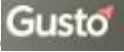


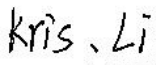


SAR Test Report

For

Applicant Name: Prepaid Refills Inc
Address: 1 hardy rd 1199 bedford New Hampshire 03110 United States
EUT Name: 4G feature phone
Brand Name: Gusto 
Model Number: GU1

Issued By

Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: 101/201/301, Building 1, Block 2, Tantou Industrial Park,
Tantou Community, Songgang Subdistrict, Bao'an District,
Shenzhen, China
Report Number: BTF250826R01501
Test Standards: FCC 47 CFR§2.1093 IEEE Std. 1528-2013
IEEE C95.1-2019
FCC ID: 2BRR9-GU1
Test Conclusion: Pass
Test Date: 2025-09-10 to 2025-09-21
Date of Issue: 2025-09-22
Tested By: 
Kris Li / Tester
Date: 2025-09-22
Prepared By: 
Amenda Zhong / Project Engineer
Date: 2025-09-22
Approved By: 
Ryan.CJ / EMC Manager
Date: 2025-09-22



Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Revision History		
Version	Issue Date	Revisions Content
R_V0	2025-09-22	Original
Note:		Once the revision has been made, then previous versions reports are invalid.

Table of Contents

1. Introduction	4
1.1 Identification of Testing Laboratory	4
1.2 Identification of the Responsible Testing Location	4
1.3 Laboratory Condition	4
1.4 Announcement	4
2. Product Information	5
2.1 Application Information	5
2.2 Manufacturer Information	5
2.3 Factory Information	5
2.4 General Description of Equipment under Test (EUT)	5
2.5 Equipment under Test Ancillary Equipment	5
2.6 Technical Information	5
3. Summary of Test Results	7
3.1 Test Standards	7
3.2 Device Category and SAR Limit	7
3.3 Test Result Summary	8
3.4 Test Uncertainty	9
4. Measurement System	11
4.1 Specific Absorption Rate (SAR) Definition	11
4.2 MVG SAR System	11
5. System Verification	16
5.1 Purpose of System Check	16
5.2 System Check Setup	16
6. TEST POSITION CONFIGURATIONS	17
6.1 Head Exposure Conditions	17
6.2 Body-worn Position Conditions	19
6.3 Hotspot Mode Exposure Position Conditions	20
6.4 Product Specific 10g Exposure Consideration	20
7. Measurement Procedure	21
7.1 Measurement Process Diagram	21
7.2 SAR Scan General Requirement	22
7.3 Measurement Procedure	23
7.4 Area & Zoom Scan Procedure	23
8. Conducted RF Output Power	24
8.1 GSM	24
8.2 WCDMA	25
8.3 LTE	26
8.4 Bluetooth	37
9. Test Exclusion Consideration	38
9.1 SAR Test Exclusion Consideration Table	38
10. Test Result	39
11. SAR Measurement Variability	44
12. Simultaneous Transmission	45
12.1 Simultaneous Transmission Mode Considerations	45
12.2 Sum SAR of Simultaneous Transmission	45
13. Test Equipment List	46
ANNEX A Simulating Liquid Verification Result	47
ANNEX B System Check Result	47
ANNEX C Test Data	58
ANNEX D SAR Test Setup Photos	110
ANNEX E EUT External and Internal Photos	112
ANNEX F Calibration Information	112

1. Introduction

1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130

1.2 Identification of the Responsible Testing Location

Test Location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Description:	All measurement facilities used to collect the measurement data are located at 101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
FCC Registration Number	518915
Designation Number	CN1409

1.3 Laboratory Condition

Ambient Temperature:	21°C to 25°C
Ambient Relative Humidity:	48% to 59%
Ambient Pressure:	100 kPa to 102 kPa

1.4 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2. Product Information

2.1 Application Information

Company Name:	Prepaid Refills Inc
Address:	1 hardy rd 1199 bedford New Hampshire 03110 United States

2.2 Manufacturer Information

Company Name:	Shenzhen Songming Communication Technology Co. , Ltd
Address:	Workshop 2 set, No.3 Geshan Road, Tangxia Chung Community, YanLuo Town, Bao'an District, ShenZhen, China

2.3 Factory Information

Company Name:	Prepaid Refills Inc
Address:	1 hardy rd 1199 bedford New Hampshire 03110 United States

2.4 General Description of Equipment under Test (EUT)

EUT Name	4G feature phone
Under Test Model Name	GU1
Sample No.	BTFSN250826008

2.5 Equipment under Test Ancillary Equipment

Ancillary Equipment 1	Rechargeable Battery	
	Capacity	1500mAh
	Nominal Voltage	3.7V

2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EGPRS 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/5 4G Network FDD LTE Band 2/4/5/12/13/17/66/71 BT (EDR)
-----------------------------------	---

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 12	TX: 698 ~ 716 MHz	RX: 728 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2200 MHz
	LTE Band 71	TX: 663 ~ 698 MHz	RX: 617 ~ 652 MHz
	Bluetooth	2402 ~ 2480 MHz	
Antenna Type	WWAN: Internal Antenna BT: Internal Antenna		
Hotspot Function	Not Support		
Power Reduction	Not Support		
Exposure Category	General Population/Uncontrolled exposure		
EUT Stage	Portable Device		
Product	Type		
	☐ Production unit	☒ Identical prototype	

3. Summary of Test Results

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
3	IEEE C95.1-2019	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
4	KDB447498 D04	Interim General RF Exposure Guidance v01
5	KDB865664 D01	SAR measurement 100MHz to 6GHz v01r04
6	KDB865664 D02	RF Exposure Reporting v01r02
7	KDB941225 D01	3G SAR Procedures v03r01
8	KDB941225 D05	SAR for LTE Devices v02r05
9	KDB648474 D04	Handset SAR v01r03
10	KDB690783 D01	SAR Listings on Grant v01r03

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:
General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment- related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.
Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

3.3 Test Result Summary

The maximum results of Specific Absorption Rate (SAR) found during test as follows:

<Highest Reported standalone SAR Summary>

Exposure Position	Frequency Band	Reported SAR (W/kg)	Equipment Class	Highest Reported SAR (W/kg)
Head 1-g SAR (0 mm Gap)	GSM 850	0.075	PCE	0.098
	GSM 1900	0.029		
	WCDMA Band II	0.088		
	WCDMA Band V	0.052		
	LTE Band 2	0.098		
	LTE Band 4	0.067		
	LTE Band 5	0.048		
	LTE Band 12	0.018		
	LTE Band 13	0.004		
	LTE Band 17	0.002		
	LTE Band 66	0.053		
	LTE Band 71	0.013		
	Bluetooth	0.005	DSS	
Exposure Position	Frequency Band	Reported SAR (W/kg)	Equipment Class	Highest Reported SAR (W/kg)
Body 1-g SAR (10 mm Gap)	GSM 850	0.263	PCE	1.286
	GSM 1900	0.138		
	WCDMA Band II	0.419		
	WCDMA Band V	0.467		
	LTE Band 2	0.649		
	LTE Band 4	0.271		
	LTE Band 5	0.279		
	LTE Band 12	0.181		
	LTE Band 13	0.231		
	LTE Band 17	0.238		
	LTE Band 66	1.286		
	LTE Band 71	0.224		
	Bluetooth	0.005	DSS	

This device is in compliance with Specific Absorption Rate(SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC47 CFR part 2(2.1093) and ANSI/IEEE C95.1-2019, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std. 1528-2013.

<Highest Reported Simultaneous SAR>

Exposure Position	Simultaneous Configuration	Highest Reported Simultaneous Transmission SAR (W/kg)	Limit (W/kg)	Verdict
Head 1-g SAR (0 mm Gap)	LTE Band 2 + BT	0.103	1.6	Pass
Body 1-g SAR (10 mm Gap)	LTE Band 66 + BT	1.291	1.6	Pass

3.4 Test Uncertainty

3.4.1 Measurement uncertainty evaluation for SAR test

Measurement uncertainty evaluation for SAR test (450MHz to 6GHz)

Uncertainty Component	Tol (+-%)	Prob. Dist.	Div.	Unc. $u(x_i)=a(x_i)/q_i$	Ci (1g)	Ci (10g)	1g U_i (+-%)	10 g U_i (+-%)	V_i v_{eff}
Measurement System									
Probe calibration	14	N (k = 2)	2	7.00	1	1	7.00	7.00	∞
Probe calibration drift	4	R	$\sqrt{3}$	2.31	1	1	2.31	2.31	∞
Probe linearity	4.7	R	$\sqrt{3}$	2.71	1	1	2.71	2.71	∞
detection limit	1	R	$\sqrt{3}$	0.58	1	1	0.58	0.58	∞
Probe isotropy	3.5	R	$\sqrt{3}$	2.02	0.71	0.71	1.43	1.43	∞
Hemispherical Isotropy	5.9	N	1	5.90	0.71	0.71	4.19	4.19	∞
Boundary effect	1	R	1.73	0.58	1	1	0.58	0.58	∞
Integration time	1.4	R	1.73	0.81	1	1	0.81	0.81	∞
Response time	0	R	1.73	0.00	1	1	0.00	0.00	∞
Readout electronics	0.5	N	1	0.50	1	1	0.50	0.50	∞
RF ambient and noise	3	R	$\sqrt{3}$	1.73	1	1	1.73	1.73	∞
Probe positioning errors	3.28	N	1	3.28	0.33	0.33	1.08	1.08	∞
Data processing errors	2.3	R	1	1.33	1	1	1.33	1.33	∞
Conductivity measurement	4.07	N	1	2.35	0.79	0.77	1.86	1.81	∞
Permittivity measurement	5.06	N	1	2.92	0.23	0.26	0.67	0.76	∞
Liquid Conductivity - Temperature Uncertainty	2.5	R	1	1.44	0.79	0.77	1.14	1.11	∞
Liquid Permittivity - Temperature Uncertainty	2.5	R	$\sqrt{3}$	1.44	0.23	0.26	0.33	0.38	∞
Shell permittivity	2.9	R	$\sqrt{3}$	1.67	0.25	0.25	0.42	0.42	∞
Repeatability of positioning the DUT or source against the phantom	2.7	N	1	2.70	2	2	5.40	5.40	∞
Uncertainty in accepted power	3	R	1	3.00	1	1	3.00	3.00	∞
Effect of operating mode on probe sensitivity	2.3	R	$\sqrt{3}$	1.33	1	1	1.33	1.33	∞
Variation in SAR due to drift in output of DUT	2.2	N	1	2.20	1	1	2.20	2.20	∞
Phantom deviation from target (ϵ' , σ)	1.9	N	1	1.90	1	1	1.90	1.90	∞
SAR scaling	0	R	$\sqrt{3}$	0.00	1	1	0.00	0.00	∞
Probe calibration	14	N (k = 2)	2	7.00	1	1	7.00	7.00	∞
Combined uncertainty	/						11.94	11.94	
Expanded Uncertainty (95% Confidence interval)	/						23.89	23.88	

* This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.4.2 Measurement uncertainty evaluation for system check

Uncertainty Component	Tol (+-%)	Prob. Dist.	Div.	Unc. $u(x_i)=a(x_i)/q_i$	Ci (1g)	Ci (10 g)	1g Ui (+-%)	10 g Ui (+-%)	Vi veff
Measurement System									
Probe calibration	14	N (k = 2)	2	7.00	1	1	7.00	7.00	∞
Probe calibration drift	4	R	1.73	2.31	1	1	2.31	2.31	∞
Probe linearity	4.7	R	1.73	2.72	1	1	2.72	2.72	∞
Detection limit	1	R	1.73	0.58	1	1	0.58	0.58	∞
Axial Isotropy	3.5	R	1.73	2.02	1	1	2.02	2.02	∞
Hemispherical Isotropy	5.9	R	1.73	3.41	0.71	0.71	2.42	2.42	∞
Boundary effect	1	R	1.73	0.58	0.71	0.71	0.41	0.41	∞
Integration time	1.4	R	1.73	0.81	1	1	0.81	0.81	∞
Response time	0	R	1.73	0.00	1	1	0.00	0.00	∞
Readout electronics	0.5	N	1	0.50	1	1	0.50	0.50	∞
Noise	3	R	1.73	1.73	1	1	1.73	1.73	∞
Reflections	3	R	1.73	1.73	1	1	1.73	1.73	∞
Positioner Mechanical Tolerance	3.28	R	1.73	1.90	0.33	0.33	0.63	0.63	∞
Positioning with respect to Phantom Shell	3.28	R	1.73	1.90	0.33	0.33	0.63	0.63	∞
Data processing errors	2.3	R	1.73	1.33	1	1	1.33	1.33	∞
Conductivity measurement	4.07	N	1	4.07	0.79	0.77	3.22	3.13	∞
Permittivity measurement	5.06	N	1	5.06	0.23	0.26	1.16	1.32	∞
Liquid Conductivity - Temperature Uncertainty	2.5	R	1.73	1.45	0.79	0.77	1.14	1.11	∞
Liquid Permittivity - Temperature Uncertainty	2.5	R	1.73	1.45	0.23	0.26	0.33	0.38	∞
Shell permittivity	2.9	R	1.73	1.68	0.25	0.25	0.42	0.42	∞
Distance between the radiating element of the DUT and the phantom medium	2.7	N	1	2.70	2	2	5.40	5.40	∞
Deviation of experimental antennas	4.5	N	1.73	2.60	1	1	2.60	2.60	∞
Other uncertainty contributions	2	R	1	2.00	1	1	2.00	2.00	∞
Uncertainty in accepted power	3	R	1.73	1.73	1	1	1.73	1.73	∞
Phantom deviation from target (ϵ', σ)	1.9	N	1	1.90	1	0.87	1.90	1.65	∞
$u(\Delta SAR)$	/						11.89	11.85	
Expanded uncertainty (95% confidence interval)	/						23.79	23.70	

4. Measurement System

4.1 Specific Absorption Rate (SAR) Definition

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.

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:

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

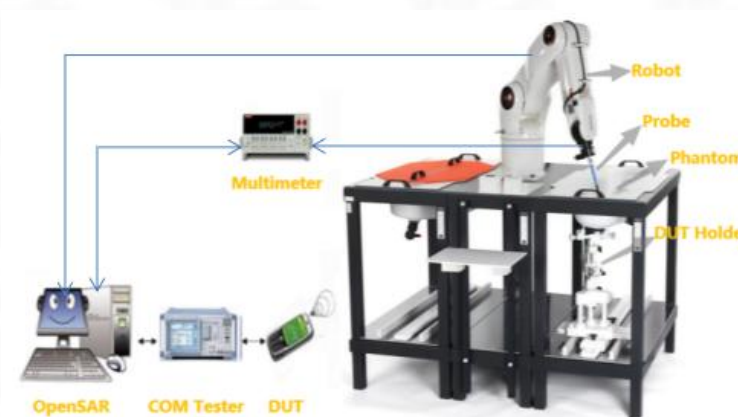
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue,
 ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 MVG SAR System

4.2.1 SAR system diagram



4.2.2 Robot



A standard high precision 6-axis robot (Denso) with teaches pendant with Scanning System

- It must be able to scan all the volume of the phantom to evaluate the tridimensional distribution of SAR.
- Must be able to set the probe orthogonal of the surface of the phantom ($\pm 30^\circ$).
- Detects stresses on the probe and stop itself if necessary to keep the integrity of the probe.

4.2.3 E-Field Probe

For the measurements, the Specific Dosimetric SSE2 E-Field Probe with following specifications is used:

- Dynamic range: 0.01-100 W/kg
- Tip diameter: 2mm for SSE2
- Distance between probe tip and sensor centre: 1mm for SSE2
- Distance between sensor centre and the inner phantom surface: 2mm for $f \geq 4\text{GHz}$.
- Probe linearity: $<0.25\text{dB}$.
- Axial Isotropy: $<0.25\text{dB}$.
- Spherical Isotropy: $<0.50\text{dB}$.
- Calibration range: 150 to 6000 MHz for head & body simulating liquid
- Angle between probe axis (evaluation axis) and surface normal line: less than 20° .



4.2.4 Phantoms

SAM Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The probe scanning of the E-Field is done in the 2 halves of the normalized head. The normalized shape of the phantom corresponds to the dimensions of 90% of an adult head size. It enables the dosimetric evaluation of left and right-hand phone usage and includes an additional flat phantom part for the simplified body performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



SAM Phantom

The thickness of the phantom amounts to $2\text{ mm} \pm 0.2\text{ mm}$. The materials for the phantom do not affect the radiation of the device under test (DUT) : $\epsilon_r' < 5$
The head is filled with tissue simulating liquid. The hand do not have to be modeled.

TWIN SAM phantom

	Mechanical	Electrical	
Overall thickness	$2 \pm 0.2\text{ mm}$ (except ear area)	Relative permittivity	3.4
Dimensions	1000 mm(L) x 500 mm(W) x 200 mm(H)	Loss tangent	0.02
Maximum volume	27 L		
Material	Fiberglass based		

ELLIPTICAL Phantom

The phantom is for Body performance check filled with tissue-equivalent liquid to a depth of at least 150 mm, whose shell material is resistant to damage or reaction with tissue-equivalent liquid chemicals.



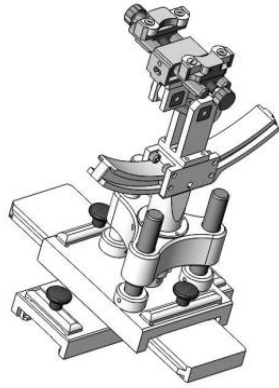
ELLI Phantom

The shape of the phantom is an ellipse with length $600\text{ mm} \pm 5\text{ mm}$ and width $400\text{ mm} \pm 5\text{ mm}$.
The phantom shell is made of low-loss and low-permittivity material, having loss tangent $\tan \delta \leq 0.05$ and relative permittivity:
 $\epsilon_r' \leq 5$ for $f \leq 3\text{ GHz}$
 $3 \leq \epsilon_r' \leq 5$ for $f > 3\text{ GHz}$
The thickness of the bottom-wall of the flat phantom is 2.0 mm with a tolerance of $\pm 0.2\text{ mm}$.

Technical & mechanical characteristics

Shell thickness	$2\text{ mm} \pm 0.2\text{ mm}$
Filling volume	25 L
Dimensions	600 mm x 400 mm x 200 mm
Permittivity	4.4
Loss tangent	0.017

4.2.5 Device Holder



System Material	Permittivity	Loss tangent
Delrin	3.7	0.005

(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
PMMA	2.9	0.028

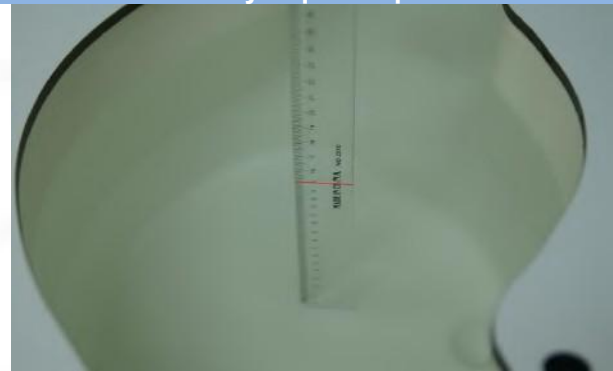
4.2.6 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. 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. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Head Liquid Depth



Body Liquid Depth



The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

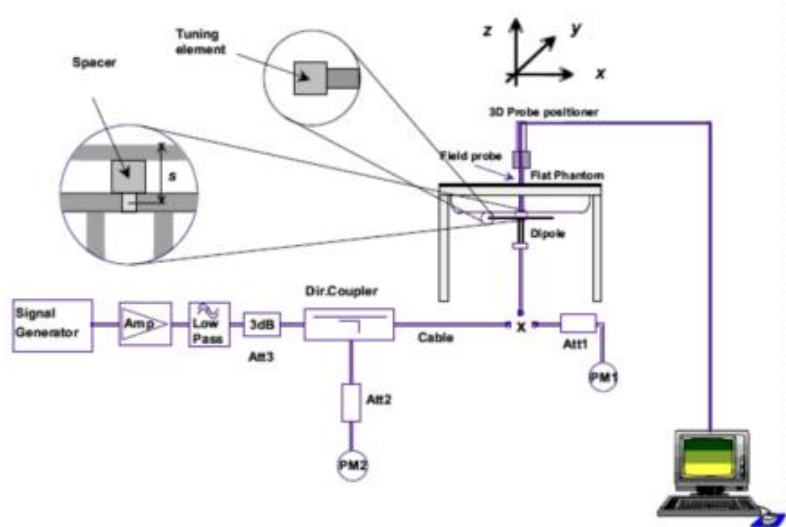
Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ε
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE (%)			Salt (%)		Conductivity σ (S/m)	Permittivity ε
5200	78.60	21.40			/		5.30	49.00
5800	78.50	21.40			0.1		6.00	48.20

5. System Verification

5.1 Purpose of System 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. The 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.

5.2 System Check Setup



6. TEST POSITION CONFIGURATIONS

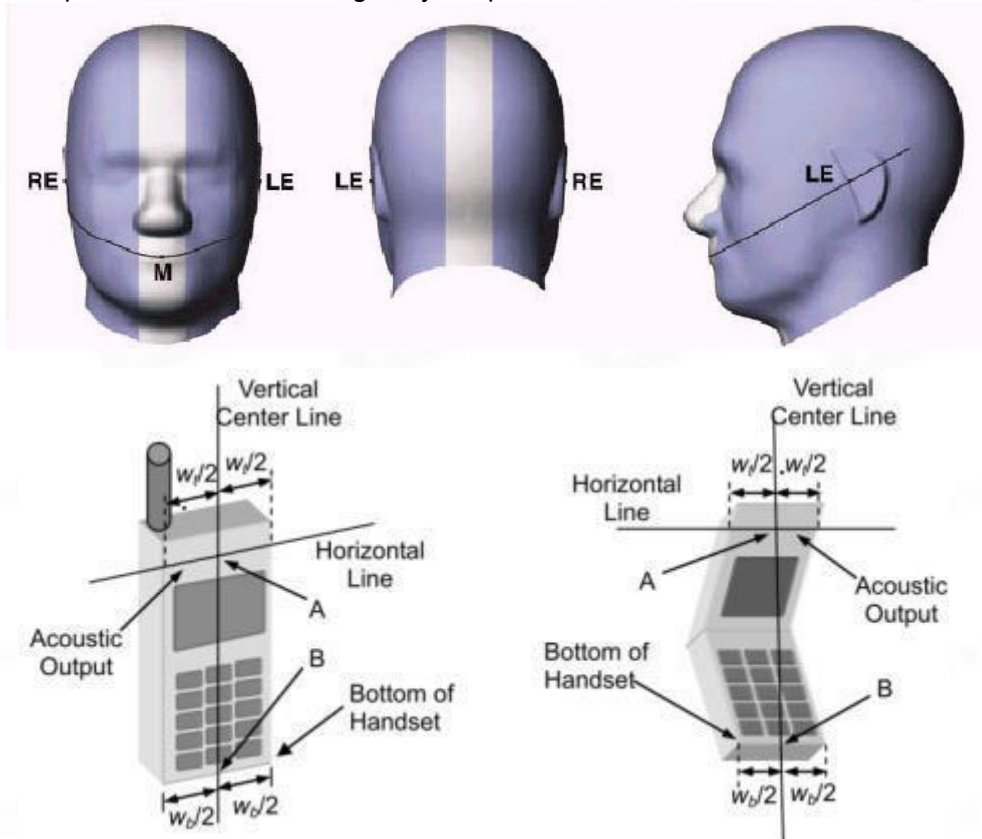
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

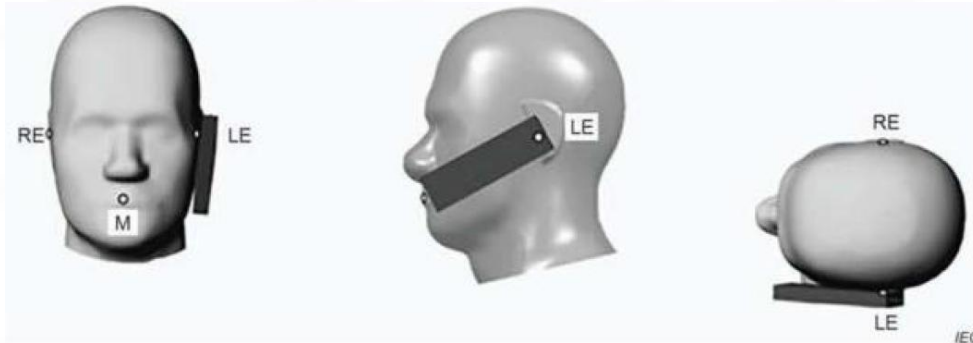
6.1.1 Two Imaginary Lines on the Handset

- The vertical center line 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.
- The horizontal line is perpendicular to the vertical center line and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- 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 center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



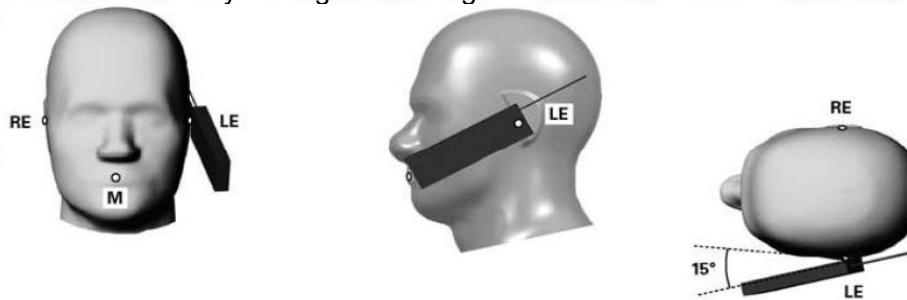
6.1.2 Two Imaginary Lines on the Handset

- 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.
- 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.



6.1.3 Titled Position

- To position the device in the “cheek” position described above.
- 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.

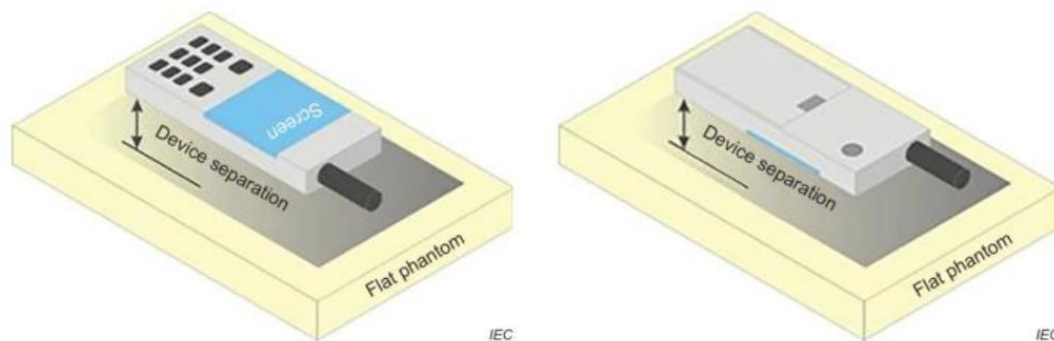


6.2 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

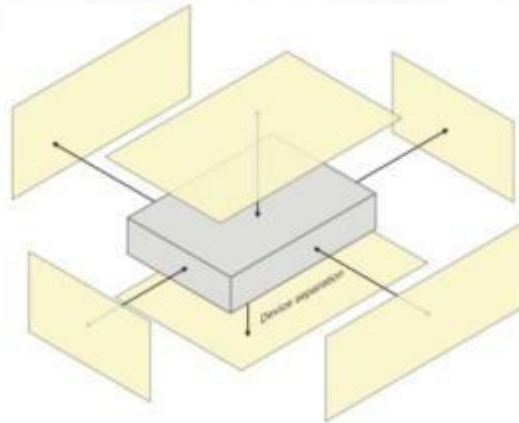
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.



6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



6.4 Product Specific 10g Exposure Consideration

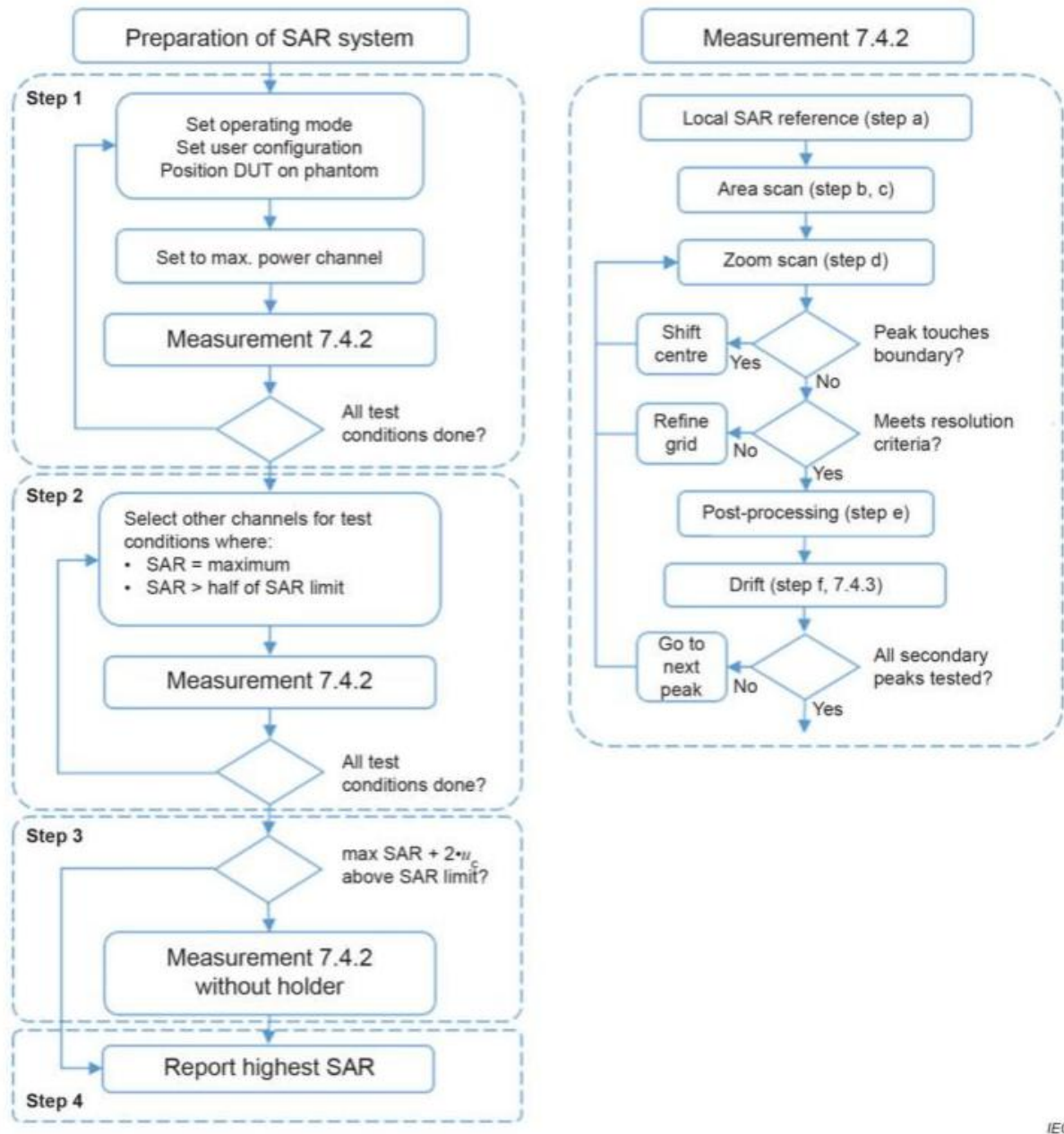
According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

7. Measurement Procedure

7.1 Measurement Process Diagram

Body SAR



IEC

7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	½ δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2–3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
				5–6 GHz: ≤ 2 mm
Δz Zoom (n>1): between subsequent points		≤ 1.5·Δz Zoom (n-1)		
Minimum zoom scan volume	x, y, z		≥30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm
Note:				
1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528- 2011 for details.				
2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB				
447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7.3 Measurement Procedure

The following steps are used for each test position

- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

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 is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

8. Conducted RF Output Power

8.1 GSM

Mode: GSM850		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH128	CH190	CH251		CH128	CH190	CH251
			824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GSM		31.50	31.11	30.73	30.42	-9.03	22.08	21.70	21.39
GPRS (GMSK)	1Tx slot	31.50	31.12	30.54	30.23	-9.03	22.09	21.51	21.20
	2Tx slots	31.00	30.94	28.58	28.21	-6.02	24.92	22.56	22.19
	3Tx slots	27.50	27.10	26.79	26.42	-4.26	22.84	22.53	22.16
	4Tx slots	31.00	30.93	24.93	24.59	-3.01	27.92	21.92	21.58
EGPRS (8PSK)	1Tx slot	26.50	26.23	26.30	26.25	-9.03	17.20	17.27	17.22
	2Tx slots	25.50	25.07	25.26	25.27	-6.02	19.05	19.24	19.25
	3Tx slots	23.50	22.42	23.16	22.73	-4.26	18.16	18.90	18.47
	4Tx slots	21.00	20.49	20.70	20.58	-3.01	17.48	17.69	17.57
Mode: GSM1900		Maximum Tune-up(dBm)	Burst Average Power (dBm)			Division Factors	Frame-Average Power (dBm)		
			CH512	CH661	CH810		CH512	CH661	CH810
			1850.2MHz	1880.0MHz	1909.8MHz		1850.2MHz	1880.0MHz	1909.8MHz
GSM		26.50	25.60	25.63	26.00	-9.03	16.57	16.60	16.97
GPRS (GMSK)	1Tx slot	26.00	25.70	25.69	25.98	-9.03	16.67	16.66	16.95
	2Tx slots	24.00	23.64	23.40	23.34	-6.02	17.62	17.38	17.32
	3Tx slots	22.50	22.14	21.91	21.87	-4.26	17.88	17.65	17.61
	4Tx slots	20.50	20.27	20.01	19.98	-3.01	17.26	17.00	16.97
EGPRS (8PSK)	1Tx slot	20.50	19.97	20.24	19.65	-9.03	10.94	11.21	10.62
	2Tx slots	20.00	19.28	19.89	19.21	-6.02	13.26	13.87	13.19
	3Tx slots	19.50	18.51	19.41	18.31	-4.26	14.25	15.15	14.05
	4Tx slots	19.00	18.31	18.91	18.18	-3.01	15.30	15.90	15.17
Note: 1) Division Factors To average the power, the division factor is as follows: 1Tx-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB 2Tx-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB 3Tx-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB 4Tx-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB									

8.2 WCDMA

Mode		Maximum Tune-up(dBm)	WCDMA Band II		
			Conducted Power (dBm)		
			CH9262	CH9400	CH9538
			1852.4	1880.0	1907.6
RMC 12.2K		20.50	20.40	20.42	20.44
HSDPA	Subtest-1	20.50	19.41	19.97	20.16
	Subtest-2	20.50	19.45	19.96	20.14
	Subtest-3	20.50	19.44	19.94	20.13
	Subtest-4	20.50	19.37	19.92	20.06
HSUPA	Subtest-1	18.50	17.23	17.31	18.10
	Subtest-2	18.00	17.40	17.49	17.85
	Subtest-3	18.00	17.36	17.32	17.88
	Subtest-4	18.00	17.33	17.31	17.92
	Subtest-5	18.00	16.81	17.74	17.56
Mode		Maximum Tune-up(dBm)	WCDMA Band V		
			Conducted Power (dBm)		
			CH4132	CH4183	CH4233
			826.4	836.6	846.6
RMC 12.2K		21.00	20.76	20.72	20.73
HSDPA	Subtest-1	20.50	20.14	20.03	19.81
	Subtest-2	20.50	20.18	19.99	19.81
	Subtest-3	20.50	20.18	20.00	19.82
	Subtest-4	20.50	20.14	19.95	19.80
HSUPA	Subtest-1	18.50	17.82	18.07	17.94
	Subtest-2	18.00	17.85	17.54	17.72
	Subtest-3	18.00	17.66	17.58	17.51
	Subtest-4	18.00	17.65	17.66	17.77
	Subtest-5	18.00	17.78	17.94	17.93
Per KDB 941225 D01, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/2$ dB higher than the primary mode (RMC12.2kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.					

8.3 LTE

Band 2

LTE-FDD Band 2				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		18607	18900	19193
					1850.7MHz	1880.0MHz	1909.3MHz
1.4MHz	QPSK	1	0	21.00	20.51	20.54	20.48
			2	21.00	20.90	20.61	20.58
			5	21.00	20.52	20.49	20.51
		3	0	21.00	20.53	20.56	20.56
			2	21.00	20.60	20.57	20.47
			3	21.00	20.60	20.47	20.48
		6	0	20.00	19.48	19.55	19.61
	16QAM	1	0	20.00	19.75	19.57	19.10
			2	20.00	19.72	19.55	19.05
			5	20.00	19.82	19.62	19.10
		3	0	20.00	19.76	19.60	19.44
			2	20.00	19.77	19.60	19.47
			3	20.00	19.81	19.54	19.40
		6	0	19.00	18.68	18.51	18.67
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18615	18900	19185
					1851.5MHz	1880.0MHz	1908.5MHz
3MHz	QPSK	1	0	21.00	20.56	20.45	20.56
			7	21.00	20.61	20.51	20.51
			14	21.00	20.50	20.47	20.51
		8	0	20.00	19.51	19.63	19.61
			4	20.00	19.47	19.57	19.66
			7	20.00	19.54	19.62	19.60
		15	0	20.00	19.59	19.58	19.65
	16QAM	1	0	20.50	19.10	20.02	20.06
			7	20.50	19.07	20.09	20.03
			14	20.50	19.07	20.12	20.03
		8	0	19.50	18.80	18.71	19.10
			4	19.50	18.77	18.66	19.02
			7	19.50	18.89	18.73	19.00
		15	0	19.00	18.59	18.71	18.75
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18625	18900	19175
					1852.5MHz	1880.0MHz	1907.5MHz
5MHz	QPSK	1	0	21.00	20.42	20.51	20.57
			13	21.00	20.41	20.48	20.58
			24	21.00	20.53	20.65	20.48
		12	0	20.00	19.62	19.53	19.63
			6	20.00	19.54	19.49	19.59
			13	20.00	19.68	19.65	19.65
		25	0	20.00	19.55	19.65	19.60
	16QAM	1	0	20.00	19.58	19.61	18.69
			13	20.00	19.65	19.68	18.80
			24	20.00	19.66	19.72	18.85
		12	0	19.00	18.64	18.63	18.94
			6	19.00	18.68	18.65	18.86
			13	19.00	18.68	18.63	18.69
		25	0	19.00	18.71	18.67	18.98

LTE-FDD Band 2				Maximum Tune-up(dBm)	Conducted Power(dBm)				
Bandwidth	Modulation	RB allocation	RB offset		18650	18900	19150		
					1855.0MHz	1880.0MHz	1905.0MHz		
10MHz	QPSK	1	0	21.00	20.60	20.54	20.50		
			25	21.00	20.55	20.60	20.50		
			49	21.00	20.49	20.69	20.56		
		25	0	20.00	19.66	19.54	19.63		
			13	20.00	19.61	19.59	19.57		
			25	20.00	19.64	19.64	19.71		
		50	0	20.00	19.59	19.62	19.66		
			16QAM	1	0	20.00	19.36	19.71	19.82
					25	20.00	19.31	19.77	19.76
	49	20.00			19.31	19.80	19.81		
	25	0		20.00	19.75	19.59	19.72		
		13		20.00	19.75	19.64	19.72		
		25		20.00	19.65	19.63	19.71		
	50	0	19.00	18.78	18.62	18.91			
	Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18675	18900	19125	
1857.5MHz						1880.0MHz	1902.5MHz		
15MHz	QPSK	1	0	21.00	20.48	20.42	20.56		
			38	21.00	20.43	20.39	20.59		
			74	21.00	20.48	20.55	20.48		
		36	0	20.00	19.54	19.53	19.64		
			18	20.00	19.64	19.48	19.69		
			39	20.00	19.51	19.57	19.69		
		75	0	20.00	19.58	19.57	19.55		
			16QAM	1	0	20.00	19.77	19.79	19.78
					38	20.00	19.84	19.83	19.82
	74	20.00			19.76	19.93	19.82		
	12	0		20.00	19.64	19.61	19.79		
		31		20.00	19.59	19.68	19.71		
		63		20.00	19.62	19.69	19.75		
	27	0	19.00	18.68	18.57	18.96			
	Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	18700	18900	19100	
1860.0MHz						1880.0MHz	1900.0MHz		
20MHz	QPSK	1	0	21.00	20.63	20.65	20.73		
			50	21.00	20.59	20.61	20.69		
			99	21.00	20.61	20.73	20.71		
		50	0	20.00	19.60	19.63	19.57		
			25	20.00	19.56	19.70	19.59		
			50	20.00	19.52	19.65	19.65		
		100	0	20.00	19.64	19.57	19.69		
			16QAM	1	0	20.50	20.36	19.54	19.61
					50	20.50	20.35	19.58	19.55
	99	20.50			20.30	19.75	19.63		
	12	0		20.00	19.60	19.74	19.61		
		44		20.00	19.54	19.77	19.54		
		88		20.00	19.56	19.89	19.64		
	27	0	19.00	18.71	18.89	18.96			

Band 4

LTE-FDD Band 4				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		19957	20175	20393
					1710.7MHz	1732.5MHz	1754.3MHz
1.4MHz	QPSK	1	0	21.00	20.81	20.80	20.64
			2	21.00	20.75	20.78	20.65
			5	21.00	20.78	20.88	20.72
		3	0	21.00	20.89	20.86	20.79
			2	21.00	20.82	20.75	20.69
			3	21.00	20.88	20.78	20.77
	6	0	20.00	19.78	19.80	19.76	
	16QAM	1	0	20.00	19.89	19.28	19.96
			2	20.00	19.91	19.35	19.93
			5	20.50	19.90	19.30	20.01
		3	0	20.00	19.72	19.69	19.60
			2	20.00	19.70	19.70	19.56
			3	20.00	19.68	19.70	19.63
		6	0	19.50	19.18	18.88	18.94
Bandwidth		Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	19965	20175
	1711.5MHz					1732.5MHz	1753.5MHz
3MHz	QPSK	1	0	21.00	20.89	20.80	20.69
			7	21.00	20.85	20.80	20.74
			14	21.00	20.81	20.81	20.71
		8	0	20.00	19.85	19.84	19.78
			4	20.00	19.85	19.89	19.86
			7	20.00	19.90	19.87	19.74
	15	0	20.00	19.76	19.89	19.72	
	16QAM	1	0	21.00	19.36	20.62	19.89
			7	21.00	19.39	20.68	19.88
			14	21.00	19.32	20.69	19.83
		8	0	19.50	19.42	18.98	18.97
			4	19.50	19.45	19.03	19.01
			7	19.50	19.09	19.08	18.96
		15	0	19.50	19.27	18.97	18.85
Bandwidth		Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	19976	20175
	1712.5MHz					1732.5MHz	1752.5MHz
5MHz	QPSK	1	0	21.00	20.67	20.80	20.83
			13	21.00	20.71	20.81	20.80
			24	21.00	20.66	20.87	20.86
		12	0	20.00	19.81	19.83	19.79
			6	20.00	19.83	19.90	19.81
			13	20.00	19.78	19.87	19.90
	25	0	20.00	19.86	19.90	19.70	
	16QAM	1	0	20.00	19.89	19.91	18.87
			13	20.00	19.86	19.99	18.95
			24	20.50	19.95	20.02	18.93
		12	0	19.50	19.26	18.92	18.85
			6	19.00	18.88	18.89	18.86
			13	19.00	18.85	18.91	18.80
		25	0	19.00	18.94	18.94	18.90

LTE-FDD Band 4				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20000	20175	20350
					1715.0MHz	1732.5MHz	1750.0MHz
10MHz	QPSK	1	0	21.00	20.67	20.91	20.77
			25	21.00	20.75	20.95	20.80
			49	21.50	20.70	21.00	20.76
		25	0	20.00	19.82	19.84	19.80
			13	20.00	19.77	19.91	19.75
			25	20.00	19.87	19.86	19.82
		50	0	20.00	19.84	19.90	19.79
	16QAM	1	0	20.50	19.58	20.07	20.08
			25	20.50	19.52	20.10	20.04
			49	20.50	19.46	20.14	19.97
		12	0	20.00	19.93	19.78	19.90
			19	20.00	19.91	19.86	19.84
			38	20.00	19.80	19.91	19.84
		27	0	19.00	18.95	18.95	18.83
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20025	20175	20325
					1717.5MHz	1732.5MHz	1747.5MHz
15MHz	QPSK	1	0	21.00	20.67	20.91	20.80
			38	21.00	20.60	20.91	20.76
			74	21.00	20.59	20.97	20.81
		36	0	20.00	19.83	19.82	19.89
			18	20.00	19.89	19.86	19.83
			39	20.00	19.80	19.85	19.78
		75	0	20.00	19.78	19.89	19.89
	16QAM	1	0	20.50	19.98	19.93	20.12
			38	20.50	19.94	20.07	20.07
			74	20.50	19.93	20.05	20.01
		12	0	20.00	19.90	19.82	19.98
			31	20.00	19.87	19.90	19.93
			63	20.00	19.91	19.86	19.92
		27	48	19.50	18.91	19.02	18.92
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20050	20175	20300
					1720.0MHz	1732.5MHz	1745.0MHz
20MHz	QPSK	1	0	21.50	20.82	20.78	21.05
			50	21.50	20.82	20.80	21.04
			99	21.50	21.32	20.80	21.09
		50	0	20.00	19.80	19.85	19.82
			25	20.00	19.77	19.87	19.89
			50	20.00	19.80	19.93	19.87
		100	0	20.00	19.79	19.88	19.90
	16QAM	1	0	21.00	20.70	20.19	19.33
			50	20.50	20.48	20.23	19.19
			99	21.50	21.14	20.27	19.29
		12	0	20.00	19.73	19.91	19.87
			44	20.50	19.65	20.02	19.90
			88	21.00	20.55	20.02	19.87
		27	0	19.50	18.91	19.29	18.81

Band 5

LTE-FDD Band 5				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20407	20525	20643
					824.7MHz	836.5MHz	848.3MHz
1.4MHz	QPSK	1	0	21.50	21.32	21.32	21.33
			2	21.50	21.41	21.48	21.45
			5	21.50	21.45	21.49	21.49
		3	0	21.50	21.41	21.42	21.46
			2	22.00	21.35	21.44	21.54
			3	22.00	21.33	21.39	21.50
		6	0	20.50	20.48	20.39	20.39
	16QAM	1	0	21.00	19.97	20.40	20.52
			2	21.00	19.96	20.56	20.47
			5	21.00	20.02	20.56	20.45
		3	0	20.50	20.19	20.46	20.37
			2	20.50	20.18	20.49	20.33
			3	21.00	20.15	20.53	20.33
		6	0	20.00	19.55	19.75	19.59
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20415	20525	20635
					825.5MHz	836.5MHz	847.5MHz
3MHz	QPSK	1	0	21.50	21.39	21.35	21.34
			7	21.50	21.37	21.40	21.35
			14	21.50	21.47	21.40	21.40
		8	0	20.50	20.41	20.38	20.49
			4	21.00	20.44	20.37	20.51
			7	20.50	20.36	20.37	20.48
		15	0	21.00	20.50	20.47	20.53
	16QAM	1	0	21.50	19.94	21.19	20.62
			7	21.50	20.05	21.22	20.69
			14	21.50	19.94	21.21	20.64
		8	0	20.00	19.68	19.55	19.82
			4	20.00	19.70	19.72	19.78
			7	20.00	19.74	19.72	19.82
		15	0	20.00	19.61	19.66	19.62

LTE-FDD Band 5				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		20425	20525	20625
					826.5MHz	836.5MHz	846.5MHz
5MHz	QPSK	1	0	21.50	21.32	21.36	21.22
			13	21.50	21.31	21.34	21.36
			24	21.50	21.32	21.30	21.40
		12	0	21.00	20.47	20.46	20.54
			6	20.50	20.49	20.47	20.46
			13	21.00	20.35	20.40	20.52
		25	0	20.50	20.38	20.35	20.37
	16QAM	1	0	20.50	20.45	20.46	19.65
			13	21.00	20.46	20.61	19.62
			24	21.00	20.54	20.41	19.59
		12	0	20.00	19.50	19.43	19.57
			6	20.00	19.55	19.59	19.51
			13	20.00	19.44	19.58	19.57
		25	0	20.00	19.59	19.57	19.64

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	20450	20525	20600
					829.0MHz	836.5MHz	844.0MHz
10MHz	QPSK	1	0	22.00	21.29	21.55	21.20
			25	22.00	21.40	21.50	21.19
			49	21.50	21.32	21.40	21.36
		25	0	20.50	20.41	20.44	20.27
			13	20.50	20.45	20.40	20.26
			25	20.50	20.31	20.44	20.41
		50	0	20.50	20.46	20.44	20.38
			0	21.00	20.21	20.65	20.42
			25	21.00	20.23	20.66	20.51
	16QAM	1	49	21.00	20.10	20.41	20.59
			0	21.00	20.50	20.41	20.38
			19	20.50	20.49	20.40	20.39
		12	38	21.00	20.48	20.45	20.53
			0	20.00	19.58	19.43	19.57
			0	20.00	19.58	19.43	19.57
		27	0	20.00	19.58	19.43	19.57

Band 12

LTE-FDD Band 12				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23017	23095	23173
					699.7MHz	707.5MHz	715.3MHz
1.4MHz	QPSK	1	0	20.50	20.19	20.32	20.45
			2	21.00	20.23	20.50	20.54
			5	21.00	20.26	20.58	20.51
		3	0	21.00	20.21	20.46	20.69
			2	21.00	20.13	20.44	20.62
			3	21.00	20.21	20.48	20.65
		6	0	20.00	19.23	19.52	19.58
	16QAM	1	0	20.00	18.69	19.68	19.81
			2	20.00	18.66	19.57	19.65
			5	20.00	18.69	19.65	19.75
		3	0	20.00	18.88	19.43	19.64
			2	20.00	18.92	19.58	19.61
			3	20.00	18.92	19.49	19.57
		6	0	19.00	18.44	18.86	18.89
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23025	23095	23165
					700.5MHz	707.5MHz	714.5MHz
3MHz	QPSK	1	0	21.00	20.28	20.36	20.64
			7	21.00	20.29	20.43	20.65
			14	21.00	20.27	20.48	20.53
		8	0	20.00	19.30	19.51	19.71
			4	20.00	19.15	19.50	19.81
			7	20.00	19.35	19.47	19.55
		15	0	20.00	19.02	19.52	19.75
	16QAM	1	0	20.50	18.59	20.35	20.02
			7	20.50	18.71	20.24	20.12
			14	20.50	18.99	20.27	19.92
		8	0	19.50	18.53	18.65	19.02
			4	19.50	18.51	18.67	19.01
			7	19.50	18.54	18.74	19.09
		15	0	19.00	18.45	18.68	18.75

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	21.00	20.01	20.32	20.59
			13	21.00	20.15	20.35	20.69
			24	21.00	20.18	20.49	20.57
		12	0	20.00	18.91	19.47	19.66
			6	20.00	19.30	19.44	19.82
			13	20.00	19.45	19.45	19.79
		25	0	20.00	19.44	19.51	19.71
	16QAM	1	0	19.50	18.91	19.40	18.58
			13	19.50	19.32	19.39	18.77
			24	20.00	19.37	19.51	18.71
		12	0	19.00	18.31	18.53	18.59
			6	19.00	18.36	18.69	18.75
			13	19.00	18.40	18.73	18.73
		25	0	19.00	18.47	18.60	18.85
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23060	23095	23130
					704.0MHz	707.5MHz	711.0MHz
10MHz	QPSK	1	0	20.50	20.16	20.20	20.27
			25	21.00	20.19	20.41	20.50
			49	21.00	20.59	20.66	20.50
		25	0	20.00	19.39	19.48	19.54
			13	20.00	19.32	19.41	19.59
			25	20.00	19.54	19.52	19.77
		50	0	20.00	19.34	19.40	19.51
	16QAM	1	0	20.00	18.75	19.55	19.53
			25	20.00	18.96	19.60	19.57
			49	20.00	19.12	19.70	19.73
		12	0	20.00	19.21	19.23	19.52
			19	20.00	19.34	19.36	19.61
			38	20.00	19.52	19.54	19.80
		27	0	19.00	18.51	18.50	18.55

Band 13

LTE-FDD Band 13				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23205	23230	23255
5MHz	QPSK	1	0	21.00	20.62	20.41	20.51
			13	21.00	20.62	20.49	20.46
			24	21.00	20.73	20.51	20.48
		12	0	20.00	19.59	19.78	19.59
			6	20.00	19.70	19.58	19.49
			13	20.00	19.70	19.65	19.48
		25	0	20.00	19.81	19.68	19.56
	16QAM	1	0	20.00	19.53	18.83	19.26
			13	20.00	19.56	18.53	19.38
			24	19.50	19.32	18.61	19.42
		12	0	19.00	18.66	18.72	18.58
			6	19.00	18.63	18.55	18.54
			13	19.00	18.64	18.54	18.83
		25	0	19.00	18.73	18.68	18.50

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23230
					782.0MHz
10MHz	QPSK	1	0	21.00	20.55
			25	21.00	20.56
			49	21.00	20.54
		25	0	20.00	19.67
			13	20.00	19.66
			25	20.00	19.65
		50	0	20.00	19.58
	16QAM	1	0	20.50	20.06
			25	20.00	19.89
			49	20.00	19.97
		12	0	20.00	19.72
			19	19.50	19.48
			38	20.00	19.51
		27	0	19.00	18.88

Band 17

LTE-FDD Band 17				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		23755	23790	23825
					706.5MHz	710MHz	713.5MHz
5MHz	QPSK	1	0	20.50	19.86	20.25	20.41
			13	20.50	20.07	20.45	20.43
			24	20.50	20.10	20.43	20.40
		12	0	19.50	19.45	19.29	19.47
			6	20.00	19.61	19.34	19.76
			13	20.00	19.31	19.47	19.88
		25	0	20.00	19.61	19.43	19.80
	16QAM	1	0	19.50	19.22	18.87	18.45
			13	20.00	19.53	19.09	18.81
			24	19.50	19.39	19.08	18.45
		12	0	19.00	18.52	18.59	18.27
			6	19.00	18.54	18.26	18.83
			13	19.00	18.64	18.33	18.79
		25	0	19.00	18.64	18.18	18.82
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	23780	23790	23800
					709MHz	710MHz	711MHz
10MHz	QPSK	1	0	20.50	20.09	20.26	20.34
			25	21.00	20.50	20.52	20.46
			49	21.00	20.67	20.71	20.64
		25	0	20.00	19.61	19.36	19.46
			13	20.00	19.38	19.66	19.66
			25	20.00	19.56	19.67	19.83
		50	0	20.00	19.47	19.47	19.64
	16QAM	1	0	20.00	18.77	19.62	19.60
			25	20.00	18.93	19.75	19.63
			49	20.00	19.39	19.90	19.80
		12	0	20.00	19.57	19.54	19.56
			19	20.00	19.58	19.44	19.69
			38	20.00	19.81	19.74	19.88
		27	0	19.00	18.74	18.73	18.64

Band 66

LTE-FDD Band 66				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		131979	132322	132665
					1710.7MHz	1745.0MHz	1779.3MHz
1.4MHz	QPSK	1	0	21.00	20.75	20.78	20.77
			2	21.00	20.86	20.81	20.87
			5	21.00	20.94	20.82	20.81
		3	0	21.00	20.89	20.79	20.91
			2	21.00	20.97	20.78	20.93
			3	21.00	20.91	20.81	20.93
		6	0	20.00	19.91	19.88	19.85
	16QAM	1	0	20.50	20.19	20.02	19.65
			2	20.50	20.19	20.05	19.34
			5	20.50	20.23	20.05	19.38
		3	0	20.50	20.19	19.62	19.72
			2	20.00	19.64	19.65	19.69
			3	20.00	19.64	19.70	19.69
		6	0	19.00	18.93	18.96	18.90
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	131987	132322	132657
					1711.5MHz	1745.0MHz	1778.5MHz
3MHz	QPSK	1	0	21.00	20.85	20.72	20.82
			7	21.00	20.91	20.73	20.85
			14	21.00	20.98	20.76	20.81
		8	0	20.00	19.94	19.79	19.90
			4	20.00	19.93	19.76	19.94
			7	20.00	19.95	19.79	19.96
		15	0	20.00	19.97	19.86	19.95
	16QAM	1	0	21.00	19.46	20.54	20.33
			7	21.00	19.45	20.52	20.33
			14	21.00	19.53	20.51	20.31
		8	0	19.50	19.14	19.01	19.18
			4	19.50	19.14	19.00	19.20
			7	19.50	19.18	18.98	19.22
		15	0	19.00	18.99	18.97	18.97
Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	131997	132322	132647
					1712.5MHz	1745.0MHz	1777.5MHz
5MHz	QPSK	1	0	21.00	20.79	20.89	20.82
			13	21.00	20.83	20.85	20.82
			24	21.00	20.78	20.80	20.86
		12	0	20.00	19.93	19.82	19.96
			6	20.00	19.88	19.86	19.87
			13	20.00	19.92	19.93	19.94
		25	0	20.00	19.96	19.85	19.92
	16QAM	1	0	20.50	19.96	20.00	19.04
			13	20.00	19.96	19.97	19.13
			24	20.00	19.98	19.99	19.09
		12	0	19.00	18.94	18.90	18.91
			6	19.00	18.99	18.94	18.91
			13	19.00	18.92	18.94	18.91
		25	0	19.50	19.01	18.90	19.04

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	132022	132322	132622
					1715.0MHz	1745.0MHz	1775.0MHz
10MHz	QPSK	1	0	21.00	20.98	20.88	20.79
			25	21.00	20.82	20.83	20.79
			49	21.00	20.85	20.85	20.87
		25	0	20.00	19.89	19.83	19.91
			13	20.00	19.92	19.94	19.87
			25	20.00	19.85	19.74	19.84
		50	0	20.00	19.99	19.80	19.87
			0	20.50	19.68	20.47	20.06
			25	21.00	19.60	20.52	20.14
	16QAM	1	49	20.50	19.61	20.39	20.09
			0	20.50	20.00	19.99	19.91
			19	20.50	20.08	19.97	19.95
		12	38	20.50	19.99	19.92	20.04
			0	19.50	19.03	18.91	18.94

LTE-FDD Band 66				Maximum Tune-up(dBm)	Conducted Power(dBm)		
Bandwidth	Modulation	RB allocation	RB offset		132047	132322	132597
15MHz	QPSK	1	0	21.00	20.76	20.89	20.75
			38	21.00	20.69	20.86	20.81
			74	21.00	20.74	20.81	20.83
		36	0	20.00	19.92	19.88	19.84
			18	20.00	19.86	19.79	19.92
			39	20.00	19.90	19.91	19.89
		75	0	20.00	19.86	19.90	19.91
			0	20.50	20.19	20.45	20.27
			38	21.00	20.11	20.51	20.35
	16QAM	1	74	20.50	20.12	20.46	20.34
			0	20.50	20.08	19.93	19.91
			31	20.50	20.00	19.94	19.98
		12	63	20.00	19.96	19.88	19.99
			0	19.50	18.99	18.95	19.03

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	132072	132322	132572
					1720.0MHz	1745.0MHz	1770.0MHz
20MHz	QPSK	1	0	21.00	20.97	20.94	20.82
			50	21.00	20.88	20.91	20.93
			99	21.50	21.24	20.94	21.00
		50	0	20.00	19.84	19.87	19.88
			25	20.00	19.84	19.80	19.90
			50	20.00	19.90	19.74	19.85
		100	0	20.00	19.86	19.80	19.87
			0	21.00	20.73	20.32	19.75
			50	21.00	20.63	20.44	19.84
	16QAM	1	99	21.50	21.11	20.30	19.89
			0	20.50	19.90	20.15	19.78
			44	20.50	19.85	20.07	19.83
		12	88	21.00	20.52	20.09	19.84
			0	19.50	18.95	18.97	19.00

Band 71

LTE-FDD Band 71				Maximum Tune-up(dBm)	Conducted Power(dBm)					
Bandwidth	Modulation	RB allocation	RB offset		133147	133297	133447			
					665.5MHz	680.5MHz	695.5MHz			
5MHz	QPSK	1	0	20.00	19.14	19.58	19.73			
			13	20.00	19.28	19.51	19.80			
			24	20.00	19.35	19.55	19.94			
		12	0	19.00	18.43	18.66	18.83			
			6	19.50	18.30	18.68	19.02			
			13	19.00	18.30	18.58	18.94			
		25	0	19.00	18.29	18.62	18.95			
			16QAM	1	0	19.00	18.49	17.62	18.80	
					13	19.00	18.28	17.74	18.85	
	24	19.50			18.37	17.60	19.10			
	12	0		18.00	17.23	17.55	17.89			
		6		18.50	17.33	17.55	18.02			
		13		18.50	17.43	17.51	18.04			
	25	0		18.50	17.33	17.58	18.06			
		Bandwidth		Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	133172	133297	133422
								668.0MHz	680.5MHz	693.0MHz
	10MHz	QPSK	1	0	19.50	19.17	19.43	19.46		
				25	20.00	19.34	19.45	19.62		
49				20.00	19.36	19.58	19.89			
25			0	19.00	18.34	18.42	18.76			
			13	19.00	18.37	18.59	18.71			
			25	19.50	18.46	18.54	19.00			
50			0	19.00	18.36	18.55	18.87			
			16QAM	1	0	19.00	18.03	18.53	18.72	
					25	19.00	18.00	18.78	18.88	
49		19.50			18.02	18.71	19.23			
25		0		19.00	18.45	18.40	18.70			
		13		19.00	18.37	18.48	18.76			
		25		19.00	18.41	18.54	18.99			
50		0		18.00	17.31	17.48	17.89			
		Bandwidth		Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	133197	133297	133397
								670.5MHz	680.5MHz	690.5MHz
15MHz		QPSK	1	0	20.00	19.10	19.52	19.47		
				38	20.00	19.27	19.47	19.65		
	74			20.00	19.48	19.67	19.85			
	36		0	19.00	18.37	18.50	18.68			
			18	19.00	18.36	18.56	18.82			
			39	19.00	18.61	18.63	18.98			
	75		0	19.00	18.31	18.58	18.81			
			16QAM	1	0	19.00	18.65	18.51	18.69	
					38	19.00	18.55	18.73	18.78	
	74	19.50			18.81	18.86	19.20			
	12	0		19.00	18.34	18.43	18.56			
		31		19.00	18.30	18.54	18.70			
		63		19.00	18.49	18.55	18.89			
	27	0		18.00	17.33	17.44	17.91			

Bandwidth	Modulation	RB allocation	RB offset	Maximum Tune-up(dBm)	133222	133322	133372
					673.0MHz	683.0MHz	688.0MHz
20MHz	QPSK	1	0	20.00	19.05	19.55	19.49
			50	20.00	19.37	19.62	19.63
			99	20.50	19.59	19.87	20.07
		50	0	19.00	18.21	18.48	18.61
			25	19.00	18.48	18.47	18.62
			50	19.00	18.47	18.73	18.92
		100	0	19.00	18.45	18.52	18.68
	16QAM	1	0	19.50	19.08	19.07	18.15
			50	19.50	19.03	19.03	18.30
			99	19.50	19.18	19.40	18.62
		12	0	18.50	18.21	18.49	18.48
			44	19.00	18.33	18.57	18.51
			88	19.00	18.62	18.91	18.86
		27	0	18.00	17.37	17.46	17.97

8.4 Bluetooth

EDR	Mode	Maximum Tune-up(dBm)	Average Conducted Output Power (dBm)		
			0	39	78
			2402MHz	2441MHz	2480MHz
	GFSK	6.00	5.53	4.88	4.81
	$\pi/4$ QPSK	6.00	5.77	5.32	5.39
	8DPSK	6.00	5.71	5.21	5.33

Note

- Per KDB 447498 D04 Interim General RF Exposure Guidance v01, the 1-g SAR test exclusion thresholds for 300 MHz to 6 GHz at *test separation distances* ≤ 40 cm are determined by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

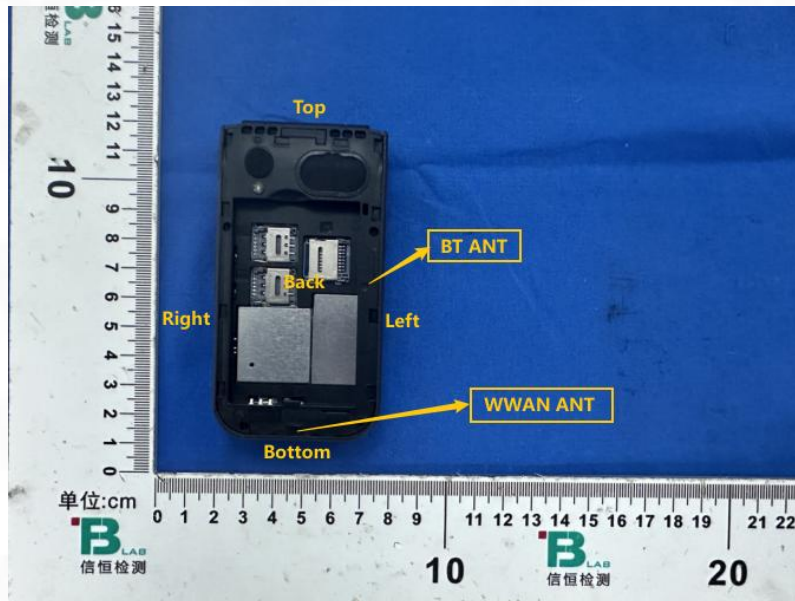
and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

*When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine estimated SAR.

- Per KDB 248227 D01 v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
- The output power of all data rate were prescan, just the worst case (the lowest data rate) of all mode were shown in report.

9. Test Exclusion Consideration

Antenna information:



WWAN Antenna	GSM/WCDMA/LTE TX/RX
BT Antenna	BT TX/RX
Note: 1. KDB 447498 D04v01, particular DUT edges were not required to be evaluated for SAR if the antenna-to-edge distance is greater than 2.5cm. 2. Per KDB648474 D04, 10-g extremity SAR is not required when Body-Worn mode 1-g reported SAR<1.2W/Kg.	

Distance of The Antenna to the EUT surface and edge (mm)						
Antenna	Front Side (mm)	Back Side (mm)	Left Edge (mm)	Right Edge (mm)	Top Edge (mm)	Bottom Edge (mm)
WWAN	<25	<25	<25	40	97	<25
BT	<25	<25	<25	48	54	49
Positions for SAR tests: Hotspot mode						
Antenna	Front Side (mm)	Back Side (mm)	Left Edge (mm)	Right Edge (mm)	Top Edge (mm)	Bottom Edge (mm)
WWAN	Yes	Yes	Yes	No	No	Yes
BT	Yes	Yes	Yes	No	No	No

9.1 SAR Test Exclusion Consideration Table

Per KDB 447498 requires when the standalone SAR test exclusion of section 4.3.1 is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following format 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.

0.4 W/Kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm

10. Test Result

Head(0mm gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GSM 850 (voice)	Left Cheek	128	824.2	1.090	0.051	100.00	1.000	31.11	31.50	1.094	0.056	/
	Left Tilt	128	824.2	-3.080	0.025	100.00	1.000	31.11	31.50	1.094	0.027	/
	Right Cheek	128	824.2	-0.030	0.069	100.00	1.000	31.11	31.50	1.094	0.075	1#
	Right Tilt	128	824.2	3.650	0.034	100.00	1.000	31.11	31.50	1.094	0.037	/
Body(10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GSM 850 (voice)	Front	128	824.2	-4.240	0.019	100.00	1.000	31.11	31.50	1.094	0.021	/
	Back	128	824.2	-1.910	0.057	100.00	1.000	31.11	31.50	1.094	0.062	/
	Left	128	824.2	0.850	0.035	100.00	1.000	31.11	31.50	1.094	0.038	/
	Bottom	128	824.2	2.670	0.051	100.00	1.000	31.11	31.50	1.094	0.056	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GPRS 850+4slots	Front	128	824.2	0.450	0.109	100.00	1.000	30.93	31.00	1.016	0.111	/
	Back	128	824.2	-0.440	0.259	100.00	1.000	30.93	31.00	1.016	0.263	2#
	Left	128	824.2	-2.110	0.164	100.00	1.000	30.93	31.00	1.016	0.167	/
	Bottom	128	824.2	-3.900	0.208	100.00	1.000	30.93	31.00	1.016	0.211	/
Head(0mm gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GSM 1900 (voice)	Left Cheek	810	1909.8	-2.460	0.019	100.00	1.000	26.00	26.50	1.122	0.021	/
	Left Tilt	810	1909.8	-0.440	0.010	100.00	1.000	26.00	26.50	1.122	0.011	/
	Right Cheek	810	1909.8	-2.970	0.026	100.00	1.000	26.00	26.50	1.122	0.029	3#
	Right Tilt	810	1909.8	4.140	0.013	100.00	1.000	26.00	26.50	1.122	0.015	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GSM 1900 (voice)	Front	810	1909.8	-4.420	0.015	100.00	1.000	26.00	26.50	1.122	0.017	/
	Back	810	1909.8	0.340	0.025	100.00	1.000	26.00	26.50	1.122	0.028	/
	Left	810	1909.8	-1.650	0.020	100.00	1.000	26.00	26.50	1.122	0.022	/
	Bottom	810	1909.8	-2.000	0.009	100.00	1.000	26.00	26.50	1.122	0.010	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
GPRS 1900+3slots	Front	512	1850.2	-2.200	0.094	100.00	1.000	22.14	22.50	1.086	0.102	/
	Back	512	1850.2	2.630	0.127	100.00	1.000	22.14	22.50	1.086	0.138	4#
	Left	512	1850.2	0.590	0.108	100.00	1.000	22.14	22.50	1.086	0.117	/
	Bottom	512	1850.2	0.580	0.053	100.00	1.000	22.14	22.50	1.086	0.058	/
Head(0mm gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
WCDMA Band 2 (RMC*)	Left Cheek	9538	1907.6	2.840	0.076	100.00	1.000	20.44	20.50	1.014	0.077	/
	Left Tilt	9538	1907.6	-0.560	0.038	100.00	1.000	20.44	20.50	1.014	0.039	/
	Right Cheek	9538	1907.6	1.790	0.087	100.00	1.000	20.44	20.50	1.014	0.088	5#
	Right Tilt	9538	1907.6	-3.990	0.043	100.00	1.000	20.44	20.50	1.014	0.044	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas. SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
WCDMA Band 2 (RMC*)	Front	9538	1907.6	2.210	0.194	100.00	1.000	20.44	20.50	1.014	0.197	/
	Back	9538	1907.6	1.560	0.413	100.00	1.000	20.44	20.50	1.014	0.419	6#
	Left	9538	1907.6	-0.470	0.267	100.00	1.000	20.44	20.50	1.014	0.271	/
	Bottom	9538	1907.6	-4.850	0.070	100.00	1.000	20.44	20.50	1.014	0.071	/

Head(0mm gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
WCDMA Band 5 (RMC*)	Left Cheek	4132	826.4	-0.100	0.034	100.00	1.000	20.76	21.00	1.057	0.036	/
	Left Tilt	4132	826.4	3.920	0.017	100.00	1.000	20.76	21.00	1.057	0.018	/
	Right Cheek	4132	826.4	-2.470	0.049	100.00	1.000	20.76	21.00	1.057	0.052	7#
	Right Tilt	4132	826.4	-1.350	0.025	100.00	1.000	20.76	21.00	1.057	0.026	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
WCDMA Band 5 (RMC*)	Front	4132	826.4	-4.430	0.086	100.00	1.000	20.76	21.00	1.057	0.091	/
	Back	4132	826.4	-1.080	0.442	100.00	1.000	20.76	21.00	1.057	0.467	8#
	Left	4132	826.4	-3.940	0.097	100.00	1.000	20.76	21.00	1.057	0.103	/
	Bottom	4132	826.4	1.010	0.100	100.00	1.000	20.76	21.00	1.057	0.106	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 2 (BW: 20MHz)	1RB	Left Cheek	19100	1900.0	0.110	0.081	100.00	1.000	20.73	21.00	1.064	0.086	/
		Left Tilt	19100	1900.0	-4.630	0.040	100.00	1.000	20.73	21.00	1.064	0.043	/
		Right Cheek	18700	1860.0	2.270	0.092	100.00	1.000	20.73	21.00	1.064	0.098	9#
		Right Tilt	19100	1900.0	0.050	0.046	100.00	1.000	20.73	21.00	1.064	0.049	/
	50%RB	Left Cheek	19100	1900.0	3.140	0.037	100.00	1.000	19.65	20.00	1.084	0.040	/
		Left Tilt	19100	1900.0	-4.900	0.019	100.00	1.000	19.65	20.00	1.084	0.021	/
		Right Cheek	19100	1900.0	4.920	0.042	100.00	1.000	19.65	20.00	1.084	0.046	/
		Right Tilt	19100	1900.0	0.170	0.020	100.00	1.000	19.65	20.00	1.084	0.022	/
Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 2 (BW: 20MHz)	1RB	Front	19100	1900.0	-3.230	0.325	100.00	1.000	20.73	21.00	1.064	0.346	/
		Back	19100	1900.0	1.760	0.610	100.00	1.000	20.73	21.00	1.064	0.649	10#
		Left	19100	1900.0	-2.640	0.514	100.00	1.000	20.73	21.00	1.064	0.547	/
		Bottom	19100	1900.0	3.060	0.198	100.00	1.000	20.73	21.00	1.064	0.211	/
	50%RB	Front	19100	1900.0	0.230	0.156	100.00	1.000	19.65	20.00	1.084	0.169	/
		Back	19100	1900.0	1.550	0.387	100.00	1.000	19.65	20.00	1.084	0.420	/
		Left	19100	1900.0	3.800	0.297	100.00	1.000	19.65	20.00	1.084	0.322	/
		Bottom	19100	1900.0	-0.920	0.116	100.00	1.000	19.65	20.00	1.084	0.126	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 4 (BW: 20MHz)	1RB	Left Cheek	20300	1745.0	2.830	0.049	100.00	1.000	21.05	21.50	1.109	0.054	/
		Left Tilt	20300	1745.0	4.720	0.024	100.00	1.000	21.05	21.50	1.109	0.027	/
		Right Cheek	20300	1745.0	1.360	0.060	100.00	1.000	21.05	21.50	1.109	0.067	11#
		Right Tilt	20300	1745.0	-2.410	0.031	100.00	1.000	21.05	21.50	1.109	0.034	/
	50%RB	Left Cheek	20300	1745.0	0.070	0.017	100.00	1.000	19.89	20.00	1.026	0.017	/
		Left Tilt	20300	1745.0	1.930	0.009	100.00	1.000	19.89	20.00	1.026	0.009	/
		Right Cheek	20300	1745.0	3.680	0.028	100.00	1.000	19.89	20.00	1.026	0.029	/
		Right Tilt	20300	1745.0	-3.240	0.014	100.00	1.000	19.89	20.00	1.026	0.014	/
Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 4 (BW: 20MHz)	1RB	Front	20300	1745.0	-0.040	0.109	100.00	1.000	21.05	21.50	1.109	0.121	/
		Back	20300	1745.0	-4.540	0.244	100.00	1.000	21.05	21.50	1.109	0.271	12#
		Left	20300	1745.0	0.870	0.213	100.00	1.000	21.05	21.50	1.109	0.236	/
		Bottom	20300	1745.0	-1.120	0.086	100.00	1.000	21.05	21.50	1.109	0.095	/
	50%RB	Front	20300	1745.0	-0.010	0.086	100.00	1.000	19.89	20.00	1.026	0.088	/
		Back	20300	1745.0	-4.670	0.198	100.00	1.000	19.89	20.00	1.026	0.203	/
		Left	20300	1745.0	-4.850	0.163	100.00	1.000	19.89	20.00	1.026	0.167	/
		Bottom	20300	1745.0	4.260	0.042	100.00	1.000	19.89	20.00	1.026	0.043	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 5 (BW: 10MHz)	1RB	Left Cheek	20525	836.5	-3.150	0.036	100.00	1.000	21.55	22.00	1.109	0.040	/
		Left Tilt	20525	836.5	-4.060	0.018	100.00	1.000	21.55	22.00	1.109	0.020	/
		Right Cheek	20525	836.5	-2.360	0.043	100.00	1.000	21.55	22.00	1.109	0.048	13#
		Right Tilt	20525	836.5	-0.580	0.021	100.00	1.000	21.55	22.00	1.109	0.023	/
	50%RB	Left Cheek	20525	836.5	0.660	0.014	100.00	1.000	20.44	20.50	1.014	0.014	/
		Left Tilt	20525	836.5	4.390	0.007	100.00	1.000	20.44	20.50	1.014	0.007	/
		Right Cheek	20525	836.5	-4.210	0.019	100.00	1.000	20.44	20.50	1.014	0.019	/
		Right Tilt	20525	836.5	-0.430	0.009	100.00	1.000	20.44	20.50	1.014	0.009	/

Body(hotspot open, 10mm Gap)														
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
Band 5 (BW: 10MHz)	1RB	Front	20525	836.5	4.740	0.163	100.00	1.000	21.55	22.00	1.109	0.181	/	
		Back	20525	836.5	-3.730	0.252	100.00	1.000	21.55	22.00	1.109	0.279	14#	
		Left	20525	836.5	-4.150	0.194	100.00	1.000	21.55	22.00	1.109	0.215	/	
		Bottom	20525	836.5	3.280	0.208	100.00	1.000	21.55	22.00	1.109	0.231	/	
	50%RB	Front	20525	836.5	-3.940	0.073	100.00	1.000	20.44	20.50	1.014	0.074	/	
		Back	20525	836.5	4.440	0.116	100.00	1.000	20.44	20.50	1.014	0.118	/	
		Left	20525	836.5	-2.170	0.091	100.00	1.000	20.44	20.50	1.014	0.092	/	
		Bottom	20525	836.5	-2.800	0.108	100.00	1.000	20.44	20.50	1.014	0.110	/	

Head(0mm gap)														
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
Band 12 (BW: 10MHz)	1RB	Left Cheek	23130	711.0	-3.400	0.011	100.00	1.000	20.50	21.00	1.122	0.012	/	
		Left Tilt	23130	711.0	3.470	0.006	100.00	1.000	20.50	21.00	1.122	0.007	/	
		Right Cheek	23130	711.0	3.500	0.016	100.00	1.000	20.50	21.00	1.122	0.018	15#	
		Right Tilt	23130	711.0	-1.850	0.008	100.00	1.000	20.50	21.00	1.122	0.009	/	
	50%RB	Left Cheek	23130	711.0	3.530	0.008	100.00	1.000	19.77	20.00	1.054	0.008	/	
		Left Tilt	23130	711.0	3.410	0.004	100.00	1.000	19.77	20.00	1.054	0.004	/	
		Right Cheek	23130	711.0	-1.290	0.010	100.00	1.000	19.77	20.00	1.054	0.011	/	
		Right Tilt	23130	711.0	4.170	0.005	100.00	1.000	19.77	20.00	1.054	0.005	/	

Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 12 (BW: 10MHz)	1RB	Front	23130	711.0	1.010	0.099	100.00	1.000	20.50	21.00	1.122	0.111	/
		Back	23130	711.0	1.430	0.161	100.00	1.000	20.50	21.00	1.122	0.181	16#
		Left	23130	711.0	-0.390	0.113	100.00	1.000	20.50	21.00	1.122	0.127	/
		Bottom	23130	711.0	-4.960	0.132	100.00	1.000	20.50	21.00	1.122	0.148	/
	50%RB	Front	23130	711.0	-1.930	0.083	100.00	1.000	19.77	20.00	1.054	0.087	/
		Back	23130	711.0	-3.600	0.120	100.00	1.000	19.77	20.00	1.054	0.126	/
		Left	23130	711.0	3.680	0.091	100.00	1.000	19.77	20.00	1.054	0.096	/
		Bottom	23130	711.0	-2.450	0.106	100.00	1.000	19.77	20.00	1.054	0.112	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 13 (BW: 10MHz)	1RB	Left Cheek	23230	782.0	-1.520	0.003	100.00	1.000	20.56	21.00	1.107	0.003	/
		Left Tilt	23230	782.0	1.120	0.001	100.00	1.000	20.56	21.00	1.107	0.001	/
		Right Cheek	23230	782.0	-2.910	0.004	100.00	1.000	20.56	21.00	1.107	0.004	17#
		Right Tilt	23230	782.0	0.240	0.002	100.00	1.000	20.56	21.00	1.107	0.002	/
	50%RB	Left Cheek	23230	782.0	0.890	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/
		Left Tilt	23230	782.0	1.870	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/
		Right Cheek	23230	782.0	2.520	0.002	100.00	1.000	19.67	20.00	1.079	0.002	/
		Right Tilt	23230	782.0	1.450	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/

Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 13 (BW: 10MHz)	1RB	Front	23230	782.0	4.810	0.130	100.00	1.000	20.56	21.00	1.107	0.144	/
		Back	23230	782.0	-3.830	0.209	100.00	1.000	20.56	21.00	1.107	0.231	18#
		Left	23230	782.0	-3.800	0.153	100.00	1.000	20.56	21.00	1.107	0.169	/
		Bottom	23230	782.0	-4.850	0.164	100.00	1.000	20.56	21.00	1.107	0.182	/
	50%RB	Front	23230	782.0	-4.840	0.107	100.00	1.000	19.67	20.00	1.079	0.115	/
		Back	23230	782.0	2.530	0.156	100.00	1.000	19.67	20.00	1.079	0.168	/
		Left	23230	782.0	3.100	0.129	100.00	1.000	19.67	20.00	1.079	0.139	/
		Bottom	23230	782.0	4.200	0.131	100.00	1.000	19.67	20.00	1.079	0.141	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 17 (BW:10MHz)	1RB	Left Cheek	23790	710.0	4.120	0.001	100.00	1.000	20.52	21.00	1.117	0.001	/
		Left Tilt	23790	710.0	-0.330	0.001	100.00	1.000	20.52	21.00	1.117	0.001	/
		Right Cheek	23790	710.0	-1.390	0.002	100.00	1.000	20.52	21.00	1.117	0.002	19#
		Right Tilt	23790	710.0	-3.810	0.001	100.00	1.000	20.52	21.00	1.117	0.001	/
	50%RB	Left Cheek	23790	710.0	2.710	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/
		Left Tilt	23790	710.0	0.670	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/
		Right Cheek	23790	710.0	-1.750	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/
		Right Tilt	23790	710.0	4.290	0.001	100.00	1.000	19.67	20.00	1.079	0.001	/

Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 17 (BW: 10MHz)	1RB	Front	23790	710.0	-2.770	0.169	100.00	1.000	20.52	21.00	1.117	0.189	/
		Back	23790	710.0	-0.760	0.213	100.00	1.000	20.52	21.00	1.117	0.238	20#
		Left	23790	710.0	-4.680	0.185	100.00	1.000	20.52	21.00	1.117	0.207	/
		Bottom	23790	710.0	3.770	0.201	100.00	1.000	20.52	21.00	1.117	0.225	/
	50%RB	Front	23790	710.0	3.310	0.109	100.00	1.000	19.67	20.00	1.079	0.118	/
		Back	23790	710.0	-2.510	0.186	100.00	1.000	19.67	20.00	1.079	0.201	/
		Left	23790	710.0	4.590	0.141	100.00	1.000	19.67	20.00	1.079	0.152	/
		Bottom	23790	710.0	-4.880	0.175	100.00	1.000	19.67	20.00	1.079	0.189	/

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 66 (BW: 20MHz)	1RB	Left Cheek	132072	1720.0	4.600	0.029	100.00	1.000	20.97	21.00	1.007	0.029	/
		Left Tilt	132072	1720.0	1.790	0.016	100.00	1.000	20.97	21.00	1.007	0.016	/
		Right Cheek	132072	1720.0	-0.010	0.053	100.00	1.000	20.97	21.00	1.007	0.053	21#
		Right Tilt	132072	1720.0	1.540	0.027	100.00	1.000	20.97	21.00	1.007	0.027	/
	50%RB	Left Cheek	132072	1720.0	-3.660	0.026	100.00	1.000	19.90	20.00	1.023	0.027	/
		Left Tilt	132072	1720.0	-4.600	0.013	100.00	1.000	19.90	20.00	1.023	0.013	/
		Right Cheek	132072	1720.0	-3.850	0.035	100.00	1.000	19.90	20.00	1.023	0.036	/
		Right Tilt	132072	1720.0	1.700	0.017	100.00	1.000	19.90	20.00	1.023	0.017	/

Body(hotspot open, 10mm Gap)														
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.	
Band 66 (BW: 20MHz)	1RB	Front	132072	1720.0	2.650	0.796	100.00	1.000	20.97	21.00	1.007	0.802	/	
		Back	132072	1720.0	-2.580	1.277	100.00	1.000	20.97	21.00	1.007	1.286	22#	
		Back-Repeat	132072	1720.0	1.410	1.271	100.00	1.000	20.97	21.00	1.007	1.280	/	
		Back	132322	1745.0	-0.589	1.105	100.00	1.000	20.94	21.00	1.014	1.120	/	
		Back	132572	1770.0	3.061	0.810	100.00	1.000	20.82	21.00	1.042	0.844	/	
		Left	132072	1720.0	2.120	0.974	100.00	1.000	20.97	21.00	1.007	0.981	/	
	Bottom	132072	1720.0	2.820	0.639	100.00	1.000	20.97	21.00	1.007	0.643	/		
	50%RB	Front	132072	1720.0	1.850	0.234	100.00	1.000	19.90	20.00	1.023	0.239	/	
		Back	132072	1720.0	0.150	0.741	100.00	1.000	19.90	20.00	1.023	0.758	/	
		Left	132072	1720.0	-3.400	0.326	100.00	1.000	19.90	20.00	1.023	0.333	/	
Bottom		132072	1720.0	0.410	0.195	100.00	1.000	19.90	20.00	1.023	0.199	/		

Head(0mm gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 71 (BW: 20MHz)	1RB	Left Cheek	133372	688.0	0.510	0.009	100.00	1.000	19.63	20.00	1.089	0.010	/
		Left Tilt	133372	688.0	1.580	0.005	100.00	1.000	19.63	20.00	1.089	0.005	/
		Right Cheek	133372	688.0	-1.890	0.012	100.00	1.000	19.63	20.00	1.089	0.013	23#
		Right Tilt	133372	688.0	2.870	0.006	100.00	1.000	19.63	20.00	1.089	0.007	/
	50%RB	Left Cheek	133372	688.0	-0.720	0.004	100.00	1.000	18.92	19.00	1.019	0.004	/
		Left Tilt	133372	688.0	2.220	0.002	100.00	1.000	18.92	19.00	1.019	0.002	/
		Right Cheek	133372	688.0	-4.030	0.006	100.00	1.000	18.92	19.00	1.019	0.006	/
		Right Tilt	133372	688.0	1.250	0.003	100.00	1.000	18.92	19.00	1.019	0.003	/

Body(hotspot open, 10mm Gap)													
Mode	Channel Type	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Band 71 (BW: 20MHz)	1RB	Front	133372	688.0	4.730	0.127	100.00	1.000	19.63	20.00	1.089	0.138	/
		Back	133372	688.0	-0.520	0.206	100.00	1.000	19.63	20.00	1.089	0.224	24#
		Left	133372	688.0	1.890	0.153	100.00	1.000	19.63	20.00	1.089	0.167	/
		Bottom	133372	688.0	1.230	0.184	100.00	1.000	19.63	20.00	1.089	0.200	/
	50%RB	Front	133372	688.0	-2.970	0.099	100.00	1.000	18.92	19.00	1.019	0.101	/
		Back	133372	688.0	-4.730	0.185	100.00	1.000	18.92	19.00	1.019	0.189	/
		Left	133372	688.0	-1.310	0.137	100.00	1.000	18.92	19.00	1.019	0.140	/
		Bottom	133372	688.0	-0.100	0.163	100.00	1.000	18.92	19.00	1.019	0.166	/

Head(0mm gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Bluetooth	Left Cheek	0	2402	4.750	0.004	100.00	1.000	5.77	6.00	1.054	0.004	/
	Left Tilt	0	2402	-1.350	0.002	100.00	1.000	5.77	6.00	1.054	0.002	/
	Right Cheek	0	2402	2.670	0.005	100.00	1.000	5.77	6.00	1.054	0.005	25#
	Right Tilt	0	2402	-2.520	0.003	100.00	1.000	5.77	6.00	1.054	0.003	/
Body(hotspot open, 10mm Gap)												
Mode	Position	Ch.	Freq. (MHz)	Power Drift (%)	1g Meas SAR (W/kg)	Duty cycle (%)	Duty cycle Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Bluetooth	Front	0	2402	-0.321	0.004	100.00	1.000	5.77	6.00	1.054	0.004	/
	Back	0	2402	0.840	0.005	100.00	1.000	5.77	6.00	1.054	0.005	26#
	Left	0	2402	1.690	0.004	100.00	1.000	5.77	6.00	1.054	0.004	/

Note:

- The maximum SAR Value of each test band is marked bold.
- SAR plot is provided only for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
- Per KDB 447498 D04 v01, for each exposure position, if the highest output power channel Reported SAR $\leq 0.8\text{W/kg}$, other channels SAR testing is not necessary.
- Per KDB 447498 D04 v01, head/body-worn use is evaluated with the device positioned at 0mm/10 mm from a head/flat phantom respectively filled with head tissue-equivalent medium.
- Per KDB Publication 941225 D06 where SAR test considerations for handsets (L x W $\geq 9\text{ cm} \times 5\text{ cm}$) are based on a composite test separation distance of 10 mm from the front, back and edges of the device with antennas 2.5 cm or closer to the edge of the device, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.
- Per KDB 447498 D04 v01, the report SAR is measured SAR value adjusted for maximum tune-up tolerance. Scaling Factor= $10^{[(\text{tune-up limit power(dBm)} - \text{Ave.power power (dBm)})/10]}$, where tune-up limit is the maximum rated power among all production units.
Reported SAR(W/kg)=Measured SAR (W/kg)*Scaling Factor.

11. SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. 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, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Note: For 1g SAR, the highest measured 1g SAR is $1.277 > 0.80$ W/kg, repeated measurement is as below.

Mode	Position	Ch.	Freq. (MHz)	1g Meas SAR (W/kg)	the ratio of largest to smallest SAR for the original and first repeated measurements
LTE Band 66	Back	132072	1720.0	1.277	1.005
	Back-repeat	132072	1720.0	1.271	

12. Simultaneous Transmission

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

12.1 Simultaneous Transmission Mode Considerations

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. The device has 2 Tx antennas, WWAN main antenna, BT antenna supports EDR. The 2 antennas can always transmit simultaneously. The work mode combination is showed as below table.

Application Simultaneous Transmission information:

NO.	Configuration	Head	Body
1	WWAN+BT	Yes	Yes

12.2 Sum SAR of Simultaneous Transmission

Head

Band	Channel Type	Test Position	Scaled		Σ SAR (W/kg) WWAN + BT	SPLSR	Remark
			WWAN	Bluetooth			
LTE Band 2	1RB	Left Cheek	0.086	0.004	0.090	N/A	N/A
		Left Tilt	0.043	0.002	0.045	N/A	N/A
		Right Cheek	0.098	0.005	0.103	N/A	N/A
		Right Tilt	0.049	0.003	0.052	N/A	N/A
	50%RB	Left Cheek	0.040	0.004	0.044	N/A	N/A
		Left Tilt	0.021	0.002	0.023	N/A	N/A
		Right Cheek	0.046	0.005	0.051	N/A	N/A
		Right Tilt	0.022	0.003	0.025	N/A	N/A

Body

Band	Channel Type	Test Position	Scaled		Σ SAR (W/kg) WWAN + BT	SPLSR	Remark
			WWAN	Bluetooth			
LTE Band 66	1RB	Front	0.802	0.004	0.806	N/A	N/A
		Back	1.286	0.005	1.291	N/A	N/A
		Left	0.981	0.004	0.985	N/A	N/A
		Bottom	0.643	/	0.643	N/A	N/A
	50%RB	Front	0.239	0.004	0.243	N/A	N/A
		Back	0.758	0.005	0.763	N/A	N/A
		Left	0.333	0.004	0.337	N/A	N/A
		Bottom	0.199	/	0.199	N/A	N/A

13. Test Equipment List

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
E-Field Probe	MVG	SSE2	0125-EPGO-445	2025/02/01	2026/01/31
6 1/2 Digital Multimeter	Keithley	DMM6500	4527164	2024/10/25	2025/10/24
Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	161997	2024/10/25	2025/10/24
MXG Vector Signal Generator	Agilent	N5182A	MY46240163	2024/10/25	2025/10/24
E-Series Avg. Power Sensor	KEYSIGHT	E9300A	MY55050017	2025/04/02	2026/04/01
EPM Series Power Meter	KEYSIGHT	E4418B	MY41293435	2025/04/02	2026/04/01
MXA Signal Analyzer	KEYSIGHT	N9020A	MY54410409	2024/10/25	2025/10/24
Broadband Preamplifier	Schwarzbeck	BBV9718D	00008	2024/09/24	2025/09/23
Coupler	MERRIMAC	CWM-10R-10.8G	LOT-83391	N/A	N/A
750MHz Validation Dipole	MVG	SID750	07/22 DIP 0G750-655	2025/05/26	2028/05/25
835MHz Validation Dipole	MVG	SID835	07/22 DIP 0G835-656	2025/05/26	2028/05/25
1800MHz Validation Dipole	MVG	SID1800	07/22 DIP 1G800-657	2025/05/26	2028/05/25
1900MHz Validation Dipole	MVG	SID1900	07/22 DIP 1G900-658	2025/05/26	2028/05/25
2450MHz Validation Dipole	MVG	SID2450	07/22 DIP 2G450-662	2025/05/26	2028/05/25
LIMESAR Dielectric Probe	MVG	SCLMP	06/22 OCPG88	2025/02/05	2026/02/04
ENA Series Network Analyzer	Agilent	E5071B	MY42301221	2024/10/25	2025/10/24
Thermometer	Riters	DT-232	21A11	2025/04/02	2026/04/01
Antenna network emulator	MVG	ANTA 74	07/22 ANTA 74	N/A	N/A
SAM Phantom	MVG	SAM	07/22 SAM149	N/A	N/A
Mobile Phone Positioning System	MVG	MSH 118	07/22 MSH 118	N/A	N/A
Mechanical Calibration Kit	PNA	N/A	N/A	2024/10/25	2025/10/24
Open SAR test software	MVG	N/A	V5.3.5	N/A	N/A

Note: For dipole antennas, BTF has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss is within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) is within 5 Ohms of calibrated measurement.

ANNEX A Simulating Liquid Verification Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an SCLMP Dielectric Probe Kit.

Dielectric performance of tissue simulating liquid									
Frequency (MHz)	ϵ_r		σ (s/m)		Delta (ϵ_r)	Delta (σ)	Limit	Temp (°C)	Date
	Target	Measured	Target	Measured					
750	41.90	42.31	0.89	0.85	0.98%	-4.49%	±5%	21.1	10/9/2025
835	41.50	41.68	0.90	0.90	0.43%	0.00%	±5%	20.9	12/9/2025
1800	40.00	40.03	1.40	1.41	0.08%	0.71%	±5%	21.3	14/9/2025
1900	40.00	39.88	1.40	1.44	-0.30%	2.86%	±5%	20.5	20/9/2025
2450	39.20	38.14	1.80	1.79	-2.70%	-0.56%	±5%	21.6	21/9/2025

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

ANNEX B System Check Result

Comparing to the original SAR value provided by MVG, the validation data should be within its specification of 10 %(for 10 g).

Frequency (MHz)	Input Power (mW)	10g SAR (W/Kg)	1g SAR (W/Kg)	10g SAR 1W input power normalized (W/Kg)	1g SAR 1W input power normalized (W/Kg)	10g SAR Standard target (1W) (W/Kg)	1g SAR Standard target (1W) (W/Kg)	10g SAR Deviation	1g SAR Deviation
750	100	0.514	0.777	5.14	7.77	5.55	8.41	-7.39%	-7.61%
835	100	0.615	0.928	6.15	9.28	6.12	9.46	0.49%	-1.90%
1800	100	1.931	3.531	19.31	35.31	19.83	37.93	-2.62%	-6.91%
1900	100	2.051	3.872	20.51	38.72	20.82	40.29	-1.49%	-3.90%
2450	100	2.494	5.206	24.94	52.06	24.55	52.72	1.59%	-1.25%

System Performance Check Data (750 MHz)

System check at 750 MHz

Date of measurement: 10/9/2025

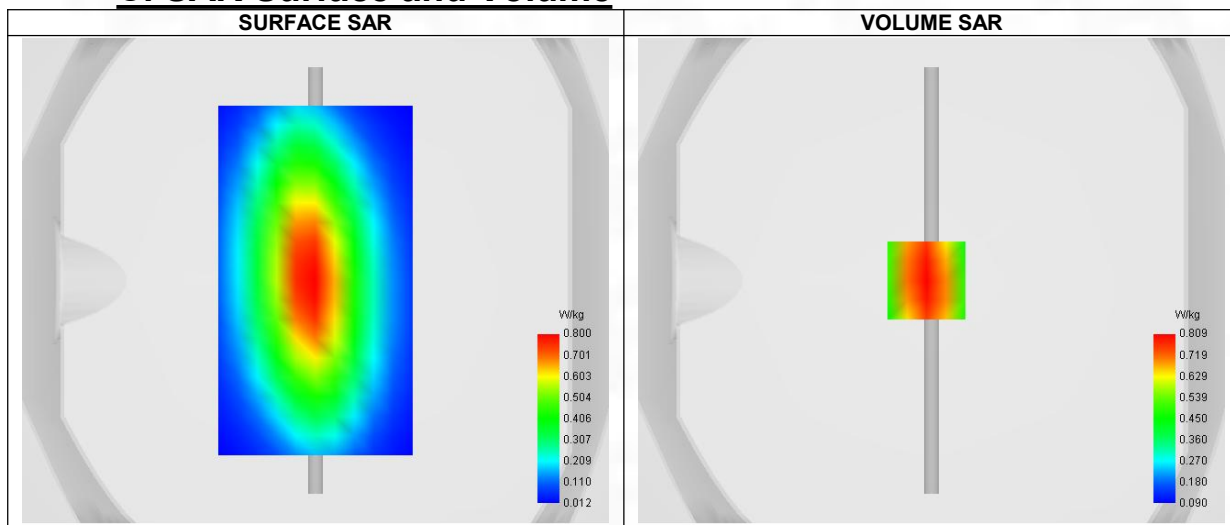
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels/Frequency	Higher
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	750.000
Relative permittivity (real part)	42.314
Relative permittivity (imaginary part)	21.312
Conductivity (S/m)	0.851

C. SAR Surface and Volume



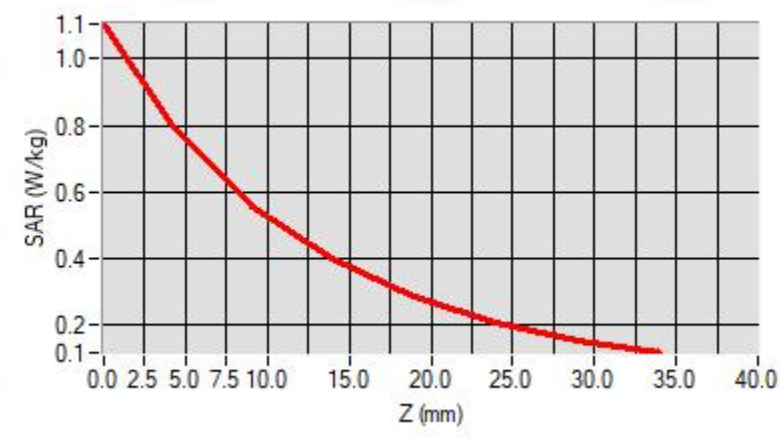
Maximum location: X=-2.00, Y=0.00 ; SAR Peak: 1.10 W/kg

D. SAR 1g & 10g

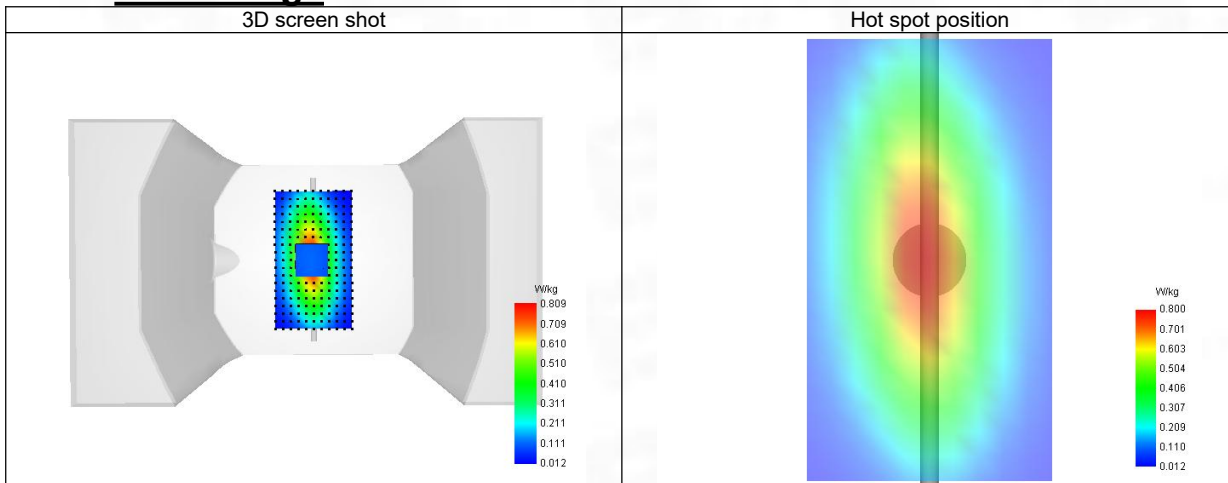
SAR 10g (W/Kg)	0.514
SAR 1g (W/Kg)	0.777
Variation (%)	-0.270
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	68.570257

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.105	0.809	0.555	0.396	0.285	0.204	0.152



F. 3D Image



System Performance Check Data (835 MHz)

System check at 835 MHz

Date of measurement: 12/9/2025

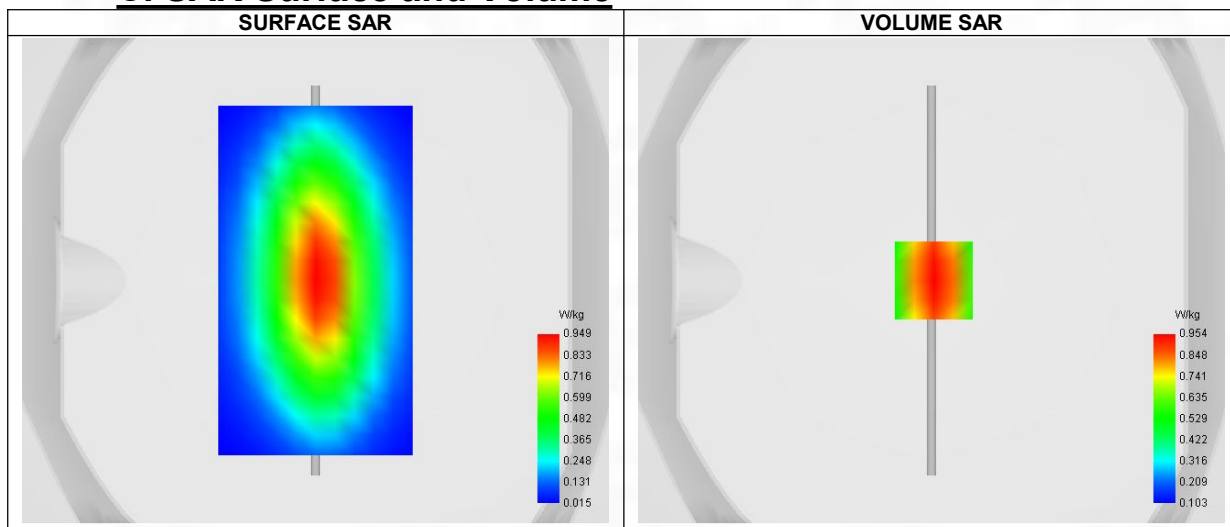
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels/Frequency	Higher
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	835.000
Relative permittivity (real part)	41.679
Relative permittivity (imaginary part)	19.43
Conductivity (S/m)	0.901

C. SAR Surface and Volume



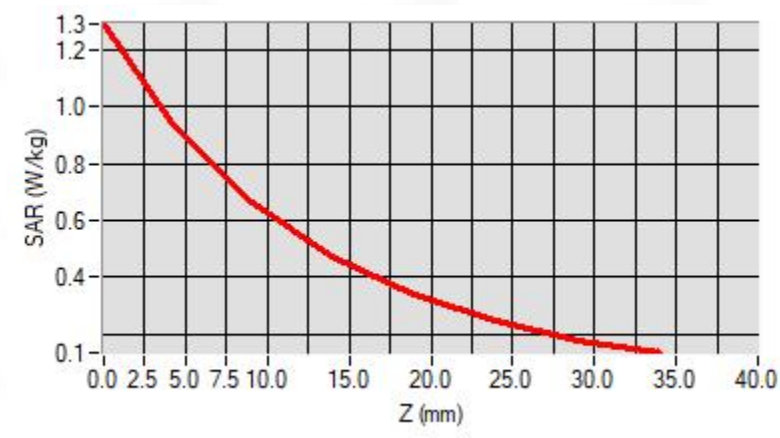
Maximum location: X=1.00, Y=0.00 ; SAR Peak: 1.29 W/kg

D. SAR 1g & 10g

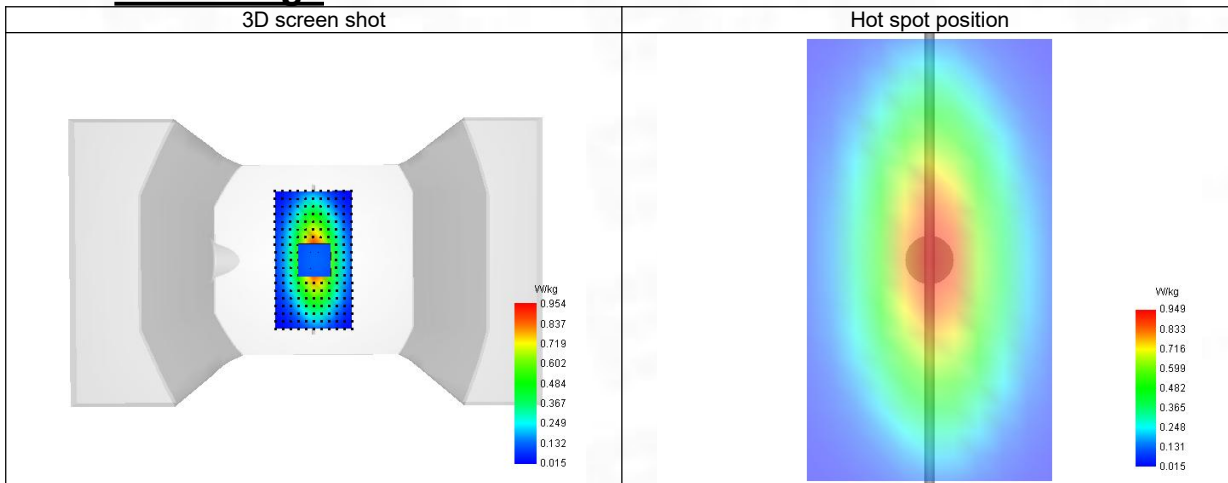
SAR 10g (W/Kg)	0.615
SAR 1g (W/Kg)	0.928
Variation (%)	-0.310
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	69.522920

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.293	0.954	0.663	0.470	0.341	0.243	0.175



F. 3D Image



System Performance Check Data (1800 MHz)

System check at 1800 MHz

Date of measurement: 14/9/2025

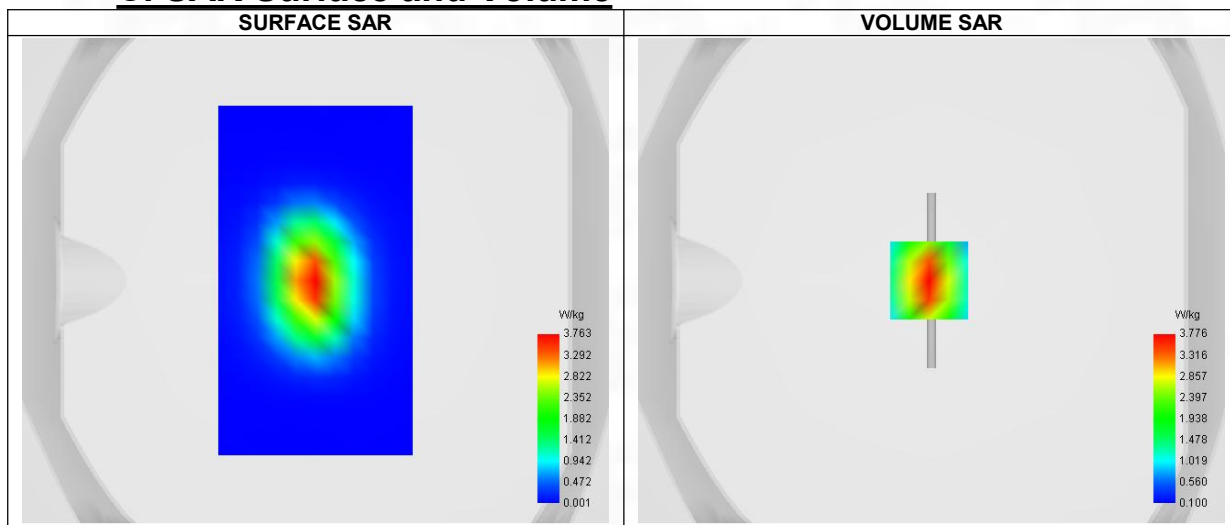
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.20
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels/Frequency	Higher
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	1800.000
Relative permittivity (real part)	40.032
Relative permittivity (imaginary part)	14.633
Conductivity (S/m)	1.413

C. SAR Surface and Volume



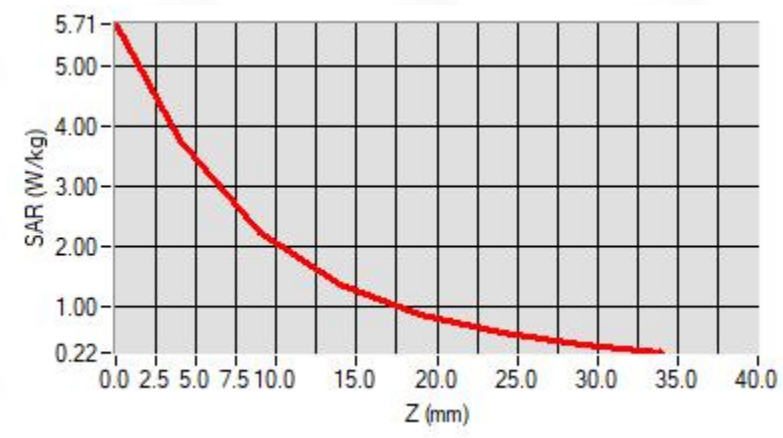
Maximum location: X=-1.00, Y=0.00 ; SAR Peak: 5.67 W/kg

D. SAR 1g & 10g

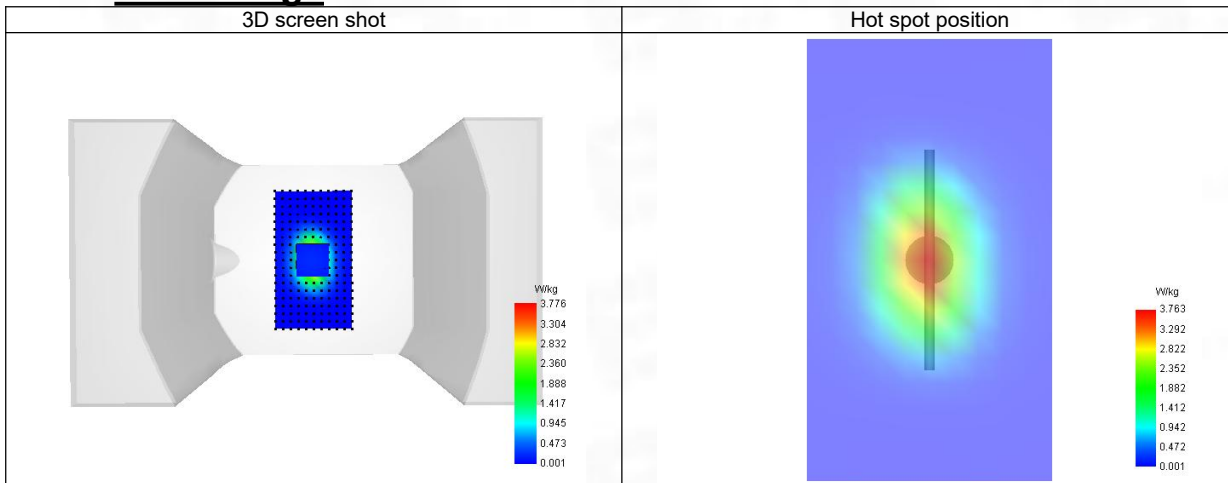
SAR 10g (W/Kg)	1.931
SAR 1g (W/Kg)	3.531
Variation (%)	1.250
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	59.203413

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	5.710	3.776	2.235	1.370	0.855	0.536	0.337



F. 3D Image



System Performance Check Data (1900 MHz)

System check at 1900 MHz

Date of measurement: 20/9/2025

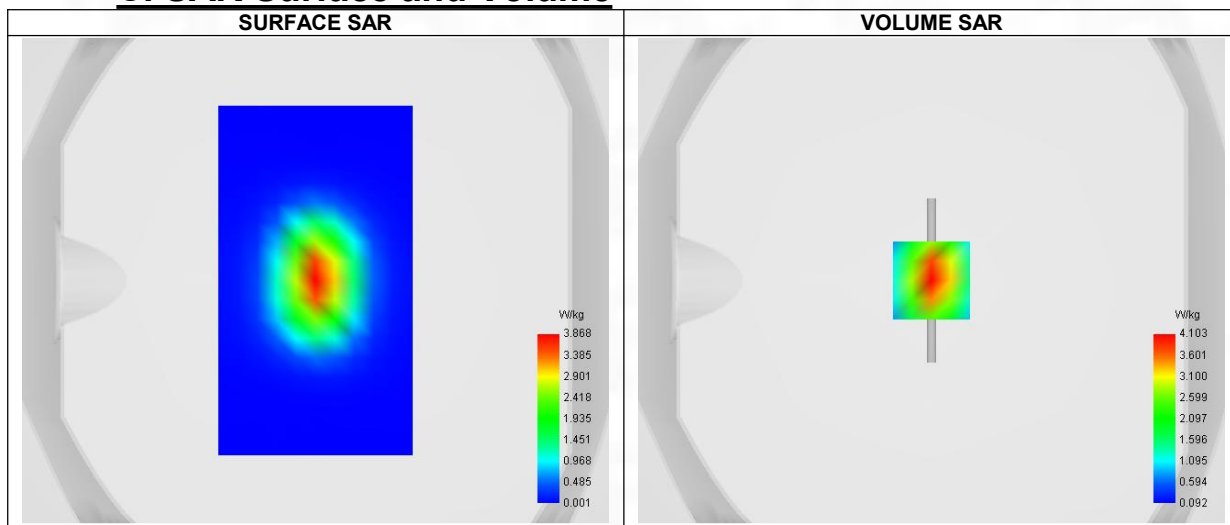
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels/Frequency	Higher
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	1900.000
Relative permittivity (real part)	39.883
Relative permittivity (imaginary part)	13.612
Conductivity (S/m)	1.442

C. SAR Surface and Volume



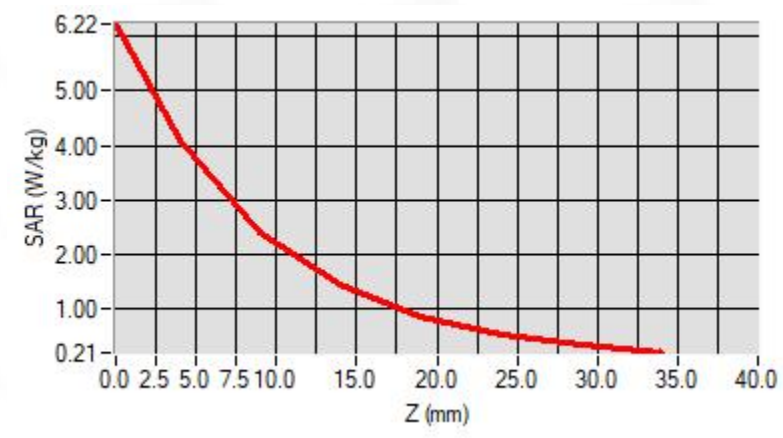
Maximum location: X=0.00, Y=0.00 ; SAR Peak: 6.25 W/kg

D. SAR 1g & 10g

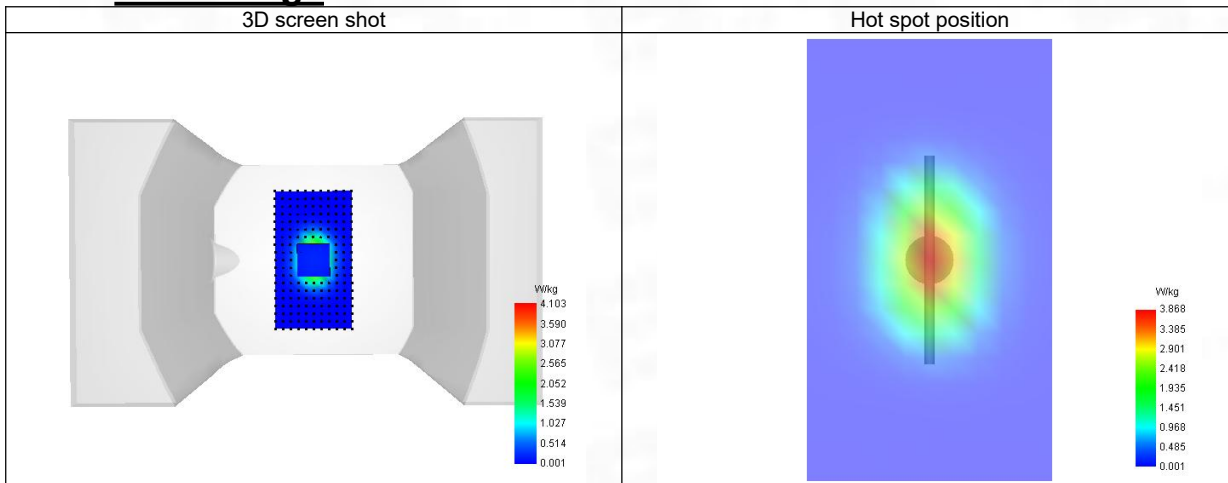
SAR 10g (W/Kg)	2.051
SAR 1g (W/Kg)	3.872
Variation (%)	3.700
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	58.629626

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.224	4.103	2.405	1.456	0.888	0.547	0.340



F. 3D Image



System Performance Check Data (2450 MHz)

SAR Measurement at CW2450 (Dipole, Validation Plane)

Date of measurement: 21/9/2025

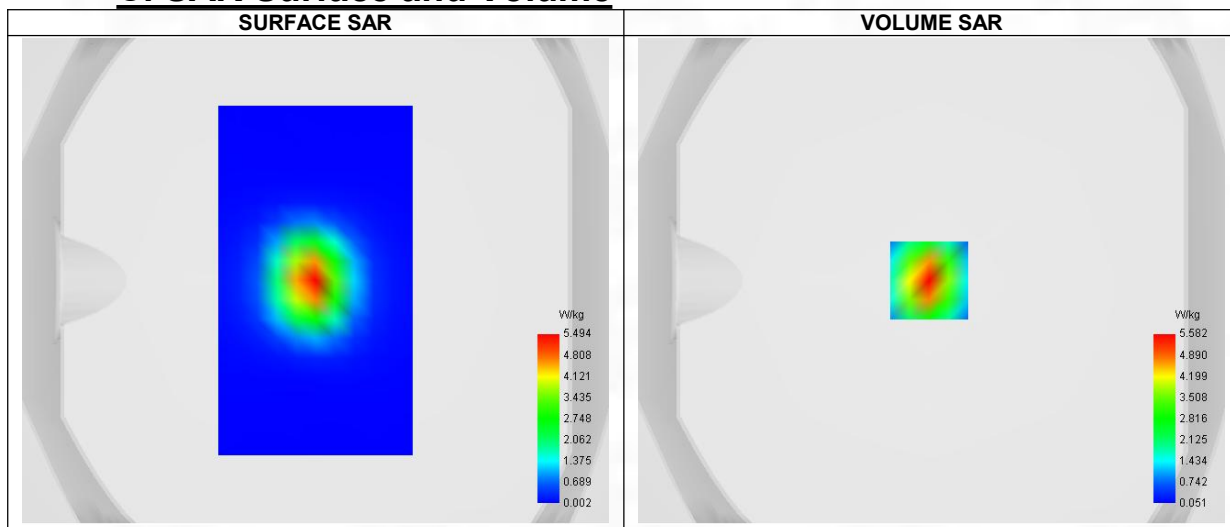
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.40
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels/Frequency	Middle
Signal	CW

B. Permittivity

Middle TX Frequency (MHz)	2450.000
Relative permittivity (real part)	38.143
Relative permittivity (imaginary part)	13.641
Conductivity (S/m)	1.788

C. SAR Surface and Volume

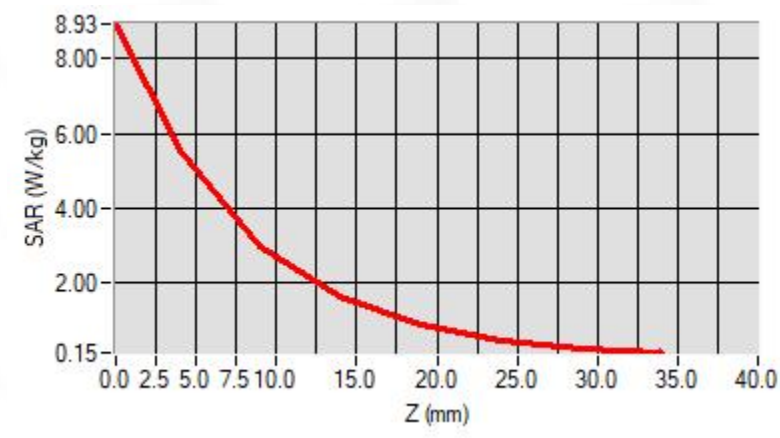


D. SAR 1g & 10g

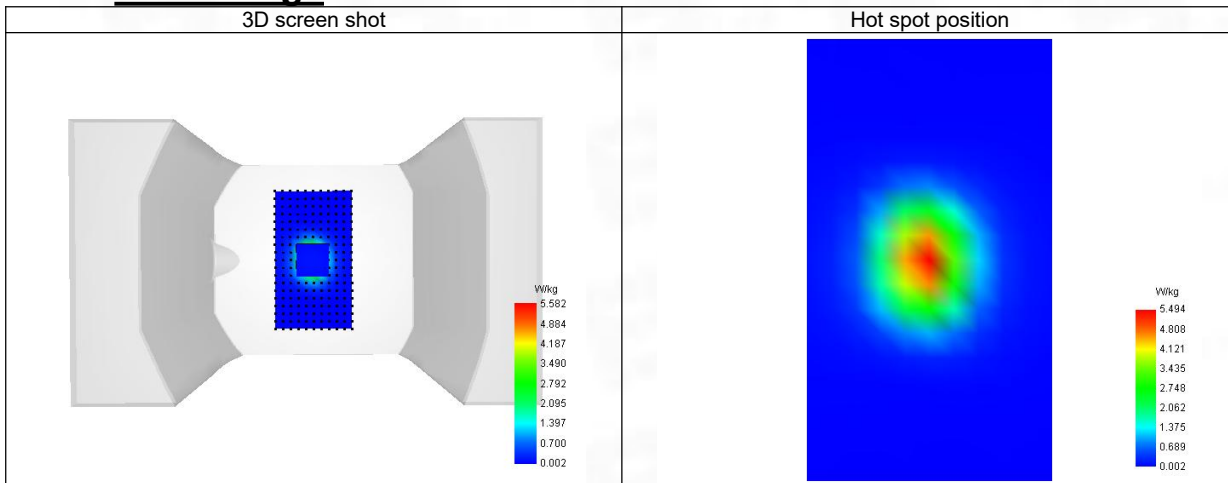
SAR 10g (W/Kg)	2.494
SAR 1g (W/Kg)	5.206
Variation (%)	2.920
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	53.633683

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	8.934	5.582	2.994	1.633	0.899	0.491	0.277



F. 3D Image



ANNEX C Test Data

1-Head with front position in dist. 0mm on Channel 128 in GSM850 voice

SAR Measurement at GSM850 (Cheek, Right)

Date of measurement: 12/9/2025

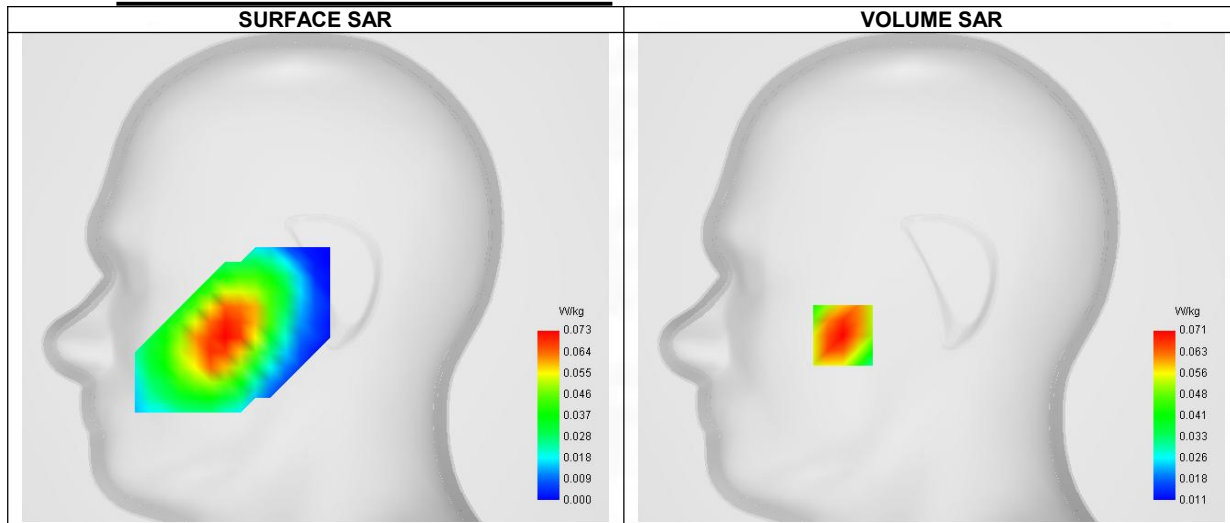
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels/Frequency	Lower (128)/ frequency 824.200 Mhz
Signal	TDMA (GSM)
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	824.200
Relative permittivity (real part)	41.760
Relative permittivity (imaginary part)	19.669
Conductivity (S/m)	0.895

C. SAR Surface and Volume



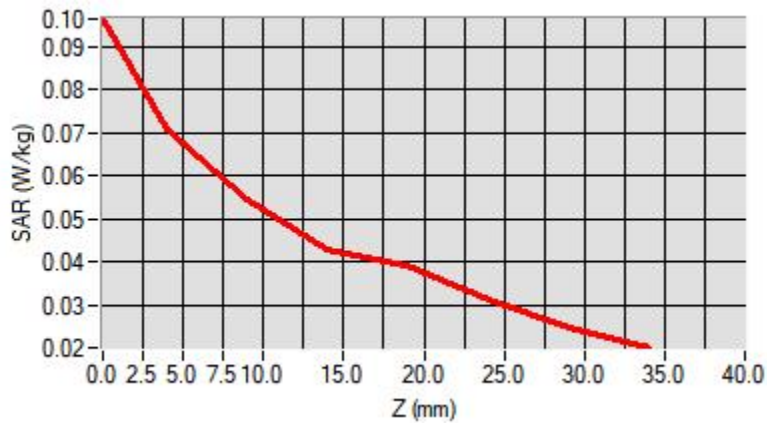
Maximum location: X=-47.00, Y=-31.00 ; SAR Peak: 0.10 W/kg

D. SAR 1g & 10g

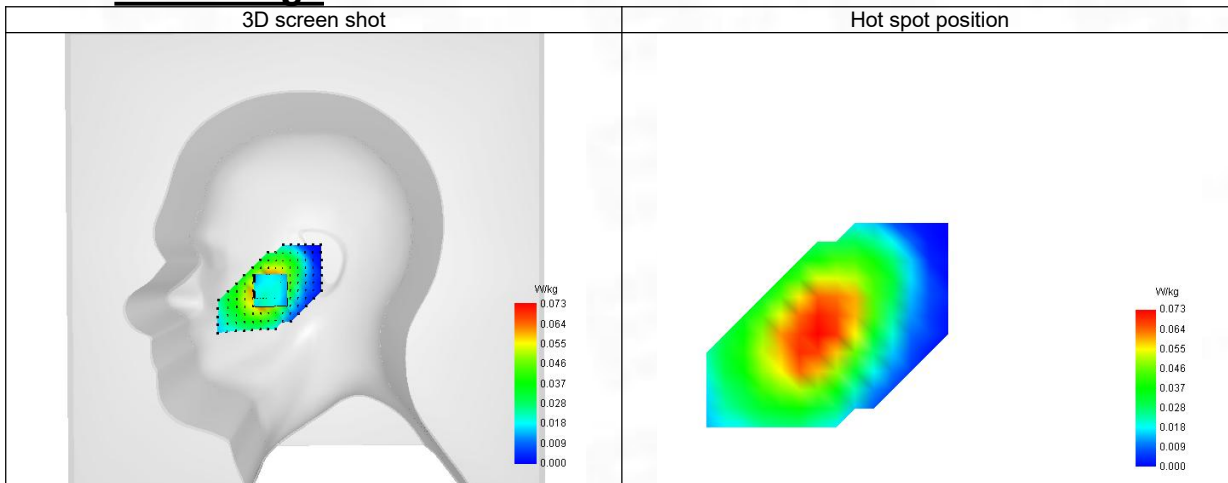
SAR 10g (W/Kg)	0.050
SAR 1g (W/Kg)	0.069
Variation (%)	-0.030
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	76.829615

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.096	0.071	0.054	0.043	0.039	0.031	0.025



F. 3D Image



2-Body with back position in dist. 10mm on Channel 128 in GPRS850+4slots

SAR Measurement at GPRS850 (Body, Validation Plane)

Date of measurement: 12/9/2025

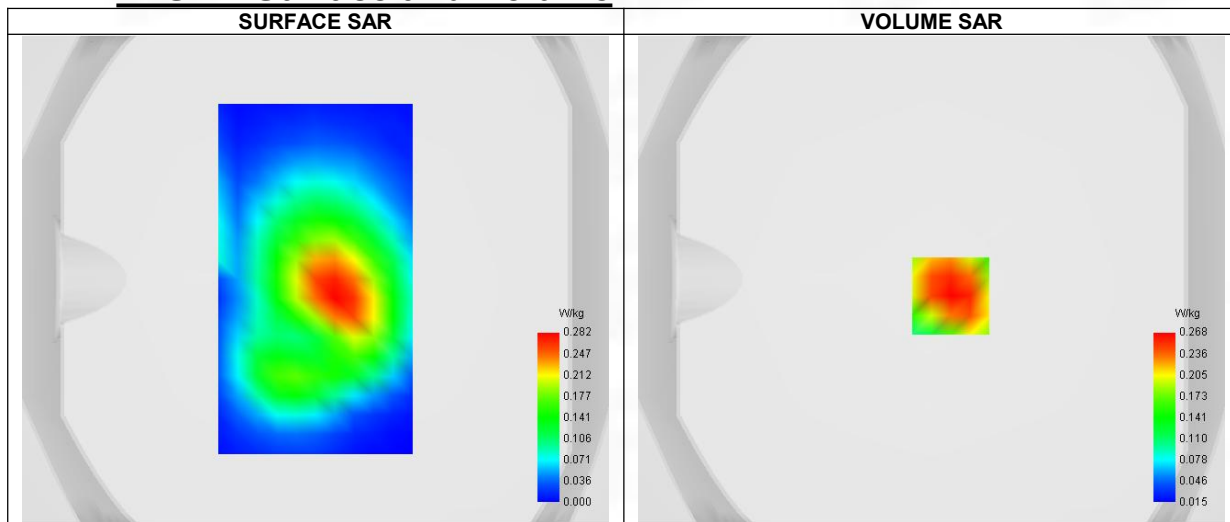
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	GPRS850
Channels/Frequency	Lower (128)/ frequency 824.200 Mhz
Signal	TDMA (GPRS)
Modulation	GMSK (CS-1)
TX-slots	4

B. Permittivity

Middle TX Frequency (MHz)	824.200
Relative permittivity (real part)	41.760
Relative permittivity (imaginary part)	19.669
Conductivity (S/m)	0.895

C. SAR Surface and Volume



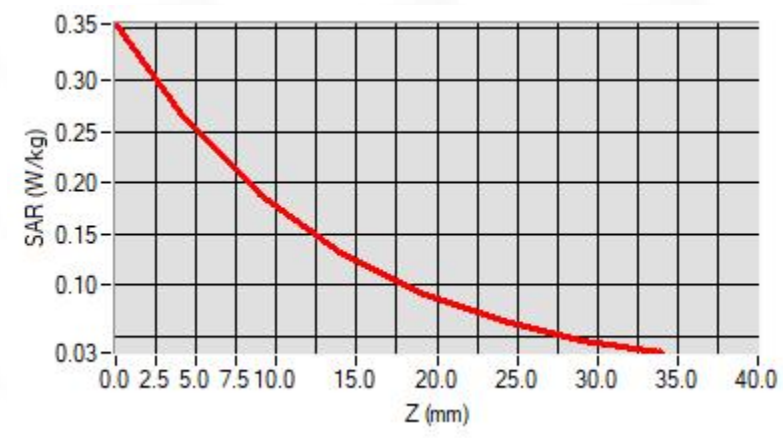
Maximum location: X=8.00, Y=-7.00 ; SAR Peak: 0.37 W/kg

D. SAR 1g & 10g

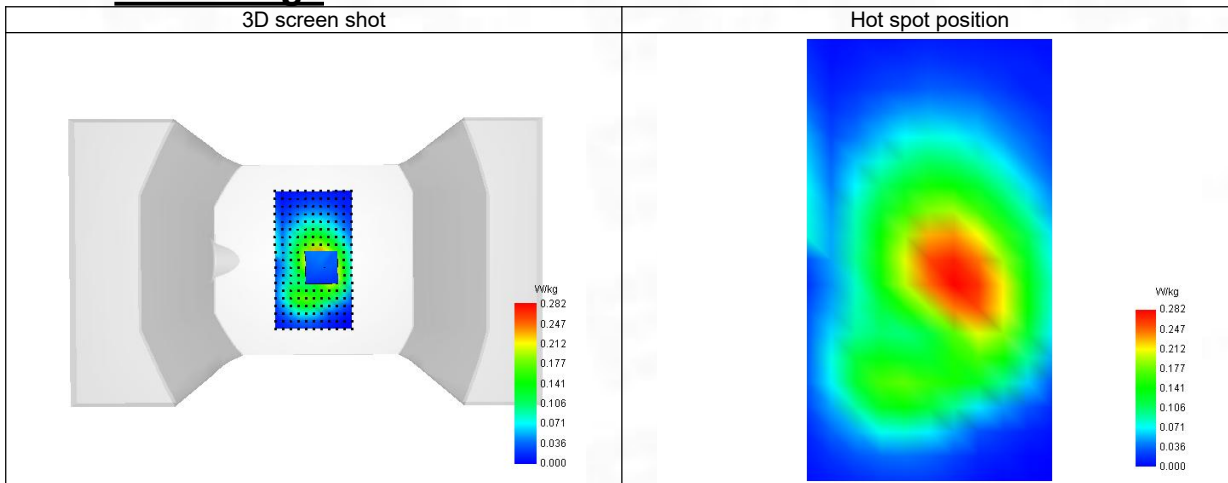
SAR 10g (W/Kg)	0.170
SAR 1g (W/Kg)	0.259
Variation (%)	-0.440
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	70.157763

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.355	0.268	0.188	0.132	0.093	0.065	0.046



F. 3D Image



3-Head with front position in dist. 0mm on Channel 810 in GSM1900 voice

SAR Measurement at GSM1900 (Cheek, Right)

Date of measurement: 20/9/2025

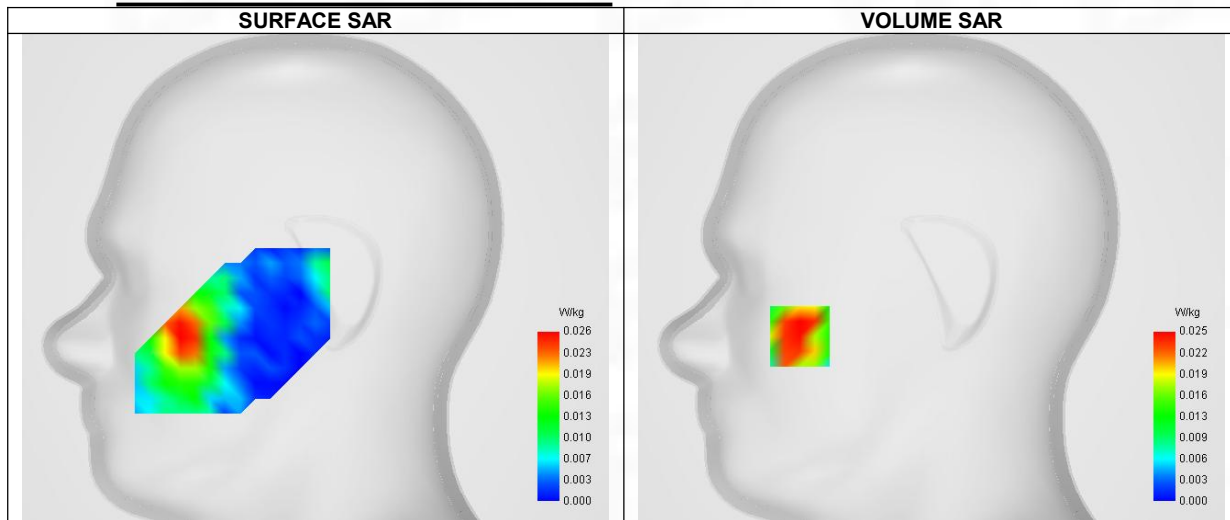
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels/Frequency	Higher (810)/ frequency 1909.800 Mhz
Signal	TDMA (GSM)
Modulation	GMSK

B. Permittivity

Middle TX Frequency (MHz)	1909.800
Relative permittivity (real part)	39.852
Relative permittivity (imaginary part)	13.613
Conductivity (S/m)	1.448

C. SAR Surface and Volume



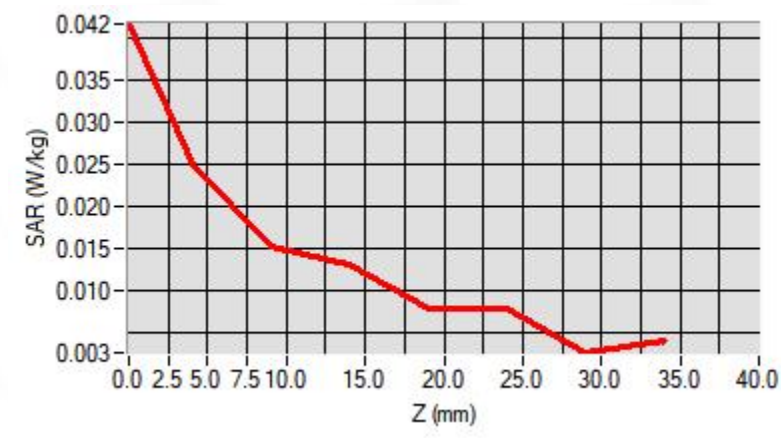
Maximum location: X=-70.00, Y=-31.00 ; SAR Peak: 0.04 W/kg

D. SAR 1g & 10g

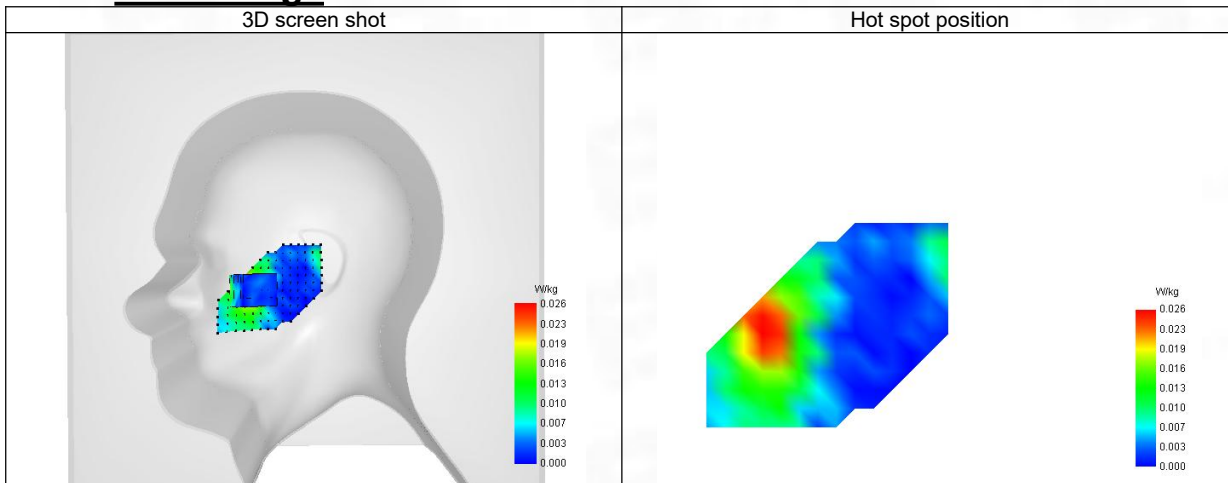
SAR 10g (W/Kg)	0.015
SAR 1g (W/Kg)	0.026
Variation (%)	-2.970
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	61.413074

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.042	0.025	0.015	0.013	0.008	0.008	0.003



F. 3D Image



4-Body with back position in dist. 10mm on Channel 512 in GPRS1900+3slots

SAR Measurement at GPRS1900 (Body, Validation Plane)

Date of measurement: 20/9/2025

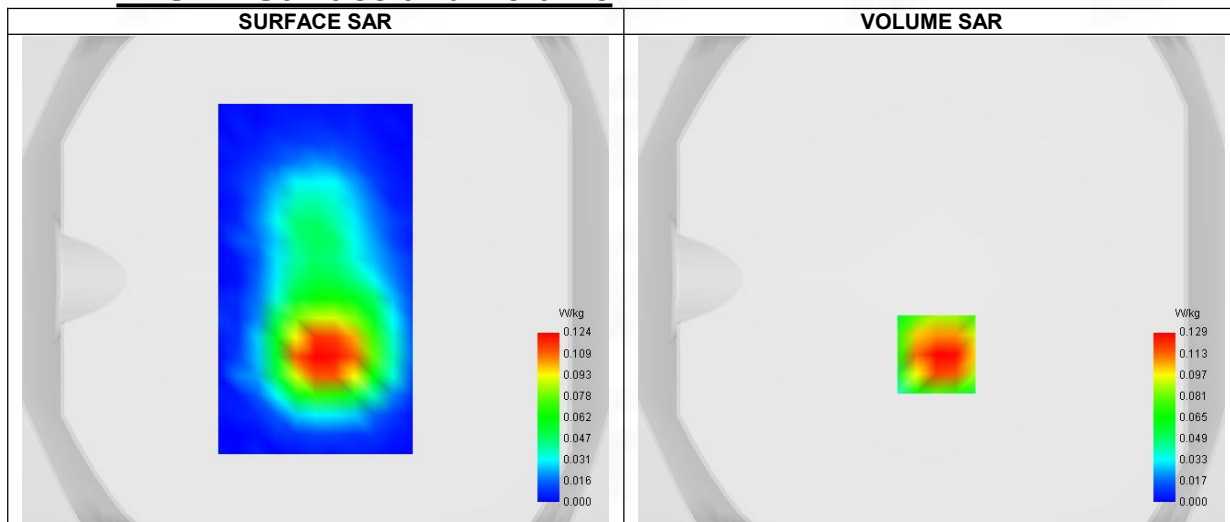
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	GPRS1900
Channels/Frequency	Lower (512)/ frequency 1850.200 Mhz
Signal	TDMA (GPRS)
Modulation	GMSK (CS-1)
TX-slots	3

B. Permittivity

Middle TX Frequency (MHz)	1850.200
Relative permittivity (real part)	39.957
Relative permittivity (imaginary part)	14.120
Conductivity (S/m)	1.428

C. SAR Surface and Volume



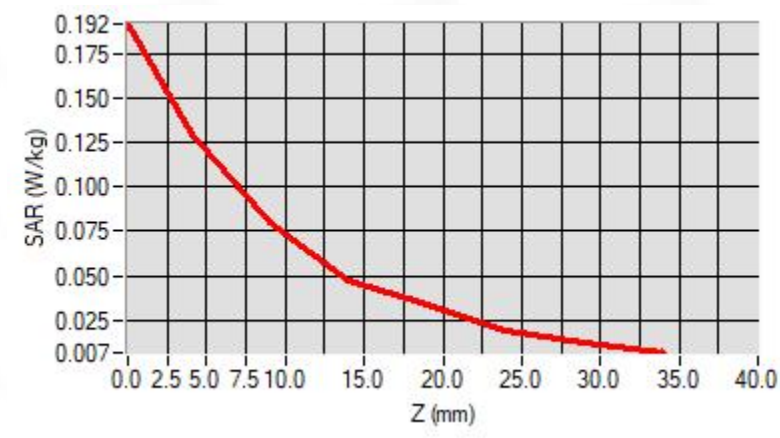
Maximum location: X=2.00, Y=-31.00 ; SAR Peak: 0.21 W/kg

D. SAR 1g & 10g

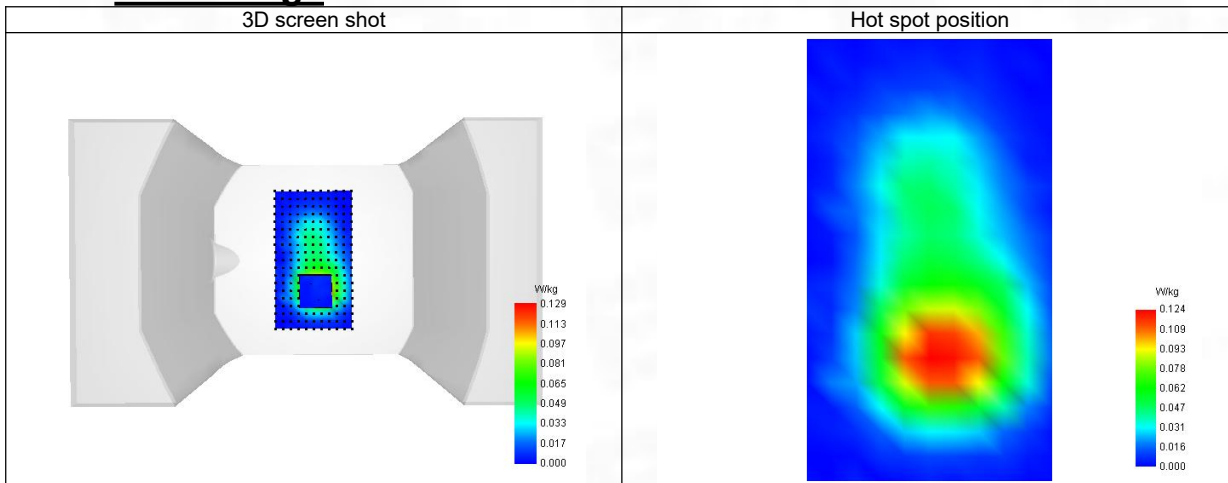
SAR 10g (W/Kg)	0.071
SAR 1g (W/Kg)	0.127
Variation (%)	2.630
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	61.743360

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.192	0.129	0.080	0.048	0.033	0.019	0.012



F. 3D Image



5-Head with front position in dist. 0mm on Channel 9538 in WCDMA Band 2

SAR Measurement at Band 2 (1900) (Cheek, Right)

Date of measurement: 20/9/2025

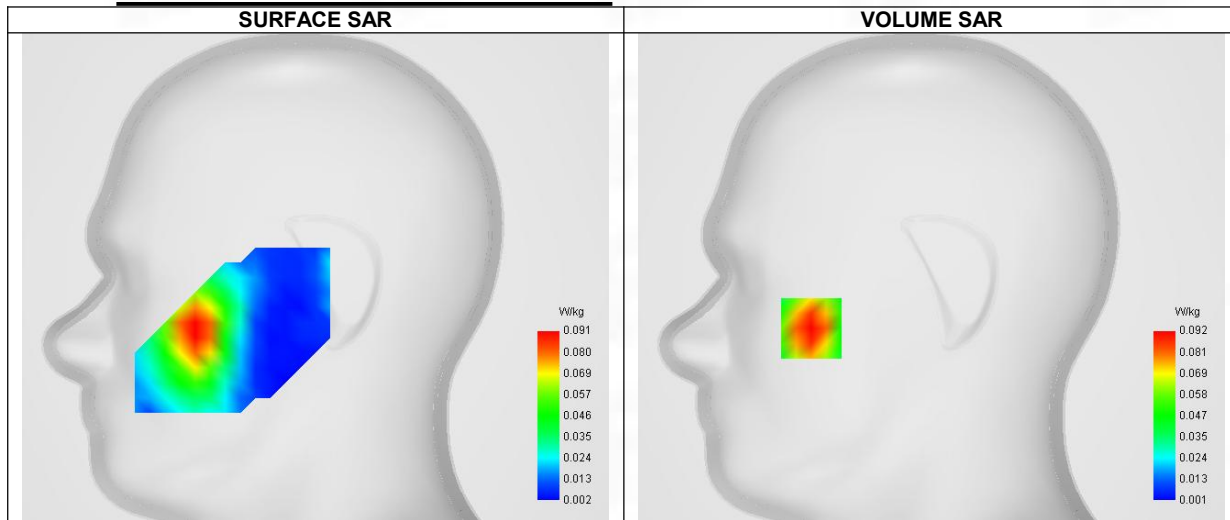
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	Band 2 (1900)
Channels/Frequency	Higher (9538)/ frequency 1907.600 Mhz
Signal	WCDMA
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	1907.600
Relative permittivity (real part)	39.859
Relative permittivity (imaginary part)	13.612
Conductivity (S/m)	1.447

C. SAR Surface and Volume



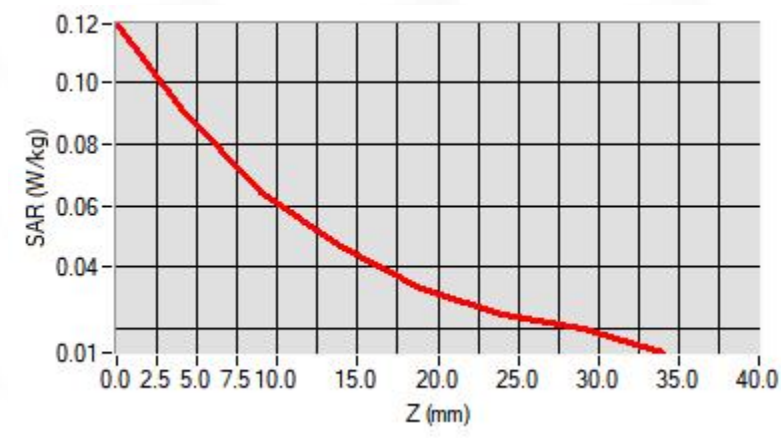
Maximum location: X=-64.00, Y=-27.00 ; SAR Peak: 0.12 W/kg

D. SAR 1g & 10g

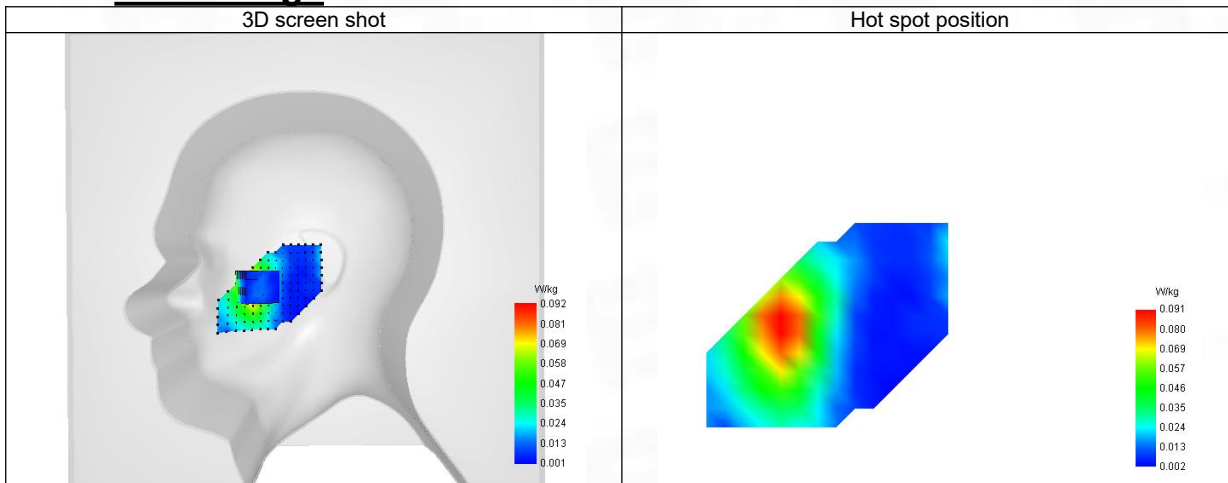
SAR 10g (W/Kg)	0.057
SAR 1g (W/Kg)	0.087
Variation (%)	1.790
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	70.020655

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.119	0.092	0.064	0.047	0.033	0.024	0.020



F. 3D Image



6-Body with back position in dist. 10mm on Channel 9538 in WCDMA Band 2

SAR Measurement at Band 2 (1900) (Body, Validation Plane)

Date of measurement: 20/9/2025

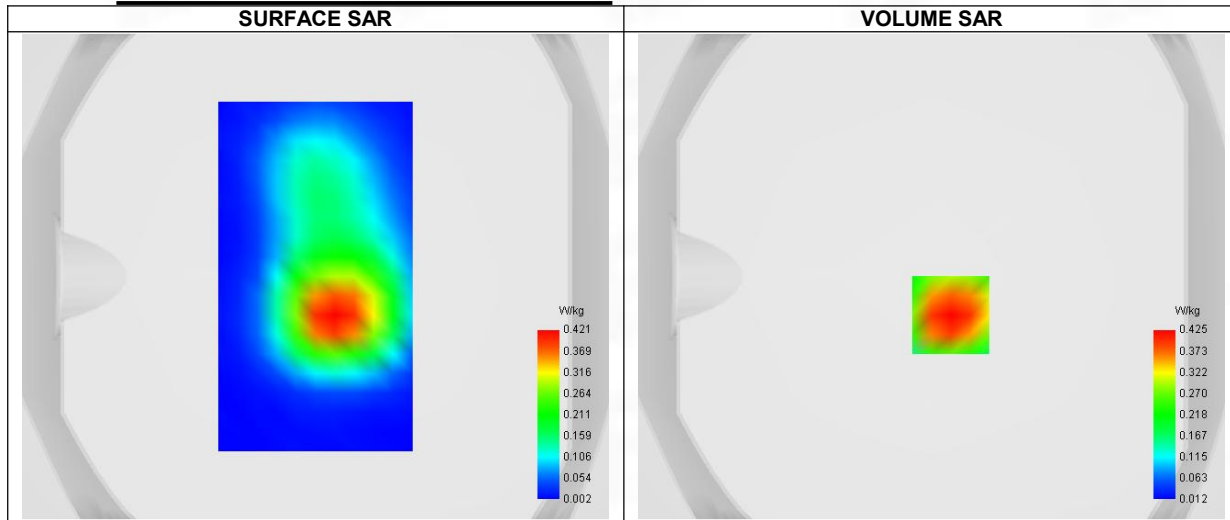
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 2 (1900)
Channels/Frequency	Higher (9538)/ frequency 1907.600 Mhz
Signal	WCDMA
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	1907.600
Relative permittivity (real part)	39.859
Relative permittivity (imaginary part)	13.612
Conductivity (S/m)	1.447

C. SAR Surface and Volume



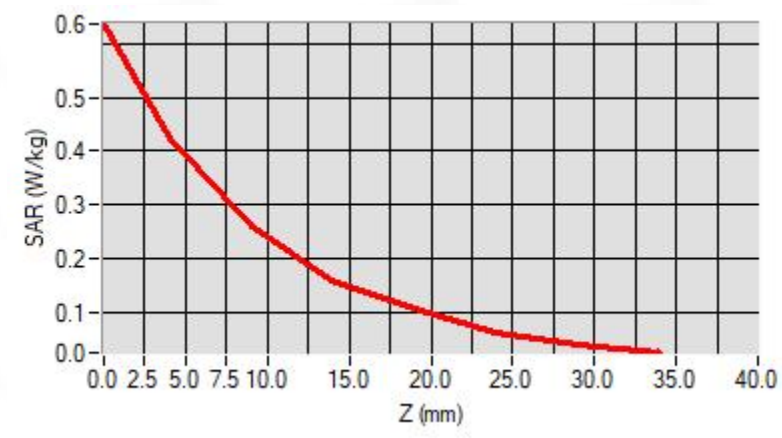
Maximum location: X=8.00, Y=-16.00 ; SAR Peak: 0.64 W/kg

D. SAR 1g & 10g

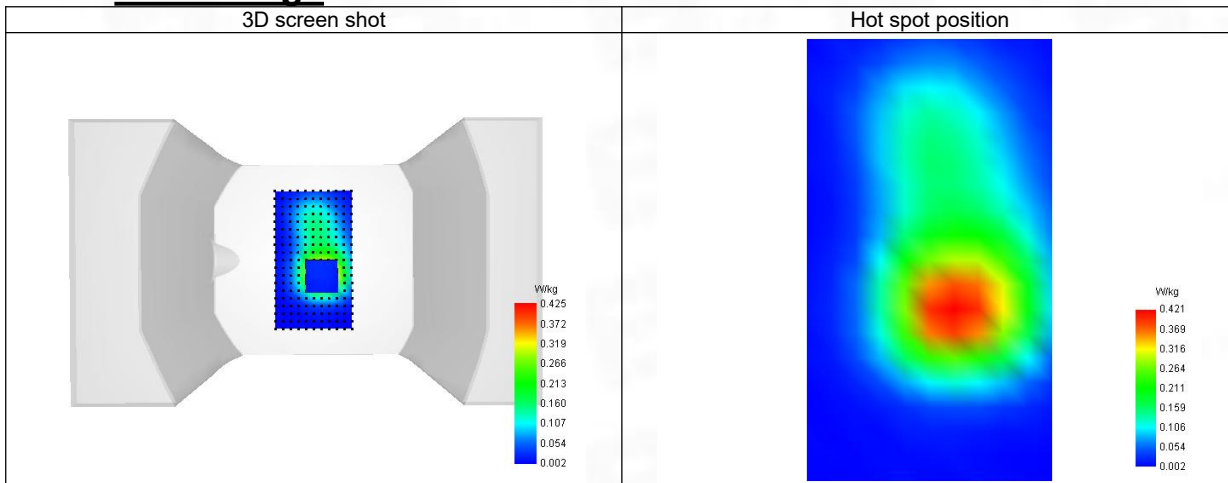
SAR 10g (W/Kg)	0.239
SAR 1g (W/Kg)	0.413
Variation (%)	1.560
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	60.961352

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.636	0.425	0.259	0.162	0.109	0.065	0.042



F. 3D Image



7-Head with front position in dist. 0mm on Channel 4132 in WCDMA Band 5

SAR Measurement at Band 5 (850) (Cheek, Right)

Date of measurement: 12/9/2025

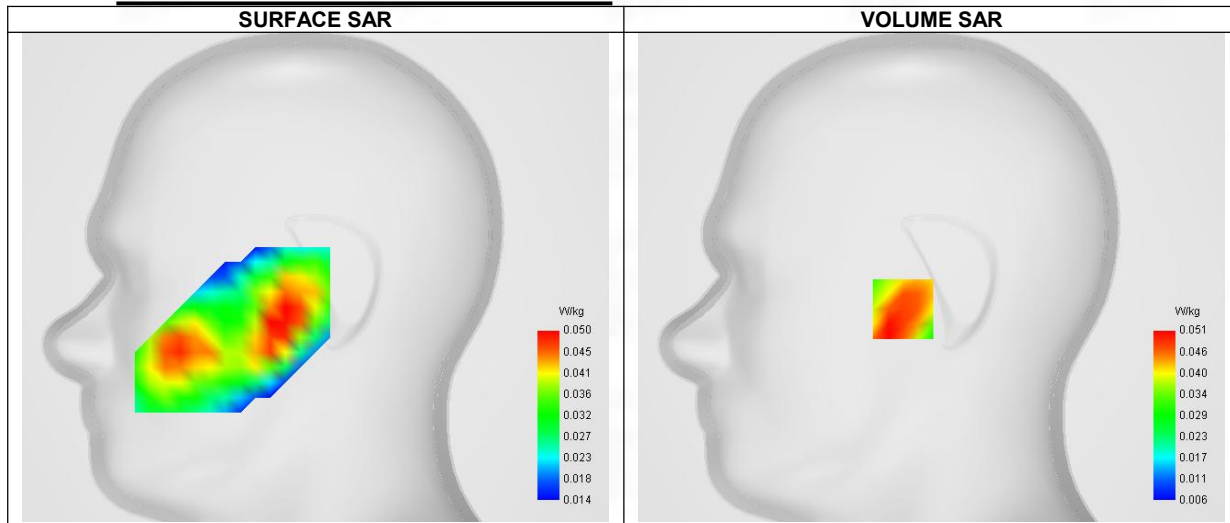
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	Band 5 (850)
Channels/Frequency	Lower (4132)/ frequency 826.400 Mhz
Signal	WCDMA
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	826.400
Relative permittivity (real part)	41.743
Relative permittivity (imaginary part)	19.620
Conductivity (S/m)	0.896

C. SAR Surface and Volume



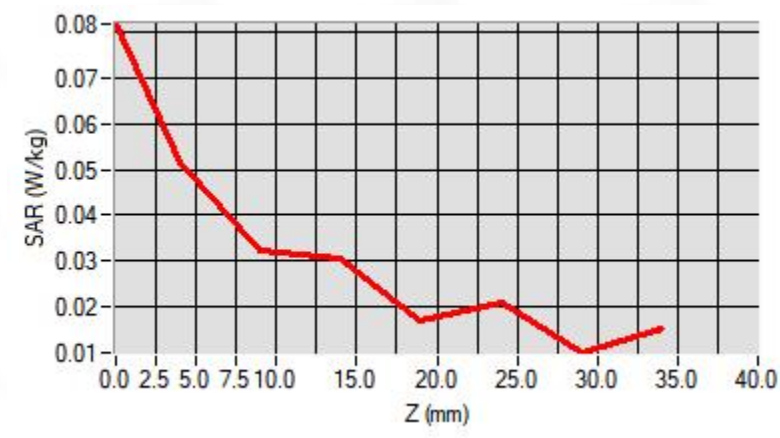
Maximum location: X=-15.00, Y=-17.00 ; SAR Peak: 0.06 W/kg

D. SAR 1g & 10g

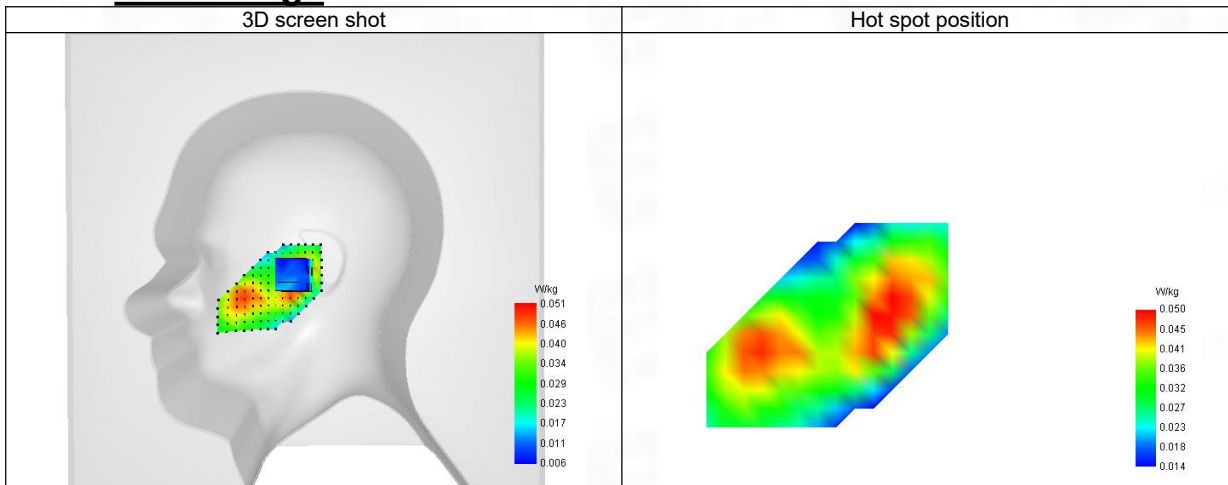
SAR 10g (W/Kg)	0.029
SAR 1g (W/Kg)	0.049
Variation (%)	-2.470
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	78.092490

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.082	0.051	0.032	0.030	0.017	0.021	0.010



F. 3D Image



8-Body with back position in dist. 10mm on Channel 4132 in WCDMA Band 5

SAR Measurement at Band 5 (850) (Body, Validation Plane)

Date of measurement: 12/9/2025

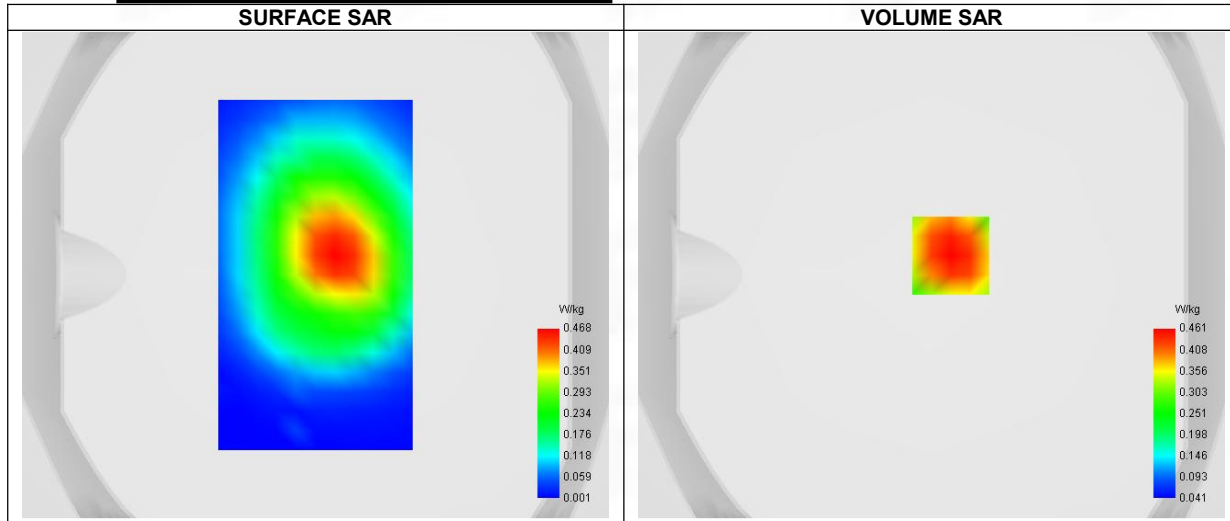
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 5 (850)
Channels/Frequency	Lower (4132)/ frequency 826.400 Mhz
Signal	WCDMA
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	826.400
Relative permittivity (real part)	41.743
Relative permittivity (imaginary part)	19.620
Conductivity (S/m)	0.896

C. SAR Surface and Volume



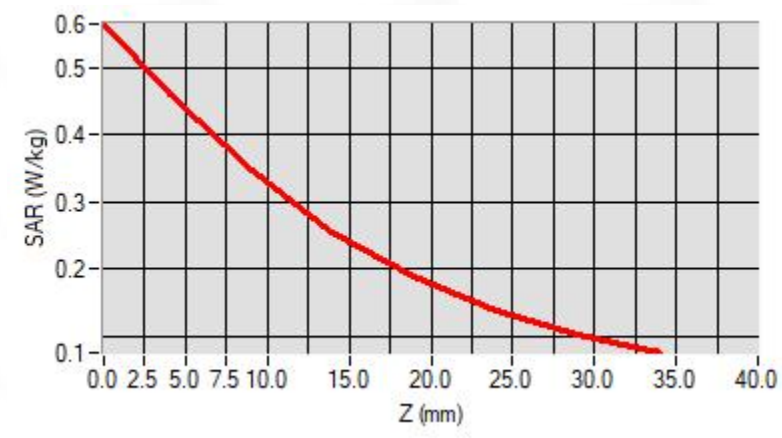
Maximum location: X=8.00, Y=8.00 ; SAR Peak: 0.58 W/kg

D. SAR 1g & 10g

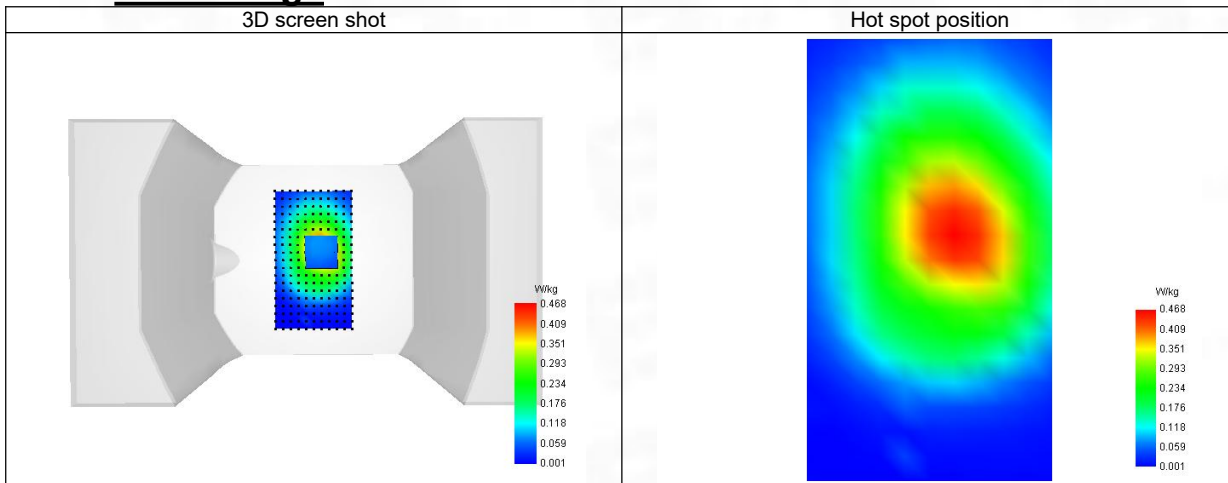
SAR 10g (W/Kg)	0.311
SAR 1g (W/Kg)	0.442
Variation (%)	-1.080
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	75.533709

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.565	0.461	0.348	0.255	0.188	0.136	0.102



F. 3D Image



9-Head with front position in dist. 0mm on Channel 19100 in LTE band 2

SAR Measurement at LTE band 2 (Cheek, Right)

Date of measurement: 20/9/2025

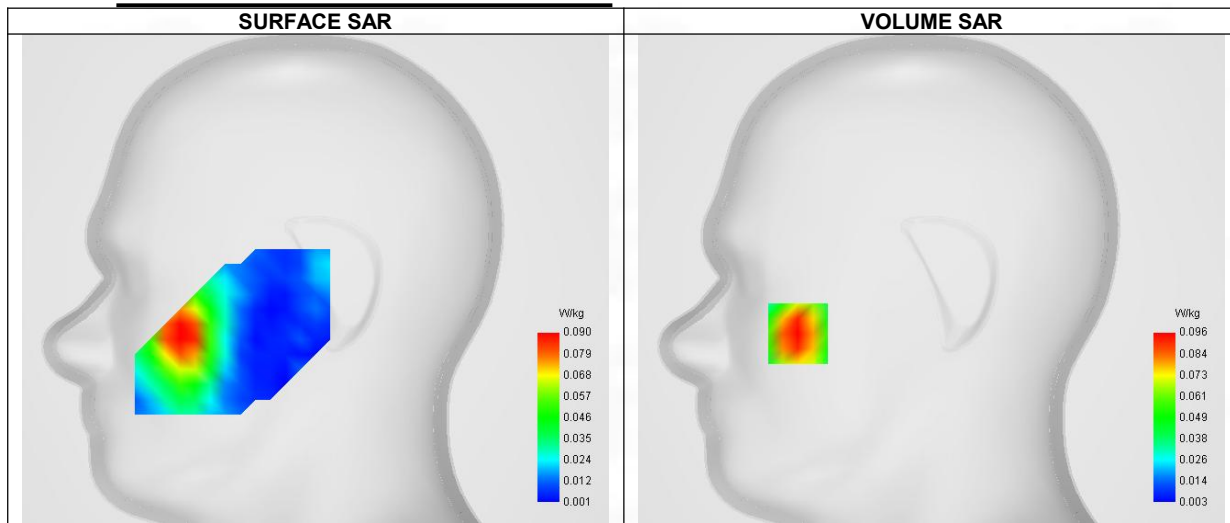
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 2
Channels/Frequency	Higher (19100)/ frequency 1900.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1891.090
Relative permittivity (real part)	39.896
Relative permittivity (imaginary part)	13.703
Conductivity (S/m)	1.439

C. SAR Surface and Volume

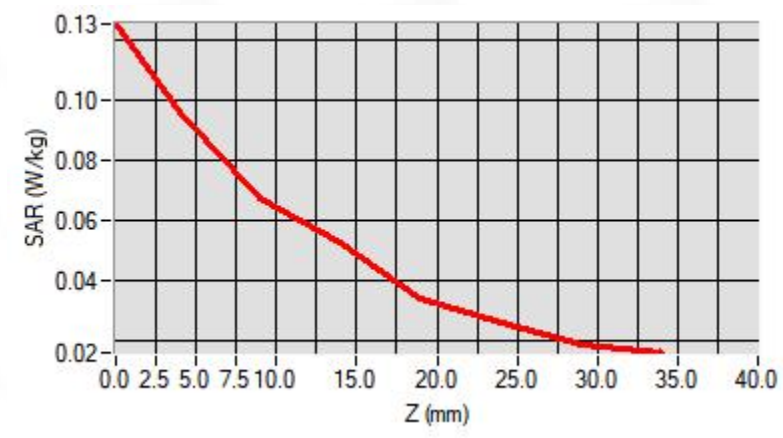


D. SAR 1g & 10g

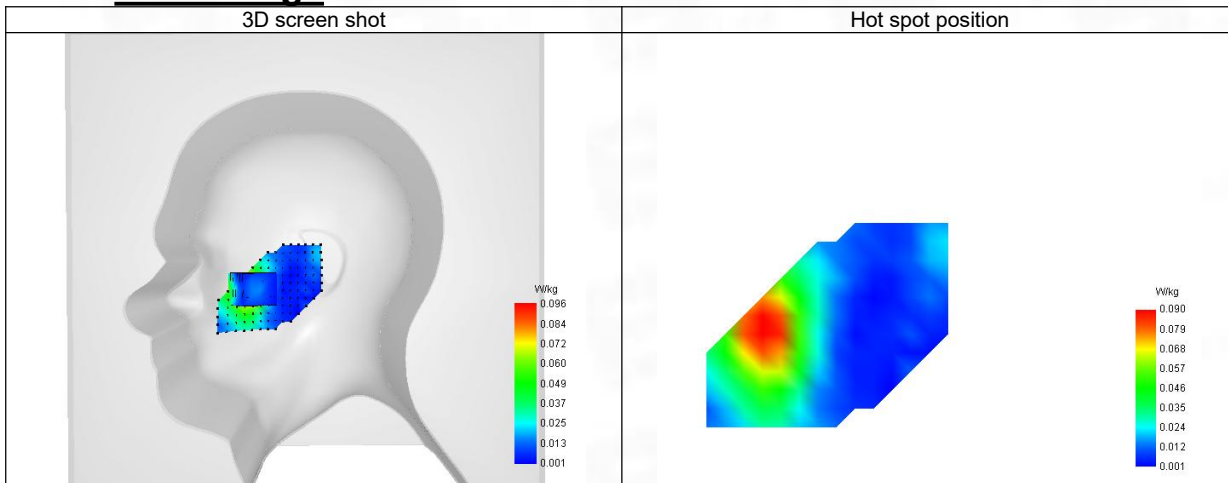
SAR 10g (W/Kg)	0.060
SAR 1g (W/Kg)	0.092
Variation (%)	2.270
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	70.460778

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.125	0.096	0.068	0.053	0.034	0.027	0.019



F. 3D Image



10-Body with back position in dist. 10mm on Channel 19100 in LTE band 2

SAR Measurement at LTE band 2 (Body, Validation Plane)

Date of measurement: 20/9/2025

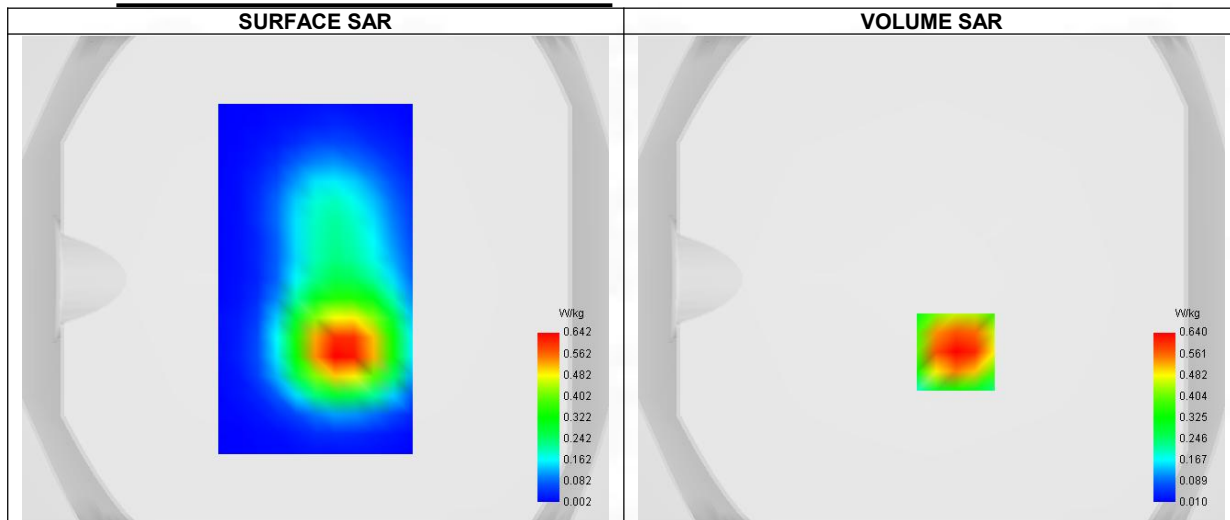
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.31
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 2
Channels/Frequency	Higher (19100)/ frequency 1900.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1891.090
Relative permittivity (real part)	39.896
Relative permittivity (imaginary part)	13.703
Conductivity (S/m)	1.439

C. SAR Surface and Volume

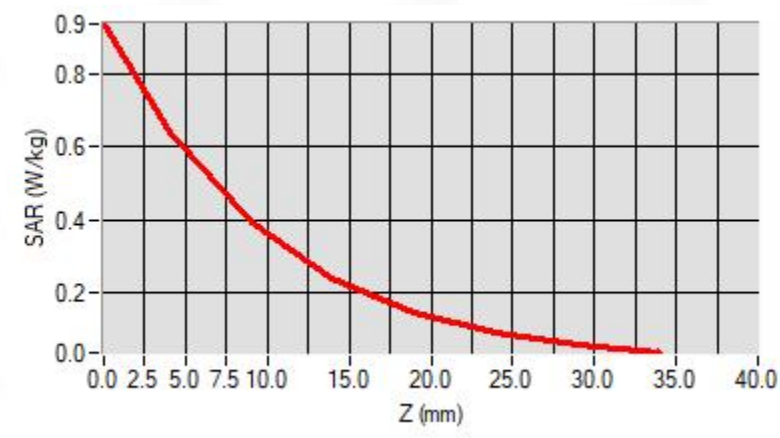


D. SAR 1g & 10g

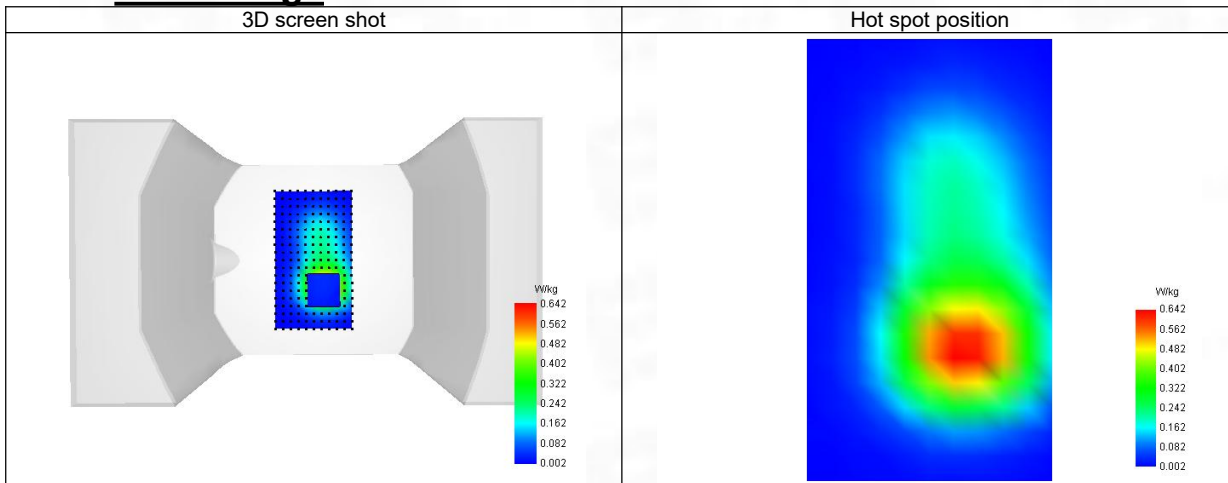
SAR 10g (W/Kg)	0.356
SAR 1g (W/Kg)	0.610
Variation (%)	1.760
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	61.157049

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.935	0.640	0.391	0.237	0.147	0.092	0.059



F. 3D Image



11-Head with front position in dist. 0mm on Channel 20300 in LTE band 4

SAR Measurement at LTE band 4 (Cheek, Right)

Date of measurement: 14/9/2025

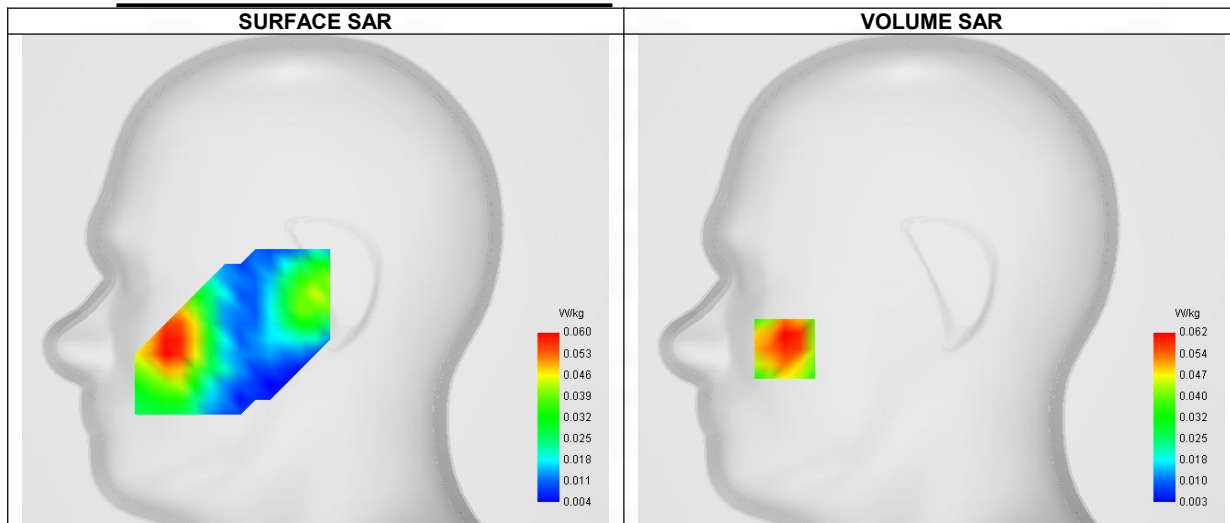
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.20
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 4
Channels/Frequency	Higher (20300)/ frequency 1745.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1736.090
Relative permittivity (real part)	40.141
Relative permittivity (imaginary part)	14.951
Conductivity (S/m)	1.379

C. SAR Surface and Volume



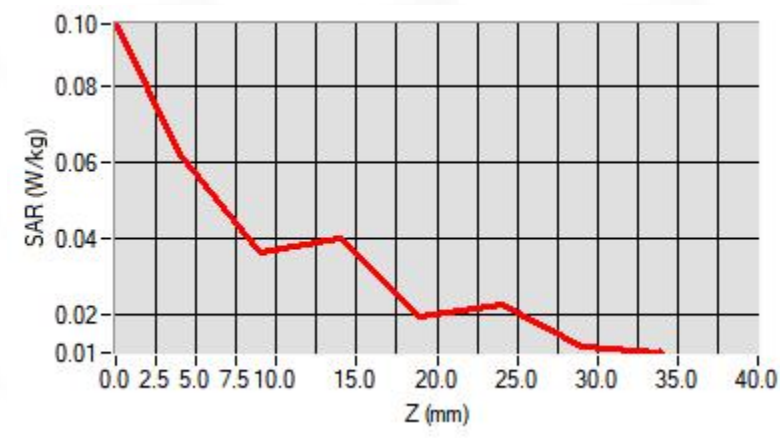
Maximum location: X=-78.00, Y=-37.00 ; SAR Peak: 0.08 W/kg

D. SAR 1g & 10g

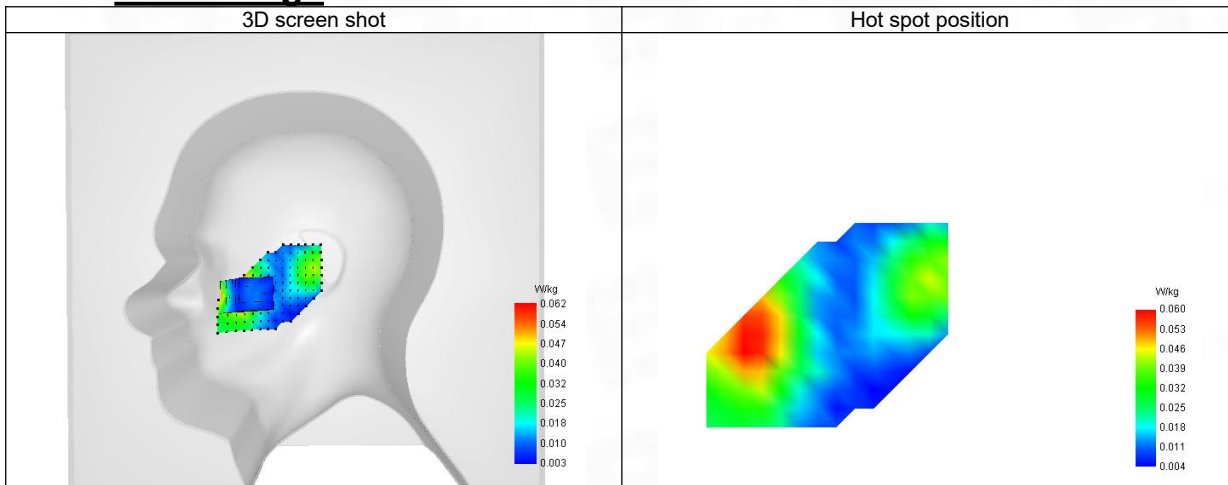
SAR 10g (W/Kg)	0.041
SAR 1g (W/Kg)	0.060
Variation (%)	1.360
Horizontal validation criteria: minimum distance (mm)	21.535553
Vertical validation criteria: SAR ratio M2/M1 (%)	76.339276

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.096	0.062	0.036	0.040	0.019	0.022	0.012



F. 3D Image



12-Body with back position in dist. 10mm on Channel 20300 in LTE band 4

SAR Measurement at LTE band 4 (Body, Validation Plane)

Date of measurement: 14/9/2025

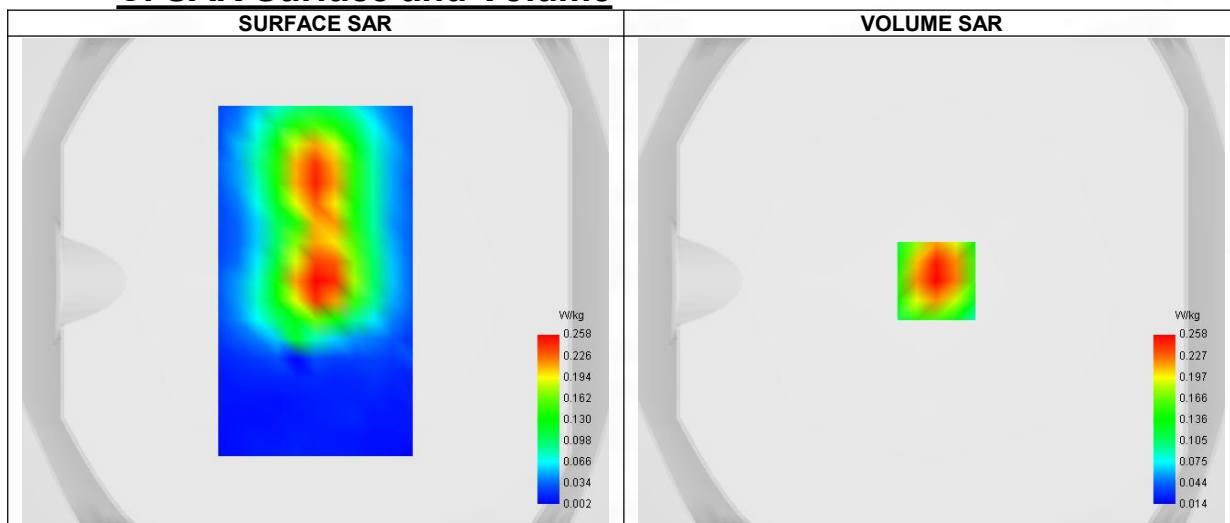
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.20
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 4
Channels/Frequency	Higher (20300)/ frequency 1745.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1736.090
Relative permittivity (real part)	40.141
Relative permittivity (imaginary part)	14.951
Conductivity (S/m)	1.379

C. SAR Surface and Volume



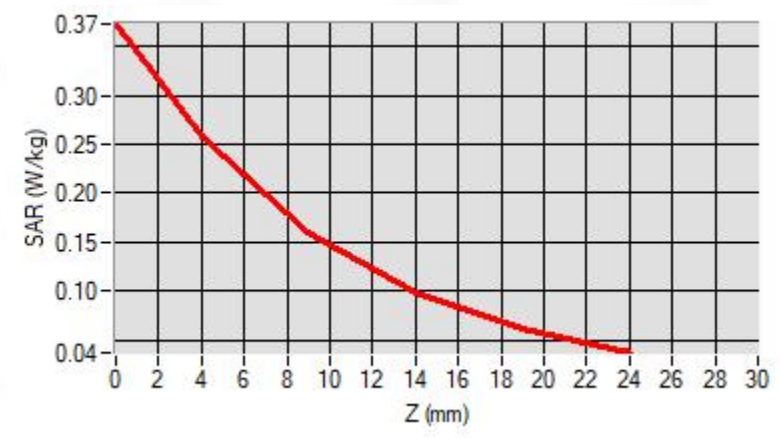
Maximum location: X=2.00, Y=0.00 ; SAR Peak: 0.38 W/kg

D. SAR 1g & 10g

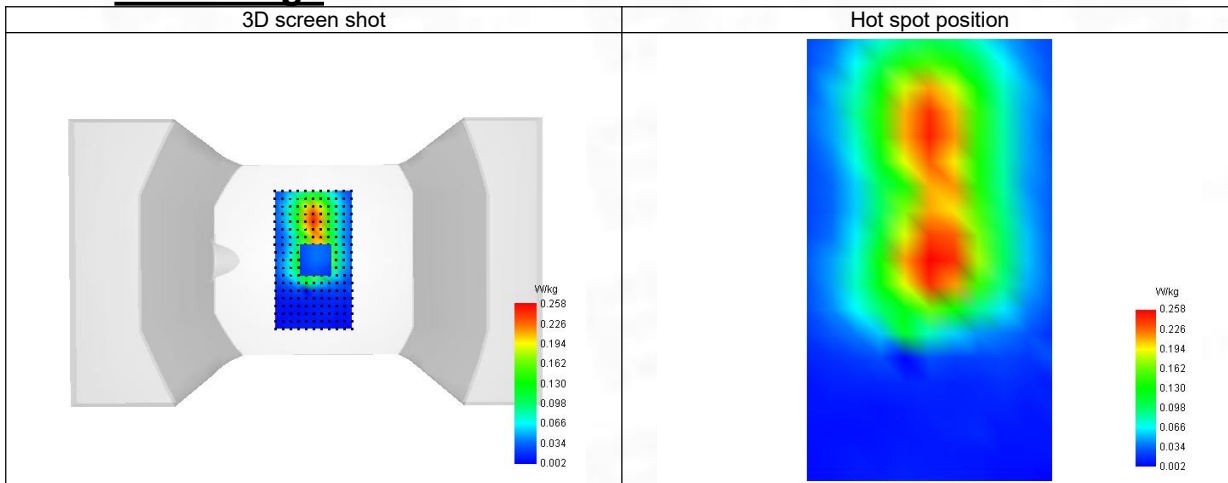
SAR 10g (W/Kg)	0.143
SAR 1g (W/Kg)	0.244
Variation (%)	-4.540
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.373	0.258	0.160	0.099	0.062	0.041	0.029



F. 3D Image



13-Head with front position in dist. 0mm on Channel 20525 in LTE band 5

SAR Measurement at LTE band 5 (Cheek, Right)

Date of measurement: 12/9/2025

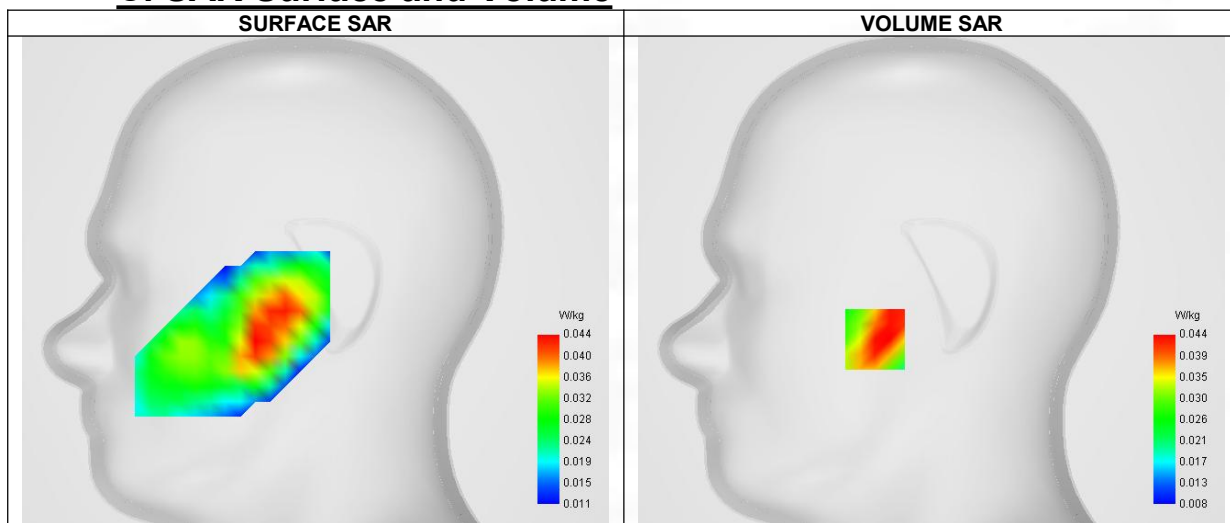
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 5
Channels/Frequency	Middle (20525)/ frequency 836.500 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	832.090
Relative permittivity (real part)	41.701
Relative permittivity (imaginary part)	19.494
Conductivity (S/m)	0.899

C. SAR Surface and Volume



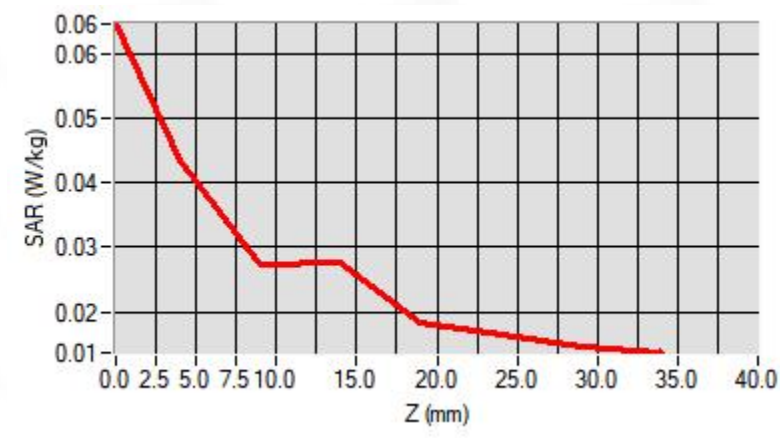
Maximum location: X=-30.00, Y=-31.00 ; SAR Peak: 0.06 W/kg

D. SAR 1g & 10g

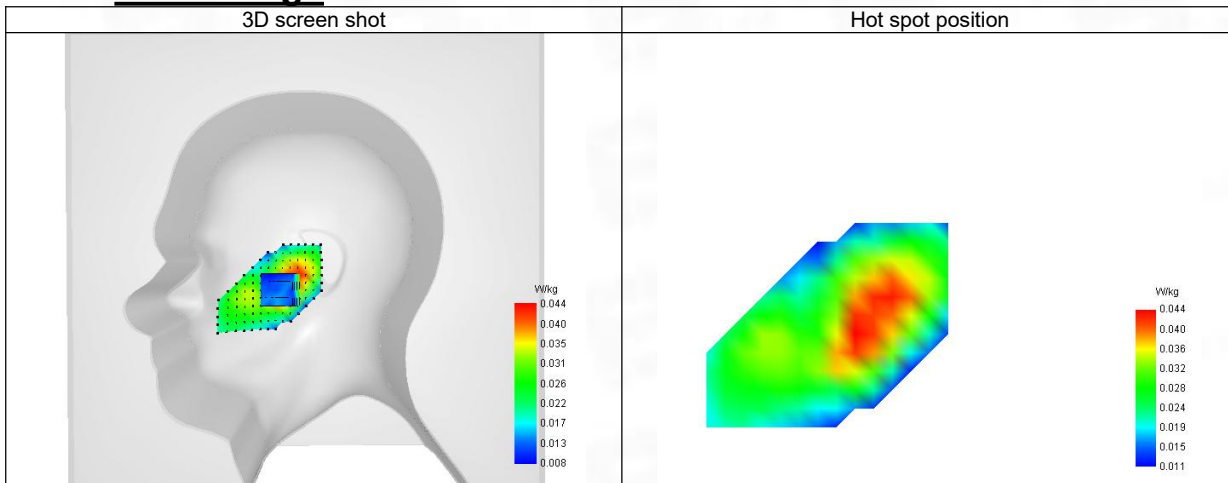
SAR 10g (W/Kg)	0.029
SAR 1g (W/Kg)	0.043
Variation (%)	-2.360
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	72.726283

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.065	0.044	0.027	0.028	0.018	0.016	0.015



F. 3D Image



14-Body with back position in dist. 10mm on Channel 20525 in LTE band 5

SAR Measurement at LTE band 5 (Body, Validation Plane)

Date of measurement: 12/9/2025

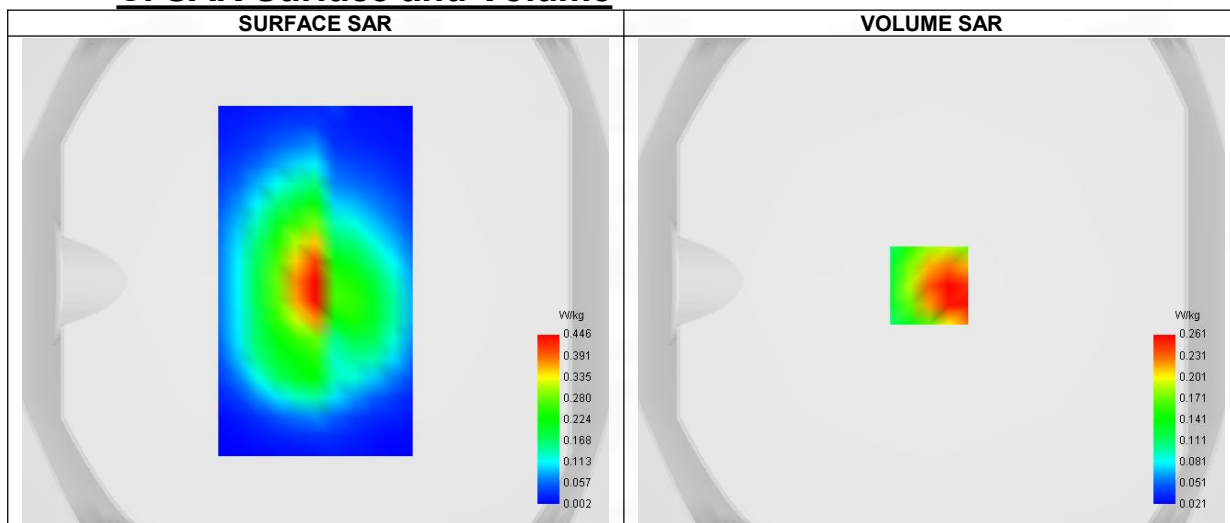
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.15
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 5
Channels/Frequency	Middle (20525)/ frequency 836.500 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	832.090
Relative permittivity (real part)	41.701
Relative permittivity (imaginary part)	19.494
Conductivity (S/m)	0.899

C. SAR Surface and Volume

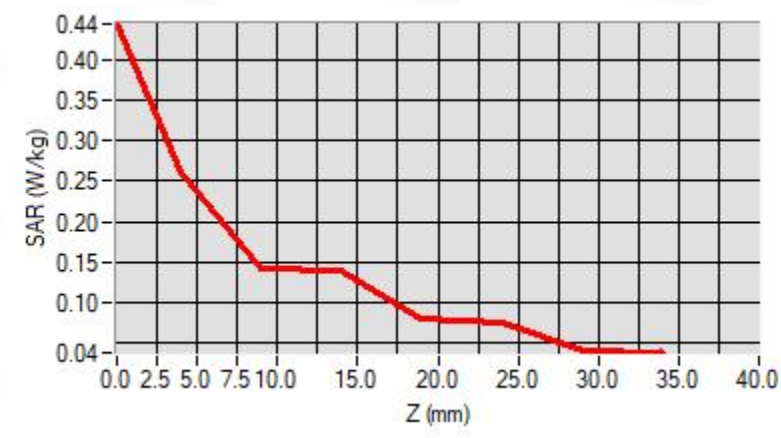


D. SAR 1g & 10g

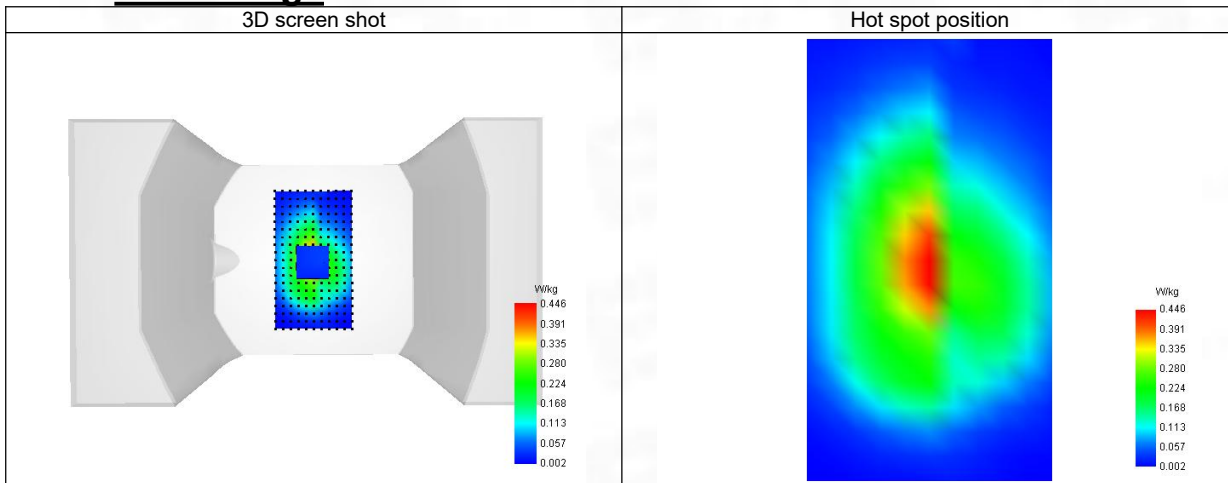
SAR 10g (W/Kg)	0.153
SAR 1g (W/Kg)	0.252
Variation (%)	-3.730
Horizontal validation criteria: minimum distance (mm)	24.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	73.637358

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.444	0.261	0.141	0.139	0.080	0.076	0.042



F. 3D Image



15-Head with front position in dist. 0mm on Channel 23130 in LTE band 12

SAR Measurement at LTE band 12 (Cheek, Right)

Date of measurement: 10/9/2025

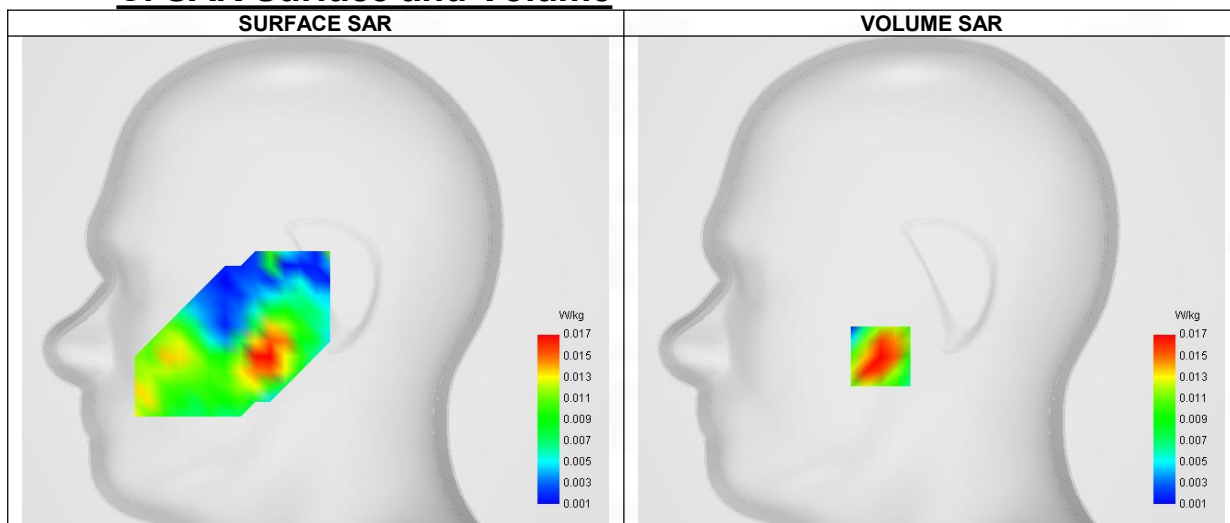
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 12
Channels/Frequency	Higher (23130)/ frequency 711.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	711.090
Relative permittivity (real part)	42.605
Relative permittivity (imaginary part)	22.174
Conductivity (S/m)	0.828

C. SAR Surface and Volume

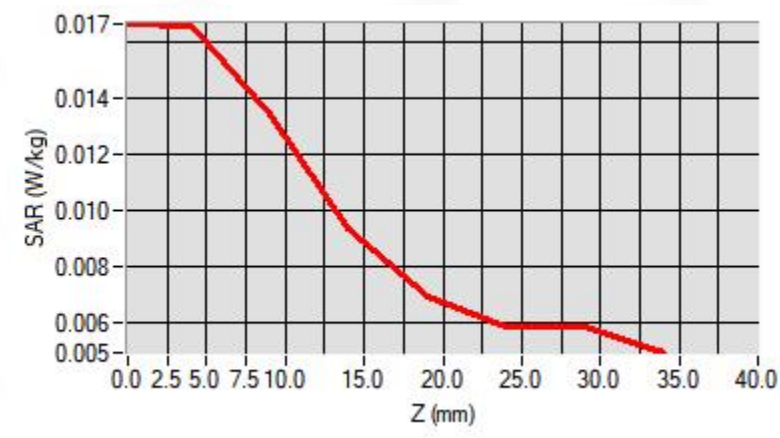


D. SAR 1g & 10g

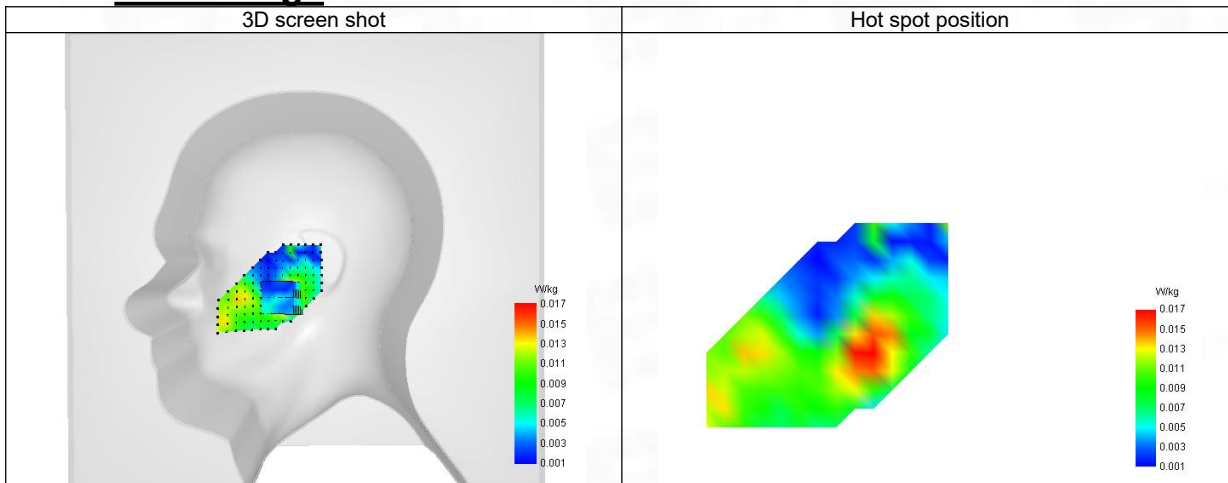
SAR 10g (W/Kg)	0.010
SAR 1g (W/Kg)	0.016
Variation (%)	3.500
Horizontal validation criteria: minimum distance (mm)	17.888544
Vertical validation criteria: SAR ratio M2/M1 (%)	76.470588

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.017	0.017	0.013	0.009	0.007	0.006	0.006



F. 3D Image



16-Body with back position in dist. 10mm on Channel 23130 in LTE band 12

SAR Measurement at LTE band 12 (Body, Validation Plane)

Date of measurement: 10/9/2025

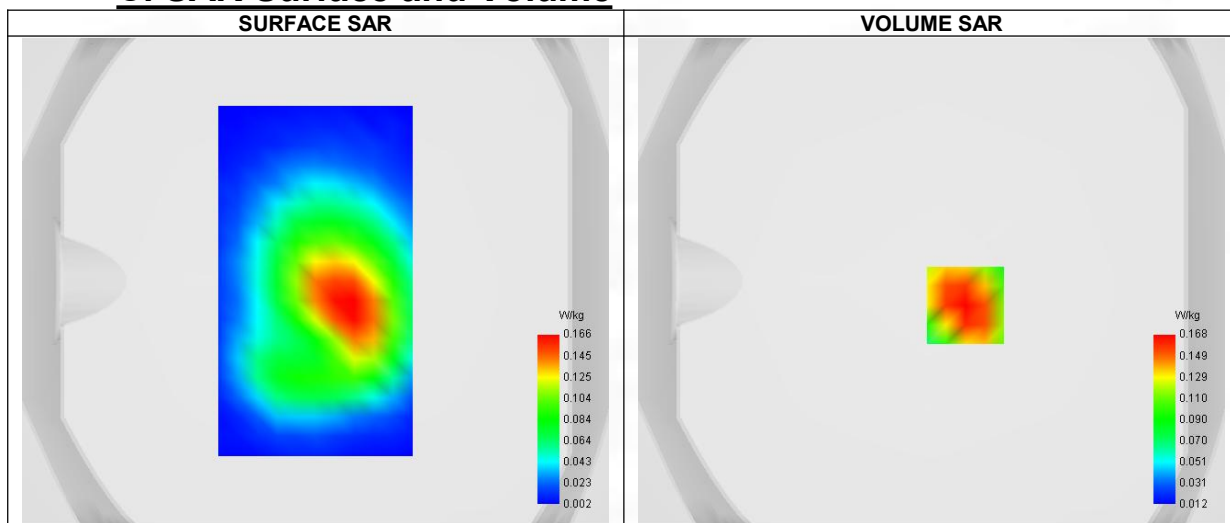
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 12
Channels/Frequency	Higher (23130)/ frequency 711.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	711.090
Relative permittivity (real part)	42.605
Relative permittivity (imaginary part)	22.174
Conductivity (S/m)	0.828

C. SAR Surface and Volume



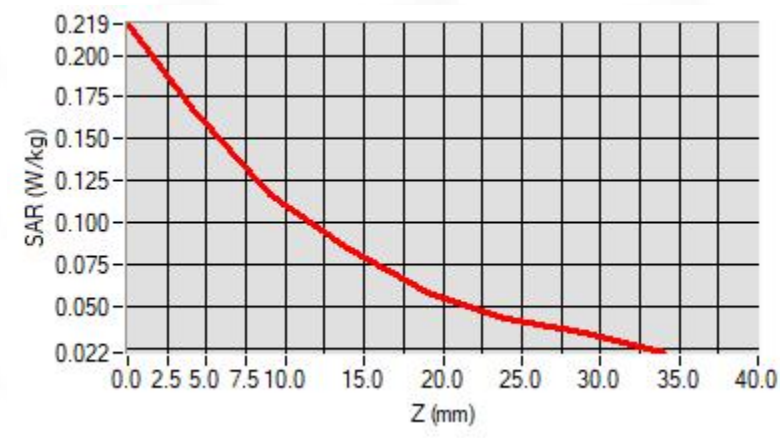
Maximum location: X=14.00, Y=-10.00 ; SAR Peak: 0.23 W/kg

D. SAR 1g & 10g

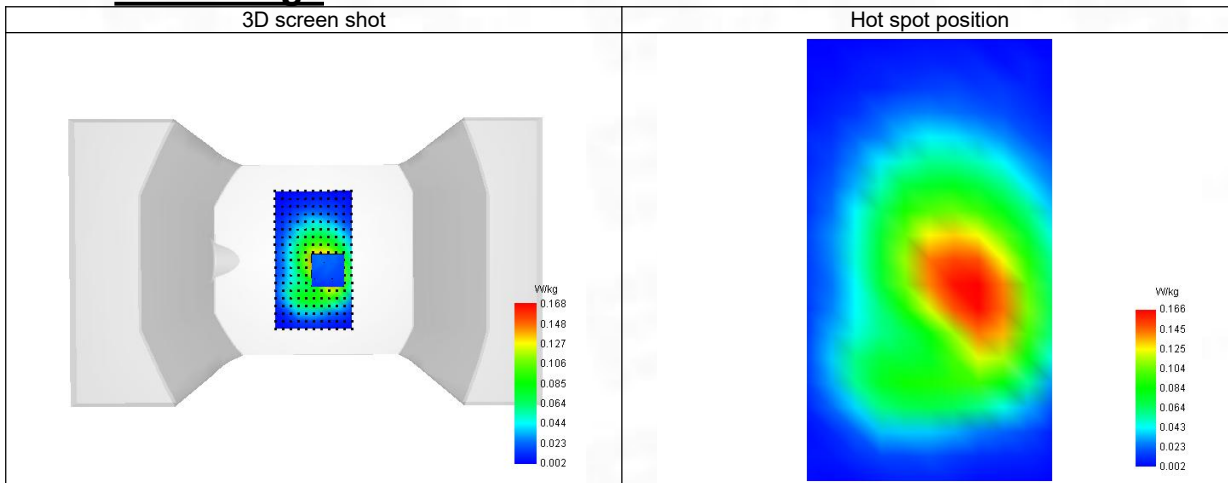
SAR 10g (W/Kg)	0.106
SAR 1g (W/Kg)	0.161
Variation (%)	1.430
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	69.654323

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.219	0.168	0.117	0.084	0.058	0.043	0.034



F. 3D Image



17-Head with front position in dist. 0mm on Channel 23230 in LTE band 13

SAR Measurement at LTE band 13 (Cheek, Right)

Date of measurement: 10/9/2025

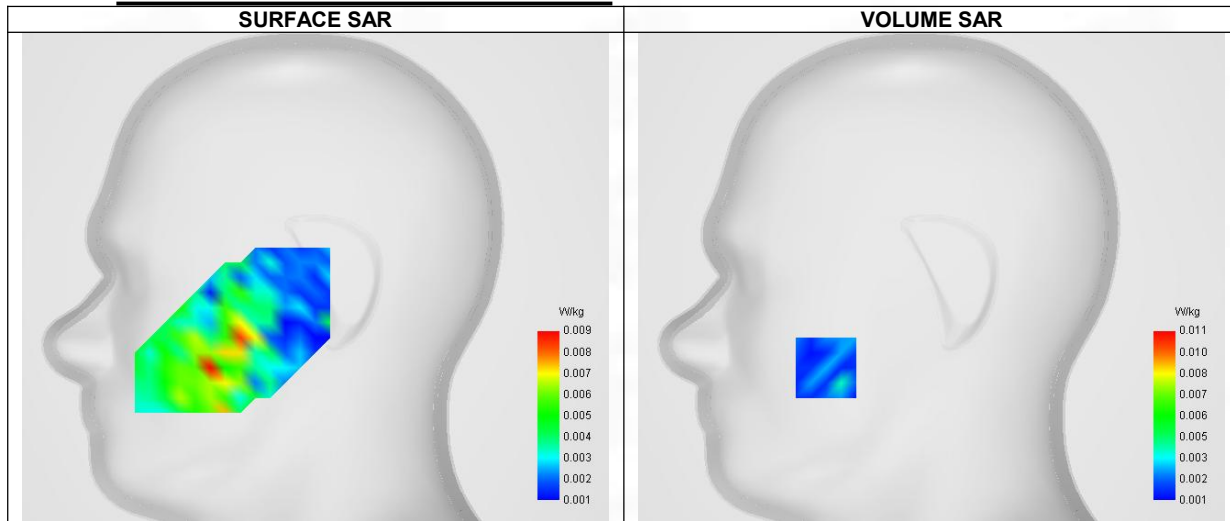
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 13
Channels/Frequency	Middle (23230)/ frequency 782.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	782.090
Relative permittivity (real part)	42.074
Relative permittivity (imaginary part)	20.601
Conductivity (S/m)	0.870

C. SAR Surface and Volume



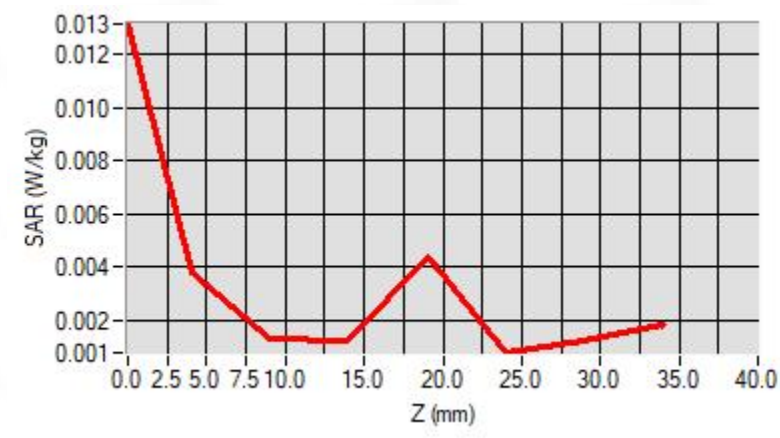
Maximum location: X=-56.00, Y=-48.00 ; SAR Peak: 0.01 W/kg

D. SAR 1g & 10g

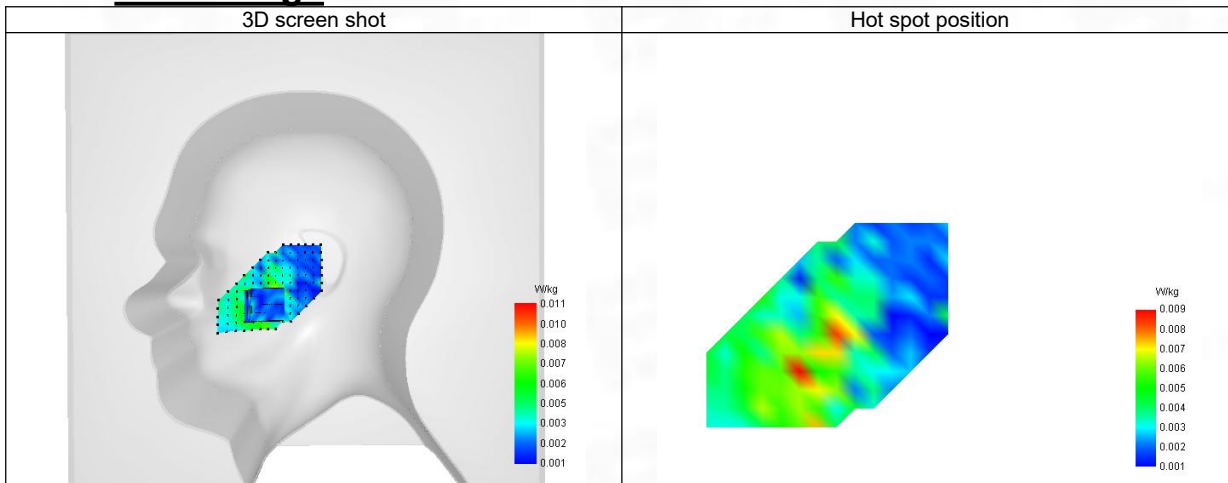
SAR 10g (W/Kg)	0.002
SAR 1g (W/Kg)	0.004
Variation (%)	-2.910
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	33.791833

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.013	0.004	0.001	0.001	0.004	0.001	0.001



F. 3D Image



18-Body with back position in dist. 10mm on Channel 23230 in LTE band 13

SAR Measurement at LTE band 13 (Body, Validation Plane)

Date of measurement: 10/9/2025

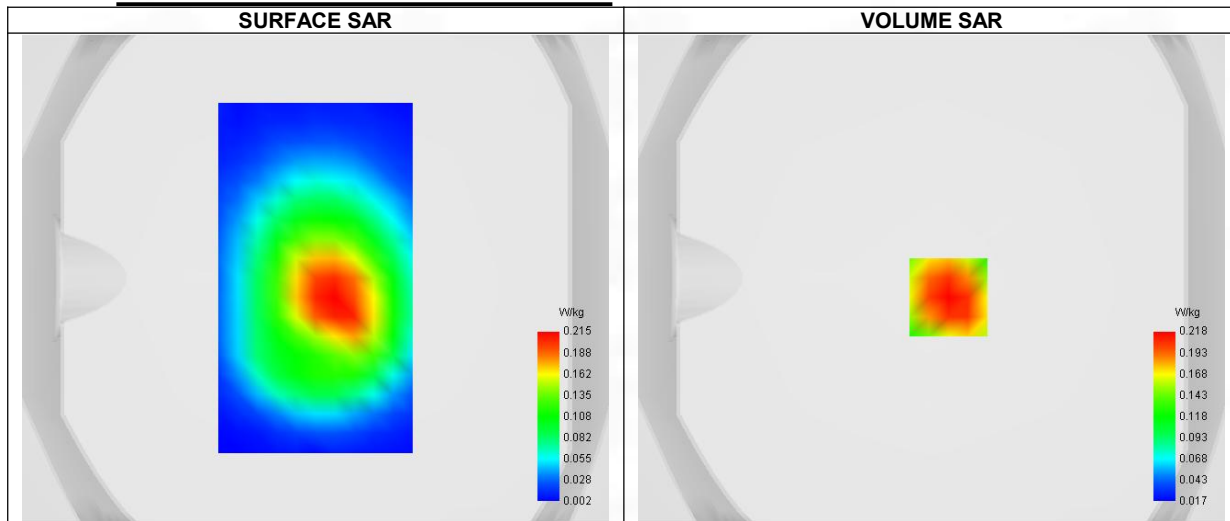
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 13
Channels/Frequency	Middle (23230)/ frequency 782.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	782.090
Relative permittivity (real part)	42.074
Relative permittivity (imaginary part)	20.601
Conductivity (S/m)	0.870

C. SAR Surface and Volume



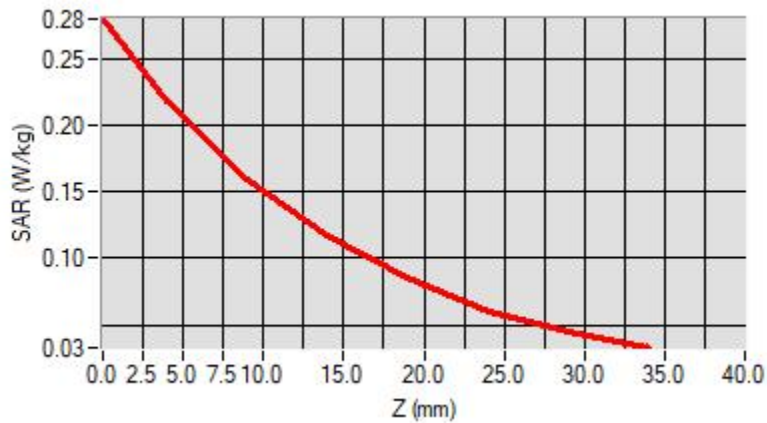
Maximum location: X=7.00, Y=-8.00 ; SAR Peak: 0.28 W/kg

D. SAR 1g & 10g

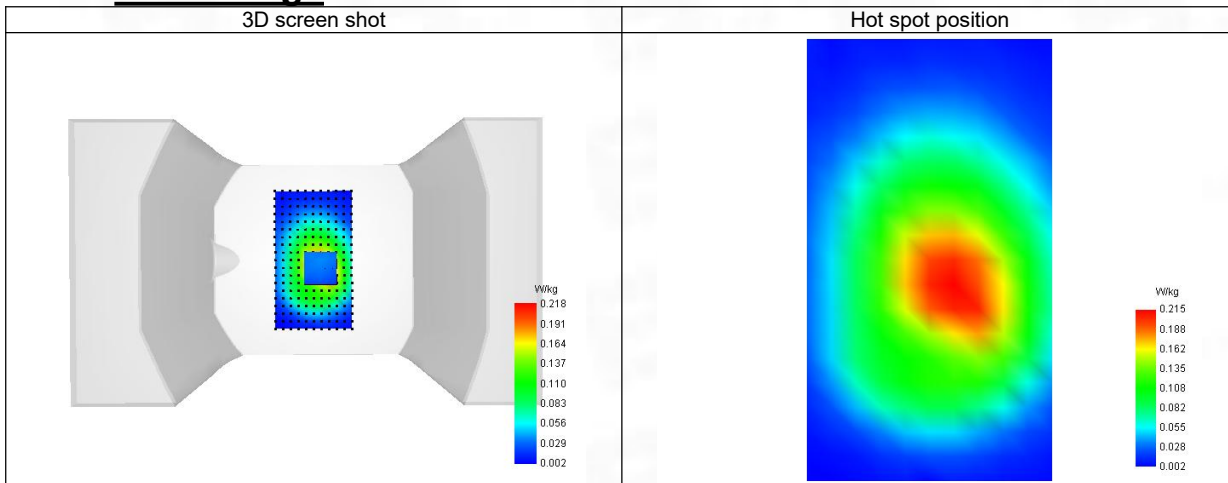
SAR 10g (W/Kg)	0.144
SAR 1g (W/Kg)	0.209
Variation (%)	-3.830
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	72.885409

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.279	0.218	0.159	0.117	0.085	0.060	0.045



F. 3D Image



19-Head with front position in dist. 0mm on Channel 23790 in LTE band 17

SAR Measurement at LTE band 17 (Cheek, Right)

Date of measurement: 10/9/2025

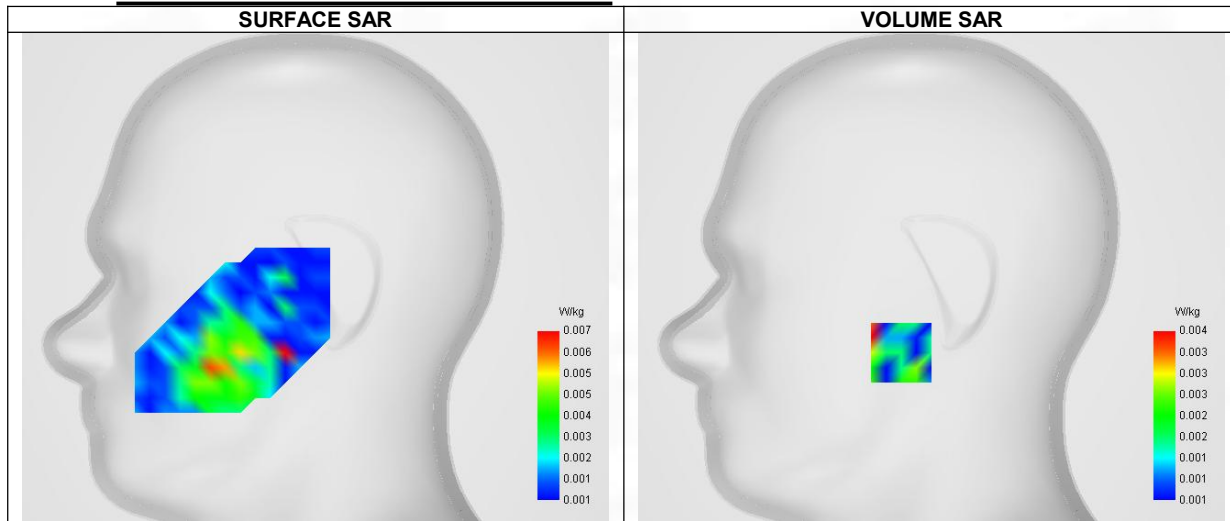
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 17
Channels/Frequency	Middle (23790)/ frequency 710.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	710.090
Relative permittivity (real part)	42.612
Relative permittivity (imaginary part)	22.196
Conductivity (S/m)	0.828

C. SAR Surface and Volume



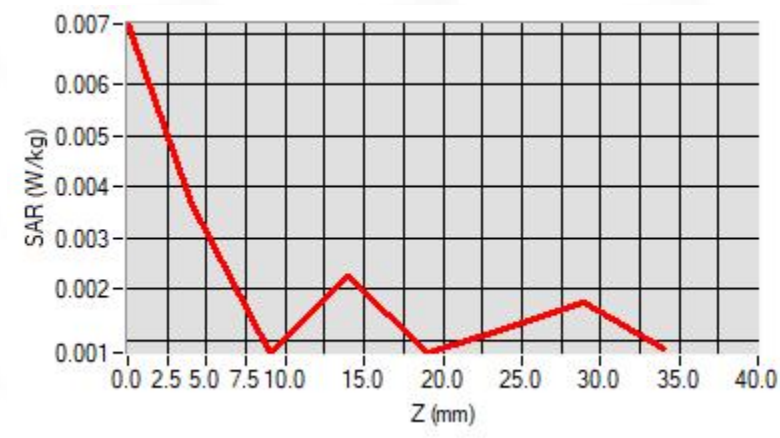
Maximum location: X=-16.00, Y=-40.00 ; SAR Peak: 0.01 W/kg

D. SAR 1g & 10g

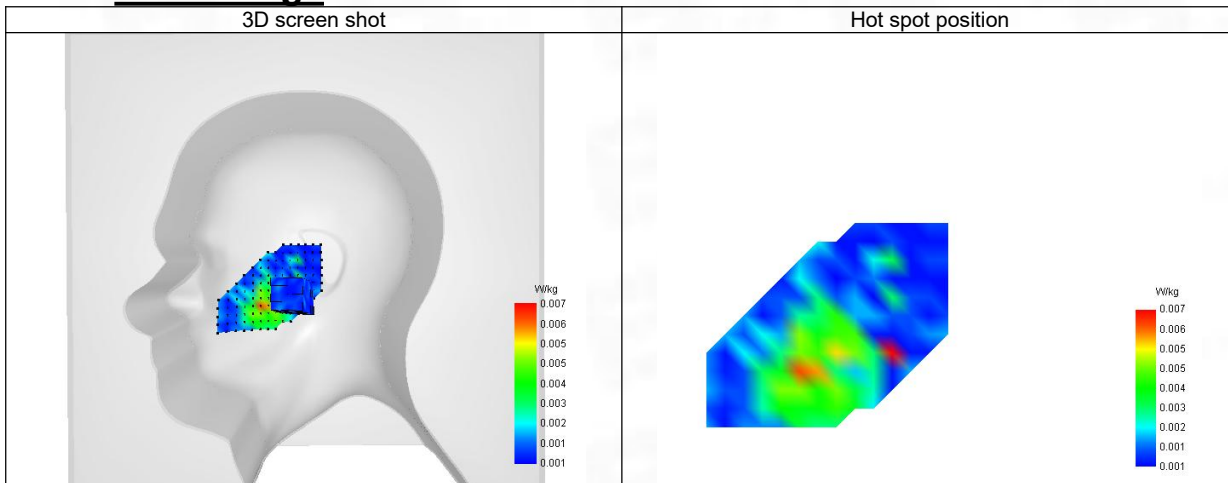
SAR 10g (W/Kg)	0.001
SAR 1g (W/Kg)	0.002
Variation (%)	-1.390
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	25.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.007	0.004	0.001	0.002	0.001	0.001	0.002



F. 3D Image



20-Body with back position in dist. 10mm on Channel 23790 in LTE band 17

SAR Measurement at LTE band 17 (Body, Validation Plane)

Date of measurement: 10/9/2025

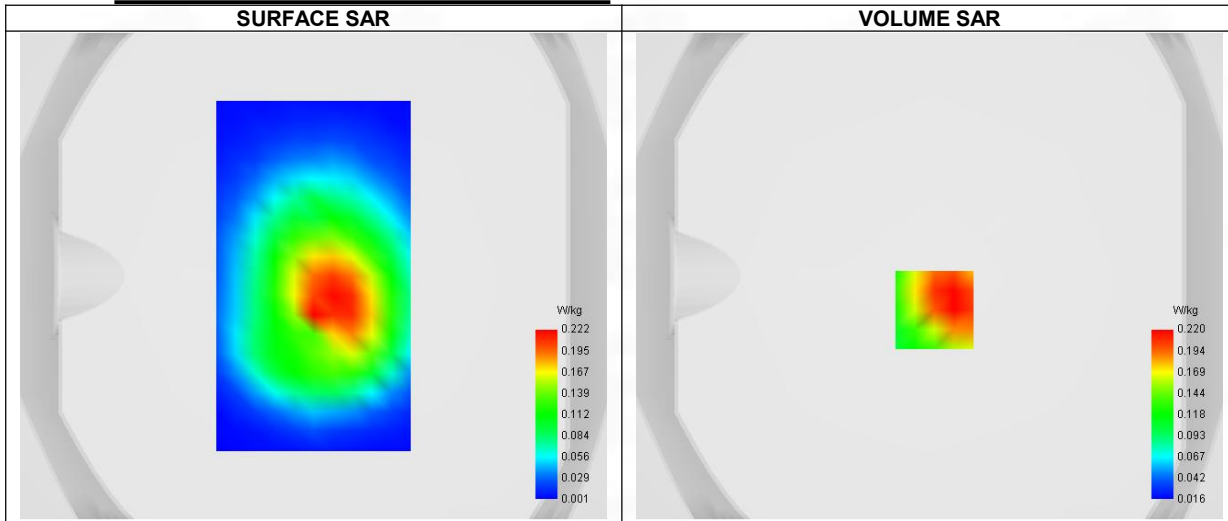
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 17
Channels/Frequency	Middle (23790)/ frequency 710.000 Mhz
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	25
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	710.090
Relative permittivity (real part)	42.612
Relative permittivity (imaginary part)	22.196
Conductivity (S/m)	0.828

C. SAR Surface and Volume

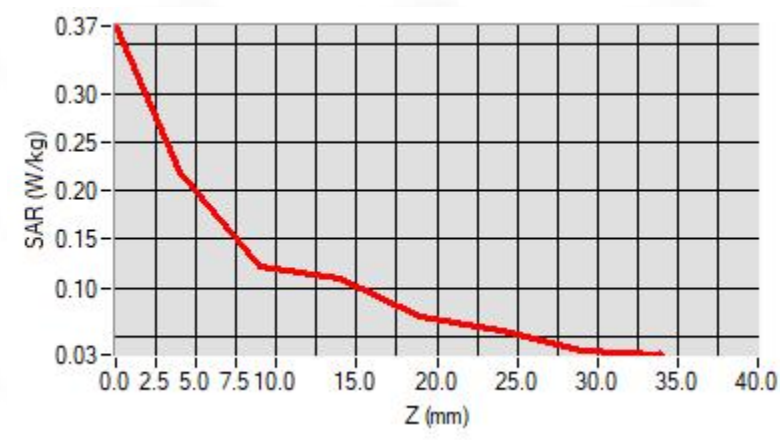


D. SAR 1g & 10g

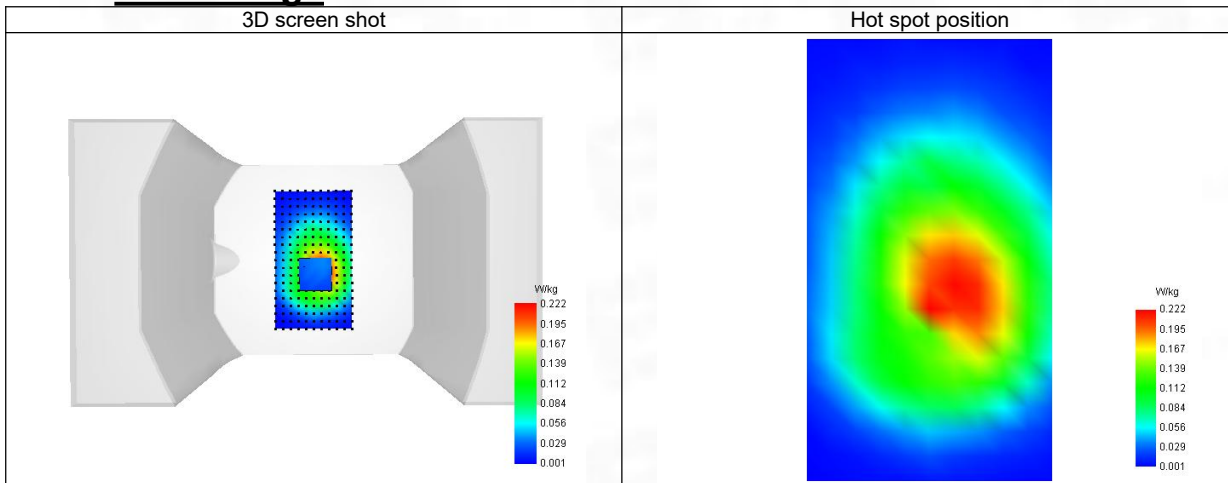
SAR 10g (W/Kg)	0.133
SAR 1g (W/Kg)	0.213
Variation (%)	-0.760
Horizontal validation criteria: minimum distance (mm)	25.298221
Vertical validation criteria: SAR ratio M2/M1 (%)	70.418234

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.369	0.220	0.122	0.111	0.071	0.056	0.037



F. 3D Image



21-Head with front position in dist. 0mm on Channel 132072 in LTE band 66

SAR Measurement at LTE band 66 (Cheek, Right)

Date of measurement: 14/9/2025

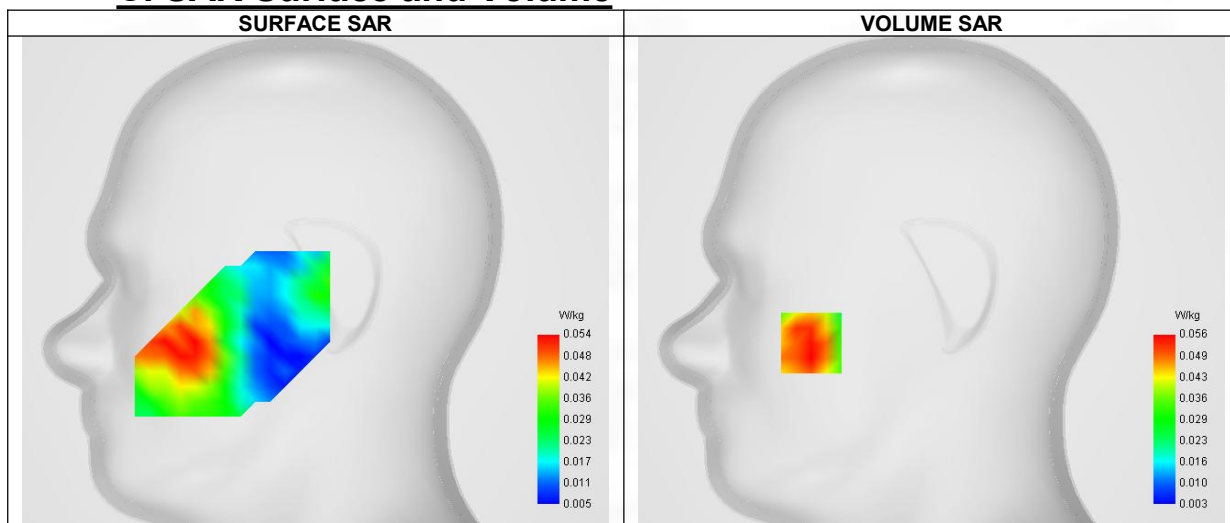
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.20
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 66
Channels/Frequency	Lower (132072)/ frequency 1720.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1711.090
Relative permittivity (real part)	40.184
Relative permittivity (imaginary part)	15.075
Conductivity (S/m)	1.366

C. SAR Surface and Volume



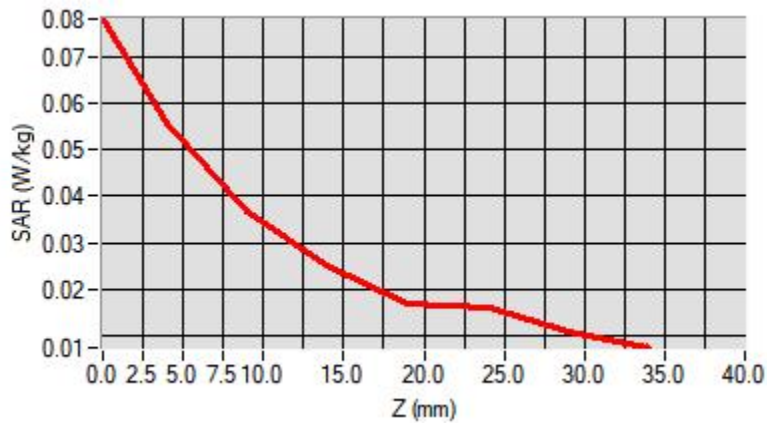
Maximum location: X=-64.00, Y=-33.00 ; SAR Peak: 0.08 W/kg

D. SAR 1g & 10g

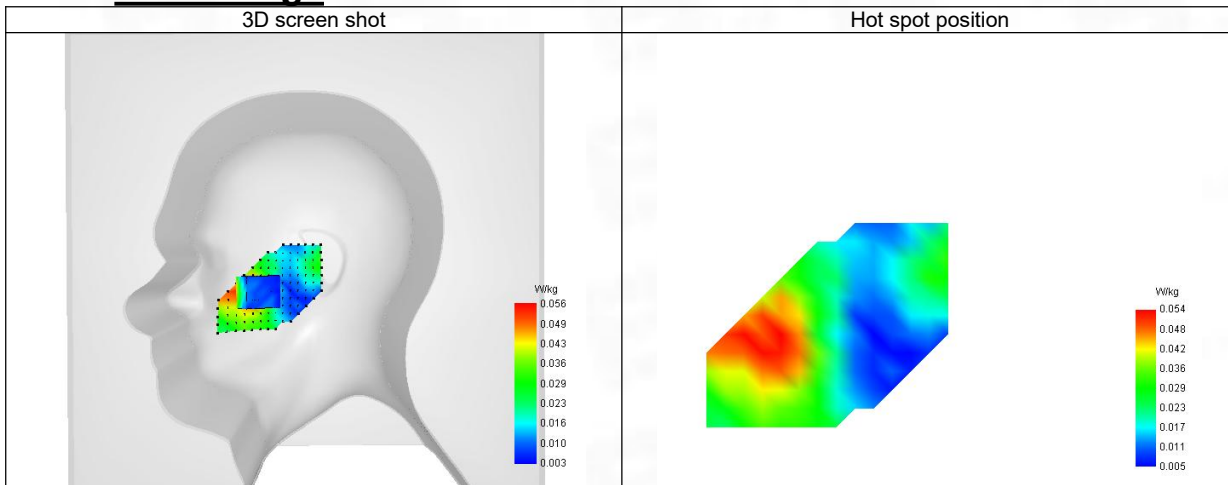
SAR 10g (W/Kg)	0.032
SAR 1g (W/Kg)	0.053
Variation (%)	-0.010
Horizontal validation criteria: minimum distance (mm)	28.844410
Vertical validation criteria: SAR ratio M2/M1 (%)	63.691399

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.078	0.056	0.037	0.025	0.017	0.016	0.011



F. 3D Image



22-Body with back position in dist. 10mm on Channel 132072 in LTE band 66

SAR Measurement at LTE band 66 (Body, Validation Plane)

Date of measurement: 14/9/2025

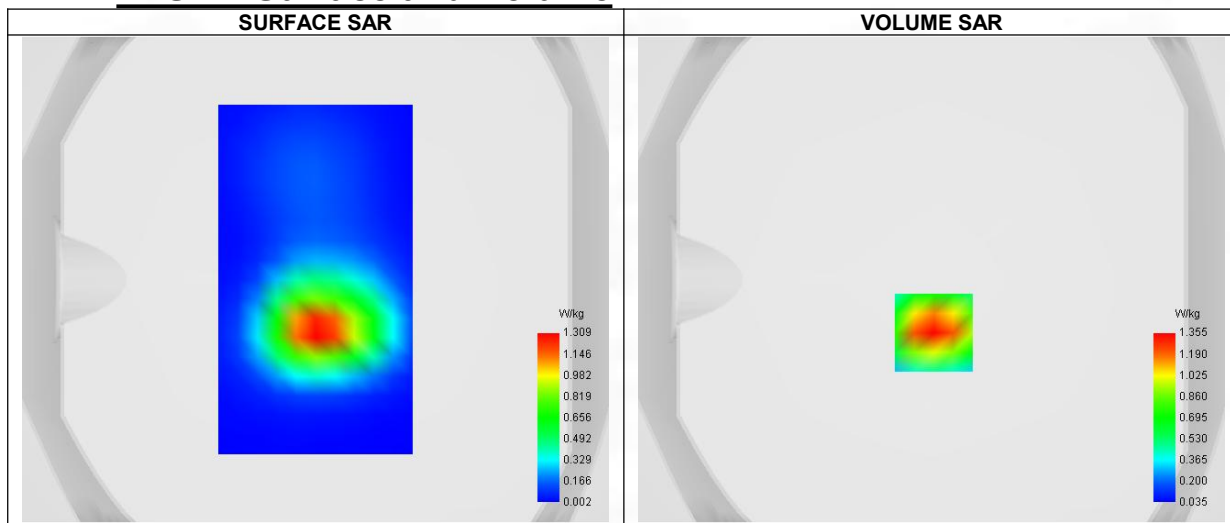
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.20
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 66
Channels/Frequency	Lower (132072)/ frequency 1720.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	1711.090
Relative permittivity (real part)	40.184
Relative permittivity (imaginary part)	15.075
Conductivity (S/m)	1.366

C. SAR Surface and Volume

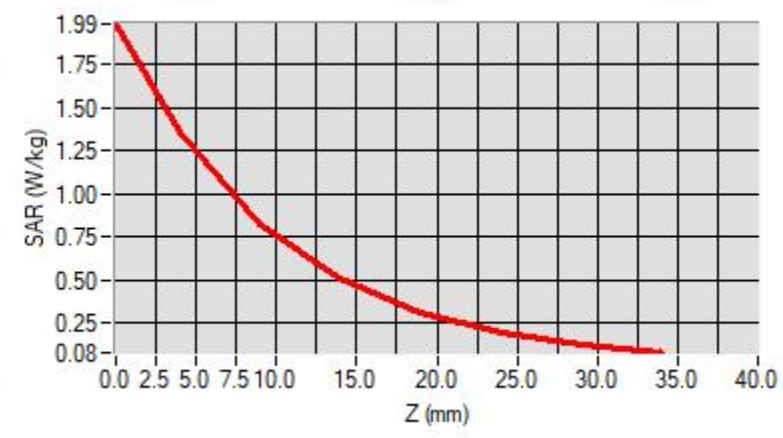


D. SAR 1g & 10g

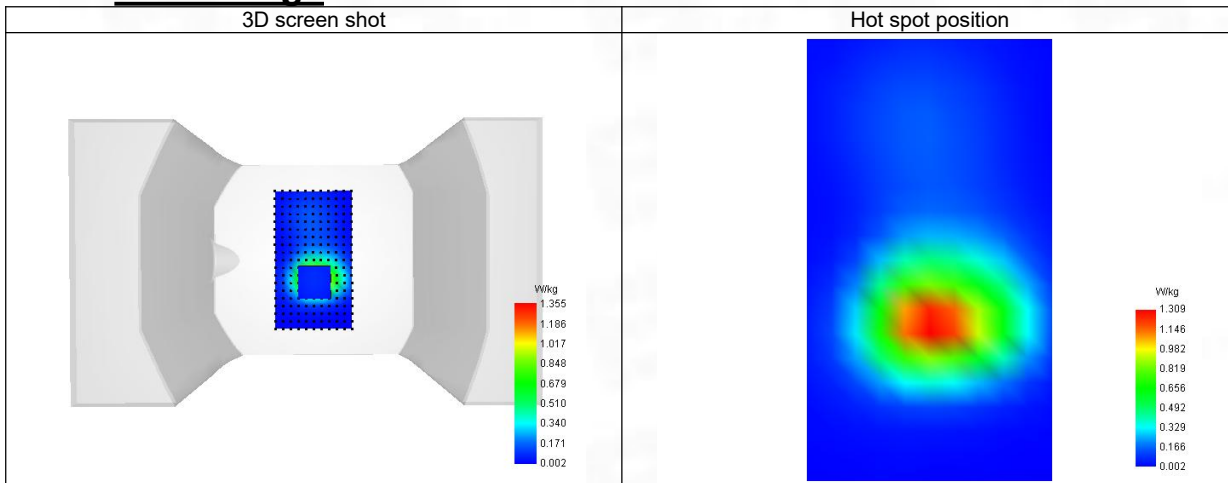
SAR 10g (W/Kg)	0.705
SAR 1g (W/Kg)	1.277
Variation (%)	-2.580
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	60.900267

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.986	1.355	0.825	0.513	0.315	0.198	0.129



F. 3D Image



23-Head with front position in dist. 0mm on Channel 133372 in LTE band 71

SAR Measurement at LTE band 71 (Cheek, Right)

Date of measurement: 10/9/2025

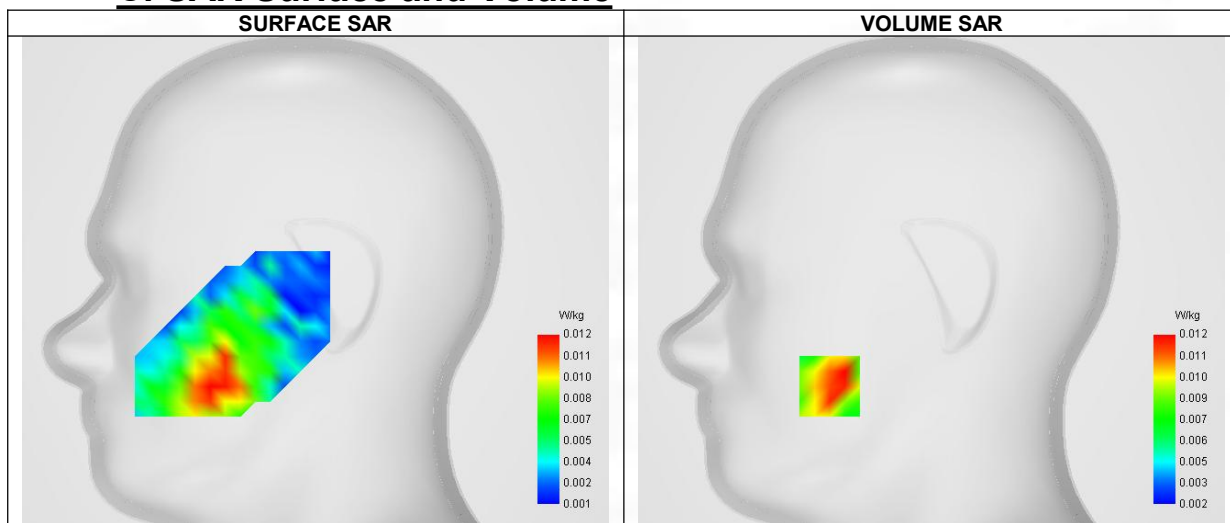
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 71
Channels/Frequency	Higher (133372)/ frequency 688.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	50
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	688.090
Relative permittivity (real part)	42.777
Relative permittivity (imaginary part)	22.683
Conductivity (S/m)	0.815

C. SAR Surface and Volume



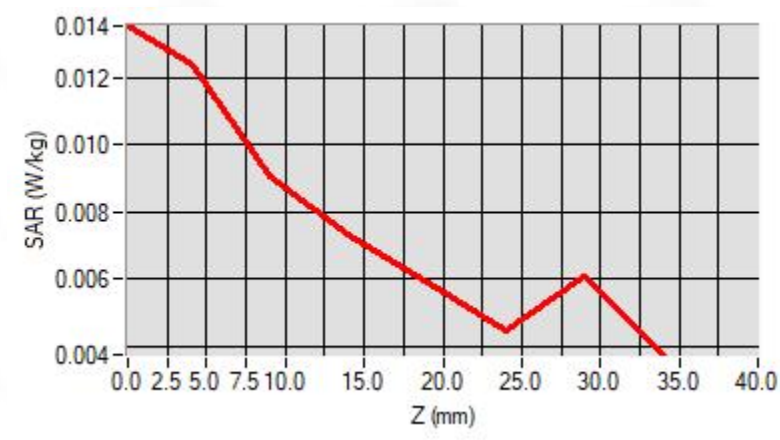
Maximum location: X=-54.00, Y=-56.00 ; SAR Peak: 0.02 W/kg

D. SAR 1g & 10g

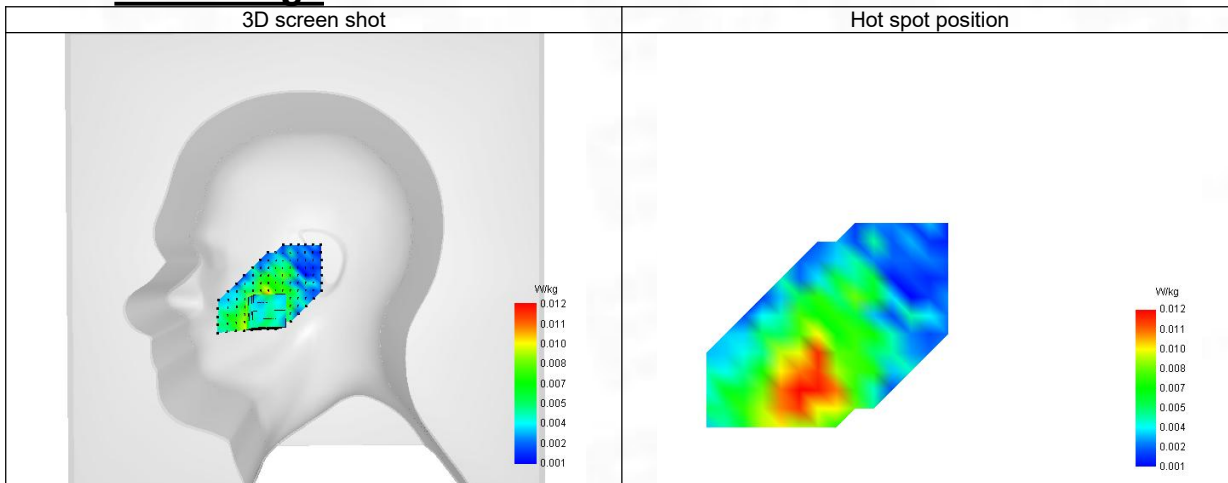
SAR 10g (W/Kg)	0.008
SAR 1g (W/Kg)	0.012
Variation (%)	-1.890
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	68.106114

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.014	0.012	0.009	0.007	0.006	0.004	0.006



F. 3D Image



24-Body with back position in dist. 10mm on Channel 133372 in LTE band 71

SAR Measurement at LTE band 71 (Body, Validation Plane)

Date of measurement: 10/9/2025

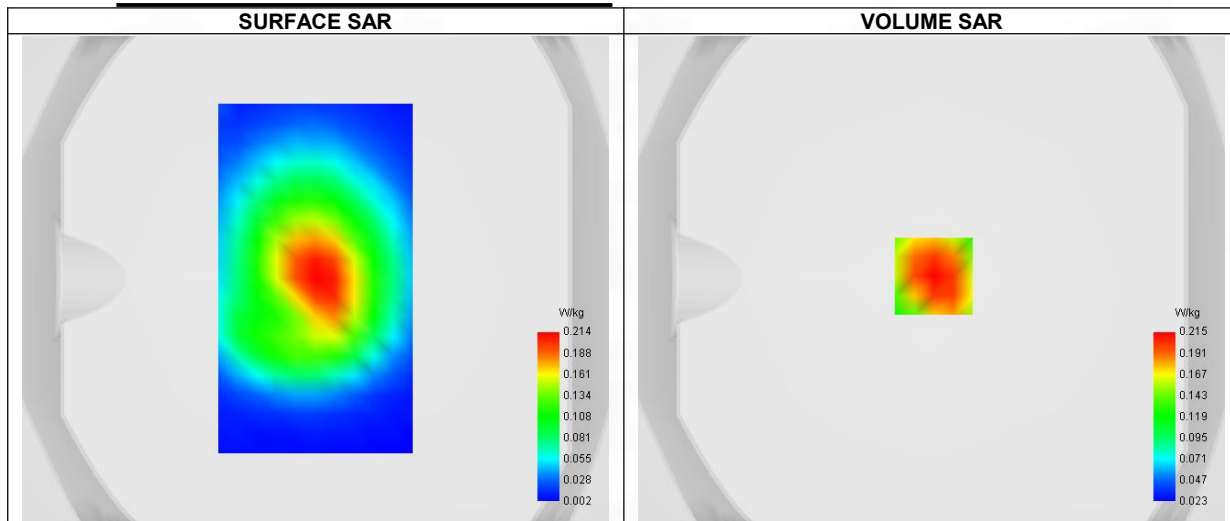
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.24
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 71
Channels/Frequency	Higher (133372)/ frequency 688.000 Mhz
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	50
RB size	1

B. Permittivity

Middle TX Frequency (MHz)	688.090
Relative permittivity (real part)	42.777
Relative permittivity (imaginary part)	22.683
Conductivity (S/m)	0.815

C. SAR Surface and Volume



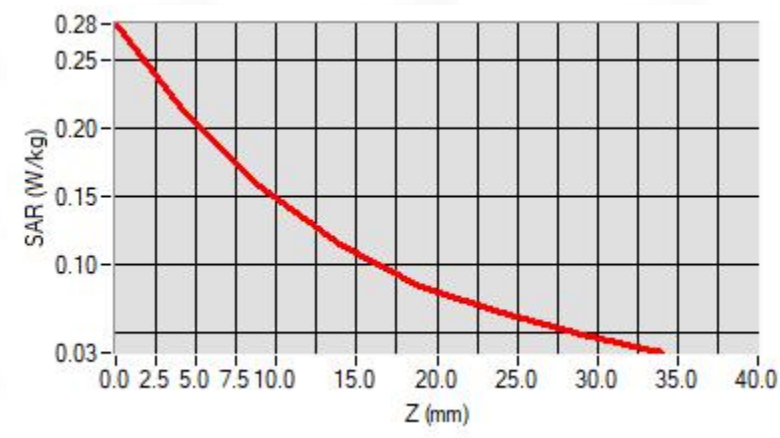
Maximum location: X=1.00, Y=1.00 ; SAR Peak: 0.28 W/kg

D. SAR 1g & 10g

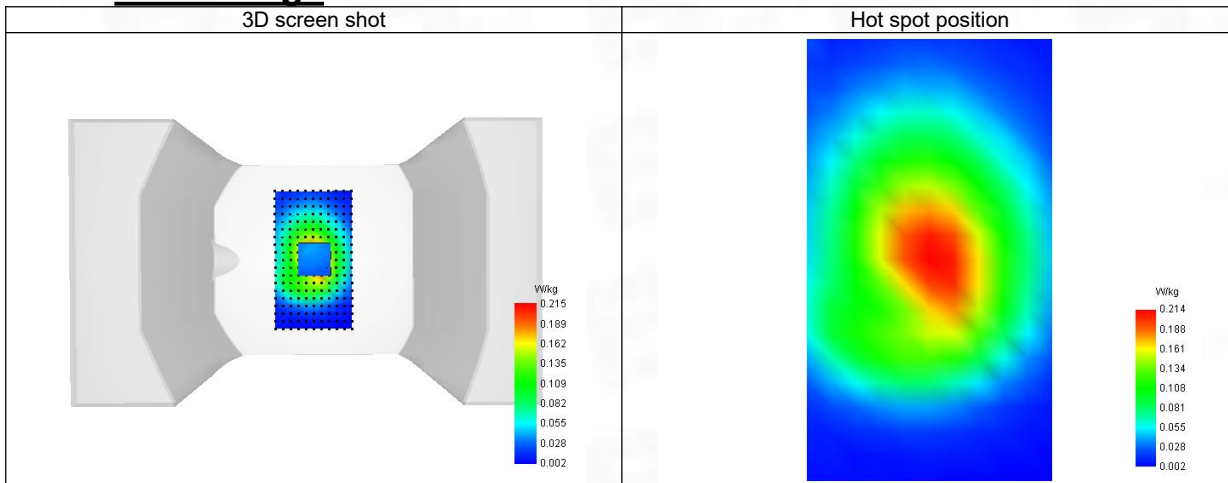
SAR 10g (W/Kg)	0.143
SAR 1g (W/Kg)	0.206
Variation (%)	-0.520
Horizontal validation criteria: minimum distance (mm)	22.627417
Vertical validation criteria: SAR ratio M2/M1 (%)	72.887369

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.276	0.215	0.157	0.115	0.084	0.065	0.048



F. 3D Image



25-Head with front position in dist. 0mm on Channel 0 in Bluetooth

SAR Measurement at Bluetooth (Cheek, Right)

Date of measurement: 21/9/2025

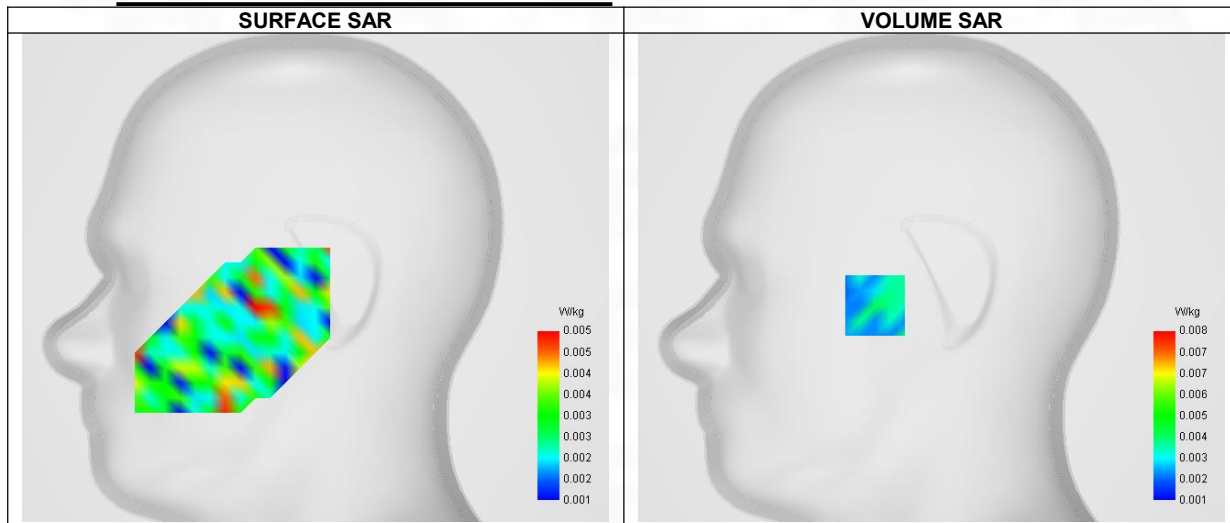
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.40
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Right head
Device Position	Cheek
Band	Bluetooth
Channels/Frequency	Lower (0)/ frequency 2402.000 Mhz
Signal	Bluetooth

B. Permittivity

Middle TX Frequency (MHz)	2402.000
Relative permittivity (real part)	38.295
Relative permittivity (imaginary part)	13.638
Conductivity (S/m)	1.758

C. SAR Surface and Volume



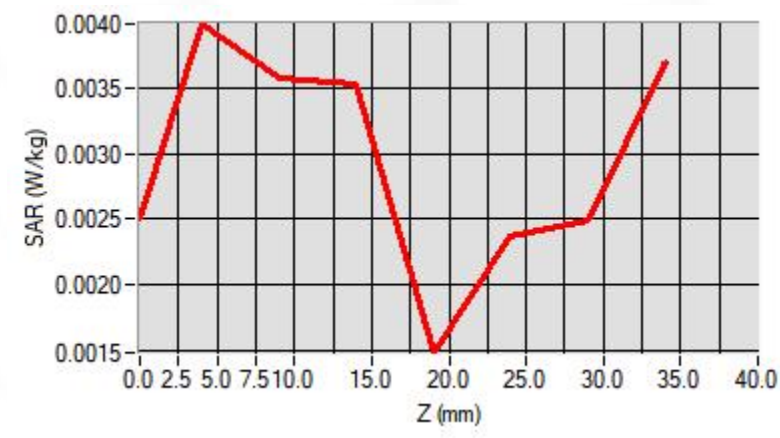
Maximum location: X=-30.00, Y=-15.00 ; SAR Peak: 0.01 W/kg

D. SAR 1g & 10g

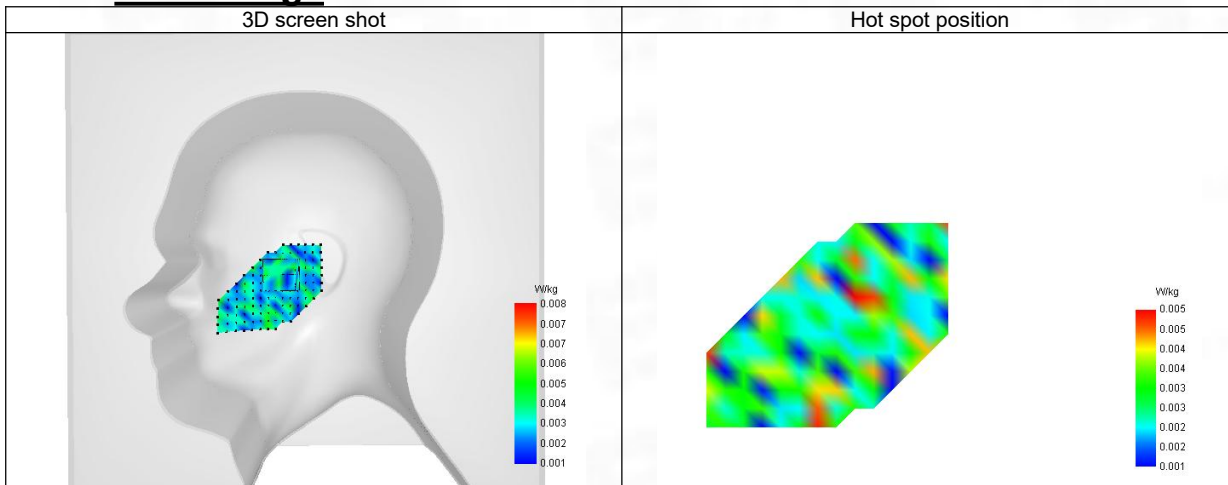
SAR 10g (W/Kg)	0.003
SAR 1g (W/Kg)	0.005
Variation (%)	2.670
Horizontal validation criteria: minimum distance (mm)	16.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	75.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.003	0.004	0.003	0.004	0.001	0.002	0.002



F. 3D Image



26-Body with back position in dist. 10mm on Channel 0 in Bluetooth

SAR Measurement at Bluetooth (Body, Validation Plane)

Date of measurement: 21/9/2025

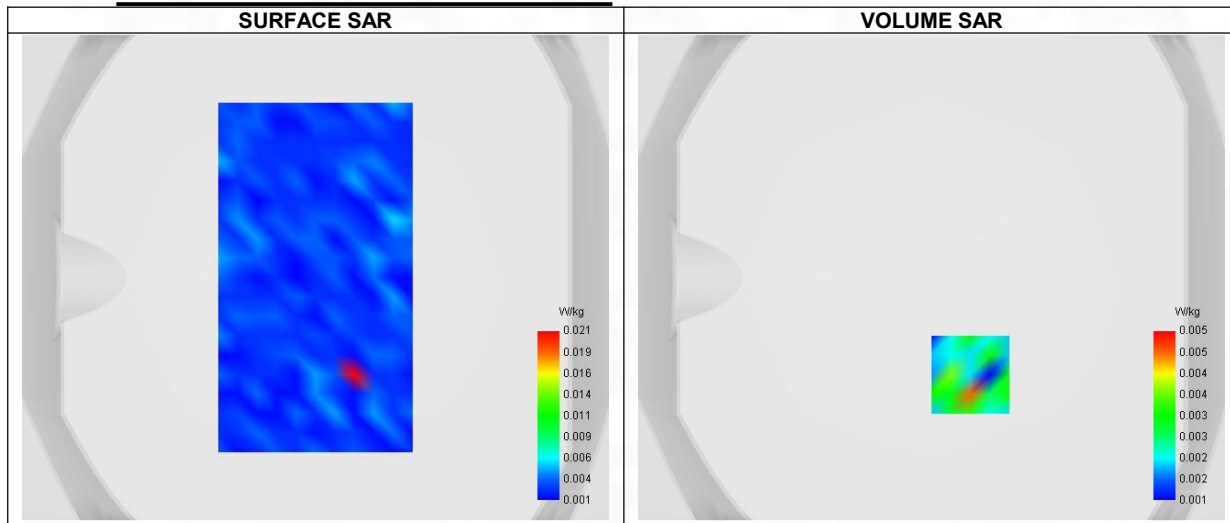
A. Experimental conditions.

Probe	0125-EPGO-445
ConvF	1.40
Area Scan	dx=8mm dy=8mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Bluetooth
Channels/Frequency	Lower (0)/ frequency 2402.000 Mhz
Signal	Bluetooth

B. Permittivity

Middle TX Frequency (MHz)	2402.000
Relative permittivity (real part)	38.295
Relative permittivity (imaginary part)	13.638
Conductivity (S/m)	1.758

C. SAR Surface and Volume



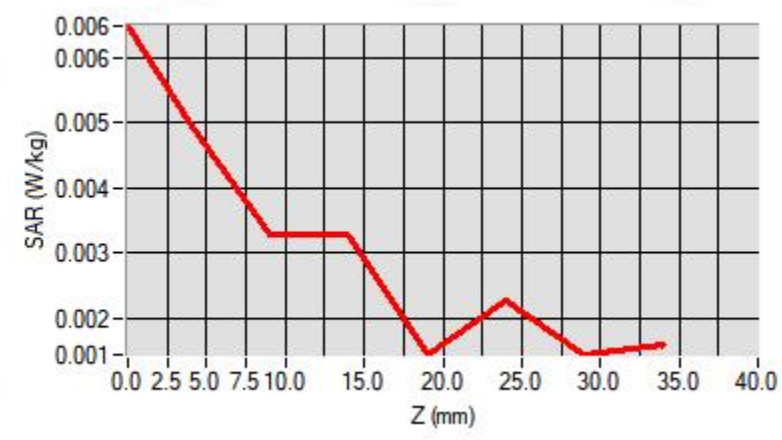
Maximum location: X=16.00, Y=-40.00 ; SAR Peak: 0.01 W/kg

D. SAR 1g & 10g

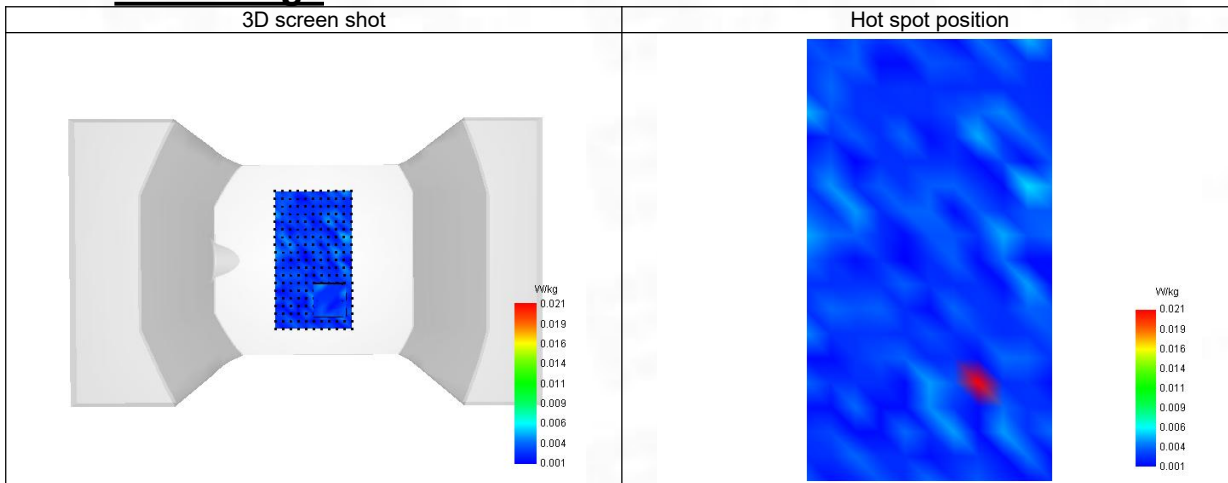
SAR 10g (W/Kg)	0.002
SAR 1g (W/Kg)	0.005
Variation (%)	0.840
Horizontal validation criteria: minimum distance (mm)	8.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	49.163645

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.006	0.005	0.003	0.003	0.001	0.002	0.001



F. 3D Image

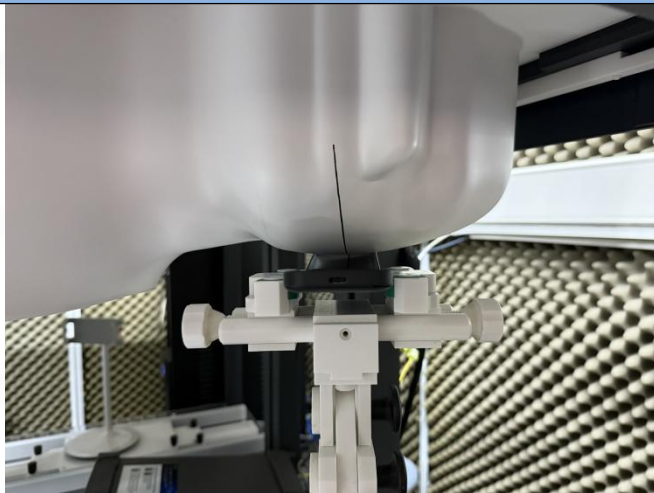


ANNEX D SAR Test Setup Photos

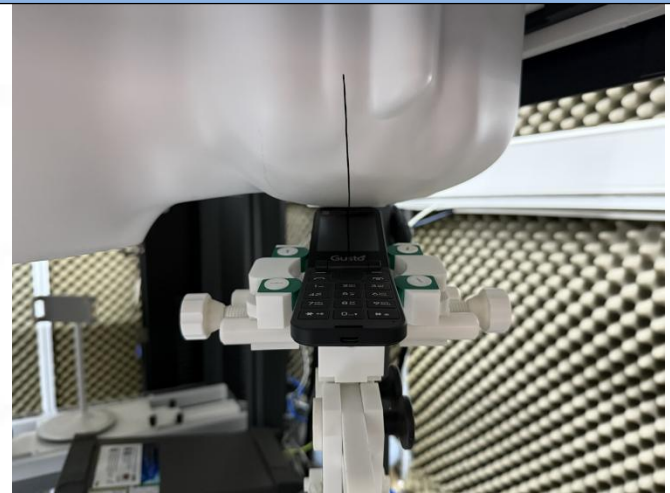
Reference Photo: simulation liquid depth 15.9cm



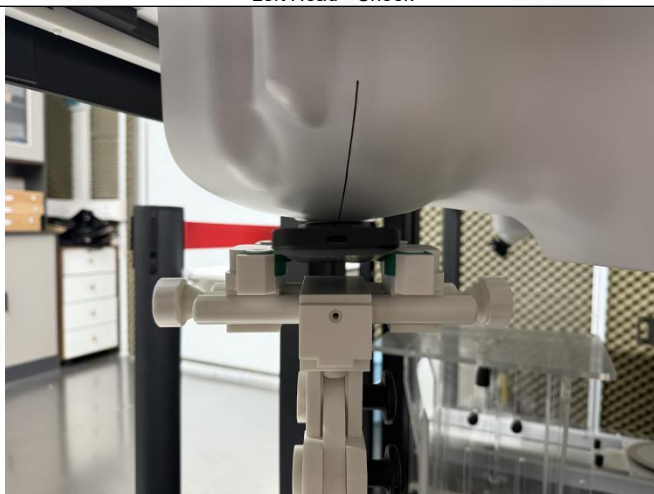
Reference Photos



Left Head - Cheek



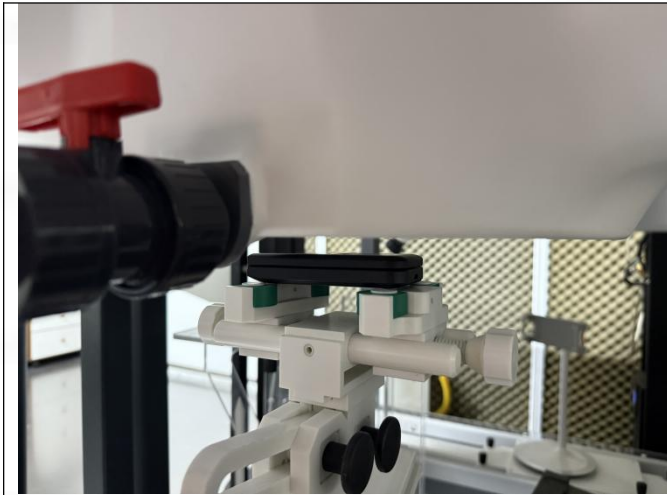
Left Head - Tilt



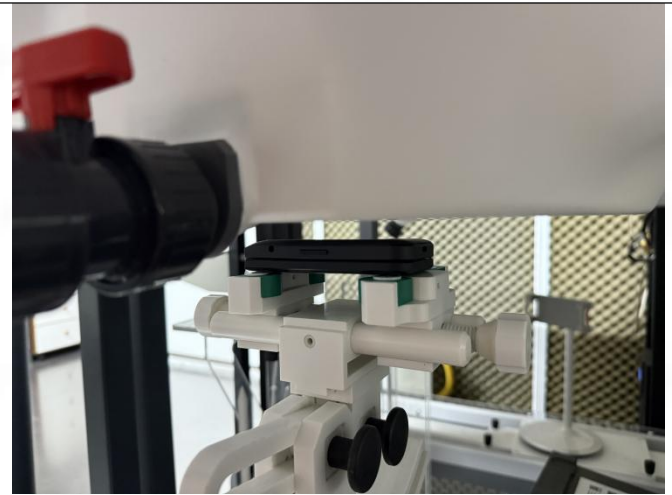
Right Head - Cheek



Right Head - Tilt



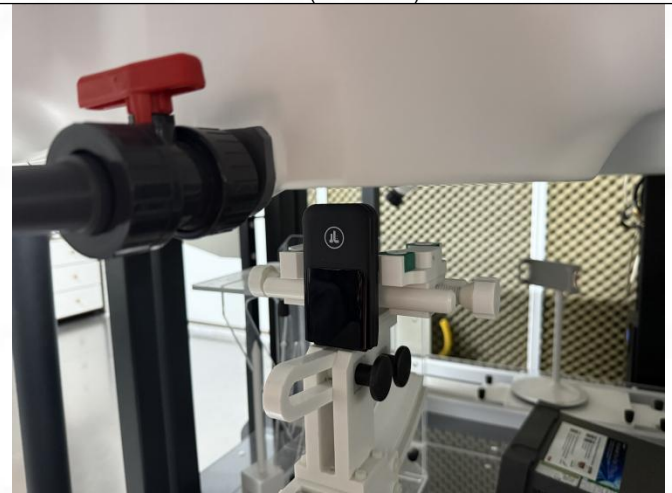
Front (dist. 10mm)



Back (dist. 10mm)



Left (dist. 10mm)



Bottom (dist. 10mm)

ANNEX E EUT External and Internal Photos

Please refer to RF Report.

ANNEX F Calibration Information

Please refer to the document "Calibration.pdf".



BTF Testing Lab (Shenzhen) Co., Ltd.

101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict,
Bao'an District, Shenzhen, China

www.btf-lab.com

--END OF REPORT--