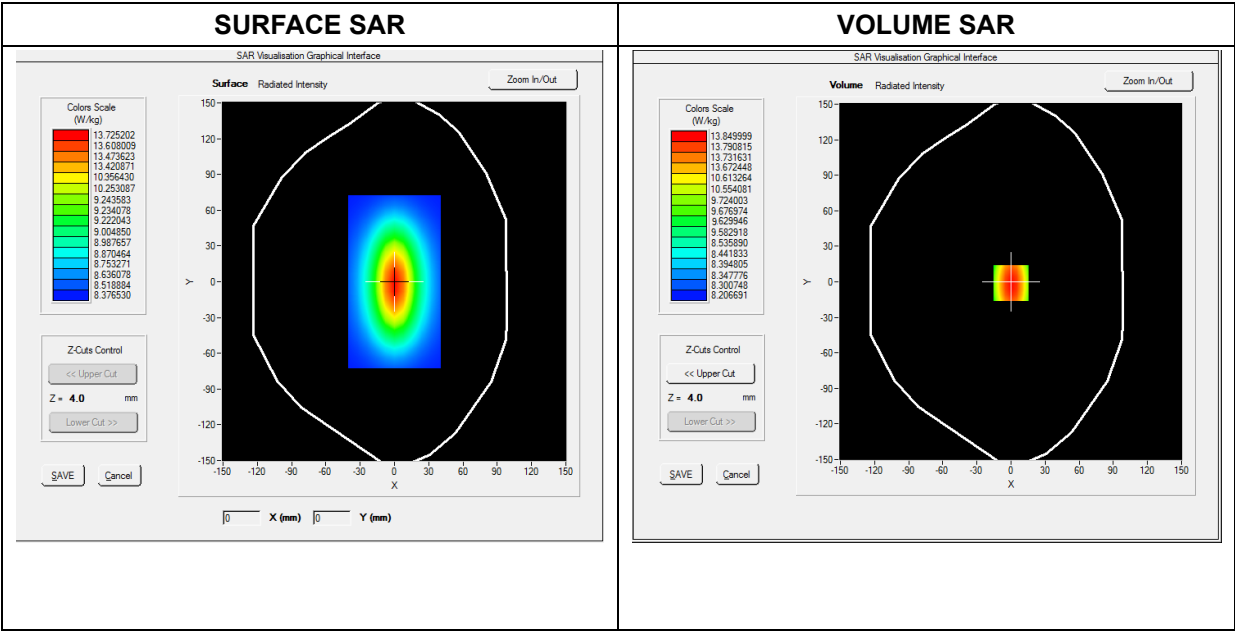
Type: Validation measurement (Fast, 75.00 %)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 21 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.36; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2600.000000
Relative Permittivity (real part)	38.764929
Conductivity (S/m)	1.934182
Power Variation (%)	1.117400
Ambient Temperature	22.2
Liquid Temperature	22.2

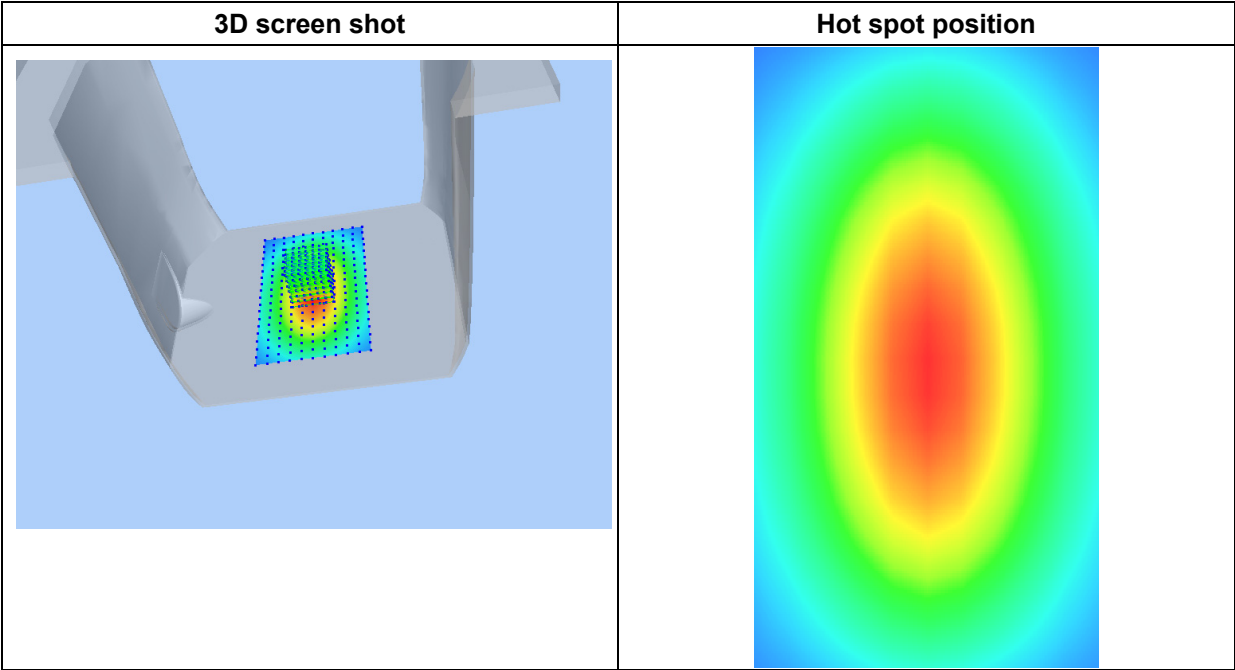
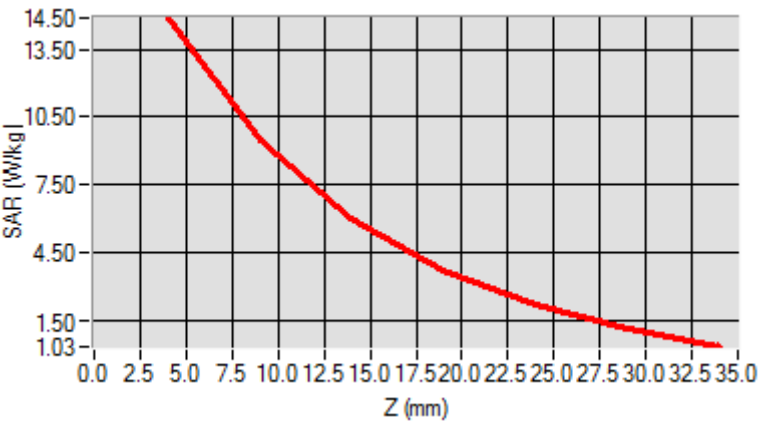


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	8.270822
SAR 1g (W/Kg)	13.670282

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	14.0426	12.1354	10.2965	7.4854	5.9354	4.5186



Annex B. Plots of SAR Measurement

MEASUREMENT 1

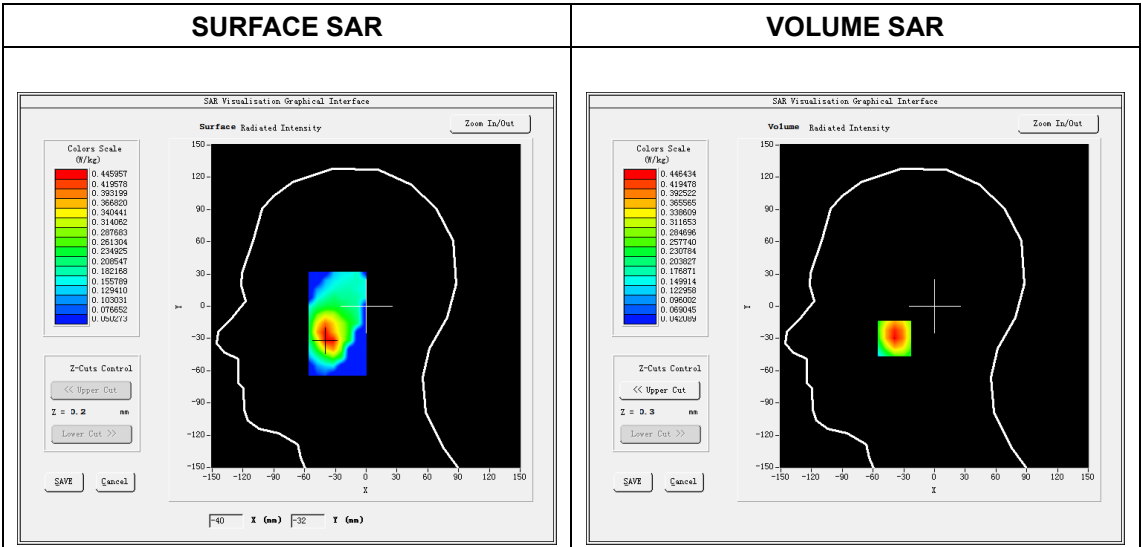
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	High
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

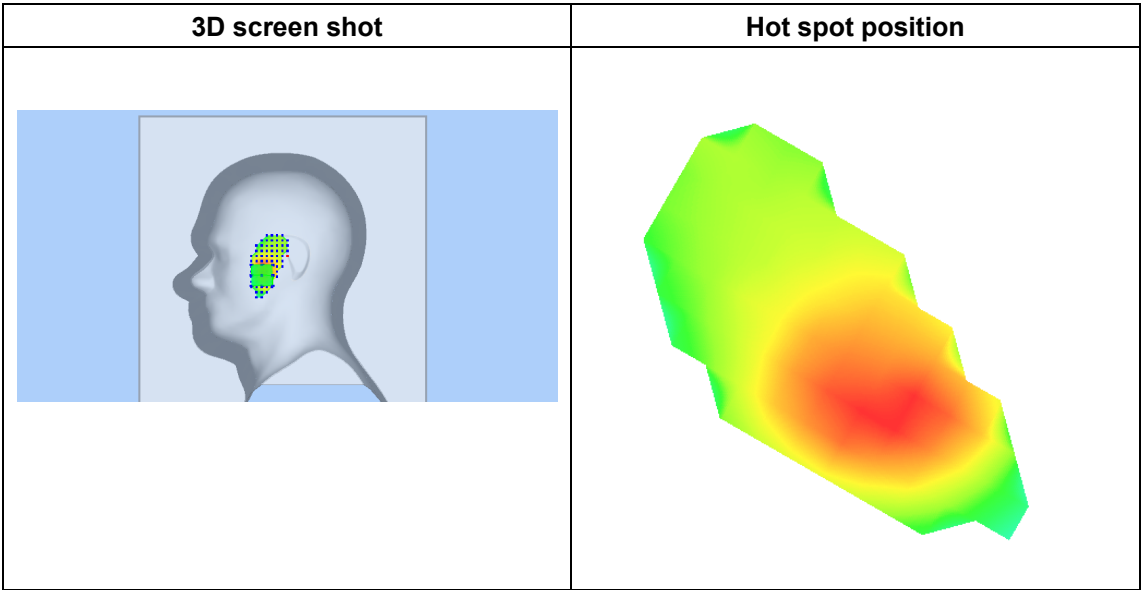
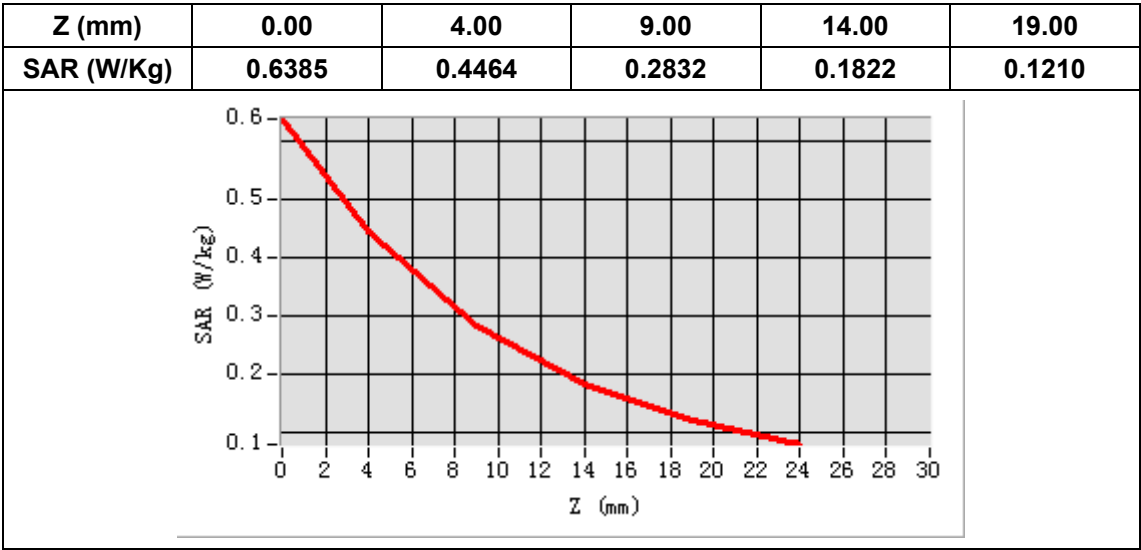
Frequency (MHz)	848.800000
Relative Permittivity (real part)	42.452458
Conductivity (S/m)	0.932458
Power Variation (%)	1.074536
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-38.00, Y=-30.00

SAR Peak: 0.65 W/kg

SAR 10g (W/Kg)	0.258866
SAR 1g (W/Kg)	0.424487



MEASUREMENT 2

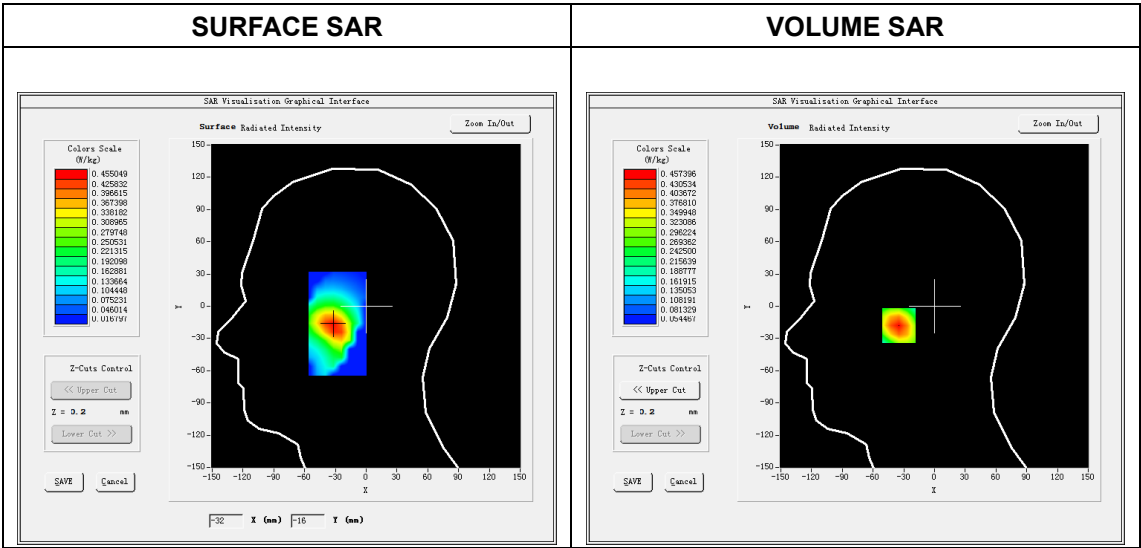
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.39; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

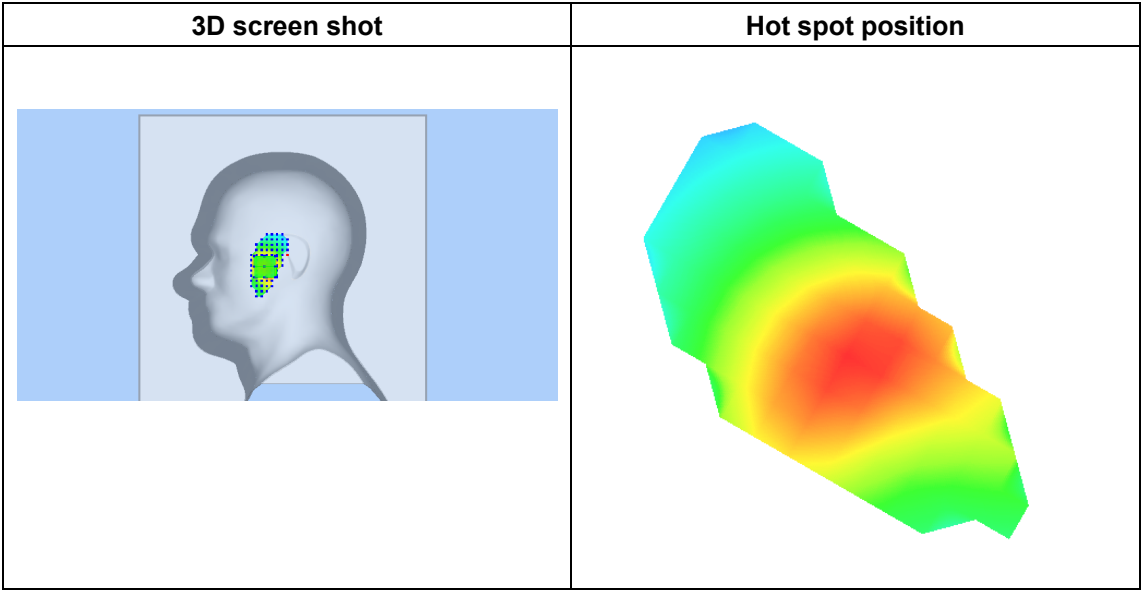
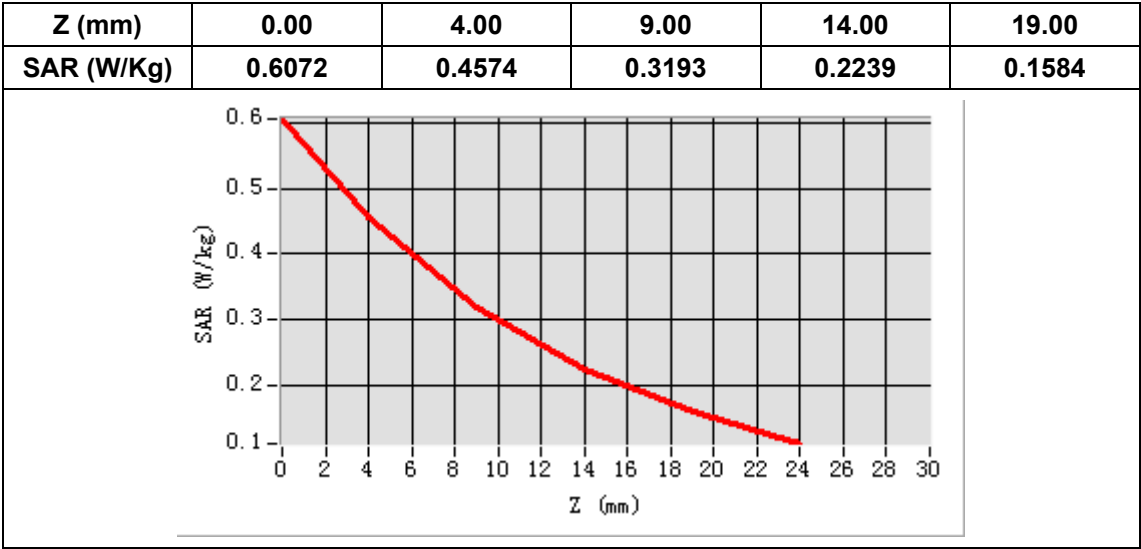
Frequency (MHz)	1909.800000
Relative Permittivity (real part)	41.272245
Conductivity (S/m)	1.423921
Power Variation (%)	0.254800
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-32.00, Y=-18.00
SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.279484
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SAR 1g (W/Kg)	0.427209
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MEASUREMENT 3

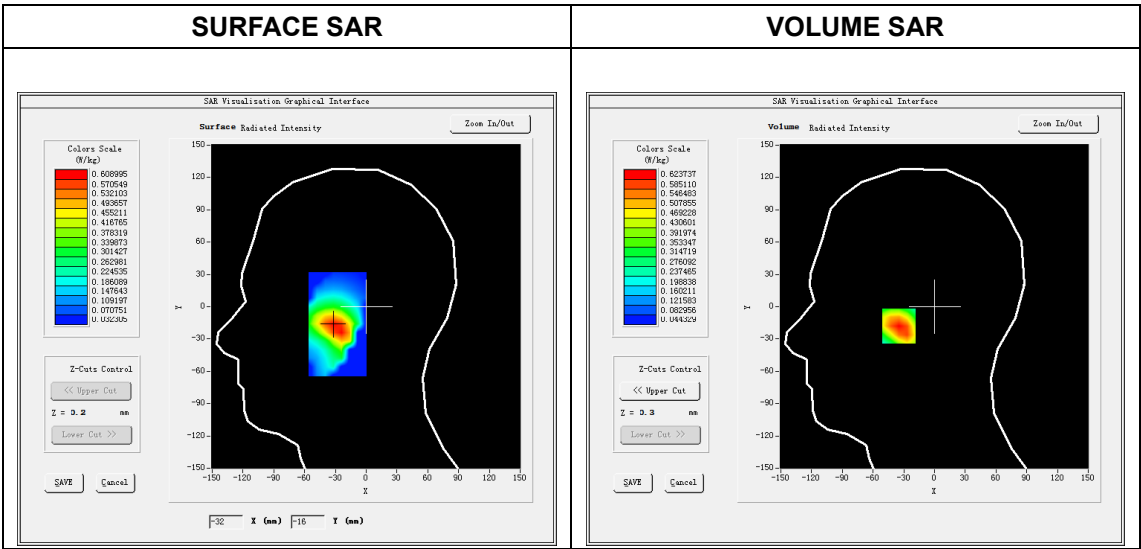
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

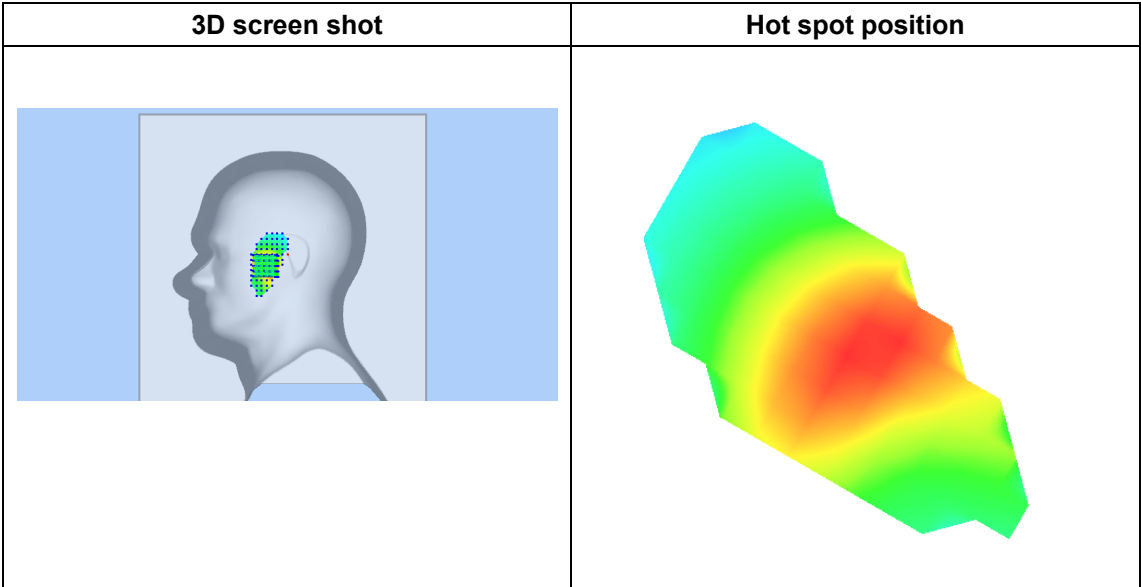
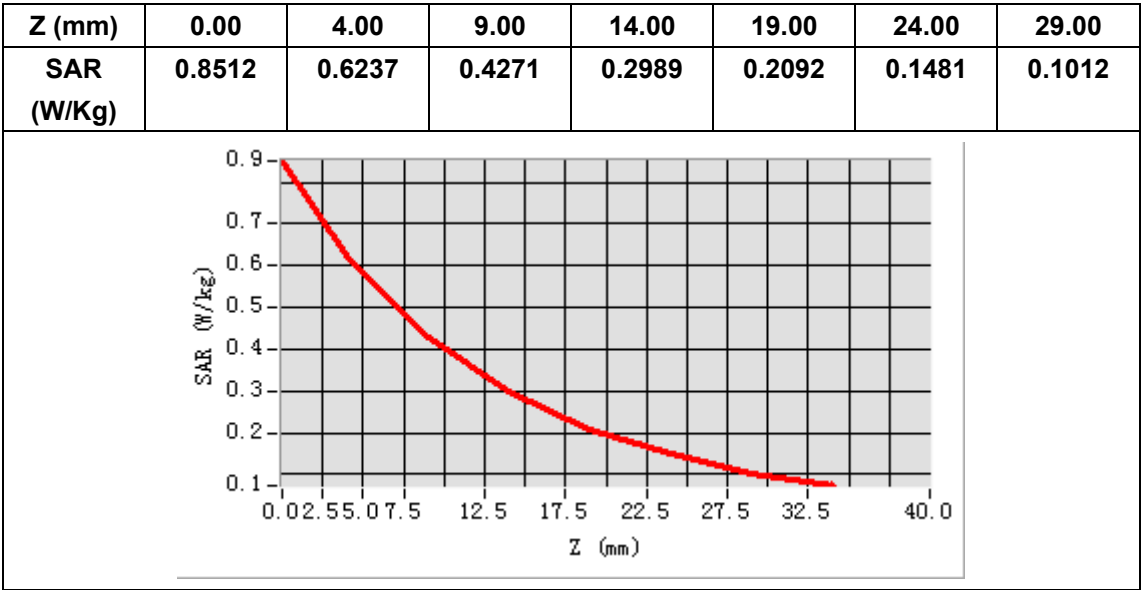
Frequency (MHz)	1852.400000
Relative Permittivity (real part)	39.351248
Conductivity (S/m)	1.373607
Power Variation (%)	2.822400
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-30.00, Y=-18.00

SAR Peak: 0.86 W/kg

SAR 10g (W/Kg)	0.374805
SAR 1g (W/Kg)	0.571702



MEASUREMENT 4

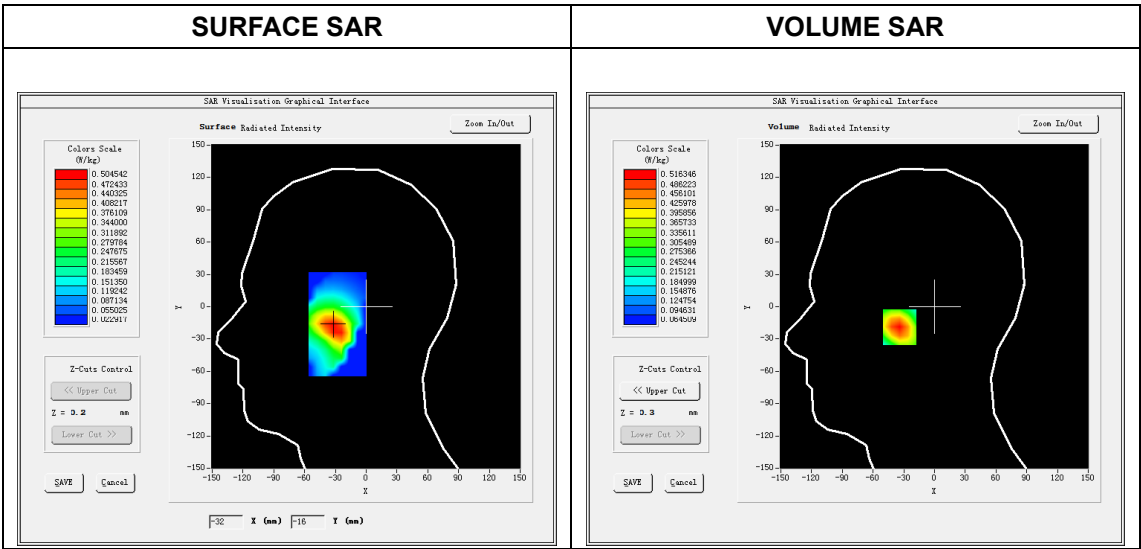
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA1700_RMC
Channels	High
Signal	Duty Cycle 1:1

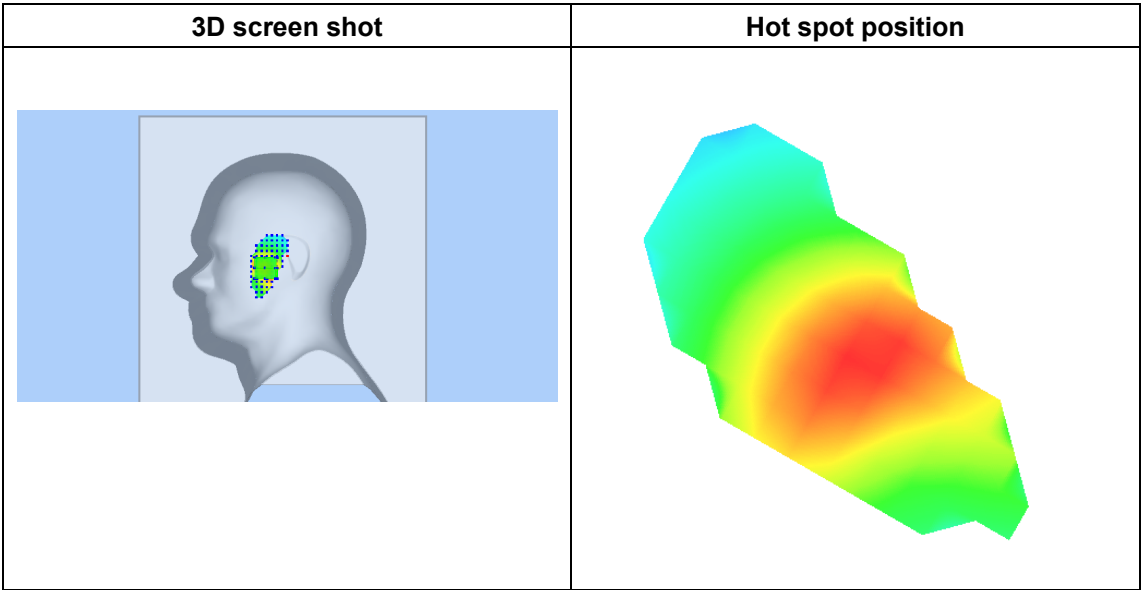
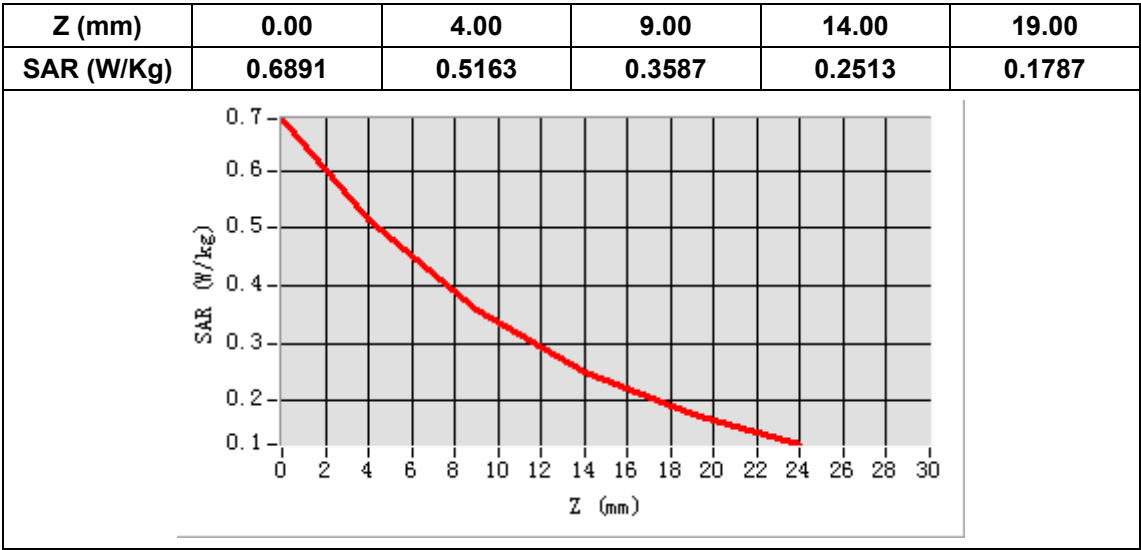
B. SAR Measurement Results

Frequency (MHz)	1752.600000
Relative Permittivity (real part)	39.351247
Conductivity (S/m)	1.374671
Power Variation (%)	2.274100
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-31.00, Y=-19.00
SAR Peak: 0.69 W/kg

SAR 10g (W/Kg)	0.313866
SAR 1g (W/Kg)	0.495866



MEASUREMENT 5

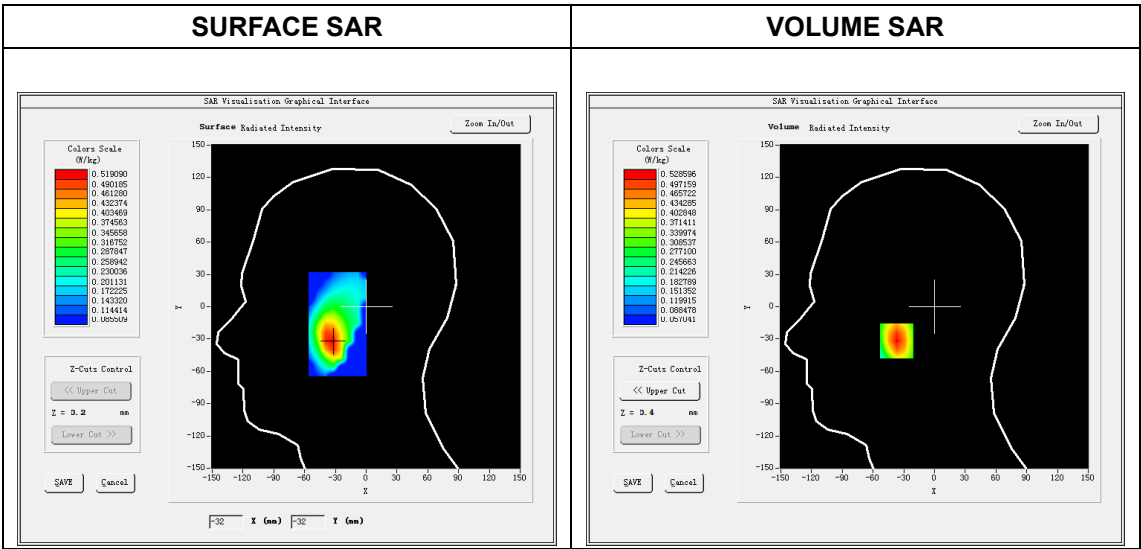
Type: Measurement (Complete)
Date of measurement: 2025-08-08
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA850_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

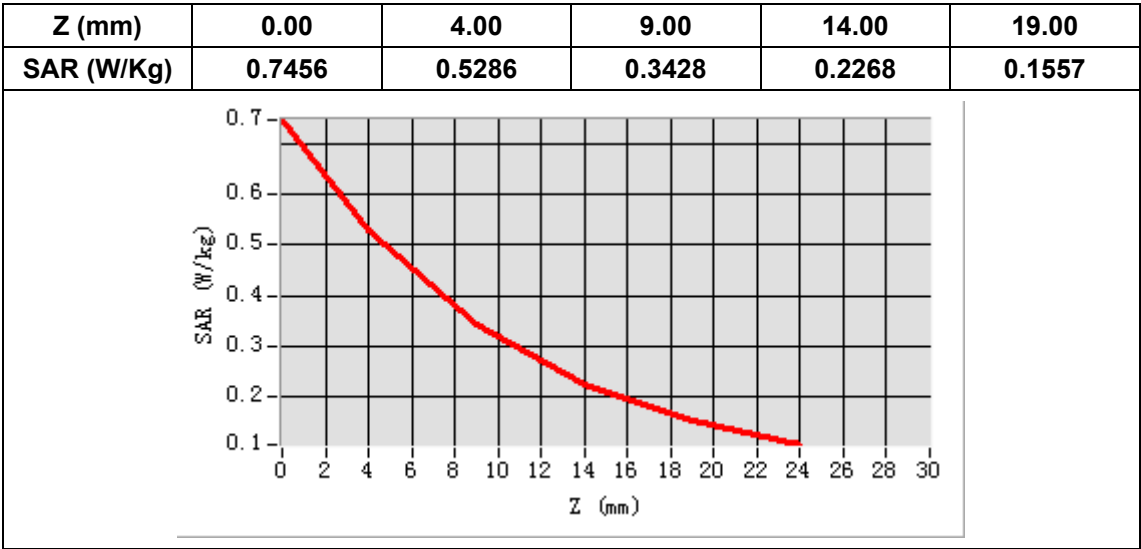
Frequency (MHz)	826.400000
Relative Permittivity (real part)	41.273245
Conductivity (S/m)	0.882458
Power Variation (%)	-1.363800
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-34.00, Y=-32.00

SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)	0.314041
SAR 1g (W/Kg)	0.498835



MEASUREMENT 6

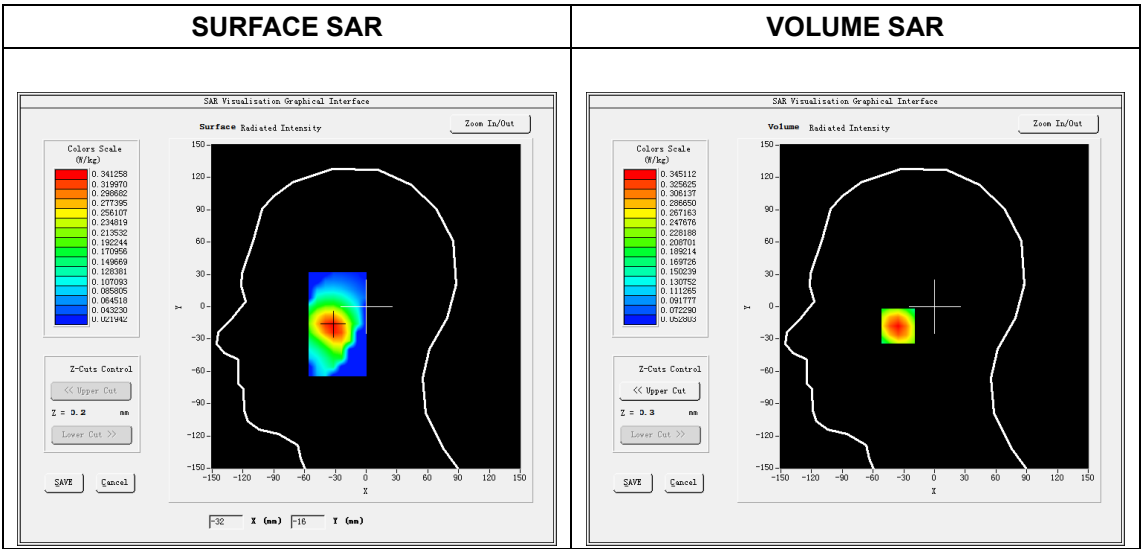
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE Band 2
Channels	QPSK, 20MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

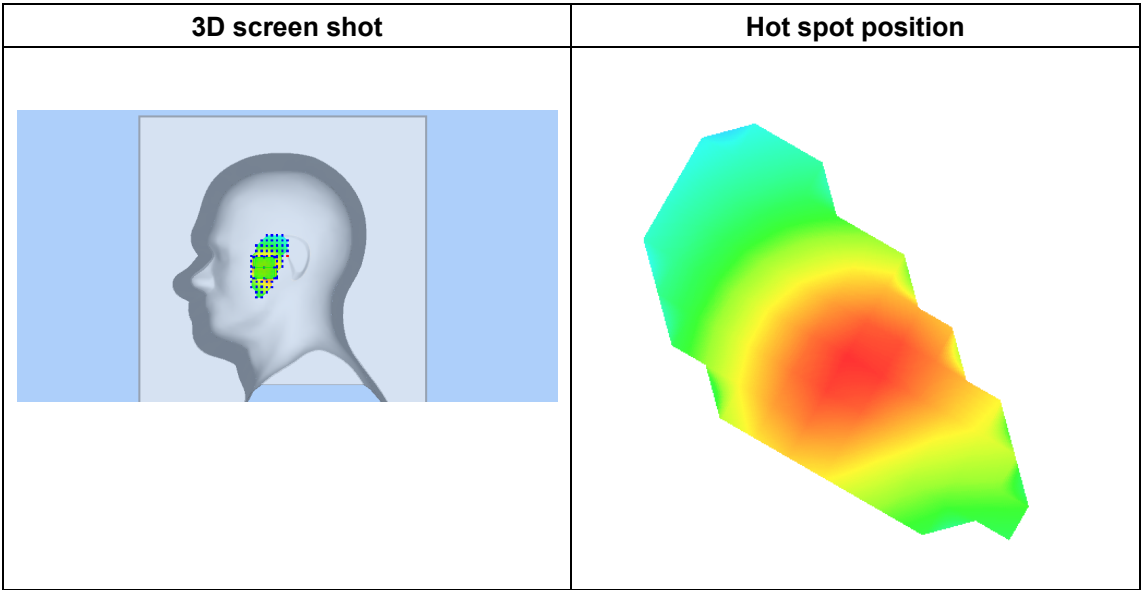
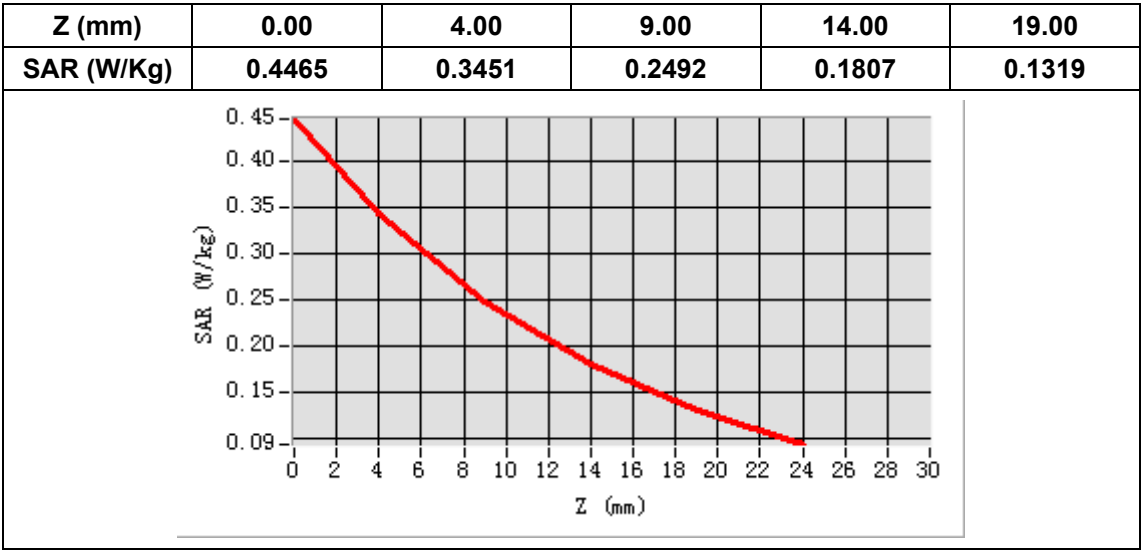
Frequency (MHz)	1860.000000
Relative Permittivity (real part)	39.351461
Conductivity (S/m)	1.372395
Power Variation (%)	-1.348500
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-33.00, Y=-18.00

SAR Peak: 0.45 W/kg

SAR 10g (W/Kg)	0.219776
SAR 1g (W/Kg)	0.328718



MEASUREMENT 7

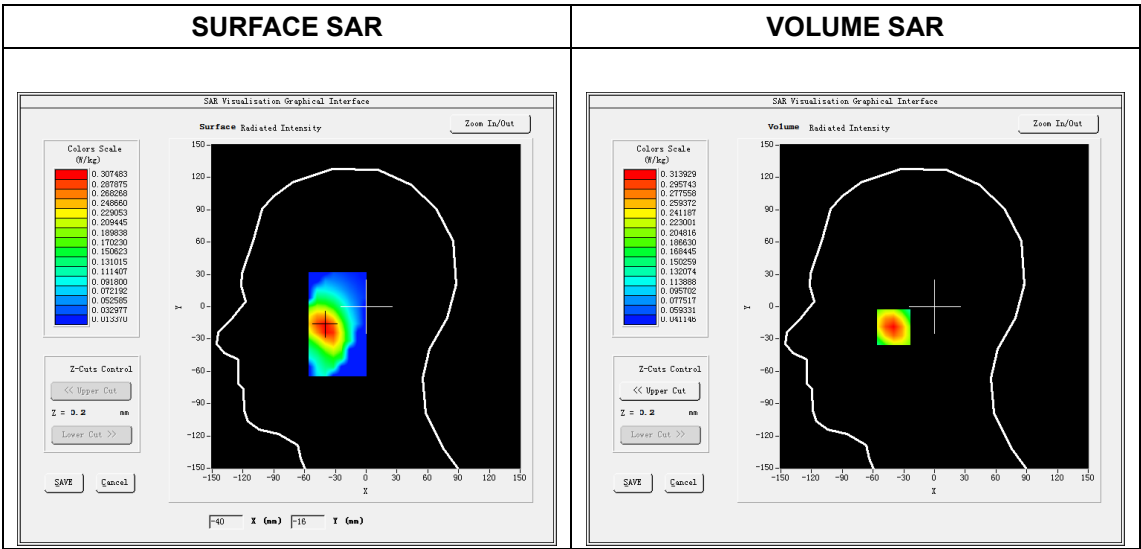
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE Band 4
Channels	QPSK, 3MHz, 1RB, High
Signal	Duty Cycle 1:1

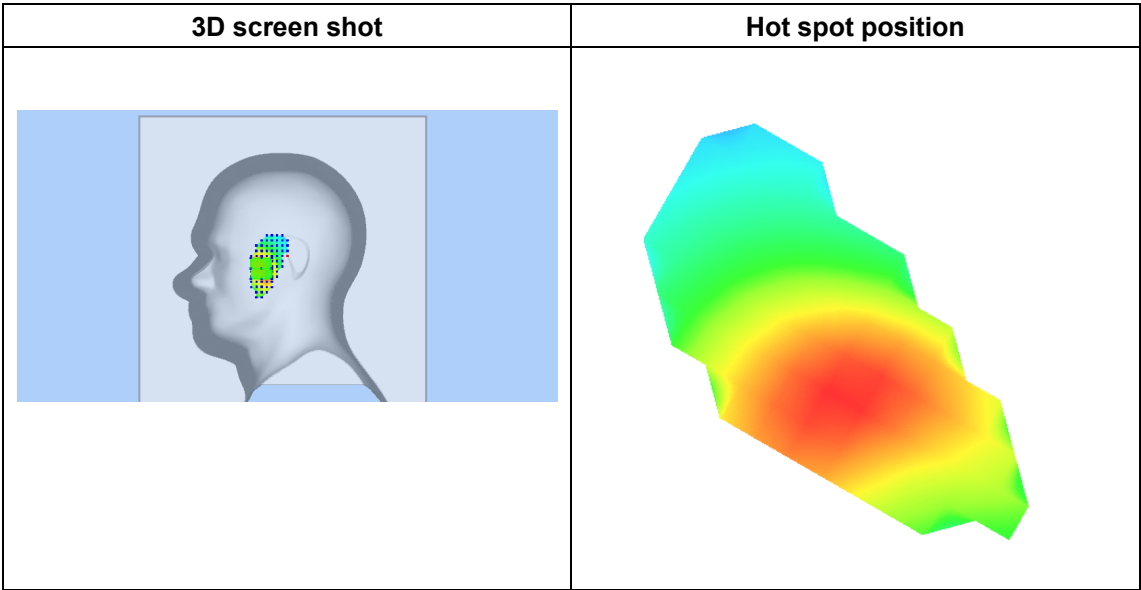
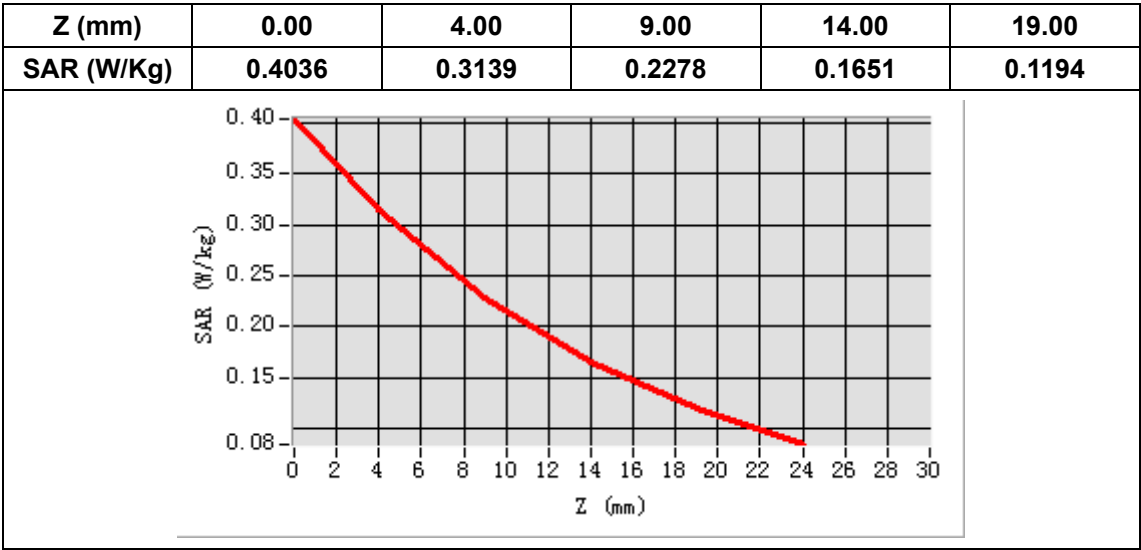
B. SAR Measurement Results

Frequency (MHz)	1753.500000
Relative Permittivity (real part)	39.351327
Conductivity (S/m)	1.372987
Power Variation (%)	1.815600
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-40.00, Y=-19.00
SAR Peak: 0.40 W/kg

SAR 10g (W/Kg)	0.199906
SAR 1g (W/Kg)	0.286018



MEASUREMENT 8

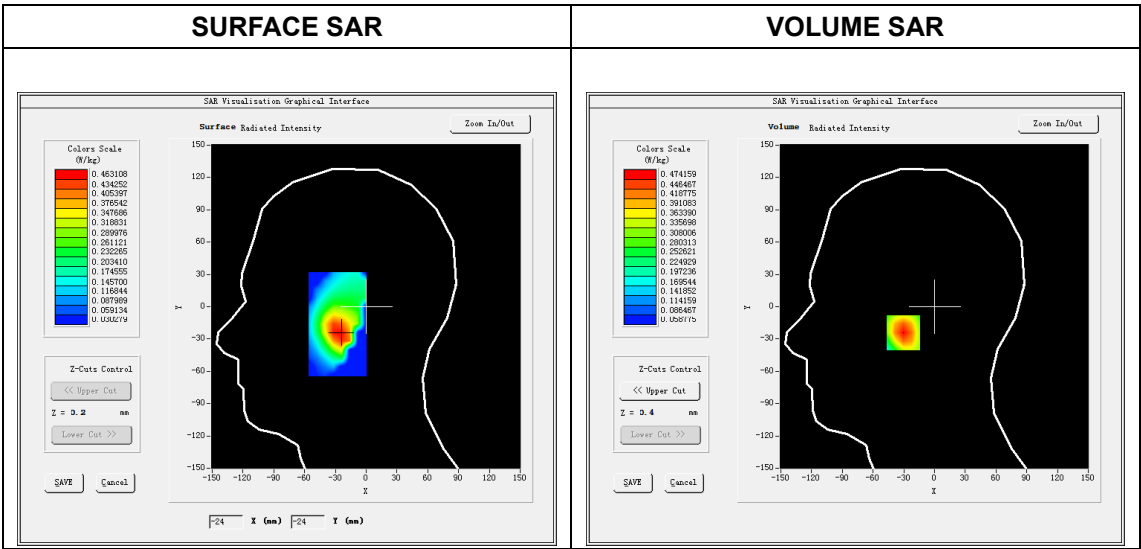
Type: Measurement (Complete)
Date of measurement: 2025-08-08
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE Band 5
Channels	QPSK, 10MHz, 1RB, High
Signal	Duty Cycle 1:1

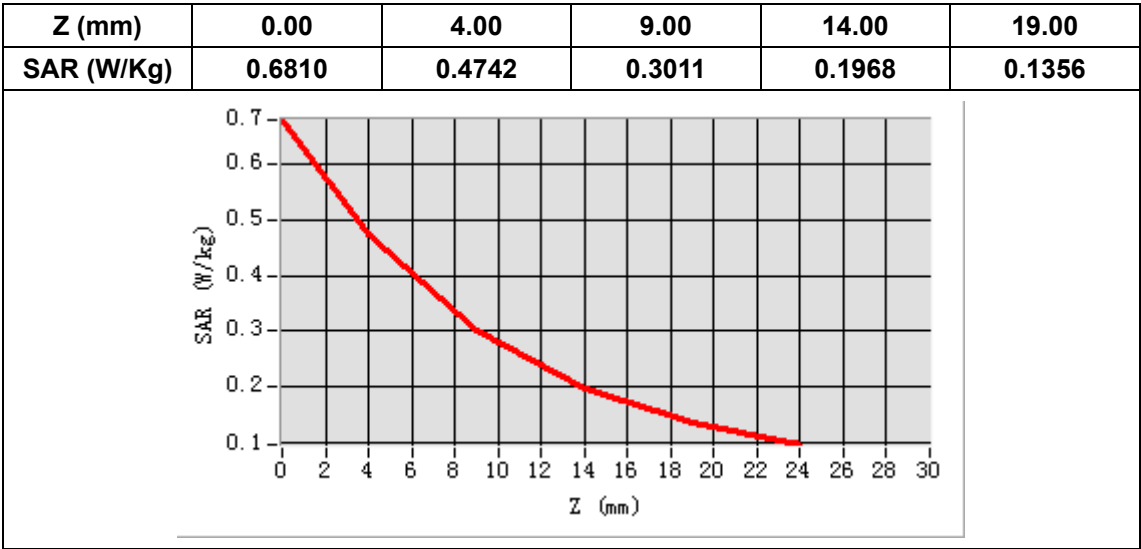
B. SAR Measurement Results

Frequency (MHz)	844.000000
Relative Permittivity (real part)	41.273245
Conductivity (S/m)	0.882458
Power Variation (%)	-0.878500
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-26.00, Y=-24.00
SAR Peak: 0.68 W/kg

SAR 10g (W/Kg)	0.279320
SAR 1g (W/Kg)	0.447630



MEASUREMENT 9

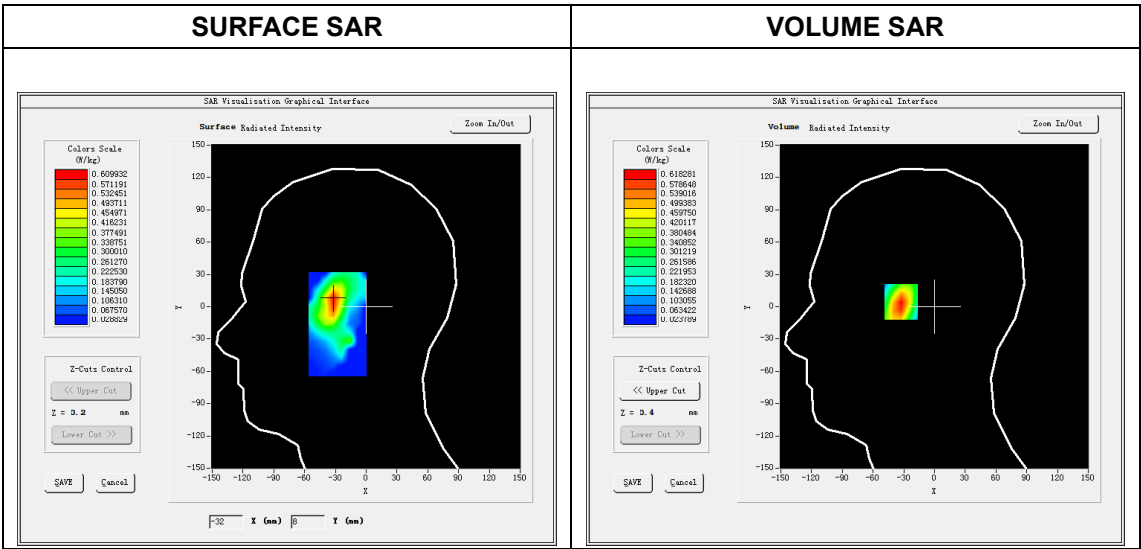
Type: Measurement (Complete)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.36; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	LTE Band 7
Channels	QPSK, 15MHz, 1RB, High
Signal	Duty Cycle 1:1

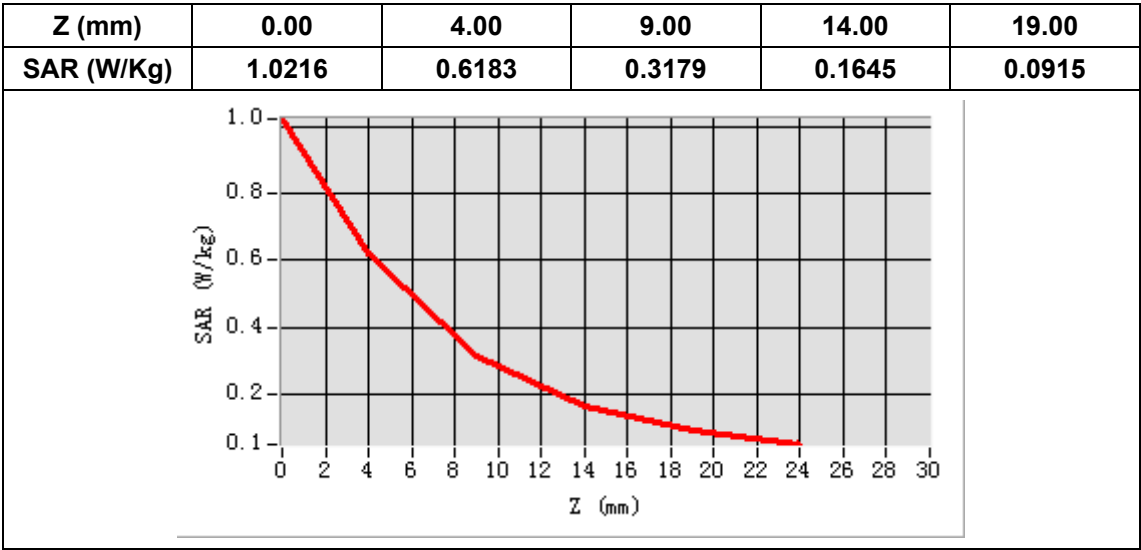
B. SAR Measurement Results

Frequency (MHz)	2535.000000
Relative Permittivity (real part)	38.762455
Conductivity (S/m)	1.932458
Power Variation (%)	-0.875900
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-32.00, Y=6.00
SAR Peak: 1.04 W/kg

SAR 10g (W/Kg)	0.296504
SAR 1g (W/Kg)	0.581231



MEASUREMENT 10

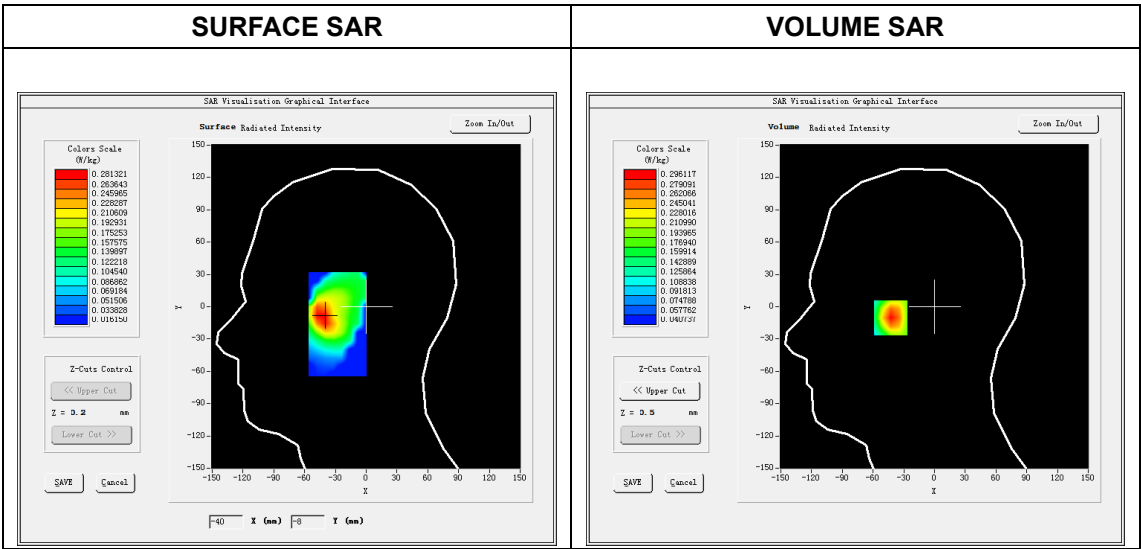
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	LTE Band 13
Channels	QPSK, 5MHz, 1RB, Middle
Signal	Duty Cycle 1:1

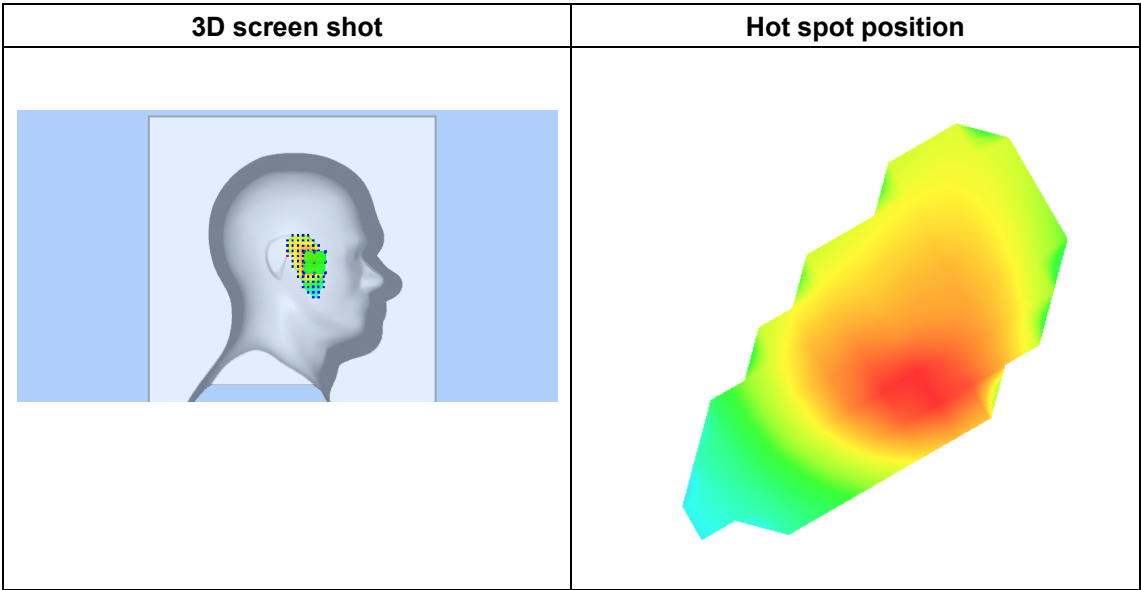
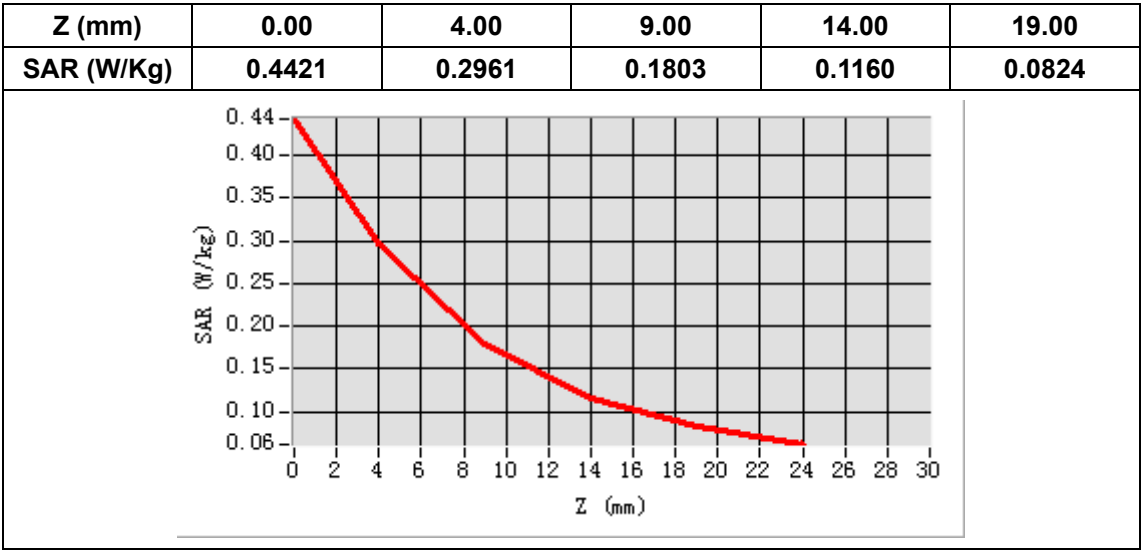
B. SAR Measurement Results

Frequency (MHz)	784.500000
Relative Permittivity (real part)	42.451566
Conductivity (S/m)	0.933182
Power Variation (%)	-1.785100
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-43.00, Y=-9.00
SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.170957
SAR 1g (W/Kg)	0.279333



MEASUREMENT 11

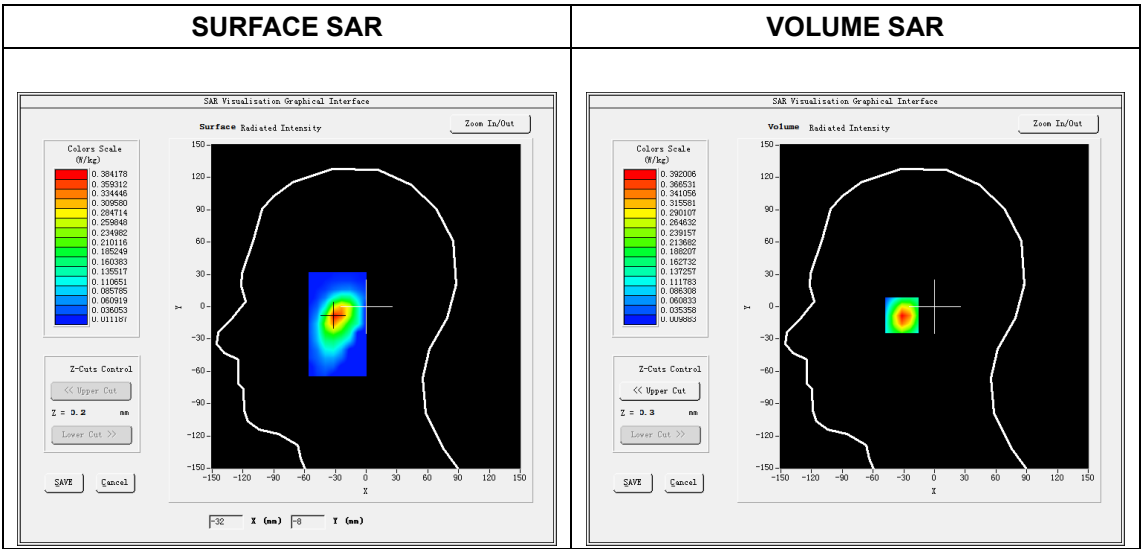
Type: Measurement (Complete)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.36; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Left head
Device Position	Cheek
Band	WiFi_802.11b
Channels	High
Signal	Duty Cycle 1:1

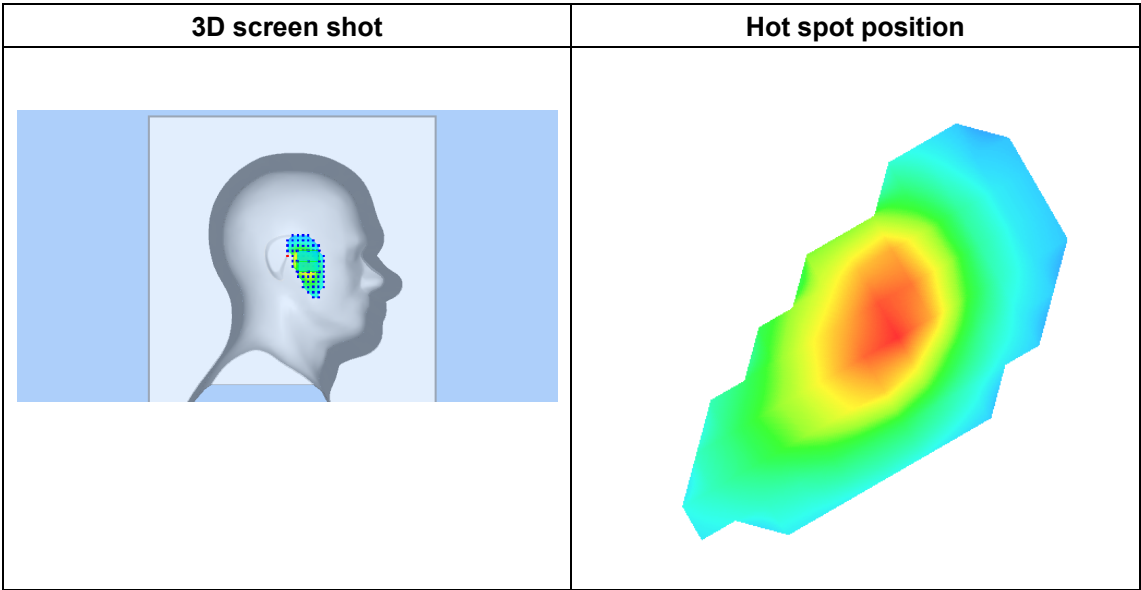
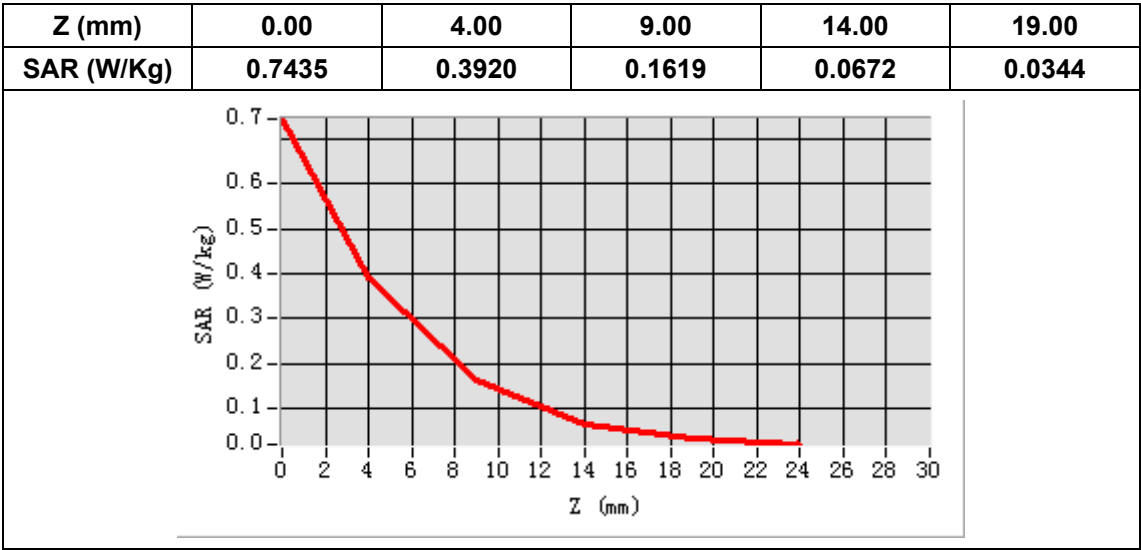
B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	38.764231
Conductivity (S/m)	1.934638
Power Variation (%)	-1.963800
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-30.00, Y=-8.00
SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)	0.170599
SAR 1g (W/Kg)	0.370183



MEASUREMENT 12

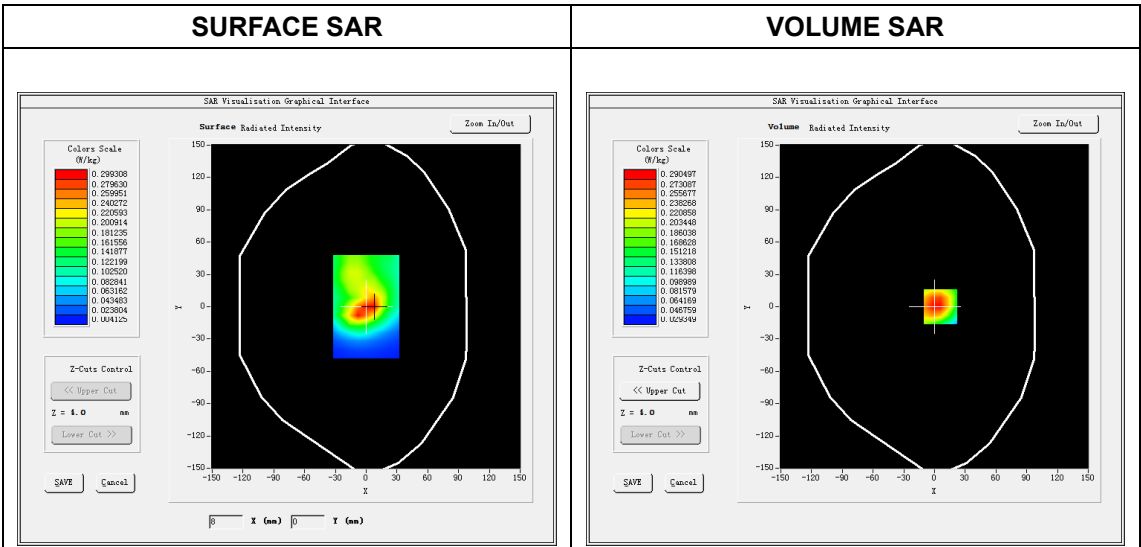
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	GSM850
Channels	High
Signal	TDMA (Crest factor: 8.0)

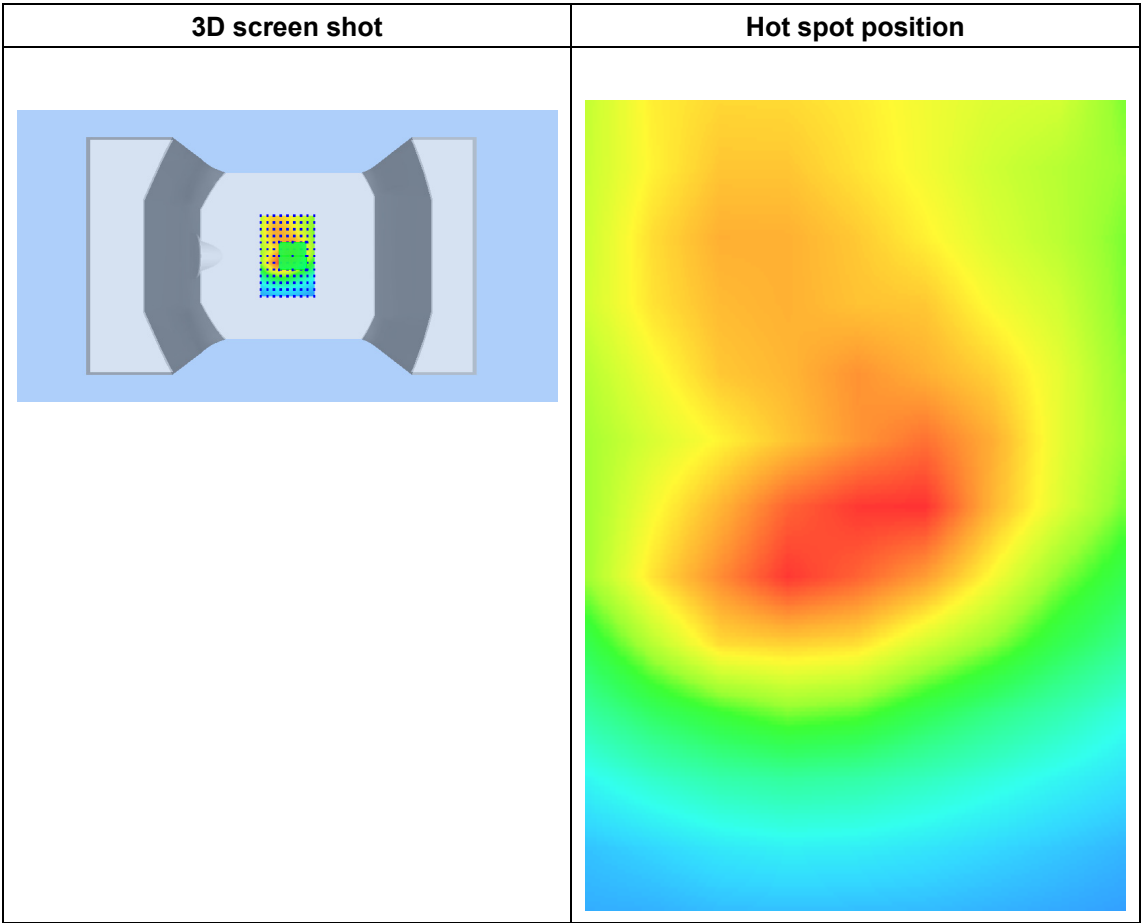
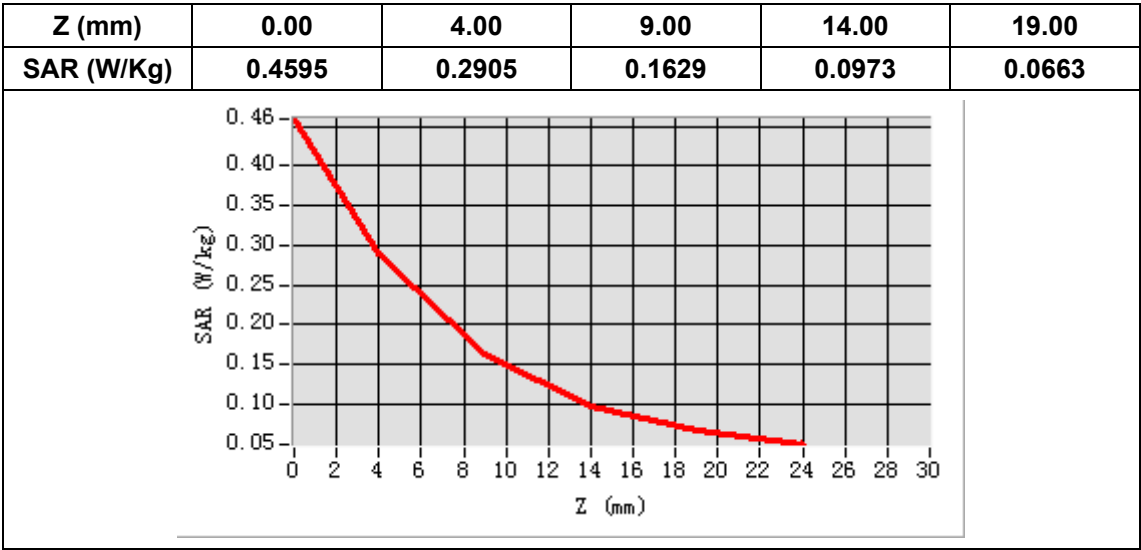
B. SAR Measurement Results

Frequency (MHz)	848.800000
Relative Permittivity (real part)	42.452458
Conductivity (S/m)	0.932458
Power Variation (%)	2.147200
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=6.00, Y=0.00
SAR Peak: 0.48 W/kg

SAR 10g (W/Kg)	0.163255
SAR 1g (W/Kg)	0.281762



MEASUREMENT 13

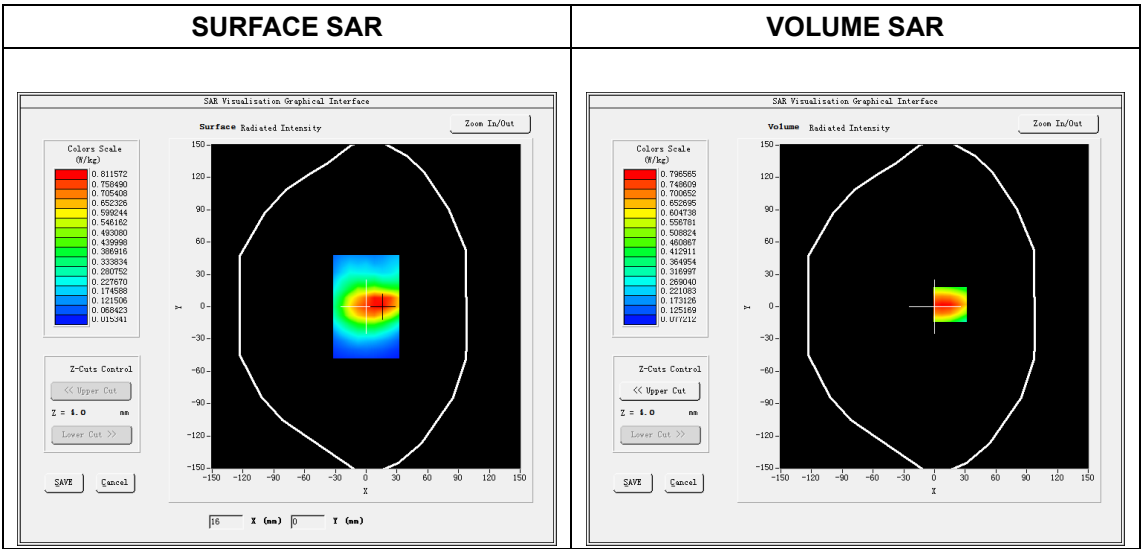
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.39; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 8.0)

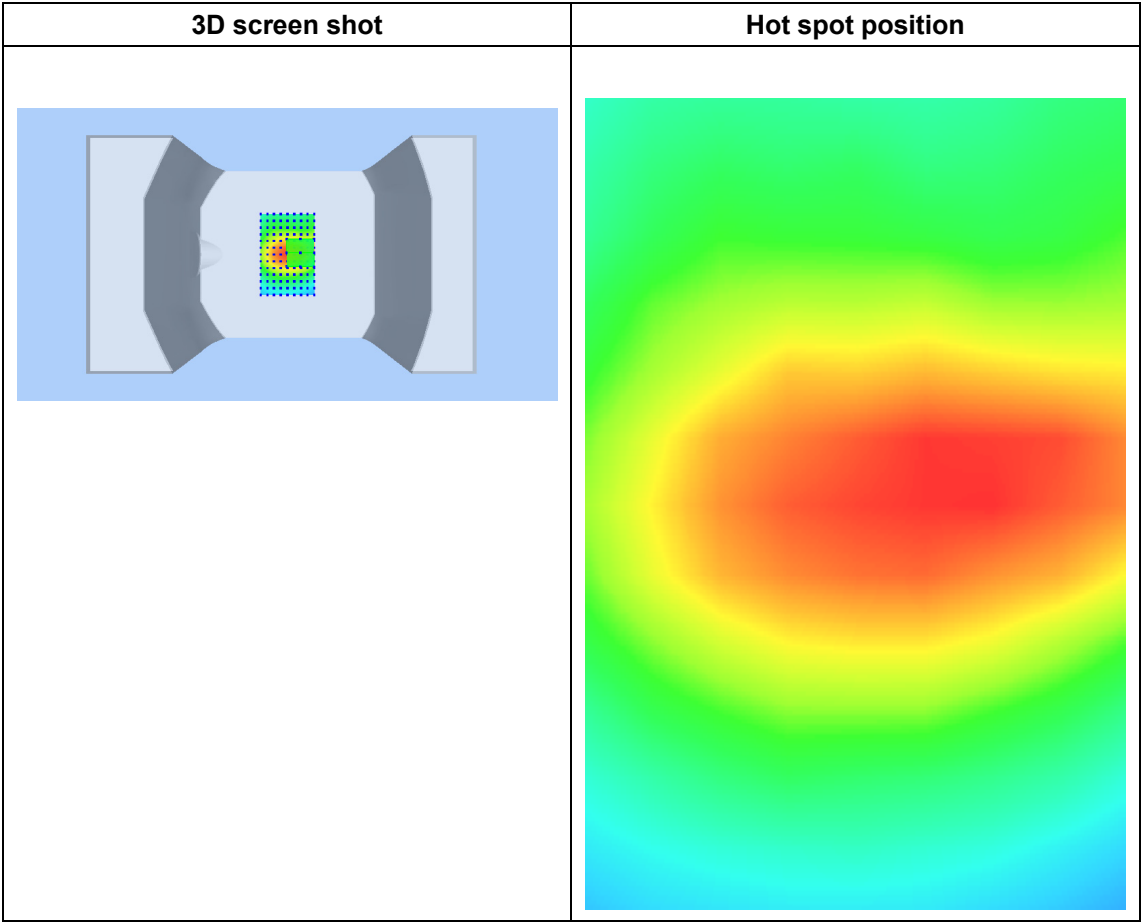
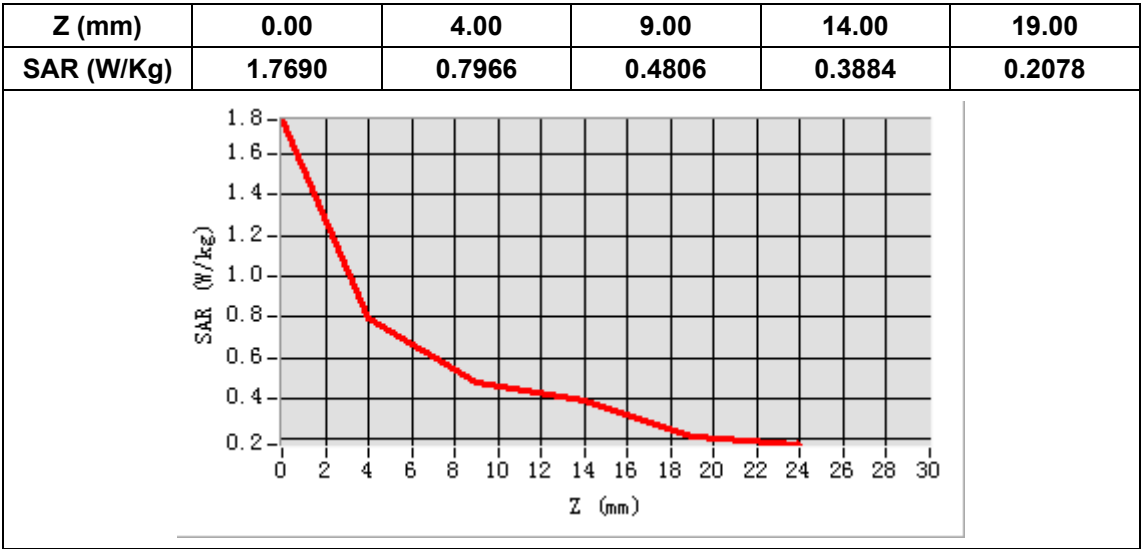
B. SAR Measurement Results

Frequency (MHz)	1909.800000
Relative Permittivity (real part)	41.272245
Conductivity (S/m)	1.423921
Power Variation (%)	1.171800
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=15.00, Y=2.00
SAR Peak: 1.05 W/kg

SAR 10g (W/Kg)	0.495204
SAR 1g (W/Kg)	0.757590



MEASUREMENT 14

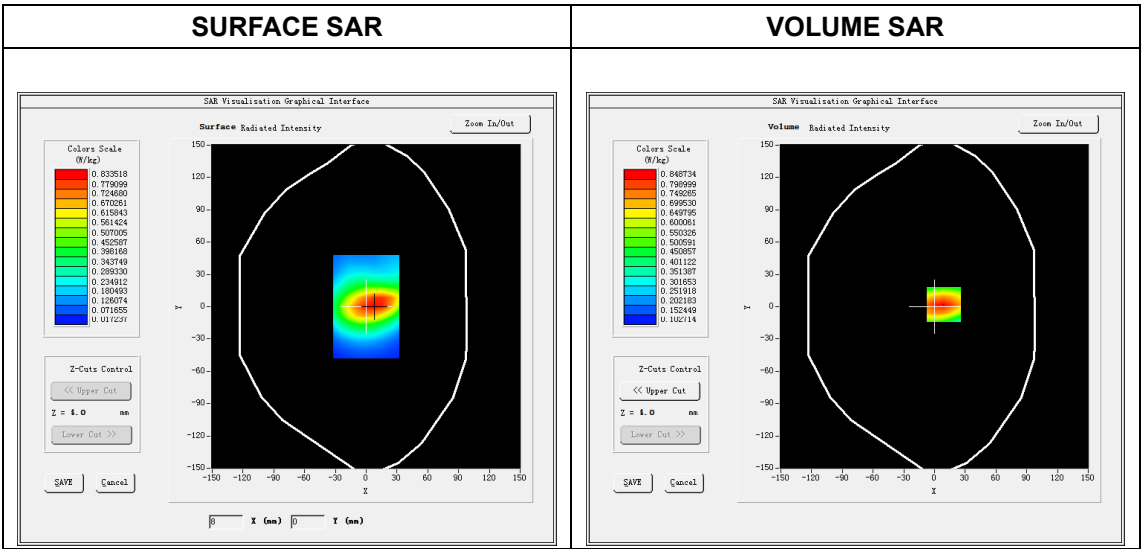
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

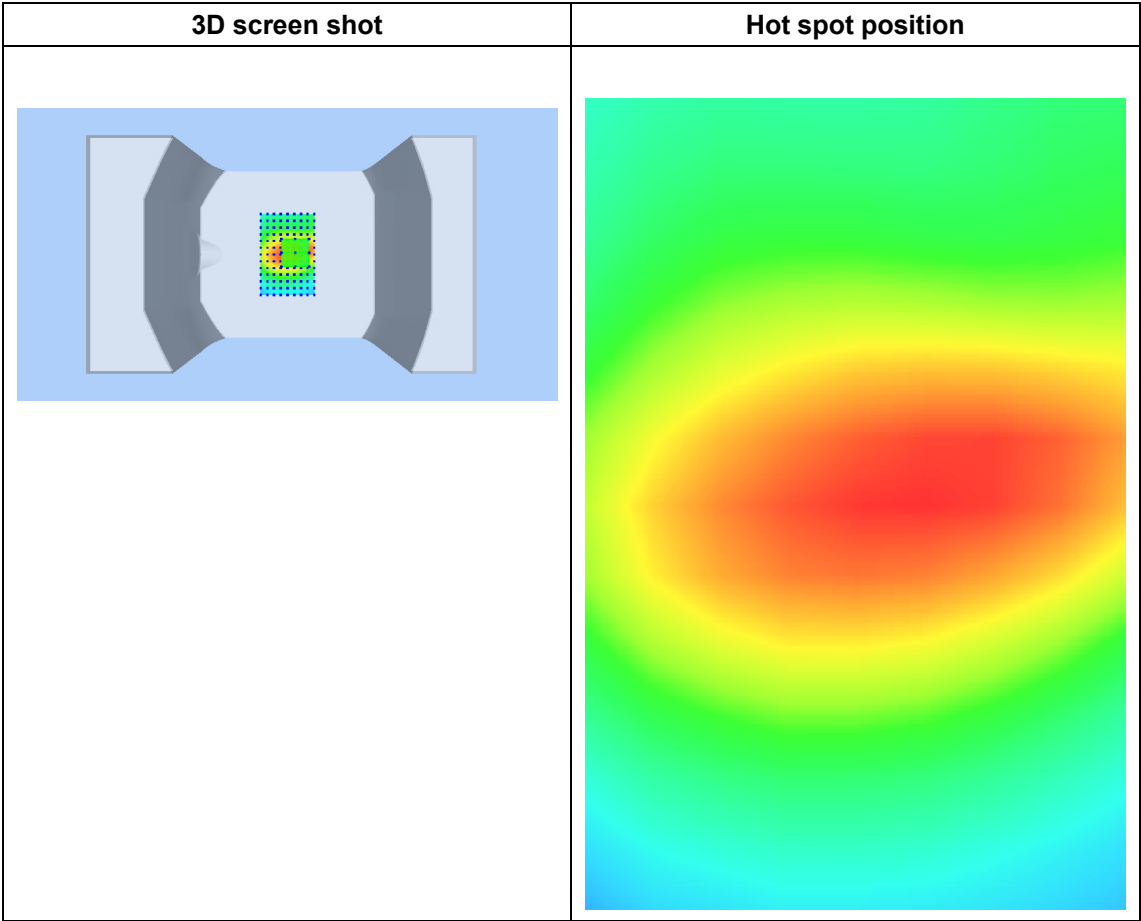
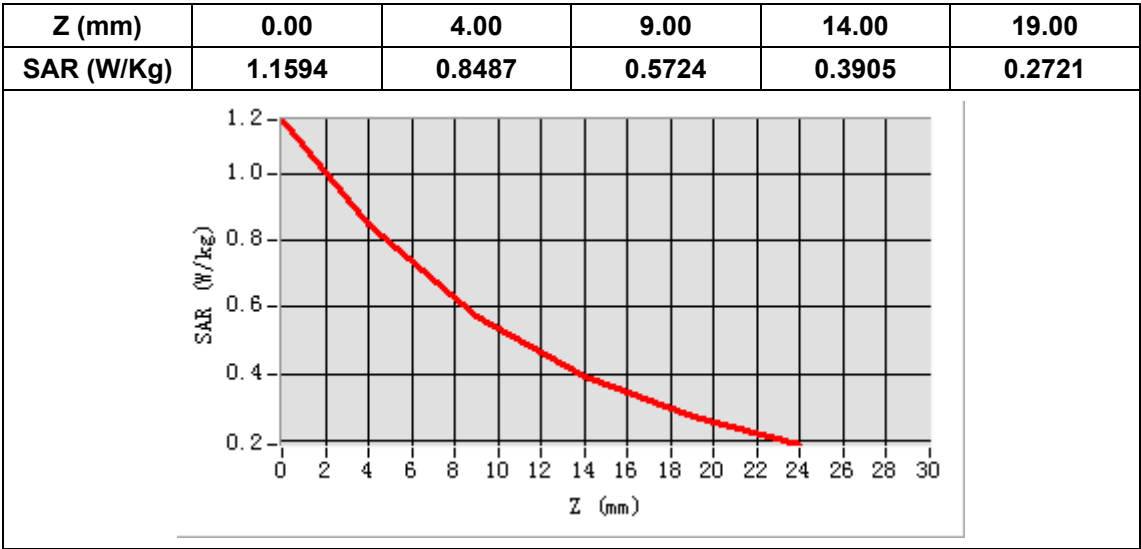
B. SAR Measurement Results

Frequency (MHz)	1852.400000
Relative Permittivity (real part)	39.351248
Conductivity (S/m)	1.373607
Power Variation (%)	-2.477500
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=9.00, Y=2.00
SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.520600
SAR 1g (W/Kg)	0.804802



MEASUREMENT 15/26

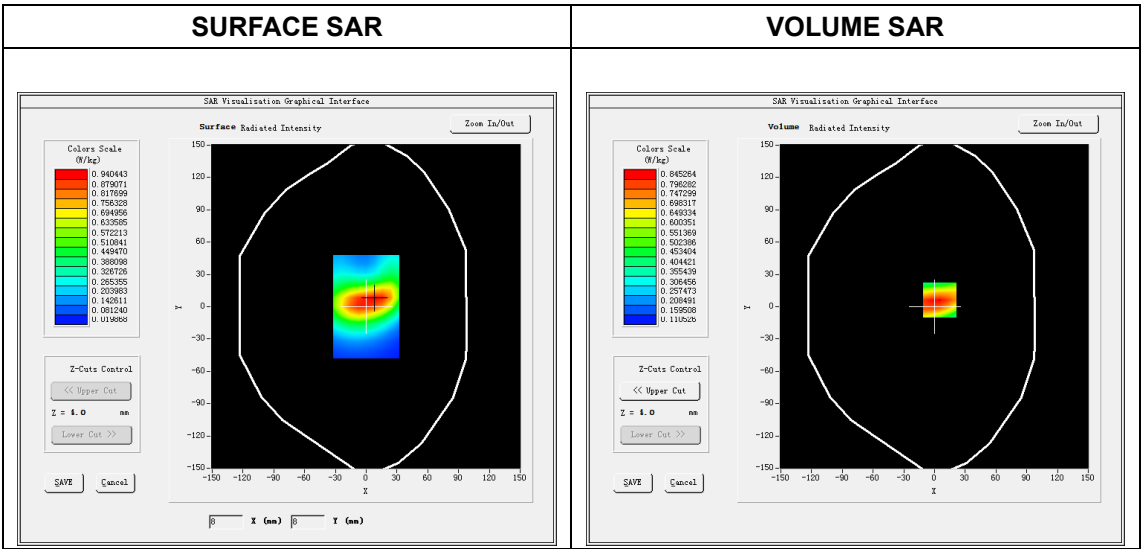
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	WCDMA1700_RMC
Channels	High
Signal	Duty Cycle 1:1

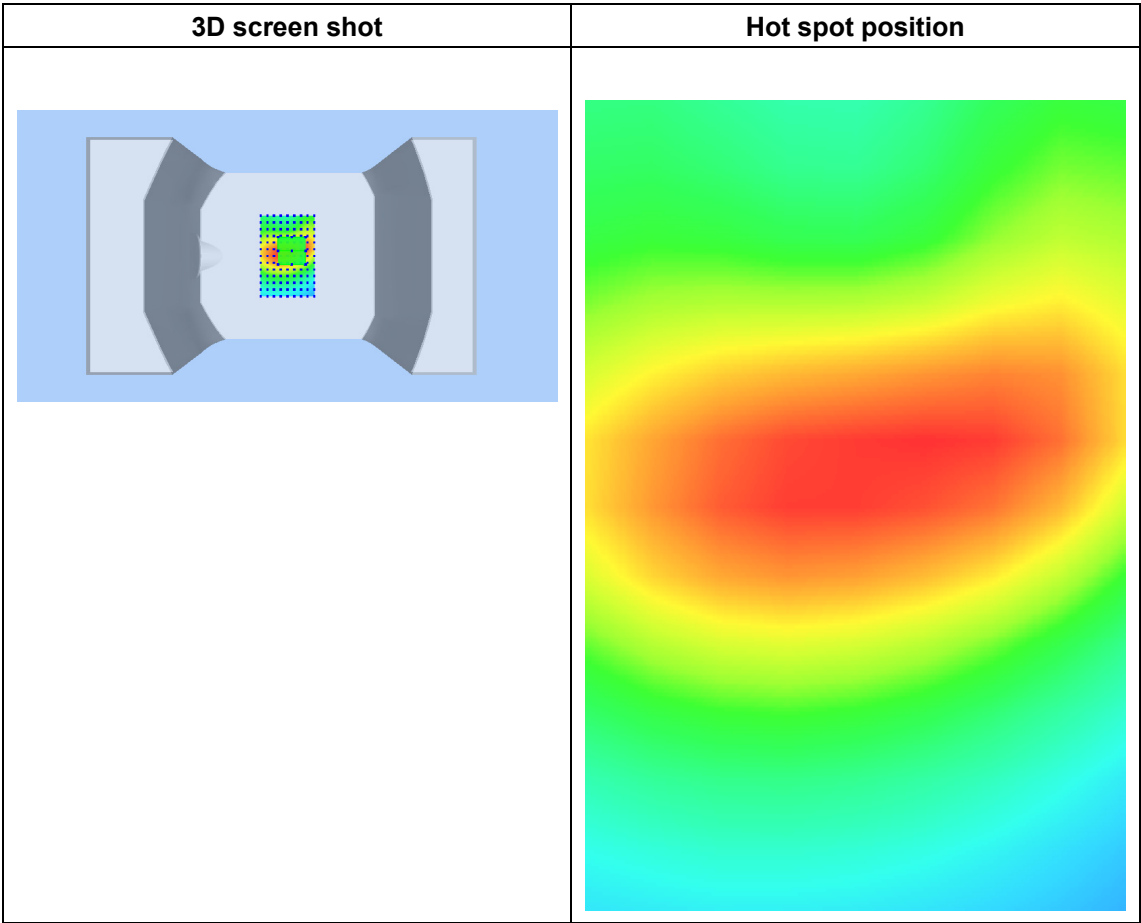
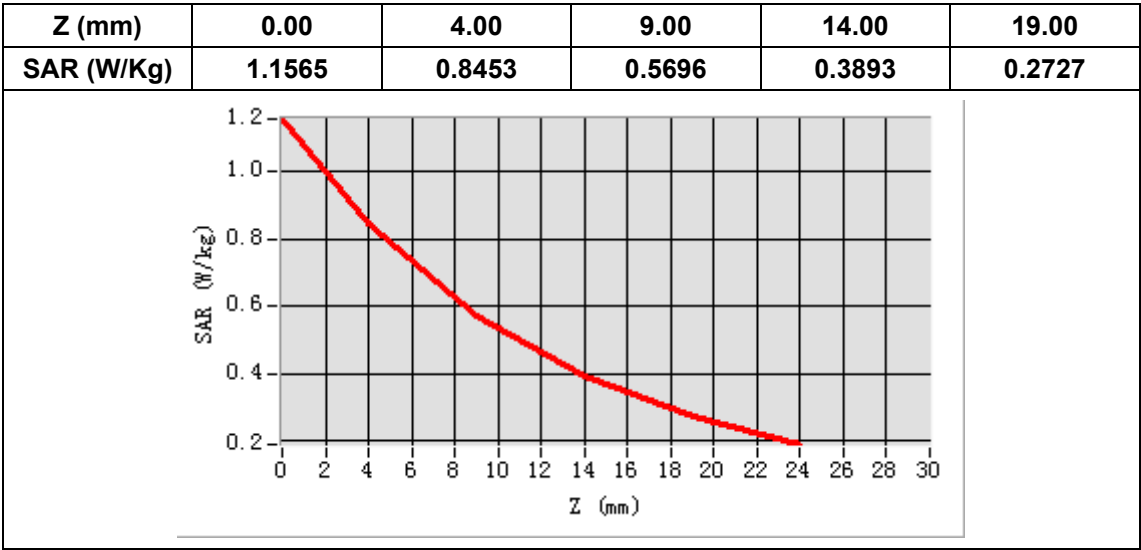
B. SAR Measurement Results

Frequency (MHz)	1752.600000
Relative Permittivity (real part)	39.351247
Conductivity (S/m)	1.374671
Power Variation (%)	1.542300
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=5.00, Y=6.00
SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.524757
SAR 1g (W/Kg)	0.808338



MEASUREMENT 16/27

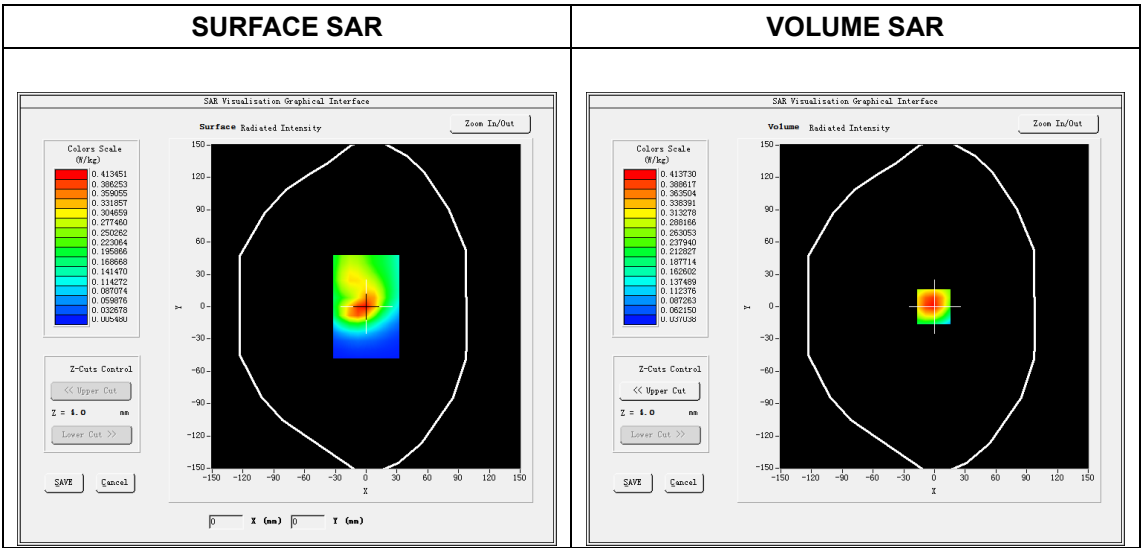
Type: Measurement (Complete)
Date of measurement: 2025-08-08
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	WCDMA850_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	826.400000
Relative Permittivity (real part)	41.273245
Conductivity (S/m)	0.882458
Power Variation (%)	-1.239800
Ambient Temperature	22.2
Liquid Temperature	22.2

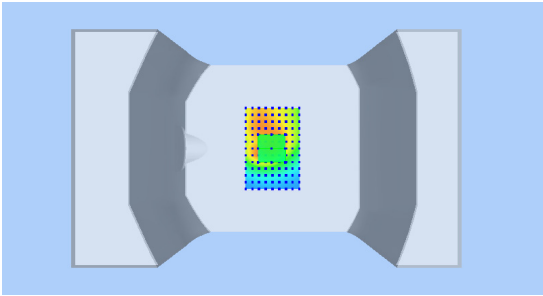


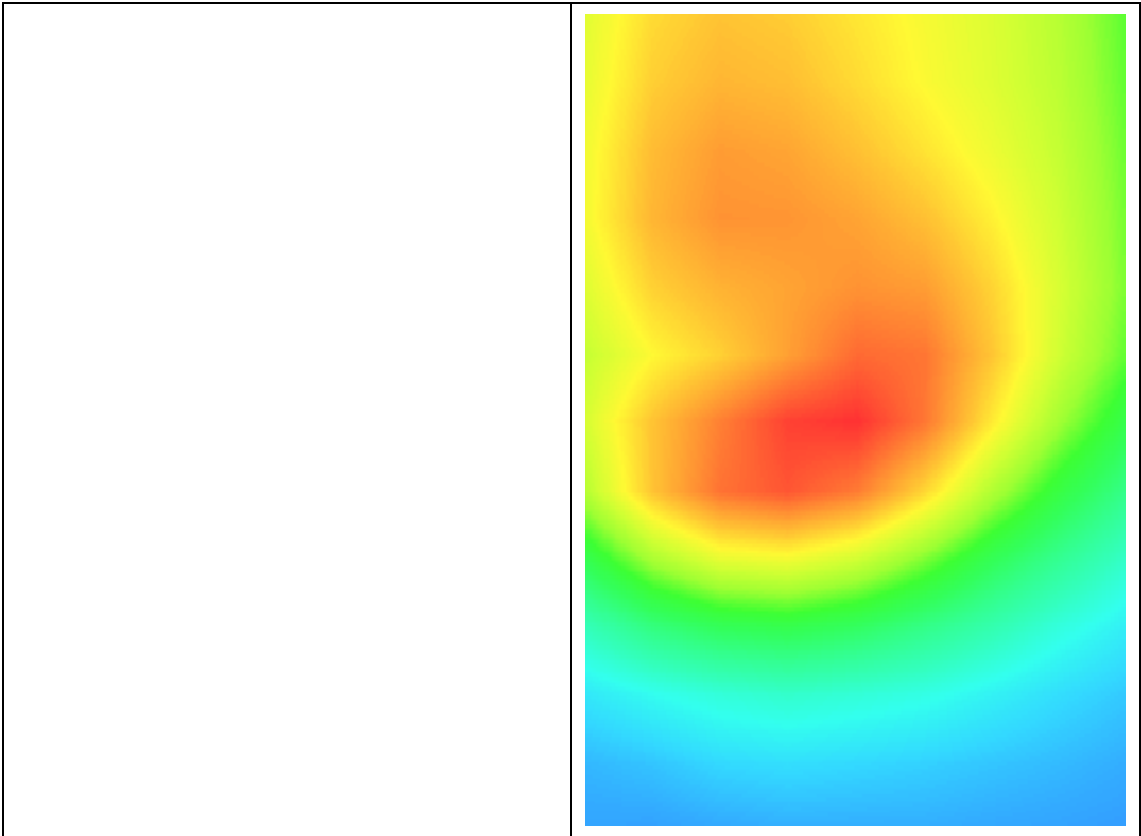
Maximum location: X=-1.00, Y=0.00

SAR Peak: 0.66 W/kg

SAR 10g (W/Kg)	0.230348
SAR 1g (W/Kg)	0.397557



3D screen shot	Hot spot position
	



MEASUREMENT 17

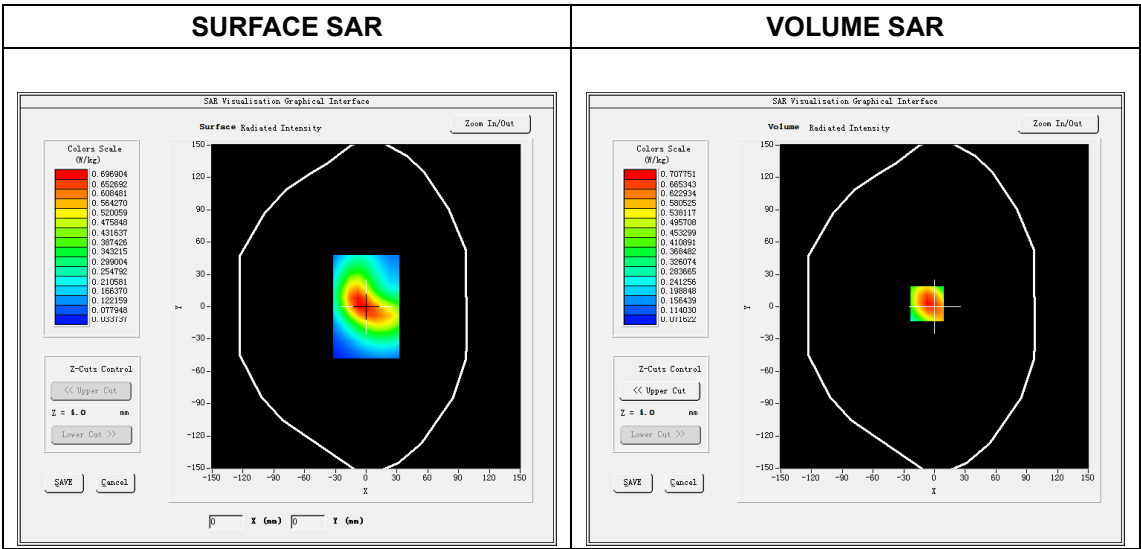
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 2
Channels	QPSK, 20MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

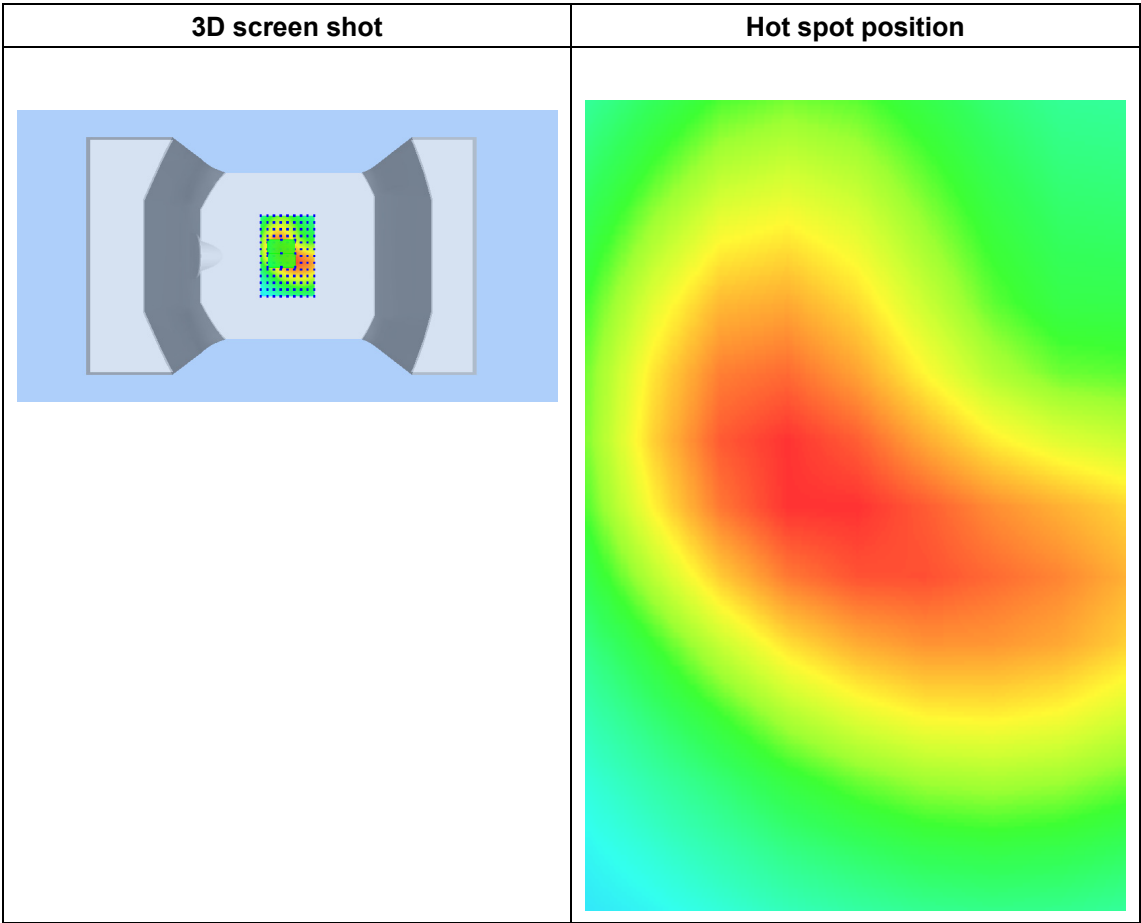
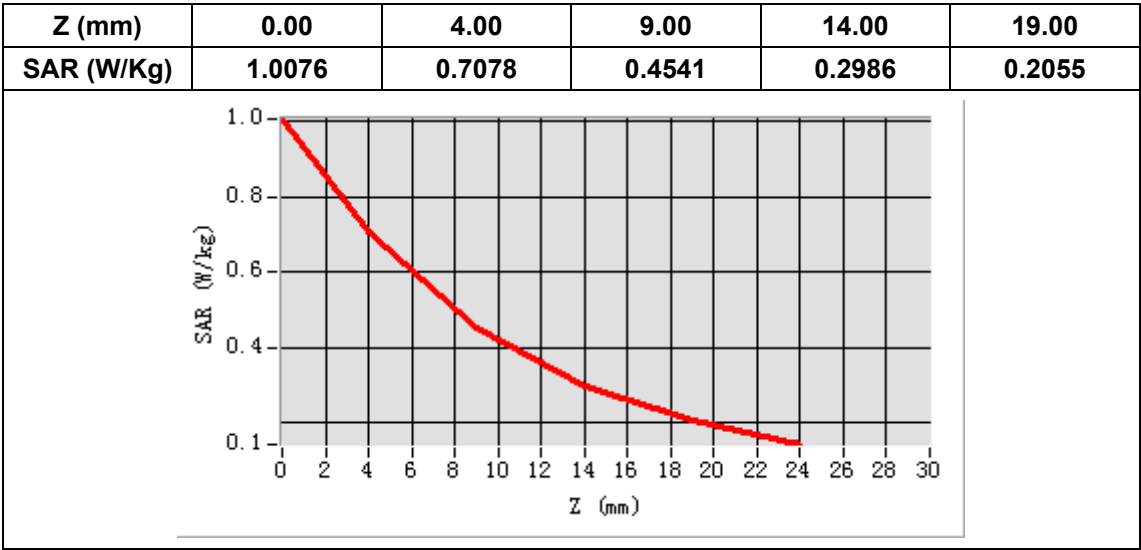
Frequency (MHz)	1860.000000
Relative Permittivity (real part)	39.351461
Conductivity (S/m)	1.372395
Power Variation (%)	-0.194700
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-7.00, Y=3.00

SAR Peak: 1.01 W/kg

SAR 10g (W/Kg)	0.406843
SAR 1g (W/Kg)	0.621393



MEASUREMENT 18

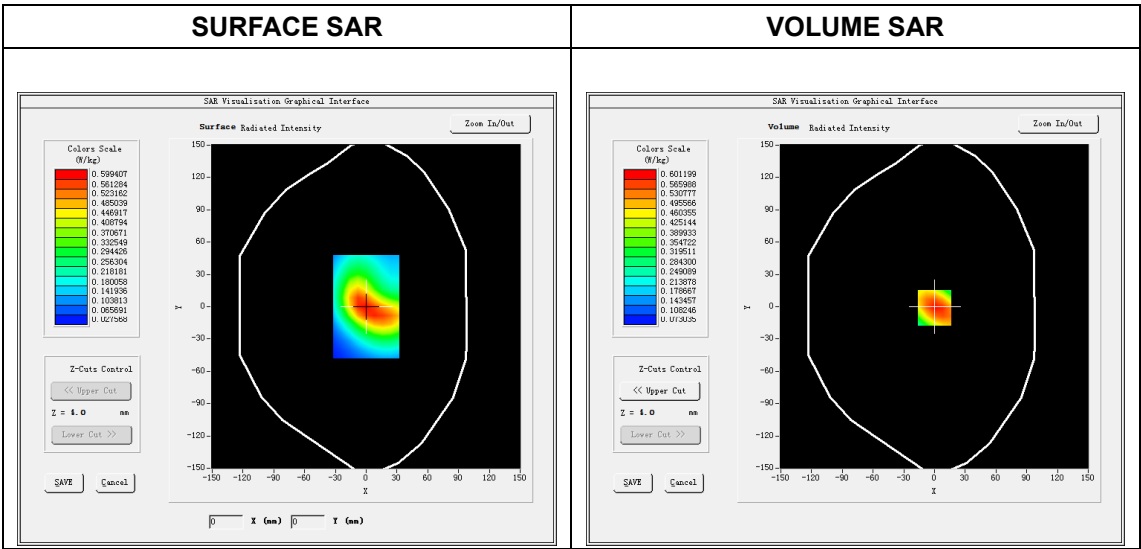
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 4
Channels	QPSK, 3MHz, 1RB, Low
Signal	Duty Cycle 1:1

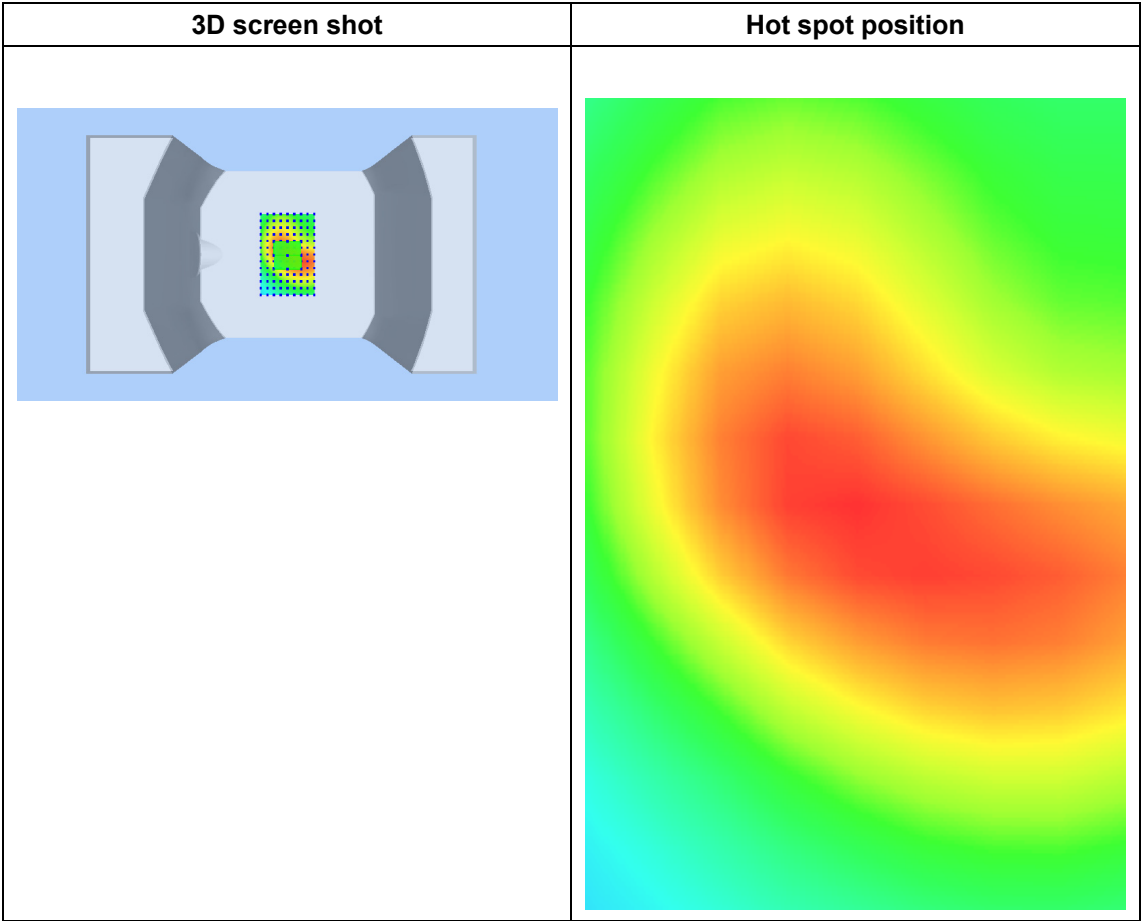
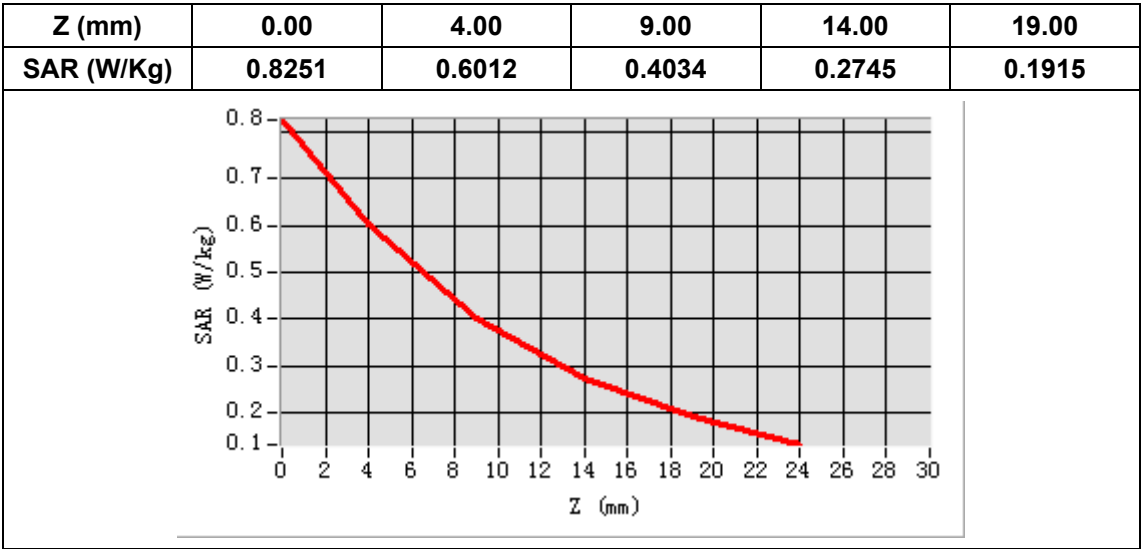
B. SAR Measurement Results

Frequency (MHz)	1753.500000
Relative Permittivity (real part)	39.351327
Conductivity (S/m)	1.372987
Power Variation (%)	1.860400
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=0.00, Y=-1.00
SAR Peak: 0.83 W/kg

SAR 10g (W/Kg)	0.378233
SAR 1g (W/Kg)	0.583148



MEASUREMENT 19/30

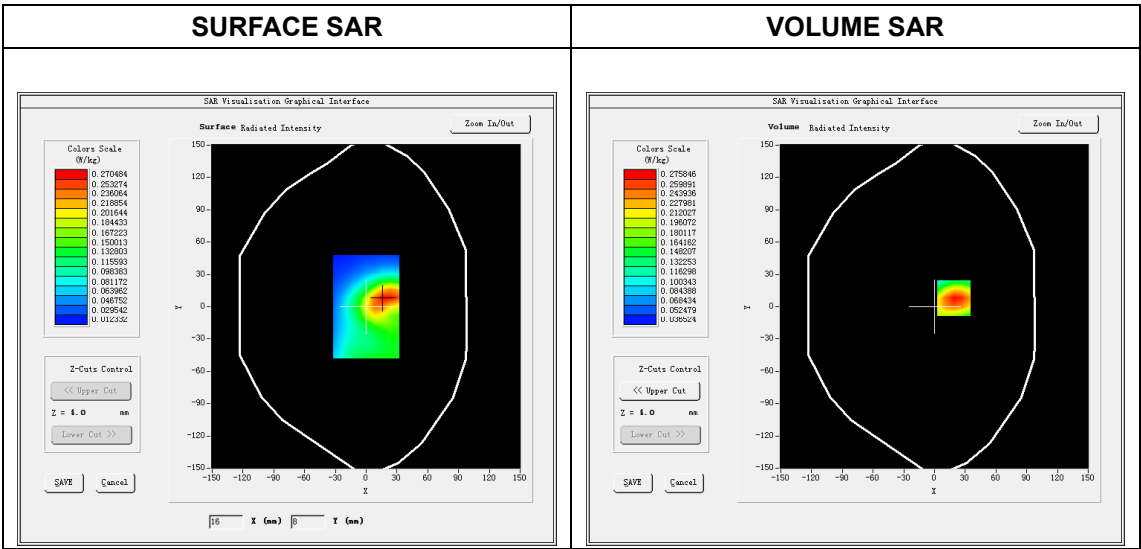
Type: Measurement (Complete)
Date of measurement: 2025-08-08
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 5
Channels	QPSK, 10MHz, 1RB, High
Signal	Duty Cycle 1:1

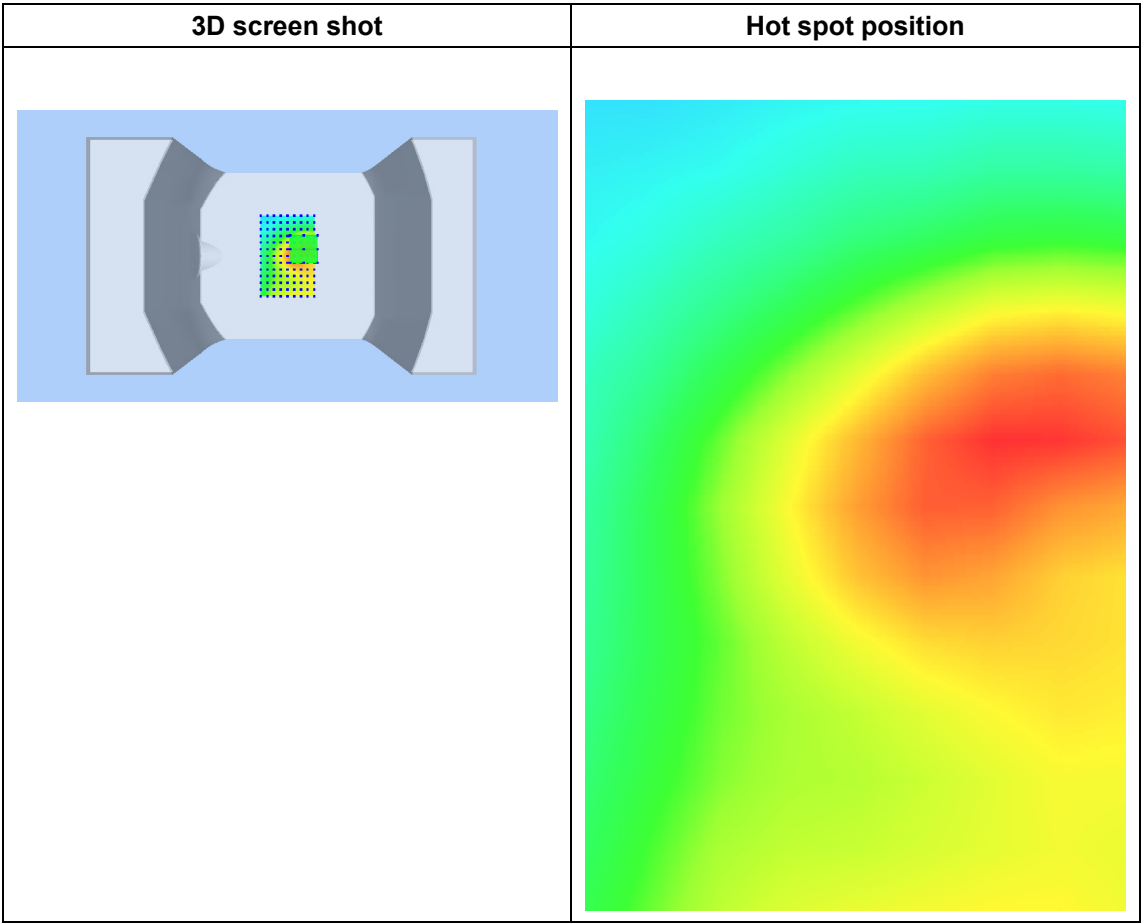
B. SAR Measurement Results

Frequency (MHz)	844.000000
Relative Permittivity (real part)	41.273245
Conductivity (S/m)	0.882458
Power Variation (%)	-3.814700
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=19.00, Y=8.00
SAR Peak: 0.42 W/kg

SAR 10g (W/Kg)	0.156497
SAR 1g (W/Kg)	0.262217



MEASUREMENT 20/31

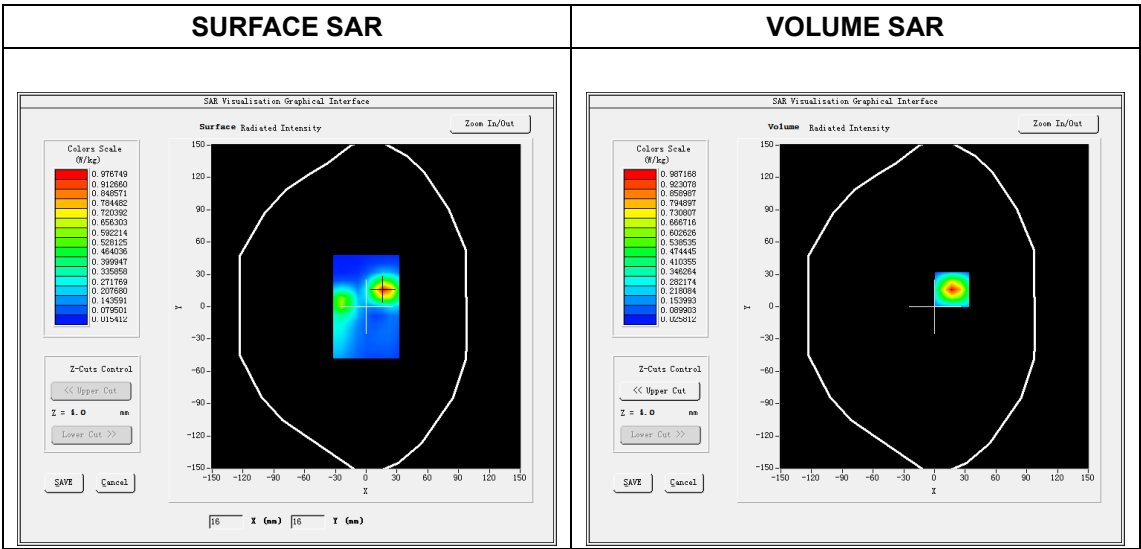
Type: Measurement (Complete)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.36; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 7
Channels	QPSK, 15MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

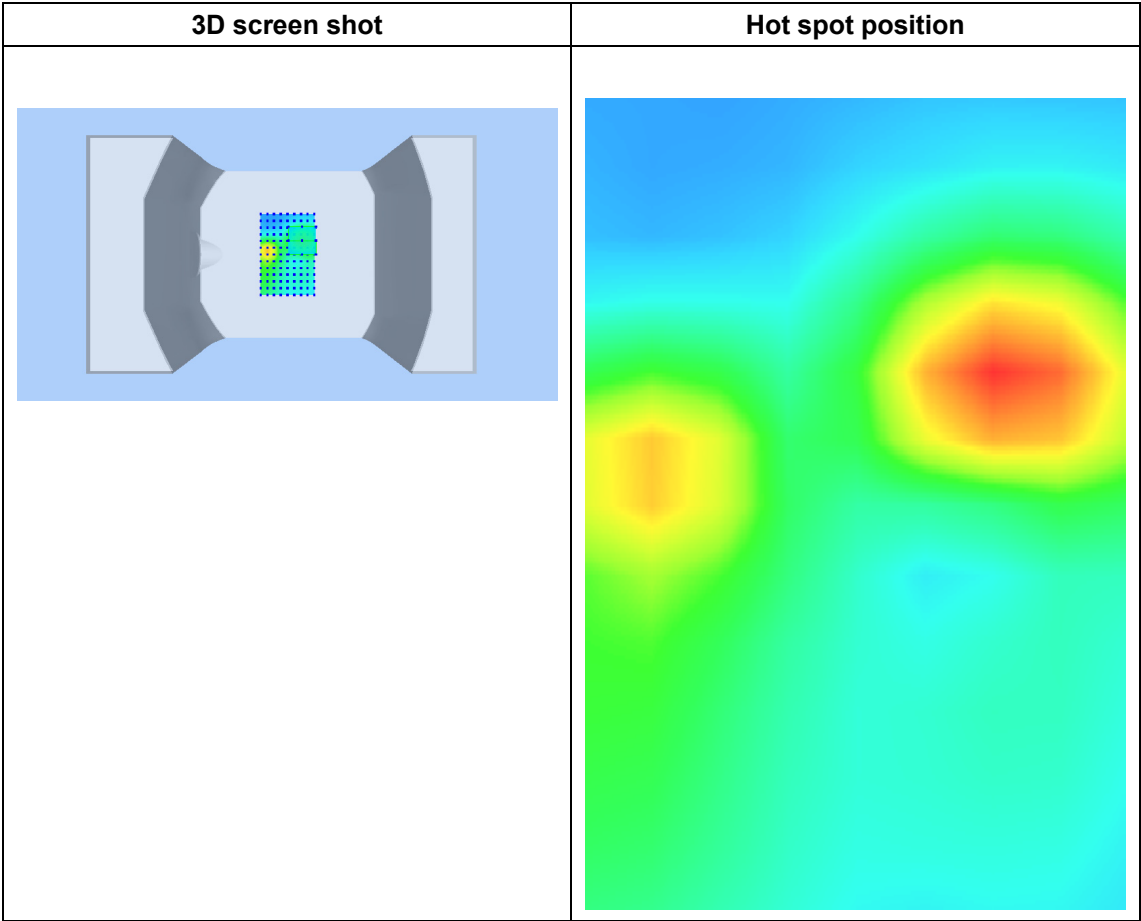
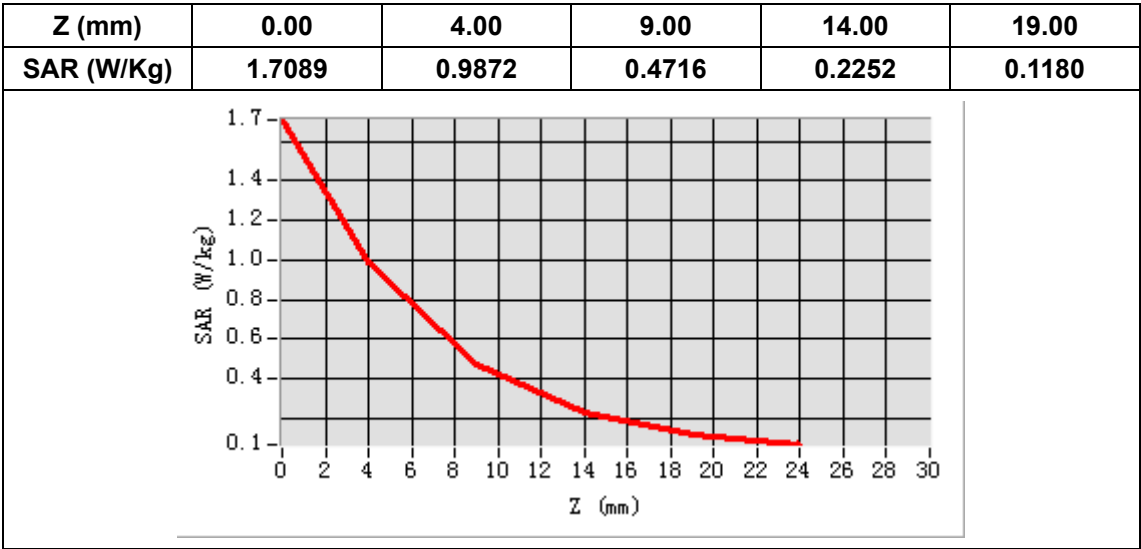
Frequency (MHz)	2535.000000
Relative Permittivity (real part)	38.762455
Conductivity (S/m)	1.932458
Power Variation (%)	-0.866400
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=17.00, Y=16.00

SAR Peak: 1.71 W/kg

SAR 10g (W/Kg)	0.395663
SAR 1g (W/Kg)	0.888836



MEASUREMENT 21

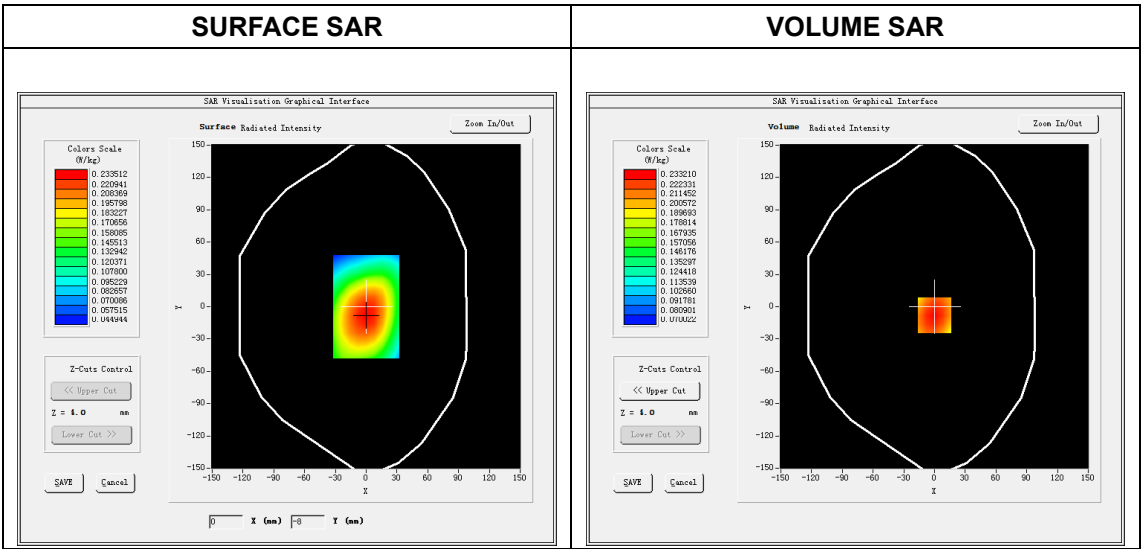
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 13
Channels	QPSK, 5MHz, 1RB, Middle
Signal	Duty Cycle 1:1

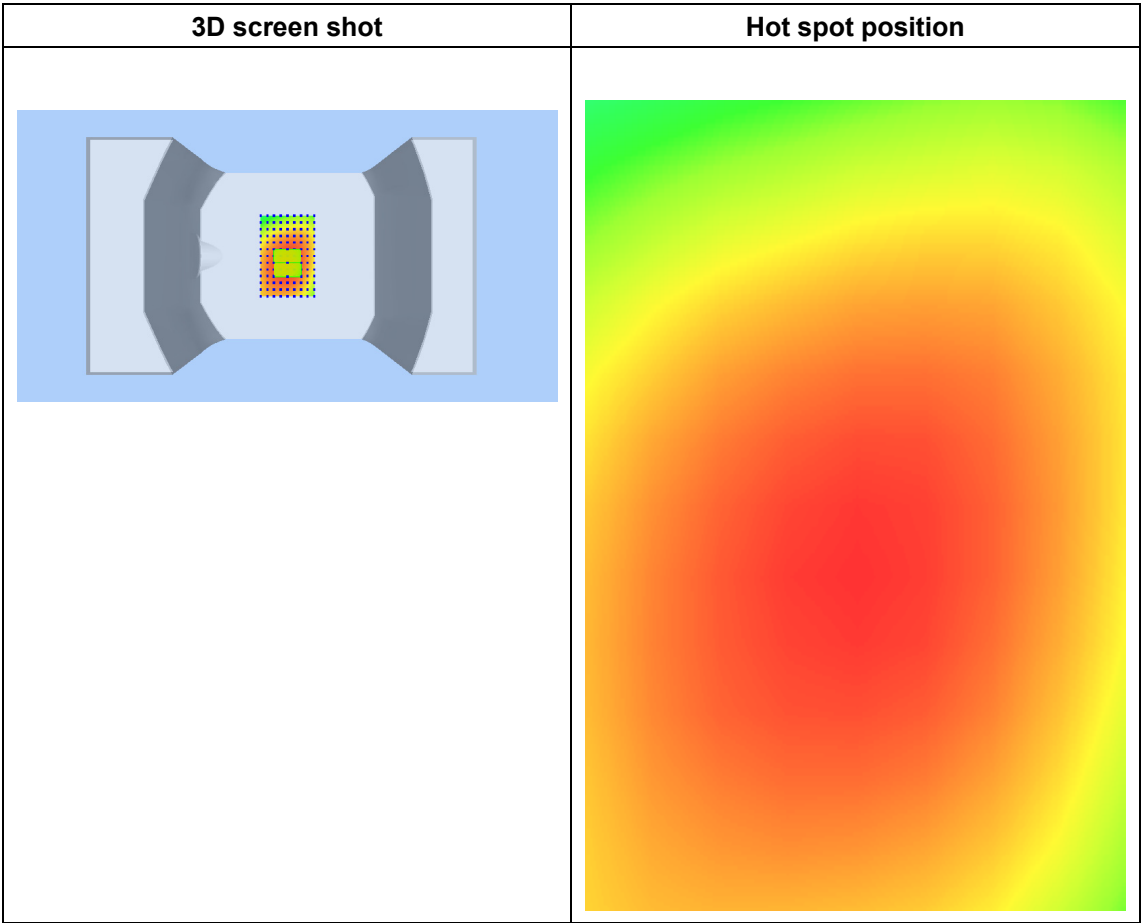
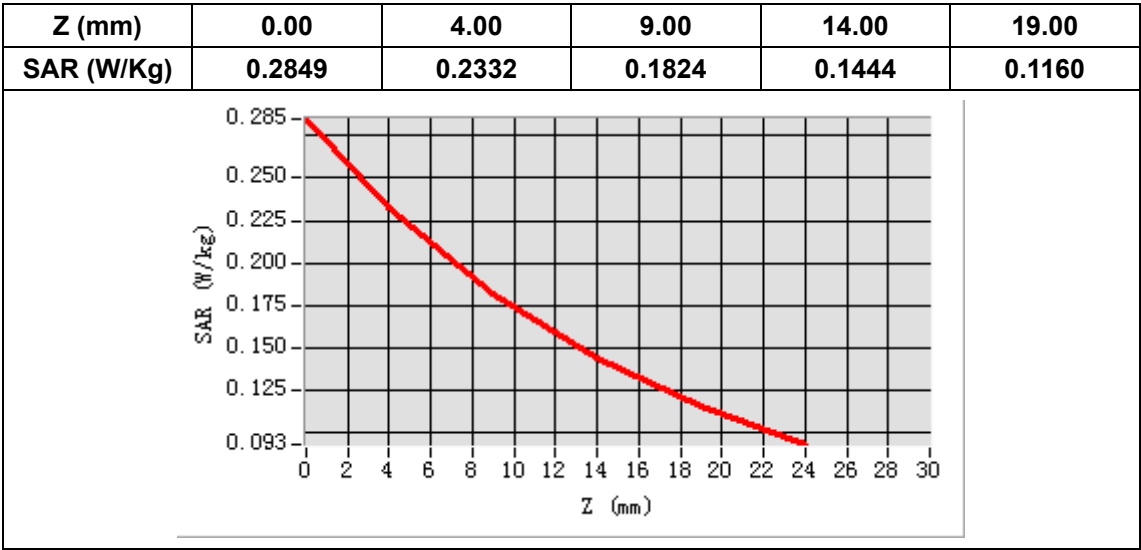
B. SAR Measurement Results

Frequency (MHz)	784.500000
Relative Permittivity (real part)	42.451566
Conductivity (S/m)	0.933182
Power Variation (%)	2.361500
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=0.00, Y=-8.00
SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.171433
SAR 1g (W/Kg)	0.225847



MEASUREMENT 22/32

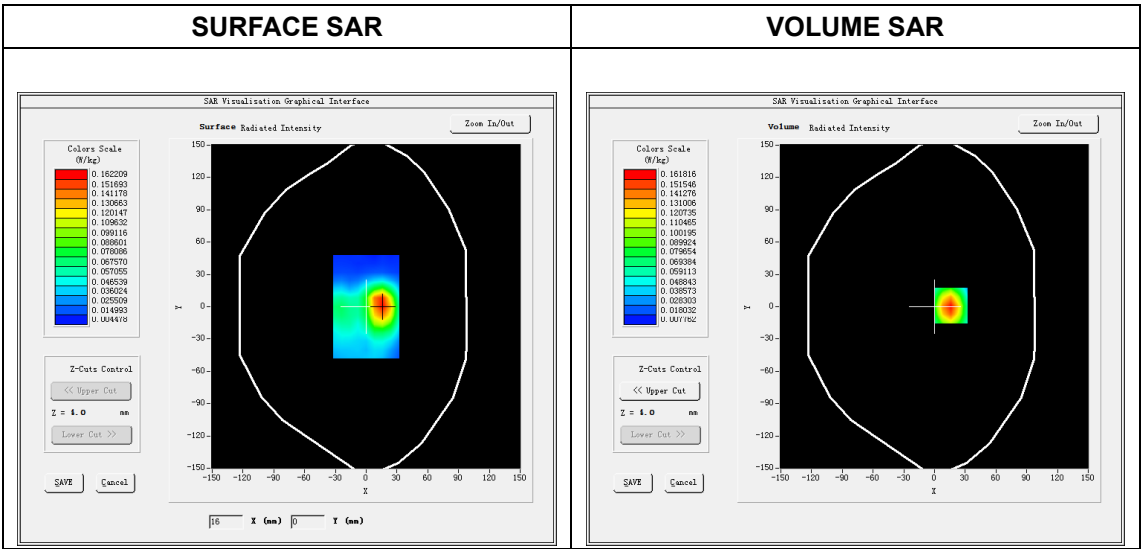
Type: Measurement (Complete)
Date of measurement: 2025-08-04
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.36; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Front
Band	WiFi_802.11b
Channels	High
Signal	Duty Cycle 1:1

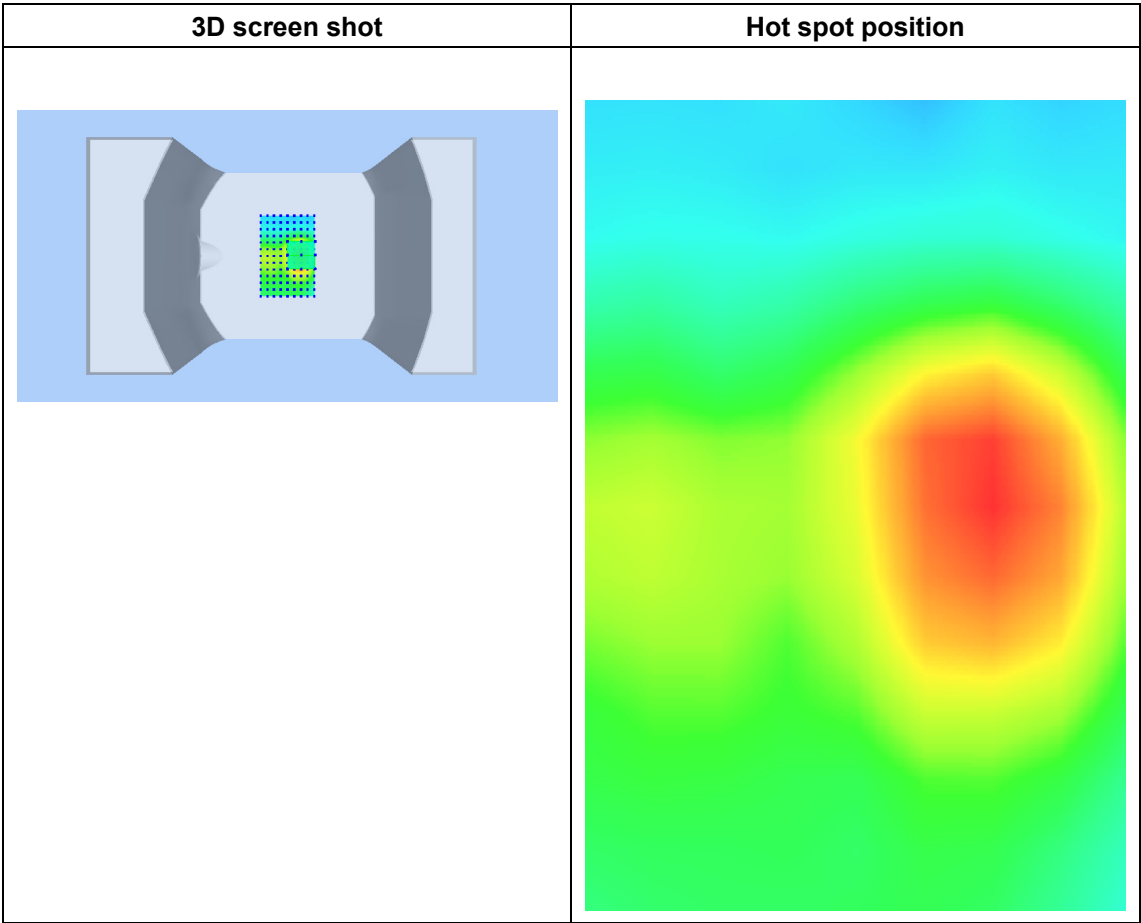
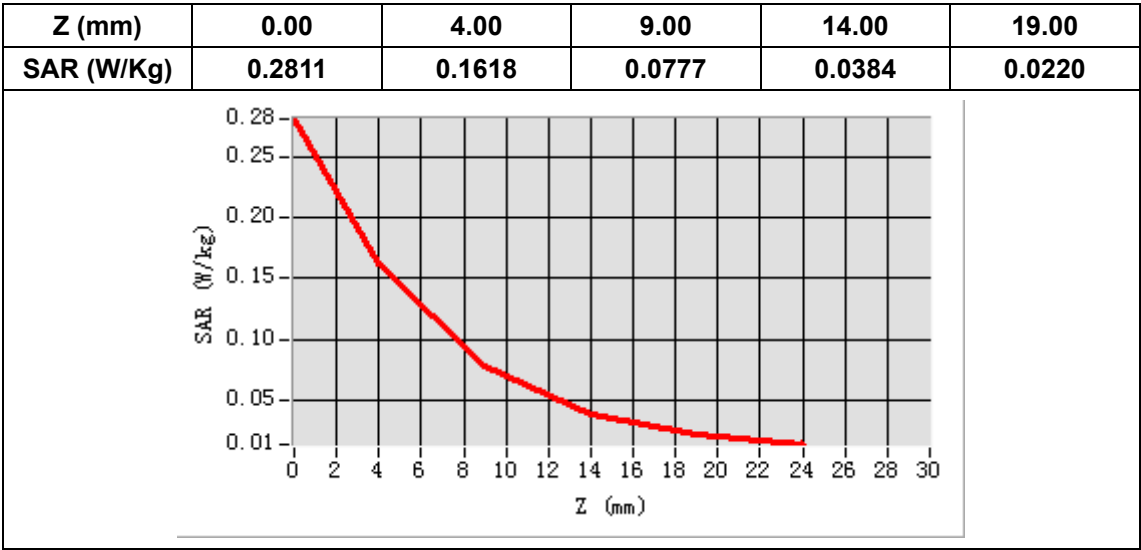
B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	38.764231
Conductivity (S/m)	1.934638
Power Variation (%)	2.168900
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=16.00, Y=1.00
SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.077312
SAR 1g (W/Kg)	0.152173



MEASUREMENT 23

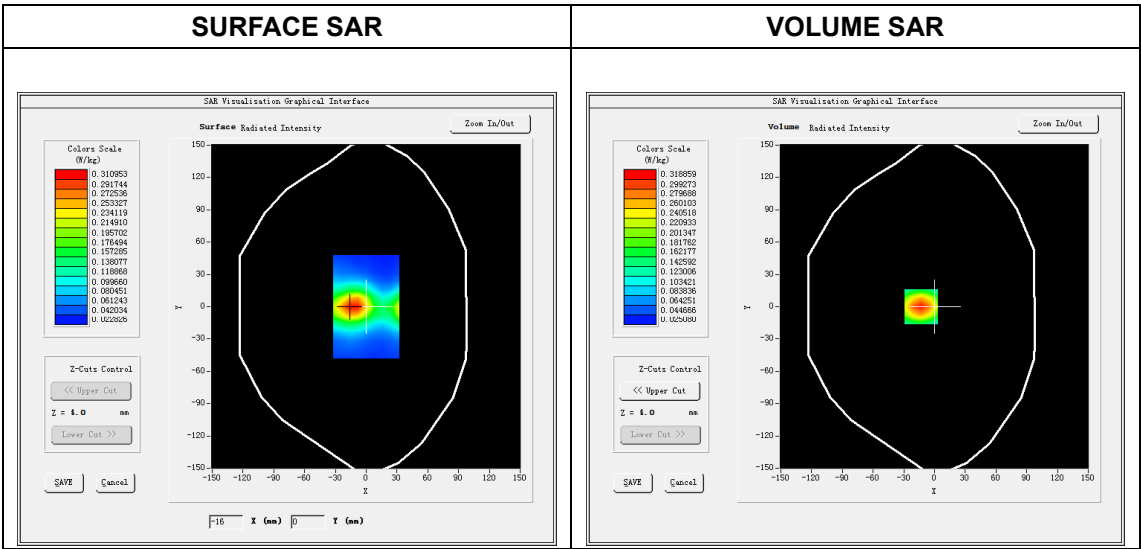
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat plane
Device Position	Back
Band	GPRS850_4TX
Channels	High
Signal	Duty Cycle: 1:2

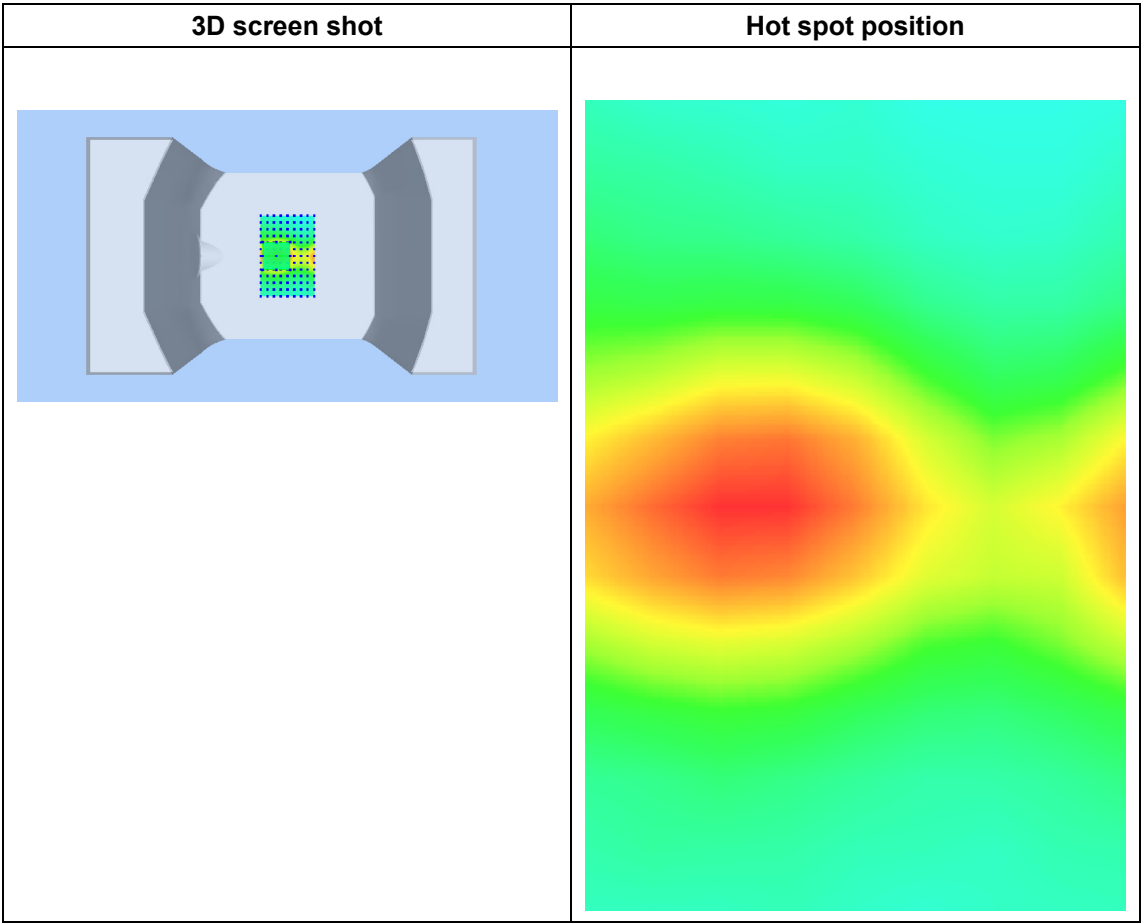
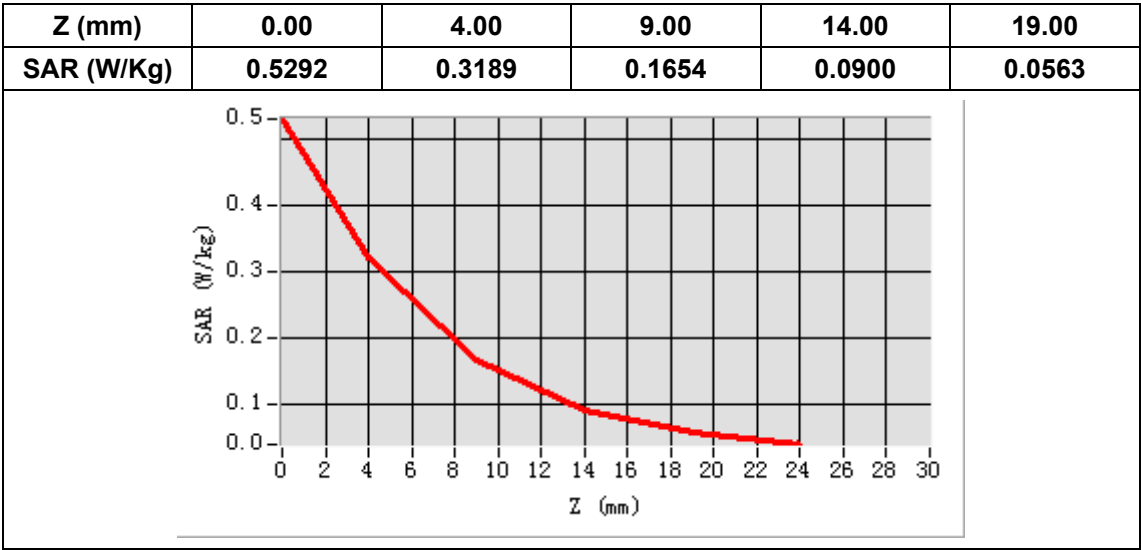
B. SAR Measurement Results

Frequency (MHz)	848.800000
Relative Permittivity (real part)	42.452458
Conductivity (S/m)	0.932458
Power Variation (%)	1.107200
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=-13.00, Y=0.00
SAR Peak: 0.53 W/kg

SAR 10g (W/Kg)	0.149485
SAR 1g (W/Kg)	0.275307



MEASUREMENT 24

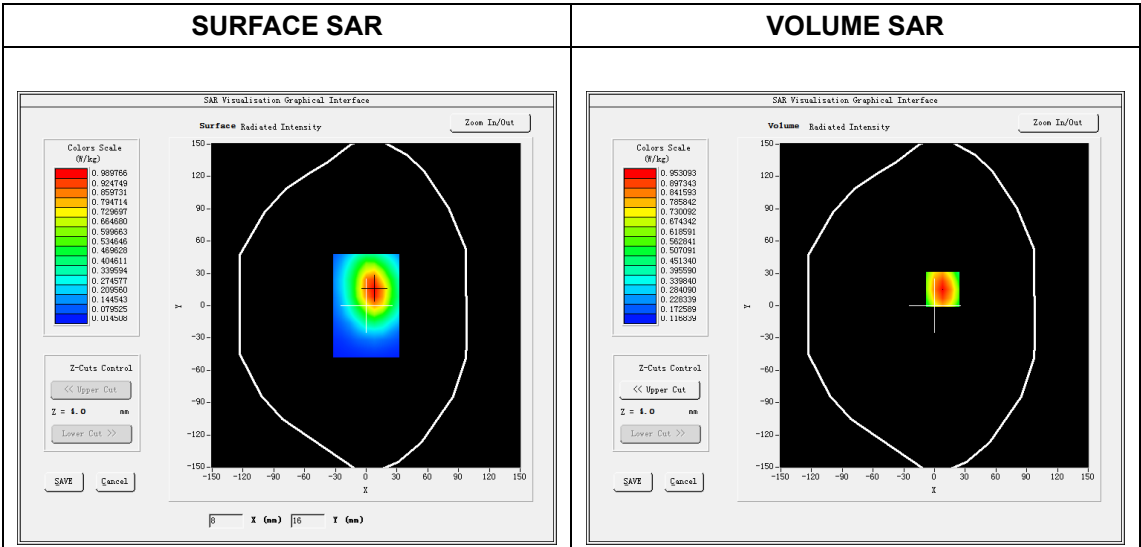
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.39; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat plane
Device Position	Bottom
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 1:2

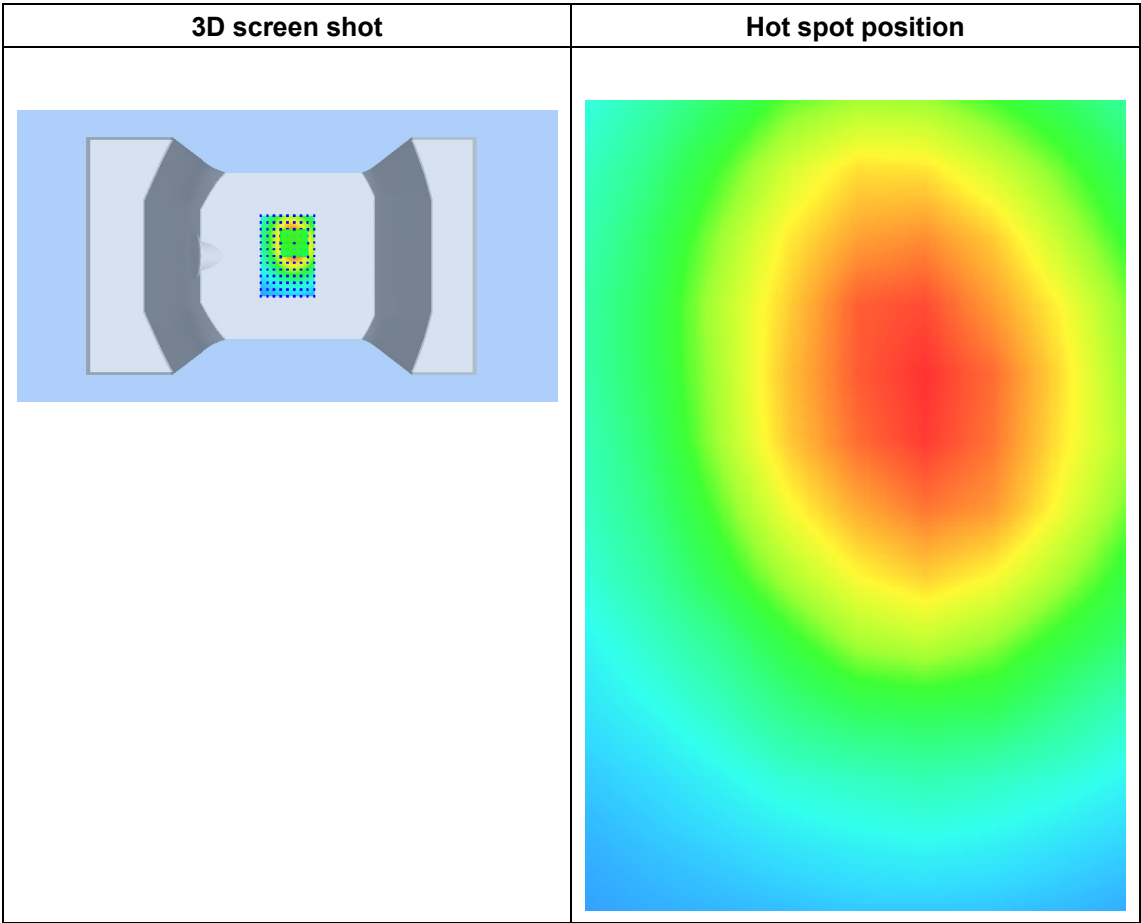
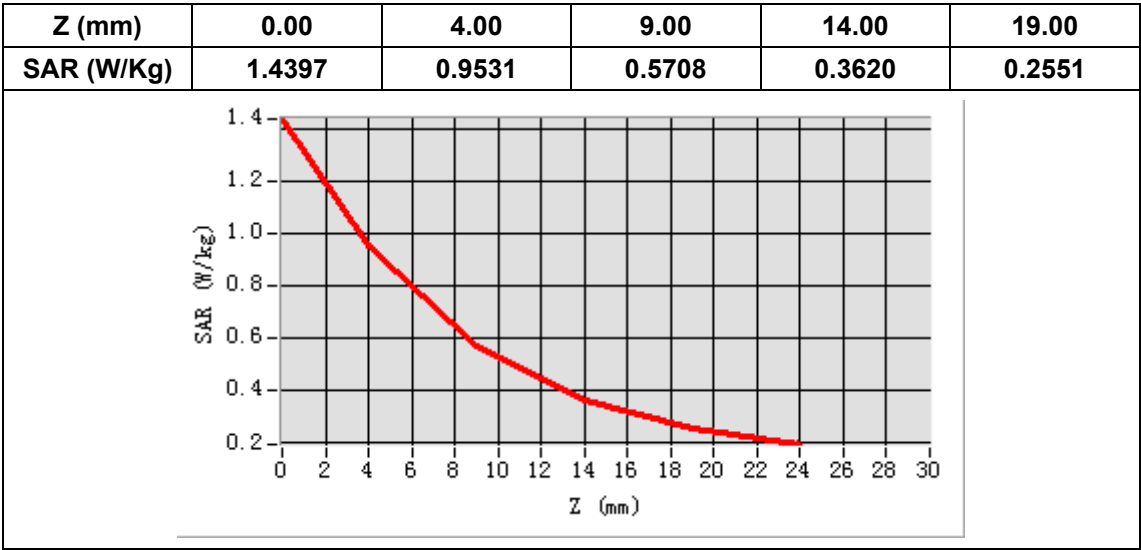
B. SAR Measurement Results

Frequency (MHz)	1909.800000
Relative Permittivity (real part)	41.272245
Conductivity (S/m)	1.423921
Power Variation (%)	2.737400
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=8.00, Y=15.00
SAR Peak: 1.44 W/kg

SAR 10g (W/Kg)	0.554160
SAR 1g (W/Kg)	0.882105



MEASUREMENT 25

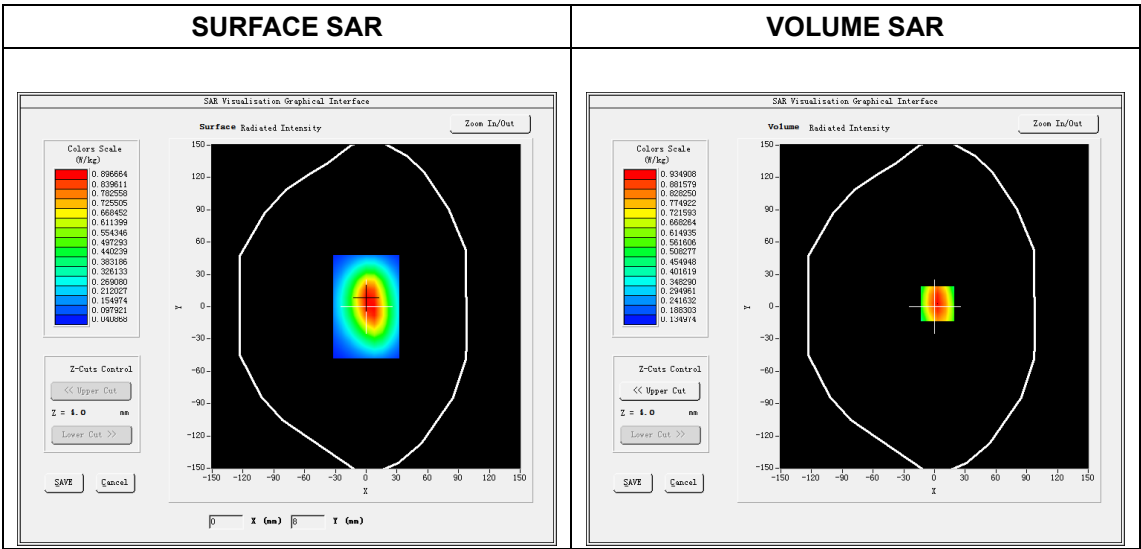
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Bottom
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

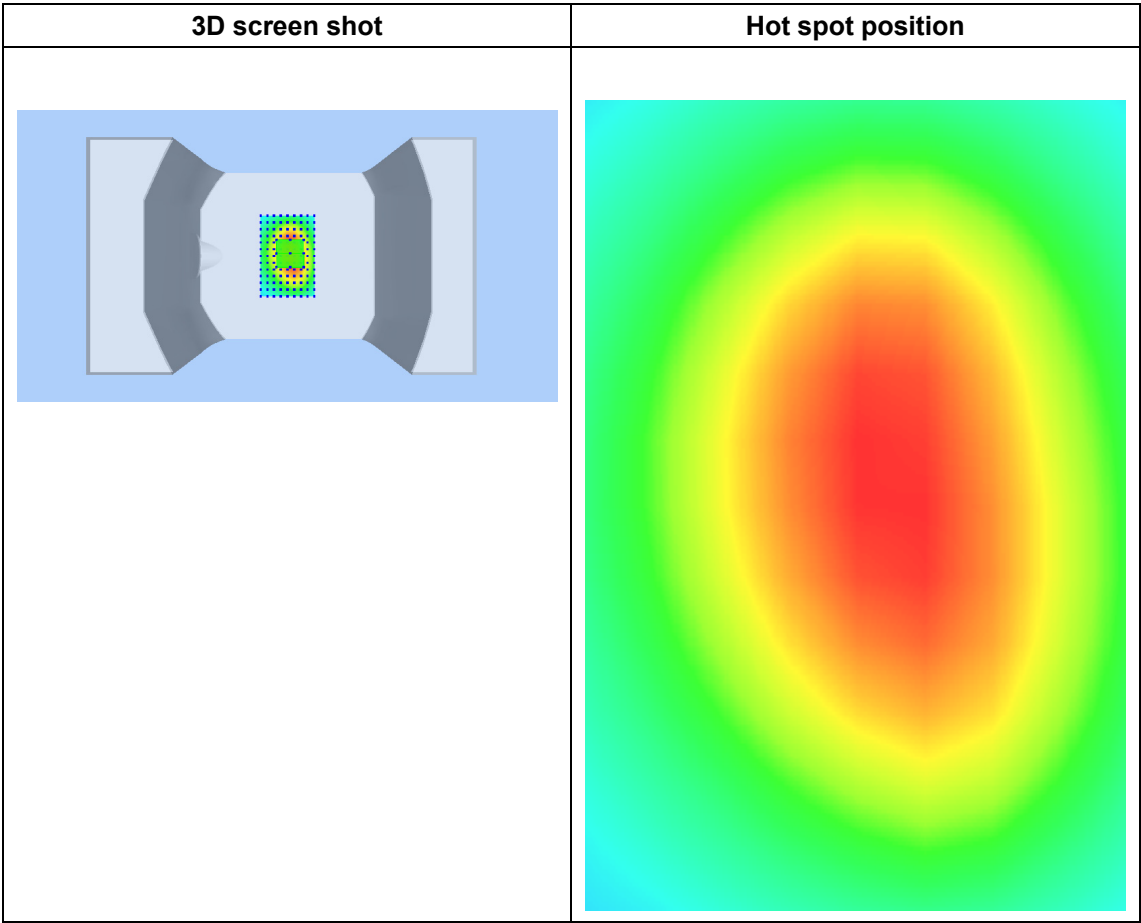
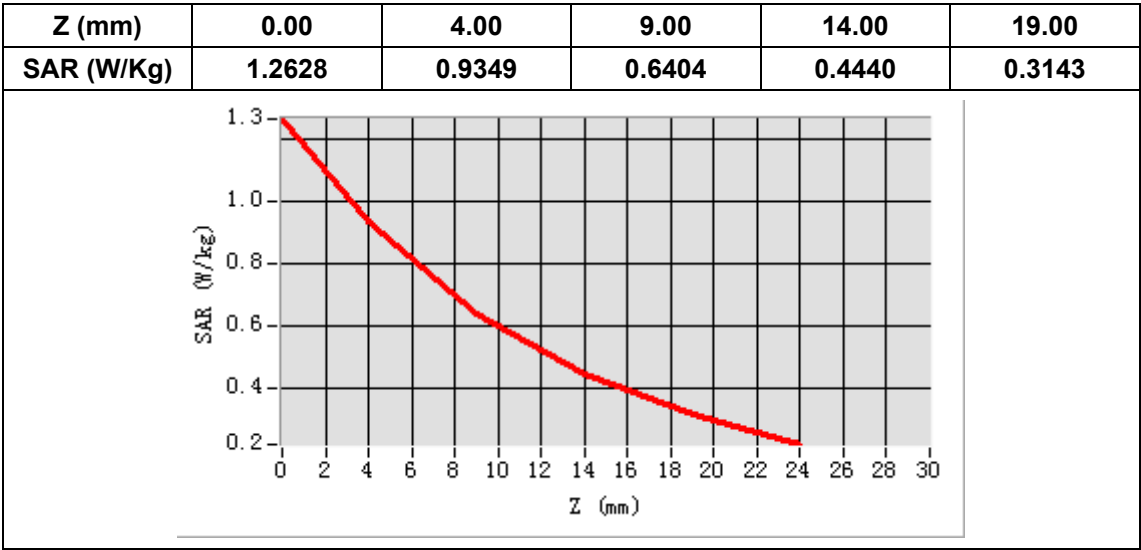
B. SAR Measurement Results

Frequency (MHz)	1852.400000
Relative Permittivity (real part)	39.351248
Conductivity (S/m)	1.373607
Power Variation (%)	2.821700
Ambient Temperature	22.2
Liquid Temperature	22.2



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

SAR 10g (W/Kg)	0.575808
SAR 1g (W/Kg)	0.873516



MEASUREMENT 28

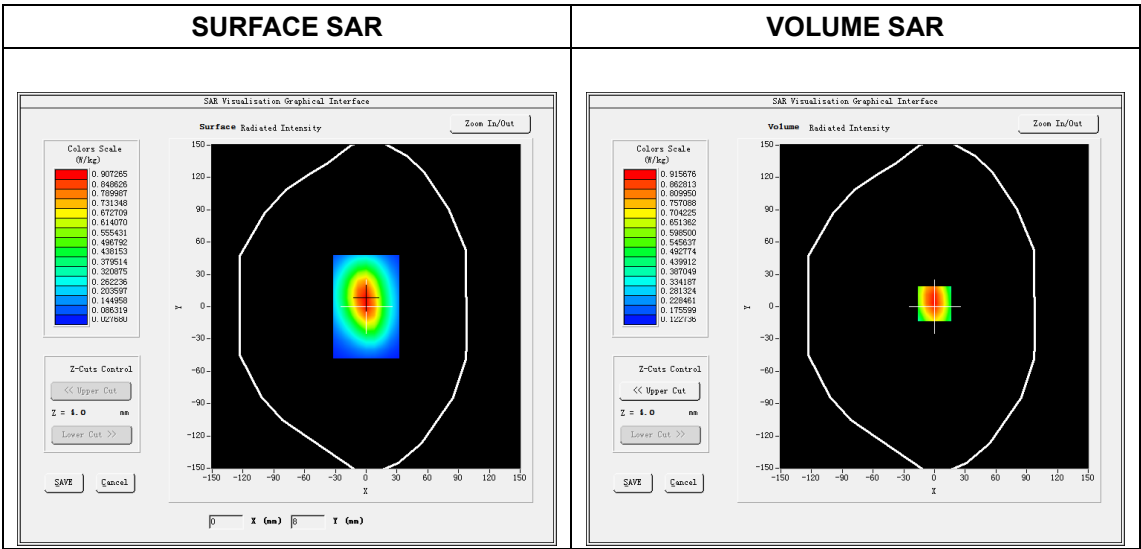
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Bottom
Band	LTE Band 2
Channels	QPSK, 20MHz, 1RB, Middle
Signal	Duty Cycle 1:1

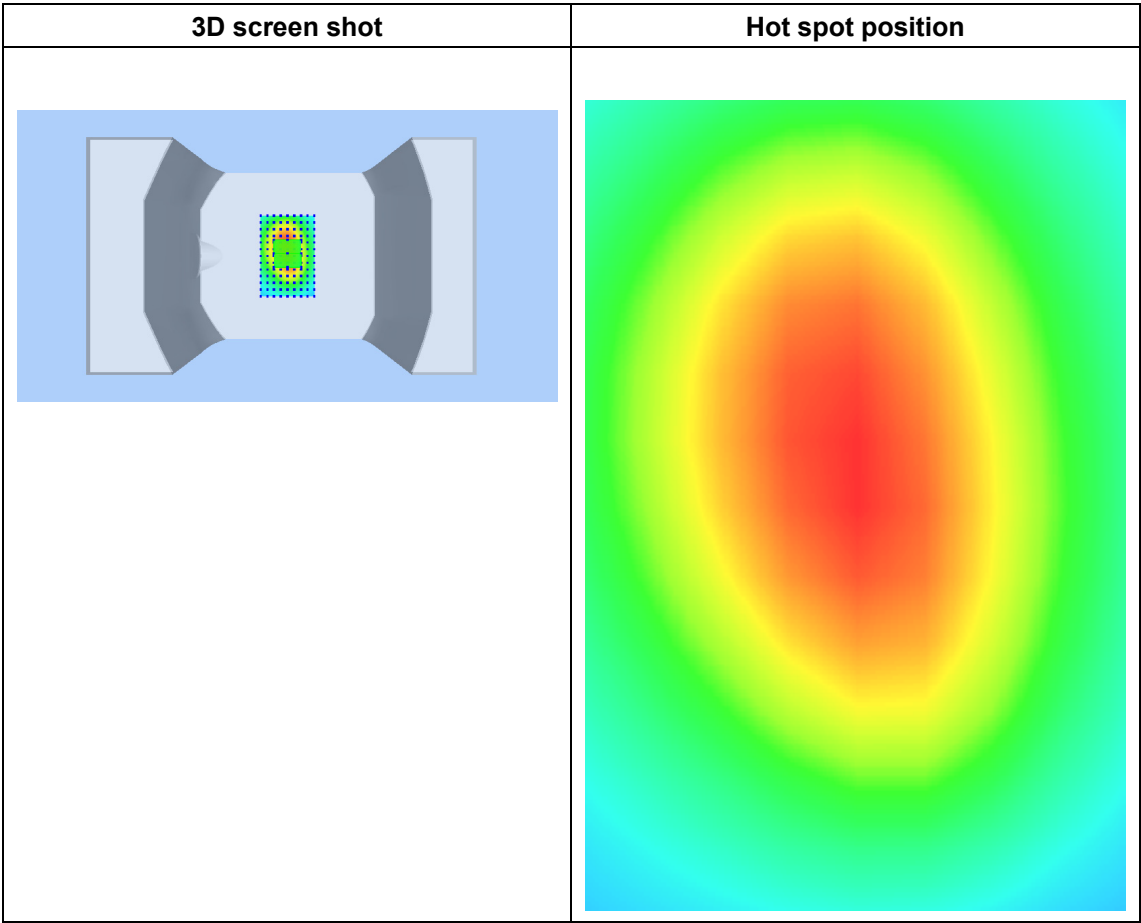
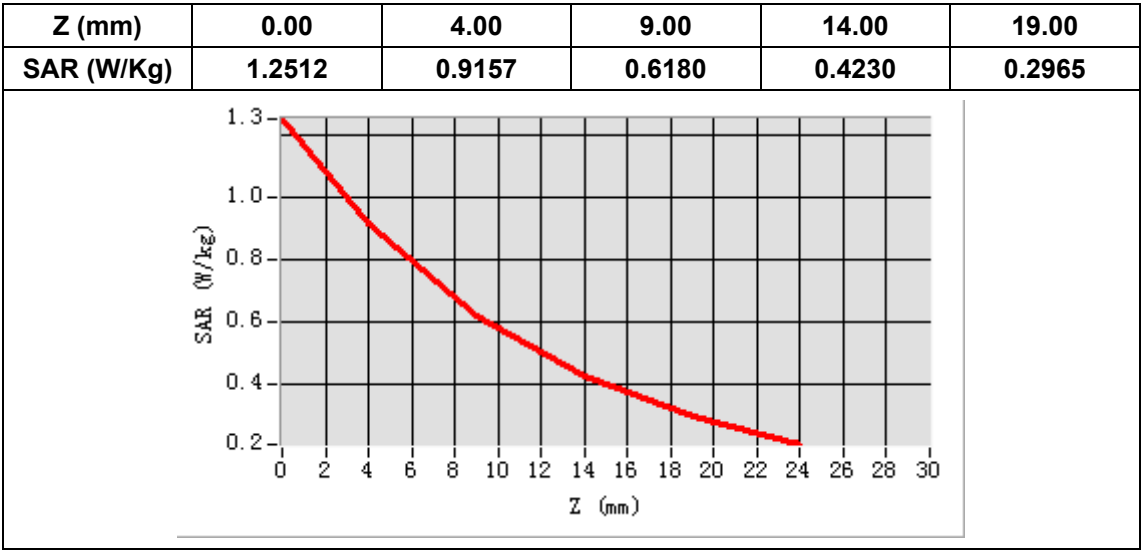
B. SAR Measurement Results

Frequency (MHz)	1860.000000
Relative Permittivity (real part)	39.351461
Conductivity (S/m)	1.372395
Power Variation (%)	-0.761400
Ambient Temperature	22.4
Liquid Temperature	22.4



Maximum location: X=0.00, Y=3.00
SAR Peak: 1.26 W/kg

SAR 10g (W/Kg)	0.558961
SAR 1g (W/Kg)	0.835692



MEASUREMENT 29

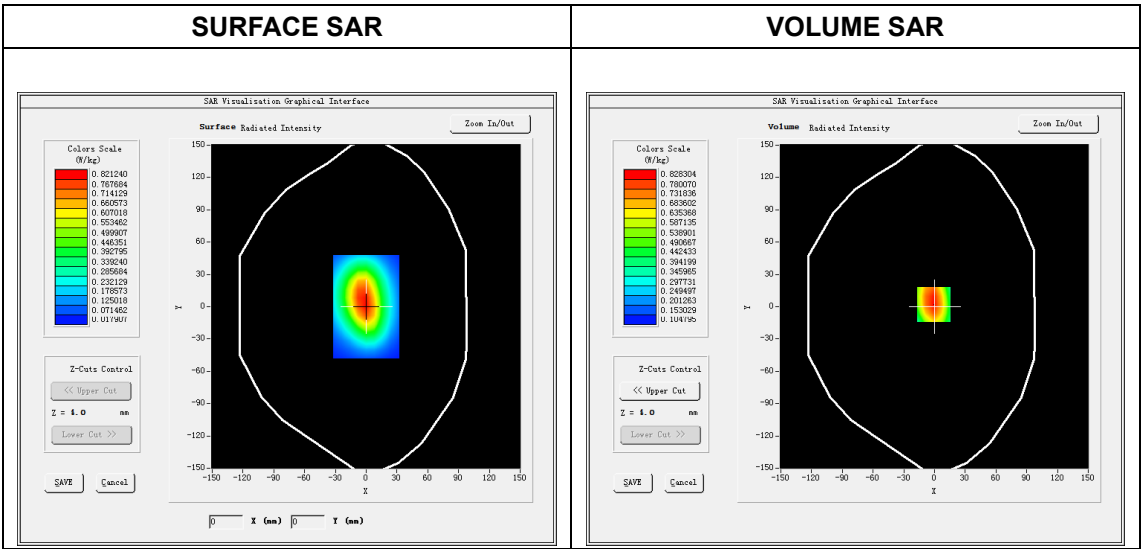
Type: Measurement (Complete)
Date of measurement: 2025-08-24
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 1.23; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Bottom
Band	LTE Band 4
Channels	QPSK, 3MHz, 1RB, High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

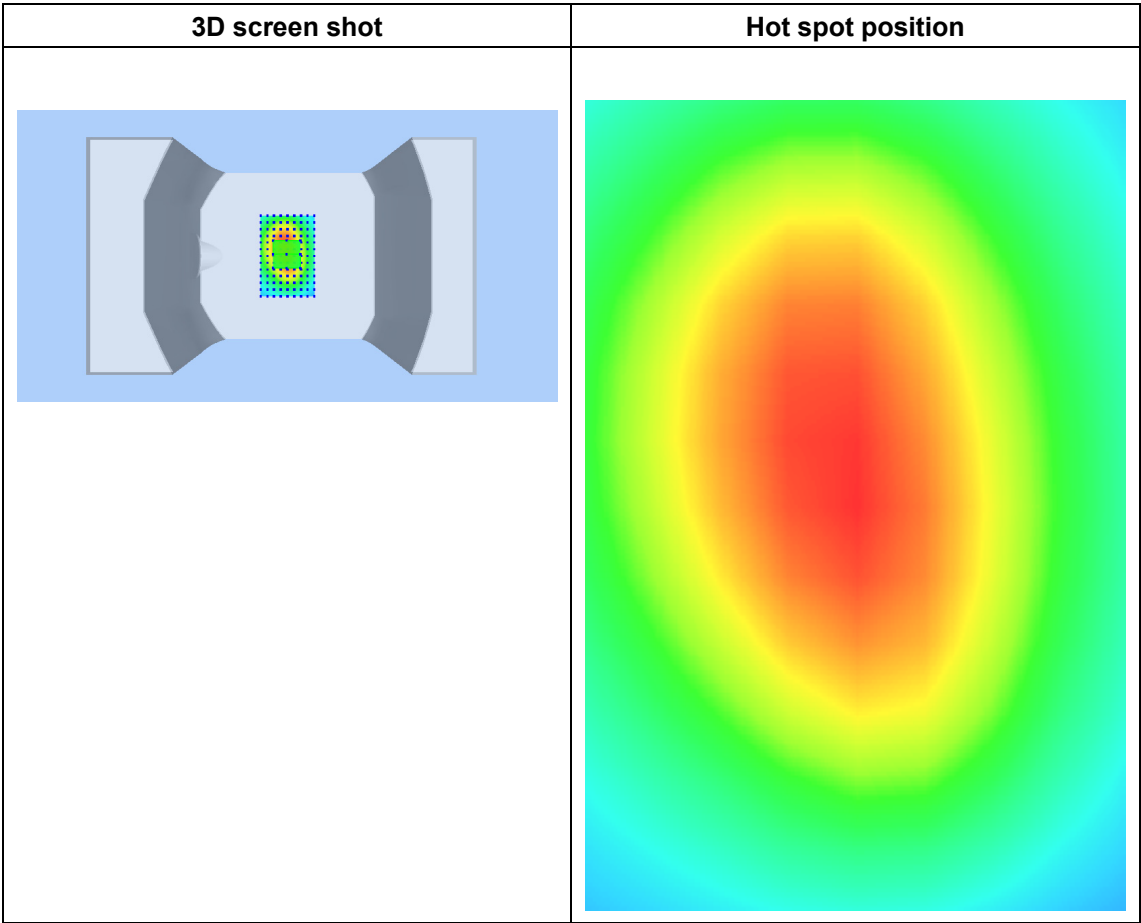
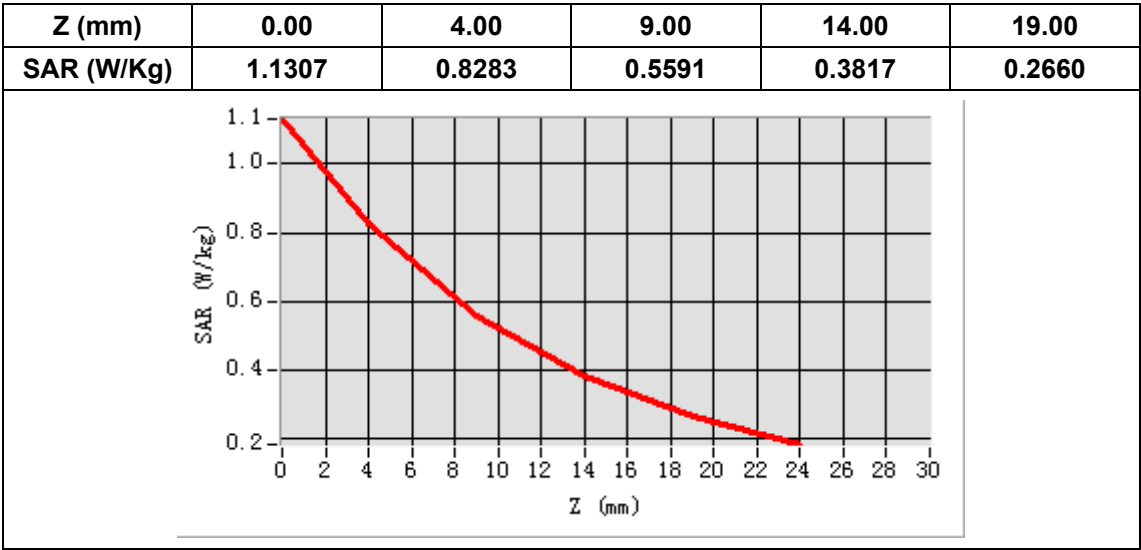
Frequency (MHz)	1753.500000
Relative Permittivity (real part)	39.351327
Conductivity (S/m)	1.372987
Power Variation (%)	-1.761400
Ambient Temperature	22.4
Liquid Temperature	22.4



Maximum location: X=-1.00, Y=2.00

SAR Peak: 1.14 W/kg

SAR 10g (W/Kg)	0.505186
SAR 1g (W/Kg)	0.784077



MEASUREMENT 32

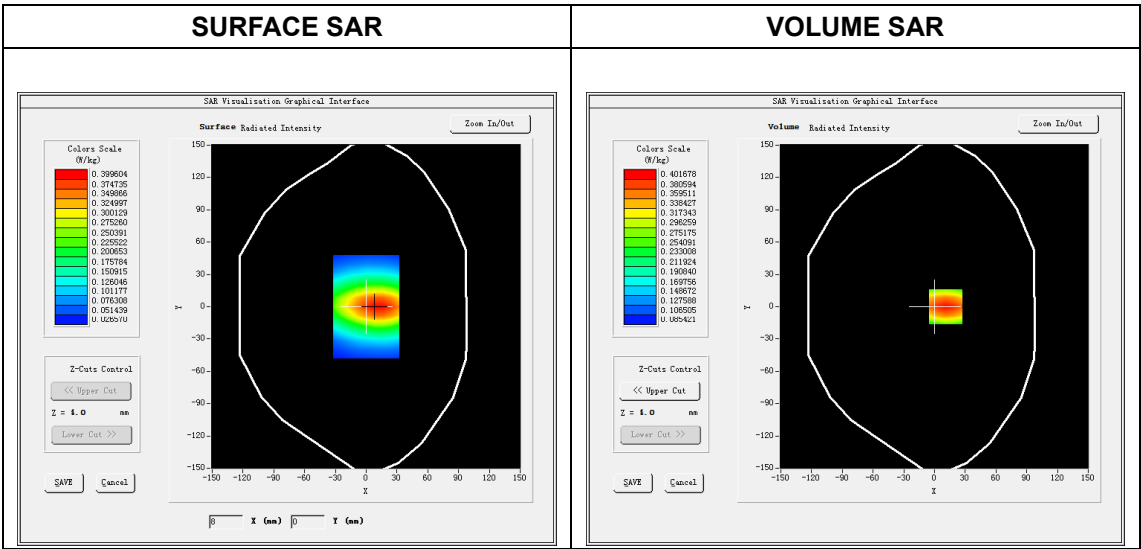
Type: Measurement (Complete)
Date of measurement: 2025-08-07
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE2 - 0725-EPGO-446; ConvF: 0.99; Calibrated: 2025-02-12

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=8mm dy=8mm dz=5mm
Phantom	Flat Plane
Device Position	Right
Band	LTE Band 13
Channels	QPSK, 5MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	784.500000
Relative Permittivity (real part)	42.451566
Conductivity (S/m)	0.933182
Power Variation (%)	1.824800
Ambient Temperature	22.2
Liquid Temperature	22.2



Maximum location: X=11.00, Y=0.00
SAR Peak: 0.53 W/kg

SAR 10g (W/Kg)	0.260655
SAR 1g (W/Kg)	0.383402

