

FCC SAR

Measurement and Test Report

For

PCSmart S.A.

Carrera 116 no. 25 - 25 Bogota - Colombia

FCC ID: 2ABFV-CPLAY

FCC Rules:	FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2003 KDB 865664 D01 v01r03 KDB 865664 D02 v01r01
Product Description:	<u>Entertainment Tablet</u>
Tested Model:	<u>Touch Simply Connect Play</u>
Report No.:	<u>STR14068119H</u>
Max. SAR Values:	Head: 0.2490W/kg(1g) Body: 1.2904 W/kg(1g)
Tested Date:	<u>2014-06-03 to 2014-06-04</u>
Issued Date:	<u>2014-06-25</u>
Tested By:	<u>Silin Chen / Engineer</u> <i>Silin chen</i>
Reviewed By:	<u>Lahm Peng / EMC Manager</u> <i>Lahm peng</i>
Approved & Authorized By:	<u>Jandy so / PSQ Manager</u> <i>Jandyso</i>
Prepared By:	Shenzhen SEM.Test Technology Co., Ltd. 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C. (518101) Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM. Test Technology Co., Ltd.

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1. General Information

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: PCSmart S.A.
Address of applicant: Carrera 116 no. 25 - 25 Bogota - Colombia

Manufacturer: Shenzhen Wisky Technology Co., LTD
Address of manufacturer: 5th Floor, W2-A Building, Hi-Tech Park South 1st Road, Nanshan District, Shenzhen

General Description of EUT	
Product Name:	Entertainment Tablet
Brand Name:	PCSMART
Model No.:	Touch Simply Connect Play
Adding Mode:	/
Software Version:	V1.00_20140411
Hardware Version:	TV1.0_140107
IMEI:	863059020233211
Rated Voltage:	DC 3.7V
Battery:	3000mAh
Power Adaptor:	FY0502000/SAPA05010US Input 100-240V, 50/60Hz, Output DC 5V
Device Category:	Portable Device
<p><i>The EUT is GSM850/900/DCS1800/PCS1900, WCDMA Band I, Band II, Band V, Band VIII, Entertainment Tablet. the Entertainment Tablet is intended for speech and Multimedia Message Service (MMS) transmission. It is equipped with GPRS/EDGE class 12 for GSM850 and GSM1900 and Bluetooth, Wi-Fi, and camera functions. For more information see the following datasheet</i></p> <p><i>The test data is gathered from a production sample, provided by the manufacturer.</i></p>	

Technical Characteristics of EUT	
2G	
Support Networks:	GSM, GPRS, EDGE
Support Band:	GSM850/PCS1900
Uplink Frequency:	GSM/GPRS/EDGE 850: 824~849MHz GSM/GPRS/EDGE 1900: 1850~1910MHz
Downlink Frequency:	GSM/GPRS/EDGE 850: 869~894MHz GSM/GPRS/EDGE 1900: 1930~1990MHz
RF Output Power:	GSM850: 32.66dBm, GSM1900: 29.39dBm
Type of Modulation:	GMSK, 8PSK

Antenna Type:	Internal Antenna
Antenna Gain:	GSM850: 1.97dBi GSM1900: 2.14dBi
GPRS/EDGE Class:	Class 12
3G	
Support Networks:	WCDMA
Support Band:	WCDMA Band II, WCDMA Band V
Uplink Frequency:	WCDMA Band II: 1850~1980MHz WCDMA Band V: 824~849MHz
Downlink Frequency:	WCDMA Band II: 1930~1990MHz WCDMA Band V: 869~894MHz
RF Output Power:	WCDMA850: 22.916dBm, WCDMA1900: 21.52dBm
Type of Modulation:	BPSK
Antenna Type:	Integral Antenna
Antenna Gain:	2.14dBi
Bluetooth	
Bluetooth Version:	V3.0
Frequency Range:	2402-2480MHz
RF Output Power:	6.449dBm (Conducted)
Modulation Type:	1Mbps, 2Mbps, 3Mbps
Data Rate:	GFSK, Pi/4 QDPSK, 8DPSK
Quantity of Channels	79
Channel Separation:	1MHz
Antenna Type:	Integral
Antenna Gain:	1.62dBi
Wi-Fi	
Support Standards:	802.11b, 802.11g, 802.11n
Frequency Range:	2412-2472MHz
RF Output Power:	15.88dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels	13
Channel Separation:	5MHz
Type of Antenna:	Integral
Antenna Gain:	1.62dBi

1.2 Test Standards

The following report is prepared on behalf of the PCSmart S.A. in accordance with FCC 47 CFR Part 2.1093, ANSI/IEEE C95.1-1992, IEEE 1528-2003 and KDB 865664 D01 v01r03 and KDB 865664 D02 v01r01

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

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

1.3 Test Methodology

All measurements contained in this report were conducted with KDB 865664 D01 v01r03 and KDB 865664 D02 v01r01. The public notice KDB 447498 D01 v05r02 for Mobile and Portable Devices RF Exposure Procedure also.

1.4 Test Facility

- **FCC – Registration No.: 934118**

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

- **Industry Canada (IC) Registration No.: 11464A**

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101)

2. Summary of Test Results

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

Frequency Band	Position	SAR _{1g} (W/kg)	Scaled SAR _{1g} (W/kg)
GSM850	Head	0.1464	0.1583
GSM1900	Head	0.2405	0.2467
WCDMA Band V	Head	0.0360	0.0368
WCDMA Band II	Head	0.0547	0.0595
WLAN 2.4GHz	Head	0.0088	0.0090
GSM850	Body (0mm Gap)	1.0761	1.1745
GSM1900	Body (0mm Gap)	0.6398	0.6840
WCDMA Band V	Body (0mm Gap)	0.5004	0.5109
WCDMA Band II	Body (0mm Gap)	0.4108	0.4588
WLAN 2.4GHz	Body (0mm Gap)	0.1127	0.1159
GSM850 & WLAN 2.4GHz	Head	--	0.1606
GSM1900 & WLAN 2.4GHz	Head	--	0.2490
WCDMA Band V & WLAN 2.4GHz	Head	--	0.0391
WCDMA Band II & WLAN 2.4GHz	Head	--	0.0701
GSM850 & WLAN 2.4GHz	Body (0mm Gap)	--	1.2904
GSM1900 & WLAN 2.4GHz	Body (0mm Gap)	--	0.7999
WCDMA Band V & WLAN 2.4GHz	Body (0mm Gap)	--	0.6268
WCDMA Band II & WLAN 2.4GHz	Body (0mm Gap)	--	0.5747

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2.1093 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedure specified in IEEE 1528-2003 and KDB 865664 D01 v01r03 and KDB 865664 D02 v01r01

3. Specific Absorption Rate (SAR)

3.1 Introduction

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

3.2 SAR Definition

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

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

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

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

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

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

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

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

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

4. SAR Measurement System

4.1 The Measurement System

Comosar is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The Comosar system consists of the following items:

- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.



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

4.2 Probe

For the measurements the Specific Dosimetric E-Field Probe SSE5 SN 09/13 EP168 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Probe Length: 330 mm
- Length of Individual Dipoles: 4.5 mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter : 5 mm
- Distance between dipoles / probe extremity: 2.7mm

- Probe linearity: <0.25 dB
 - Axial Isotropy: <0.25 dB
 - Spherical Isotropy: <0.50 dB
 - Calibration range: 700 to 3000MHz for head & body simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°

Probe calibration is realized, in compliance with EN 62209-1 and IEEE 1528 STD, with CALISAR, Antenna proprietary calibration system. The calibration is performed with the EN 62209-1 annexe technique using reference guide at the five frequencies.



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

Where :

P_{fw} = Forward Power

P_{bw} = Backward Power

a and b = Waveguide dimensions

δ = Skin depth

Keithley configuration:

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

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

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

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

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

where DCP is the diode compression point in mV.

4.3 Probe Calibration Process

Dosimetric Assessment Procedure

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

Free Space Assessment Procedure

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

Temperature Assessment Procedure

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

Where:

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

Δt = exposure time (30 seconds),

C = heat capacity of tissue (brain or muscle),

ΔT = temperature increase due to RF exposure.

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

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

Where:

σ = simulated tissue conductivity,

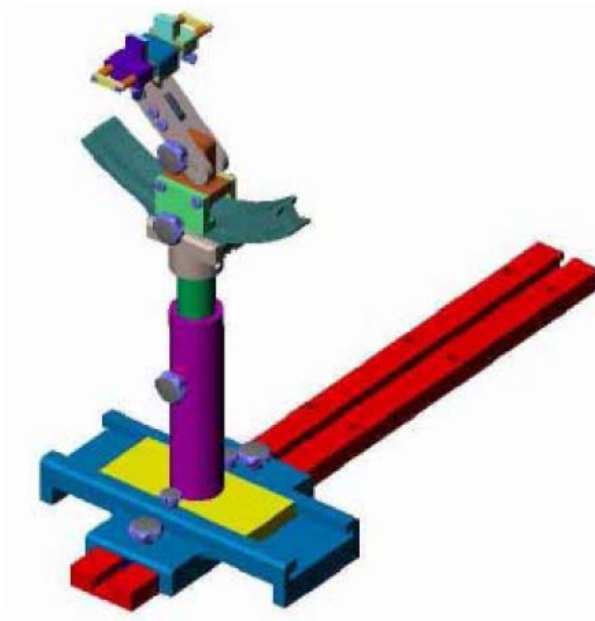
ρ = Tissue density (1.25 g/cm³ for brain tissue)

4.4 Phantom

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

4.5 Device Holder

The positioning system allows obtaining cheek and tilting position with a very good accuracy. In compliance with CENELEC, the tilt angle uncertainty is lower than 1°.



System Material	Permittivity	Loss Tangent
Delrin	3.7	0.005

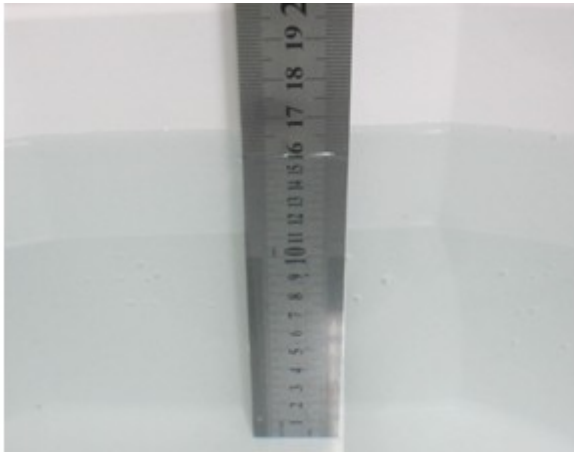
4.6 Test Equipment List

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
E-Field Probe	SATIMO	SSE5	SN 09/13 EP168	2014-03-21	2015-03-20
835MHz Dipole	SATIMO	SID835	SN 47/12 DIP 0G835-204	2014-11-26	2015-11-25
1900MHz Dipole	SATIMO	SID1900	SN 47/12 DIP 1G900-207	2014-11-26	2015-11-25
2450MHz Dipole	SATIMO	SID2450	SN 47/12 DIP 2G450-209	2014-11-26	2015-11-25
Dielectric Probe	SATIMO	SCLMP	SN 47/12 OCPG49	2014-11-26	2015-11-25
SAM Phantom	SATIMO	SAM	SN/ 47/12 SAM95	N/A	N/A
Multi Meter	Keithley	Keithley 2000	4006367	2014-05-07	2015-05-06
Signal Generator	Rohde & Schwarz	SMR20	100047	2014-05-07	2015-05-06
Universal Tester	Rohde & Schwarz	CMU200	112012	2014-05-07	2015-05-06
Network Analyzer	HP	8753C	2901A00831	2014-05-07	2015-05-06

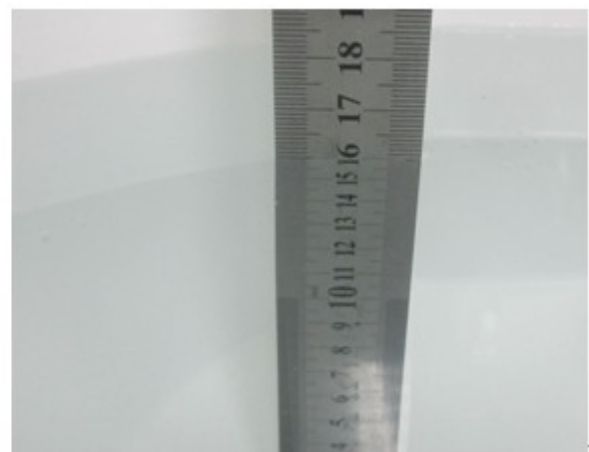
5. Tissue Simulating Liquids

5.1 Composition of Tissue Simulating Liquid

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



Liquid Height for Head SAR



Liquid Height for Body SAR

The Composition of Tissue Simulating Liquid

Frequency (MHz)	Water (%)	Salt (%)	Triton (%)	HEC (%)	Preventol (%)	DGBE (%)
Head						
835	35.34	0.98	0.00	0.00	63.68	0.00
1900	55.26	0.52	30.40	0.00	0.00	13.82
2450	55.44	0.32	30.50	0.00	0.00	13.74
Body						
835	52.87	1.07	0.00	0.00	46.10	0.00
1900	69.99	0.41	20.66	0.00	0.00	8.93
2450	55.44	0.32	30.50	0.00	0.00	13.74

5.2 Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Target Frequency (MHz)	Head		Body	
	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity (σ)	Permittivity (ϵ_r)
150	0.76	52.3	0.80	61.9
300	0.87	45.3	0.92	58.2
450	0.87	43.5	0.94	56.7
835	0.90	41.5	0.97	55.2
900	0.97	41.5	1.05	55.0
915	0.98	41.5	1.06	55.0
1450	1.20	40.5	1.30	54.0
1610	1.29	40.3	1.40	53.8
1800-2000	1.40	40.0	1.52	53.3
2450	1.80	39.2	1.95	52.7
3000	2.40	38.5	2.73	52.0
5800	5.27	35.3	6.00	48.2

5.3 Tissue Calibration Result

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

Calibration Result for Dielectric Parameters of Tissue Simulating Liquid

Head Tissue Simulating Liquid									
Freq. MHz.	Temp. (°C)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ϵ_r)	Target (ϵ_r)	Delta (%)		
835	21.2	0.91	0.90	1.11	40.02	41.5	-3.57	±5	2014-06-03
1900	21.3	1.41	1.40	0.71	38.91	40.0	-2.73	±5	2014-06-03
2450	21.3	1.78	1.80	-1.11	38.76	39.2	-1.12	±5	2014-06-03

Body Tissue Simulating Liquid									
Freq. MHz.	Temp. (°C)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ϵ_r)	Target (ϵ_r)	Delta (%)		
835	21.2	0.96	0.97	-1.03	54.49	55.2	-1.29	±5	2014-06-03
1900	21.3	1.49	1.52	-1.97	52.39	53.3	-1.71	±5	2014-06-03
2450	21.3	1.92	1.95	-1.54	52.43	52.7	-0.51	±5	2014-06-03

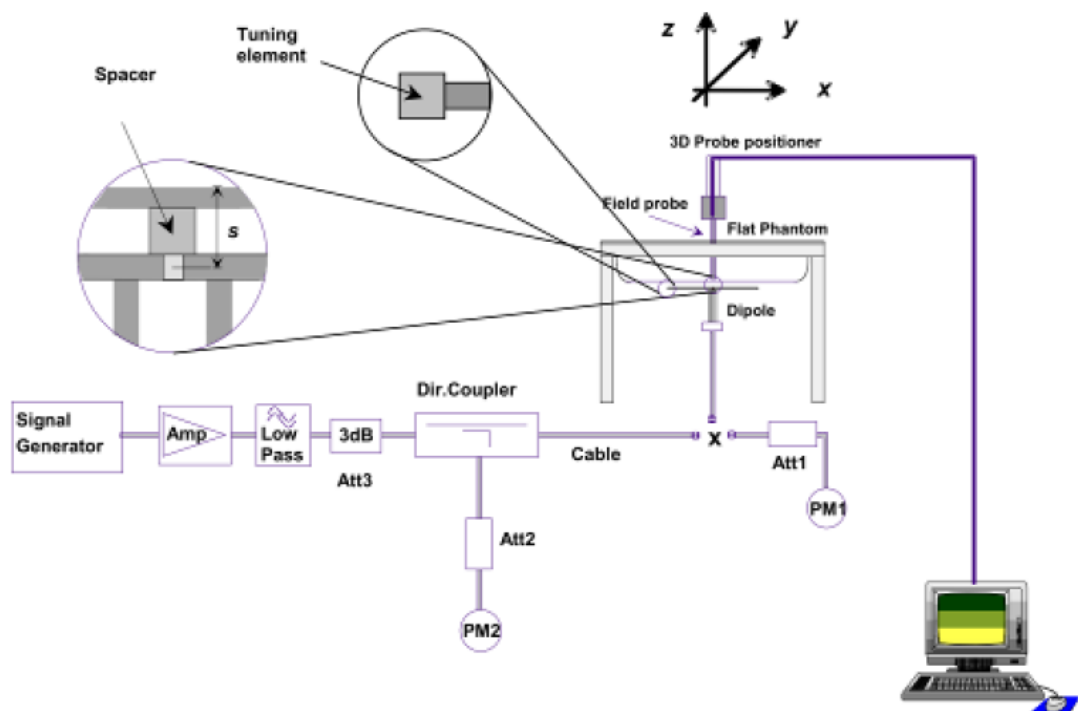
6. SAR Measurement Evaluation

6.1 Purpose of System Performance Check

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

6.2 System Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave which comes from a signal generator at frequency 835 MHz and 1900 MHz. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom.



System Verification Setup Block Diagram



Setup Photo of Dipole Antenna

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

6.3 Validation Results

Comparing to the original SAR value provided by SATIMO, the validation data should be within its specification of 10 %. Table 6.1 shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion.

Frequency	Targeted SAR _{1g}	Measured SAR _{1g}	Normalized SAR _{1g}	Tolerance
MHz	(W/kg)	(W/kg)	(W/kg)	(%)
Head				
835	9.82	2.46	9.83	-2.24
1900	40.79	10.20	40.80	-2.92
2450	52.50	13.10	52.40	-0.93
Body				
835	10.19	2.52	10.09	-0.98
1900	40.41	10.09	40.34	-0.17
2450	51.80	12.86	51.42	-0.73

Targeted and Measurement SAR

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

7. EUT Testing Position

7.1 Define Two Imaginary Lines on The Handset

- (a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.
- (b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- (c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

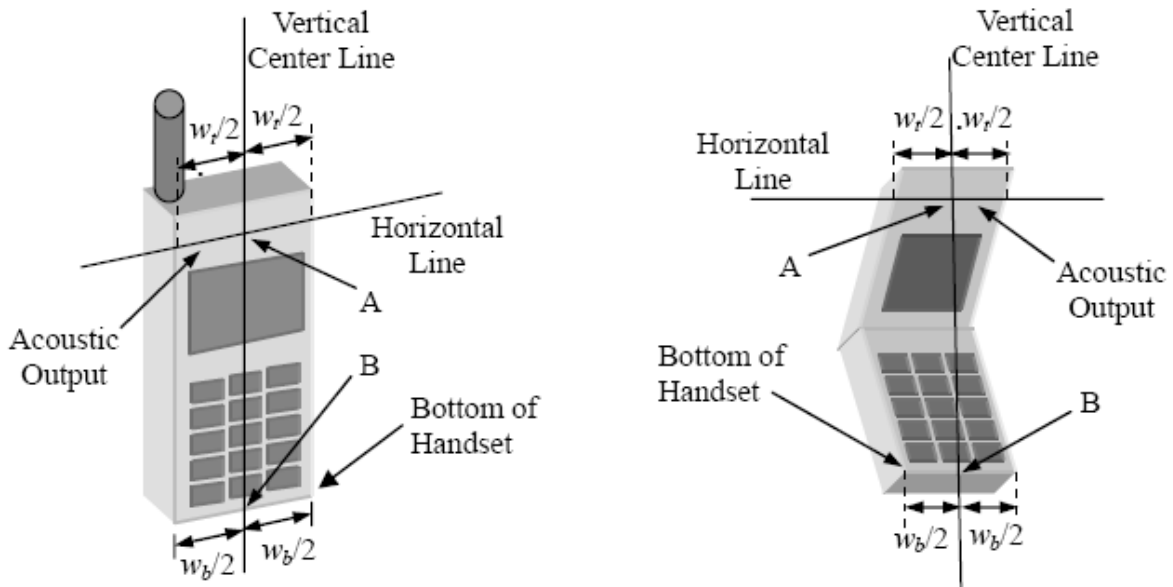


Illustration for Handset Vertical and Horizontal Reference Lines

7.2 Cheek Position

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig. 7.2).

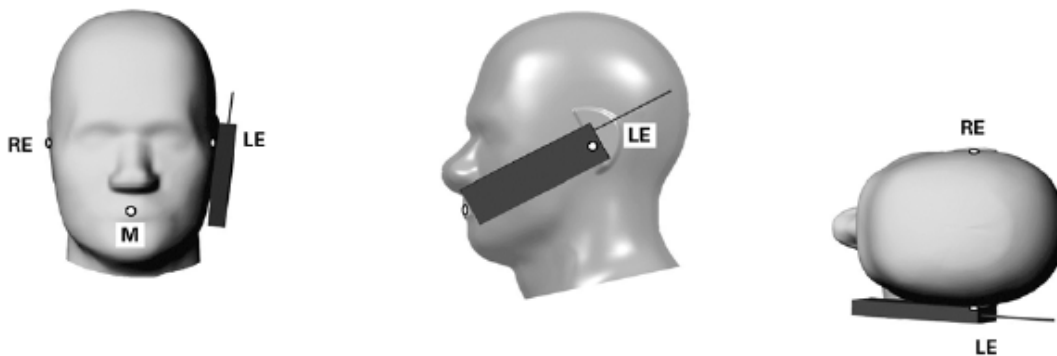


Illustration for Cheek Position

7.3 Tilted Position

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

(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig. 7.3).

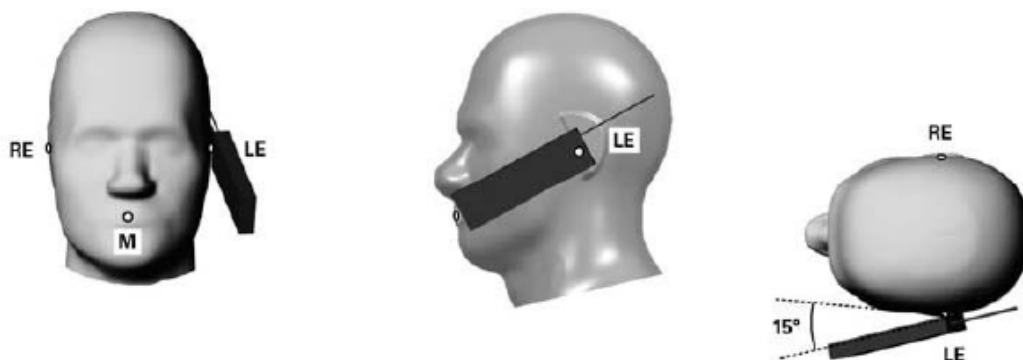


Illustration for Tilted Position

7.2 Body Worn Position

- (a) To position the device parallel to the phantom surface with either keypad up or down.
- (b) To adjust the device parallel to the flat phantom.
- (c) To adjust the distance between the device surface and the flat phantom to 0mm.

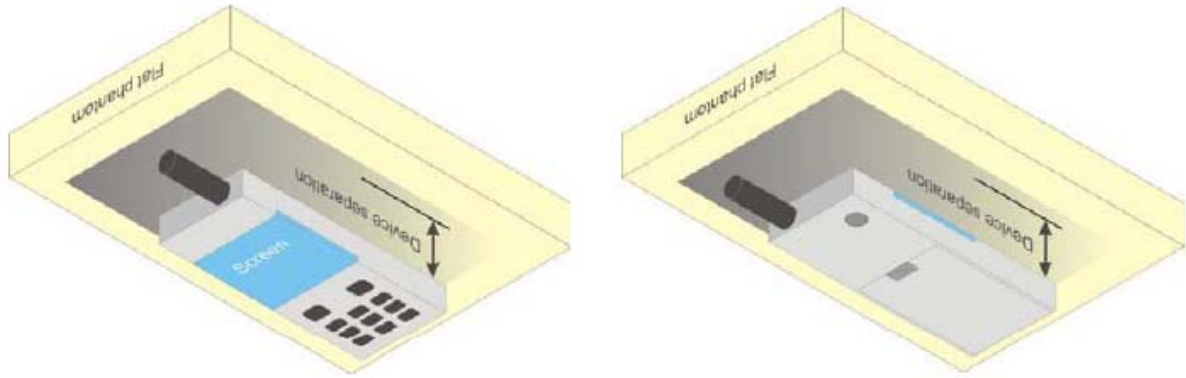
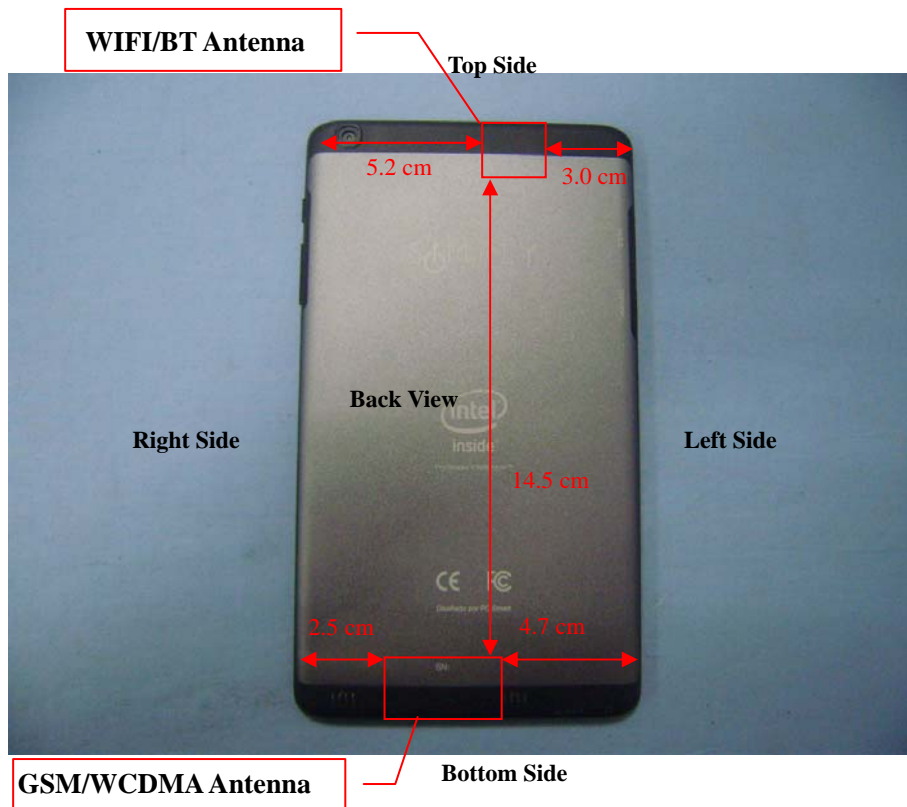


Illustration for Body Worn Position

7.3 EUT Antenna Position



Block Diagram for EUT Antenna Position

7.4 EUT Testing Position

Exclusion Distance Calculation				
Frequency Bands	Service	Maximum Tune-up Power	Average Power	Exclusion Distance
GSM850	GSM	33.0dBm	24.0dBm	70mm
GPRS850	GPRS(4slots)	29.0dBm	26.0dBm	100mm
GSM1900	GSM	29.5dBm	20.5dBm	60mm
GPRS1900	GPRS(4slots)	26.0dBm	23.0dBm	60mm
WCDMA Band V	RMC 12.2k	23.0dBm	23.0dBm	60mm
WCDMA Band II	RMC 12.2k	22.0dBm	22.0dBm	60mm
WLAN	802.11b	16.0dBm	16.0dBm	25mm

Note: Refer to Chapter 9.1 Conducted RF Output Power

Remark:

- Referring to KDB 447498 D01 v05r02 and KDB616217 D04 v01r01, the distance of the antennas to all adjacent edges SAR test exclusion for adjacent edges.

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

Head SAR tests				
Antennas	Right Cheek	Left Cheek	Right Tilted	Left Tilted
WWAN	Yes	Yes	Yes	Yes
WLAN	Yes	Yes	Yes	Yes

Hotspot SAR tests, Test distance: 0mm						
Antennas	Front	Back	Right Side	Left Side	Top Side	Bottom Side
WWAN	No	Yes	Yes	Yes	No	Yes
WLAN	No	Yes	Yes	Yes	Yes	No

Body-worn SAR tests, Test distance: 0mm			
Antennas	Front	Back	Body-worn with headset
WWAN	Yes	Yes	Yes
WLAN	Yes	Yes	Yes

Note: Body-worn means the back of device.

Remark:

- Referring to KDB 616217 D04 v01r01, KDB 248227 D01 v01r02 D04 and KDB 447498 D01 v05r02, this device is a overall diagonal dimension(>20cm) tablet, tested in direct contact (no gap) with flat phantom.

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

8. SAR Measurement Procedures

8.1 Measurement Procedures

The measurement procedures are as follows:

- (a) Use base station simulator (if applicable) or engineering software to transmit RF power continuously (continuous Tx) in the highest power channel.
- (b) Keep EUT to radiate maximum output power or 100% factor (if applicable)
- (c) Measure output power through RF cable and power meter.
- (d) Place the EUT in the positions as Annex E demonstrates.
- (e) Set scan area, grid size and other setting on the SATIMO software.
- (f) Measure SAR results for the highest power channel on each testing position.
- (g) Find out the largest SAR result on these testing positions of each band
- (h) Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

8.2 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The SATIMO software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine. The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

8.3 Area & Zoom Scan Procedures

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

8.4 Volume Scan Procedures

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

8.5 SAR Averaged Methods

The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimize measurements errors, but the highest local SAR will occur at the surface of the phantom.

An extrapolation is using to determinate this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1mm step.

The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10g and 1 g requires a very fine resolution in the three dimensional scanned data array.

8.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In SATIMO measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

9. SAR Test Result

9.1 Conducted RF Output Power

GSM - Burst Average Power (dBm)						
Band	GSM850			PCS1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880	1909.8
GSM	32.66	32.63	32.54	29.39	29.30	28.69
GPRS (1 slot)	32.48	32.53	32.44	29.39	29.27	28.67
GPRS (2 slots)	31.05	31.15	31.43	28.21	28.01	28.32
GPRS (3 slots)	29.12	29.44	29.59	26.35	26.51	26.75
GPRS (4 slots)	28.24	28.62	28.43	25.64	25.43	25.71
EDGE (1 slots)	27.04	27.42	27.29	25.55	25.69	25.08
EDGE (2 slots)	25.32	25.14	25.20	24.25	24.02	24.21
EDGE (3 slots)	24.02	23.93	23.98	22.01	21.96	22.00
EDGE (4 slots)	22.35	22.12	22.26	20.65	20.52	20.24

GSM - Source-Based Time-Average Power (dBm)						
Band	GSM850			PCS1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880	1909.8
GSM	23.66	23.63	23.54	20.39	20.30	19.69
GPRS (1 slot)	23.48	23.53	23.44	20.39	20.27	19.67
GPRS (2 slots)	25.05	25.15	25.43	22.21	22.01	22.32
GPRS (3 slots)	24.87	25.19	25.34	22.10	22.26	22.50
GPRS (4 slots)	25.24	25.62	25.43	22.64	22.43	22.71
EDGE (1 slots)	18.04	18.42	18.29	16.55	16.69	16.08
EDGE (2 slots)	19.32	19.14	19.20	18.25	18.02	18.21
EDGE (3 slots)	19.77	19.68	19.73	17.76	17.71	17.75
EDGE (4 slots)	19.35	19.12	19.26	17.65	17.52	17.24

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

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

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

Remark:

1. For Head SAR testing, GSM should be evaluated, therefore the EUT was set in GSM for GSM850 and GSM1900 due to its highest source-based time-average power.
2. For Body SAR testing, GPRS should be evaluated, therefore the EUT was set in GPRS (4 Tx slots) for GSM850 and GSM1900 due to its highest source-based time-average power.
3. Per KDB 447498 D01 v05r02, the maximum output power channel is used for SAR testing and for further SAR test reduction.
4. The DUT do not support DTM function.

WCDMA - Average Power (dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4183	4233	9262	9400	9538
Frequency (MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
RMC 12.2k	22.81	22.61	22.91	21.52	21.50	21.23
RMC 64k	22.44	22.45	22.49	21.15	21.29	21.12
RMC 144k	22.43	22.46	22.49	21.17	21.18	21.13
RMC 384k	22.45	22.47	22.51	20.26	20.63	20.11
HSDPA Subtest-1	22.11	22.01	22.23	21.12	21.28	21.03
HSDPA Subtest-2	21.48	21.59	21.12	20.42	20.38	20.46
HSDPA Subtest-3	21.17	21.28	21.12	20.92	20.96	20.86
HSDPA Subtest-4	20.97	20.42	20.69	20.06	20.99	20.81
HSUPA Subtest-1	21.51	21.66	21.67	20.58	20.61	20.52
HSUPA Subtest-2	20.76	20.99	21.03	20.41	20.26	20.42
HSUPA Subtest-3	21.21	21.36	21.27	20.81	20.31	20.22
HSUPA Subtest-4	20.57	21.04	21.07	20.42	20.57	20.36
HSUPA Subtest-5	20.53	20.68	20.69	20.68	20.69	20.63

Remark:

1. For Head SAR, per KDB 941225 D01 v02, RMC 12.2kbps setting is used to evaluate SAR. If AMR 12.2kbps power is < 1/4 dB higher than RMC, SAR tests with AMR 12.2kbps can be excluded.
2. For Body SAR, per KDB 941225 D01 v02, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA subset-1 and HSUPA subset-1 output power is < 1/4 dB higher than RMC, and SAR with RMC 12.2kbps setting is $\leq 1.2W/kg$, HSDPA and HSUPA SAR evaluation can be excluded.

WLAN - Maximum Average Power				
Test Mode	Data Rate	Channel	Frequency (MHz)	Average Power (dBm)
802.11b	1Mbps	CH 01	2412	15.88
		CH 07	2442	15.59
		CH 13	2472	15.67
802.11g	54Mbps	CH 01	2412	15.03
		CH 07	2442	14.92
		CH 13	2472	15.23
802.11n (20MHz)	MCS7	CH 01	2412	15.50
		CH 07	2442	15.60
		CH 13	2472	15.55
802.11n (40MHz)	MCS7	CH 03	2422	14.94
		CH 07	2442	15.02
		CH 11	2462	14.77

Remark:

1. Per KDB 248227 D01 v01r02, choose the highest output power channel to test SAR and determine further SAR exclusion
2. Per KDB 248227 D01 v01r02, if 11g and 11n average output power is higher than 1/4 dB higher than 11b mode, SAR will be verified.
3. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4 dB higher than those measured at the lowest data rate. For 802.11n mode, SAR test according to the highest power channel with correspondence data rates.

Bluetooth - Maximum Average Power				
Test Mode	Data Rate	Channel	Frequency (MHz)	Average Power (dBm)
GFSK	1Mbps	CH 00	2402	5.592
		CH 39	2441	4.234
		CH 78	2480	4.561
8DPSK	3Mbps	CH 00	2402	6.449
		CH 39	2441	5.893
		CH 78	2480	5.352

Remark:

Bluetooth maximum output power (including tune-up tolerance) is 6.0dBm. Per KDB 648474 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, 16 where}$$

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

Max. Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
6.449	4.415	5	2.441	1.38	3

The exclusion thresholds is 1.38 < 3, therefore, the RF exposure evaluation is not required.

9.2 Test Results for Standalone SAR Test

Head SAR

GSM850 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
1	GSM	Right Cheek	128	824.2	32.66	33.0	1.08	0.1464	0.1583
2	GSM	Right Tilted	128	824.2	32.66	33.0	1.08	0.0989	0.1070
3	GSM	Left Cheek	128	824.2	32.66	33.0	1.08	0.1083	0.1171
4	GSM	Left Tilted	128	824.2	32.66	33.0	1.08	0.0928	0.1004

GSM1900 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
13	GSM	Right Cheek	512	1850.2	29.39	29.5	1.03	0.2405	0.2467
14	GSM	Right Tilted	512	1850.2	29.39	29.5	1.03	0.1299	0.1332
15	GSM	Left Cheek	512	1850.2	29.39	29.5	1.03	0.2012	0.2064
16	GSM	Left Tilted	512	1850.2	29.39	29.5	1.03	0.0458	0.0470

WCDMA Band V – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
23	RMC	Right Cheek	4233	846.6	22.91	23.0	1.02	0.0360	0.0368
24	RMC	Right Tilted	4233	846.6	22.91	23.0	1.02	0.0037	0.0038
25	RMC	Left Cheek	4233	846.6	22.91	23.0	1.02	0.0187	0.0191
26	RMC	Left Tilted	4233	846.6	22.91	23.0	1.02	0.0050	0.0051

WCDMA Band II – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
33	RMC	Right Cheek	9262	1852.4	21.52	22.0	1.12	0.0453	0.0513
34	RMC	Right Tilted	9262	1852.4	21.52	22.0	1.12	0.0038	0.0042
35	RMC	Left Cheek	9262	1852.4	21.52	22.0	1.12	0.0533	0.0595
36	RMC	Left Tilted	9262	1852.4	21.52	22.0	1.12	0.0061	0.0068

WLAN 2.4GHz – Head SAR Test									
Plot No.	Mode	Test Postion Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
43	802.11b	Right Cheek	01	2412	15.88	16.0	1.03	0.0022	0.0023
44	802.11b	Right Tilted	01	2412	15.88	16.0	1.03	0.0048	0.0049
45	802.11b	Left Cheek	01	2412	15.88	16.0	1.03	0.0088	0.0090
46	802.11b	Left Tilted	01	2412	15.88	16.0	1.03	0.0038	0.0039

Remark: Per KDB 447498 D01 v05r02, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Hotspot SAR

GSM850 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
6	GPRS_4TX	Back	190	836.4	28.62	29.0	1.09	1.0761	1.1745
7	GPRS_4TX	Back	128	826.4	28.24	29.0	1.19	0.9012	1.0735
8	GPRS_4TX	Back	251	846.6	28.43	29.0	1.14	0.9203	1.0494
10	GPRS_4TX	Bottom side	190	836.4	28.62	29.0	1.09	0.2288	0.2497
11	GPRS_4TX	Right side	190	836.4	28.62	29.0	1.09	0.0723	0.0789
12	GPRS_4TX	Left side	190	836.4	28.62	29.0	1.09	0.0765	0.0835

GSM1900 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
18	GPRS_4TX	Back	810	1909.8	25.71	26.0	1.07	0.6398	0.6840
20	GPRS_4TX	Bottom side	810	1909.8	25.71	26.0	1.07	0.1752	0.1873
21	GPRS_4TX	Right side	810	1909.8	25.71	26.0	1.07	0.0365	0.0391
22	GPRS_4TX	Left side	810	1909.8	25.71	26.0	1.07	0.0729	0.0780

WCDMA Band V – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
27	RMC 12.2k	Back	4233	846.6	22.91	23.0	1.02	0.5004	0.5109
29	RMC 12.2k	Bottom side	4233	846.6	22.91	23.0	1.02	0.4599	0.4695
30	RMC 12.2k	Right side	4233	846.6	22.91	23.0	1.02	0.1870	0.1907
31	RMC 12.2k	Left side	4233	846.6	22.91	23.0	1.02	0.1036	0.1057

WCDMA Band II – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
37	RMC 12.2k	Back	9262	1852.4	21.52	22.0	1.12	0.4108	0.4588
39	RMC 12.2k	Bottom side	9262	1852.4	21.52	22.0	1.12	0.1870	0.2089
40	RMC 12.2k	Right side	9262	1852.4	21.52	22.0	1.12	0.1468	0.1644
41	RMC 12.2k	Left side	9262	1852.4	21.52	22.0	1.12	0.1326	0.1485

WLAN 2.4GHz –Body SAR Test(Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
47	802.11b	Back	01	2412	15.88	16.0	1.03	0.1127	0.1159
49	802.11b	Top Side	01	2412	15.88	16.0	1.03	0.0765	0.0786
50	802.11b	Right side	01	2412	15.88	16.0	1.03	0.0066	0.0068
51	802.11b	Left side	01	2412	15.88	16.0	1.03	0.0053	0.0055

Remark: Per KDB 447498 D01 v05r02, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Body-worn SAR

GSM850 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
52	Voice	Back	128	824.2	32.66	33.0	1.08	0.5307	0.5732
53	Voice	Front	128	824.2	32.66	33.0	1.08	0.2389	0.2580

GSM1900 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
54	Voice	Back	512	1850.2	29.39	29.5	1.03	0.4108	0.4231
55	Voice	Front	512	1850.2	29.39	29.5	1.03	0.1859	0.1915

WCDMA Band V – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
56	Voice	Back	4233	846.6	22.91	23.0	1.02	0.3844	0.3921
57	Voice	Front	4233	846.6	22.91	23.0	1.02	0.1968	0.2007

WCDMA Band II – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
58	Voice	Back	9262	1852.4	21.52	22.0	1.12	0.2576	0.2885
59	Voice	Front	9262	1852.4	21.52	22.0	1.12	0.1181	0.1323

WLAN 2.4GHz –Body SAR Test(Gap: 0mm)									
Plot No.	Mode	Test Postion Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
60	Voice	Back	01	2412	15.88	16.0	1.03	0.1122	0.1156
61	Voice	Front	01	2412	15.88	16.0	1.03	0.0485	0.0500

Remark:

1. Per KDB 447498 D01 v05r02, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

9.3 Simultaneous Multi-band Transmission SAR Analysis

List of Mode for Simultaneous Multi-band Transmission

No.	Configurations	Head SAR	Body-worn SAR	Hotspot SAR
1	GSM + WLAN	Yes	Yes	-
2	GPRS + WLAN	-	-	Yes
3	WCDMA + WLAN	Yes	Yes	-
4	HSUPA + WLAN	-	-	Yes
5	HSDPA + WLAN	-	-	Yes
6	GSM + Bluetooth	Yes	Yes	-
7	GPRS + Bluetooth	-	-	Yes
8	WCDMA + Bluetooth	Yes	Yes	-
9	HSUPA + Bluetooth	-	-	Yes
10	HSDPA + Bluetooth	-	-	Yes

Remark:

1. GSM and WCDMA share the same antenna, and cannot transmit simultaneously.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. According to the KDB 447498 D01 v05r01, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)⁻¹·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;

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

For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 v05r01 as below:

4. The maximum SAR summation is calculated based on the same configuration and test position. If 1g-SAR scalar summation < 1.6W/kg, simultaneous SAR measurement is not necessary.

Head SAR**WWAN and WLAN**

Position	WWAN		WLAN	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Right Cheek	GSM850	0.1583	0.0023	0.1606
Right Tilted	GSM850	0.1070	0.0049	0.1119
Left Cheek	GSM850	0.1171	0.0090	0.1261
Left Tilted	GSM850	0.1004	0.0039	0.1043
Right Cheek	GSM1900	0.2467	0.0023	0.2490
Right Tilted	GSM1900	0.1332	0.0049	0.1381
Left Cheek	GSM1900	0.2064	0.0090	0.2154
Left Tilted	GSM1900	0.0470	0.0039	0.0509
Right Cheek	WCDMA Band V	0.0368	0.0023	0.0391
Right Tilted	WCDMA Band V	0.0038	0.0049	0.0087
Left Cheek	WCDMA Band V	0.0191	0.0090	0.0281
Left Tilted	WCDMA Band V	0.0051	0.0039	0.009
Right Cheek	WCDMA Band II	0.0513	0.0023	0.0536
Right Tilted	WCDMA Band II	0.0042	0.0049	0.0091
Left Cheek	WCDMA Band II	0.0595	0.0090	0.0685
Left Tilted	WCDMA Band II	0.0068	0.0039	0.0107

WWAN and Bluetooth

Position	WWAN		Bluetooth	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Right Cheek	GSM850	0.1583	0.1840	0.3423
Right Tilted	GSM850	0.1070	0.1840	0.291
Left Cheek	GSM850	0.1171	0.1840	0.3011
Left Tilted	GSM850	0.1004	0.1840	0.2844
Right Cheek	GSM1900	0.2467	0.1840	0.4307
Right Tilted	GSM1900	0.1332	0.1840	0.3172
Left Cheek	GSM1900	0.2064	0.1840	0.3904
Left Tilted	GSM1900	0.0470	0.1840	0.231
Right Cheek	WCDMA Band V	0.0368	0.1840	0.2208
Right Tilted	WCDMA Band V	0.0038	0.1840	0.1878
Left Cheek	WCDMA Band V	0.0191	0.1840	0.2031
Left Tilted	WCDMA Band V	0.0051	0.1840	0.1891
Right Cheek	WCDMA Band II	0.0513	0.1840	0.2353
Right Tilted	WCDMA Band II	0.0042	0.1840	0.1882
Left Cheek	WCDMA Band II	0.0595	0.1840	0.2435
Left Tilted	WCDMA Band II	0.0068	0.1840	0.1908

Hotspot SAR**WWAN and WLAN**

Position	WWAN		WLAN	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Back	GSM850	1.1745	0.1159	1.2904
Front	GSM850	-	-	-
Top side	GSM850	-	0.0786	0.0786
Bottom side	GSM850	0.2497	-	0.2497
Right side	GSM850	0.0789	0.0068	0.0857
Left side	GSM850	0.0835	0.0055	0.089
Back	GSM1900	0.6840	0.1159	0.7999
Front	GSM1900	-	-	-
Top side	GSM1900	-	0.0786	0.0786
Bottom side	GSM1900	0.1873	-	0.1873
Right side	GSM1900	0.0391	0.0068	0.0459
Left side	GSM1900	0.0780	0.0055	0.0835
Back	WCDMA Band V	0.5109	0.1159	0.6268
Front	WCDMA Band V	-	-	-
Top side	WCDMA Band V	-	0.0786	0.0786
Bottom side	WCDMA Band V	0.4695	-	0.4695
Right side	WCDMA Band V	0.1907	0.0068	0.1975
Left side	WCDMA Band V	0.1057	0.0055	0.1112
Back	WCDMA Band II	0.4588	0.1159	0.5747
Front	WCDMA Band II	-	-	-
Top side	WCDMA Band II	-	0.0786	0.0786
Bottom side	WCDMA Band II	0.2089	-	0.2089
Right side	WCDMA Band II	0.1644	0.0068	0.1712
Left side	WCDMA Band II	0.1485	0.0055	0.1540

WWAN and Bluetooth

Position	WWAN		Bluetooth	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Back	GSM850	1.1745	0.1840	1.3585
Front	GSM850	-	0.1840	0.1840
Top side	GSM850	-	0.1840	0.1840
Bottom side	GSM850	0.2497	0.1840	0.4337
Right side	GSM850	0.0789	0.1840	0.2629
Left side	GSM850	0.0835	0.1840	0.2675
Back	GSM1900	0.6840	0.1840	0.868
Front	GSM1900	-	0.1840	0.1840
Top side	GSM1900	-	0.1840	0.1840
Bottom side	GSM1900	0.1873	0.1840	0.3713
Right side	GSM1900	0.0391	0.1840	0.2231
Left side	GSM1900	0.0780	0.1840	0.262
Back	WCDMA Band V	0.5109	0.1840	0.6949
Front	WCDMA Band V	-	0.1840	0.1840
Top side	WCDMA Band V	-	0.1840	0.1840
Bottom side	WCDMA Band V	0.4695	0.1840	0.6535
Right side	WCDMA Band V	0.1907	0.1840	0.3747
Left side	WCDMA Band V	0.1057	0.1840	0.2897
Back	WCDMA Band II	0.4588	0.1840	0.6428
Front	WCDMA Band II	-	0.1840	0.1840
Top side	WCDMA Band II	-	0.1840	0.1840
Bottom side	WCDMA Band II	0.2089	0.1840	0.3929
Right side	WCDMA Band II	0.1644	0.1840	0.3484
Left side	WCDMA Band II	0.1485	0.1840	0.3325

Body-worn SAR**WWAN and WLAN**

Position	WWAN		WLAN	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Back	GSM850	0.5732	0.1156	0.6888
Front	GSM850	0.2580	0.0500	0.308
Back	GSM1900	0.4231	0.1156	0.5387
Front	GSM1900	0.1915	0.0500	0.2415
Back	WCDMA Band V	0.3921	0.1156	0.5077
Front	WCDMA Band V	0.2007	0.0500	0.2507
Back	WCDMA Band II	0.2885	0.1156	0.4041
Front	WCDMA Band II	0.1323	0.0500	0.1823

WWAN and Bluetooth

Position	WWAN		Bluetooth	Summed SAR (W/kg)
	Band	Scaled SAR (W/kg)	Scaled SAR (W/kg)	
Back	GSM850	0.5732	0.1840	0.7572
Front	GSM850	0.2580	0.1840	0.442
Back	GSM1900	0.4231	0.1840	0.6071
Front	GSM1900	0.1915	0.1840	0.3755
Back	WCDMA Band V	0.3921	0.1840	0.5761
Front	WCDMA Band V	0.2007	0.1840	0.3847
Back	WCDMA Band II	0.2885	0.1840	0.4725
Front	WCDMA Band II	0.1323	0.1840	0.3163

10. Measurement Uncertainty

10.1 Uncertainty for EUT SAR Test

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	$(1_{Cp})^{1/2}$	$(1_{Cp})^{1/2}$	1.02	1.02	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	$(Cp)^{1/2}$	$(Cp)^{1/2}$	1.63	1.63	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∞
Reponse Time	E.2.7	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	E.5.2	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Test Sample Related									
Test sample positioning	E.4.2.1	0.03	N	1	1	1	0.03	0.03	N-1
Device Holder Uncertainty	E.4.1.1	5.00	N	1	1	1	5.00	5.00	
Output power Variation - SAR drift measurement	6.6.2	12.02	R	$\sqrt{3}$	1	1	6.94	6.94	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
Liquid conductivity - deviation from target value	E.3.2	5.00	R	$\sqrt{3}$	0.64	0.43	1.85	1.24	
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	
Liquid permittivity - deviation from target value	E.3.2	0.37	R	$\sqrt{3}$	0.6	0.49	0.13	0.10	
Liquid permittivity -	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M

measurement uncertainty									
Combined Standard Uncertainty			RSS				12.98	12.53	
Expanded Uncertainty (95% Confidence interval)			K=2				25.32	24.43	

10.2 Uncertainty for System Performance Check

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	∞
Axial Isotropy	E.2.2	2.5	R	√3	(1_Cp)^1/2	(1_Cp)^1/2	1.02	1.02	∞
Hemispherical Isotropy	E.2.2	4.0	R	√3	(Cp)^1/2	(Cp)^1/2	1.63	1.63	∞
Boundary effect	E.2.3	1.0	R	√3	1	1	0.58	0.58	∞
Linearity	E.2.4	5.0	R	√3	1	1	2.89	2.89	∞
System detection limits	E.2.5	1.0	R	√3	1	1	0.58	0.58	∞
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∞
Reponse Time	E.2.7	3.0	R	√3	1	1	1.73	1.73	∞
Integration Time	E.2.8	2.0	R	√3	1	1	1.15	1.15	∞
RF ambient Conditions	E.6.1	3.0	R	√3	1	1	1.73	1.73	∞
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	√3	1	1	1.15	1.15	∞
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	√3	1	1	0.03	0.03	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	E.5.2	5.0	R	√3	1	1	2.89	2.89	∞
Dipole									
Dipole axis to liquid Distance	8,E.4.2	1.00	N	√3	1	1	0.58	0.58	N-1
Input power and SAR drift measurement	8,6.6.2	12.02	R	√3	1	1	6.94	6.94	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	√3	1	1	0.03	0.03	∞
Liquid conductivity - deviation from target value	E.3.2	5.00	R	√3	0.64	0.43	1.85	1.24	

Liquid conductivity measurement uncertainty	-	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	
Liquid permittivity - deviation from target value		E.3.2	0.37	R	$\sqrt{3}$	0.6	0.49	0.13	0.10	
Liquid permittivity measurement uncertainty	-	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
Combined Standard Uncertainty				RSS				12.00	11.50	
Expanded Uncertainty (95% Confidence interval)				K=2				23.39	22.43	

Annex A. Plots of System Performance Check

MEASUREMENT 1

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 7 minutes 21 seconds

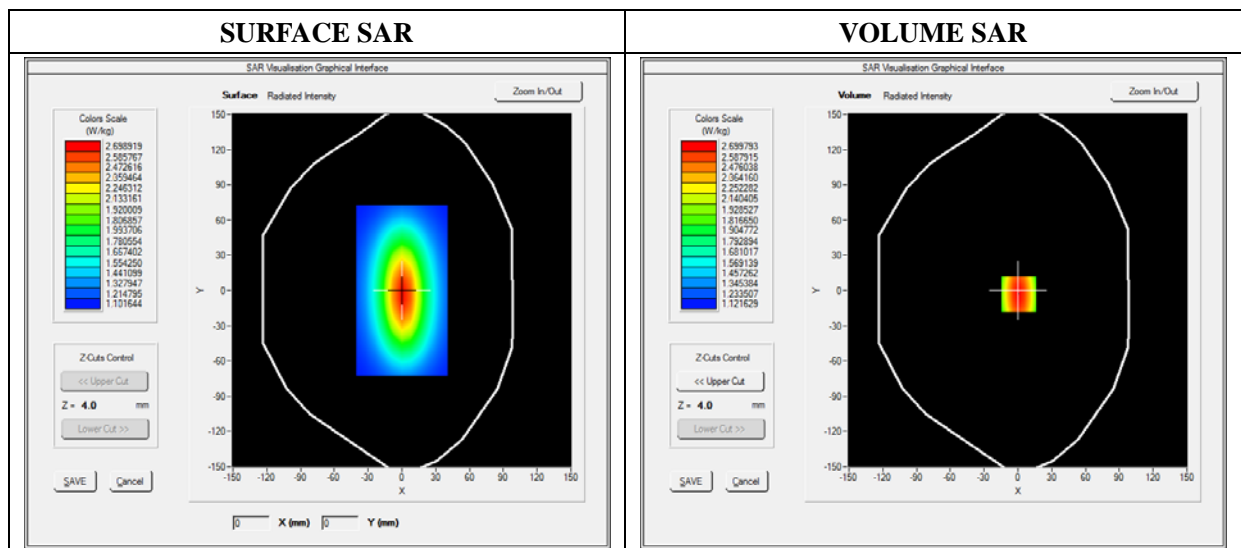
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3

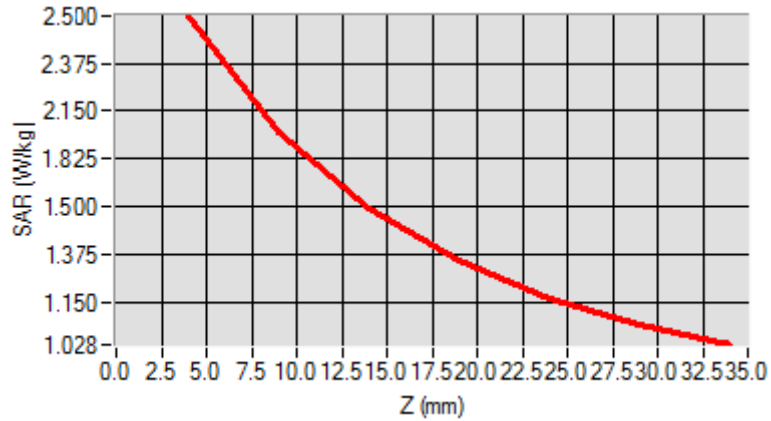


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.545500
SAR 1g (W/Kg)	2.460145

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5411	1.8756	1.4012	1.20124	1.1514	1.0698



3D screen shot	Hot spot position

MEASUREMENT 2

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 21 seconds

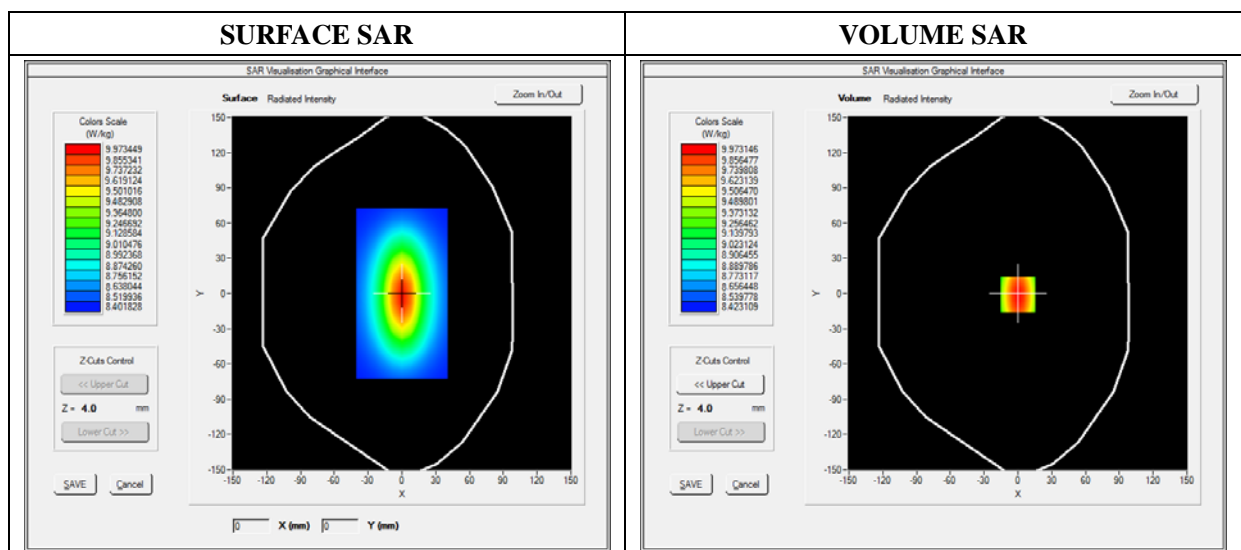
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.16; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	38.912360
Conductivity (S/m)	1.410000
Power Variation (%)	-0.523000
Ambient Temperature	21.1
Liquid Temperature	21.3

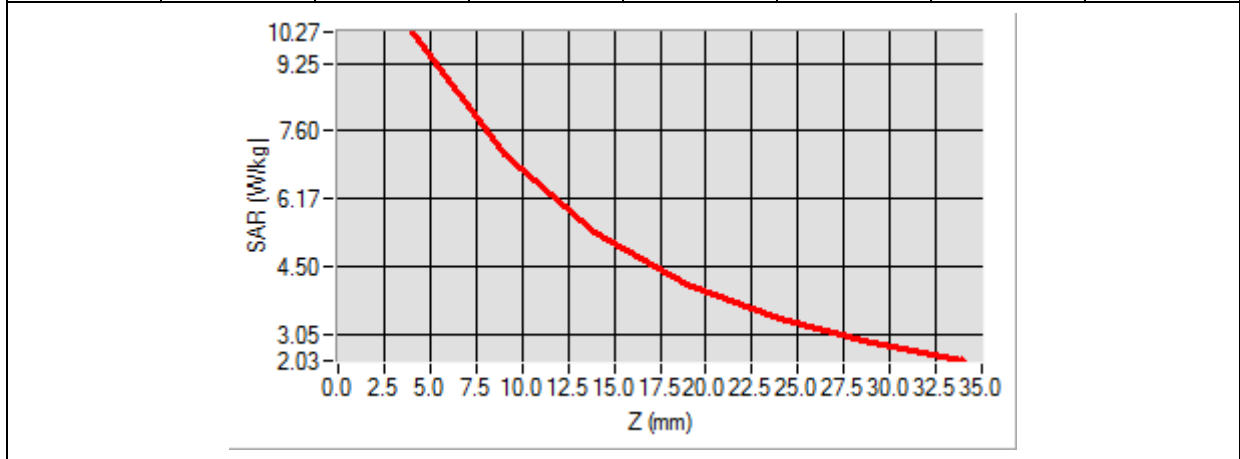


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	7.003210
SAR 1g (W/Kg)	10.203214

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.1019	7.1125	5.2120	4.0112	3.2104	2.2442



3D screen shot	Hot spot position

MEASUREMENT 3

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 21 seconds

E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.51; Calibrated: 2013/03/21

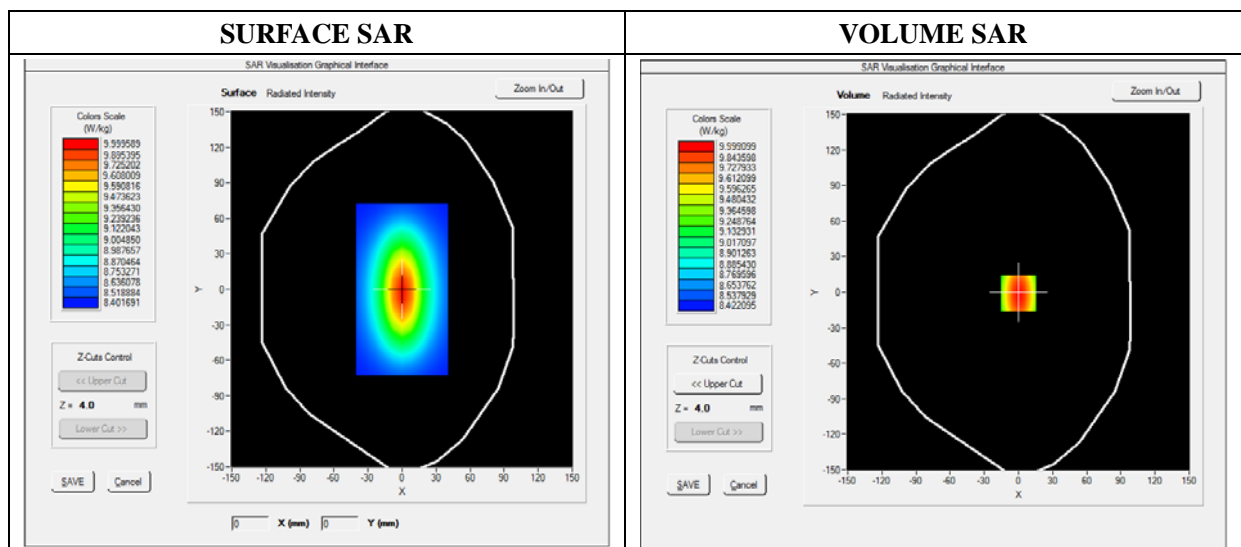
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Middle Band SAR

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	38.762140
Conductivity (S/m)	1.781240
Power Variation (%)	1.144120
Ambient Temperature	21.1
Liquid Temperature	21.2

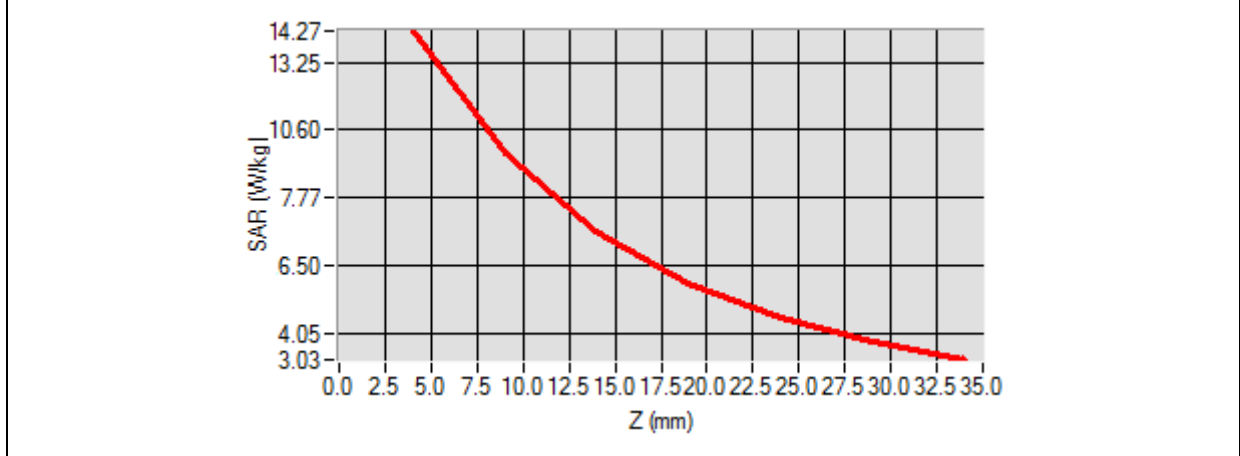


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	8.021554
SAR 1g (W/Kg)	13.102505

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	14.1355	12.0120	10.2601	7.4845	5.9123	4.5212



3D screen shot	Hot spot position
<p>A 3D perspective view of a grey device with a color-coded SAR distribution on its top surface. The highest SAR values (red) are concentrated in the center of the device's top face.</p>	<p>A 2D heatmap showing the SAR distribution. The color scale ranges from blue (low SAR) to red (high SAR). The highest SAR region (red) is an oval shape in the center of the device's top surface.</p>

MEASUREMENT 4

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 21 seconds

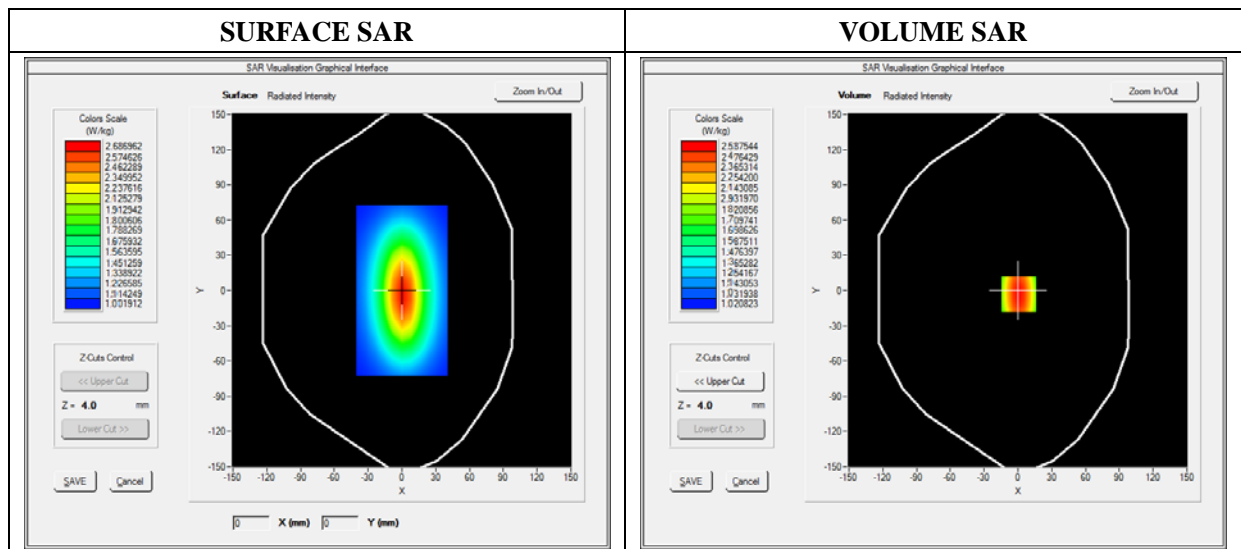
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.50; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	54.492364
Conductivity (S/m)	0.963236
Power Variation (%)	0.926400
Ambient Temperature	21.1
Liquid Temperature	21.3

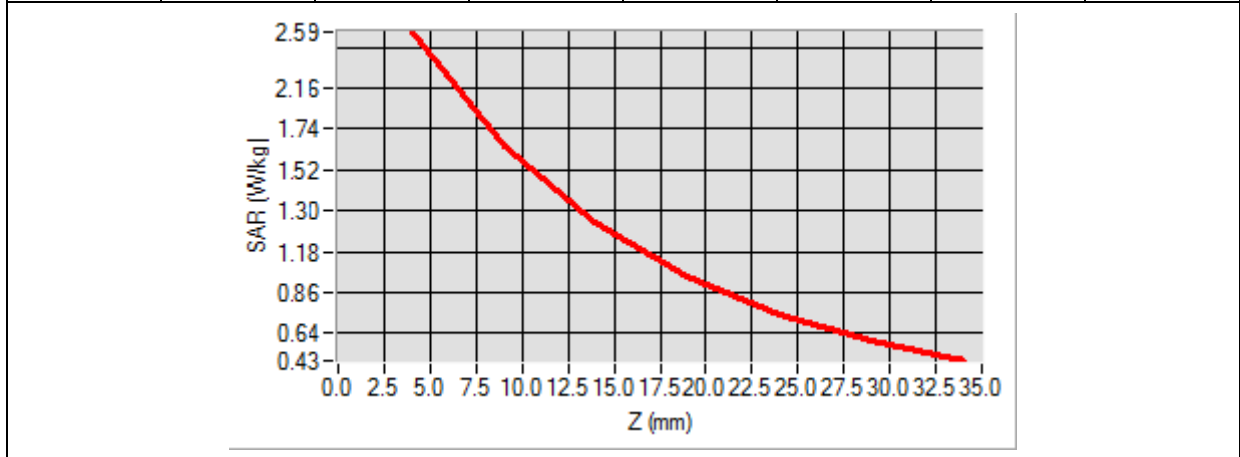


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.502100
SAR 1g (W/Kg)	2.521346

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5989	1.6985	1.1642	0.8322	0.5521	0.4025



3D screen shot	Hot spot position
<p>A 3D perspective view of a grey device. A rectangular area on the front face is highlighted with a color gradient from blue (low SAR) to red (high SAR), indicating the location of the maximum SAR value.</p>	<p>A 2D heatmap showing the SAR distribution. The highest SAR values are concentrated in a red oval in the center, surrounded by yellow and green, indicating the hot spot position.</p>

MEASUREMENT 5

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 21 seconds

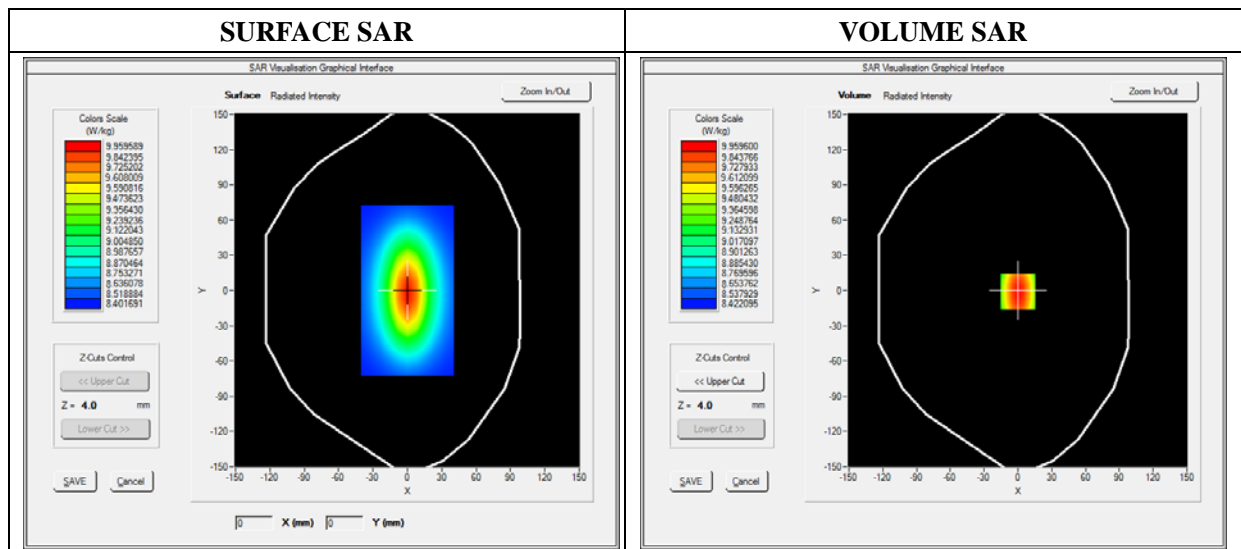
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.30; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	52.394440
Conductivity (S/m)	1.491240
Power Variation (%)	0.768521
Ambient Temperature	21.1
Liquid Temperature	21.3

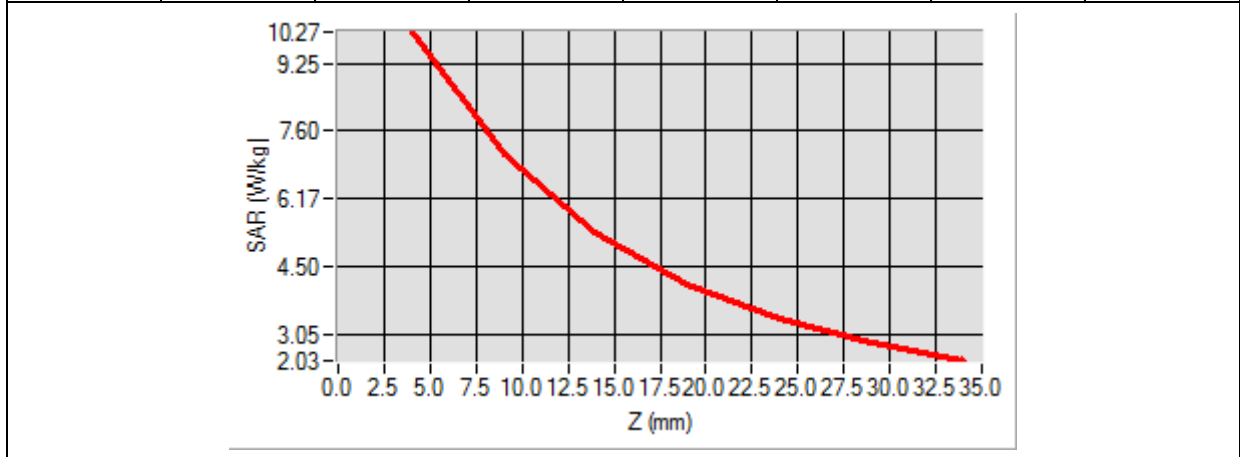


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.102232
SAR 1g (W/Kg)	10.092420

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.1564	6.4363	5.1336	3.9541	3.1262	2.7601



3D screen shot	Hot spot position
<p>A 3D perspective view of a grey device with a color-coded SAR distribution on its top surface. The distribution shows a central red/orange hot spot that transitions through yellow and green to blue at the edges.</p>	<p>A 2D heatmap showing the SAR distribution. It features a central red/orange oval-shaped hot spot, surrounded by concentric rings of yellow, green, and finally blue at the outer edges.</p>

MEASUREMENT 6

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 21 seconds

E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.70; Calibrated: 03/21/2014

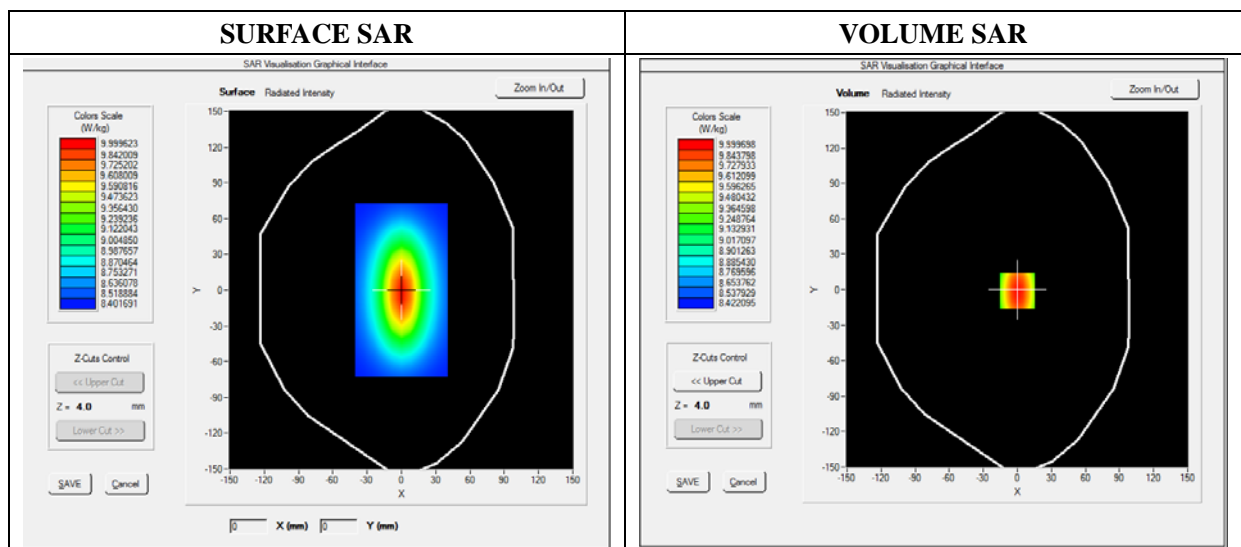
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Middle Band SAR

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	52.431240
Conductivity (S/m)	1.921230
Power Variation (%)	0.551121
Ambient Temperature	21.1
Liquid Temperature	21.2

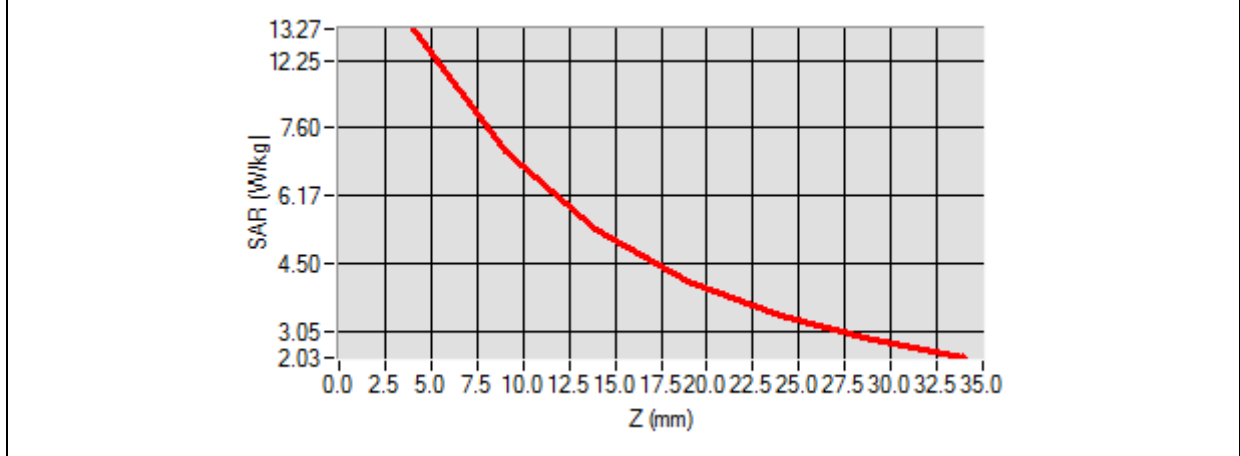


Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	7.128414
SAR 1g (W/Kg)	12.863122

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	13.3942	11.8625	9.3022	8.5761	6.3612	4.5695



3D screen shot	Hot spot position
<p>A 3D perspective view of a grey device with a color-coded SAR distribution on its top surface. The distribution is concentrated in the center, with a red core transitioning through yellow and green to blue at the edges.</p>	<p>A 2D heatmap showing the hot spot position. It features a central red oval surrounded by concentric rings of yellow, green, and cyan, all set against a blue background.</p>

Annex B. Plots of SAR Measurement

<u>TYPE</u>	<u>BAND</u>	<u>PARAMETERS</u>
Tablet	GSM850	<u>Measurement 1:</u> Right Head with Cheek device position on Low Channel in Voice mode
Tablet	GSM850	<u>Measurement 2:</u> Right Head with Tilt device position on Low Channel in Voice mode
Tablet	GSM850	<u>Measurement 3:</u> Left Head with Cheek device position on Low Channel in Voice mode
Tablet	GSM850	<u>Measurement 4:</u> Left Head with Tilt device position on Low Channel in Voice mode
Tablet	GPR850_4TX	<u>Measurement 6:</u> Flat Plane with Back device position on Middle Channel in GPRS mode
Tablet	GPR850_4TX	<u>Measurement 7:</u> Flat Plane with Back device position on Low Channel in GPRS mode
Tablet	GPR850_4TX	<u>Measurement 8:</u> Flat Plane with Back device position on High Channel in GPRS mode
Tablet	GPRS850_4TX	<u>Measurement 10:</u> Flat Plane with Bottom side device position on Middle Channel in GPRS mode
Tablet	GPRS850_4TX	<u>Measurement 11:</u> Flat Plane with Right side device position on Middle Channel in GPRS mode
Tablet	GPRS850_4TX	<u>Measurement 12:</u> Flat Plane with Left side device position on Middle Channel in GPRS mode
Tablet	GSM1900	<u>Measurement 13:</u> Right Head with Cheek device position on Low Channel in GSM mode
Tablet	GSM1900	<u>Measurement 14:</u> Right Head with Tilt device position on Low Channel in GSM mode
Tablet	GSM1900	<u>Measurement 15:</u> Left Head with Cheek device position on Low Channel in GSM mode
Tablet	GSM1900	<u>Measurement 16:</u> Left Head with Tilt device position on Low Channel in GSM mode
Tablet	GPRS1900_4TX	<u>Measurement 18:</u> Flat Plane with Back device position on High Channel in GPRS mode
Tablet	GPRS1900_4TX	<u>Measurement 20:</u> Flat Plane with Bottom side device position on High Channel in GPRS mode
Tablet	GPRS1900_4TX	<u>Measurement 21:</u> Flat Plane with Right side device position on High Channel in GPRS mode
Tablet	GPRS1900_4TX	<u>Measurement 22:</u> Flat Plane with Left side device position on High Channel in GPRS mode
Tablet	WCDMA850_RMC	<u>Measurement 23:</u> Right Head with Cheek device position on High Channel in WCDMA mode

Tablet	WCDMA850_RMC	<u>Measurement 24:</u> Right Head with Tilt device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 25:</u> Left Head with Cheek device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 26:</u> Left Head with Tilt device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 27:</u> Flat Plane with Back device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 29:</u> Flat Plane with Bottom side device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 30:</u> Flat Plane with Right side device position on High Channel in WCDMA mode
Tablet	WCDMA850_RMC	<u>Measurement 31:</u> Flat Plane with Left side device position on High Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 33:</u> Right Head with Cheek device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 34:</u> Right Head with Tilt device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 35:</u> Left Head with Cheek device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 36:</u> Left Head with Tilt device position on Middle Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 37:</u> Flat Plane with Back device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 39:</u> Flat Plane with Bottom side device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 40:</u> Flat Plane with Right side device position on Low Channel in WCDMA mode
Tablet	WCDMA1900_RMC	<u>Measurement 41:</u> Flat Plane with Left side device position on Low Channel in WCDMA mode
Tablet	WiFi_802.11b	<u>Measurement 43:</u> Right Head with Cheek device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 44:</u> Right Head with Tilt device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 45:</u> Left Head with Cheek device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 46:</u> Left Head with Tilt device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 47:</u> Flat Plane with Back side device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 49:</u> Flat Plane with Top side device position on Low Channel in 802.11b mode
Tablet	WiFi_802.11b	<u>Measurement 50:</u> Flat Plane with Right side device position on Low Channel in 802.11b mode

Tablet	WiFi_802.11b	<u>Measurement 51:</u> Flat Plane with Left side device position on Low Channel in 802.11b mode
Tablet	GSM850	<u>Measurement 52:</u> Flat Plane with Back device position on Low Channel in Voice mode
Tablet	GSM850	<u>Measurement 53:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	GSM1900	<u>Measurement 54:</u> Flat Plane with Back device position on Low Channel in Voice mode
Tablet	GSM1900	<u>Measurement 55:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WCDMA850_RMC	<u>Measurement 56:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WCDMA850_RMC	<u>Measurement 57:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WCDMA1900_RMC	<u>Measurement 58:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WCDMA1900_RMC	<u>Measurement 59:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WiFi_802.11b	<u>Measurement 60:</u> Flat Plane with Front device position on Low Channel in Voice mode
Tablet	WiFi_802.11b	<u>Measurement :61</u> Flat Plane with Front device position on Low Channel in Voice mode

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

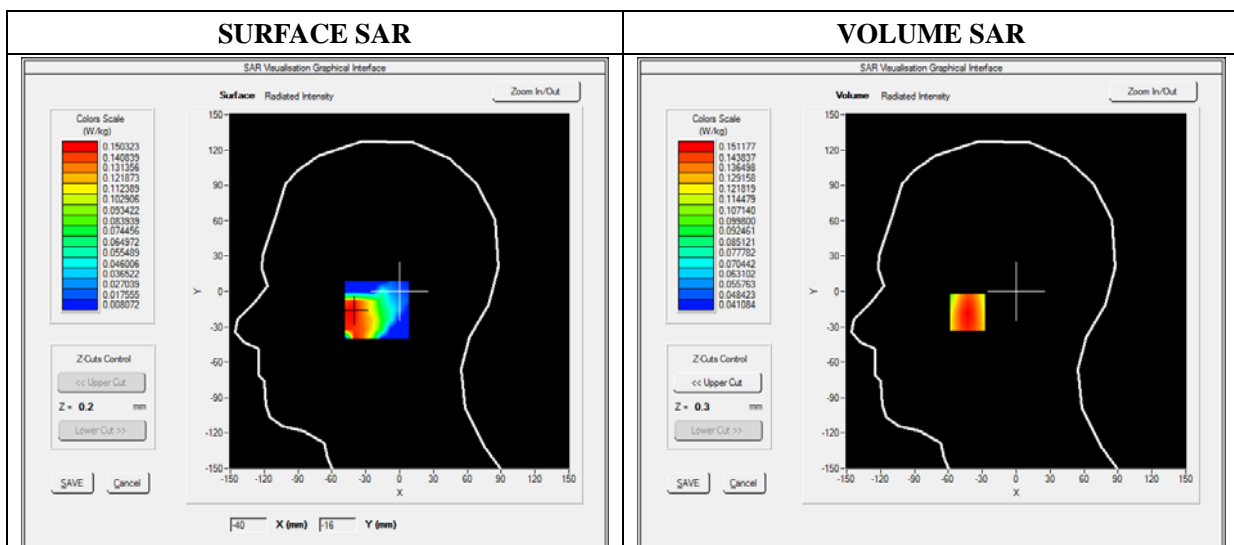
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

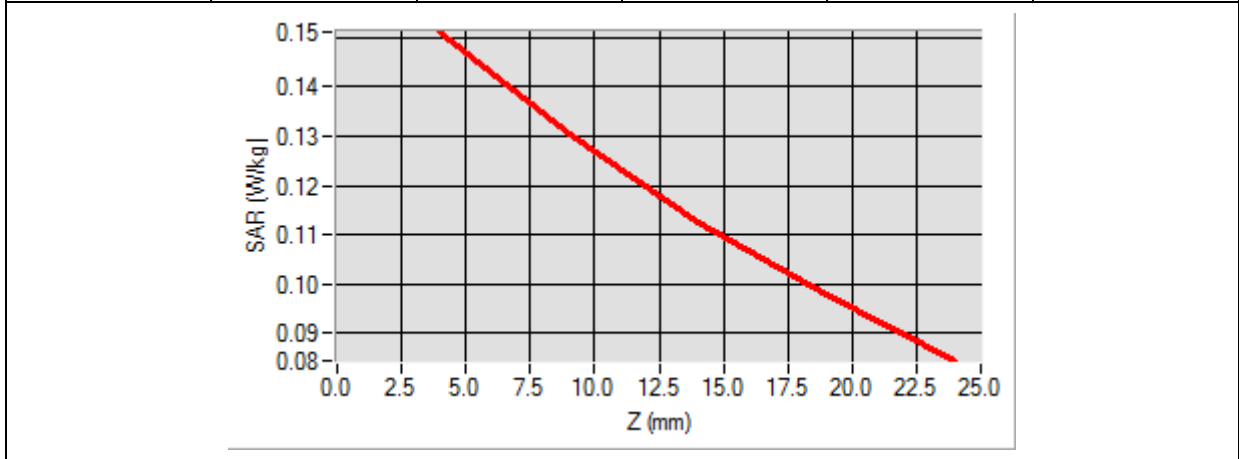
Frequency (MHz)	824.200000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-43.00, Y=-18.00

SAR 10g (W/Kg)	0.118539
SAR 1g (W/Kg)	0.146410

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1512	0.1303	0.1126	0.0977



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

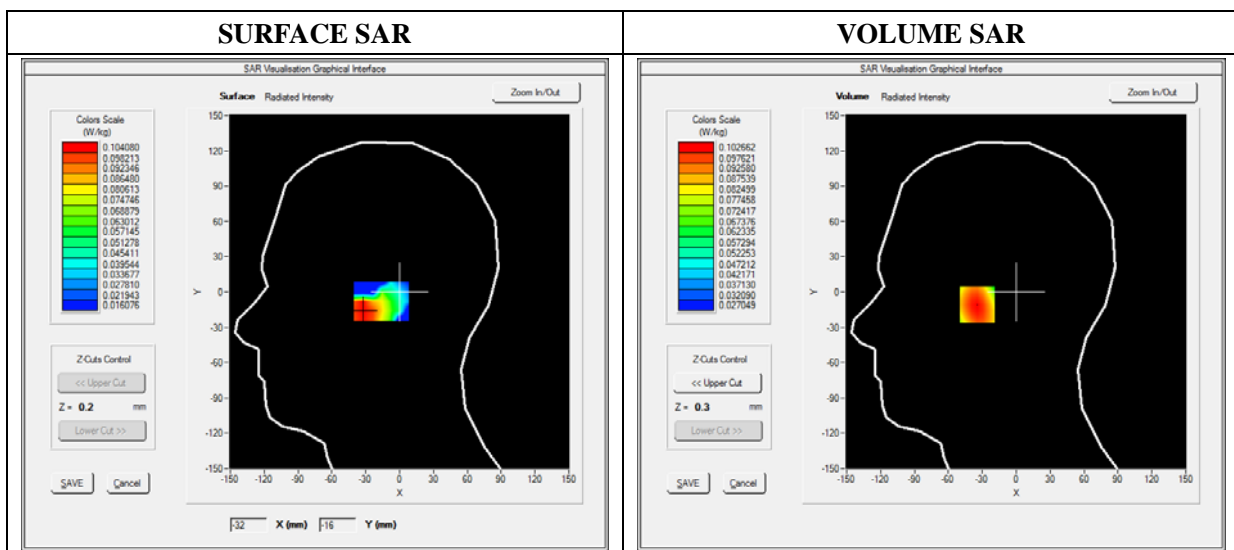
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

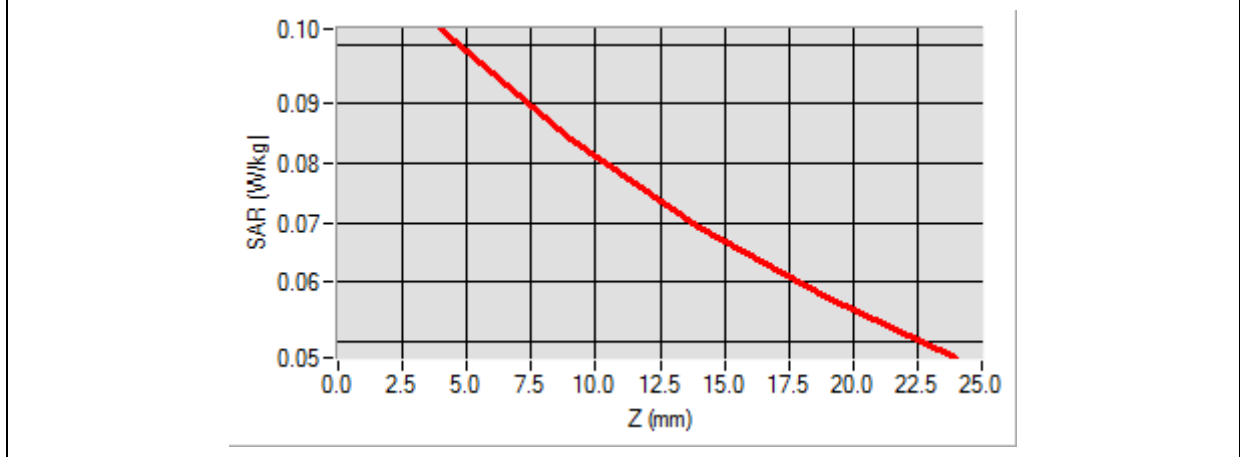
Frequency (MHz)	824.200000
Relative Permittivity (real part)	40.020000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



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

SAR 10g (W/Kg)	0.076059
SAR 1g (W/Kg)	0.098850

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1027	0.0840	0.0691	0.0573



3D screen shot	Hot spot position

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 11 minutes 48 seconds

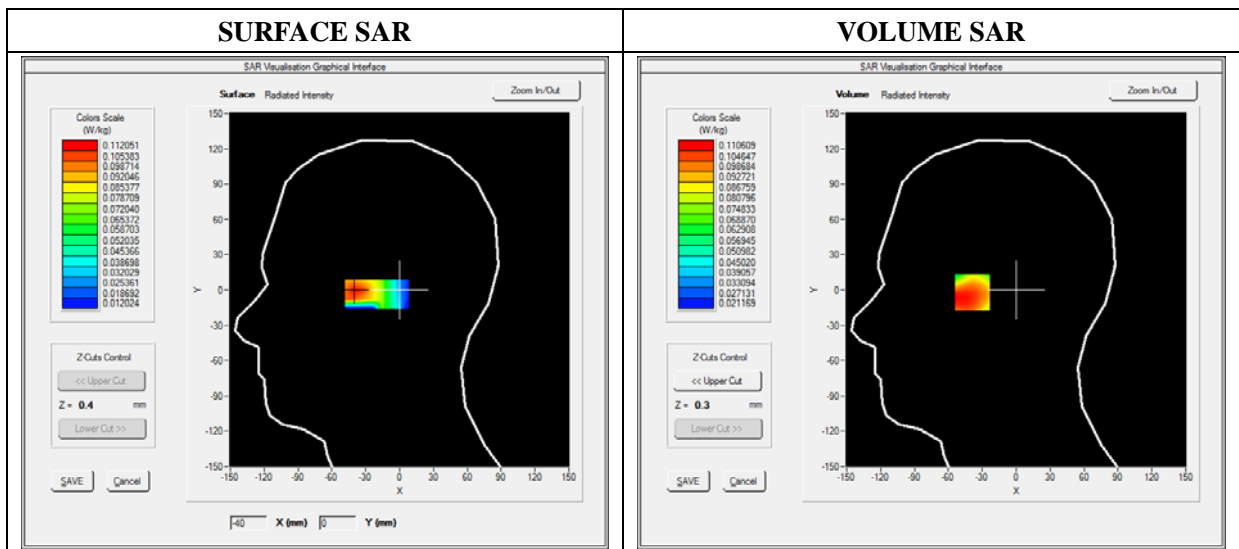
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

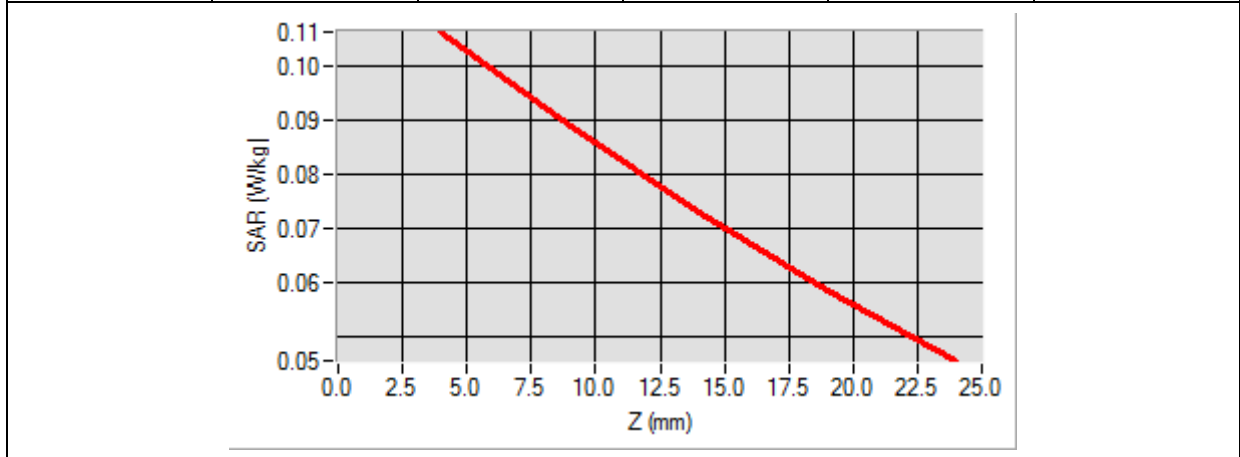
Frequency (MHz)	824.200000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-39.00, Y=-1.00

SAR 10g (W/Kg)	0.083333
SAR 1g (W/Kg)	0.108304

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1063	0.0889	0.0729	0.0585



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 4

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

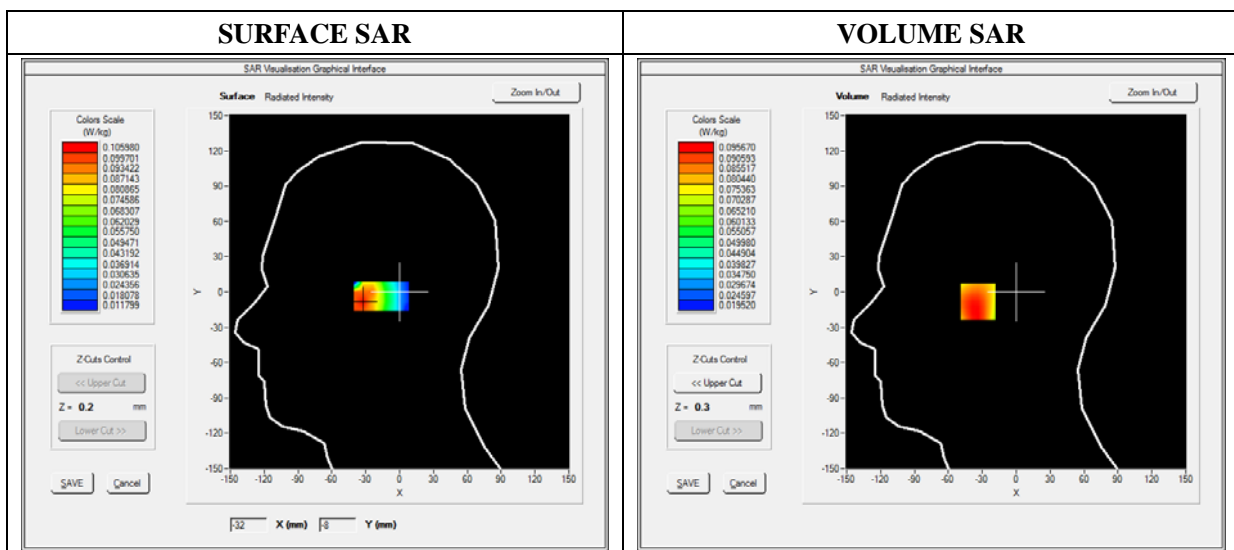
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

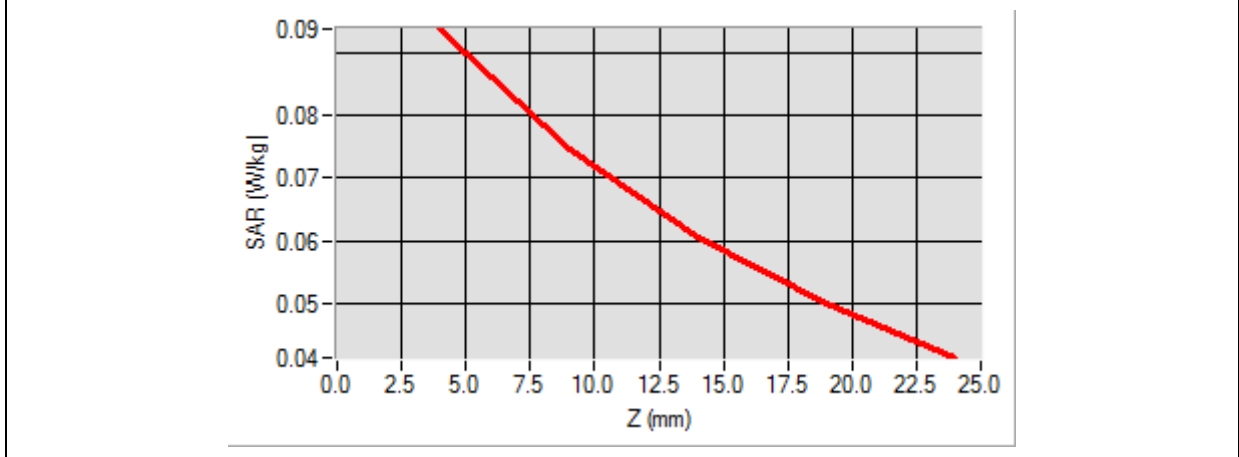
Frequency (MHz)	824.200012
Relative Permittivity (real part)	40.020000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-33.00, Y=-8.00

SAR 10g (W/Kg)	0.070756
SAR 1g (W/Kg)	0.092774

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0938	0.0746	0.0604	0.0499



3D screen shot	Hot spot position

MEASUREMENT 6

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

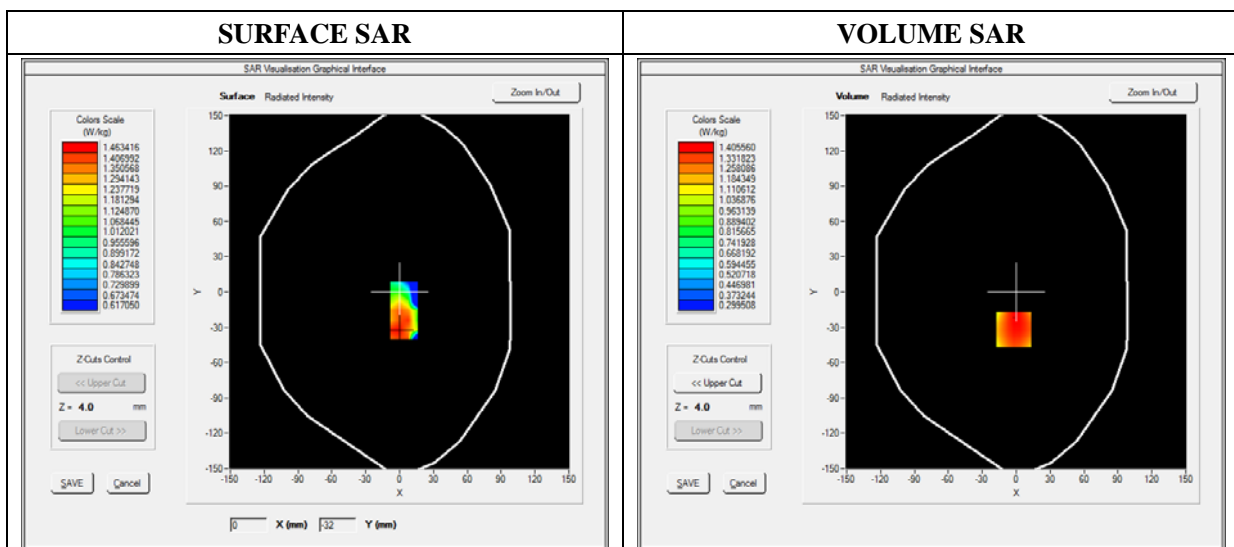
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.5; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Back
Band	GPRS850_4TX
Channels	Middle
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

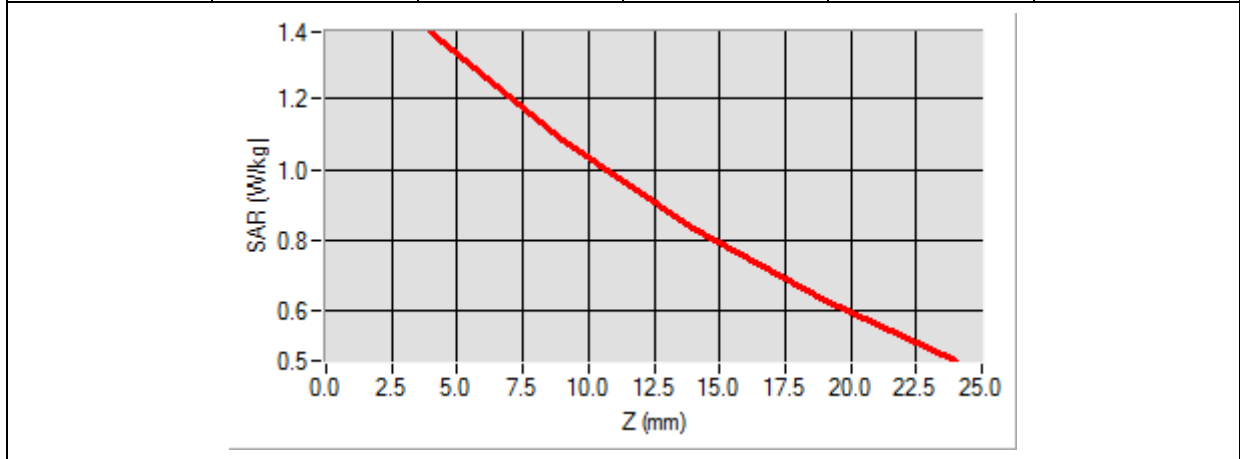
Frequency (MHz)	836.400000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.96000
Power Variation (%)	0.80000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-2.00, Y=-32.00

SAR 10g (W/Kg)	0.992319
SAR 1g (W/Kg)	1.076061

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3525	1.0803	0.8002	0.6128



3D screen shot	Hot spot position

MEASUREMENT 7

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

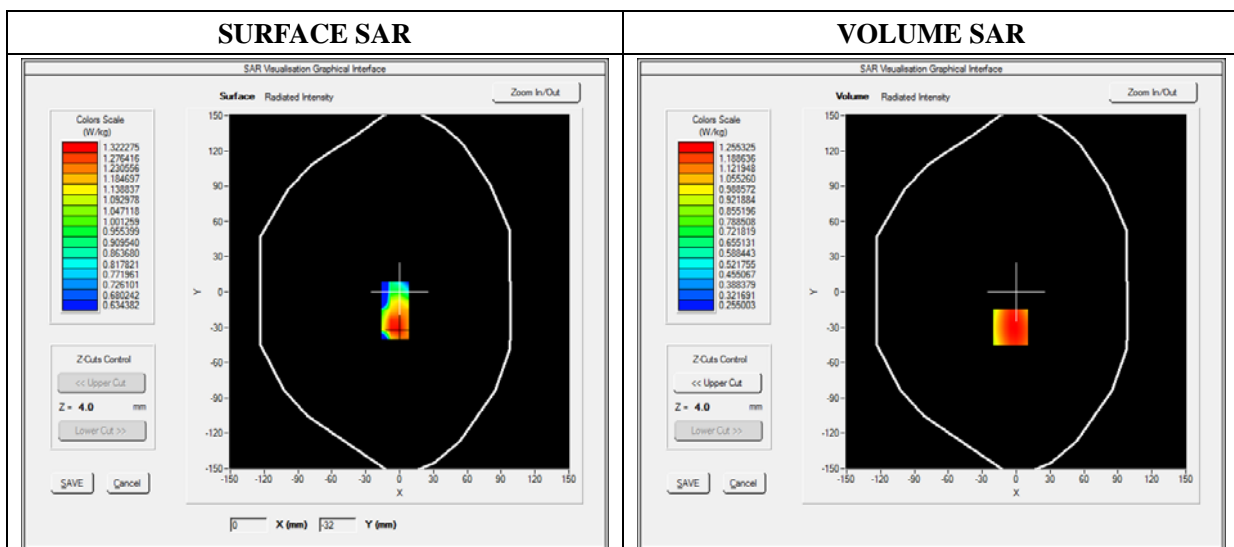
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.5; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Back
Band	GPRS850_4TX
Channels	Low
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

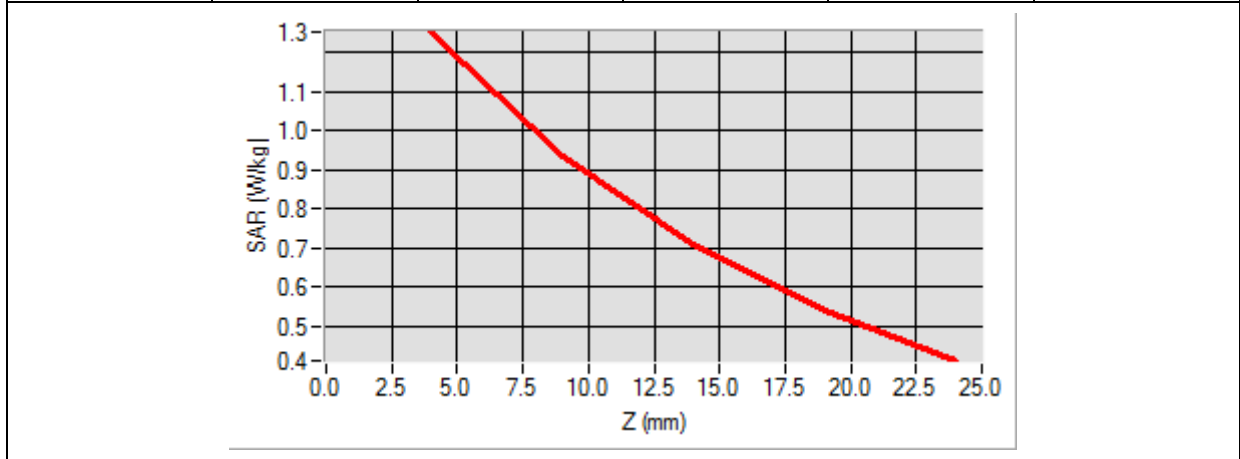
Frequency (MHz)	826.400000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.960000
Power Variation (%)	0.800000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-5.00, Y=-30.00

SAR 10g (W/Kg)	0.781415
SAR 1g (W/Kg)	0.901202

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.2508	0.9365	0.7086	0.5432



<p>3D screen shot</p>	<p>Hot spot position</p>
<p>A 3D perspective view of a hand holding a device. A grid of small blue dots is overlaid on the device's surface. A localized area of high SAR is highlighted with a color gradient from green to red, indicating the hot spot location.</p>	<p>A 2D heatmap showing the spatial distribution of the hot spot. The color gradient transitions from red (high SAR) to yellow and then to white (low SAR), showing the shape and extent of the high-exposure area.</p>

MEASUREMENT 8

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

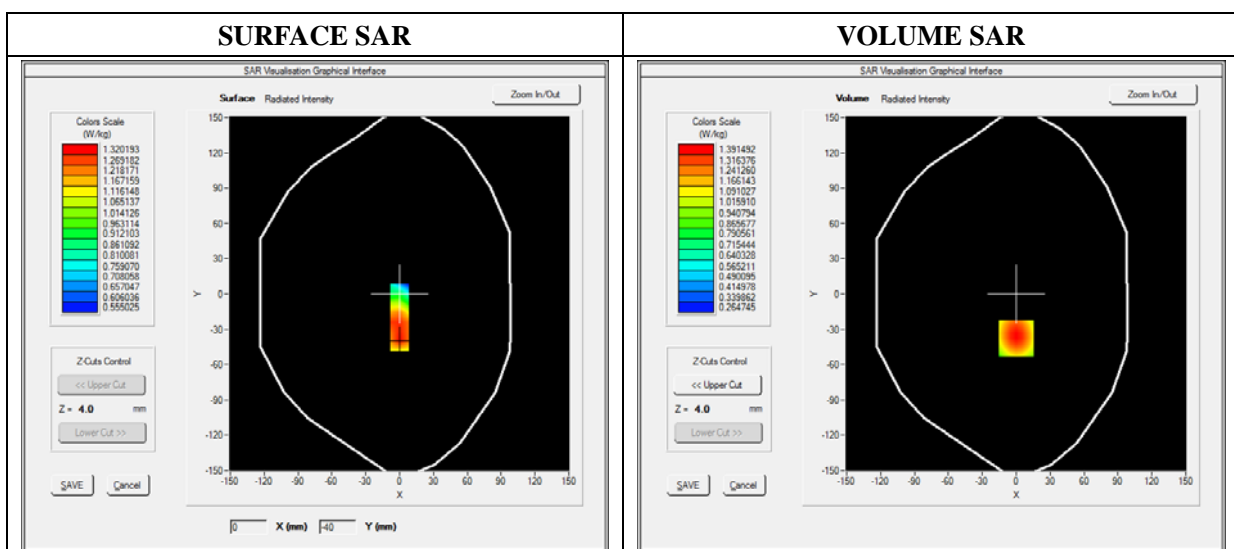
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.5; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Back
Band	GPRS850_4TX
Channels	High
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

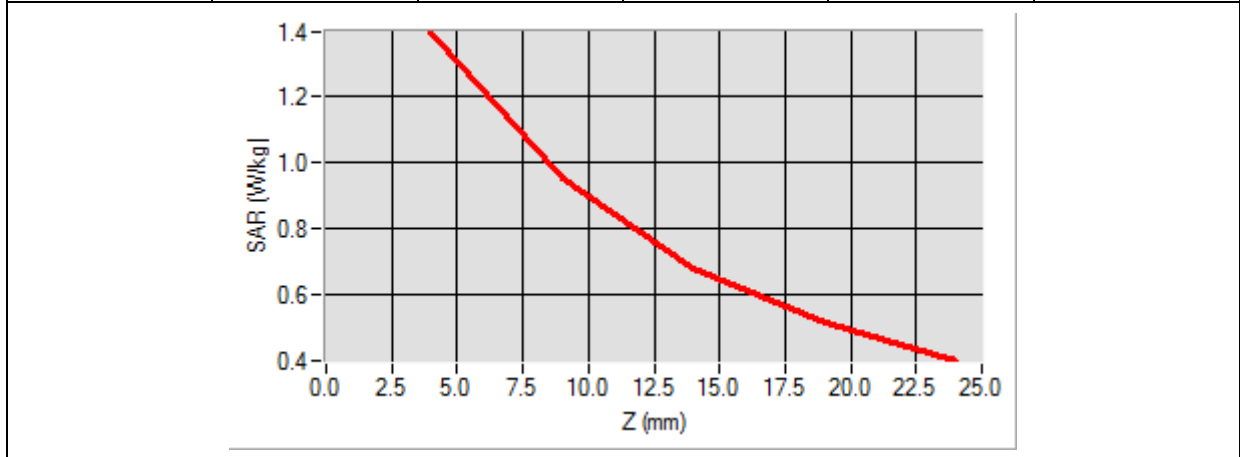
Frequency (MHz)	846.600000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.960000
Power Variation (%)	0.800000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=0.00, Y=-38.00

SAR 10g (W/Kg)	0.815905
SAR 1g (W/Kg)	0.920291

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3915	0.9533	0.6809	0.5165



3D screen shot	Hot spot position
<p>A 3D perspective view of a hand holding a device. A grid of small blue dots is overlaid on the device's surface, with a localized area of high SAR (hot spot) highlighted in yellow and red.</p>	<p>A vertical rectangular bar with a color gradient from red at the bottom to yellow at the top, representing the vertical position of the hot spot.</p>

MEASUREMENT 10

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

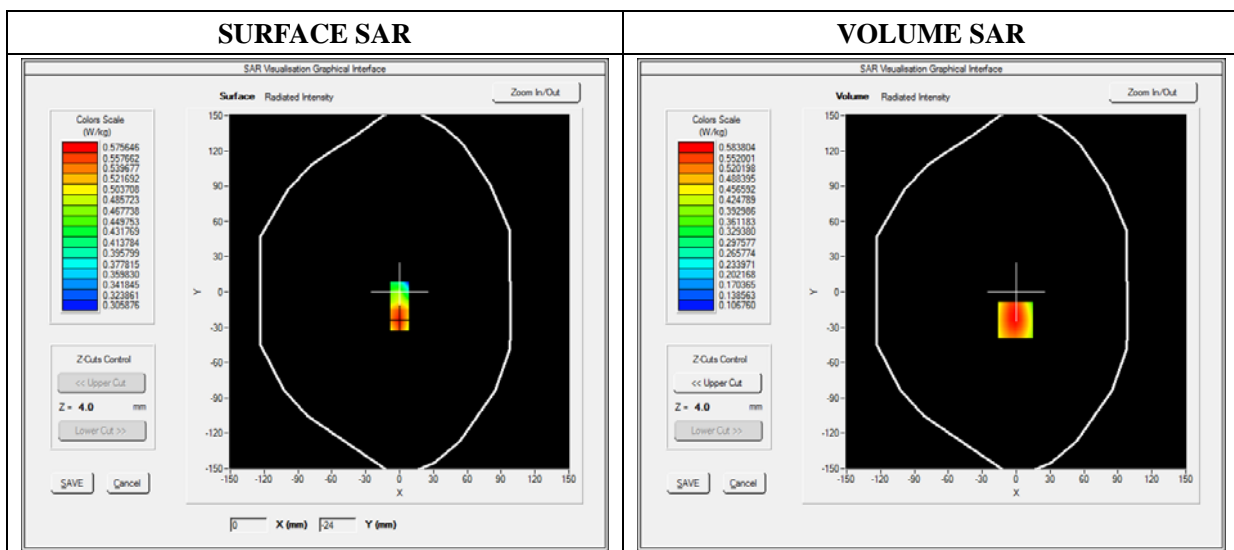
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.50; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Bottom
Band	GPRS850_4TX
Channels	Middle
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

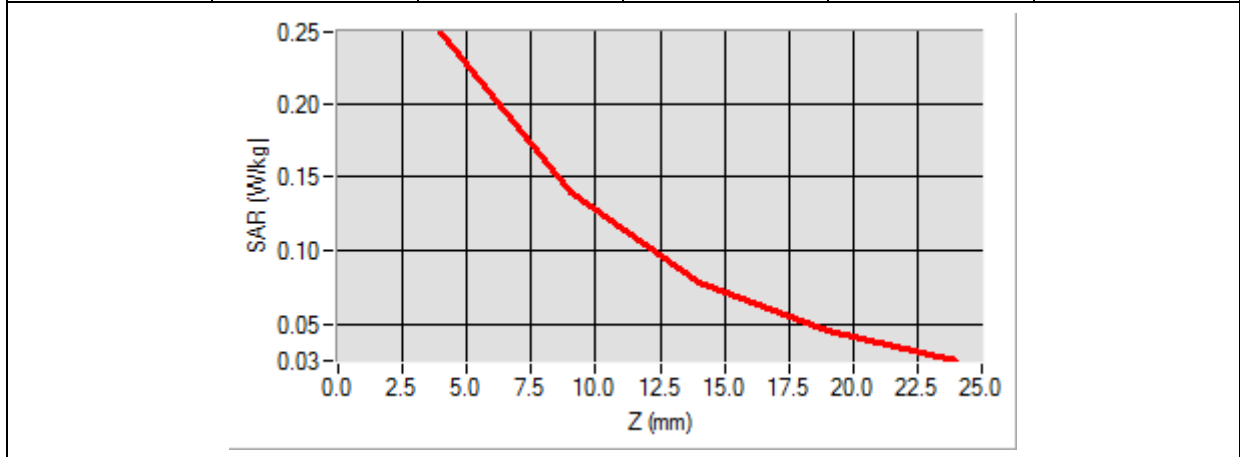
Frequency (MHz)	836.600000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.96000
Power Variation (%)	0.80000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-56.00, Y=-57.00

SAR 10g (W/Kg)	0.123959
SAR 1g (W/Kg)	0.228798

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2482	0.1393	0.0783	0.0457



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 11

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

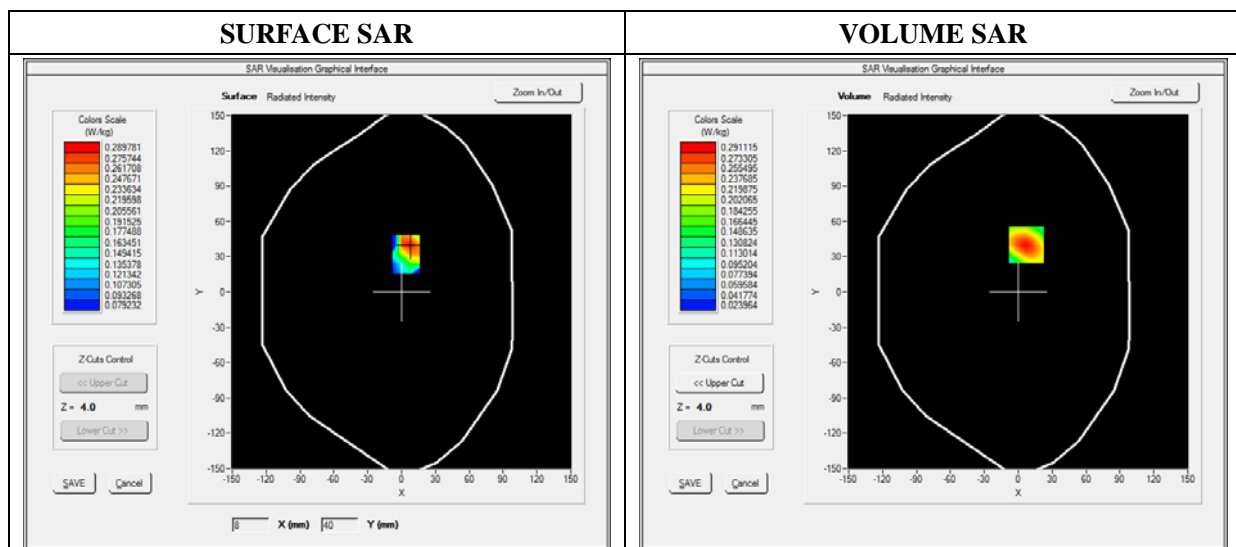
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.50; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Right side
Band	GPRS850_4TX
Channels	Middle
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

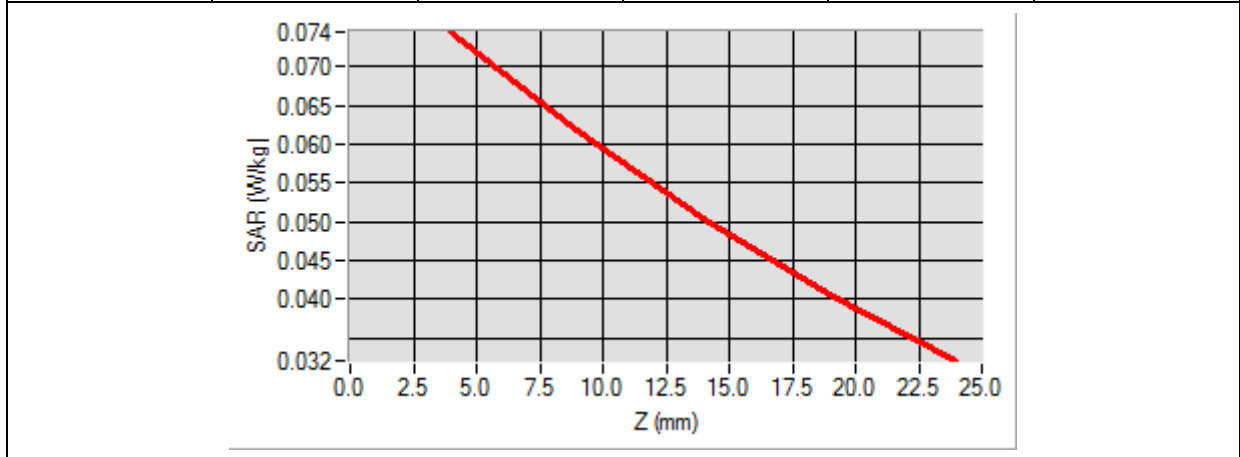
Frequency (MHz)	836.600000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.96000
Power Variation (%)	0.80000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=7.00, Y=40.00

SAR 10g (W/Kg)	0.056186
SAR 1g (W/Kg)	0.072273

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0744	0.0617	0.0505	0.0407



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 12

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

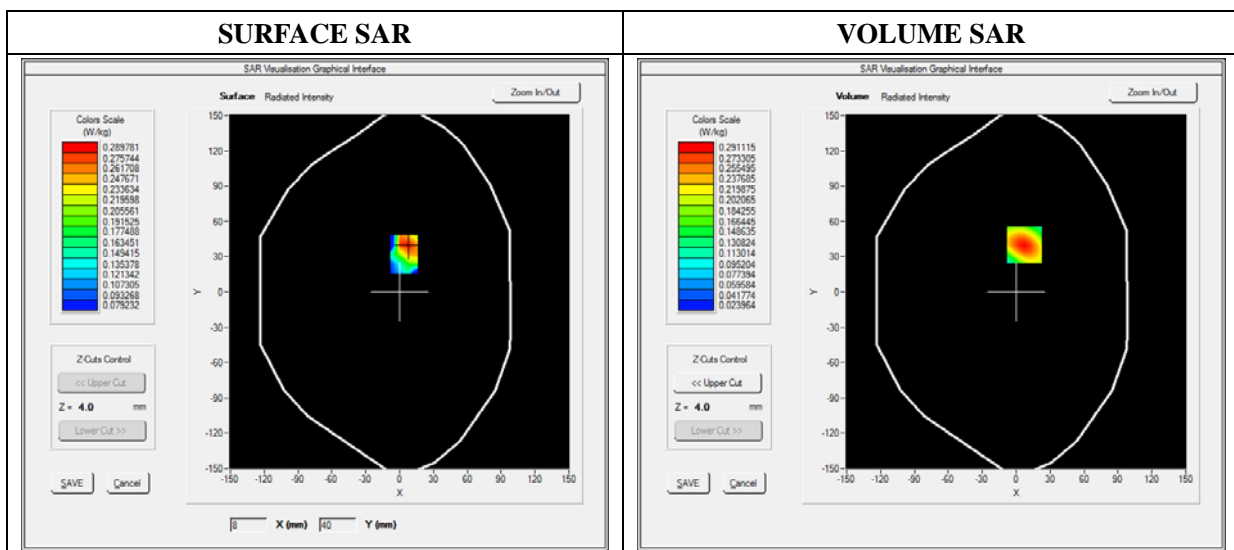
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.50; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Left side
Band	GPRS850_4TX
Channels	Middle
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

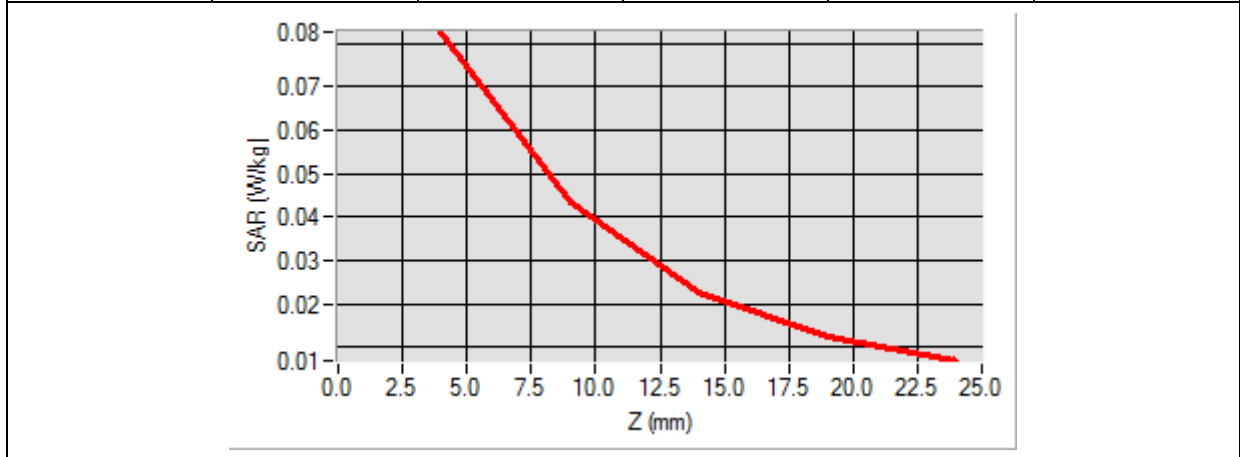
Frequency (MHz)	836.600000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.96000
Power Variation (%)	0.80000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-10.00, Y=10.00

SAR 10g (W/Kg)	0.040672
SAR 1g (W/Kg)	0.076546

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0827	0.0435	0.0229	0.0127



3D screen shot	Hot spot position

MEASUREMENT 13

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

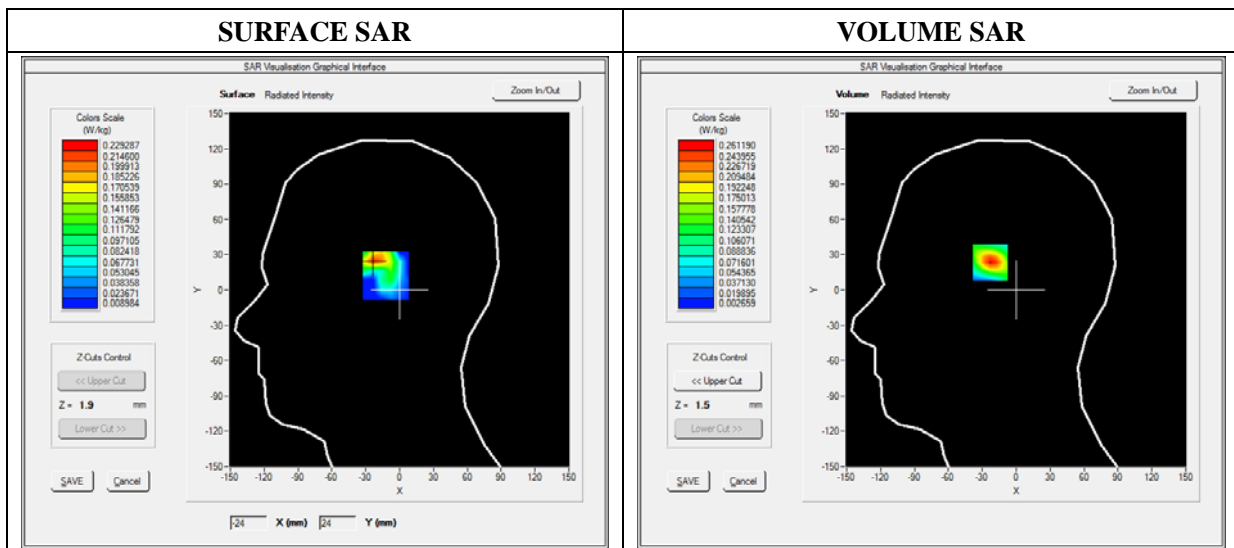
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.16; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

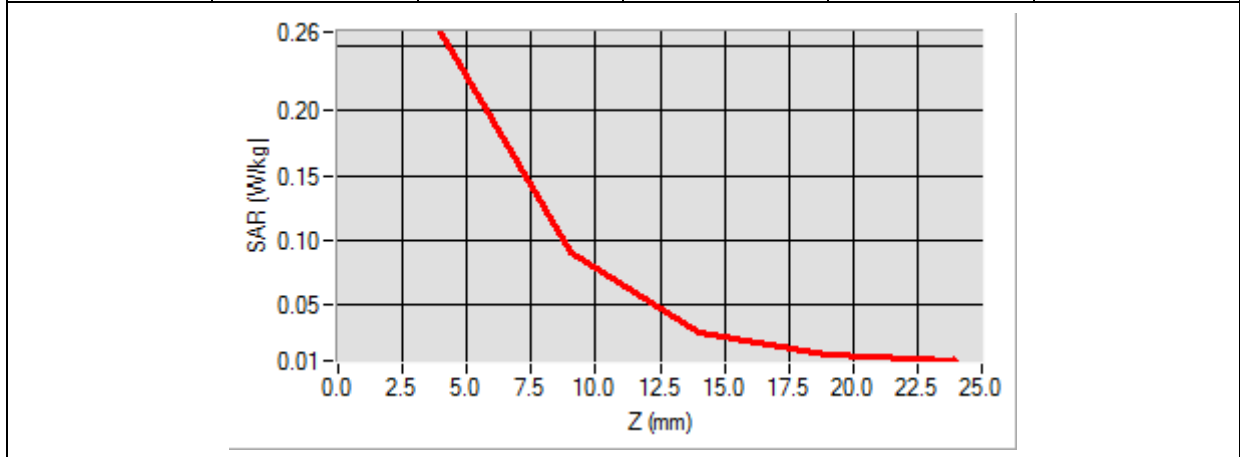
Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.912360
Conductivity (S/m)	1.410000
Power Variation (%)	-0.523000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-23.00, Y=25.00

SAR 10g (W/Kg)	0.100988
SAR 1g (W/Kg)	0.240483

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2612	0.0901	0.0287	0.0116



3D screen shot	Hot spot position

MEASUREMENT 14

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

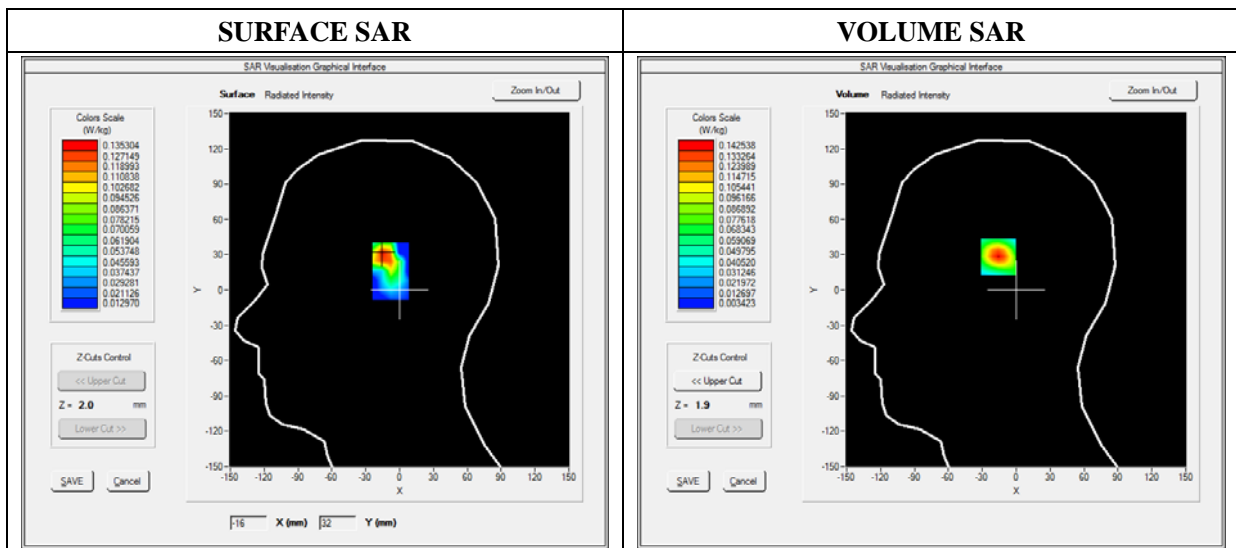
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.16; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

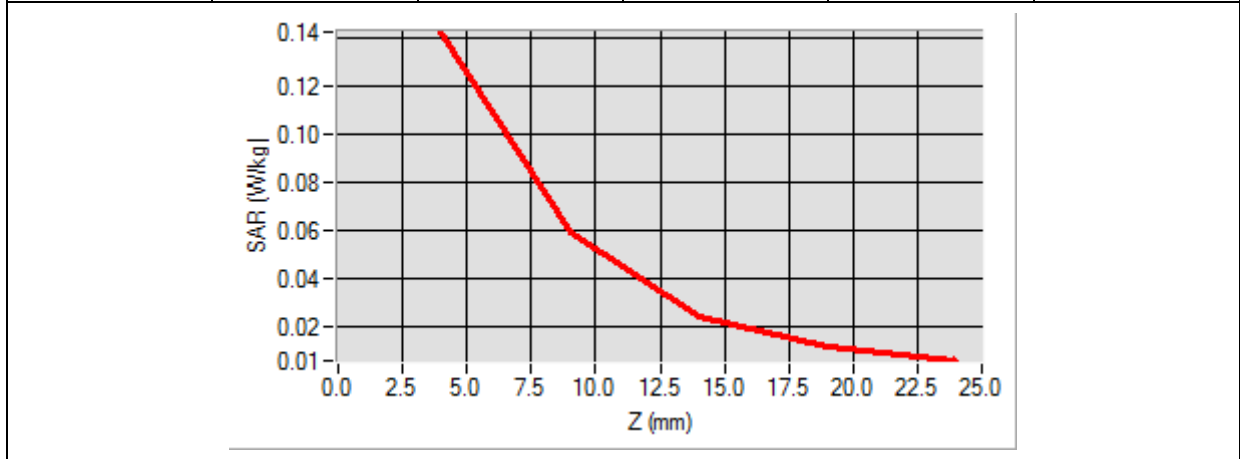
Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.912360
Conductivity (S/m)	1.410000
Power Variation (%)	-0.523000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-15.00, Y=30.00

SAR 10g (W/Kg)	0.060066
SAR 1g (W/Kg)	0.129867

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1425	0.0596	0.0243	0.0114



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 15

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 11 minutes 48 seconds

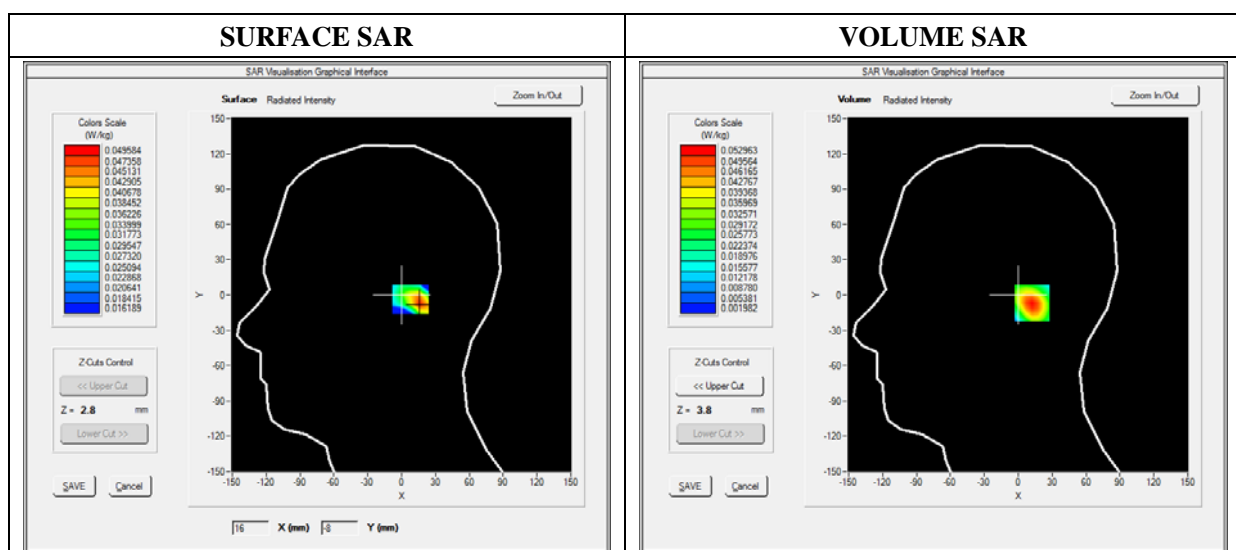
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.16; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

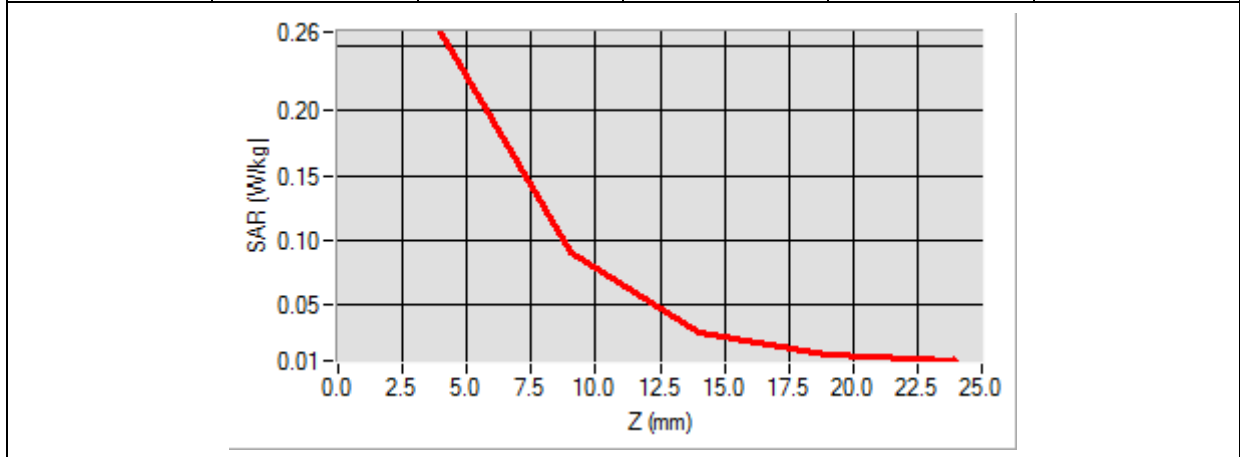
Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.912360
Conductivity (S/m)	1.410000
Power Variation (%)	-0.523000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-23.00, Y=25.00

SAR 10g (W/Kg)	0.099523
SAR 1g (W/Kg)	0.201220

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2422	0.0845	0.0212	0.0100



3D screen shot	Hot spot position

MEASUREMENT 16

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

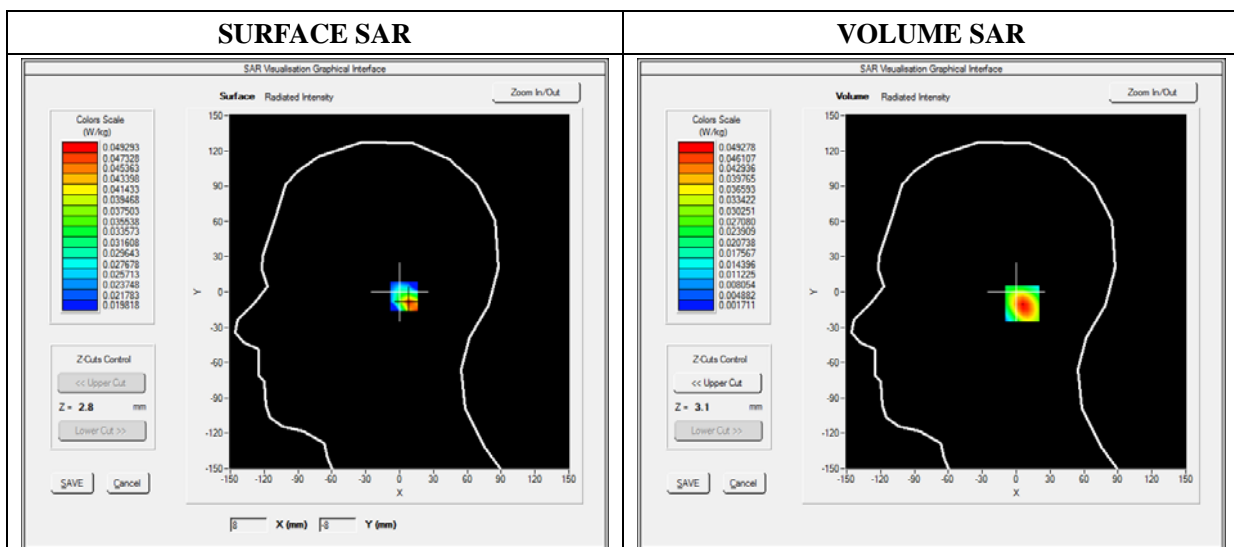
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.16; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

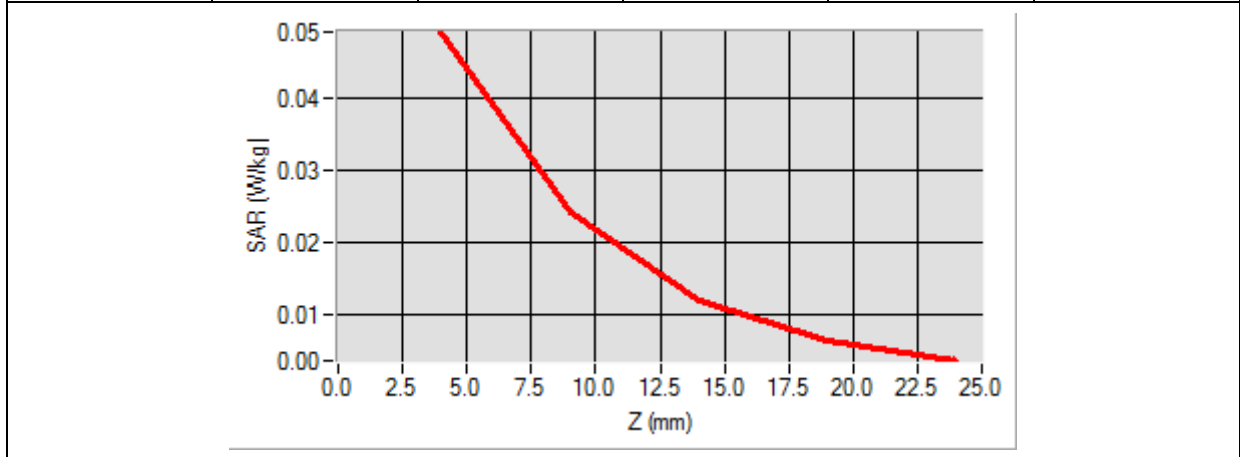
Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.912360
Conductivity (S/m)	1.410000
Power Variation (%)	-0.523000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=9.00, Y=-10.00

SAR 10g (W/Kg)	0.023165
SAR 1g (W/Kg)	0.045845

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0493	0.0241	0.0119	0.0065



3D screen shot	Hot spot position

MEASUREMENT 18

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

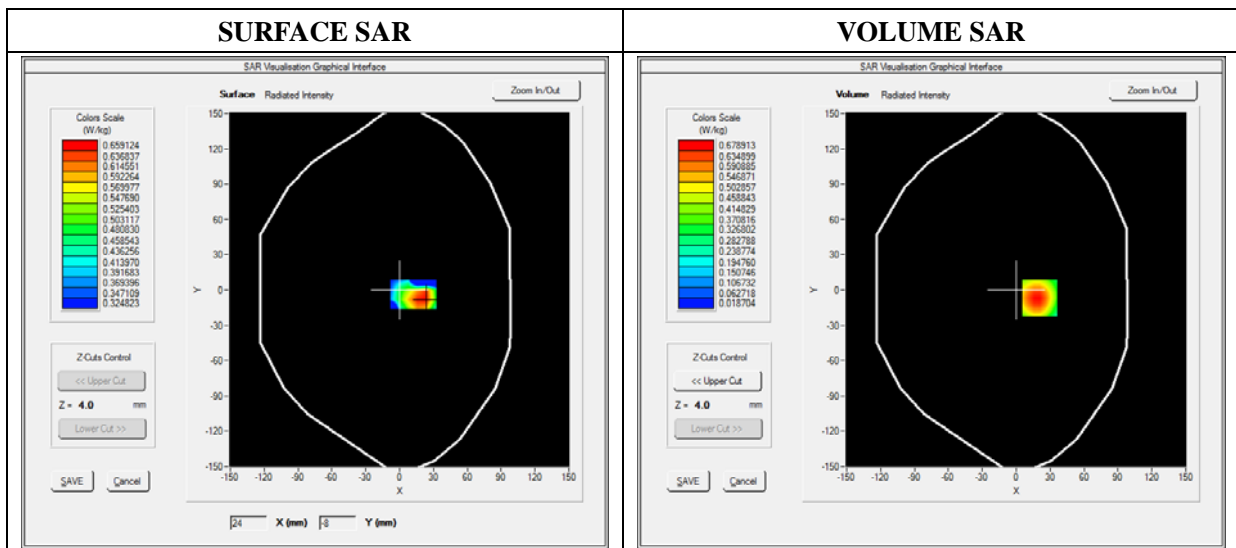
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.30; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Back
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

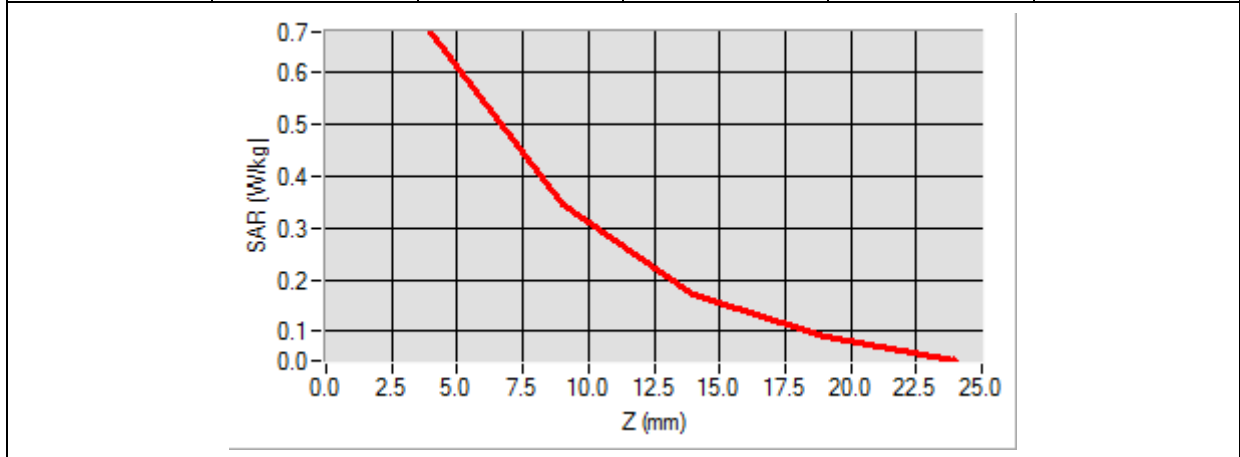
Frequency (MHz)	1909.800000
Relative Permittivity (real part)	51.361240
Conductivity (S/m)	1.510000
Power Variation (%)	0.752100
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=21.00, Y=-7.00

SAR 10g (W/Kg)	0.338366
SAR 1g (W/Kg)	0.639838

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.6789	0.3438	0.1711	0.0879



<p>3D screen shot</p>	<p>Hot spot position</p>
<p>A 3D perspective view of a grey device. A grid of small blue dots is overlaid on the device's surface. A localized area of the grid is highlighted with a color gradient from green to red, indicating the hot spot position.</p>	<p>A 2D heatmap representing the hot spot position. The color gradient transitions from yellow on the left to red on the right, with a peak intensity in the center-right area.</p>

MEASUREMENT 20

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

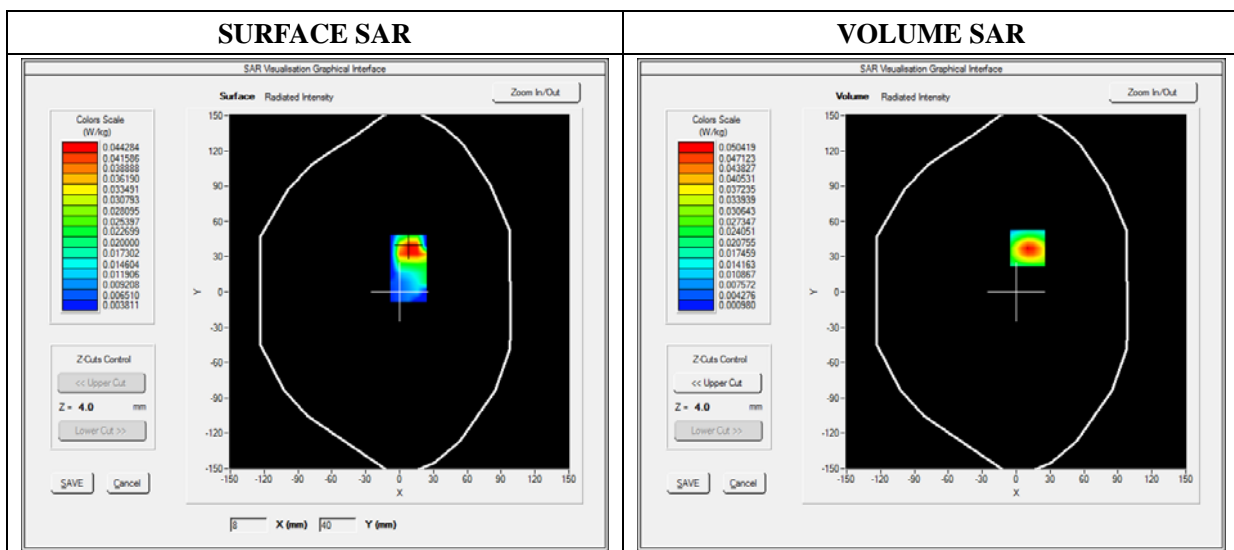
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.30; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Bottom
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

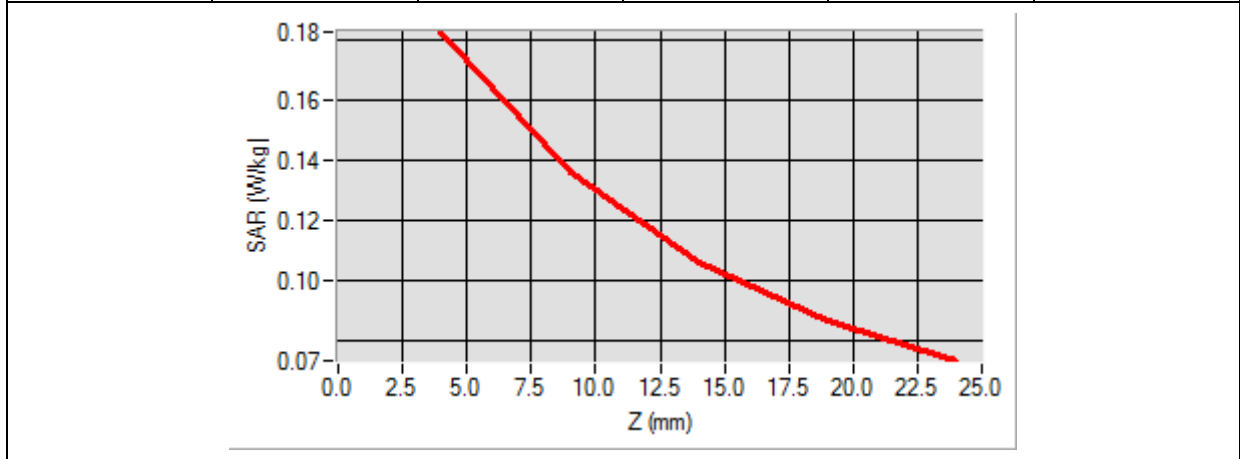
Frequency (MHz)	1909.800000
Relative Permittivity (real part)	51.361240
Conductivity (S/m)	1.510000
Power Variation (%)	0.752100
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-35.00, Y=-17.00

SAR 10g (W/Kg)	0.127772
SAR 1g (W/Kg)	0.175245

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1828	0.1360	0.1058	0.0867



3D screen shot	Hot spot position
<p>A 3D perspective view of a grey device. A grid of small blue dots is overlaid on the device's surface. A localized area of the grid is highlighted with a color gradient from green to red, indicating the hot spot location.</p>	<p>A 2D color-coded diagram of the hot spot position. The shape is an L-shaped polygon. The color gradient ranges from green at the bottom-left corner to red at the top-right corner, with yellow and orange in between, representing the intensity of the SAR exposure.</p>

MEASUREMENT 21

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

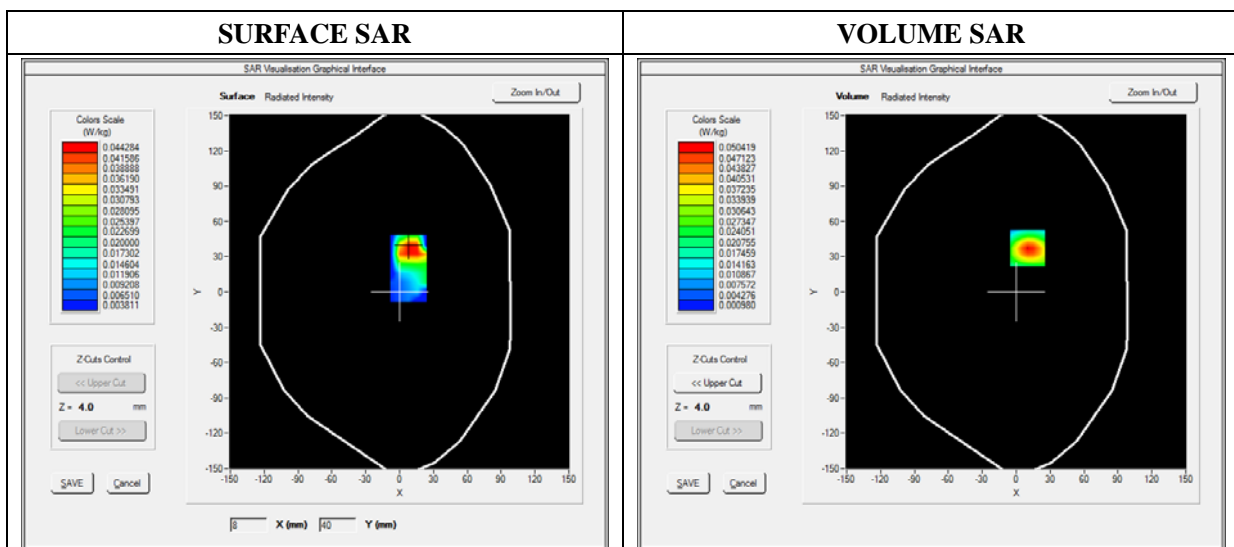
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.30; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Right side
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

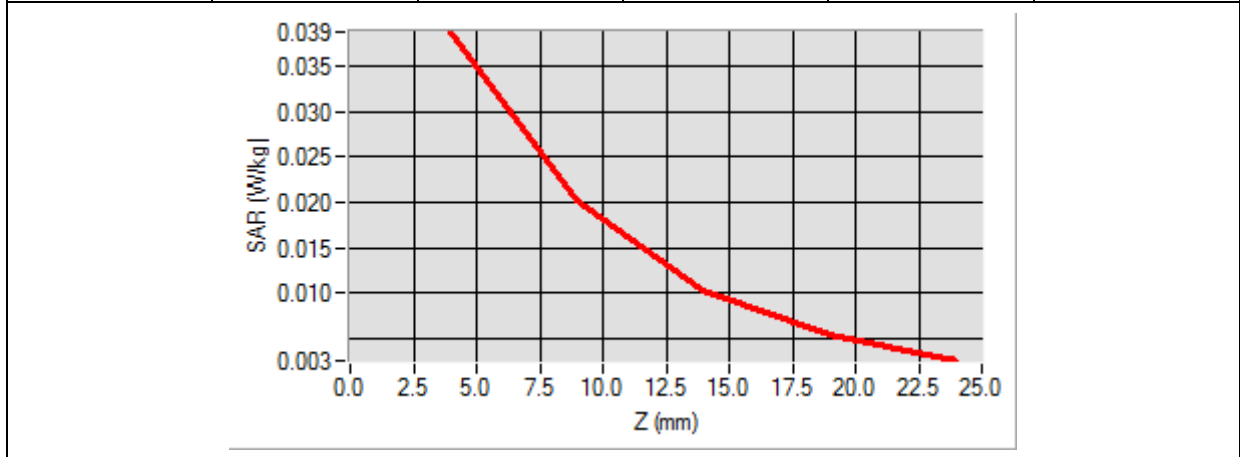
Frequency (MHz)	1909.800000
Relative Permittivity (real part)	51.361240
Conductivity (S/m)	1.510000
Power Variation (%)	0.752100
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-50.00, Y=-53.00

SAR 10g (W/Kg)	0.019811
SAR 1g (W/Kg)	0.036541

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0388	0.0202	0.0103	0.0054



3D screen shot	Hot spot position
<p>A 3D perspective view of a hand holding a device. A grid of small blue dots is overlaid on the device's surface. A small, localized area of the grid is highlighted with a color gradient from green to red, indicating the hot spot position.</p>	<p>A close-up view of the hot spot position, showing a color gradient from green (low SAR) to red (high SAR) on a rectangular area.</p>

MEASUREMENT 22

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

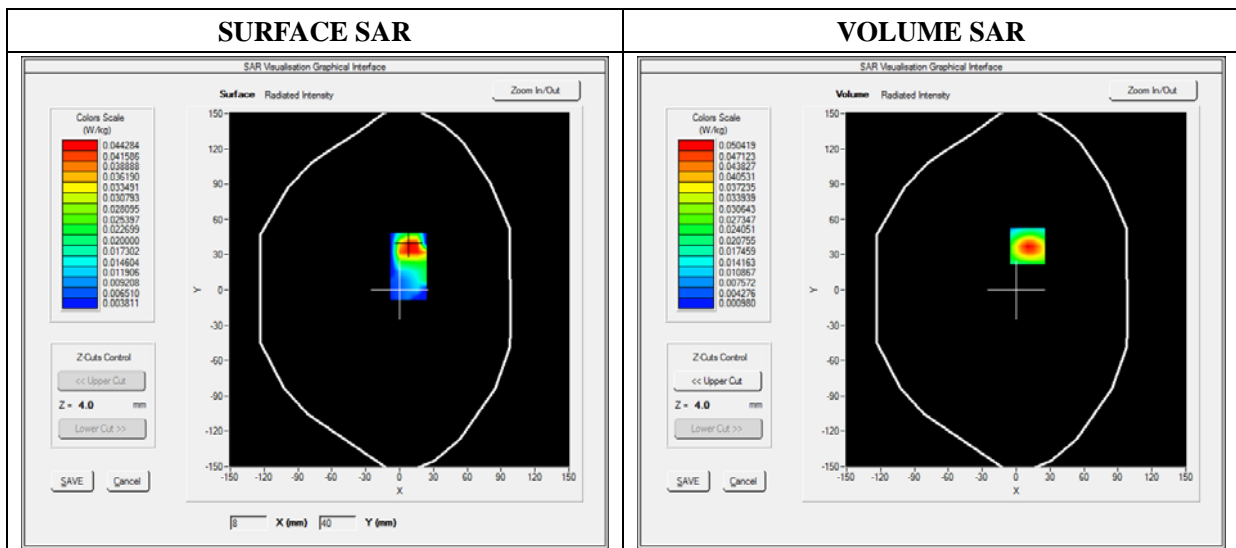
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.30; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Left side
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 3.00 (Crest factor: 3.00)

B. SAR Measurement Results

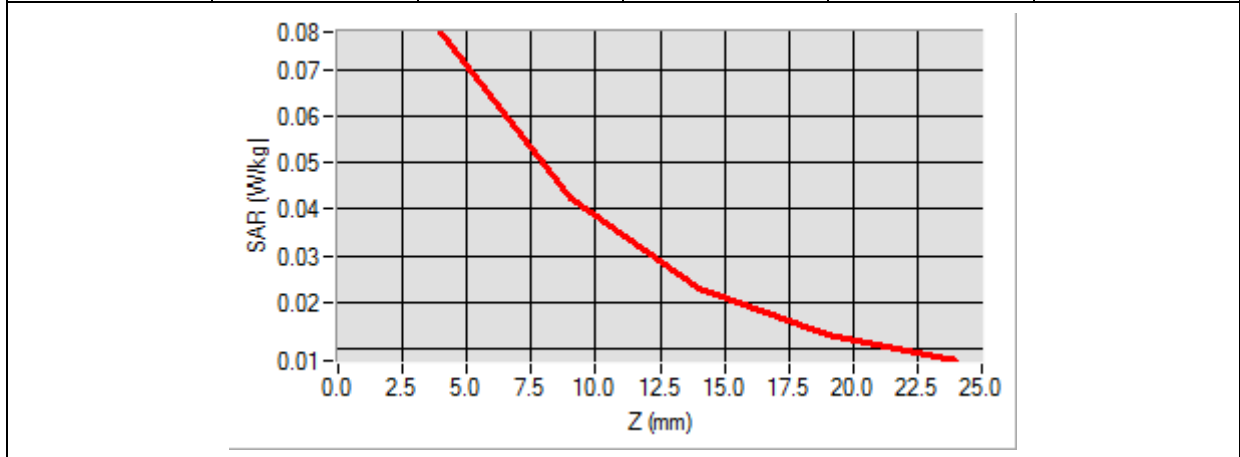
Frequency (MHz)	1909.800000
Relative Permittivity (real part)	51.361240
Conductivity (S/m)	1.510000
Power Variation (%)	0.752100
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-8.00, Y=-8.00

SAR 10g (W/Kg)	0.040029
SAR 1g (W/Kg)	0.072854

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0782	0.0423	0.0230	0.0131



<p>3D screen shot</p>	<p>Hot spot position</p>

MEASUREMENT 23

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

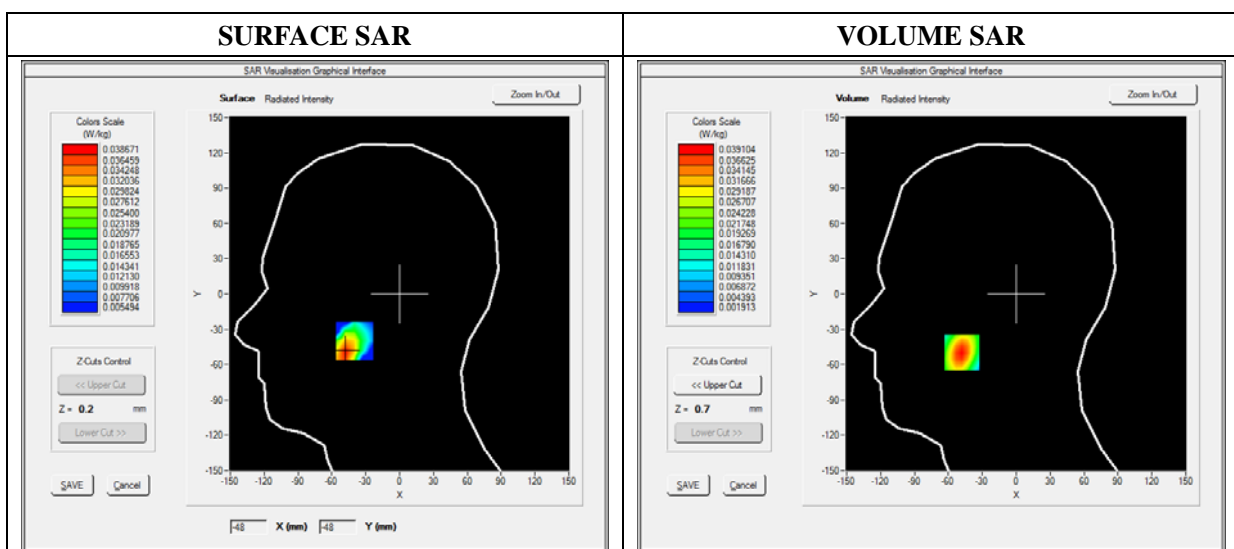
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)

B. SAR Measurement Results

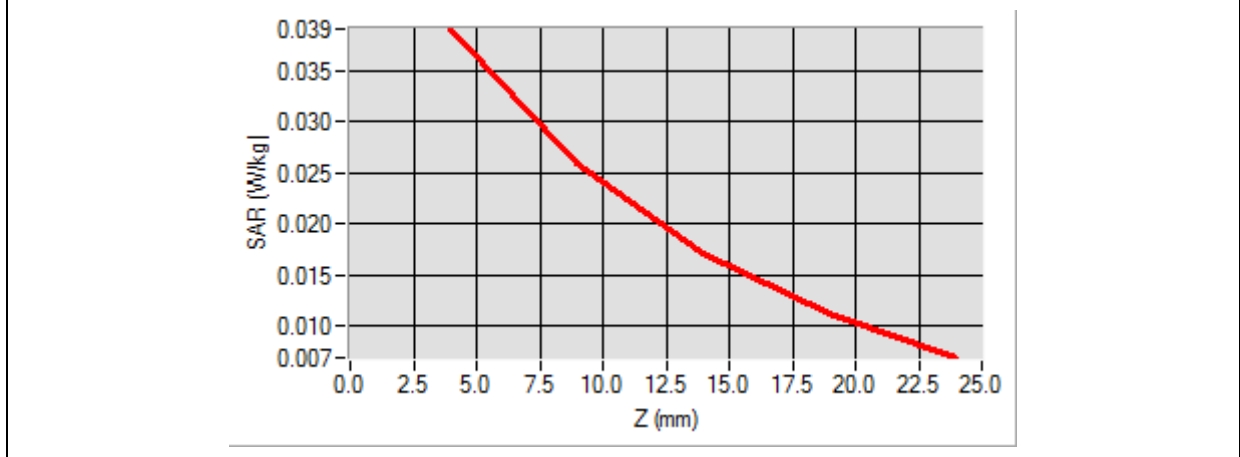
Frequency (MHz)	846.600000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-48.00, Y=-50.00

SAR 10g (W/Kg)	0.021401
SAR 1g (W/Kg)	0.035973

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0391	0.0260	0.0171	0.0111



3D screen shot	Hot spot position

MEASUREMENT 24

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

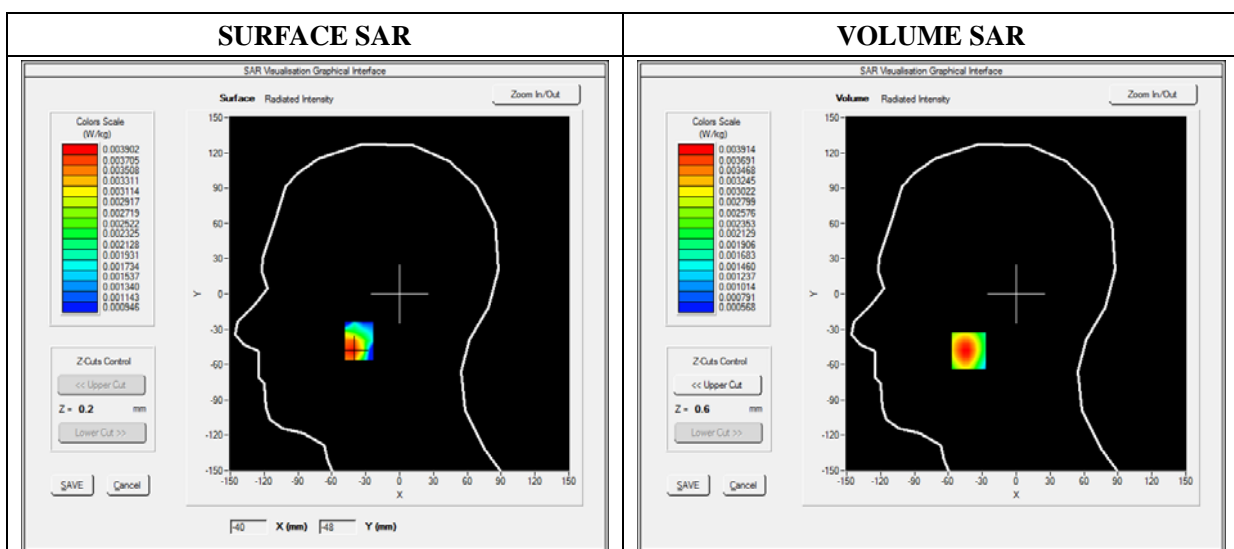
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)

B. SAR Measurement Results

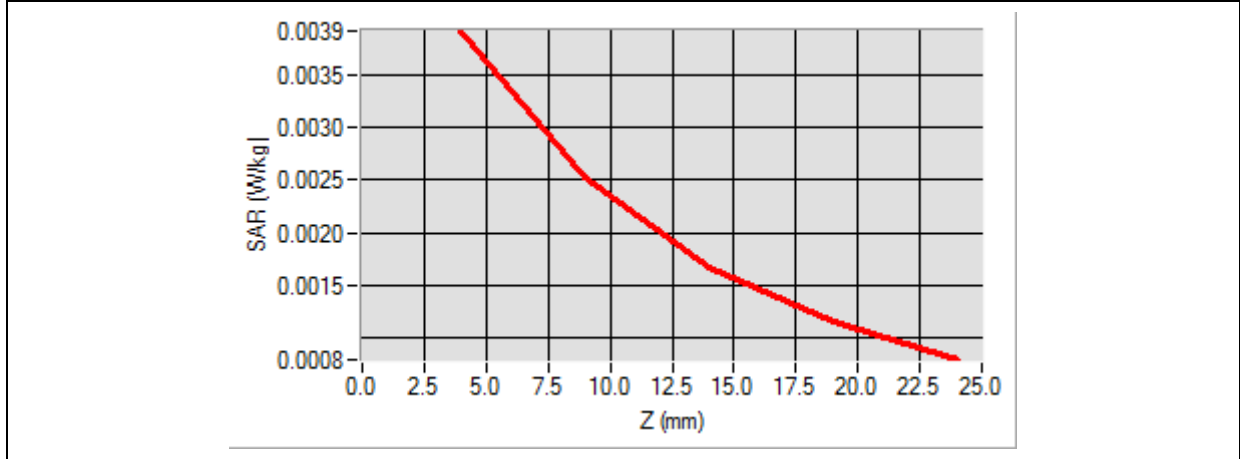
Frequency (MHz)	846.600000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-42.00, Y=-48.00

SAR 10g (W/Kg)	0.002265
SAR 1g (W/Kg)	0.003704

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0039	0.0025	0.0017	0.0011



3D screen shot	Hot spot position

MEASUREMENT 25

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

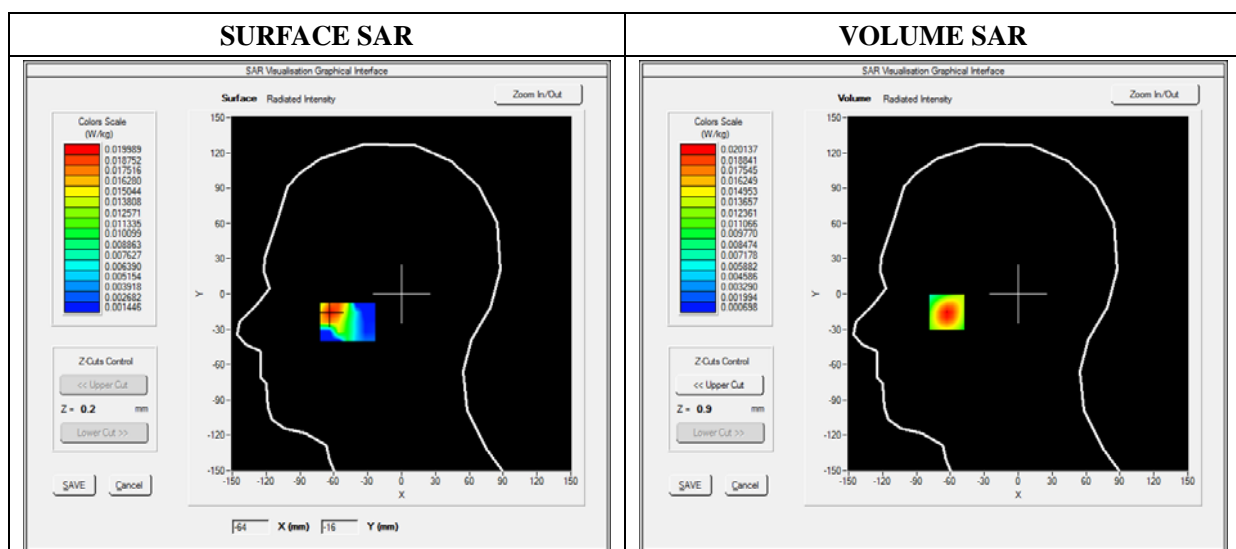
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)

B. SAR Measurement Results

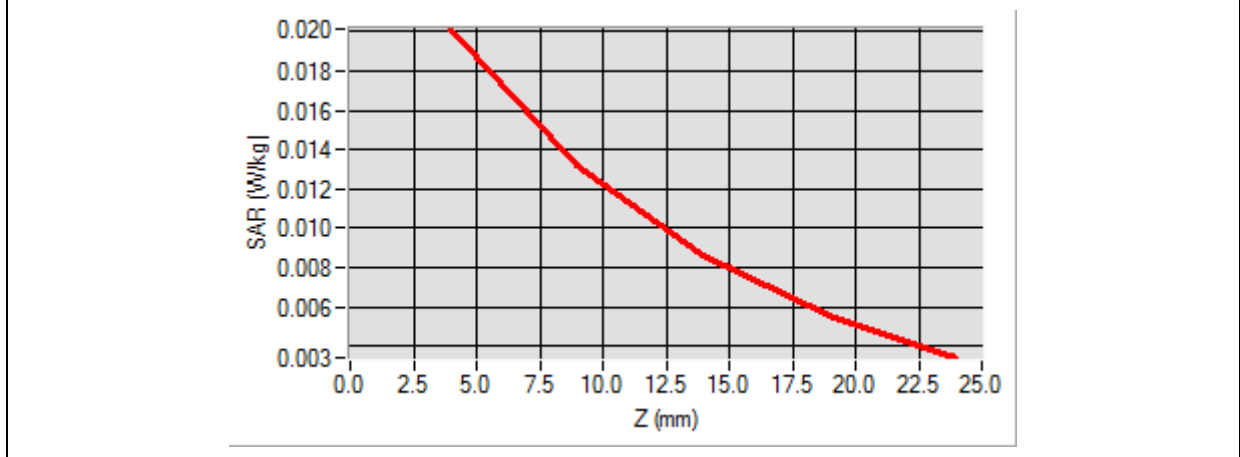
Frequency (MHz)	846.600000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-63.00, Y=-15.00

SAR 10g (W/Kg)	0.011244
SAR 1g (W/Kg)	0.018685

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0201	0.0132	0.0086	0.0055



3D screen shot	Hot spot position

MEASUREMENT 26

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

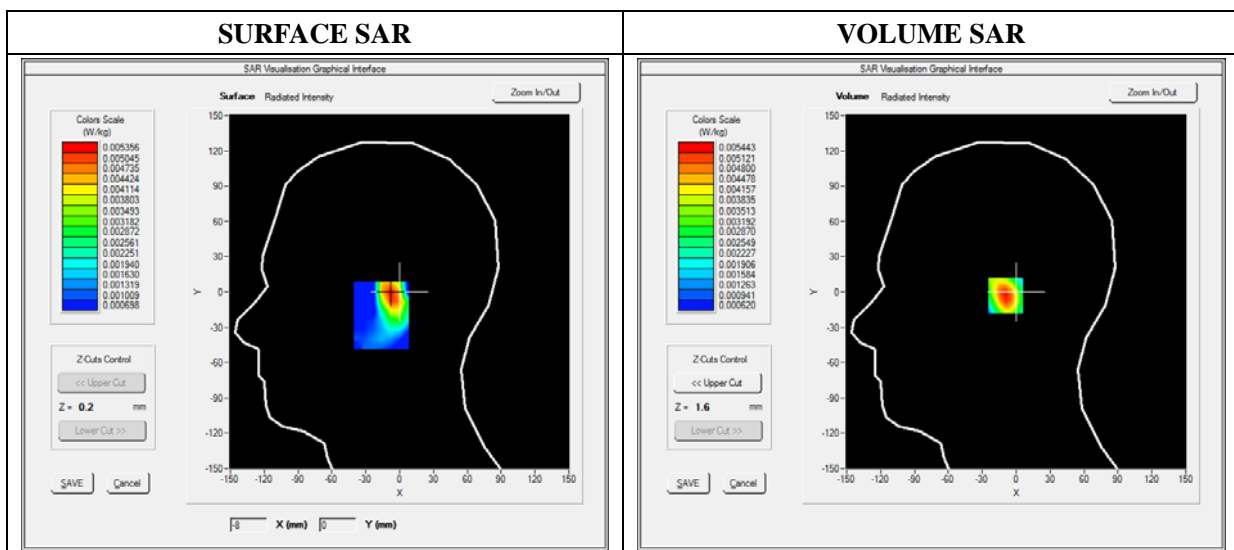
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.25; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.0)

B. SAR Measurement Results

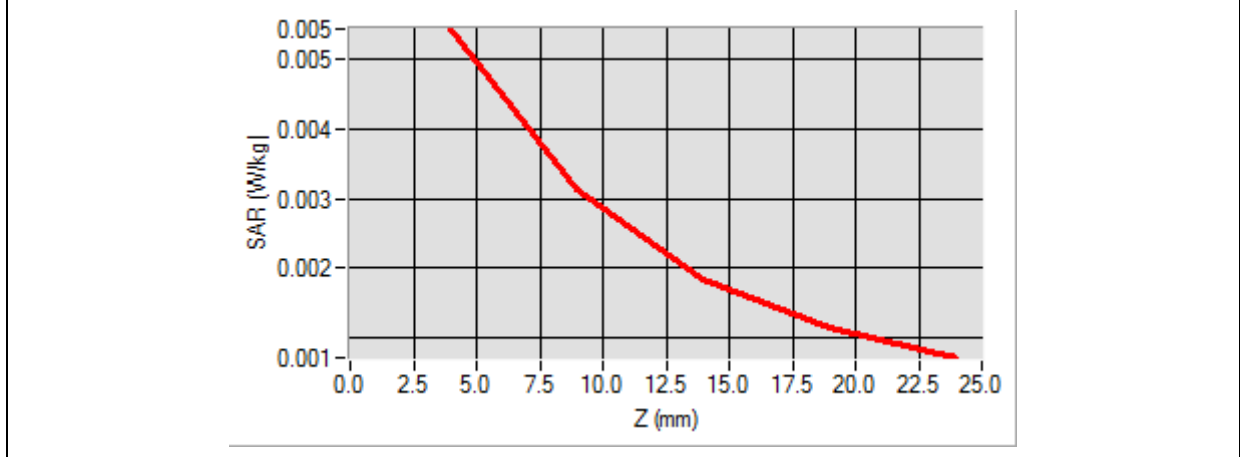
Frequency (MHz)	846.600000
Relative Permittivity (real part)	40.0200000
Conductivity (S/m)	0.910000
Power Variation (%)	1.810000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=-7.00, Y=-3.00

SAR 10g (W/Kg)	0.002788
SAR 1g (W/Kg)	0.005003

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.0054	0.0031	0.0018	0.0011



3D screen shot	Hot spot position

MEASUREMENT 27

Type: Phone measurement (Complete)

Date of measurement: 06/03/2014

Measurement duration: 12 minutes 3 seconds

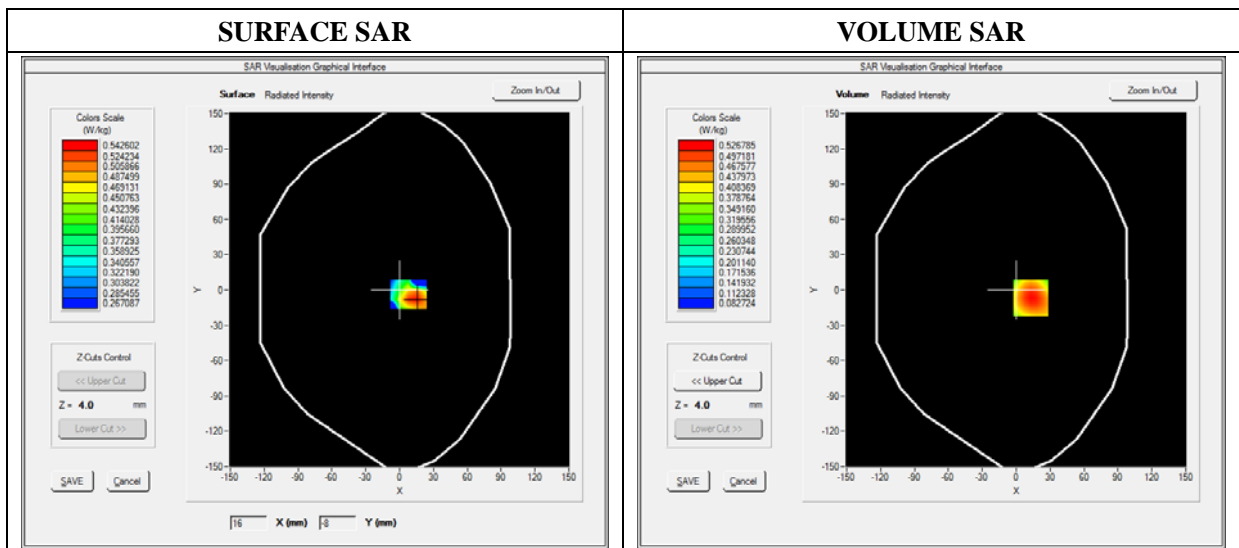
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.50; Calibrated: 03/21/2014

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle: 1.00 (Crest factor: 1.00)

B. SAR Measurement Results

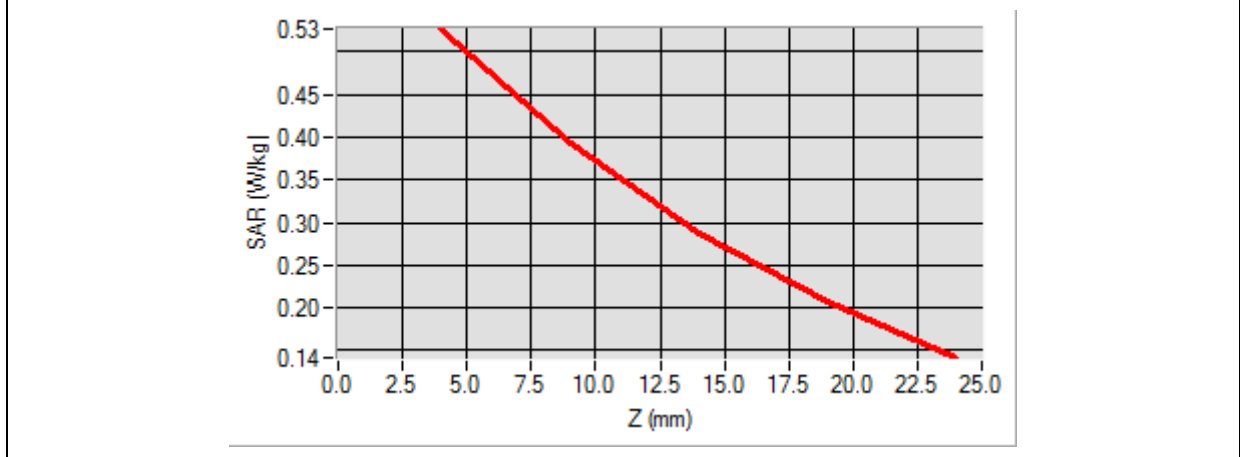
Frequency (MHz)	846.600000
Relative Permittivity (real part)	52.124510
Conductivity (S/m)	0.96000
Power Variation (%)	0.80000
Ambient Temperature	21.1
Liquid Temperature	21.3



Maximum location: X=13.00, Y=-7.00

SAR 10g (W/Kg)	0.345894
SAR 1g (W/Kg)	0.500435

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.5268	0.3925	0.2879	0.2066



3D screen shot	Hot spot position