



Report No. SZ11030122802

# SAR TEST REPORT

Issued to

**Huawei Technologies Co., Ltd**

For

**Mobile Phone**

Model Name : HUAWEI U8650NFC -1/  
 U8650NFC -1/  
 TURKCELL T20/T20

Trade Name : HUAWEI / TURKCELL

Brand Name : HUAWEI / TURKCELL

FCC ID : QISU8650NFC-1

Standard : FCC Oet65 Supplement C Jun.2001  
 47CFR 2.1093  
 ANSI C95.1-1999  
 IEEE 1528-2003

MAX SAR : Head: 1.168W/kg  
 Body: 0.946W/kg

Test date : May. 3, 2011-Jun. 10, 2011

Issue date : Jun. 10, 2011

by  
**Shenzhen MORLAB Communication Technology Co., Ltd.**



Tested by Samuel peng  
 Samuel Peng  
 Date 2011.06.10

Approved by Zeng Dexin  
 Zeng Dexin  
 Date 2011.06.10

Review by Li Lei  
 Li Lei  
 Date 2011.06.10



The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen MORLAB Communication Technology Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it or a certified copy thereof prepared by the Shenzhen MORLAB Telecommunication Co., Ltd to his customer. Supplier or others persons directly concerned. Shenzhen MORLAB Telecommunication Co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report, Shenzhen MORLAB Telecommunication Co., Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

## DIRECTORY

<b>1. TESTING LABORATORY</b> .....	<b>4</b>
1.1. Identification of the Responsible Testing Laboratory .....	4
1.2. Identification of the Responsible Testing Location .....	4
1.3. Accreditation Certificate .....	4
1.4. List of Test Equipments .....	4
<b>2. TECHNICAL INFORMATION</b> .....	<b>5</b>
2.1. Identification of Applicant .....	5
2.2. Identification of Manufacturer .....	5
2.3. Equipment Under Test (EUT).....	5
2.3.1. Photographs of the EUT .....	5
2.3.2. Identification of all used EUTs.....	5
2.4. Applied Reference Documents .....	6
2.5. Device Category and SAR Limits .....	6
2.6. Test Environment/Conditions .....	7
<b>3. SPECIFIC ABSORPTION RATE (SAR)</b> .....	<b>8</b>
3.1. Introduction .....	8
3.2. SAR Definition.....	8
<b>4. SAR MEASUREMENT SETUP</b> .....	<b>9</b>
4.1. The Measurement System .....	9
4.2. Probe .....	9
4.3. Phantom .....	11
4.4. Device Holder .....	11
<b>5. TISSUE SIMULATING LIQUIDS</b> .....	<b>12</b>
<b>6. UNCERTAINTY ASSESSMENT</b> .....	<b>14</b>
6.1. UNCERTAINTY EVALUATION FOR HANDSET SAR TEST .....	14
6.2. UNCERTAINTY FOR SYSTEM PERFORMANCE CHECK .....	15
<b>7. SAR MEASUREMENT EVALUATION</b> .....	<b>17</b>
7.1. System Setup.....	17
7.2. Validation Results.....	17
<b>8. OPERATIONAL CONDITIONS DURING TEST</b> .....	<b>18</b>
8.1. Informations on the testing .....	18

<b>8.2. Body-worn Configurations</b> .....	18
<b>8.3. Measurement procedure</b> .....	19
<b>8.4. Description of interpolation/extrapolation scheme</b> .....	19
<b>8.5. Output Power</b> .....	20
<b>9. TEST RESULTS LIST</b> .....	<b>22</b>
<b>9.1. Head Adjacent Test Results</b> .....	22
<b>9.2. Body Worn Test Results</b> .....	22
<b>9.3. Mobile Hotspot Test Results</b> .....	23
<b>ANNEX A ACCREDITATION CERTIFICATE</b> .....	<b>25</b>
<b>ANNEX B PHOTOGRAPHS OF THE EUT</b> .....	<b>26</b>
<b>ANNEX C GRAPH TEST RESULTS</b> .....	<b>32</b>

Change History		
Issue	Date	Reason for change
1.0	May. 17, 2011	First edition
1.1	Jun. 8, 2011	Secondly edition
1.2	Jun. 10, 201	Thirdly edition

## 1. Testing Laboratory

### 1.1. Identification of the Responsible Testing Laboratory

Company Name: Shenzhen Morlab Communications Technology Co., Ltd.  
 Department: Morlab Laboratory  
 Address: 3/F, Electronic Testing Building, Shahe Road, Nanshan District, Shenzhen, 518055 P. R. China  
 Responsible Test Lab Manager: Mr. Shu Luan  
 Telephone: +86 755 86130268  
 Facsimile: +86 755 86130218

### 1.2. Identification of the Responsible Testing Location

Name: Shenzhen Morlab Communications Technology Co., Ltd.  
 Morlab Laboratory  
 Address: 3/F, Electronic Testing Building, Shahe Road, Nanshan District, Shenzhen, 518055 P. R. China

### 1.3. Accreditation Certificate

Accredited Testing Laboratory: No. CNAS L3572 (see 0)

### 1.4. List of Test Equipments

No.	Instrument	Type	Cal. Date	Cal. Due
1	PC	Dell (Pentium IV 2.4GHz, SN:X10-23533)	(n.a)	(n.a)
2	Network Emulator	Rohde&Schwarz (CMU200, SN:105894)	2010-9-26	1year
3	Voltmeter	Keithley (2000, SN:1000572)	2010-9-24	1year
4	Synthetizer	Rohde&Schwarz (SML_03, SN:101868)	2010-9-24	1year
5	Amplifier	Nucl udes (ALB216, SN:10800)	2010-9-24	1year
6	Power Meter	Rohde&Schwarz (NRVD, SN:101066)	2010-9-24	1year
7	Probe	Satimo (SN:SN_3708_EP80)	2010-9-24	1year
8	Phantom	Satimo (SN:SN_36_08_SAM62)	2010-9-24	1year
9	Liquid	Satimo (Last Calibration:21 08 08)	2010-8-21	1year
10	Dipole 835MHz	Satimo (SN 36/08 DIPC 99)	2010-9-23	1year
11	Dipole 1800MHz	Satimo (SN 36/08 DIPF 101)	2010-9-23	1year
12	Dipole 2450MHz	Satimo (SN 36/08 DIPJ 103)	2010-9-23	1year

## 2. Technical Information

Note: the following data is based on the information by the applicant.

### 2.1. Identification of Applicant

Company Name: Huawei Technologies Co., Ltd  
Address: Huawei Base, Bantian, Longgang District, Shenzhen 518129, P.R. China

### 2.2. Identification of Manufacturer

Company Name: Huawei Technologies Co., Ltd  
Address: Huawei Base, Bantian, Longgang District, Shenzhen 518129, P.R. China

### 2.3. Equipment Under Test (EUT)

Brand Name: HUAWEI / TURKCELL  
Type Name: HUAWEI / TURKCELL  
Marking Name: HUAWEI U8650NFC -1/U8650NFC -1/TURKCELL T20/T20  
Hardware Version: HD1U865M  
Software Version: HUAWEI U8650-1 V100R001C00B820  
Frequency Bands: PCS 1900MHz  
WIFI 802.11 b/g/n  
Modulation Mode: GSM / GPRS : GMSK  
EDGE: GMSK / 8PSK  
Multislot Class: GPRS: Multislot Class 10: EDGE: Multislot Class 10  
GPRS operation mode: Class B  
Antenna type: Fixed Internal Antenna  
Development Stage: Identical prototype  
Battery Model: HB5K1H  
Battery specification: 1400mAh 3.7V

#### 2.3.1. Photographs of the EUT

Please see for photographs of the EUT.

#### 2.3.2. Identification of all used EUTs

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
1#	HD1U865M	HUAWEI U8650-1 V100R001C00B820

## 2.4. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	<b>47 CFR § 2. 1093</b>	Radiofrequency Radiation Exposure Evaluation: Portable Devices
2	<b>FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01)</b>	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields
3	<b>ANSI C95.1-1999</b>	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz
4	<b>IEEE 1528-2003</b>	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques.

## 2.5. Device Category and SAR Limits

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

## 2.6. Test Environment/Conditions

Normal Temperature (NT):	20 ... 25 °C
Relative Humidity:	30 ... 75 %
Air Pressure:	980 ... 1020 hPa
Test frequency:	PCS 1900MHz
Operation mode:	Call established
Power Level:	PCS 1900 MHz Maximum output power(level 0)

During SAR test, EUT is in Traffic Mode (Channel Allocated) at Normal Voltage Condition. A communication link is set up with a System Simulator (SS) by air link, and a call is established.

The Absolute Radio Frequency Channel Number (ARFCN) is allocated 512, 661 and 810 respectively in the case of PCS 1900 MHz, The EUT, The EUT is commanded to operate at maximum transmitting power.

The EUT shall use its internal transmitter. The antenna(s), battery and accessories shall be those specified by the manufacturer. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. If a wireless link is used, the antenna connected to the output of the base station simulator shall be placed at least 50 cm away from the handset.

The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the handset by at least 35 dB.

For SAR testing, EUT is in GPRS/EDGE mode. In GPRS/EDGE link mode, its crest factor is 4, because EUT is set in GPRS/EDGE multi-slot class 10 with 2 uplink slots.

### 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 ( $\rho$ ). 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

$$\text{SAR} = C \frac{\delta T}{\delta t}$$

, where C is the specific heat capacity,  $\delta T$  is the temperature rise and  $\delta t$  the exposure duration, or related to the electrical field in the tissue by

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

, where  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of the tissue and E is the rms electrical field strength.

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

## 4. SAR Measurement Setup

### 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

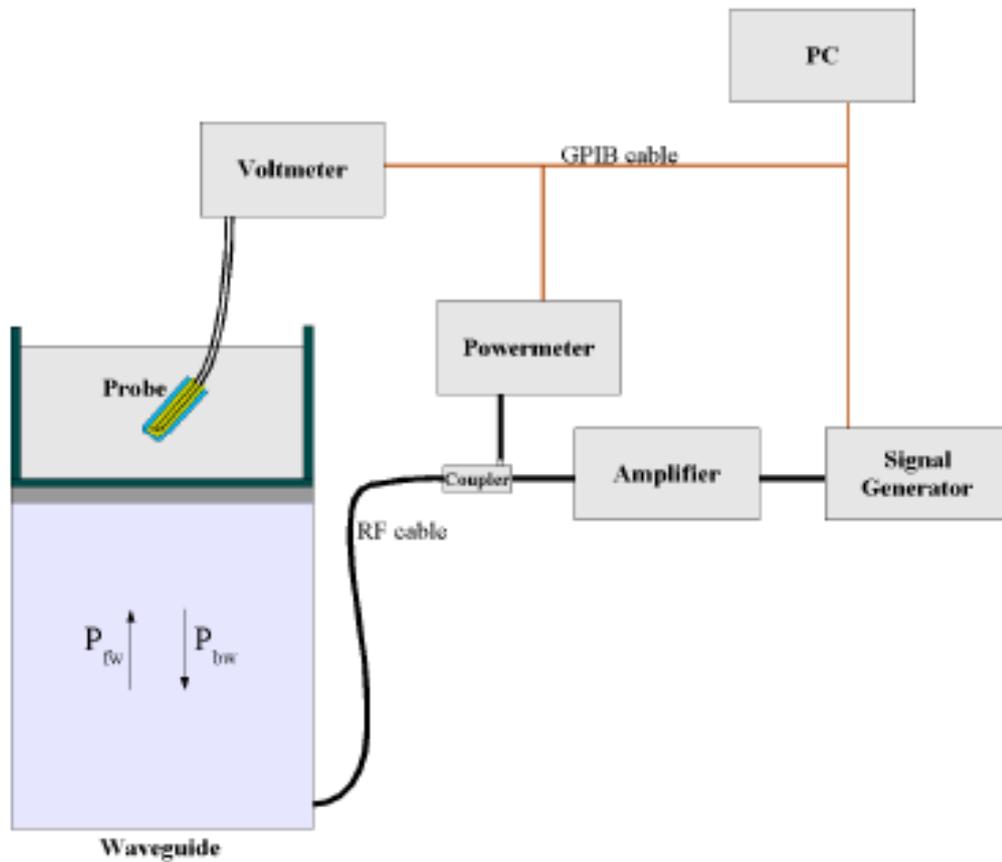
For the measurements the Specific Dosimetric E-Field Probe SN 37/08 EP80 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 6.5 mm
- Distance between probe tip and sensor center: 2.5mm
- Distance between sensor center and the inner phantom surface: 4 mm  
(repeatability better than +/- 1mm)

- Probe linearity: <0.25 dB
- Axial Isotropy: <0.25 dB
- Spherical Isotropy: <0.25 dB
- Calibration range: 835 to 2500 MHz 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 CENELEC EN 62209 and IEEE 1528 std, with CALISAR, Antenna proprietary calibration system. The calibration is performed with the EN 622091 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

$\delta$  = 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

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

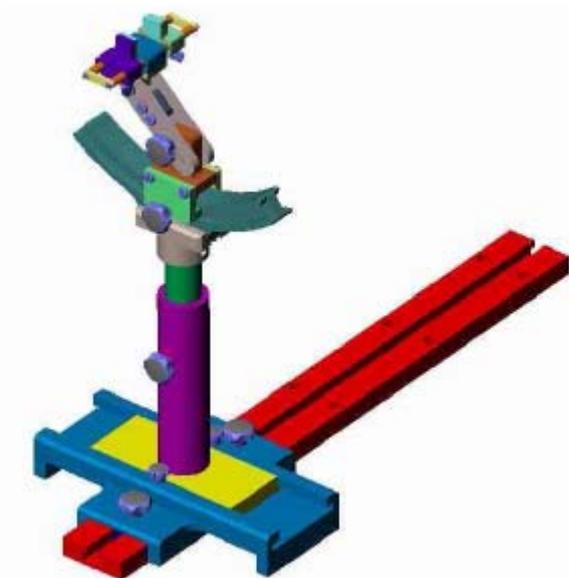
where DCP is the diode compression point in mV.

### 4.3. 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.

### 4.4. 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°.



Device holder

System Material	Permittivity	Loss Tangent
Delrin	3.7	0.005

## 5. Tissue Simulating Liquids

Simulant liquids that are used for testing at frequencies of GSM 850MHz PCS 1900MHz, which are made mainly of sugar, salt and water solutions may be left in the phantoms. Approximately 20litres are needed for an upright head compared to about 25 litres for a horizontal bath phantom. The liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is (head SAR) or from the flat phantom to the liquid top surface (body SAR) is 15cm.

Gives the recipes for one liter of head and body tissue simulating liquid for frequency band 835 MHz and 1900 MHz.

### Recipes for Tissue Simulating Liquid

Ingredients (% by weight )	Frequency Band		Frequency Band
	1900MHz		2450MHz
Tissue Type	Head	Body	Body
Water			
Salt(NaCl)	55.36	40.4	52.4
Sugar	0.35	0.5	1.4
HEC	30.45	58.0	45.0
Bactericide	0.0	1.0	1.0
Triton	0.0	0.1	0.1
DGBE	0.0	0.0	0.0
Acticide SPX	13.84	0.0	0.0
Dielectric Constant	0.0	0.0	0.0
Conductivity (S/m)	41.00	54.0	52.7

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an Agilent 85033E Dielectric Probe Kit and an Agilent Network Analyzer.

**Table 1: Dielectric Performance of Head Tissue Simulating Liquid**

**Temperature: 23.0~23.8°C, humidity: 54~60%.**

/	Frequency	Permittivity $\epsilon$	Conductivity $\sigma$ (S/m)
Target value	1900 MHZ	40	1.40
Validation value (May. 3)	1900 MHZ	38.509998	1.436111

For body-worn measurements, the device was tested against flat phantom representing the user body. Under measurement phone was put on in the phone holder.

**Table 2: Dielectric Performance of Body Tissue Simulating Liquid**

<b>Temperature: 23.0~23.8°C, humidity: 54~60%.</b>			
<b>/</b>	<b>Frequency</b>	<b>Permittivity <math>\epsilon</math></b>	<b>Conductivity <math>\sigma</math> (S/m)</b>
<b>Target value</b>	1900 MHz	53.3	1.52
<b>Validation value (May. 3)</b>	1900 MHz	52.548876	1.573978
<b>Validation value (Jun. 7)</b>	1900 MHz	52.540001	1.469533
<b>Target value</b>	2450 MHz	52.7	1.95
<b>Validation value (May. 3)</b>	2450 MHz	54.341000	1.952641
<b>Validation value (Jun. 7)</b>	2450 MHz	54.362770	1.937211
<b>Validation value (Jun. 10)</b>	2450 MHz	54.389465	1.947345

## 6. Uncertainty Assessment

The following table includes the uncertainty table of the IEEE 1528. The values are determined by Antennessa.

### 6.1. UNCERTAINTY EVALUATION FOR HANDSET 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 (+-%)	V i
<b>Measurement System</b>									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	
Axial Isotropy	E.2.2	2.5	R				1.02	1.02	
Hemispherical Isotropy	E.2.2	4.0	R				1.63	1.63	
Boundary effect	E.2.3	1.0	R		1	1	0.58	0.58	
Linearity	E.2.4	5.0	R		1	1	2.89	2.89	
System detection limits	E.2.5	1.0	R		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		1	1	1.73	1.73	
Integration Time	E.2.8	2.0	R		1	1	1.15	1.15	
RF ambient Conditions	E.6.1	3.0	R		1	1	1.73	1.73	
Probe positioner Mechanical Tolerance	E.6.2	2.0	R		1	1	1.15	1.15	
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R		1	1	0.03	0.03	
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	E.5.2	5.0	R		1	1	2.89	2.89	
<b>Test sample Related</b>									
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 Power Drift - SAR drift measurement	6.6.2	4.04	R		1	1	2.33	2.33	
<b>Phantom and Tissue Parameters</b>									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R		1	1	0.03	0.03	
Liquid conductivity - deviation from target value	E.3.2	4.57	R		0.64	0.43	1.69	1.13	

Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	M
Liquid permittivity - deviation from target value	E.3.2	3.69	R		0.6	0.49	1.28	1.04	
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
Combined Standard Uncertainty			RSS				11.23	10.70	
Expanded Uncertainty (95% Confidence interval)			k				21.91	20.86	

## 6.2. 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 (+-%)	V i
<b>Measurement System</b>									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	
Axial Isotropy	E.2.2	2.5	R				1.02	1.02	
Hemispherical Isotropy	E.2.2	4.0	R				1.63	1.63	
Boundary effect	E.2.3	1.0	R		1	1	0.58	0.58	
Linearity	E.2.4	5.0	R		1	1	2.89	2.89	
System detection limits	E.2.5	1.0	R		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		1	1	1.73	1.73	
Integration Time	E.2.8	2.0	R		1	1	1.15	1.15	
RF ambient Conditions	E.6.1	3.0	R		1	1	1.73	1.73	
Probe positioner Mechanical Tolerance	E.6.2	2.0	R		1	1	1.15	1.15	
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R		1	1	0.03	0.03	
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	E.5.2	5.0	R		1	1	2.89	2.89	
<b>Dipole</b>									
Dipole axis to liquid Distance	8,E.4.2	1.00	N		1	1	0.58	0.58	N - 1
Input power and SAR drift measurement	8,6.6.2	4.04	R		1	1	2.33	2.33	
<b>Phantom and Tissue Parameters</b>									

Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R		1	1	0.03	0.03	
Liquid conductivity - deviation from target value	E.3.2	4.57	R		0.64	0.43	1.69	1.13	
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	M
Liquid permittivity - deviation from target value	E.3.2	3.69	R		0.6	0.49	1.28	1.04	
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
Combined Standard Uncertainty			RSS				10.08	9.47	
Expanded Uncertainty (95% Confidence interval)			k				19.65	18.47	

## 7. SAR Measurement Evaluation

### 7.1. System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave which comes from a signal generator at frequency 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.

Equipments :

name	Type and specification
Signal generator	E4433B
Directional coupler	450MHz-3GHz
Amplifier	3W 502(10-2500MHz)
Reference dipole	1800MHz:SN 36/08 DIPF 101 2450MHz:SN 36/08 DIPJ 103

### 7.2. Validation Results

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %.

Frequency	1900MHz	2450 MHz
Target value (1g)	38.1 W/Kg	52.4 W/Kg (body)
250 mW input power (May. 3)	9.844 W/Kg (head) 9.818 W/Kg (body)	12.9 W/Kg (body)
Test value (1g) (May. 3)	39.376 W/Kg (head) 39.272 W/Kg (body)	51.6 W/Kg (body)
250 mW input power (Jun. 7)	9.800 W/Kg (body)	12.947 W/Kg (body)
Test value (1g) (Jun. 7)	39.2 W/Kg (body)	51.788 W/Kg (body)
250 mW input power (Jun. 10)	/	12.899 W/Kg (body)
Test value (1g) (Jun. 10)	/	51.596 W/Kg (body)

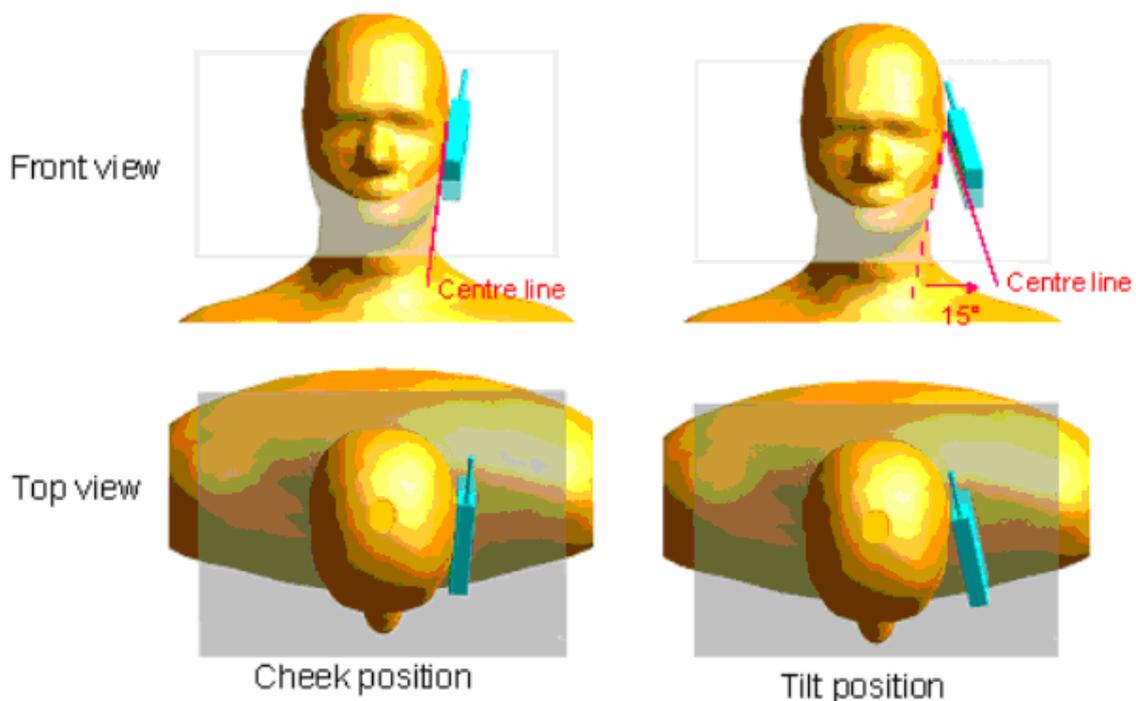
**Note:** System checks the specific test data please see page 112-123

## 8. Operational Conditions During Test

### 8.1. Informations on the testing

The mobile phone antenna and battery are those specified by the manufacturer. The battery is fully charged before each measurement. The output power and frequency are controlled using a base station simulator. The mobile phone is set to transmit at its highest output peak power level.

The mobile phone is test in the “cheek” and “tilted” positions on the left and right sides of the phantom. The mobile phone is placed with the vertical centre line of the body of the mobile phone and the horizontal line crossing the centre of the earpiece in a plane parallel to the sagittal plane of the phantom.



Description of the “cheek” position:

The mobile phone is well placed in the reference plane and the earpiece is in contact with the ear. Then the mobile phone is moved until any point on the front side get in contact with the cheek of the phantom or until contact with the ear is lost.

Description of the “tilted” position:

The mobile phone is well placed in the “cheek” position as described above. Then the mobile phone is moved outward away from the month by an angle of 15 degrees or until contact with the ear lost.

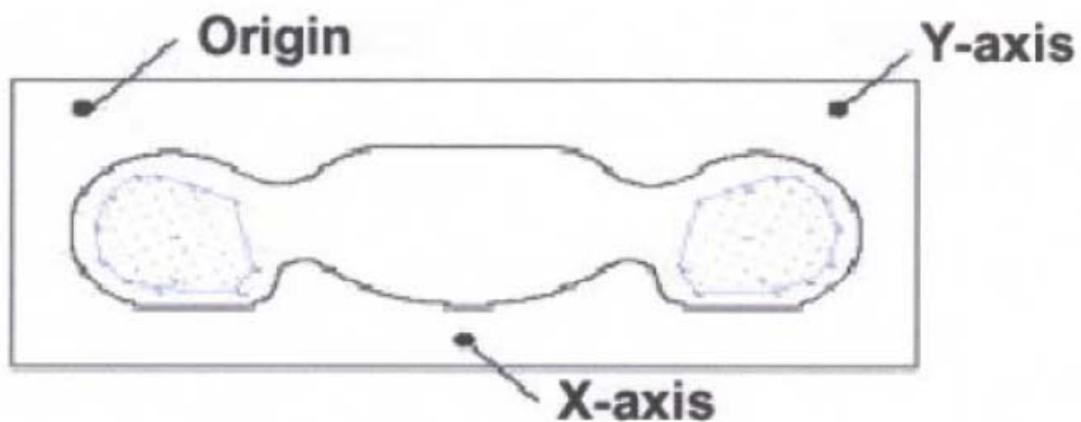
Remark: Please refer to Appendix B for the test setup photos.

### 8.2. Body-worn Configurations

The body-worn configurations shall be tested with the supplied accessories (belt-clips, holsters, etc.) attached to the device in normal use configuration.

The depth of the body tissue was 15.1cm. The distance between the back of the device and the bottom of the flat phantom is 1.5cm (taking into account of the IEEE 1528 and the place of the antenna)

For body-worn and other configurations a flat phantom shall be used which is comprised of material with electrical properties similar to the corresponding tissues.



SAR Measurement Points in Area Scan

### 8.3. Measurement procedure

The following steps are used for each test position

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

### 8.4. Description of interpolation/extrapolation scheme

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 used to determine these 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 10 grams and 1 gram requires a very fine resolution in the three dimensional scanned data array.

## 8.5. Output Power

Here the lowest, middle and highest channels are selected to perform testing to verify the conducted RF output power of the EUT. For the GSM 1900MHz operates at PCL=0 (where Power Class is 1), the rated conducted RF output power is 32dBm.

### GPRS/EDGE modes conducted output power values

Band	Channel	Frequency (MHz)	Measured Output Power
			dBm
GSM 1900MHz	512	1850.2	29.36
	661	1880.0	29.49
	810	1909.8	29.54
GPRS 1900MHz	128	824.2	28.25
	190	836.6	28.19
	251	848.8	28.23
EDGE 1900MHz	512	1850.2	28.25
	661	1880.0	28.19
	810	1909.8	28.24

The EUT operates at hopping-off test mode. The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

### GPRS/EDGE modes average conducted output power values

Because  $AV \text{ power} = PK \text{ power} + 10\log [1/ (\text{duty cycle})]$ , the Time-based Average Power as following:

Mode	Band	Channel	Frequency (MHz)	Output Power(dBm)	
				Slot 1	Slot 2
GPRS	PCS 1900	512	1850.2	19.27	22.25
		661	1880.0	19.24	22.19
		810	1909.8	19.26	22.23
EDGE	PCS 1900	512	1850.2	19.30	22.25
		661	1880.0	19.21	22.19
		810	1909.8	19.26	22.24

**802.11b Test mode**

Channel	Frequency (MHz)	Measured Output Peak Power	
		dBm	W
1	2412	18.12	0.065
6	2437	18.30	0.068
11	2462	17.95	0.062

**802.11g Test mode**

Channel	Frequency (MHz)	Measured Output Peak Power	
		dBm	W
1	2412	12.72	0.019
6	2437	13.10	0.020
11	2462	12.50	0.018

**802.11n Test mode**

Channel	Frequency (MHz)	Measured Output Peak Power	
		dBm	W
1	2412	10.95	0.012
6	2437	11.12	0.013
11	2462	10.50	0.011

## 9. Test Results List

### 9.1. Head Adjacent Test Results

Summary of Measurement Results (GSM 1900MHz Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 512	Channel 661	Channel 810
Left Side Of Head	Cheek/Touch	Internal	1.112	1.140	1.168
	Ear/Tilt	Internal	0.282	0.298	0.319
Right Side Of Head	Cheek/Touch	Internal	0.661	0.803	0.814
	Ear/Tilt	Internal	0.255	0.213	0.243

Summary of Measurement Results (WIFI 802.11 b)

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 1	Channel 6	Channel 11
Left Side Of Head	Cheek/Touch	Internal	/	0.263	/
	Ear/Tilt	Internal	/	0.153	/
Right Side Of Head	Cheek/Touch	Internal	/	0.257	/
	Ear/Tilt	Internal	/	0.154	/

### 9.2. Body Worn Test Results

Summary of Measurement Results (GSM 1900MHz Band), Phone 15 mm from Phantom

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 512	Channel 661	Channel 810
Body (GSM - voice only)	Back upward	Internal	/	0.451	/
	Keyboard Upward	Internal	/	0.635	/
Body (GPRS - data only)	Back upward	Internal	0.601	/	/
	Keyboard Upward	Internal	0.883	0.791	0.740
Body (EDGE - data only)	Back upward	Internal	/	0.484	/
	Keyboard Upward	Internal	/	0.635	/

## Summary of Measurement Results (WIFI 802.11 b), Phone 15 mm from Phantom

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 1	Channel 6	Channel 11
WIFI 802.11 b	Back upward	Internal	/	0.095	/
	Keyboard Upward	Internal	/	0.124	/

### 9.3. Mobile Hotspot Test Results

Testing was performed with a separation of 1 cm between the DUT and the “flat” phantom. The DUT was positioned for SAR tests with the front and back surfaces facing the phantom, and also with the edges facing the phantom in which the transmitting antenna is < 2.5 cm from the edge. Each transmit band was utilized for SAR testing, but only the “mode” within each band that exhibited the highest SAR results from Body Worn Test Results.

## Summary of Measurement Results (GSM 1900MHz Band), Phone 10 mm from Phantom

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 512	Channel 661	Channel 810
Body (GPRS - data only)	Back	Internal	0.689	/	/
	Front	Internal	0.946	0.845	0.801
	Bottom Edge	Internal	0.703	/	/
	Right Edge	Internal	0.311	/	/
	Left Edge	Internal	0.447	/	/

## Summary of Measurement Results (WIFI 802.11 b), Phone 10 mm from Phantom

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Antenna Positions	SAR(W/Kg), 1g Peak		
			Device Test channel		
			Channel 1	Channel 6	Channel 11
WIFI 802.11 b	Back	Internal	/	0.105	/
	Front	Internal	0.132	0.146	0.140
	Right Edge	Internal	/	0.078	/
	Top Edge	Internal	/	0.082	/

**Note:** 1. KDB 447498, when the SAR procedures require multiple channels to be tested and the 1-g SAR for the highest output channel is less than 0.8 W/kg and peak SAR is less than 1.6W/kg, where the transmission band corresponding to all channels is  $\leq 100$  MHz, testing for the other channels is not required.

2. EUT with Bluetooth and NFC, but conducted power is very low, so the test does not consider the Bluetooth and NFC status.

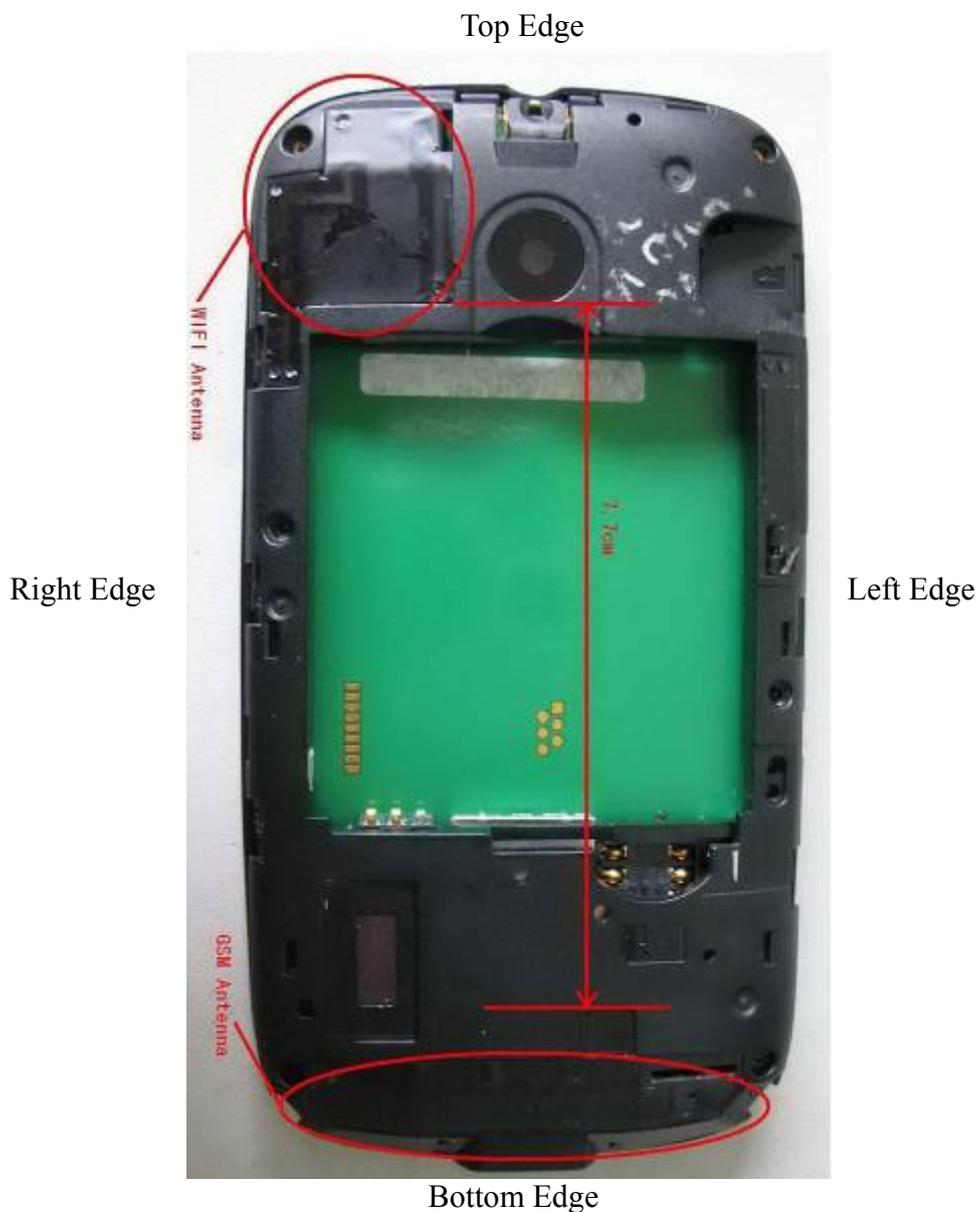
3. Simultaneous transmitter testing to comply with FCC KDB 648474 File Description

4. EUT with Wireless Router Capabilities testing to comply FCC KDB 941225 File

Description

5. WIFI some of the test are done under the maximum output power.

6. SUM SAR values  $0.946 \text{ W/kg} + 0.146 \text{ W/kg} = 1.092 \text{ W/kg}$  lower than  $1.6 \text{ W/kg}$



## Annex A Accreditation Certificate



The image shows a blue-bordered accreditation certificate. At the top center are two logos: a circular logo with 'ILAC-MRA' and a blue oval logo with 'CNAS'. Below the logos is the text 'China National Accreditation Service for Conformity Assessment' and 'LABORATORY ACCREDITATION CERTIFICATE (No. CNAS L3572)'. The certificate states that the service has accredited 'Morlab Laboratory Shenzhen Morlab Communications Technology Co., Ltd.' at '3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, Guangdong, China'. It specifies accreditation to 'ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories)'. The scope of accreditation is detailed in an attached schedule. The certificate includes the date of issue (2008-07-01), date of expiry (2011-06-30), and date of initial accreditation (2008-07-01). A signature is present, followed by the text 'Signed on behalf of China National Accreditation Service for Conformity Assessment'. At the bottom, there is a small paragraph of text about CNAS's authorization and international affiliations.

**China National Accreditation Service for Conformity Assessment**  
**LABORATORY ACCREDITATION CERTIFICATE**  
(No. CNAS L3572 )

*China National Accreditation Service for Conformity Assessment has accredited*  
**Morlab Laboratory Shenzhen Morlab Communications  
Technology Co., Ltd.**  
3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District,  
Shenzhen, Guangdong, China

*to ISO/IEC 17025:2005 General Requirements for the Competence of  
Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria  
for the Competence of Testing and Calibration Laboratories) for the  
competence in the field of testing and/or calibration.*

*The scope of accreditation is detailed in the attached schedule bearing the same  
accreditation number as above. The schedule forms an integral part of this  
certificate.*

Date of Issue: 2008-07-01  
Date of Expiry: 2011-06-30  
Date of Initial Accreditation: 2008-07-01

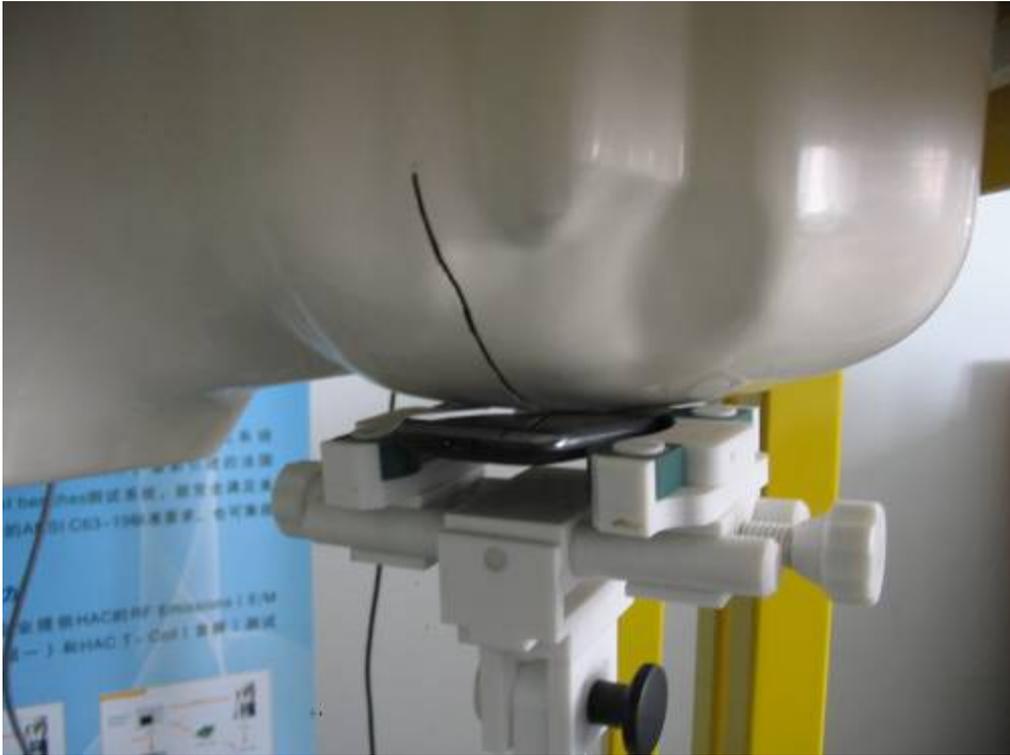


Signed on behalf of China National Accreditation Service  
for Conformity Assessment

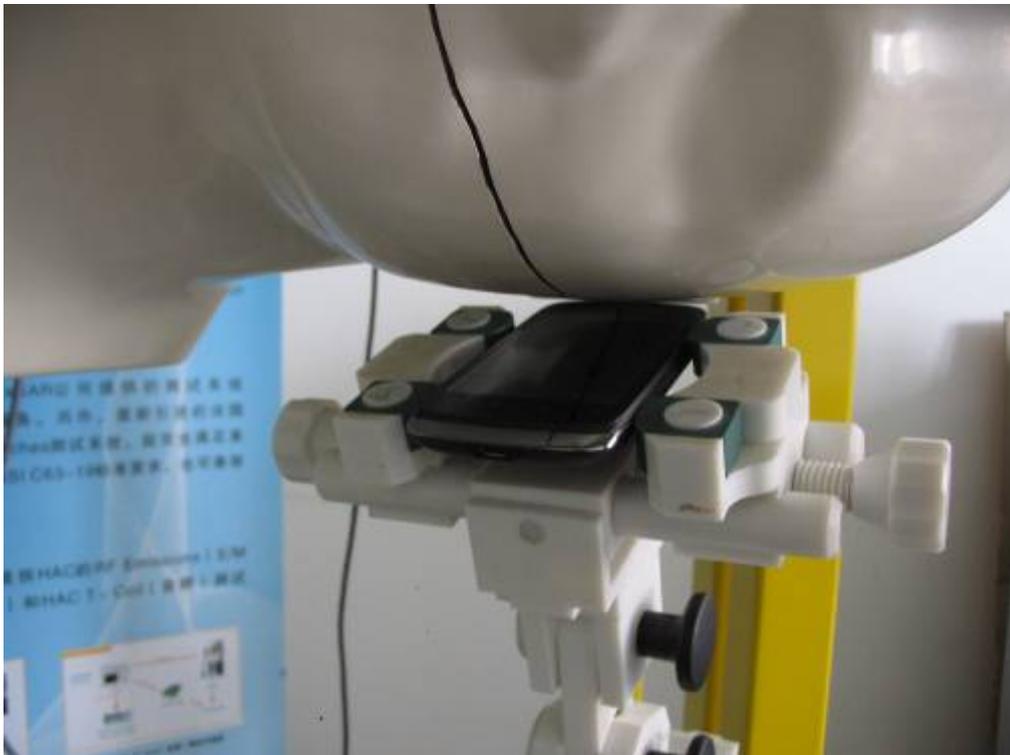
China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CACA) to operate the national accreditation systems for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC-MRA), and the signatory to Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC-MRA).

## Annex B Photographs of the EUT

### 1 EUT Left Head Touch Cheek Position



### 2 EUT Left Head Tilt15 Position



3 EUT Right Head Touch Cheek Position



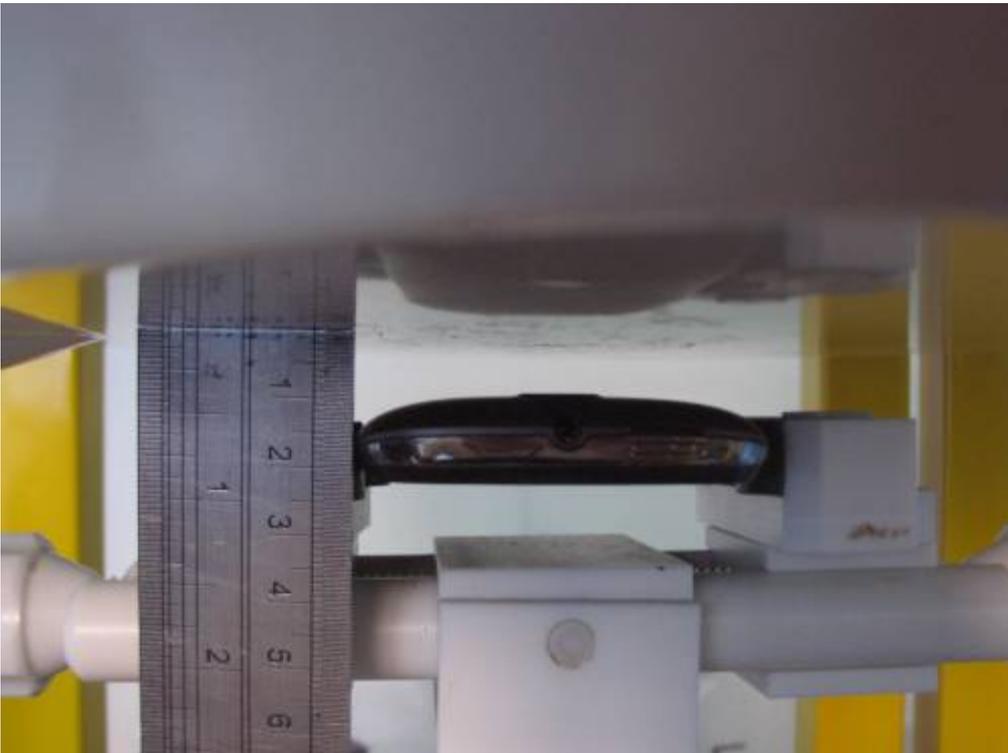
4 EUT Right Head Tilt15 Position



5 Phone 15 mm from Phantom



6 Phone 10 mm from Phantom



7 Top Edge



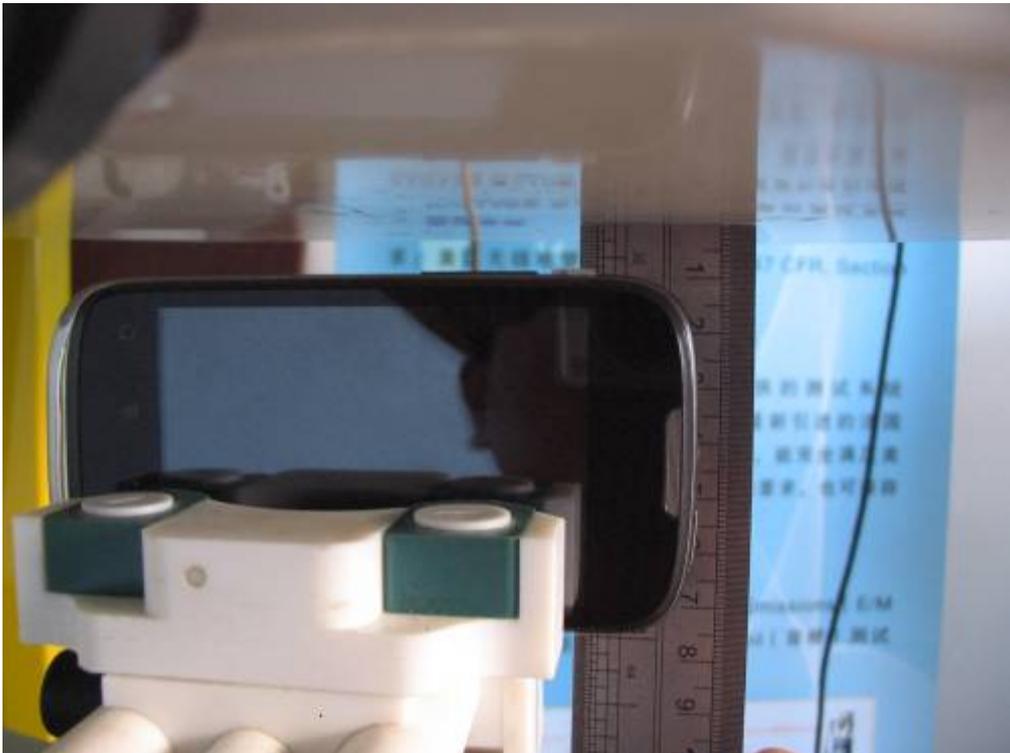
8 Bottom Edge



9 Right Edge



10 Left Edge



Liquid Level Photo



## Annex C Graph Test Results

<u>TYPE</u>	<u>BAND</u>	<u>PARAMETERS</u>
<b>Head Test</b>	<b><u>GSM1900</u></b>	<p><u>Measurement 1:</u> Right Head with Cheek device position on Low Channel in GSM mode</p> <p><u>Measurement 2:</u> Right Head with Cheek device position on Middle Channel in GSM mode</p> <p><u>Measurement 3:</u> Right Head with Cheek device position on High Channel in GSM mode</p> <p><u>Measurement 4:</u> Right Head with Tilt device position on Low Channel in GSM mode</p> <p><u>Measurement 5:</u> Right Head with Tilt device position on Middle Channel in GSM mode</p> <p><u>Measurement 6:</u> Right Head with Tilt device position on High Channel in GSM mode</p> <p><u>Measurement 7:</u> Left Head with Cheek device position on Low Channel in GSM mode</p> <p><u>Measurement 8:</u> Left Head with Cheek device position on Middle Channel in GSM mode</p> <p><u>Measurement 9:</u> Left Head with Cheek device position on High Channel in GSM mode</p> <p><u>Measurement 10:</u> Left Head with Tilt device position on Low Channel in GSM mode</p> <p><u>Measurement 11:</u> Left Head with Tilt device position on Middle Channel in GSM mode</p> <p><u>Measurement 12:</u> Left Head with Tilt device position on High Channel in GSM mode</p>
	<b><u>WIFI</u></b> <b><u>2450MHz</u></b>	<p><u>Measurement 36:</u> Right Head with Cheek device position on Middle Channel in GSM mode</p> <p><u>Measurement 37:</u> Right Head with Tilt device position on Middle Channel in GSM mode</p> <p><u>Measurement 38:</u> Left Head with Cheek device position on Middle Channel in GSM mode</p> <p><u>Measurement 39:</u> Left Head with Tilt device position on Middle Channel in GSM mode</p>

<u>TYPE</u>	<u>BAND</u>	<u>PARAMETERS</u>
<b>Body Worn Test (Phone 15 mm from Phantom)</b>	<b><u>GSM1900</u></b>	<p><u>Measurement 13:</u> Validation Plane with Body device position on Middle Channel in GSM mode</p> <p><u>Measurement 14:</u> Validation Plane with Body device position on Middle Channel in GSM mode</p> <p><u>Measurement 15:</u> Validation Plane with Body device position on Low Channel in GPRS mode</p>

		<u>Measurement 16:</u> Validation Plane with Body device position on Middle Channel in GPRS mode <u>Measurement 17:</u> Validation Plane with Body device position on High Channel in GPRS mode <u>Measurement 18:</u> Validation Plane with Body device position on Low Channel in GPRS mode <u>Measurement 19:</u> Validation Plane with Body device position on Middle Channel in EDGE mode <u>Measurement 20:</u> Validation Plane with Body device position on Middle Channel in EDGE mode
	<b><u>WIFI</u></b> <b><u>2450MHz</u></b>	<u>Measurement 21:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode <u>Measurement 22:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode

<b><u>TYPE</u></b>	<b><u>BAND</u></b>	<b><u>PARAMETERS</u></b>
<b>Mobile Hotspot Test (Phone 10 mm from Phantom)</b>	<b><u>GSM1900</u></b>	<u>Measurement 23:</u> Validation Plane with Body device position on Low Channel in GPRS mode <u>Measurement 24:</u> Validation Plane with Body device position on Middle Channel in GPRS mode <u>Measurement 25:</u> Validation Plane with Body device position on High Channel in GPRS mode <u>Measurement 26:</u> Validation Plane with Body device position on Low Channel in GPRS mode <u>Measurement 27:</u> Validation Plane with Body device position on Low Channel in GPRS mode <u>Measurement 28:</u> Validation Plane with Body device position on Low Channel in GPRS mode <u>Measurement 29:</u> Validation Plane with Body device position on Low Channel in GPRS mode
	<b><u>WIFI</u></b> <b><u>2450MHz</u></b>	<u>Measurement 30:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode <u>Measurement 31:</u> Validation Plane with Body device position on Low Channel in WIFI 802.11b mode <u>Measurement 32:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode <u>Measurement 33:</u> Validation Plane with Body device position on High Channel in WIFI 802.11b mode <u>Measurement 34:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode <u>Measurement 35:</u> Validation Plane with Body device position on Middle Channel in WIFI 802.11b mode

# MEASUREMENT 1

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 13 seconds

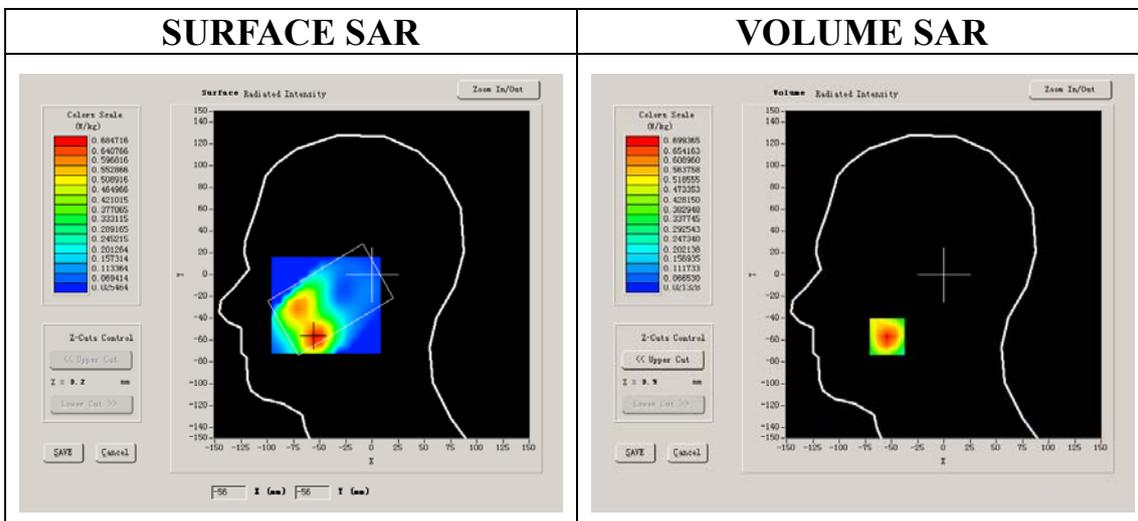
## A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

## B. SAR Measurement Results

Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	39.993999
<b>Relative permittivity</b>	12.991650
<b>Conductivity (S/m)</b>	1.335397
<b>Power Drift (%)</b>	-0.210000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



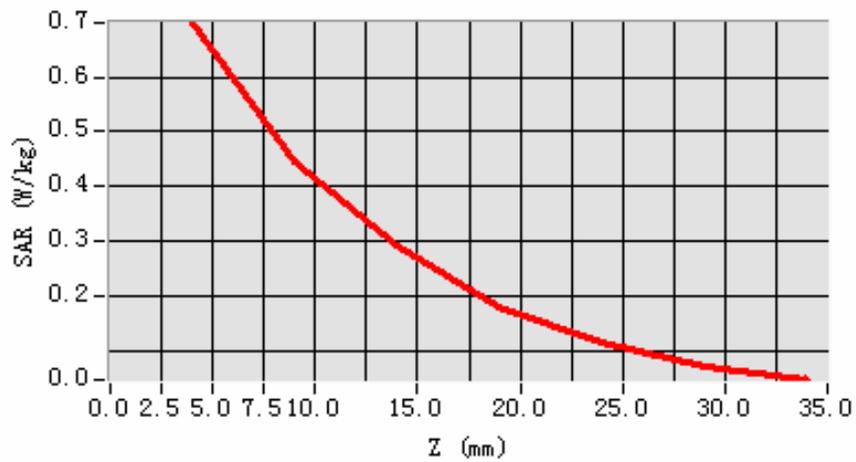
**Maximum location: X=-54.00, Y=-57.00**

<b>SAR 10g (W/Kg)</b>	0.393158
<b>SAR 1g (W/Kg)</b>	0.661243

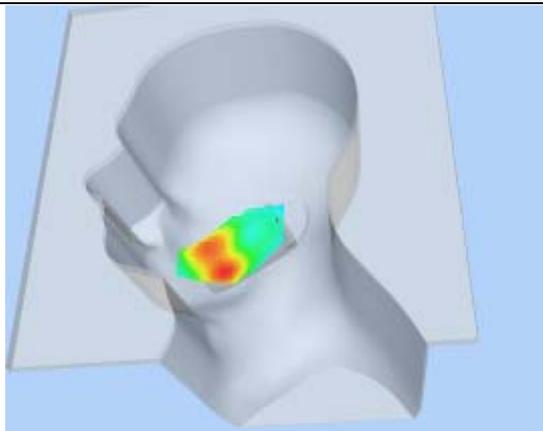
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.6994</b>	<b>0.4444</b>	<b>0.2898</b>	<b>0.1796</b>	<b>0.1147</b>	<b>0.0710</b>

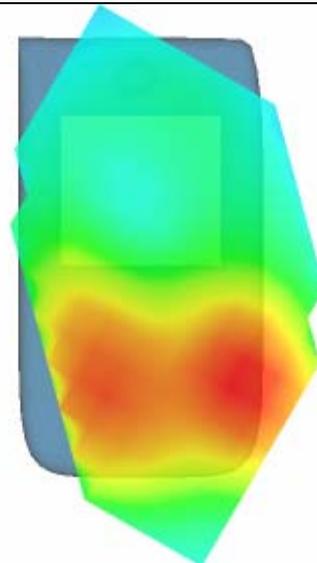
**SAR, Z Axis Scan (X = -54, Y = -57)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 2

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 13 seconds

### A. Experimental conditions.

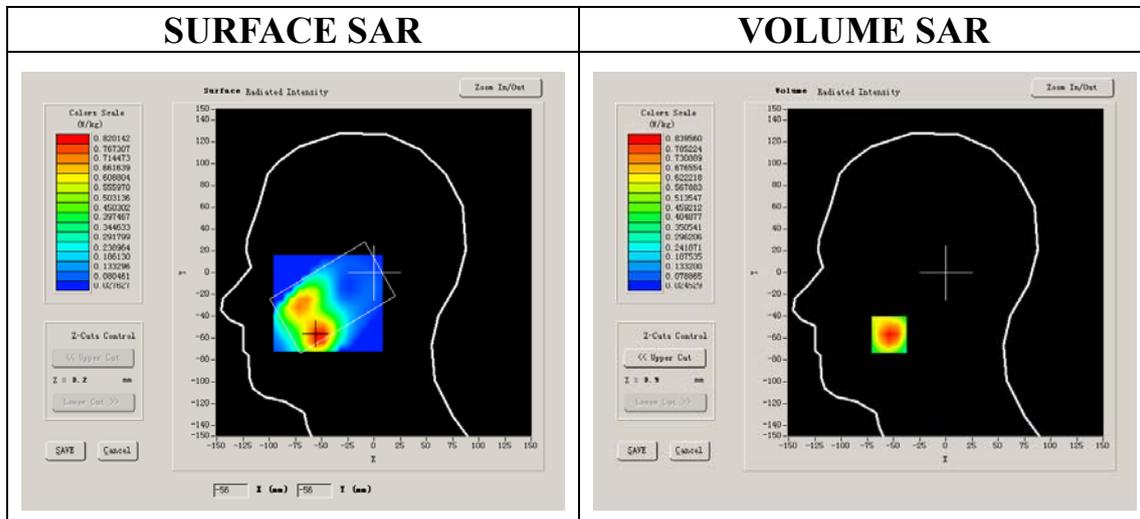
<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. SAR Measurement Results

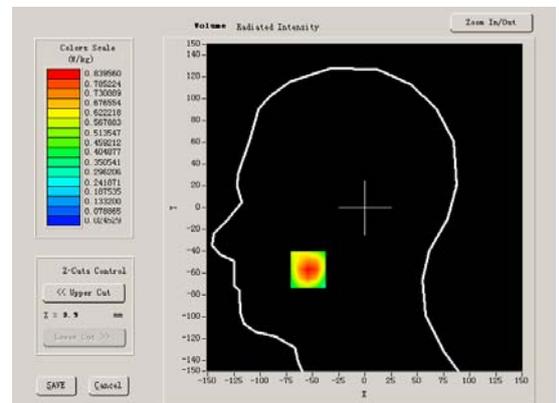
Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	38.509998
<b>Relative permittivity</b>	13.750000
<b>Conductivity (S/m)</b>	1.436111
<b>Power Drift (%)</b>	-0.130000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8

#### SURFACE SAR



#### VOLUME SAR



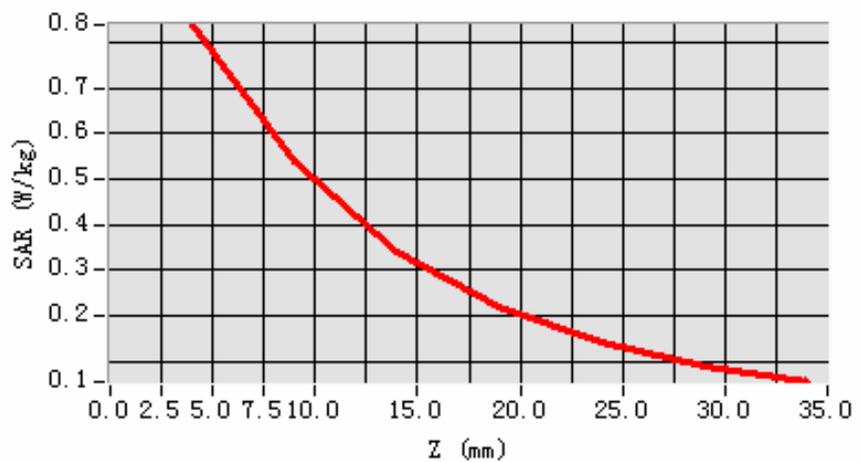
**Maximum location: X=-54.00, Y=-57.00**

<b>SAR 10g (W/Kg)</b>	0.478687
<b>SAR 1g (W/Kg)</b>	0.803267

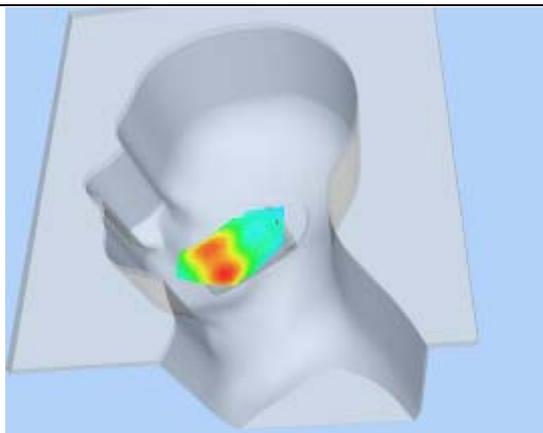
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.8396</b>	<b>0.5368</b>	<b>0.3419</b>	<b>0.2194</b>	<b>0.1429</b>	<b>0.0877</b>

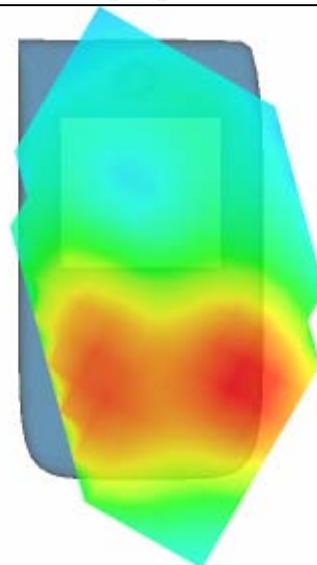
**SAR, Z Axis Scan (X = -54, Y = -57)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 3

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 2 seconds

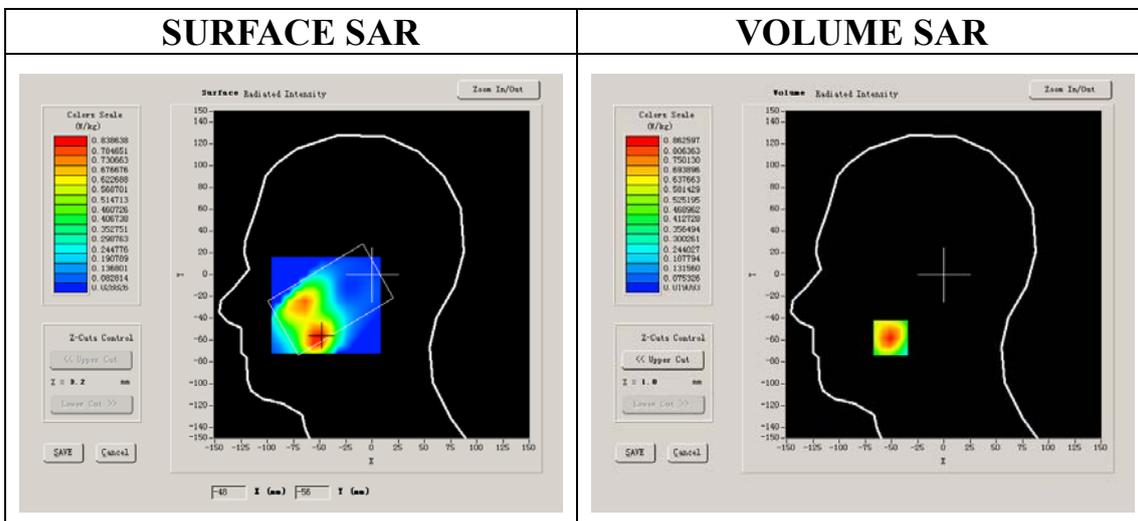
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	39.929001
<b>Relative permittivity</b>	13.156500
<b>Conductivity (S/m)</b>	1.395905
<b>Power Drift (%)</b>	-1.130000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



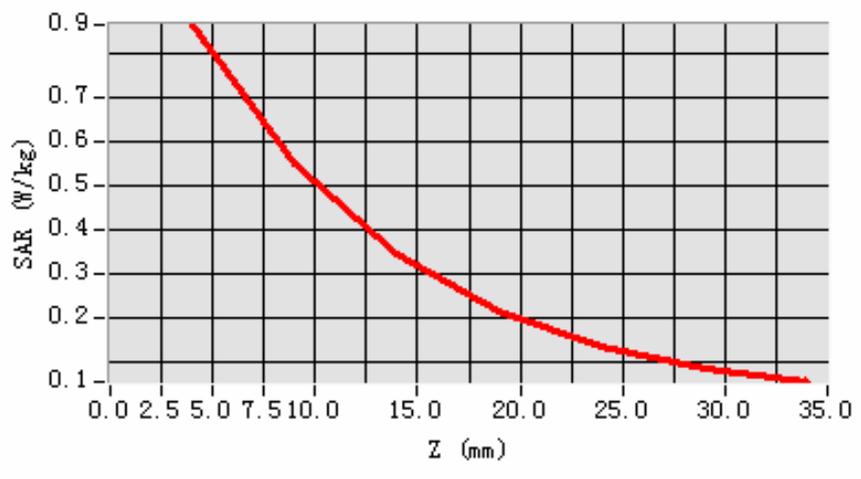
**Maximum location: X=-51.00, Y=-58.00**

<b>SAR 10g (W/Kg)</b>	0.479335
<b>SAR 1g (W/Kg)</b>	0.813945

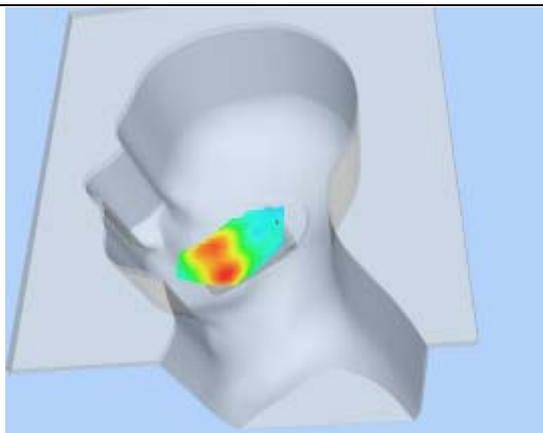
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.8626</b>	<b>0.5458</b>	<b>0.3455</b>	<b>0.2126</b>	<b>0.1341</b>	<b>0.0817</b>

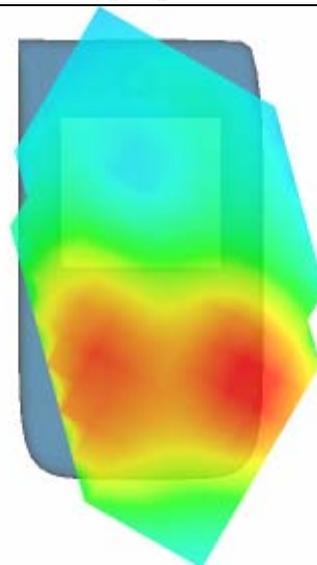
**SAR, Z Axis Scan (X = -51, Y = -58)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 4

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 7 minutes 24 seconds

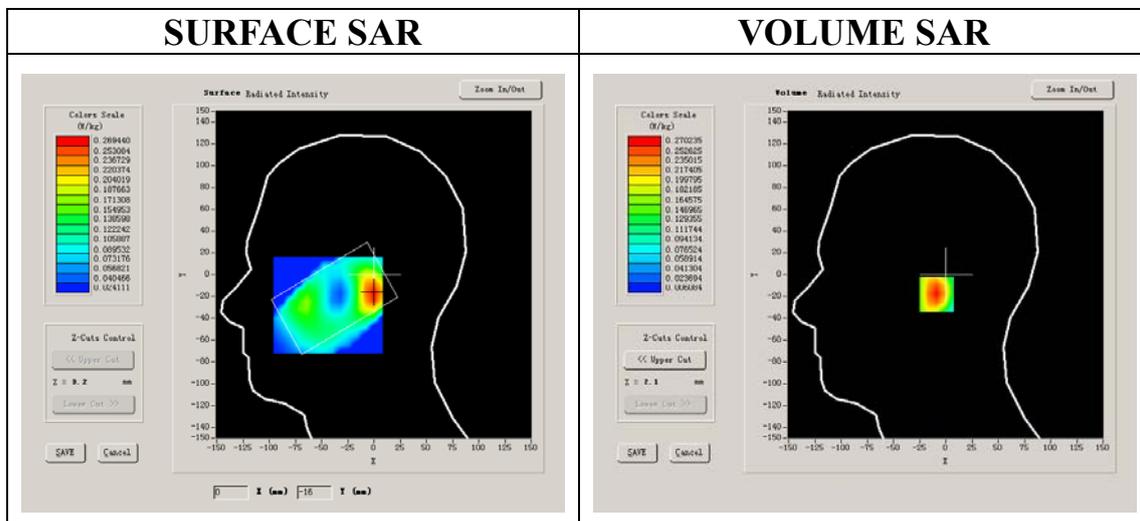
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	39.993999
<b>Relative permittivity</b>	12.991650
<b>Conductivity (S/m)</b>	1.335397
<b>Power Drift (%)</b>	0.030000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



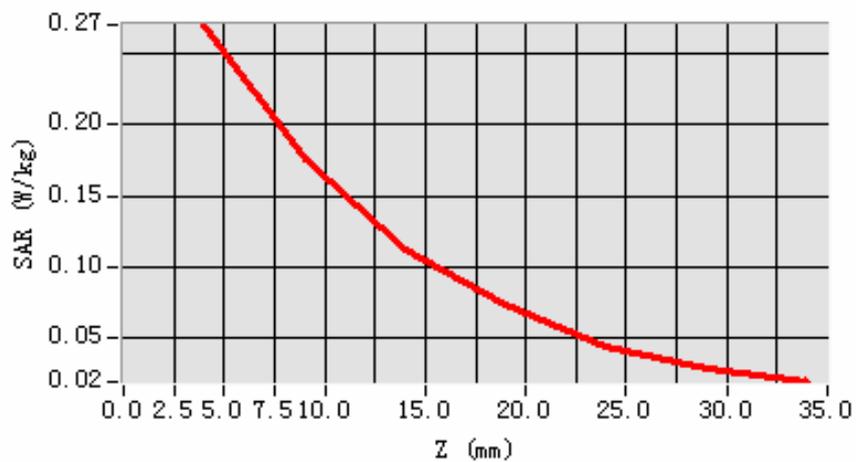
**Maximum location: X=0.00, Y=-18.00**

<b>SAR 10g (W/Kg)</b>	0.153318
<b>SAR 1g (W/Kg)</b>	0.254957

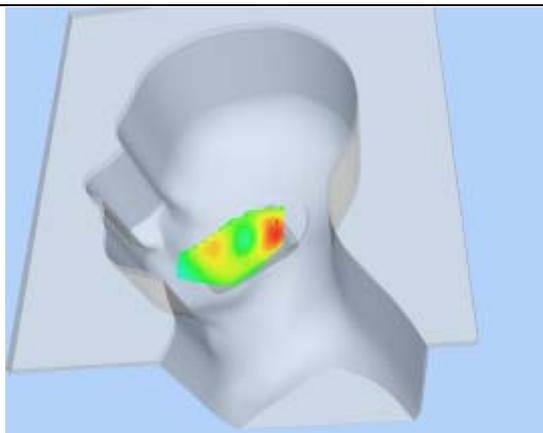
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.2702	0.1756	0.1124	0.0728	0.0436	0.0288

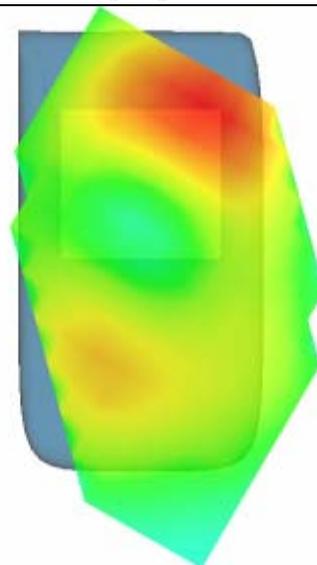
**SAR, Z Axis Scan (X = 0, Y = -18)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 5

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 7 minutes 26 seconds

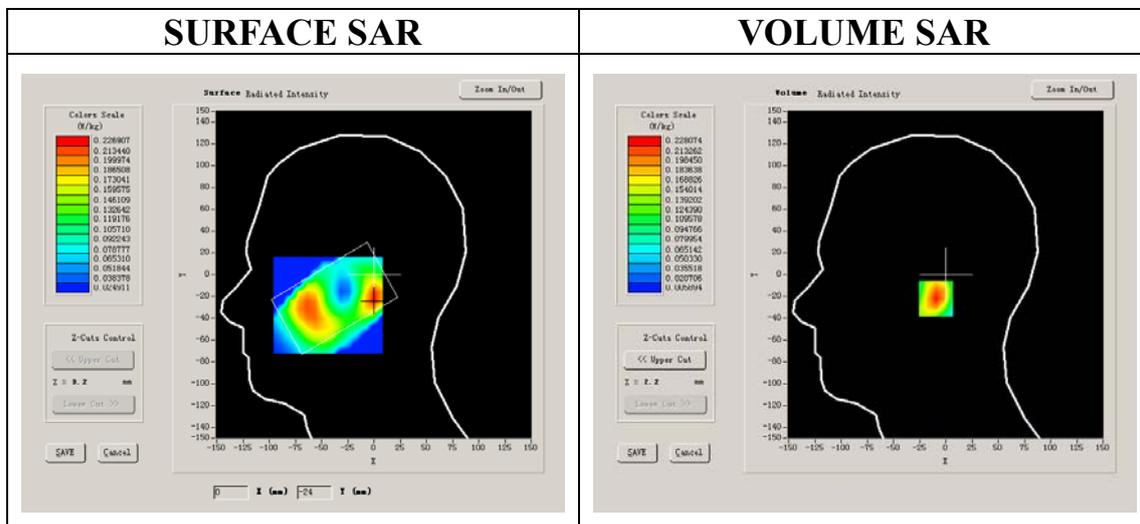
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	38.509998
<b>Relative permittivity</b>	13.750000
<b>Conductivity (S/m)</b>	1.436111
<b>Power Drift (%)</b>	-1.090000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



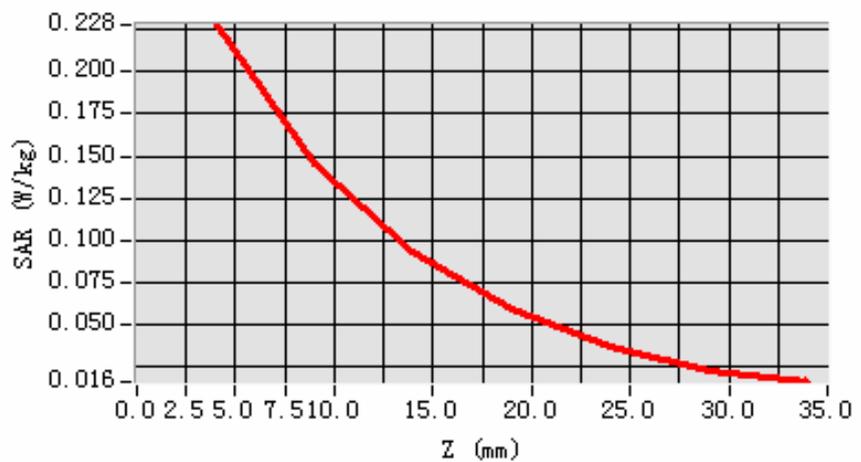
**Maximum location: X=0.00, Y=-22.00**

<b>SAR 10g (W/Kg)</b>	0.124988
<b>SAR 1g (W/Kg)</b>	0.213295

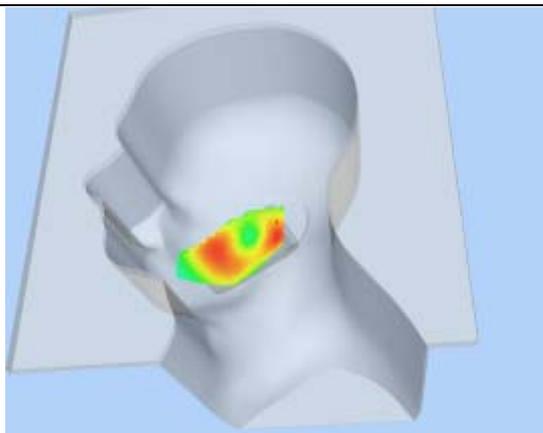
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2281</b>	<b>0.1458</b>	<b>0.0931</b>	<b>0.0594</b>	<b>0.0370</b>	<b>0.0215</b>

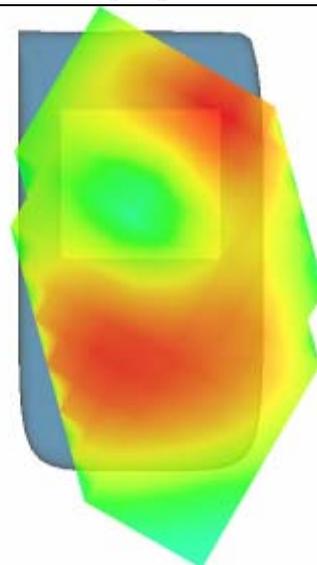
**SAR, Z Axis Scan (X = 0, Y = -22)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 6

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 0 seconds

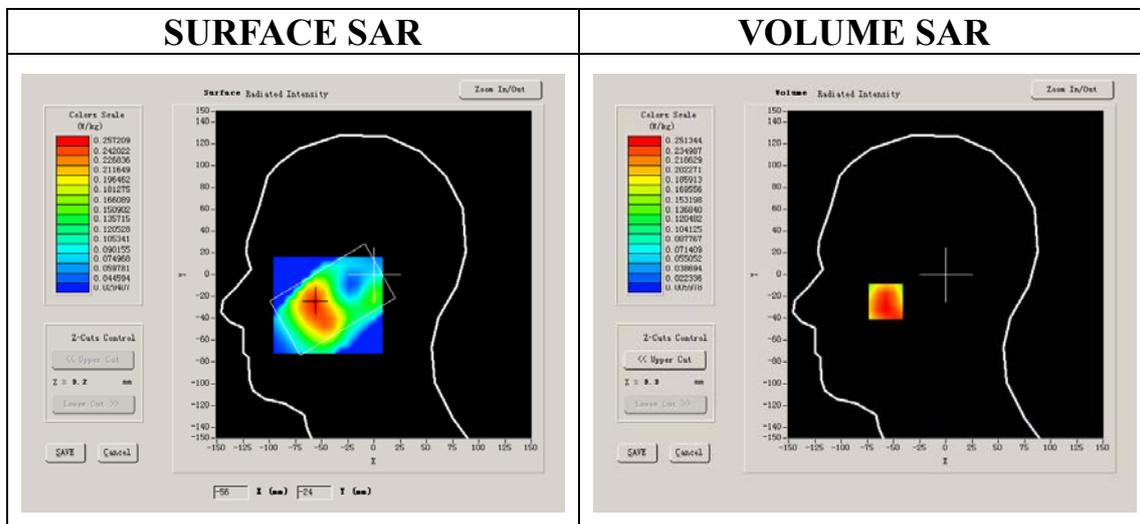
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	39.929001
<b>Relative permittivity</b>	13.156500
<b>Conductivity (S/m)</b>	1.395905
<b>Power Drift (%)</b>	-0.050000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



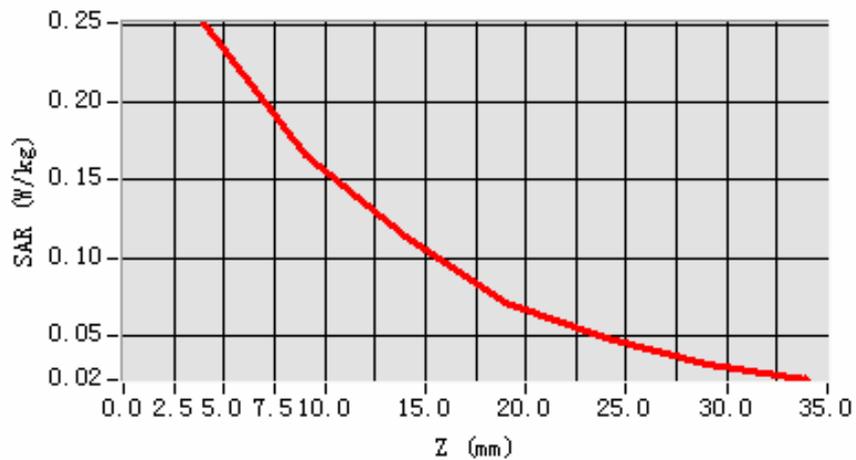
**Maximum location: X=-57.00, Y=-25.00**

<b>SAR 10g (W/Kg)</b>	0.158141
<b>SAR 1g (W/Kg)</b>	0.243103

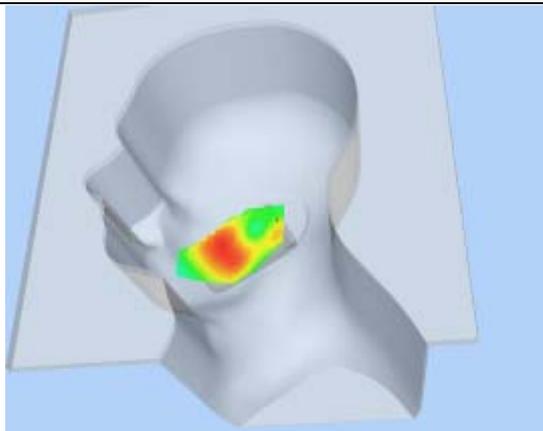
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2509</b>	<b>0.1656</b>	<b>0.1136</b>	<b>0.0713</b>	<b>0.0490</b>	<b>0.0321</b>

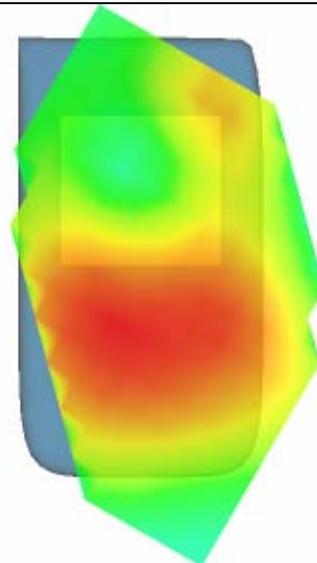
**SAR, Z Axis Scan (X = -57, Y = -25)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 7

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 10 seconds

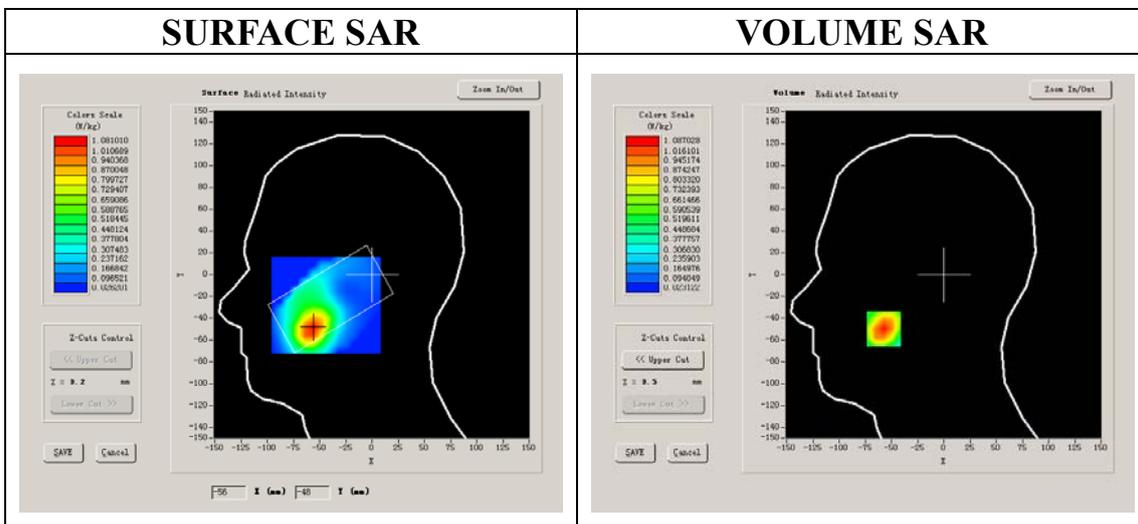
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.446240
<b>Power Drift (%)</b>	-0.310000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



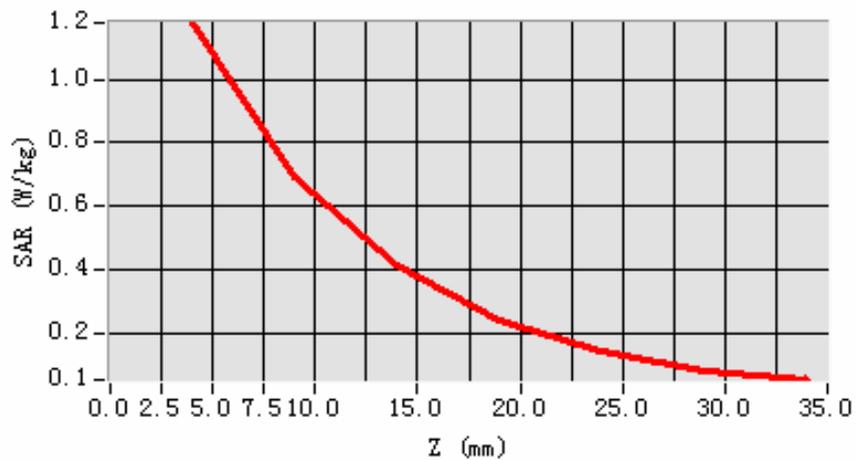
**Maximum location: X=-57.00, Y=-50.00**

<b>SAR 10g (W/Kg)</b>	0.631462
<b>SAR 1g (W/Kg)</b>	1.111516

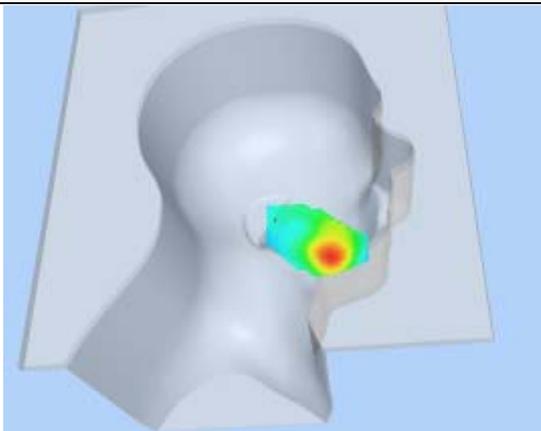
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	1.1773	0.6914	0.4120	0.2397	0.1452	0.0859

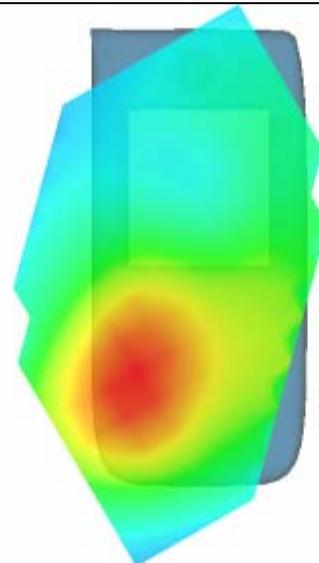
**SAR, Z Axis Scan (X = -57, Y = -50)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 8

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 9 seconds

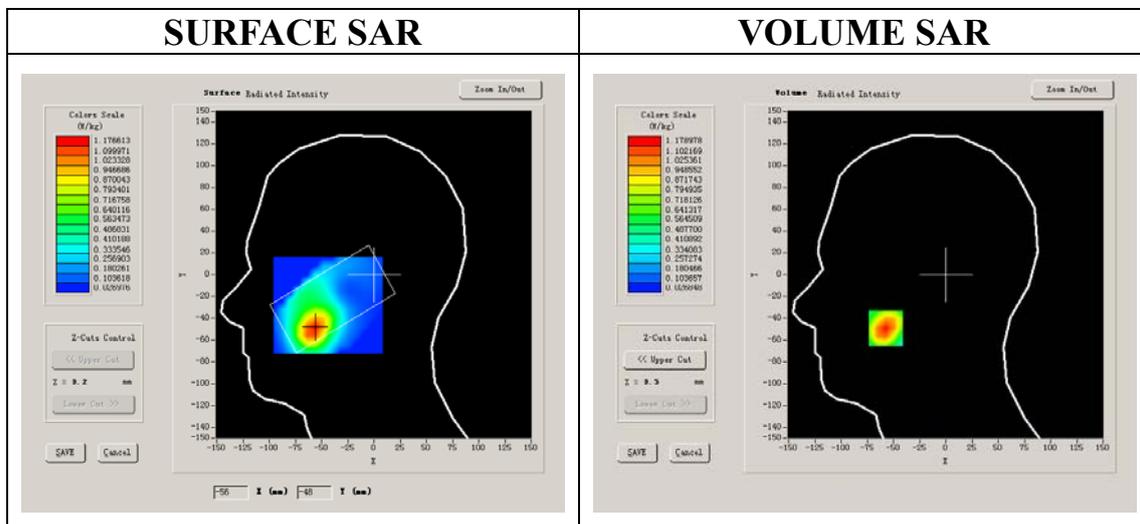
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.540000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



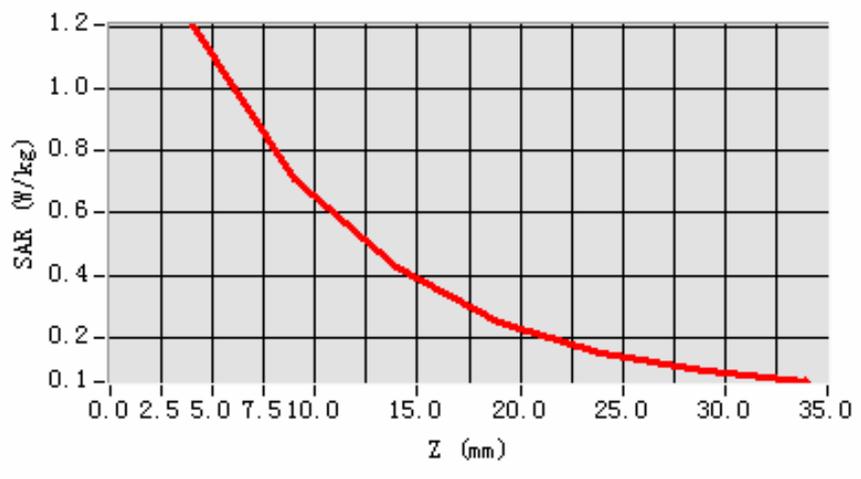
**Maximum location: X=-57.00, Y=-49.00**

<b>SAR 10g (W/Kg)</b>	0.644063
<b>SAR 1g (W/Kg)</b>	1.140389

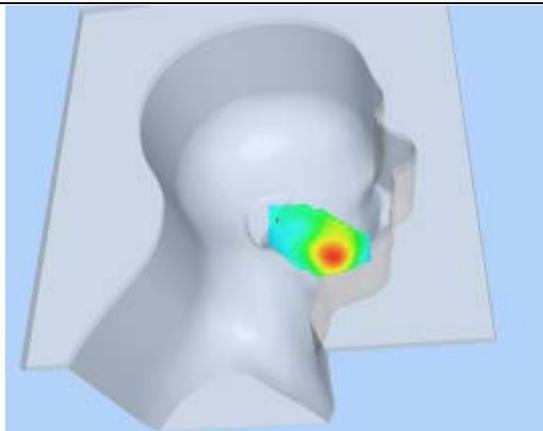
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>1.2064</b>	<b>0.7110</b>	<b>0.4235</b>	<b>0.2510</b>	<b>0.1496</b>	<b>0.0882</b>

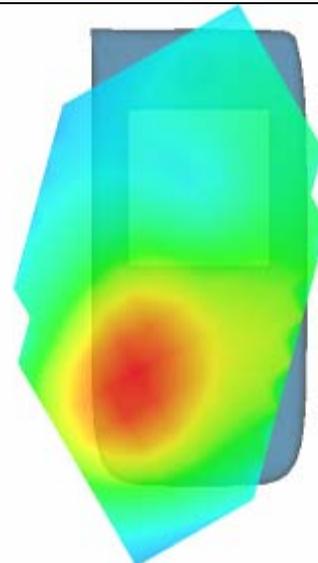
**SAR, Z Axis Scan (X = -57, Y = -49)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 9

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 8 minutes 11 seconds

### A. Experimental conditions.

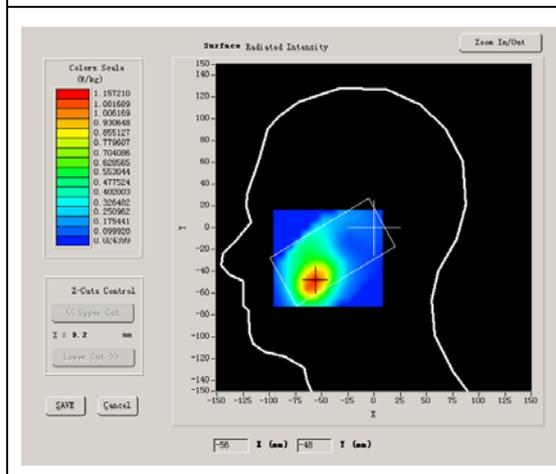
<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. SAR Measurement Results

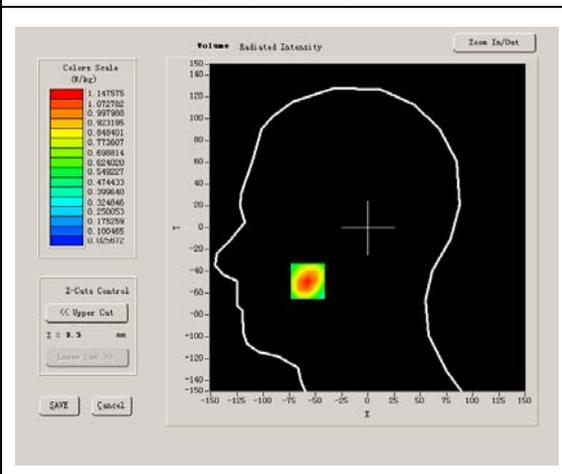
Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.492827
<b>Power Drift (%)</b>	-1.140000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8

#### SURFACE SAR



#### VOLUME SAR



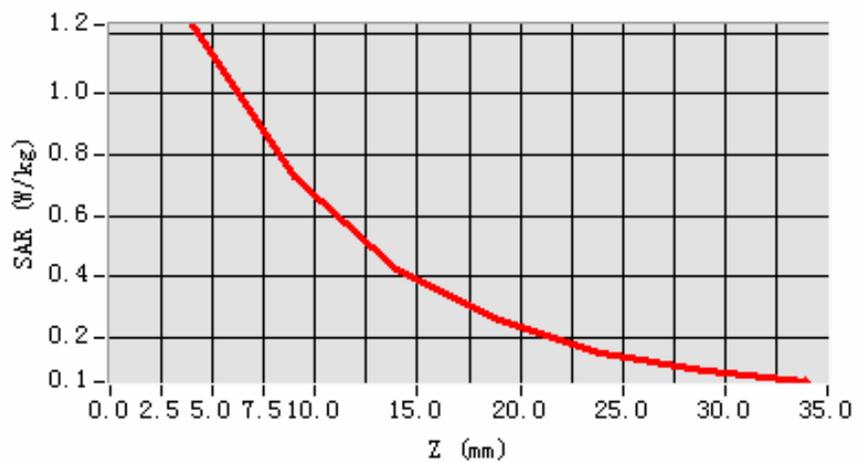
**Maximum location: X=-57.00, Y=-49.00**

<b>SAR 10g (W/Kg)</b>	0.657878
<b>SAR 1g (W/Kg)</b>	1.167666

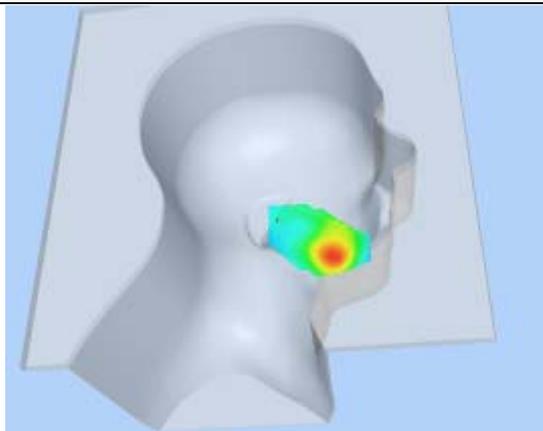
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	1.2273	0.7259	0.4228	0.2596	0.1514	0.0882

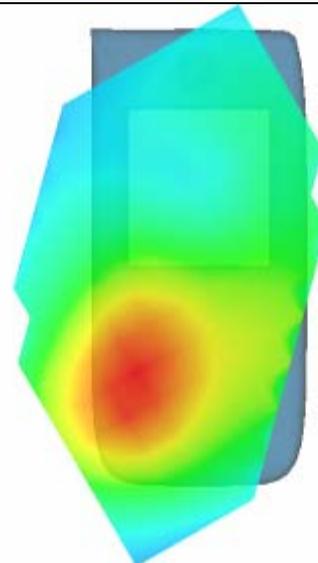
**SAR, Z Axis Scan (X = -57, Y = -49)**



**3D seen shot**



**Hot spot position**



# MEASUREMENT 10

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 7 minutes 19 seconds

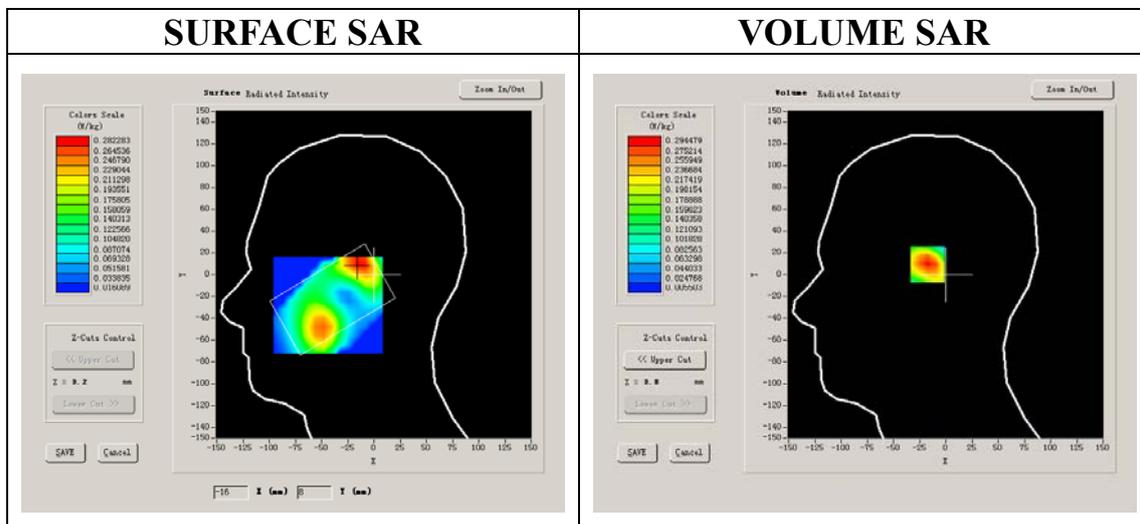
## A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

## B. SAR Measurement Results

Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	39.993999
<b>Relative permittivity</b>	12.991650
<b>Conductivity (S/m)</b>	1.335397
<b>Power Drift (%)</b>	0.420000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



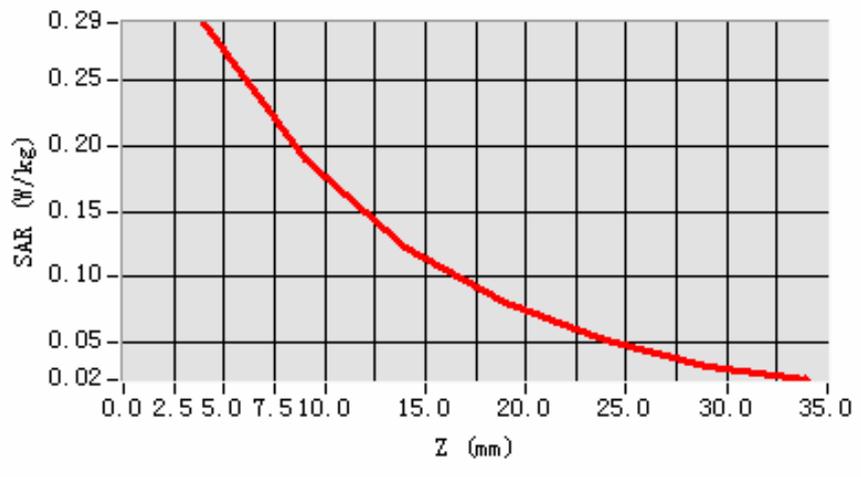
**Maximum location: X=-14.00, Y=10.00**

<b>SAR 10g (W/Kg)</b>	0.166196
<b>SAR 1g (W/Kg)</b>	0.281685

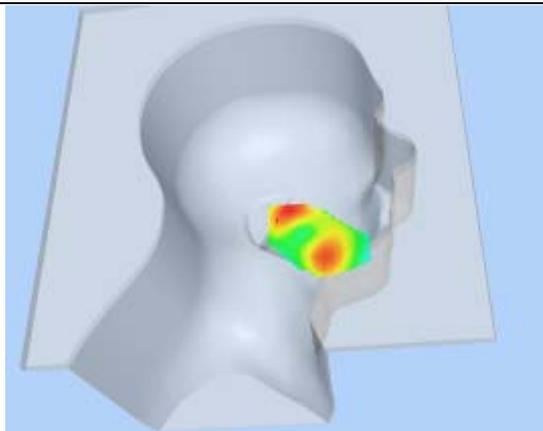
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2945</b>	<b>0.1894</b>	<b>0.1227</b>	<b>0.0804</b>	<b>0.0524</b>	<b>0.0320</b>

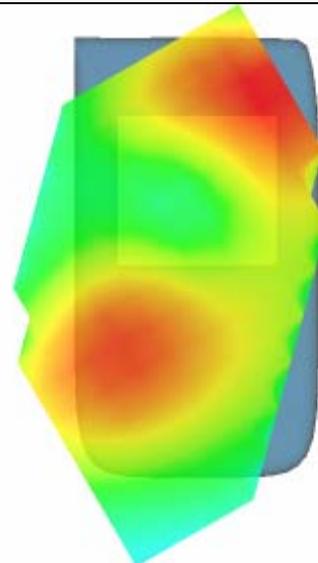
**SAR, Z Axis Scan (X = -14, Y = 10)**



**3D seen shot**



**Hot spot position**



# MEASUREMENT 11

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 7 minutes 56 seconds

## A. Experimental conditions.

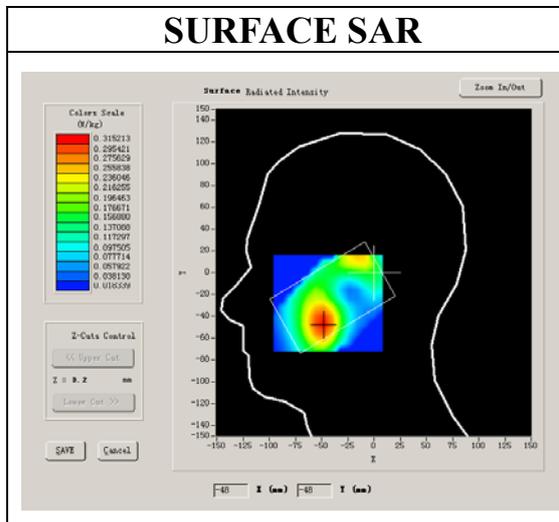
<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

## B. SAR Measurement Results

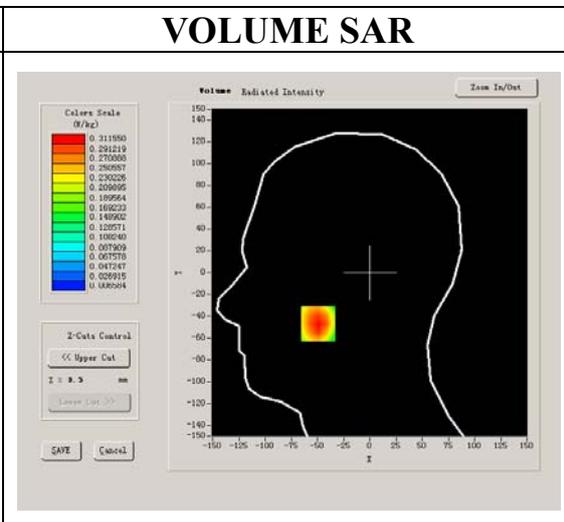
Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	38.509998
<b>Relative permittivity</b>	13.750000
<b>Conductivity (S/m)</b>	1.436111
<b>Power Drift (%)</b>	-0.110000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8

### SURFACE SAR



### VOLUME SAR



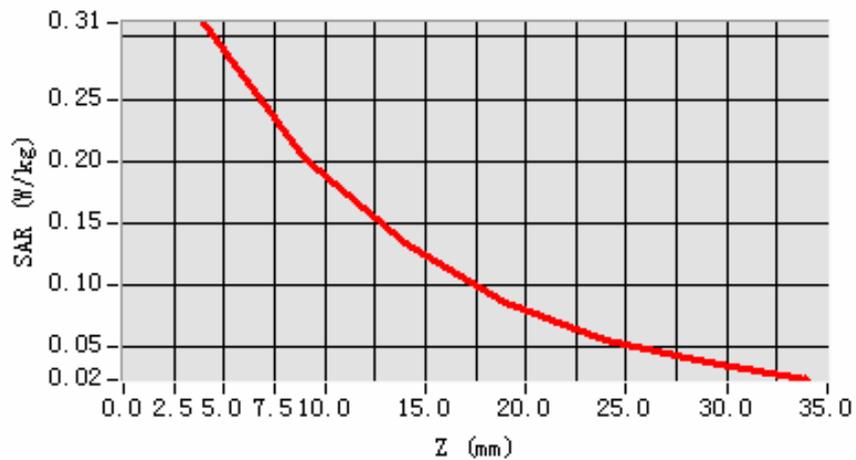
**Maximum location: X=-49.00, Y=-47.00**

<b>SAR 10g (W/Kg)</b>	0.184934
<b>SAR 1g (W/Kg)</b>	0.298047

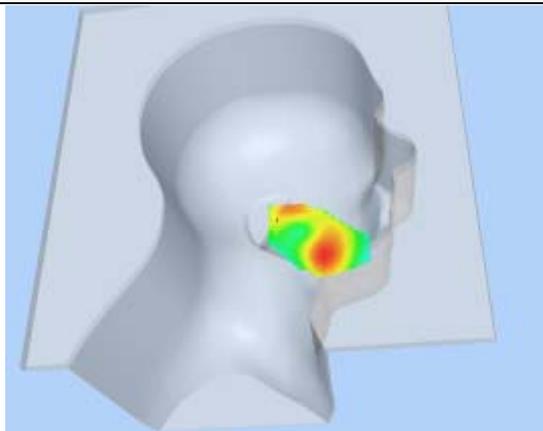
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.3115</b>	<b>0.2014</b>	<b>0.1328</b>	<b>0.0861</b>	<b>0.0558</b>	<b>0.0372</b>

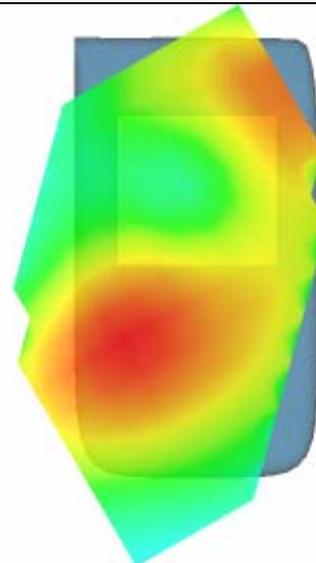
**SAR, Z Axis Scan (X = -49, Y = -47)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 12

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 7 minutes 51 seconds

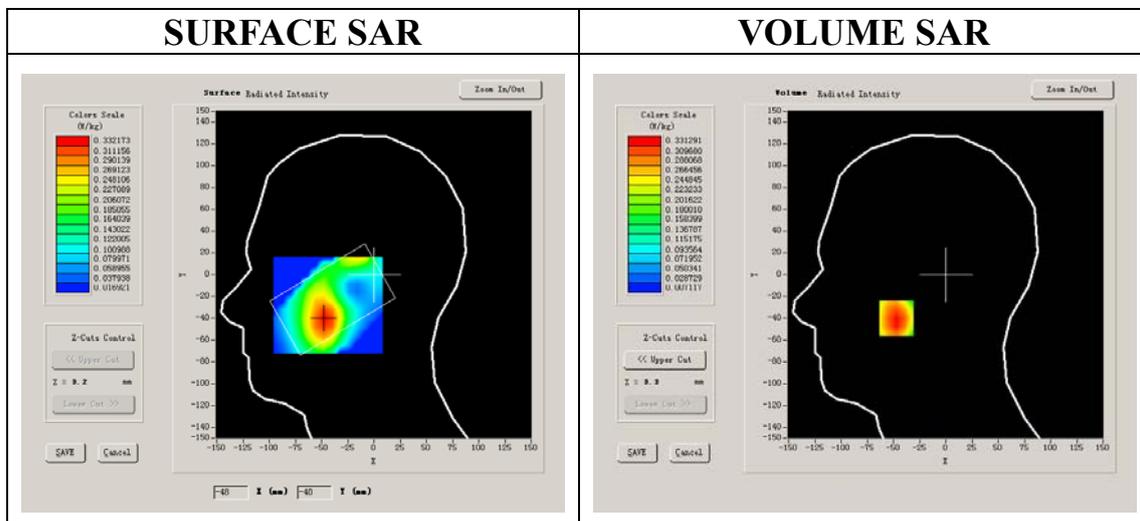
### A. Experimental conditions.

<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	39.929001
<b>Relative permittivity</b>	13.156500
<b>Conductivity (S/m)</b>	1.395905
<b>Power Drift (%)</b>	-1.290000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



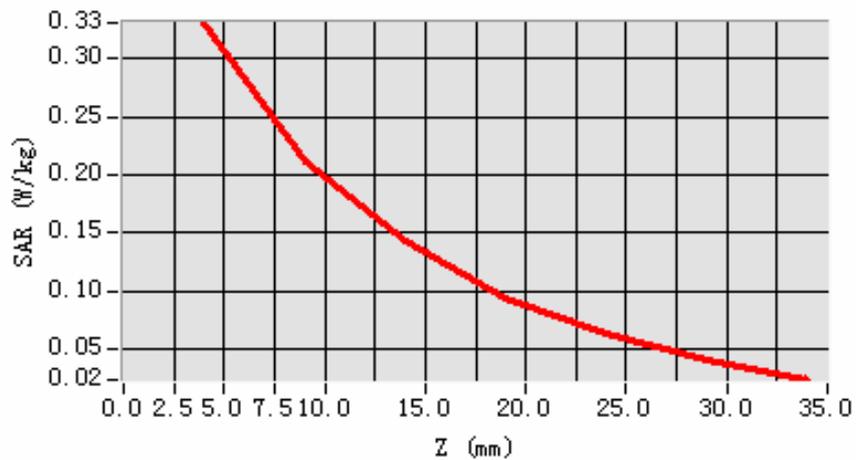
**Maximum location: X=-47.00, Y=-40.00**

<b>SAR 10g (W/Kg)</b>	0.199665
<b>SAR 1g (W/Kg)</b>	0.319300

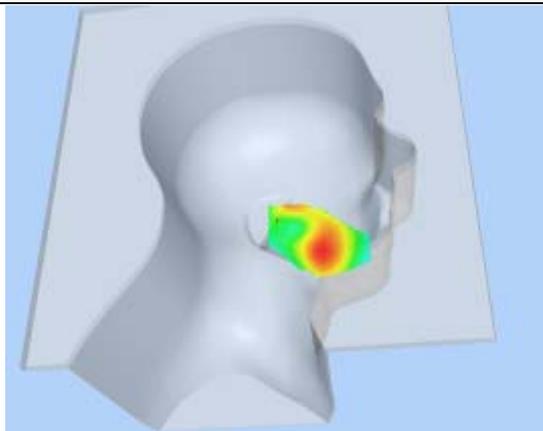
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.3313</b>	<b>0.2121</b>	<b>0.1437</b>	<b>0.0941</b>	<b>0.0624</b>	<b>0.0395</b>

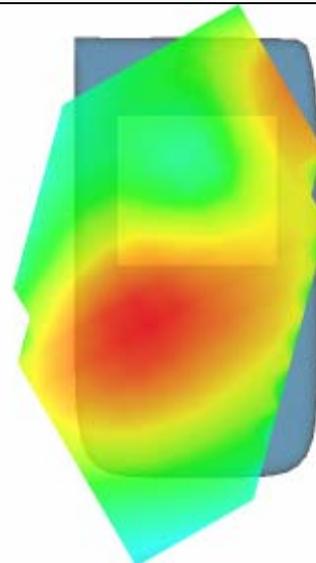
**SAR, Z Axis Scan (X = -47, Y = -40)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 13

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 6 seconds

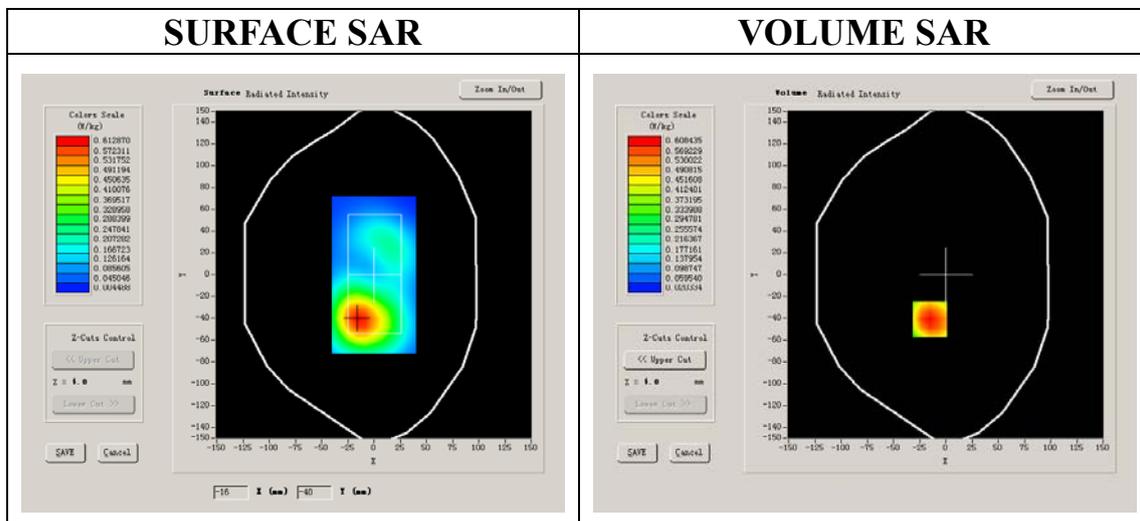
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.446240
<b>Power Drift (%)</b>	-0.420000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



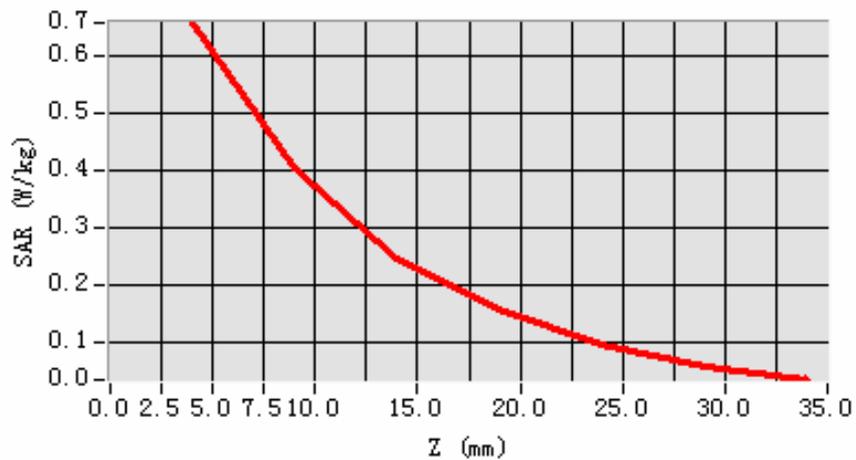
**Maximum location: X=-15.00, Y=-41.00**

<b>SAR 10g (W/Kg)</b>	0.384638
<b>SAR 1g (W/Kg)</b>	0.634505

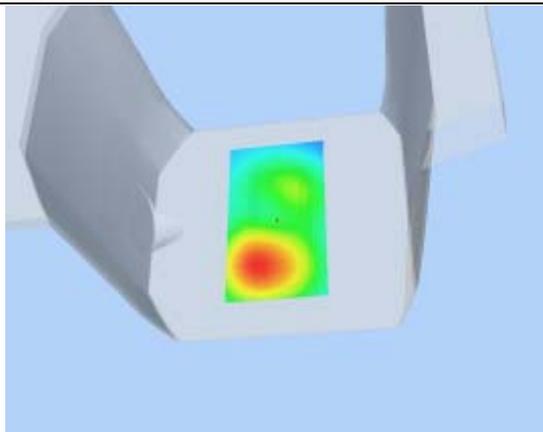
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.6589	0.4035	0.2489	0.1587	0.0975	0.0603

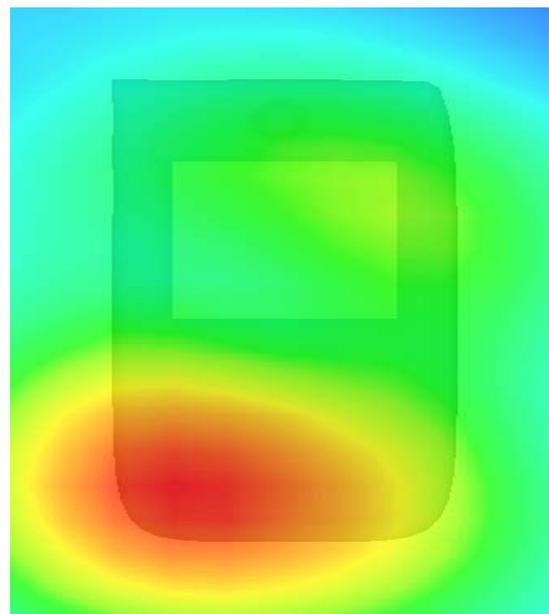
**SAR, Z Axis Scan (X = -15, Y = -41)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 14

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 6 seconds

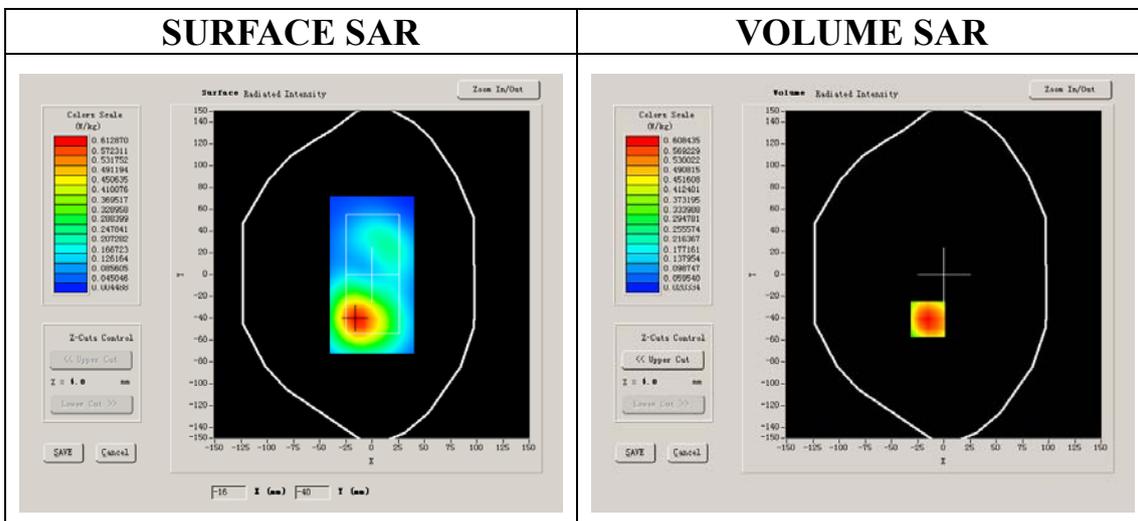
## A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

## B. SAR Measurement Results

Lower Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.446240
<b>Power Drift (%)</b>	-0.420000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



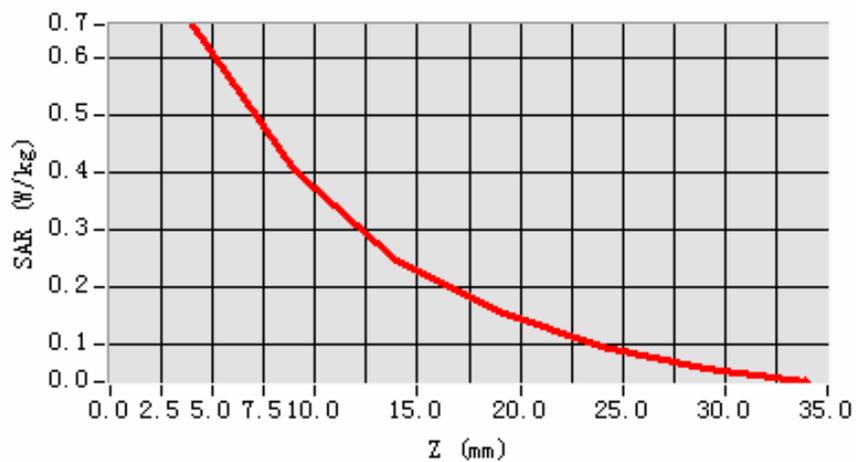
**Maximum location: X=-15.00, Y=-41.00**

<b>SAR 10g (W/Kg)</b>	0.231745
<b>SAR 1g (W/Kg)</b>	0.451664

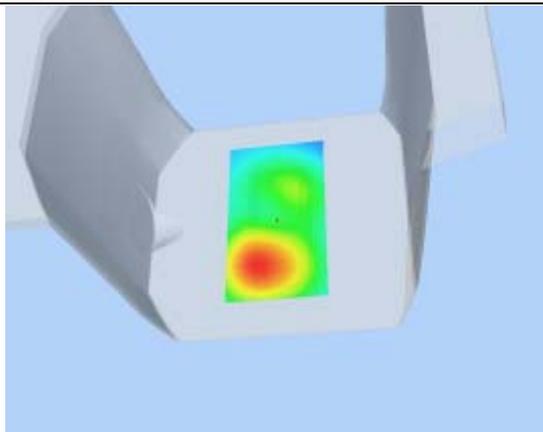
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.6589	0.4035	0.2489	0.1587	0.0975	0.0603

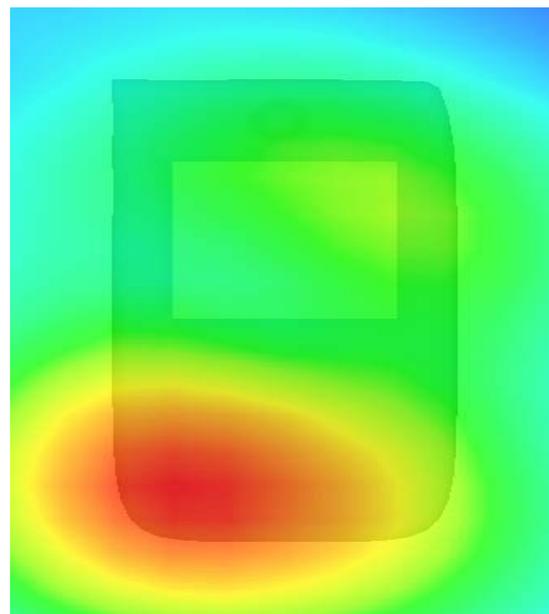
**SAR, Z Axis Scan (X = -15, Y = -41)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 15

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 13 seconds

### A. Experimental conditions.

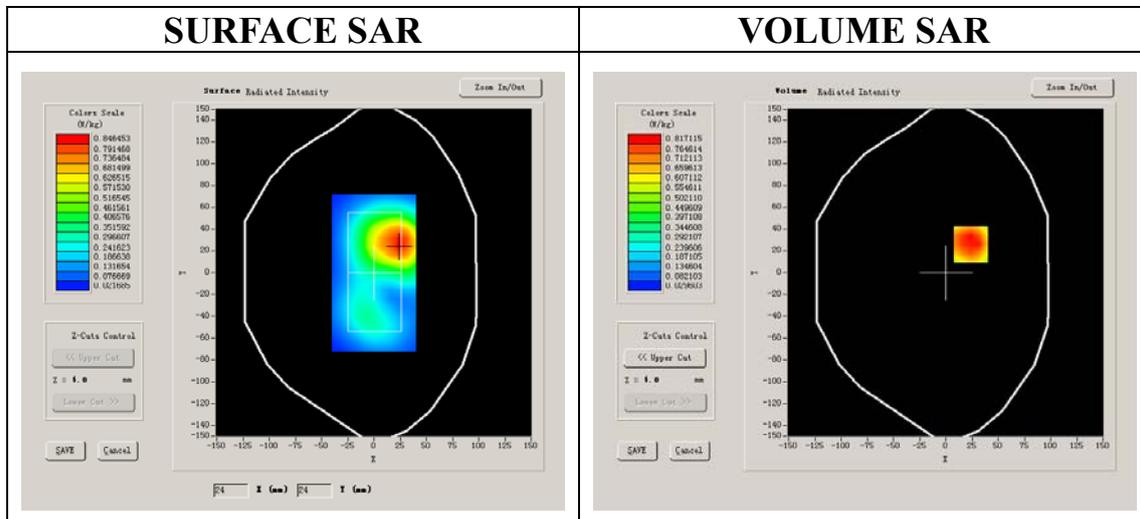
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

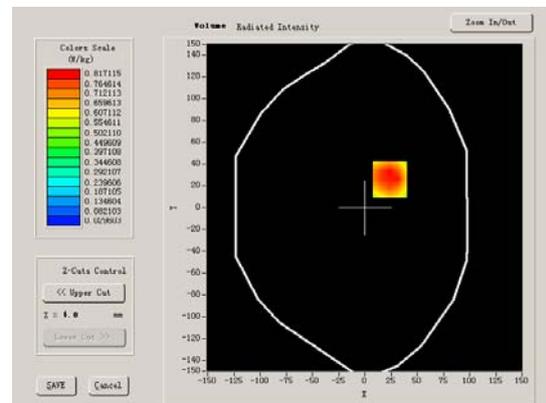
Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.446240
<b>Power Drift (%)</b>	-2.020000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4

#### SURFACE SAR



#### VOLUME SAR



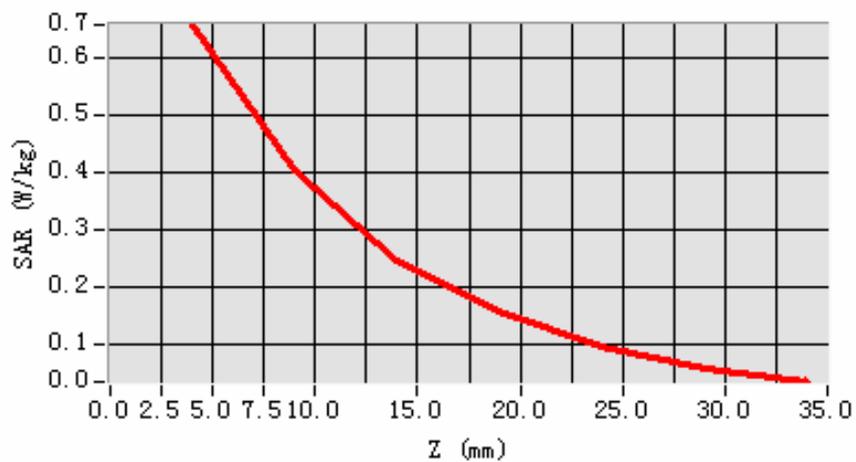
**Maximum location: X=24.00, Y=26.00**

<b>SAR 10g (W/Kg)</b>	0.523499
<b>SAR 1g (W/Kg)</b>	0.883371

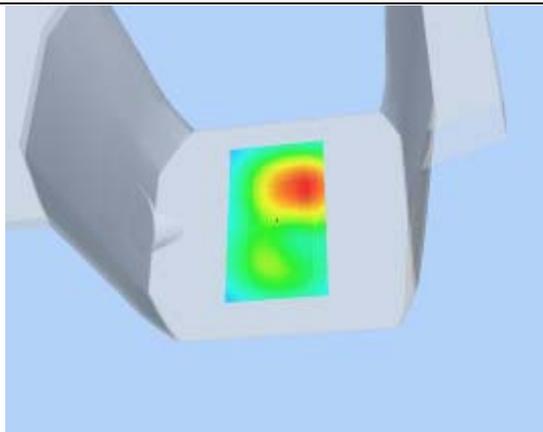
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.8658	0.5534	0.0326	0.2182	0.1374	0.0842

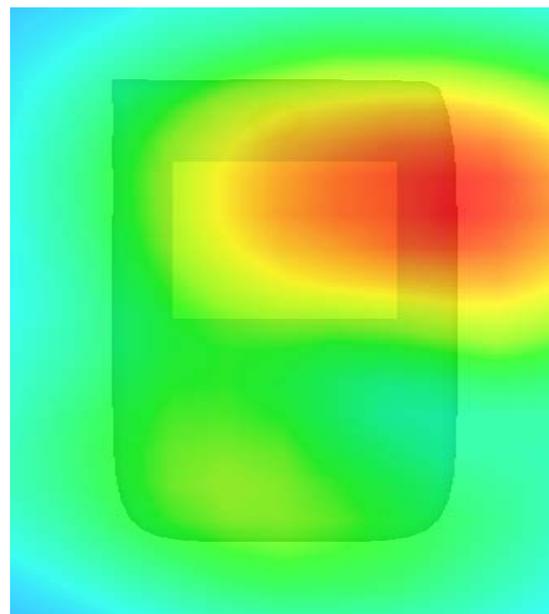
**SAR, Z Axis Scan (X = -15, Y = -41)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 16

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 7 seconds

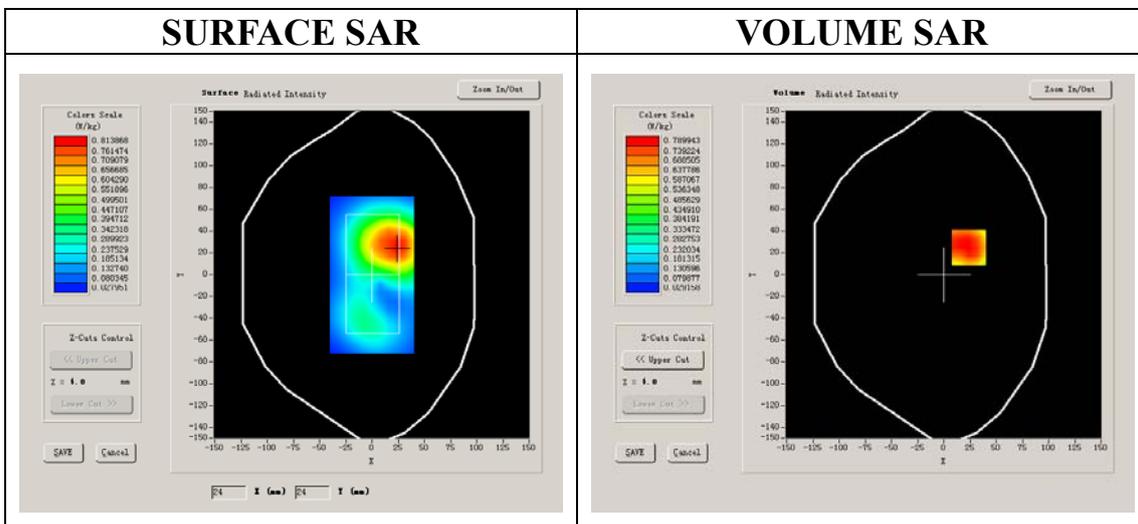
## A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GPRS

## B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-1.200000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



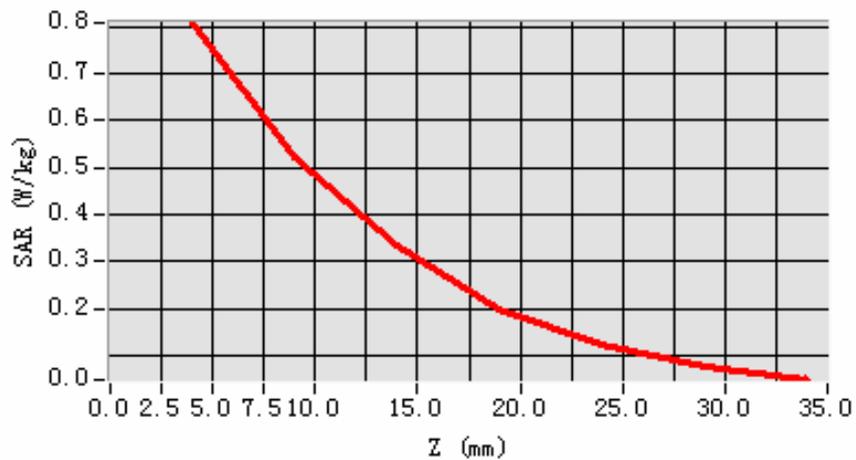
**Maximum location: X=24.00, Y=25.00**

<b>SAR 10g (W/Kg)</b>	0.498695
<b>SAR 1g (W/Kg)</b>	0.791207

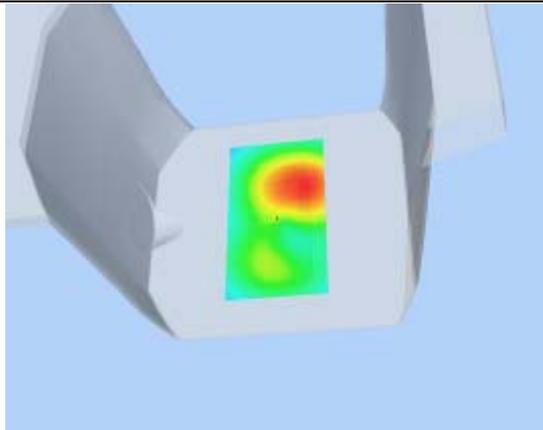
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.8083</b>	<b>0.5239</b>	<b>0.3325</b>	<b>0.1996</b>	<b>0.1252</b>	<b>0.0776</b>

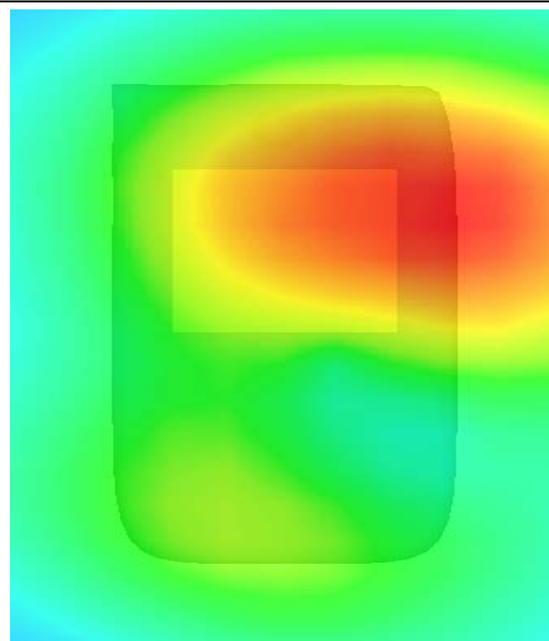
**SAR, Z Axis Scan (X = 24, Y = 25)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 17

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 8 seconds

## A. Experimental conditions.

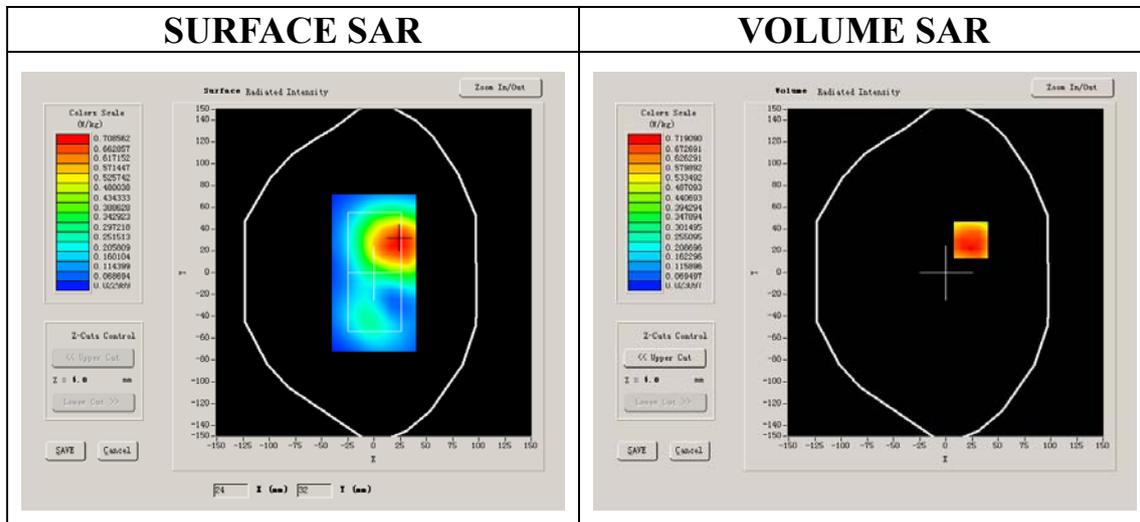
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GPRS

## B. SAR Measurement Results

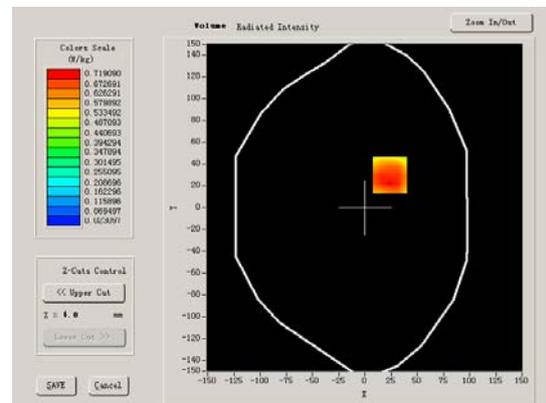
Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.492827
<b>Power Drift (%)</b>	0.690000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4

### SURFACE SAR



### VOLUME SAR



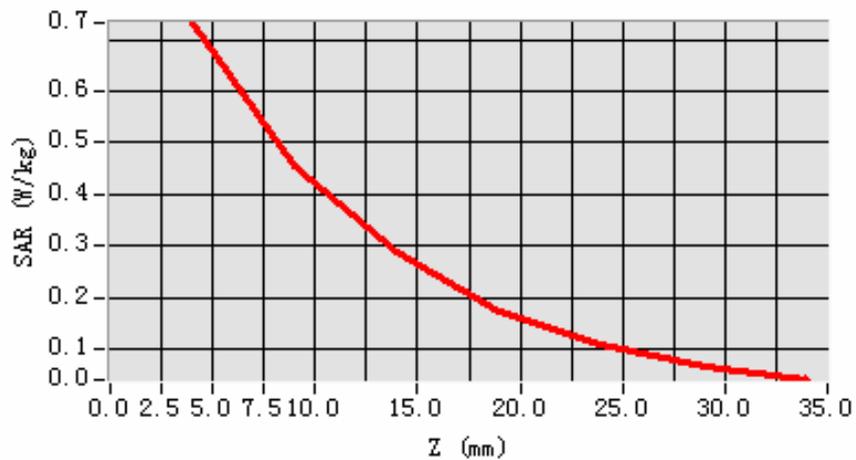
**Maximum location: X=24.00, Y=30.00**

<b>SAR 10g (W/Kg)</b>	0.455963
<b>SAR 1g (W/Kg)</b>	0.739905

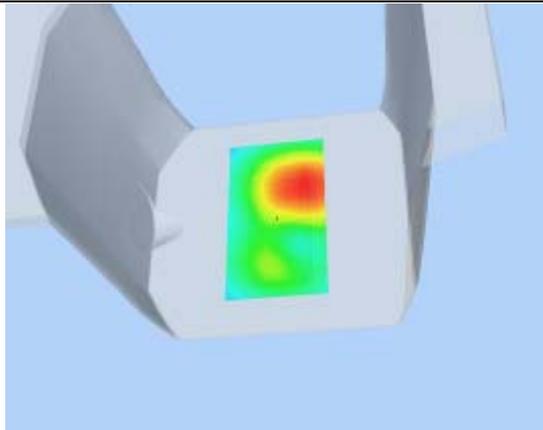
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.7321	0.4554	0.2895	0.1733	0.1094	0.0663

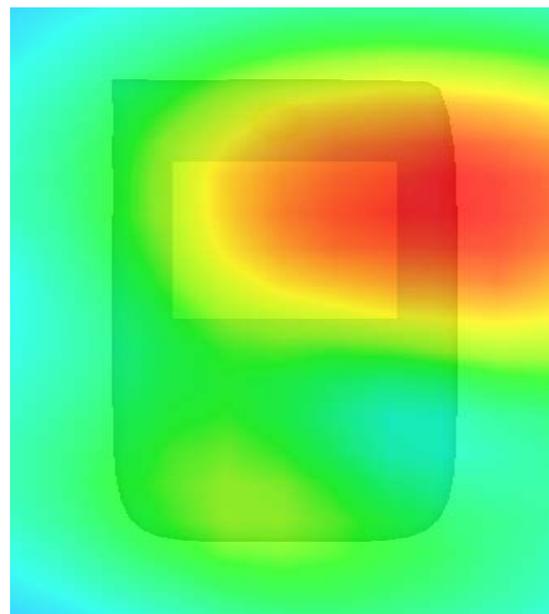
**SAR, Z Axis Scan (X = 24, Y = 30)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 18

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 8 seconds

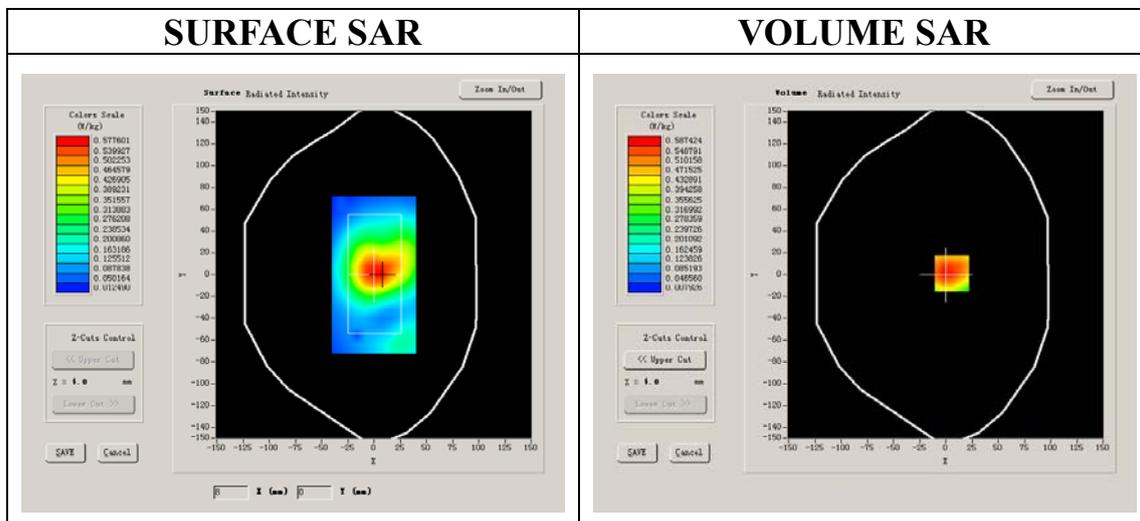
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.280000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



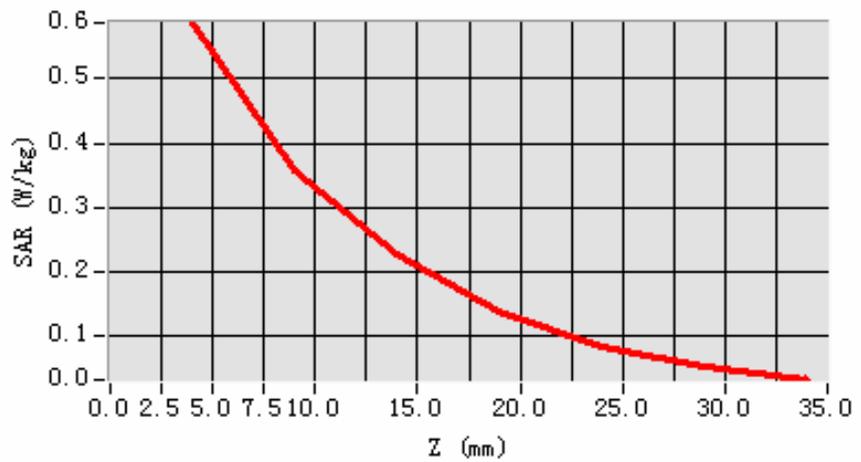
**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	0.367488
<b>SAR 1g (W/Kg)</b>	0.601380

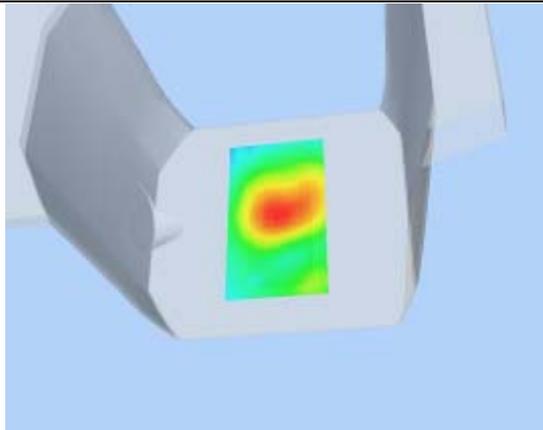
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.5874</b>	<b>0.3574</b>	<b>0.2284</b>	<b>0.1383</b>	<b>0.0846</b>	<b>0.0510</b>

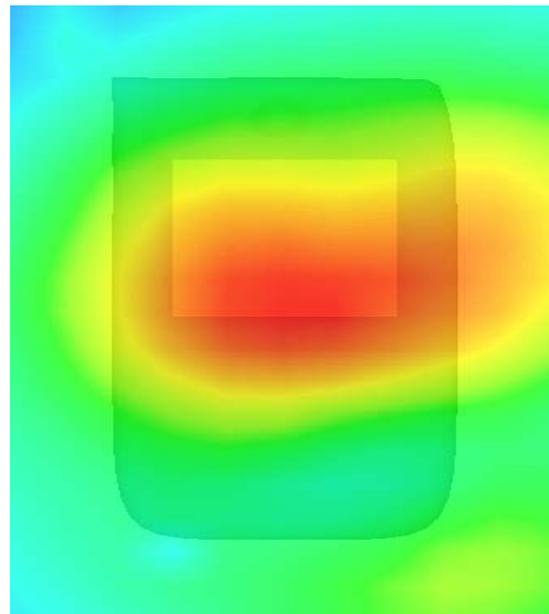
**SAR, Z Axis Scan (X = 6, Y = 1)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 19

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 8 seconds

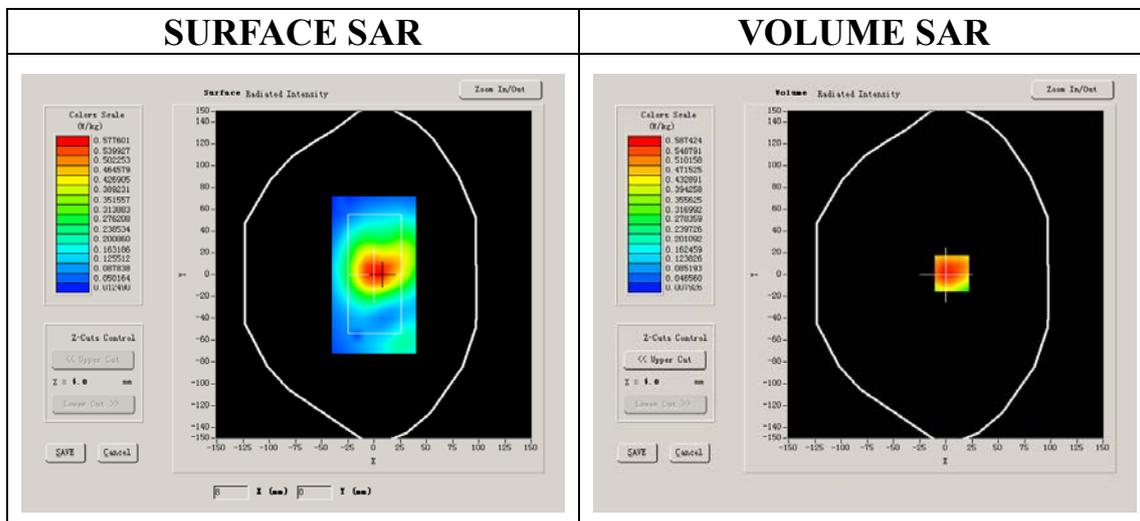
## A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	EDGE

## B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.280000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



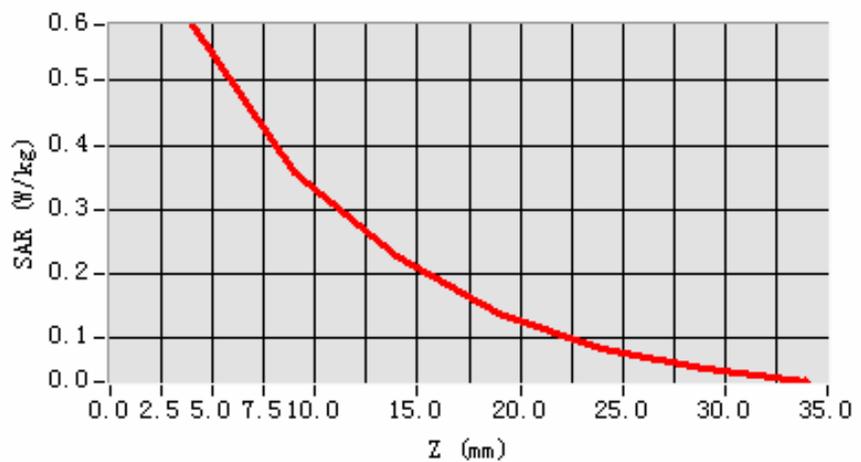
**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	0.323452
<b>SAR 1g (W/Kg)</b>	0.635134

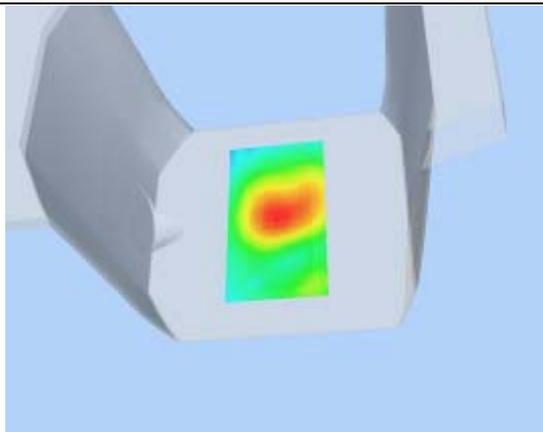
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.5874</b>	<b>0.3574</b>	<b>0.2284</b>	<b>0.1383</b>	<b>0.0846</b>	<b>0.0510</b>

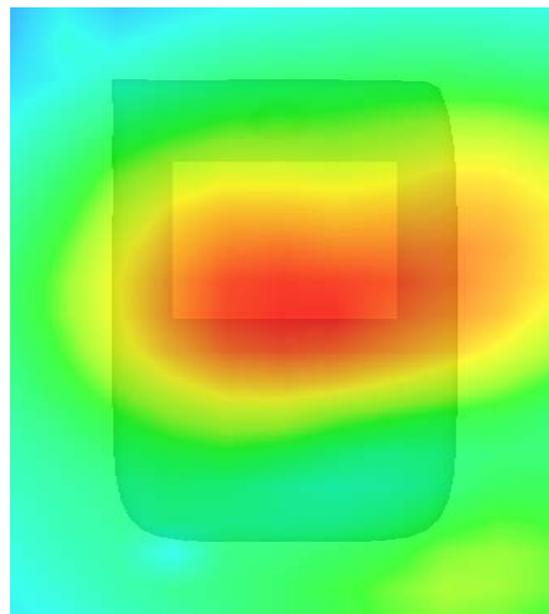
**SAR, Z Axis Scan (X = 6, Y = 1)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 20

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 8 seconds

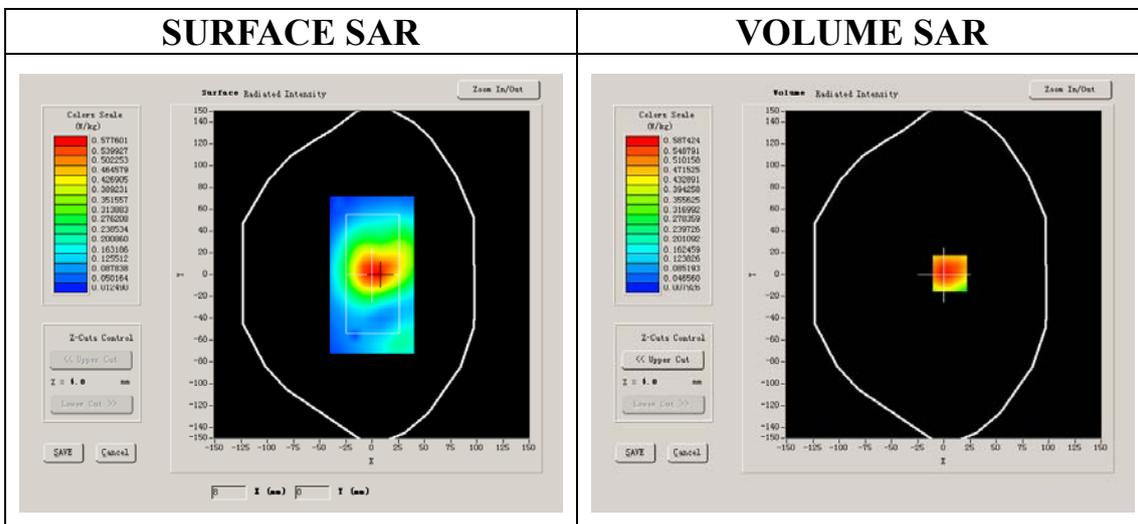
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	EDGE

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.280000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



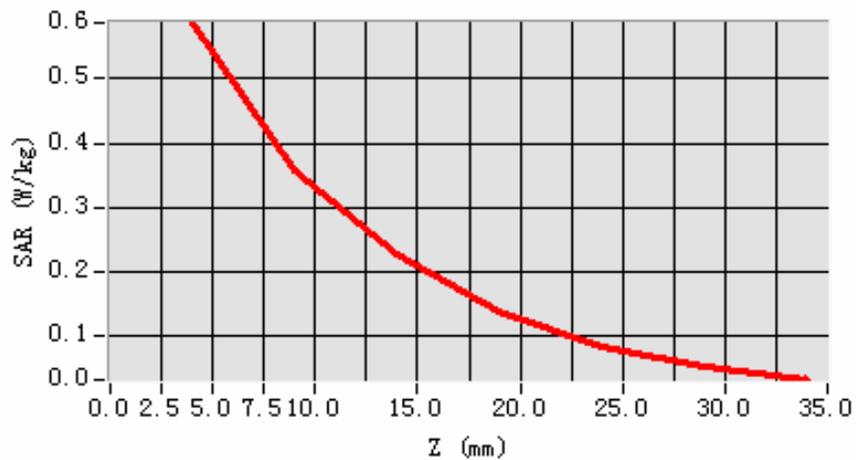
**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	0.231534
<b>SAR 1g (W/Kg)</b>	0.484562

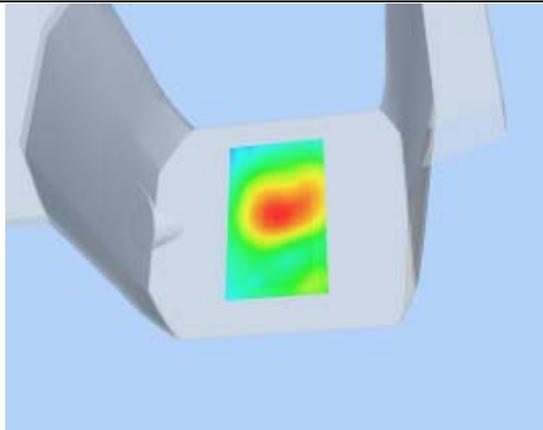
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.5874</b>	<b>0.3574</b>	<b>0.2284</b>	<b>0.1383</b>	<b>0.0846</b>	<b>0.0510</b>

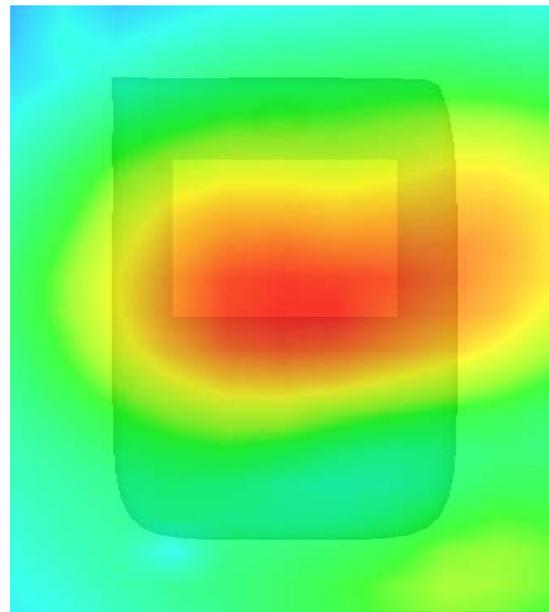
**SAR, Z Axis Scan (X = 6, Y = 1)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 21

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 6 seconds

## A. Experimental conditions.

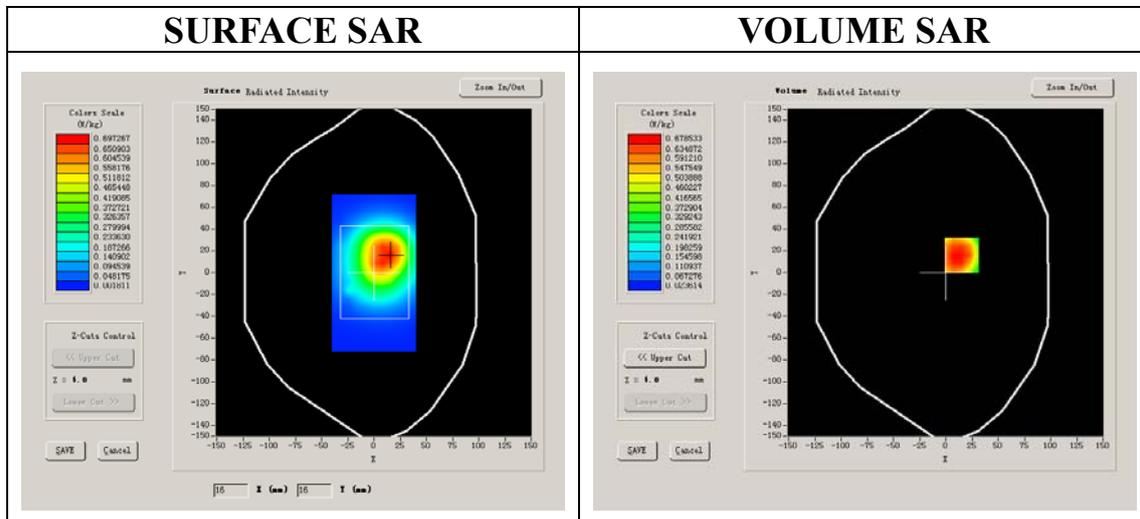
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

## B. SAR Measurement Results

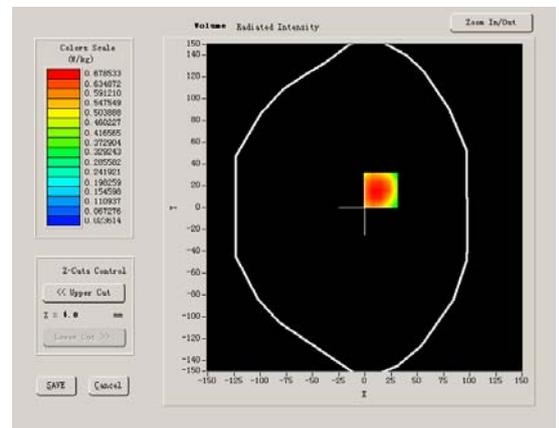
Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1

### SURFACE SAR



### VOLUME SAR



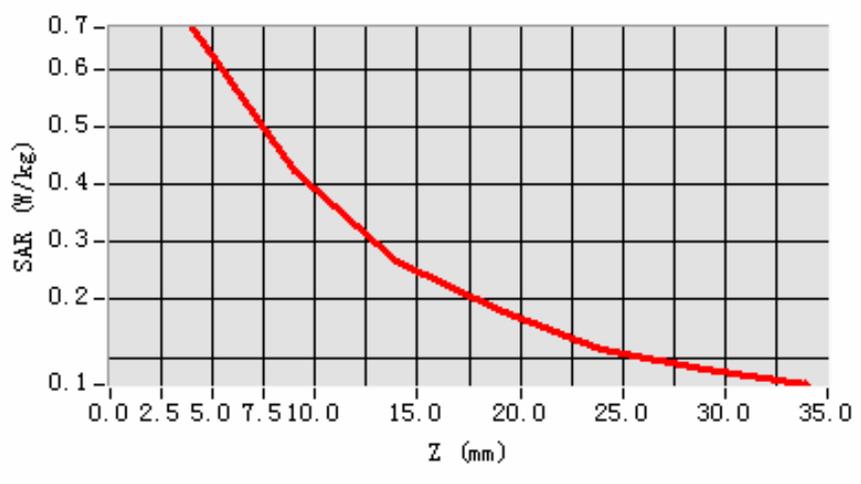
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.045125
<b>SAR 1g (W/Kg)</b>	0.094723

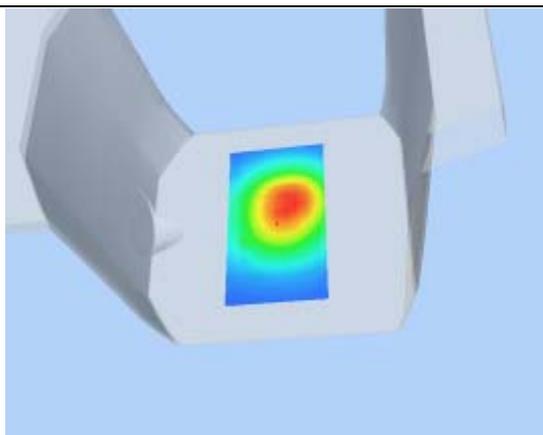
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.6732	0.4257	0.2657	0.1826	0.1143	0.0778

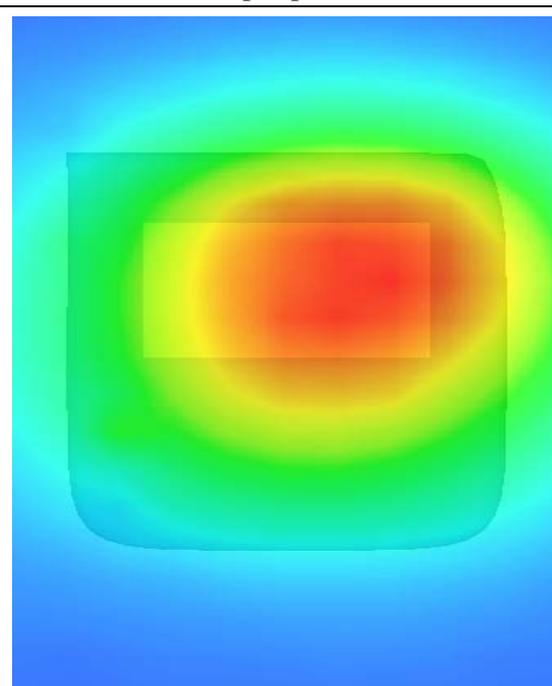
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 22

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 9 minutes 6 seconds

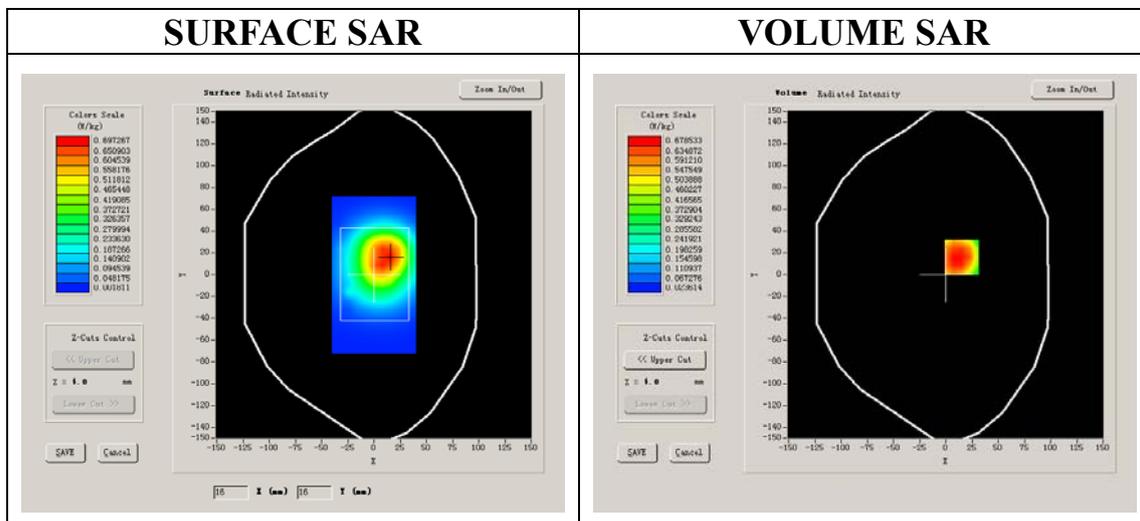
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



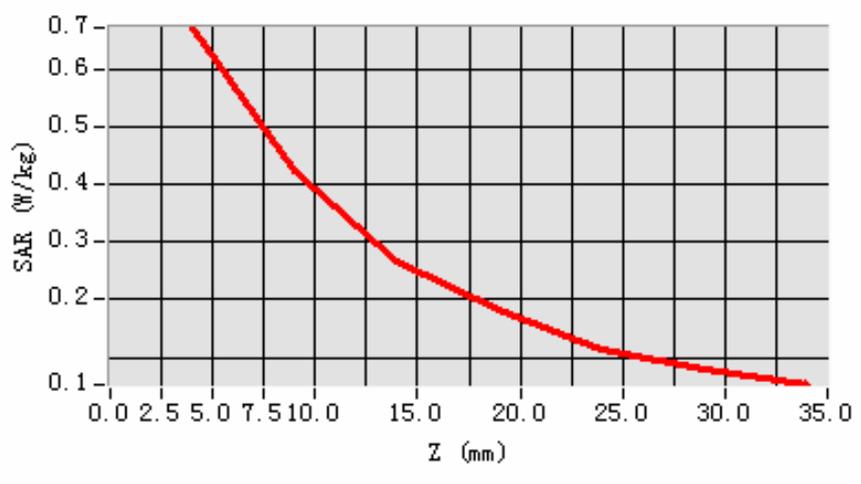
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.063441
<b>SAR 1g (W/Kg)</b>	0.124184

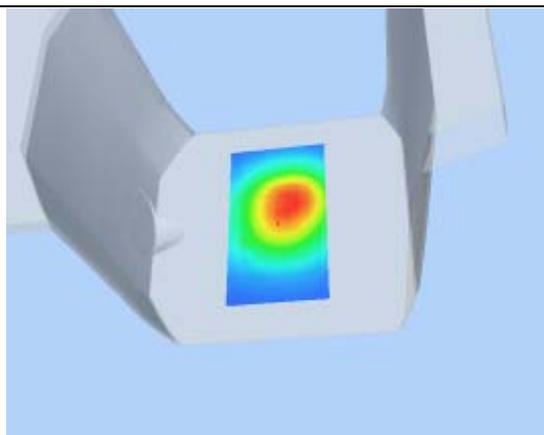
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.6732</b>	<b>0.4257</b>	<b>0.2657</b>	<b>0.1826</b>	<b>0.1143</b>	<b>0.0778</b>

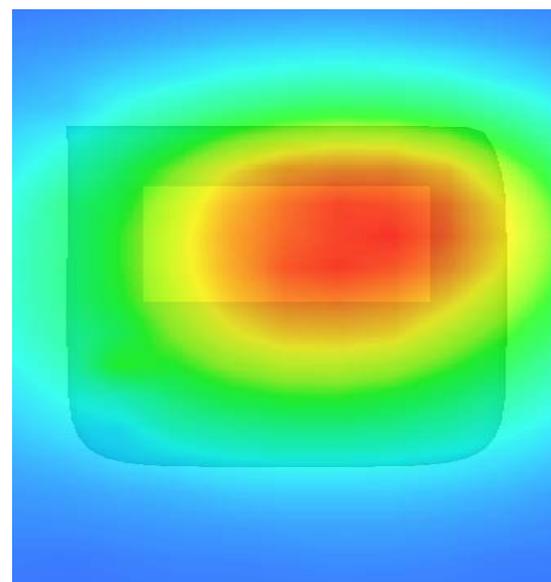
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 23

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 13 seconds

### A. Experimental conditions.

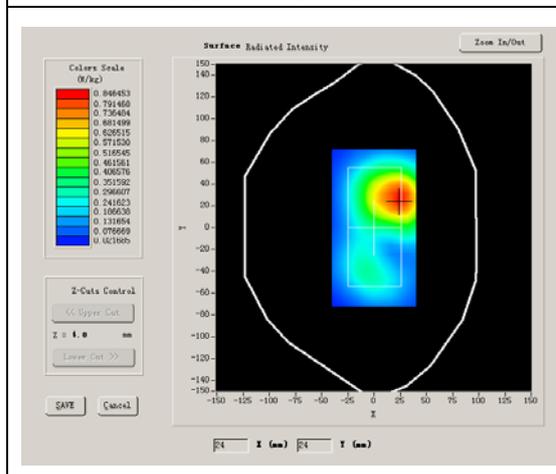
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

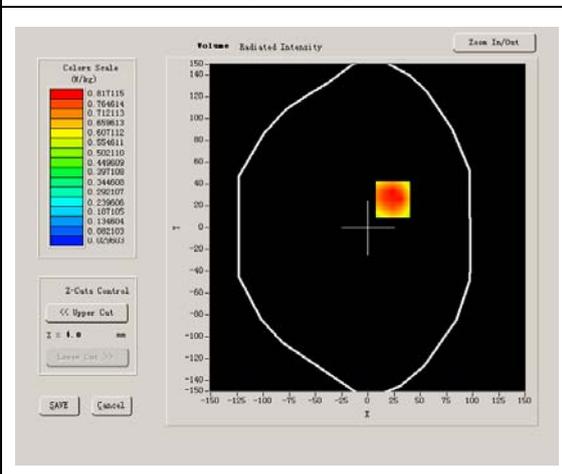
Lower Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.446240
<b>Power Drift (%)</b>	-2.020000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4

#### SURFACE SAR



#### VOLUME SAR



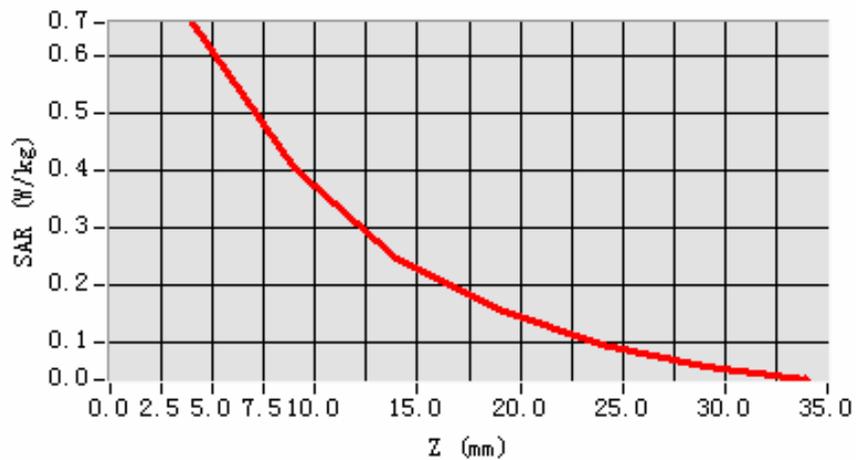
**Maximum location: X=24.00, Y=26.00**

<b>SAR 10g (W/Kg)</b>	0.584566
<b>SAR 1g (W/Kg)</b>	0.945678

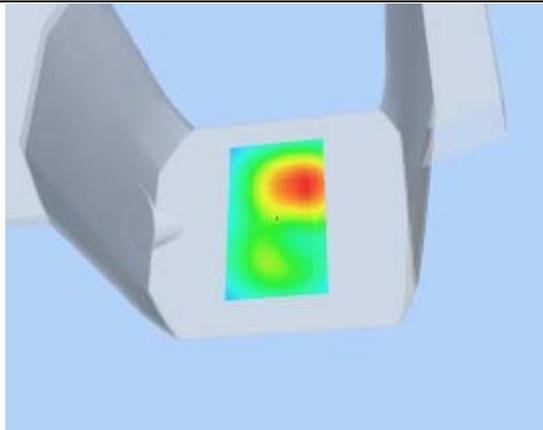
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.8658	0.5534	0.0326	0.2182	0.1374	0.0842

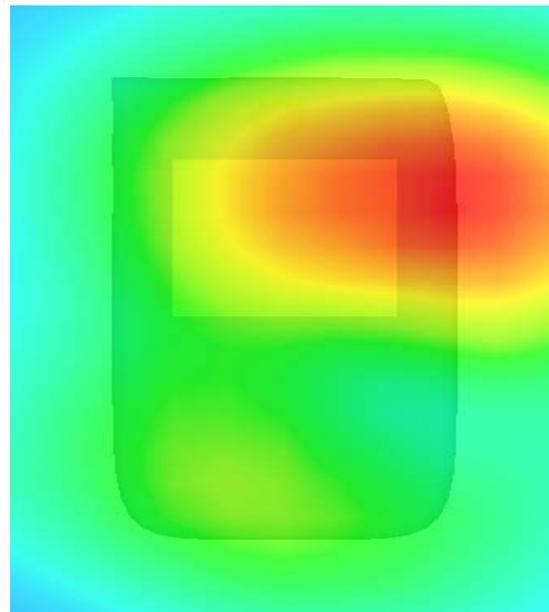
**SAR, Z Axis Scan (X = -15, Y = -41)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 24

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 7 seconds

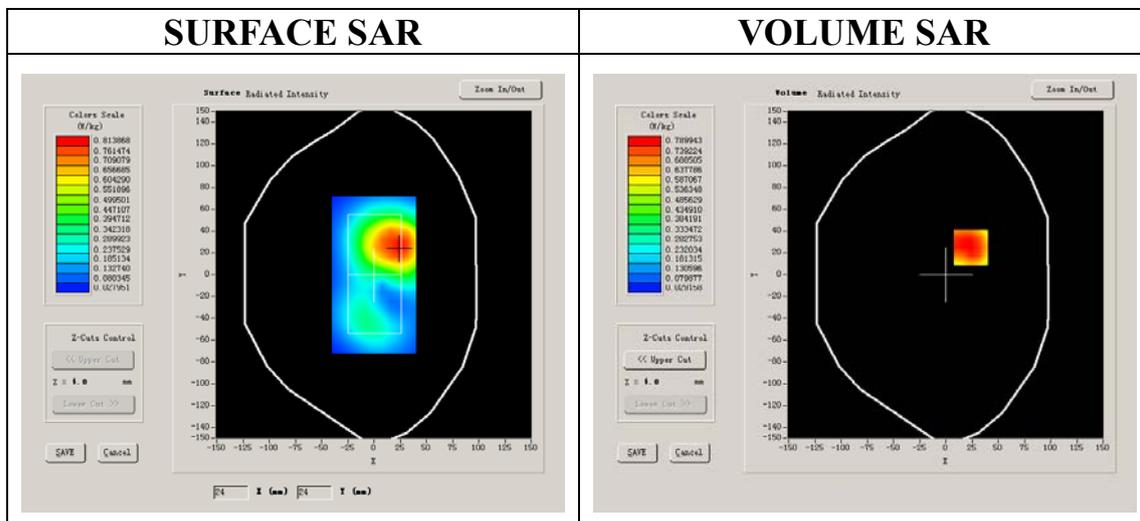
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

<b>Frequency (MHz)</b>	1880.000000
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-1.200000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



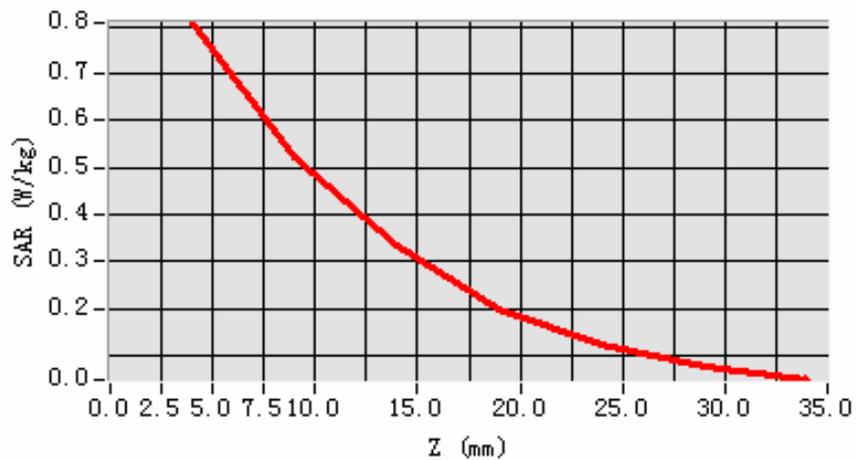
**Maximum location: X=24.00, Y=25.00**

<b>SAR 10g (W/Kg)</b>	0.517699
<b>SAR 1g (W/Kg)</b>	0.844806

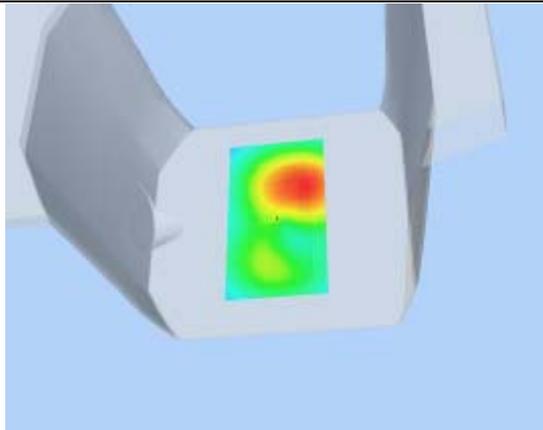
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.8083</b>	<b>0.5239</b>	<b>0.3325</b>	<b>0.1996</b>	<b>0.1252</b>	<b>0.0776</b>

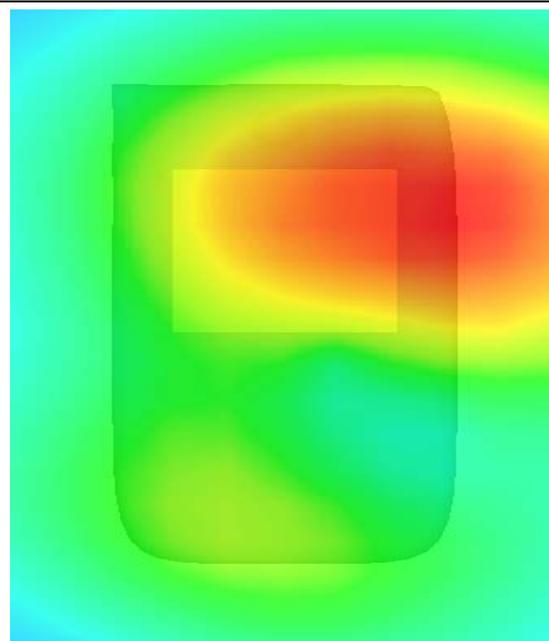
**SAR, Z Axis Scan (X = 24, Y = 25)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 25

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 8 seconds

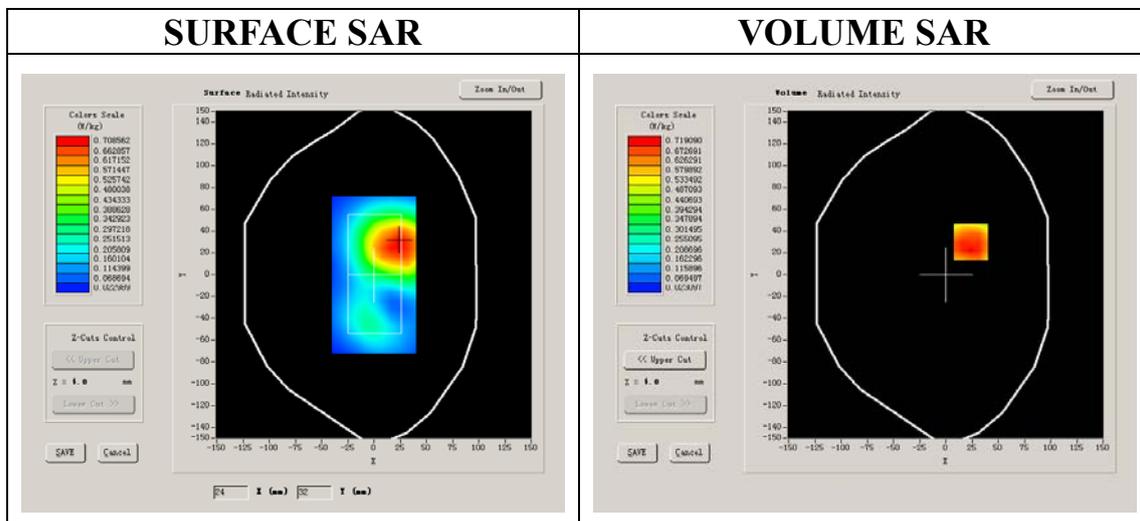
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

<b>Frequency (MHz)</b>	1909.800049
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.492827
<b>Power Drift (%)</b>	0.690000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



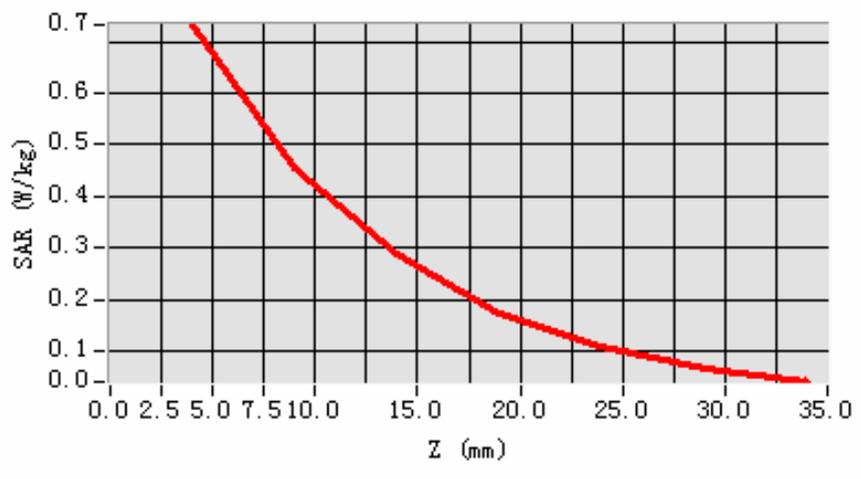
**Maximum location: X=24.00, Y=30.00**

<b>SAR 10g (W/Kg)</b>	0.474922
<b>SAR 1g (W/Kg)</b>	0.801389

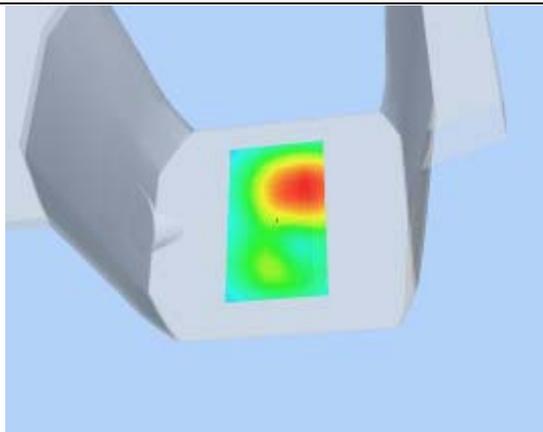
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.7321</b>	<b>0.4554</b>	<b>0.2895</b>	<b>0.1733</b>	<b>0.1094</b>	<b>0.0663</b>

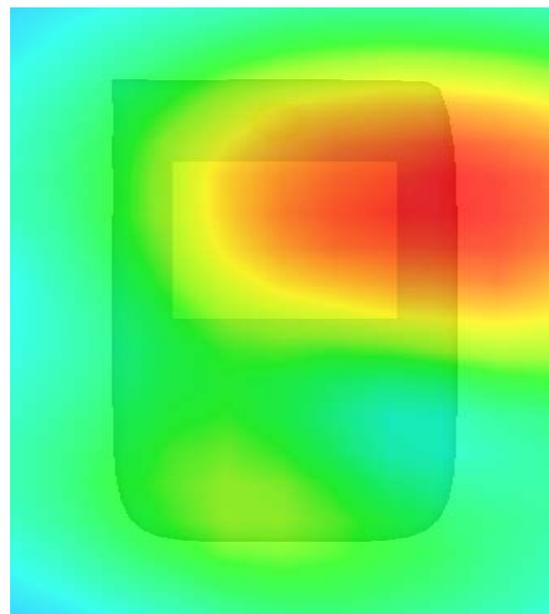
**SAR, Z Axis Scan (X = 24, Y = 30)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 26

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 8 seconds

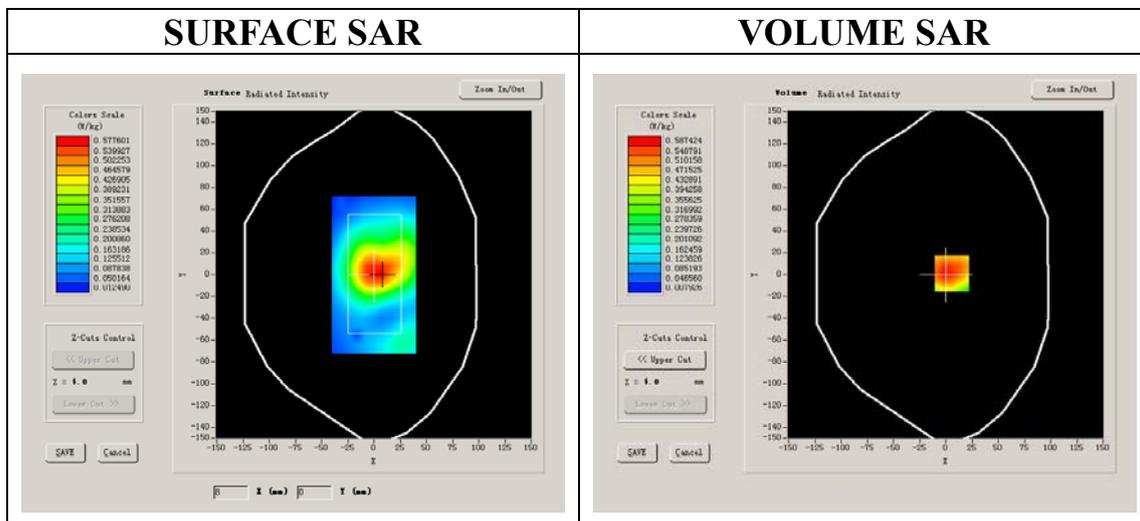
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.280000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



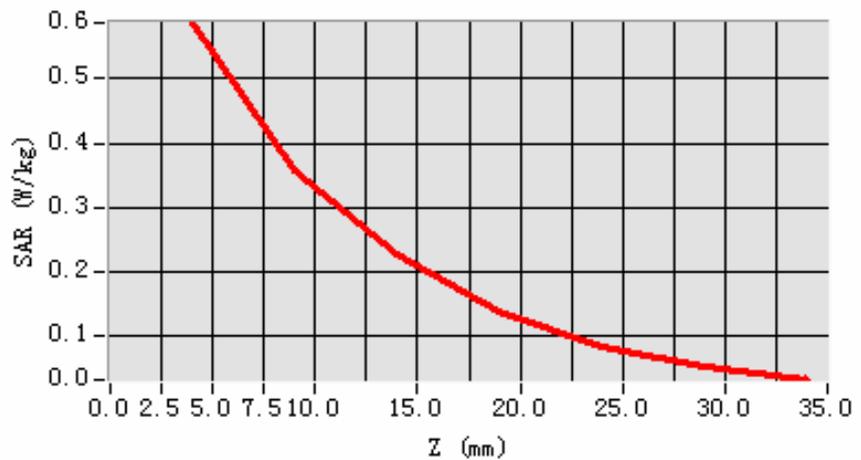
**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	0.384933
<b>SAR 1g (W/Kg)</b>	0.689274

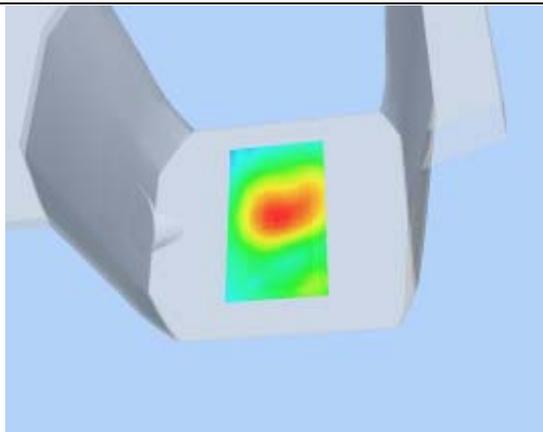
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.5874</b>	<b>0.3574</b>	<b>0.2284</b>	<b>0.1383</b>	<b>0.0846</b>	<b>0.0510</b>

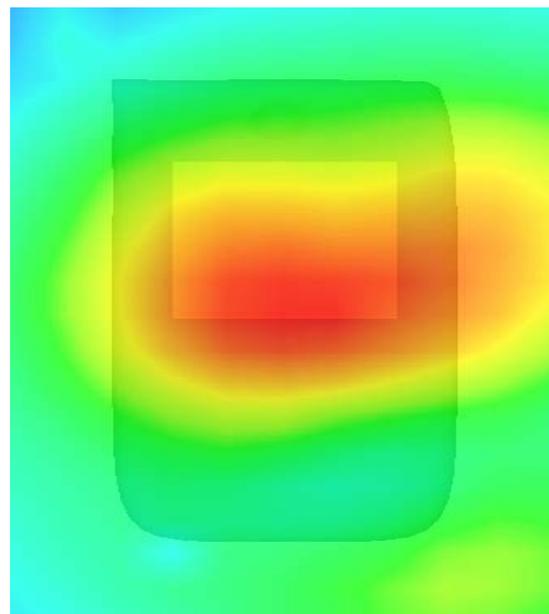
**SAR, Z Axis Scan (X = 6, Y = 1)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 27

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 10 seconds

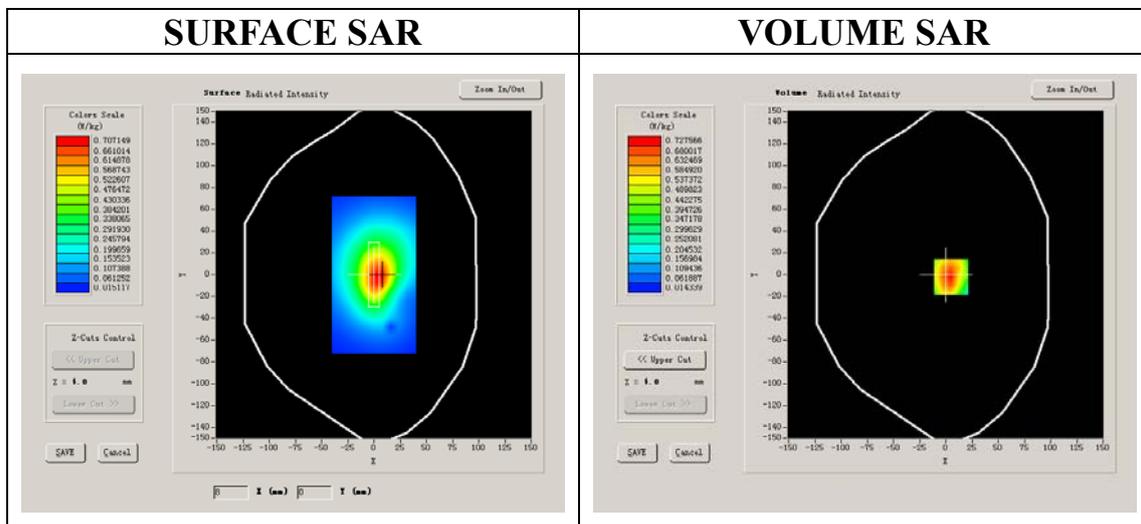
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	-0.340000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



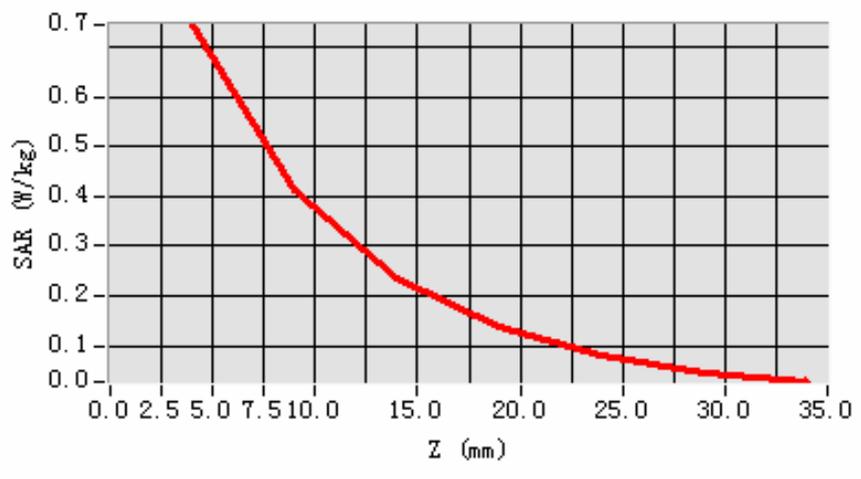
**Maximum location: X=5.00, Y=-2.00**

<b>SAR 10g (W/Kg)</b>	0.397686
<b>SAR 1g (W/Kg)</b>	0.703122

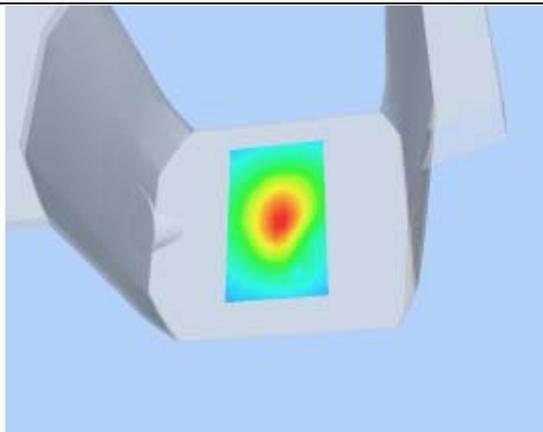
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.7445</b>	<b>0.4110</b>	<b>0.2351</b>	<b>0.1376</b>	<b>0.0791</b>	<b>0.0470</b>

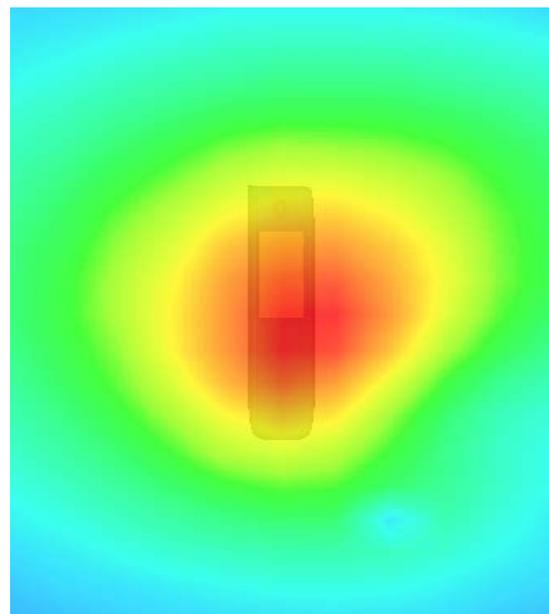
**SAR, Z Axis Scan (X = 5, Y = -2)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 28

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 9 seconds

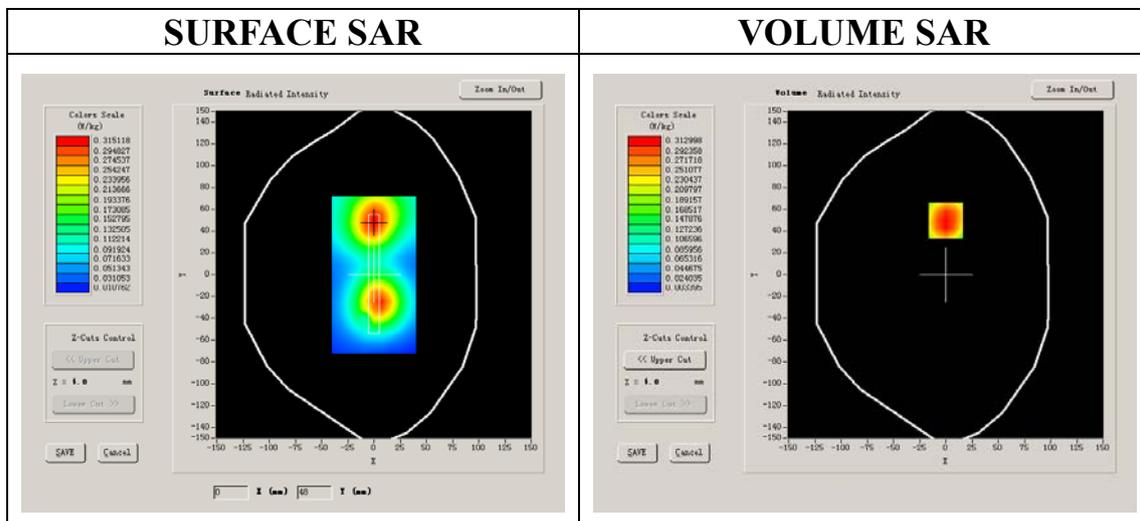
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	1.050000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



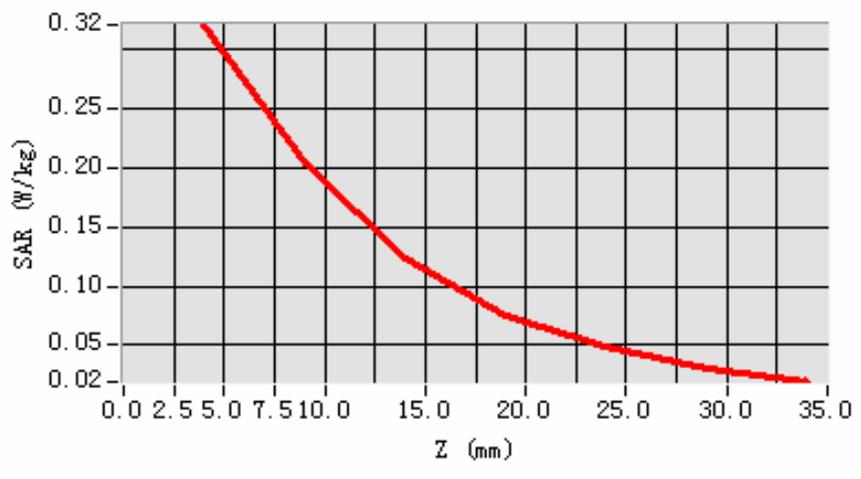
**Maximum location: X=0.00, Y=50.00**

<b>SAR 10g (W/Kg)</b>	0.187519
<b>SAR 1g (W/Kg)</b>	0.311601

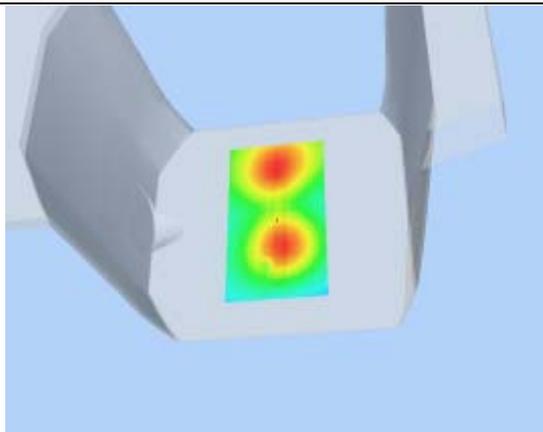
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.3203	0.2042	0.1233	0.0744	0.0489	0.0304

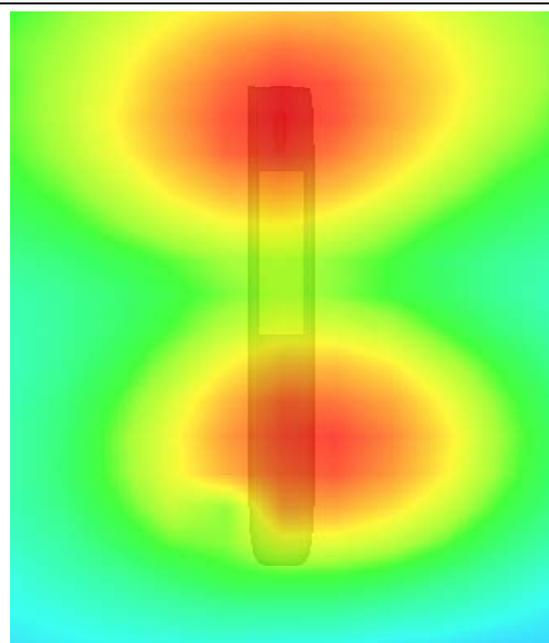
**SAR, Z Axis Scan (X = 0, Y = 50)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 29

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 9 seconds

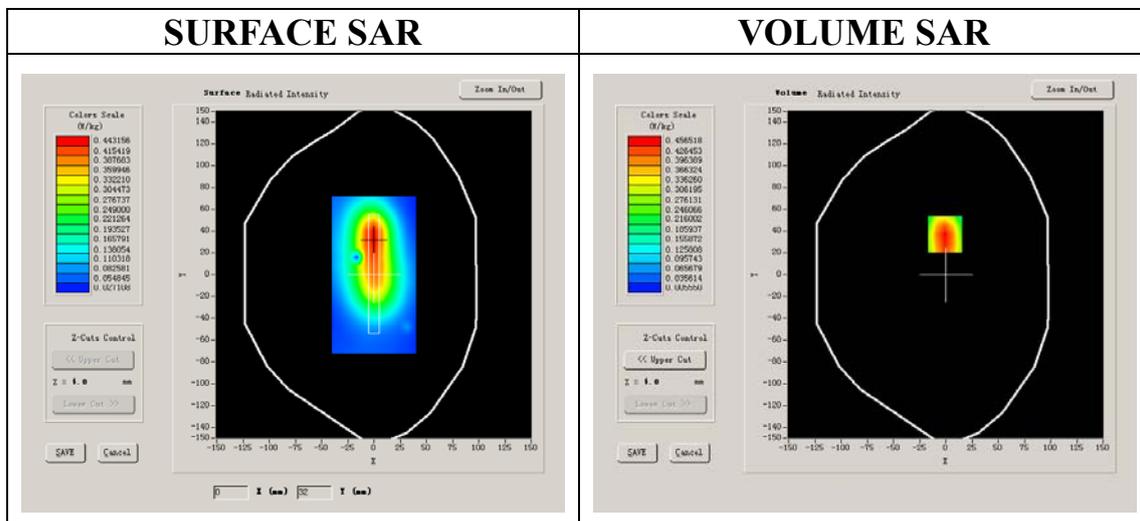
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GPRS

### B. SAR Measurement Results

Middle Band SAR (Channel 512):

<b>Frequency (MHz)</b>	1850.199951
<b>Relative permittivity (real part)</b>	52.540001
<b>Relative permittivity</b>	14.070000
<b>Conductivity (S/m)</b>	1.469533
<b>Power Drift (%)</b>	0.640000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:4



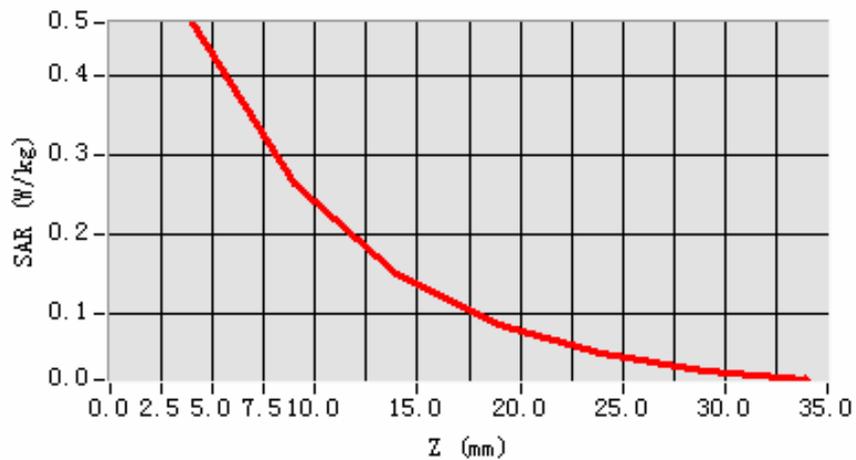
**Maximum location: X=-1.00, Y=37.00**

<b>SAR 10g (W/Kg)</b>	0.256757
<b>SAR 1g (W/Kg)</b>	0.447109

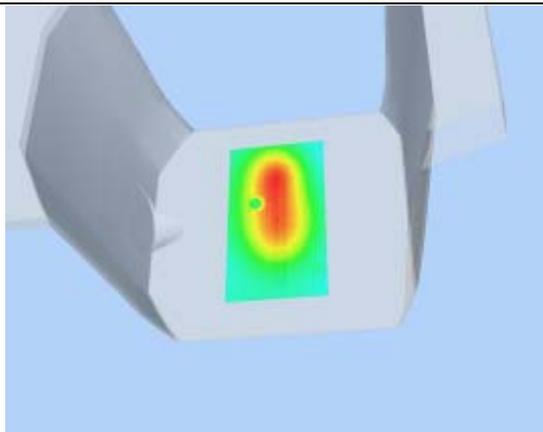
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.4671	0.2640	0.1511	0.0884	0.0510	0.0302

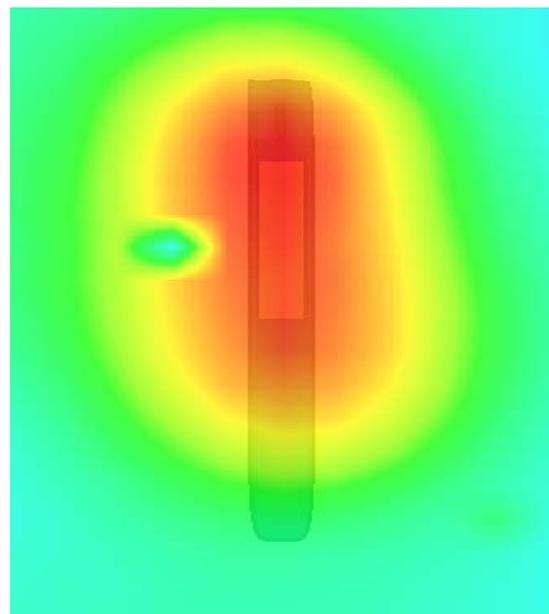
**SAR, Z Axis Scan (X = -1, Y = 37)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 30

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 6 seconds

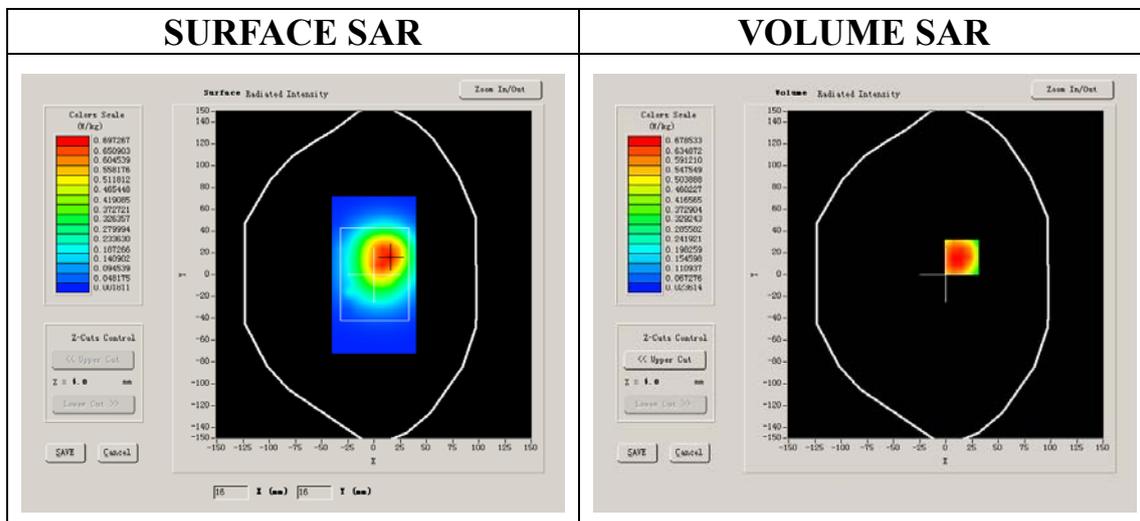
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.362770
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.937211
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



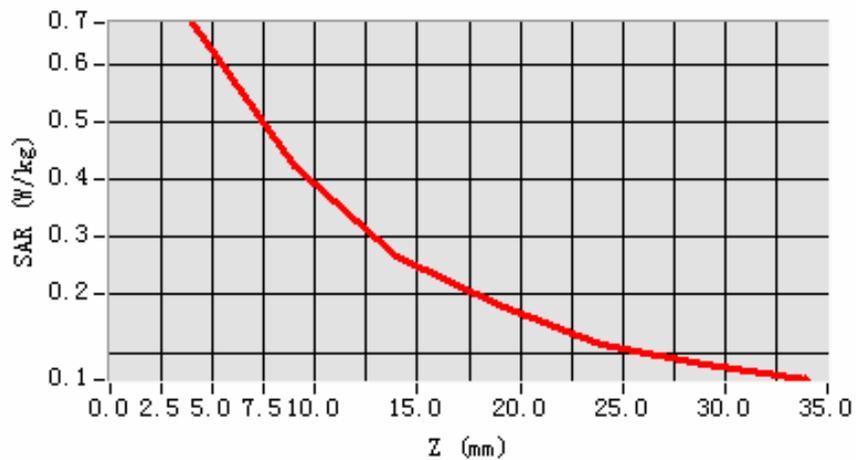
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.056485
<b>SAR 1g (W/Kg)</b>	0.105432

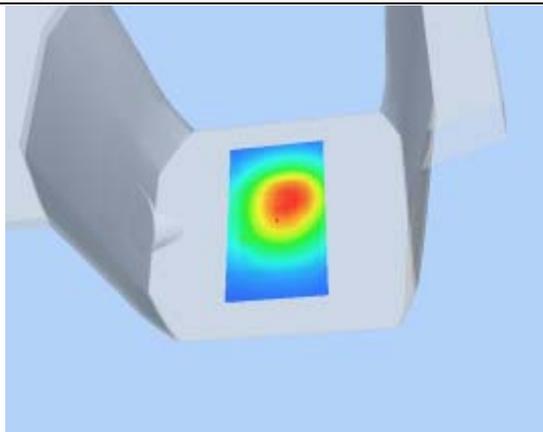
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.6732</b>	<b>0.4257</b>	<b>0.2657</b>	<b>0.1826</b>	<b>0.1143</b>	<b>0.0778</b>

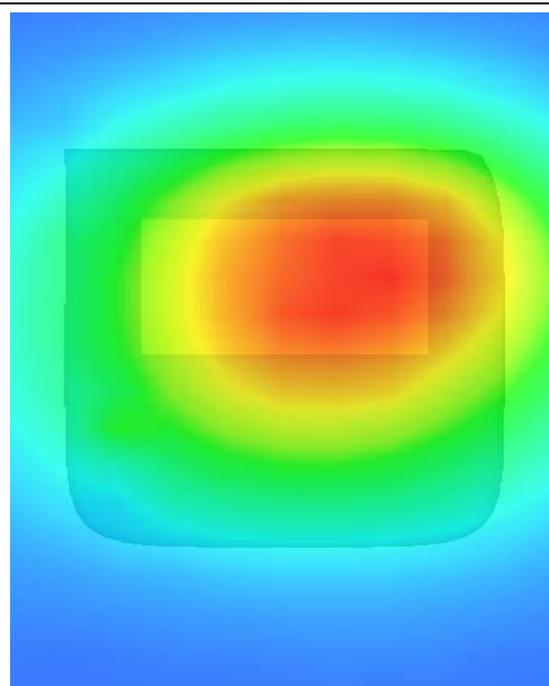
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



# MEASUREMENT 31

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 6 seconds

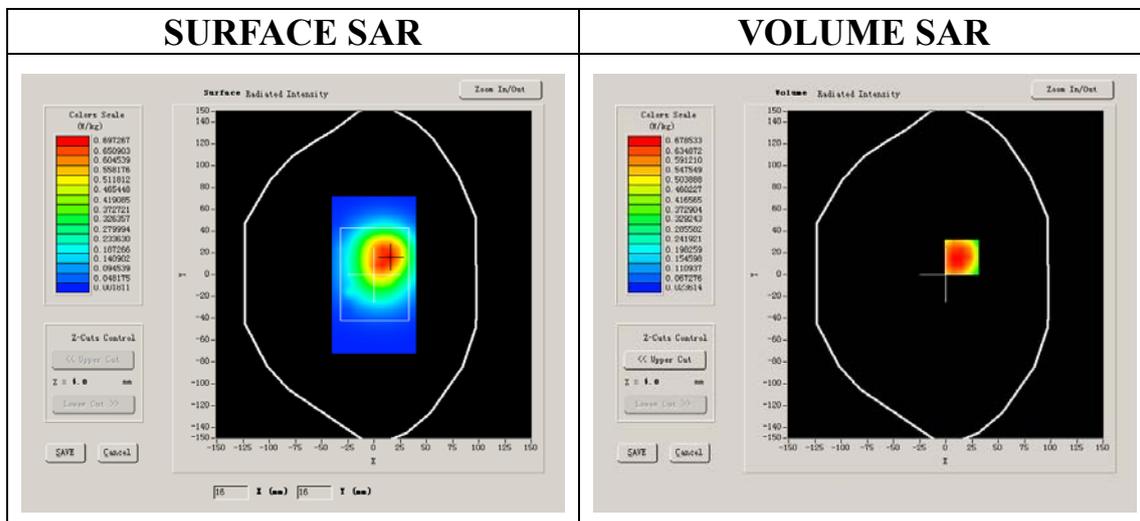
## A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Low
<b>Signal</b>	CW

## B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	2412.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



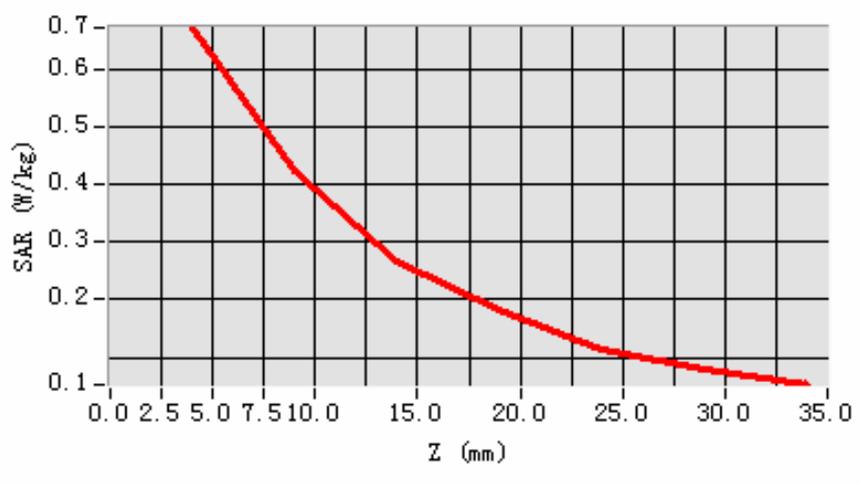
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.073782
<b>SAR 1g (W/Kg)</b>	0.131878

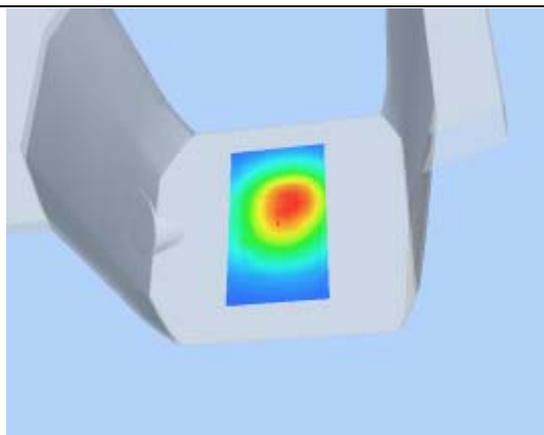
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.6732	0.4257	0.2657	0.1826	0.1143	0.0778

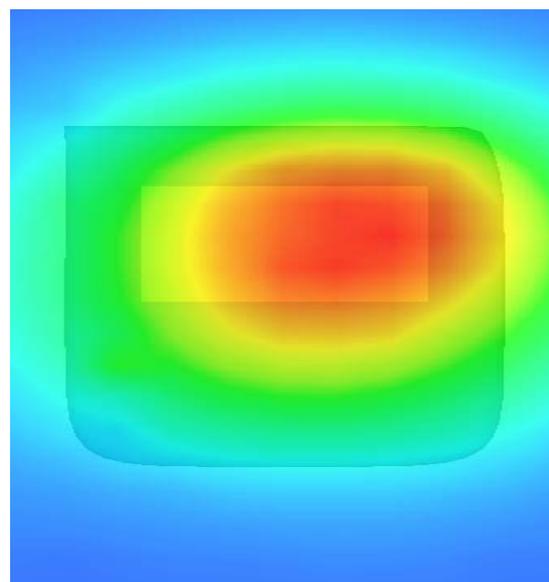
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 32

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 6 seconds

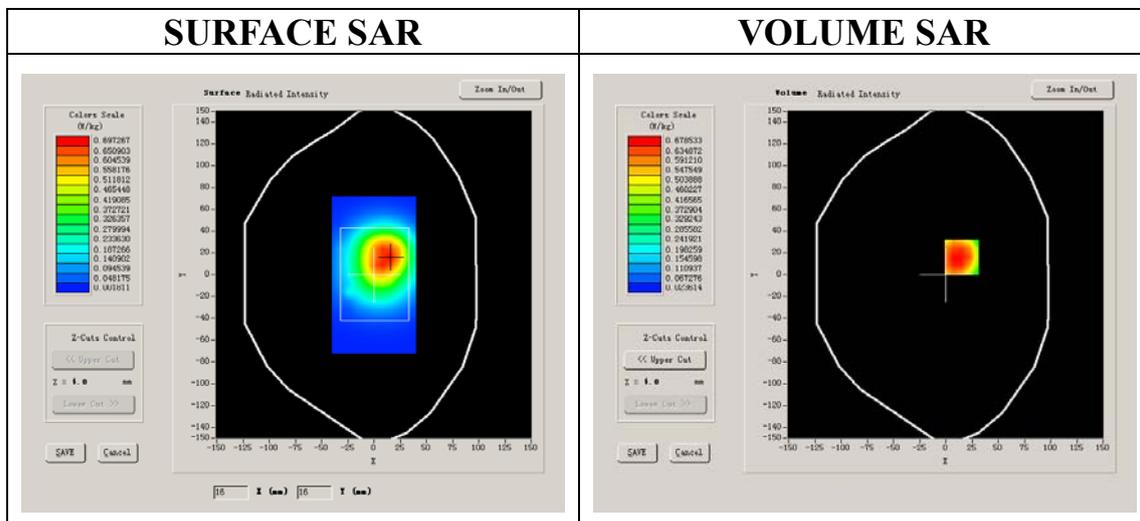
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



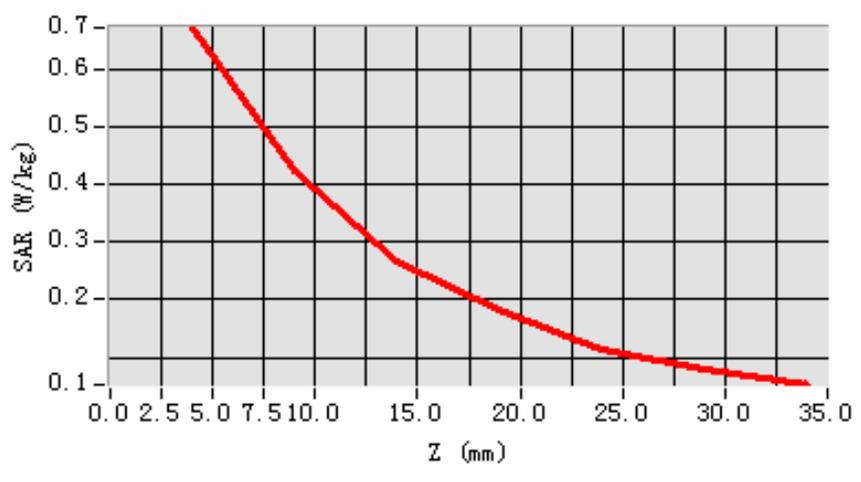
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.079855
<b>SAR 1g (W/Kg)</b>	0.145987

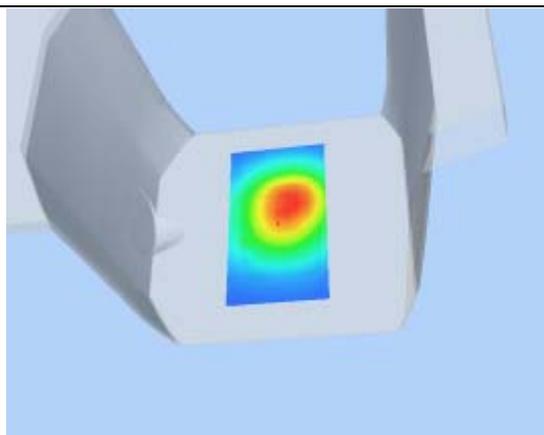
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.6732</b>	<b>0.4257</b>	<b>0.2657</b>	<b>0.1826</b>	<b>0.1143</b>	<b>0.0778</b>

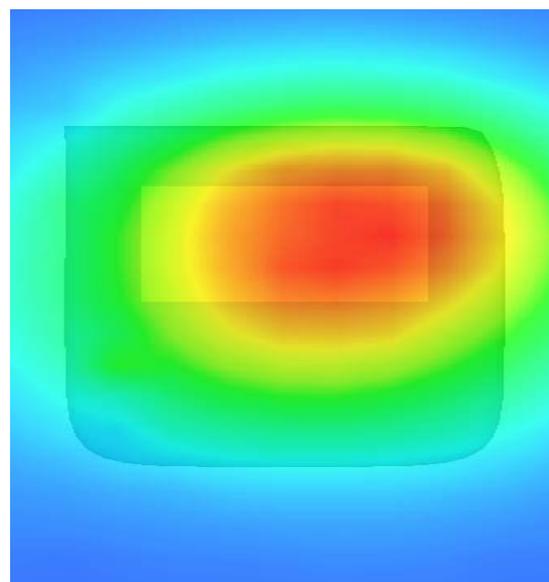
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 33

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 6 seconds

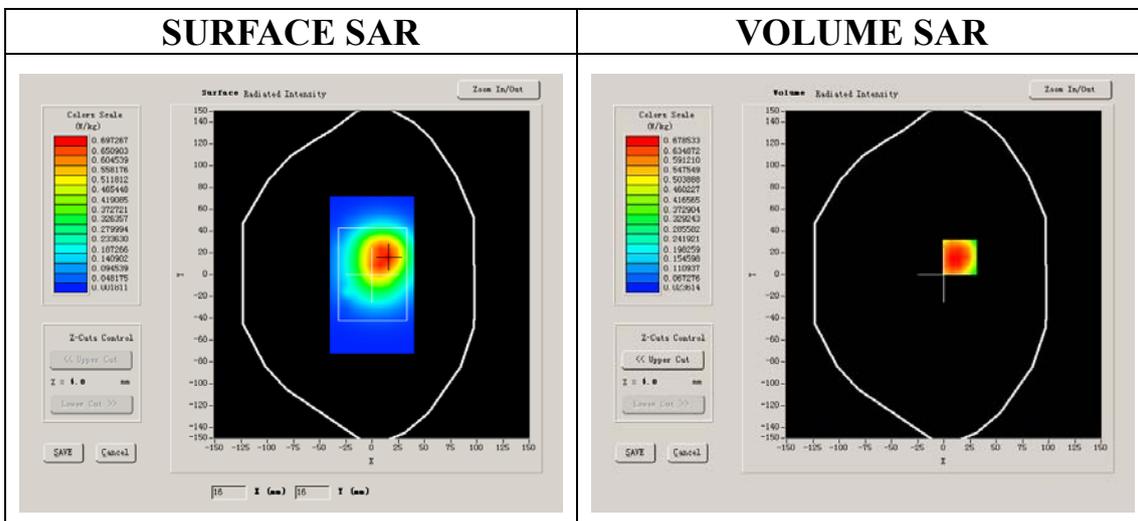
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	High
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	2462.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



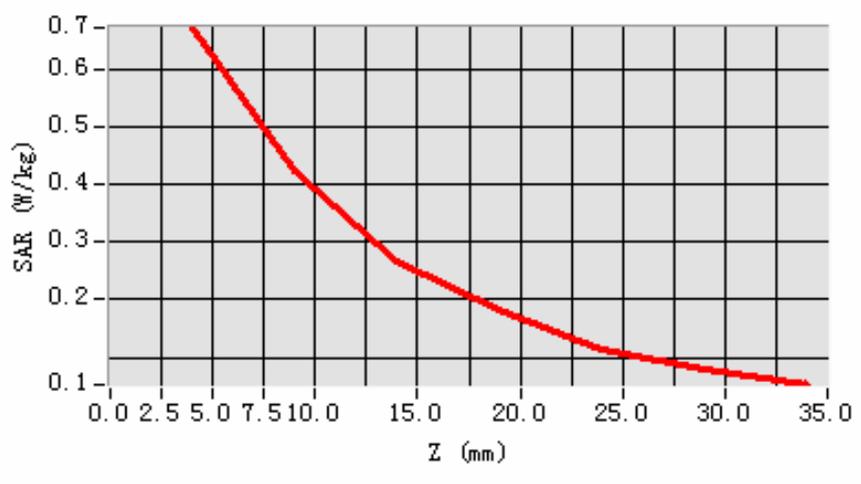
**Maximum location: X=15.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.077388
<b>SAR 1g (W/Kg)</b>	0.140337

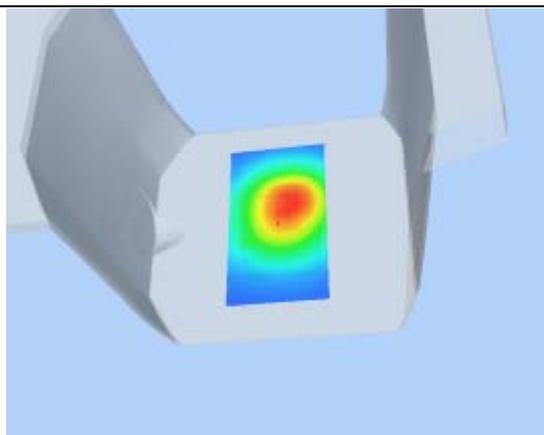
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	0.6732	0.4257	0.2657	0.1826	0.1143	0.0778

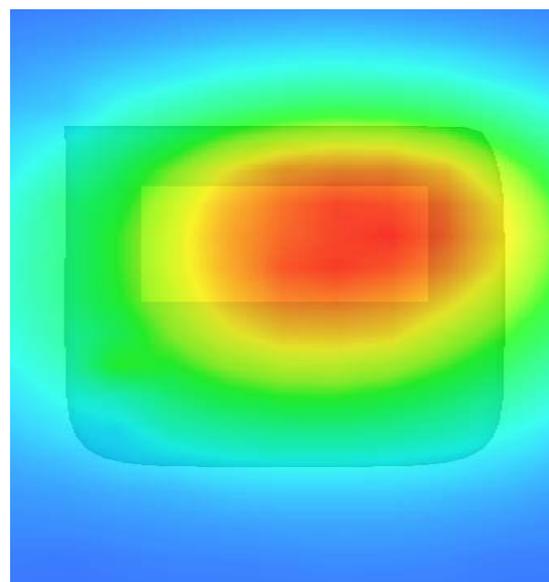
**SAR, Z Axis Scan (X = 15, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 34

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 5 seconds

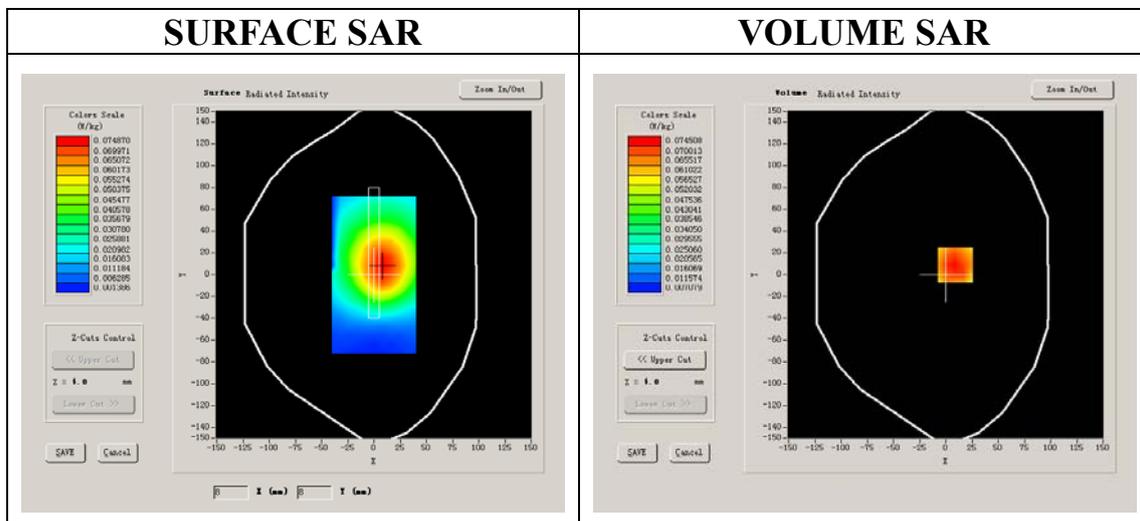
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR (Channel 38):

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



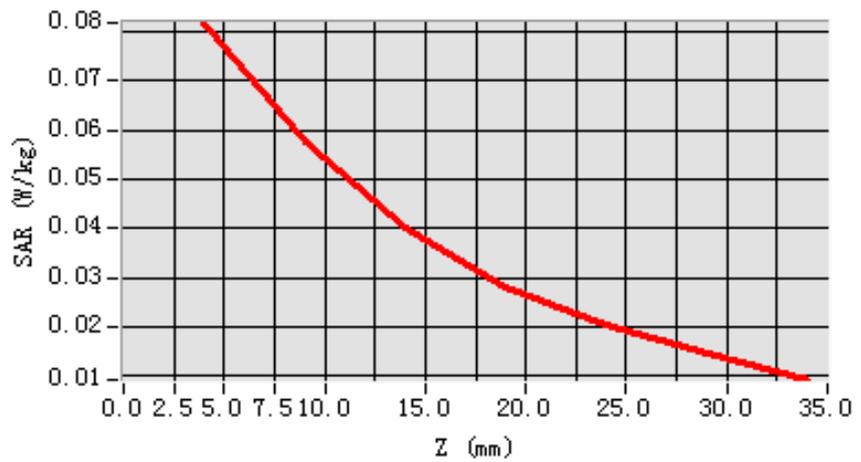
**Maximum location: X=9.00, Y=9.00**

<b>SAR 10g (W/Kg)</b>	0.053280
<b>SAR 1g (W/Kg)</b>	0.078385

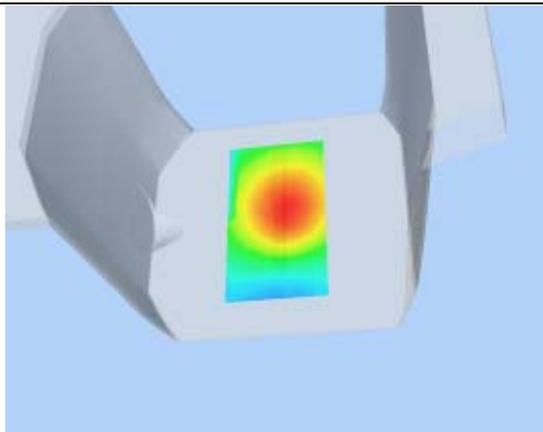
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.0818</b>	<b>0.0576</b>	<b>0.0404</b>	<b>0.0279</b>	<b>0.0206</b>	<b>0.0145</b>

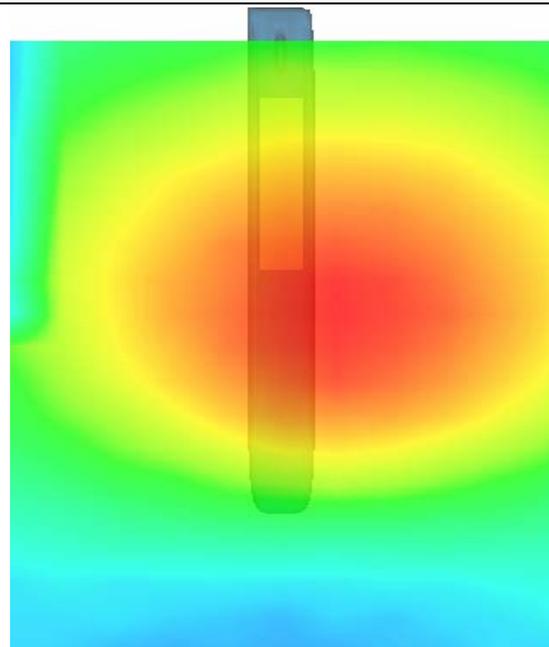
**SAR, Z Axis Scan (X = 9, Y = 9)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 35

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 9 minutes 6 seconds

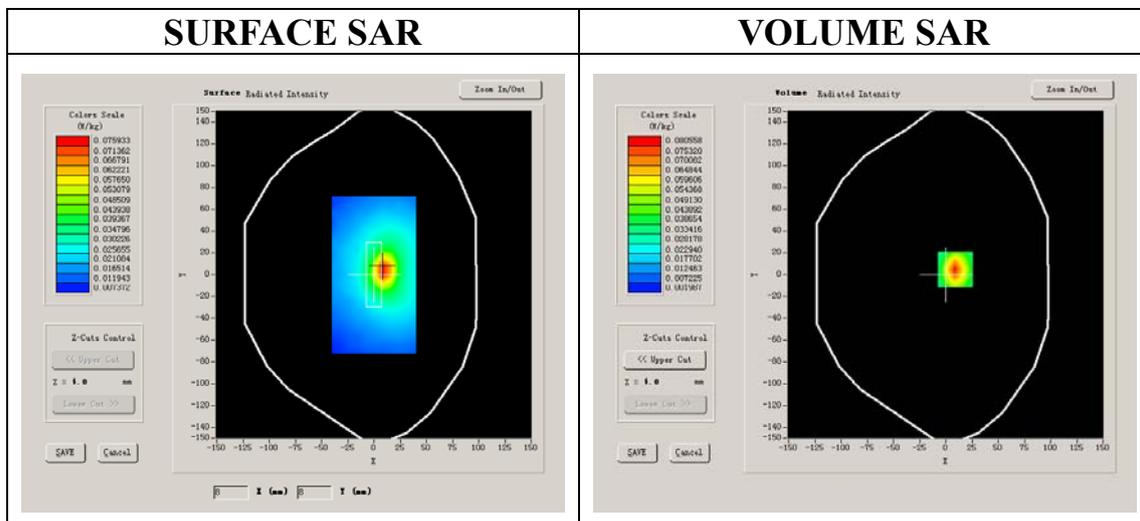
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR (Channel 38):

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



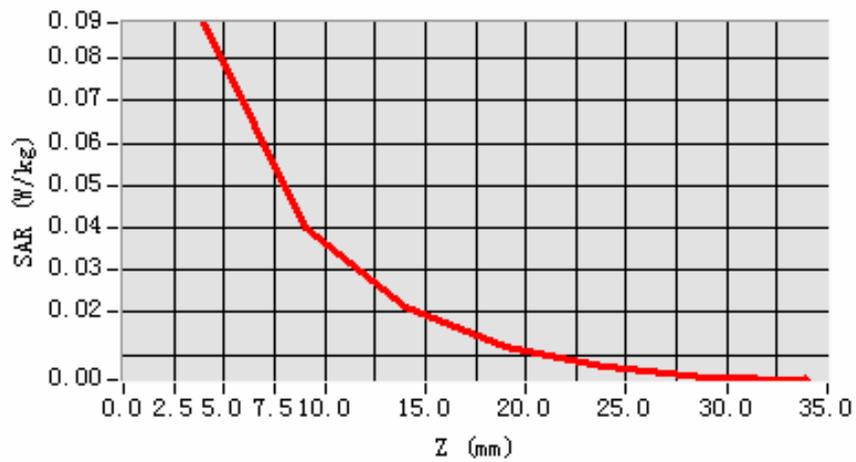
**Maximum location: X=9.00, Y=5.00**

<b>SAR 10g (W/Kg)</b>	0.041416
<b>SAR 1g (W/Kg)</b>	0.081547

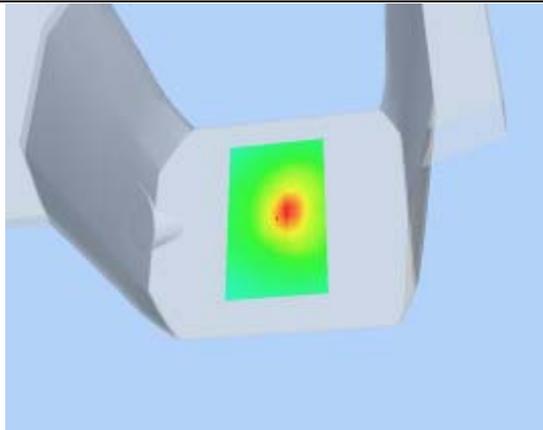
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.0884</b>	<b>0.0402</b>	<b>0.0212</b>	<b>0.0118</b>	<b>0.0069</b>	<b>0.0047</b>

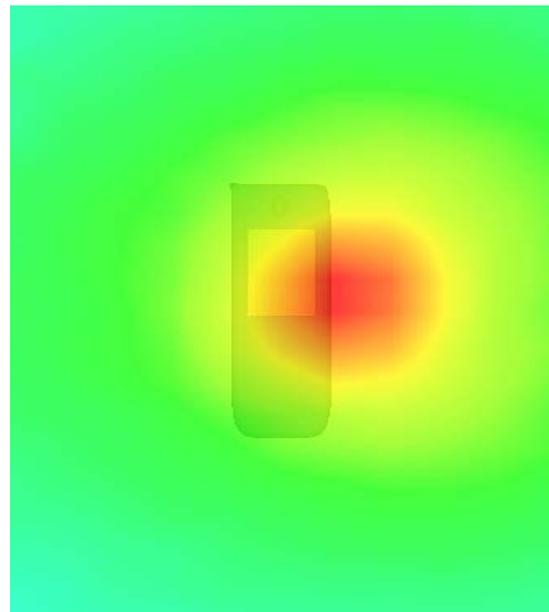
**SAR, Z Axis Scan (X = 9, Y = 5)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 36

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 10/6/2011

Measurement duration: 7 minutes 30 seconds

### A. Experimental conditions.

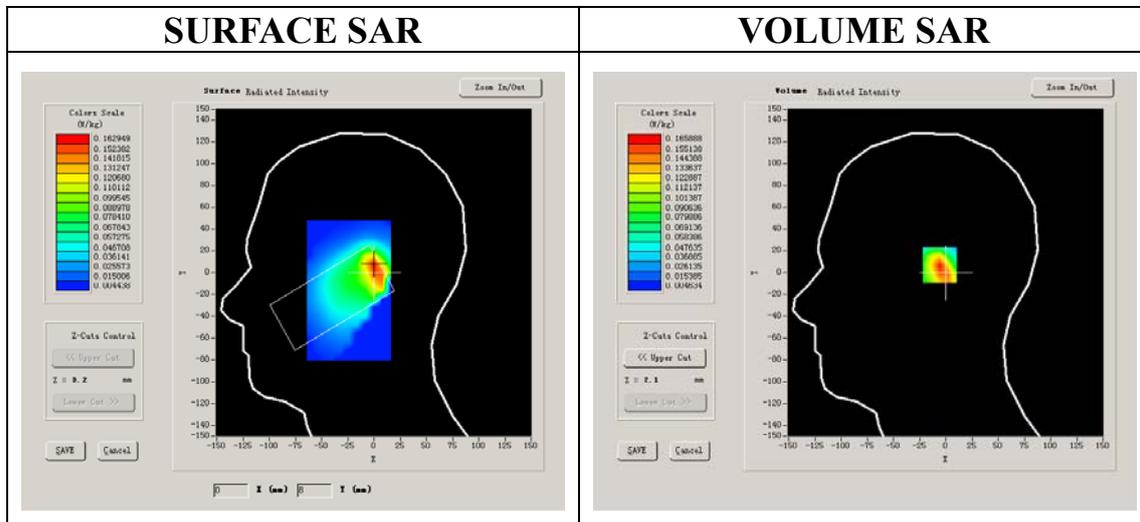
<b>Phantom File</b>	sam_direct_droit2_surf8mm.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

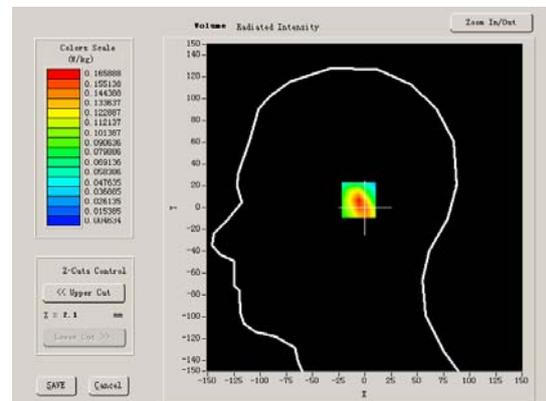
Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.389465
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.947345
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1

#### SURFACE SAR



#### VOLUME SAR



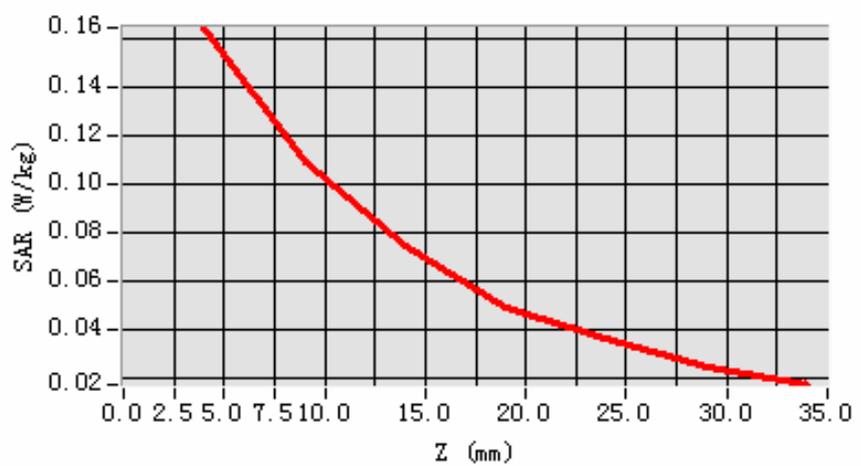
**Maximum location: X=-30.00, Y=-1.00**

<b>SAR 10g (W/Kg)</b>	0.142956
<b>SAR 1g (W/Kg)</b>	0.256868

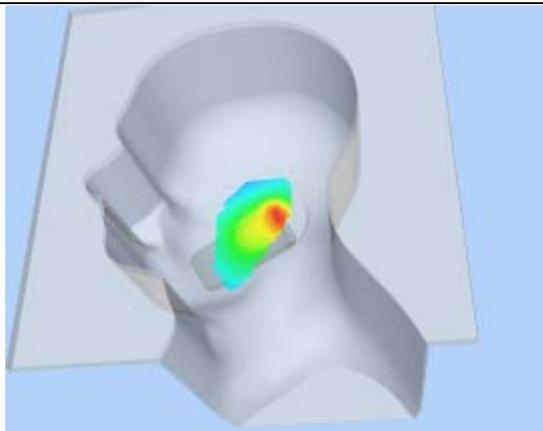
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1643</b>	<b>0.1089</b>	<b>0.0750</b>	<b>0.0487</b>	<b>0.0369</b>	<b>0.0246</b>

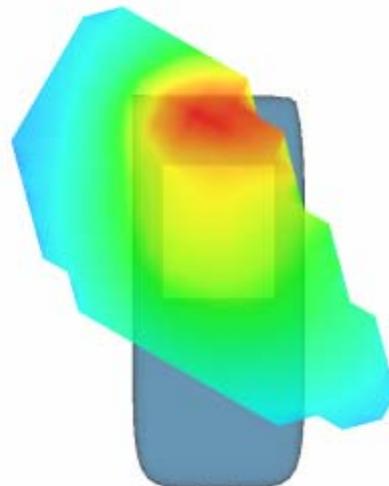
**SAR, Z Axis Scan (X = -30, Y = -1)**



**3D seen shot**



**Hot spot position**



## MEASUREMENT 37

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 10/6/2011

Measurement duration: 7 minutes 28 seconds

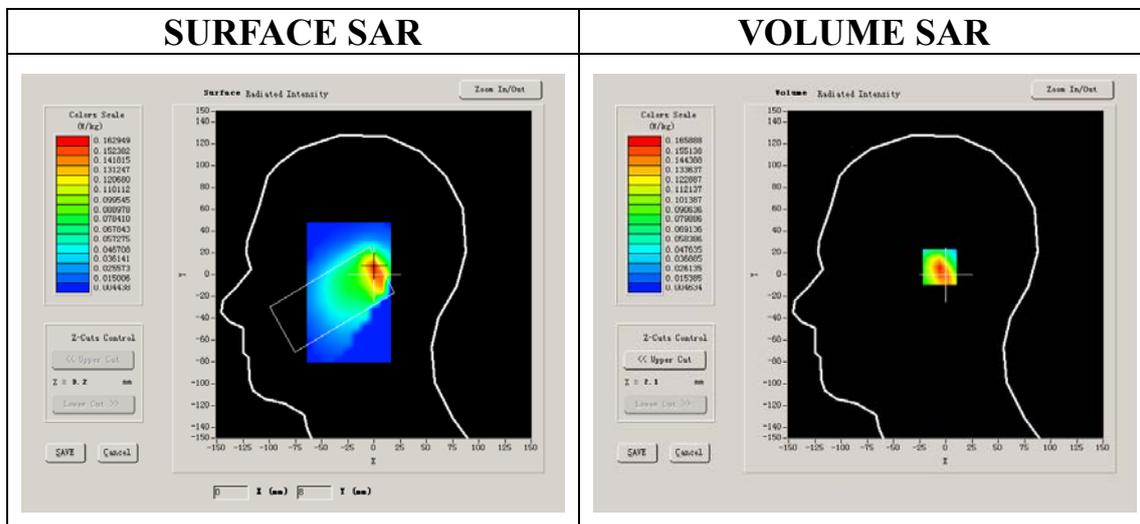
### A. Experimental conditions.

<b>Phantom File</b>	zinf3.txt
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR (Channel 38):

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.389465
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.947345
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



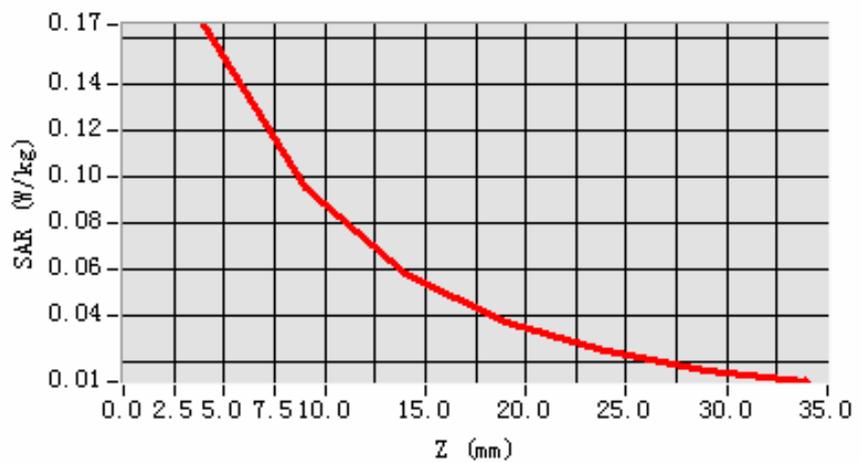
**Maximum location: X=0.00, Y=7.00**

<b>SAR 10g (W/Kg)</b>	0.088746
<b>SAR 1g (W/Kg)</b>	0.154092

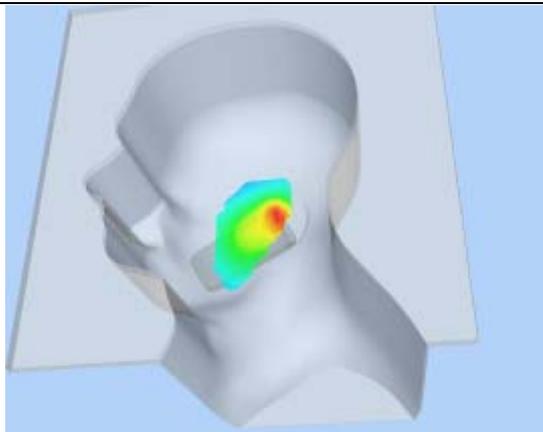
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1659</b>	<b>0.0951</b>	<b>0.0582</b>	<b>0.0373</b>	<b>0.0246</b>	<b>0.0155</b>

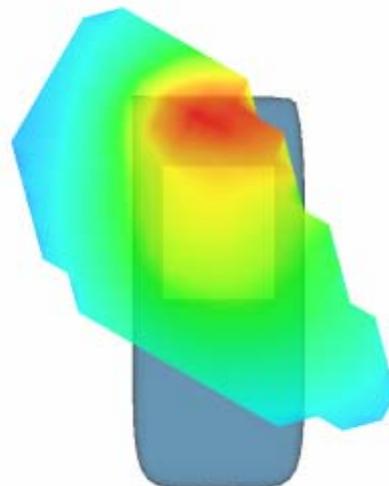
**SAR, Z Axis Scan (X = 0, Y = 7)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 38

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 10/6/2011

Measurement duration: 7 minutes 25 seconds

### A. Experimental conditions.

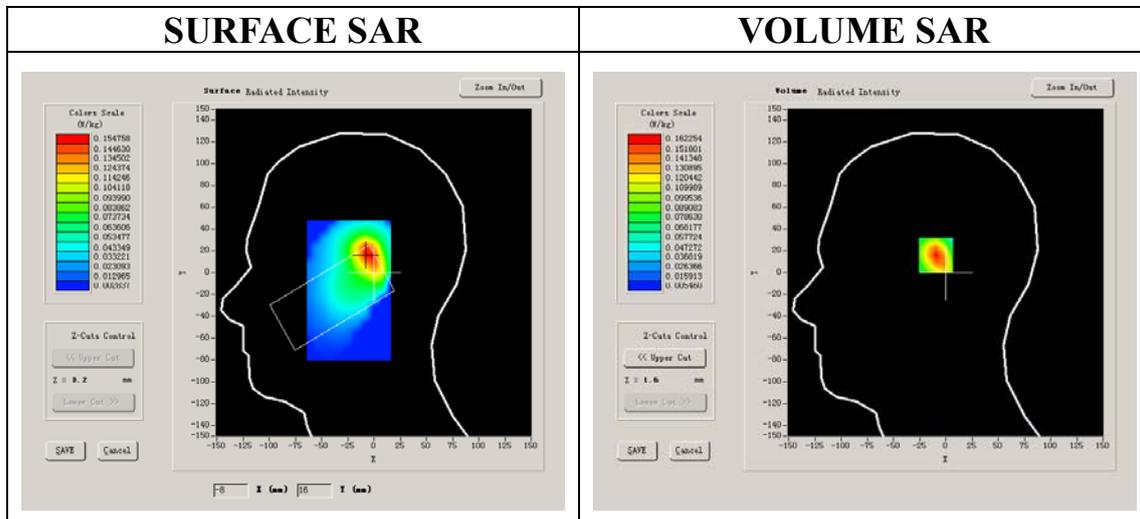
<b>Phantom File</b>	zinf3.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

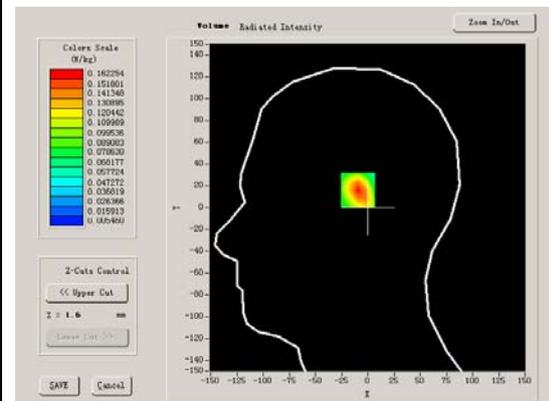
Middle Band SAR:

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.389465
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.947345
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1

#### SURFACE SAR



#### VOLUME SAR



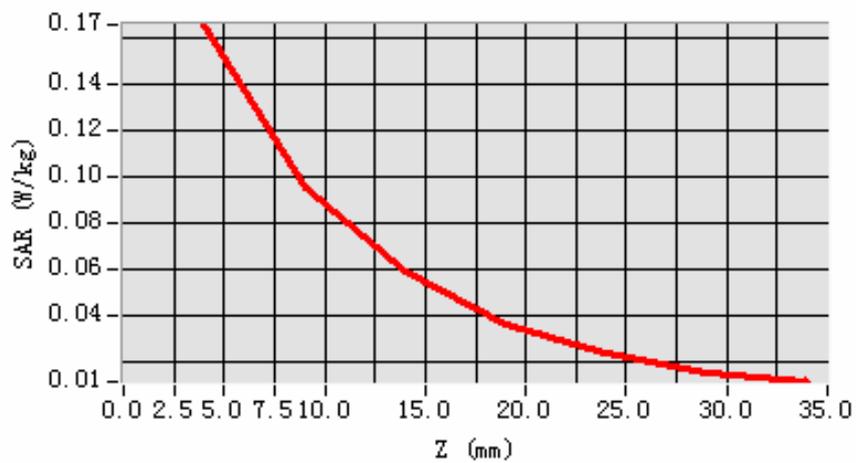
**Maximum location: X=-9.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.155441
<b>SAR 1g (W/Kg)</b>	0.263059

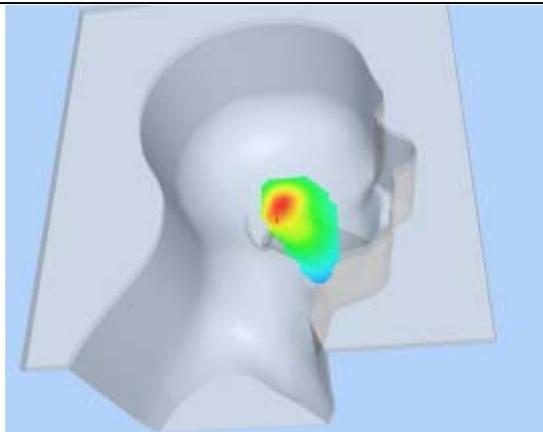
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1653</b>	<b>0.0954</b>	<b>0.0590</b>	<b>0.0364</b>	<b>0.0233</b>	<b>0.0156</b>

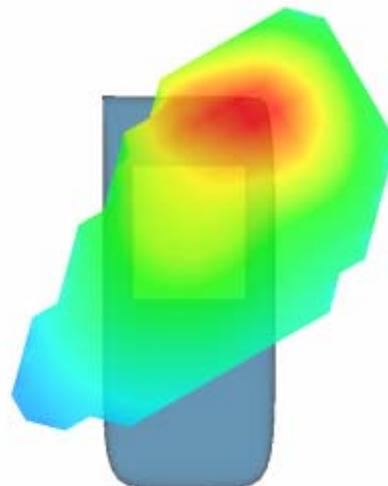
**SAR, Z Axis Scan (X = -9, Y = 16)**



**3D scene shot**



**Hot spot position**



## MEASUREMENT 39

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 10/6/2011

Measurement duration: 7 minutes 25 seconds

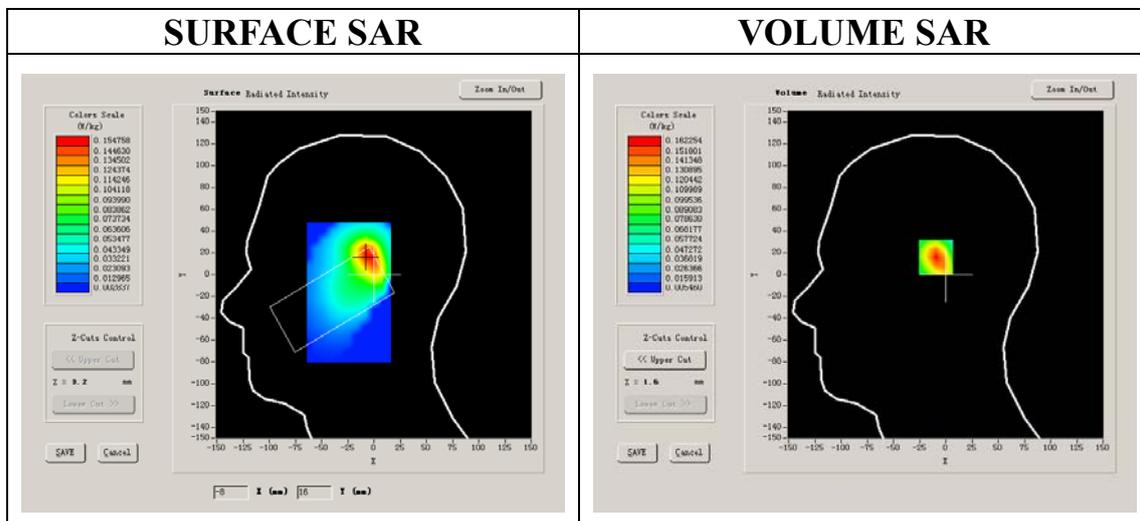
### A. Experimental conditions.

<b>Phantom File</b>	zinf3.txt
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	802.11 b
<b>Channels</b>	Middle
<b>Signal</b>	CW

### B. SAR Measurement Results

Middle Band SAR (Channel 38):

<b>Frequency (MHz)</b>	2437.000000
<b>Relative permittivity (real part)</b>	54.389465
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.947345
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



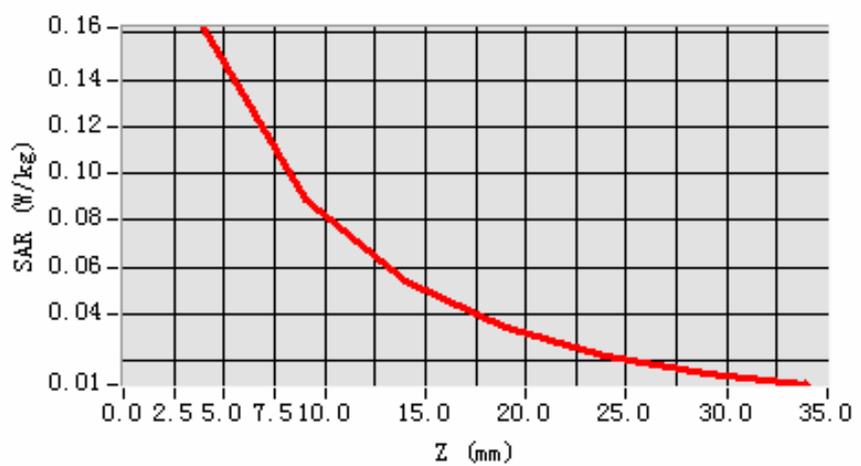
**Maximum location: X=-6.00, Y=17.00**

<b>SAR 10g (W/Kg)</b>	0.086892
<b>SAR 1g (W/Kg)</b>	0.153186

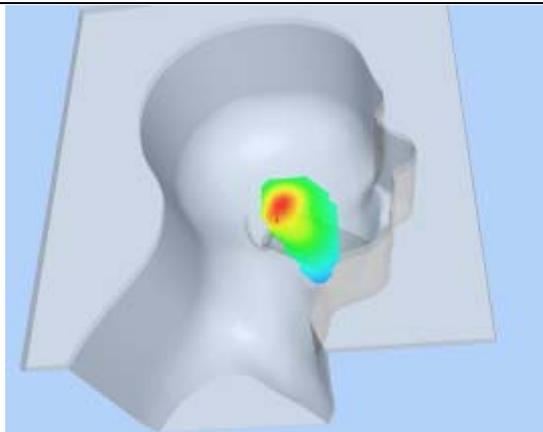
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1623</b>	<b>0.0889</b>	<b>0.0537</b>	<b>0.0339</b>	<b>0.0220</b>	<b>0.0147</b>

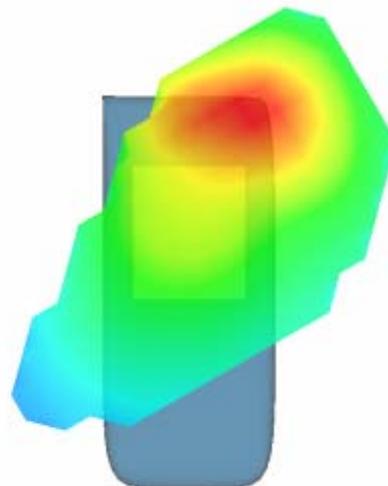
**SAR, Z Axis Scan (X = -6, Y = 17)**



**3D scene shot**



**Hot spot position**



## System Performance Check Data(Head)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 13 minutes 27 seconds

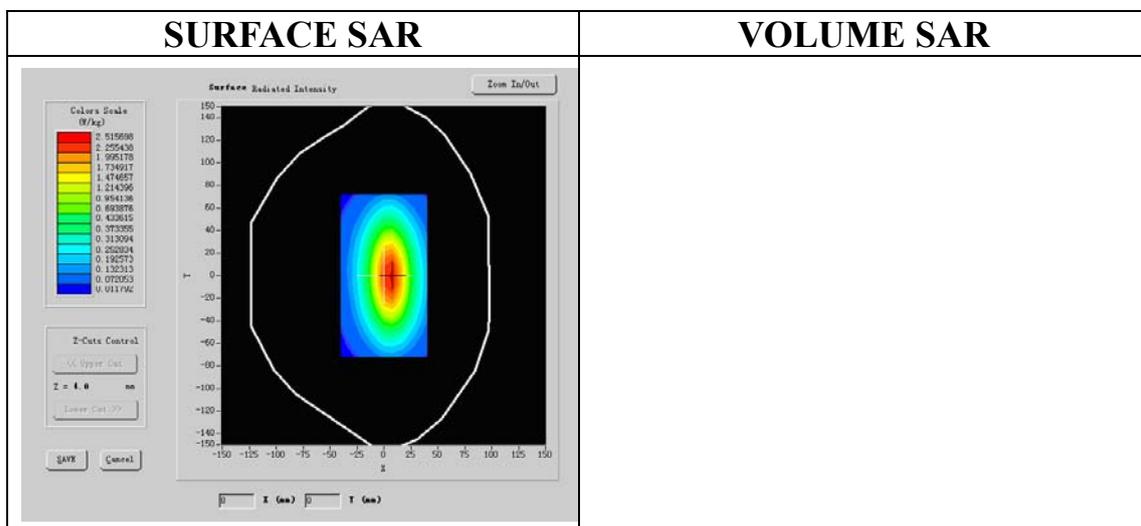
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	1800MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	1800.000000
<b>Relative permittivity (real part)</b>	38.930000
<b>Relative permittivity</b>	15.070000
<b>Conductivity (S/m)</b>	1.321229
<b>Power Drift (%)</b>	-0.140000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:1



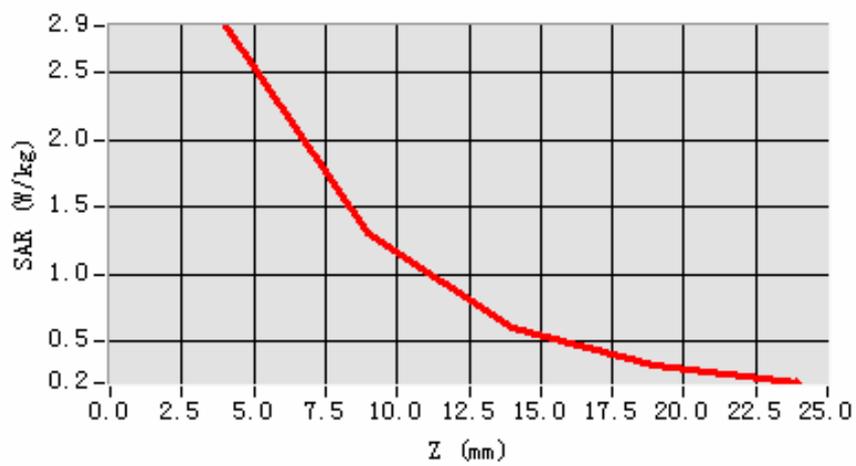
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	5.957633
<b>SAR 1g (W/Kg)</b>	9.844123

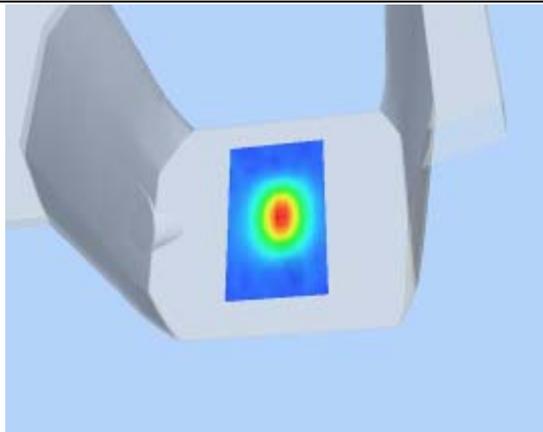
### Z Axis Scan

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>2.8536</b>	<b>1.3061</b>	<b>0.6041</b>	<b>0.3211</b>

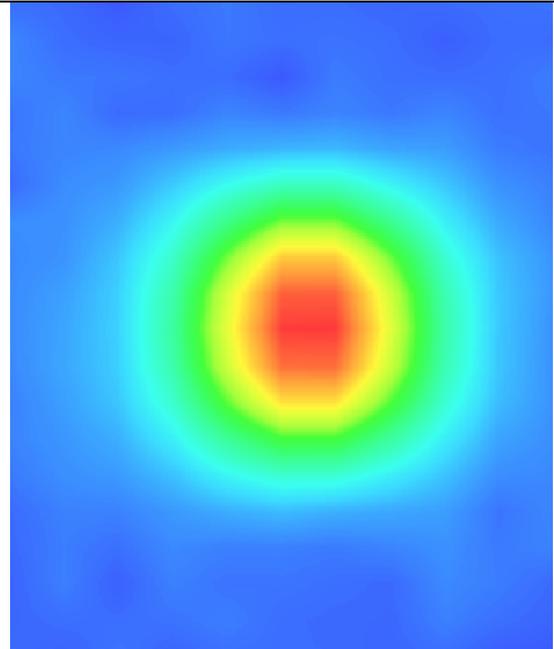
SAR, Z Axis Scan (X = 5, Y = 1)



3D scene shot



Hot spot position



## System Performance Check Data(Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 13 minutes 27 seconds

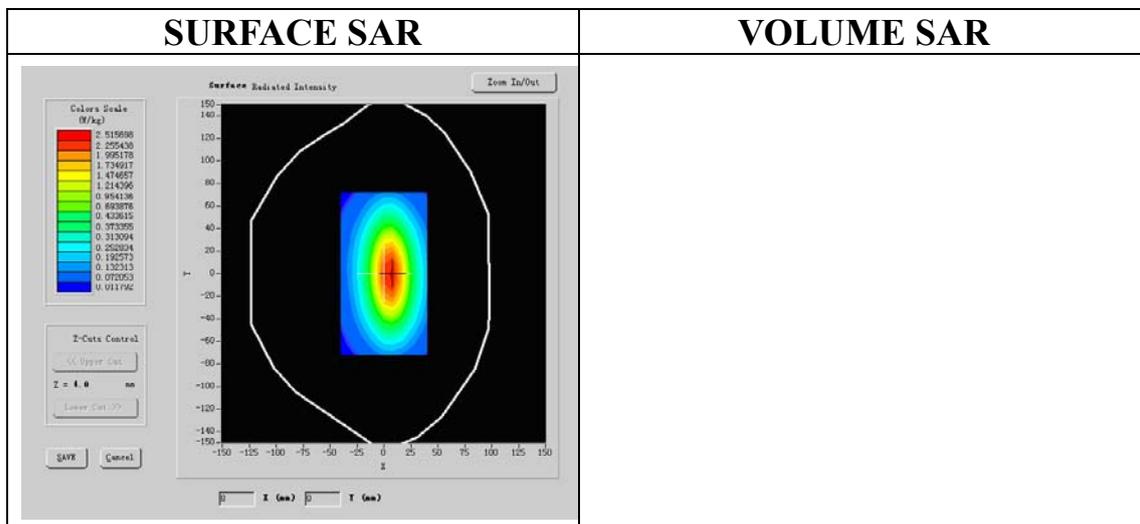
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	1800MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	1800.000000
<b>Relative permittivity (real part)</b>	38.930000
<b>Relative permittivity</b>	15.070000
<b>Conductivity (S/m)</b>	1.321229
<b>Power Drift (%)</b>	-0.140000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:1



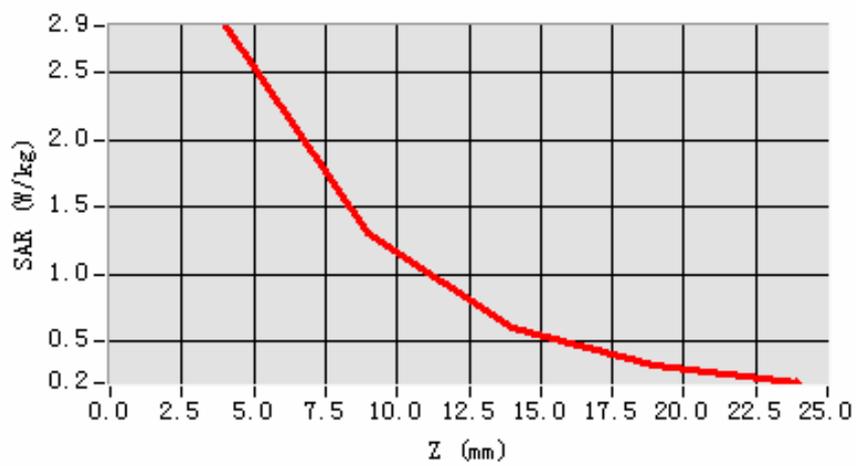
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	5.912434
<b>SAR 1g (W/Kg)</b>	9.818562

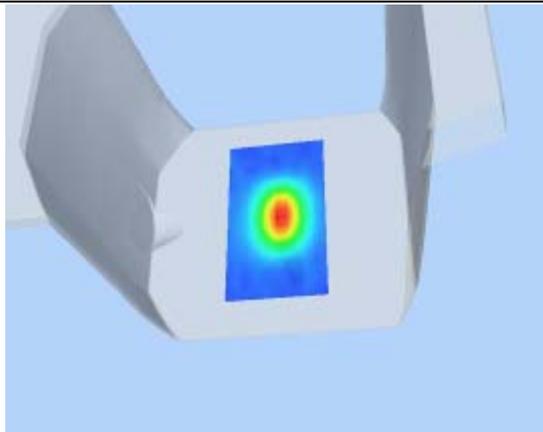
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	2.8536	1.3061	0.6041	0.3211

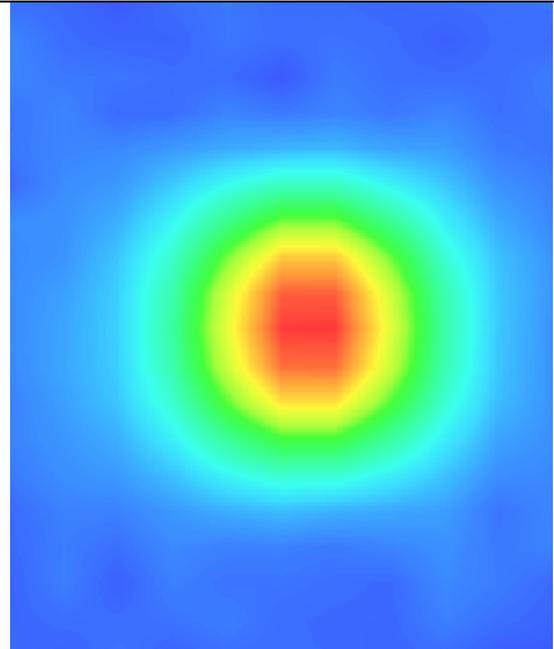
SAR, Z Axis Scan (X = 5, Y = 1)



3D scene shot



Hot spot position



## System Performance Check Data(Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 3/5/2011

Measurement duration: 13 minutes 27 seconds

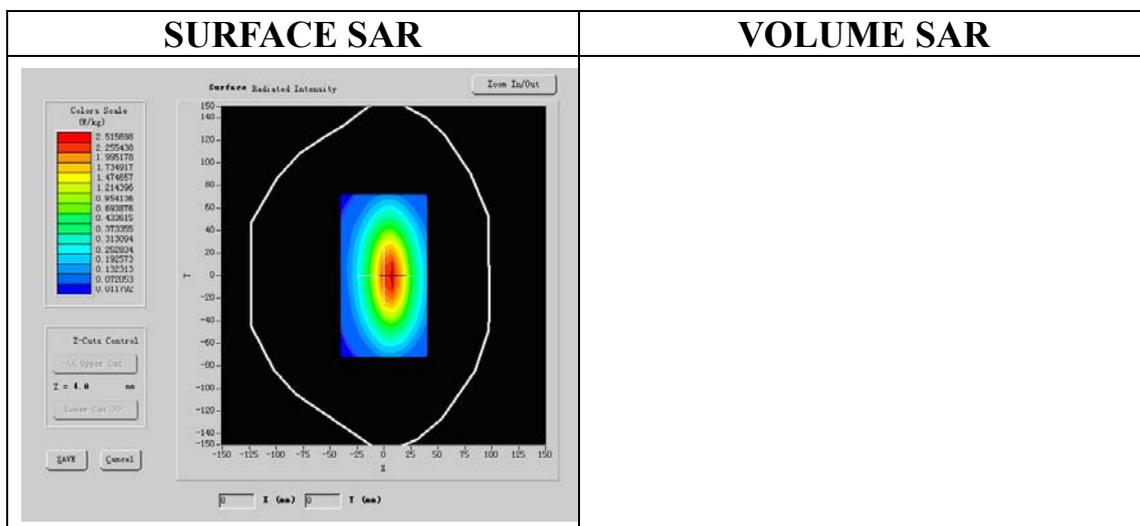
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	2450MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	2450.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



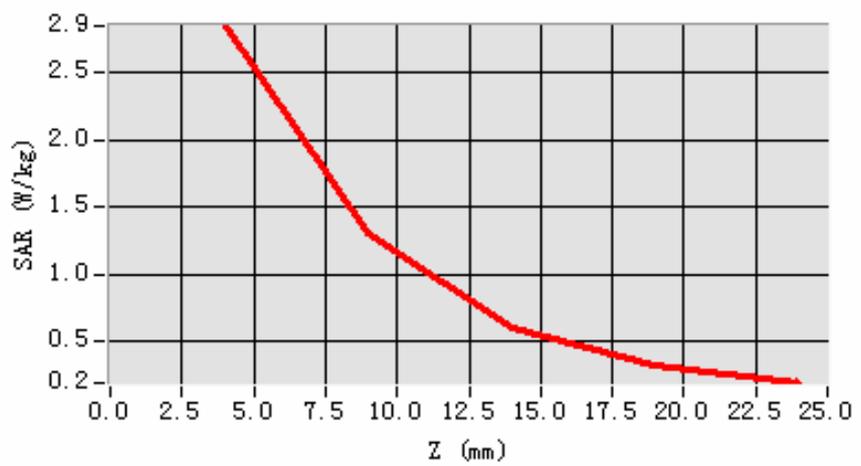
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	7.077634
<b>SAR 1g (W/Kg)</b>	12.988772

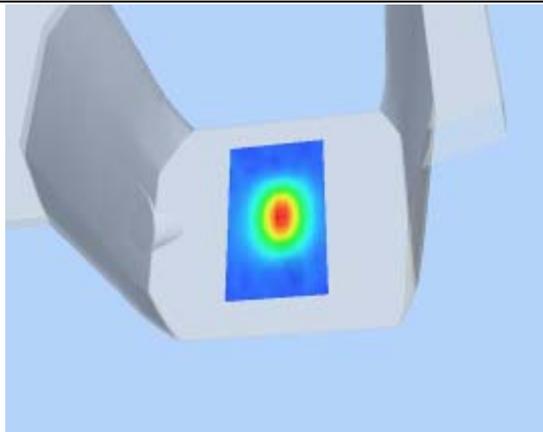
### Z Axis Scan

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>2.8536</b>	<b>1.3061</b>	<b>0.6041</b>	<b>0.3211</b>

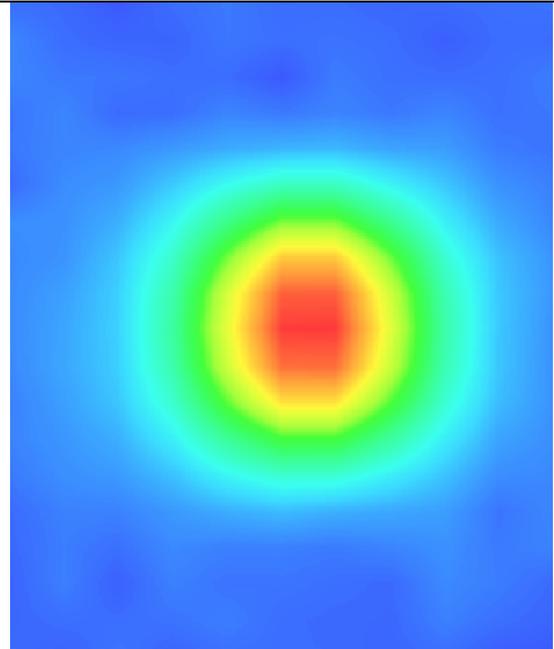
SAR, Z Axis Scan (X = 5, Y = 1)



3D scene shot



Hot spot position



## System Performance Check Data(Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 13 minutes 27 seconds

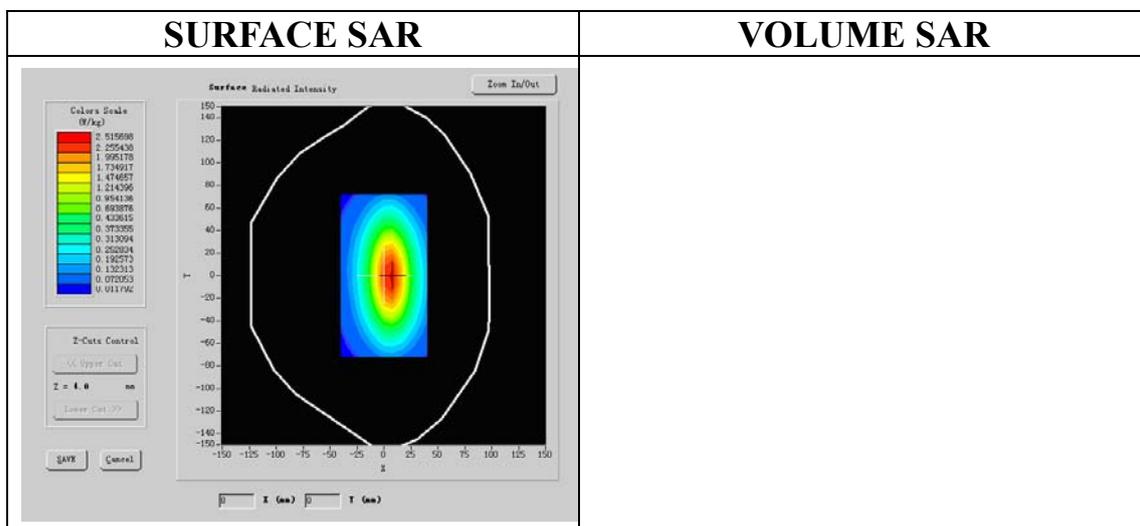
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	1800MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	1800.000000
<b>Relative permittivity (real part)</b>	38.930000
<b>Relative permittivity</b>	15.070000
<b>Conductivity (S/m)</b>	1.321229
<b>Power Drift (%)</b>	-0.140000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	22.6°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:1



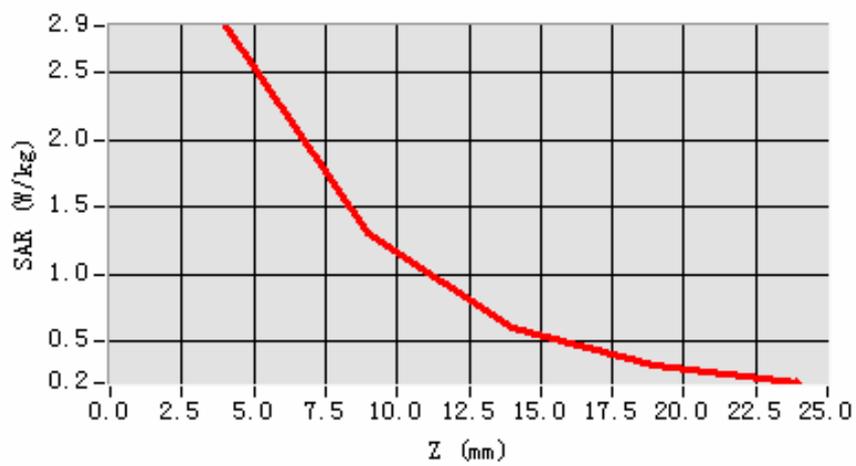
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	5.894565
<b>SAR 1g (W/Kg)</b>	9.795412

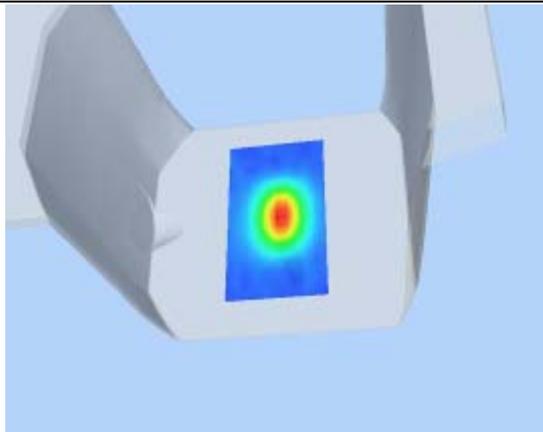
### Z Axis Scan

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>2.8536</b>	<b>1.3061</b>	<b>0.6041</b>	<b>0.3211</b>

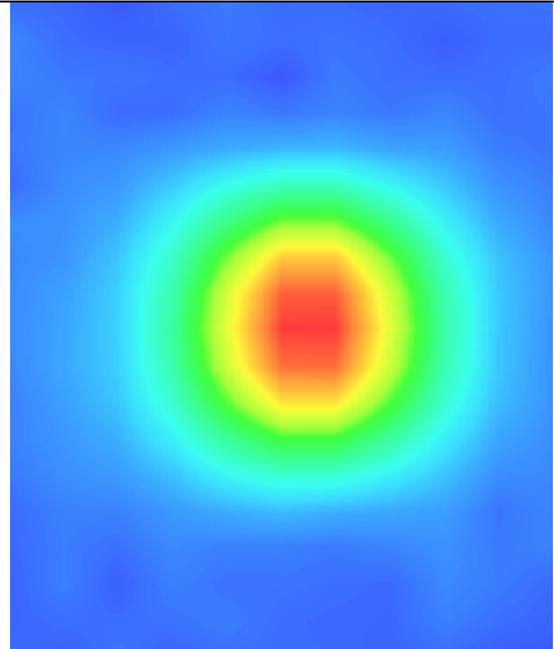
SAR, Z Axis Scan (X = 5, Y = 1)



3D scene shot



Hot spot position



## System Performance Check Data(Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 7/6/2011

Measurement duration: 13 minutes 27 seconds

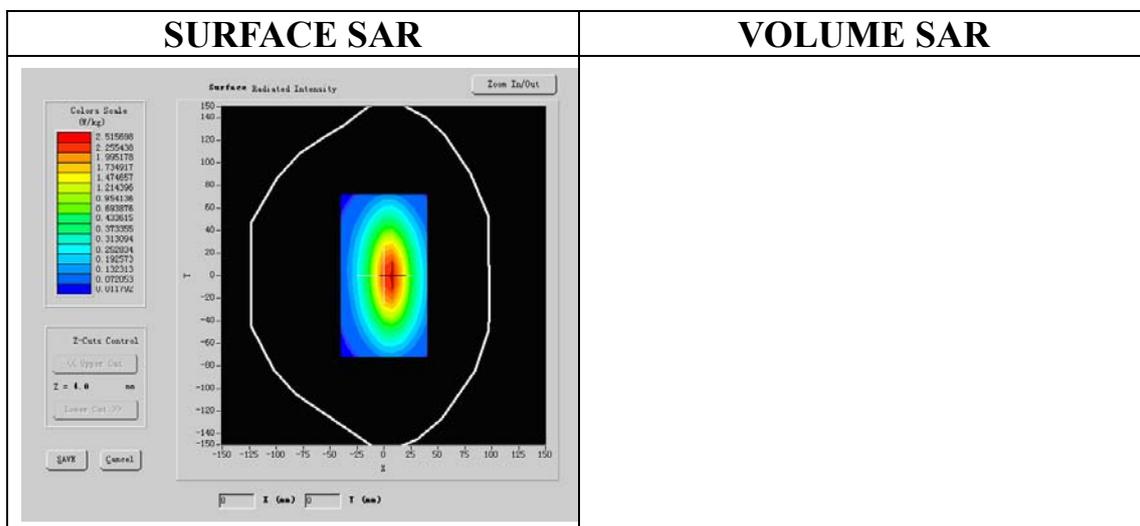
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	2450MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	2450.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



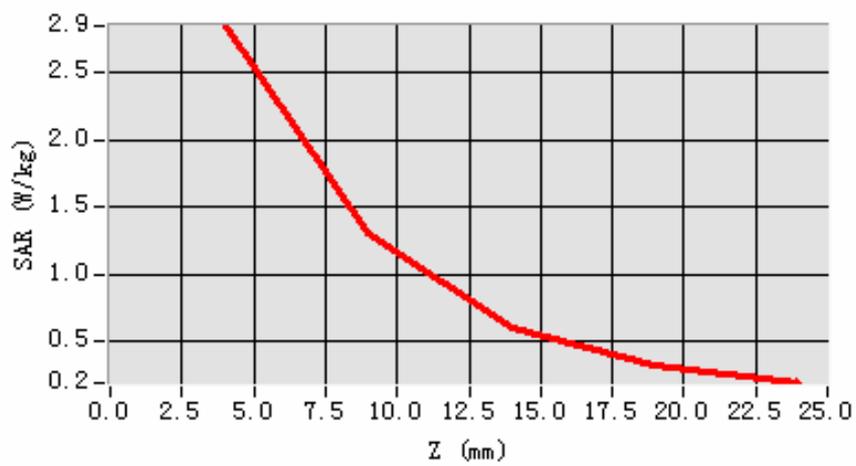
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	6.945144
<b>SAR 1g (W/Kg)</b>	12.946845

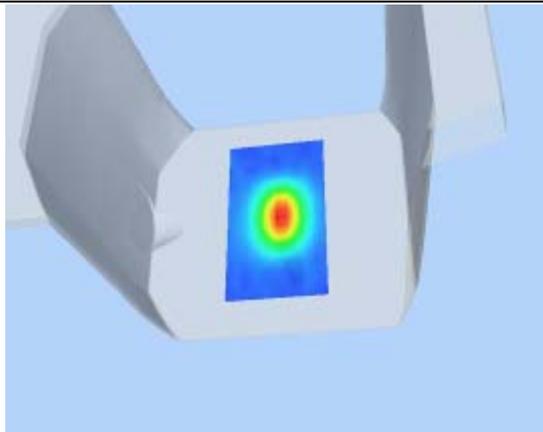
### Z Axis Scan

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>2.8536</b>	<b>1.3061</b>	<b>0.6041</b>	<b>0.3211</b>

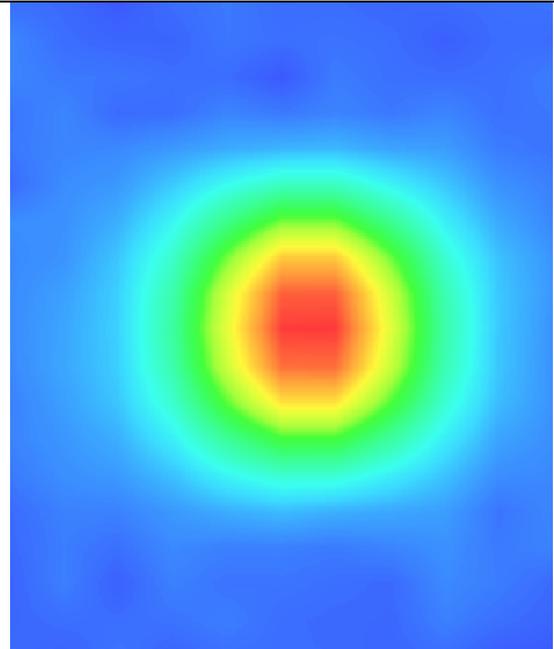
**SAR, Z Axis Scan (X = 5, Y = 1)**



**3D scene shot**



**Hot spot position**



## System Performance Check Data(Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 10/6/2011

Measurement duration: 13 minutes 27 seconds

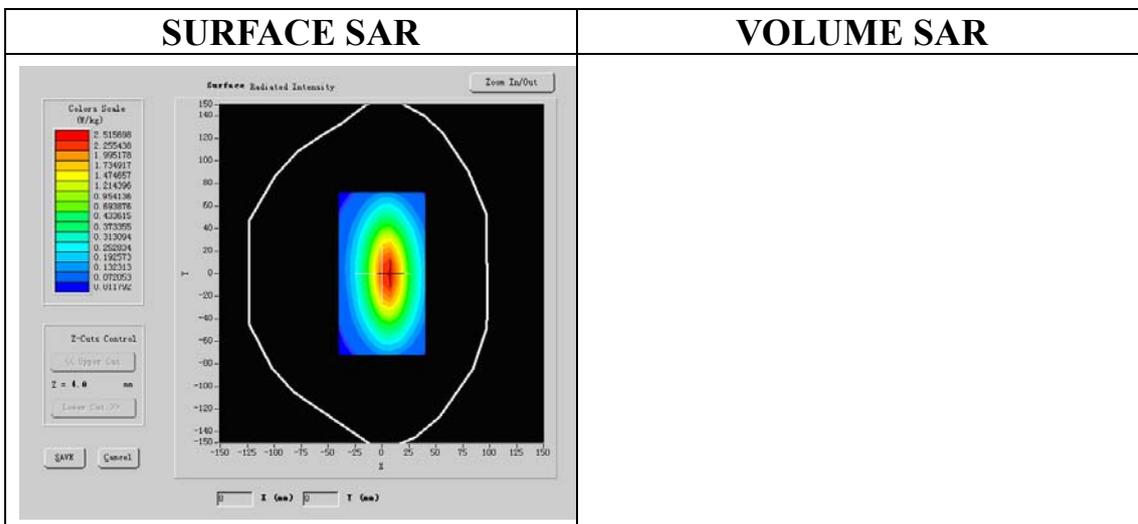
### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	
<b>Band</b>	2450MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

#### Band SAR

<b>Frequency (MHz)</b>	2450.000000
<b>Relative permittivity (real part)</b>	54.341000
<b>Relative permittivity</b>	19.120001
<b>Conductivity (S/m)</b>	1.952641
<b>Power Drift (%)</b>	-2.180000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	39.772,33.946,37.835
<b>Crest factor:</b>	1:1



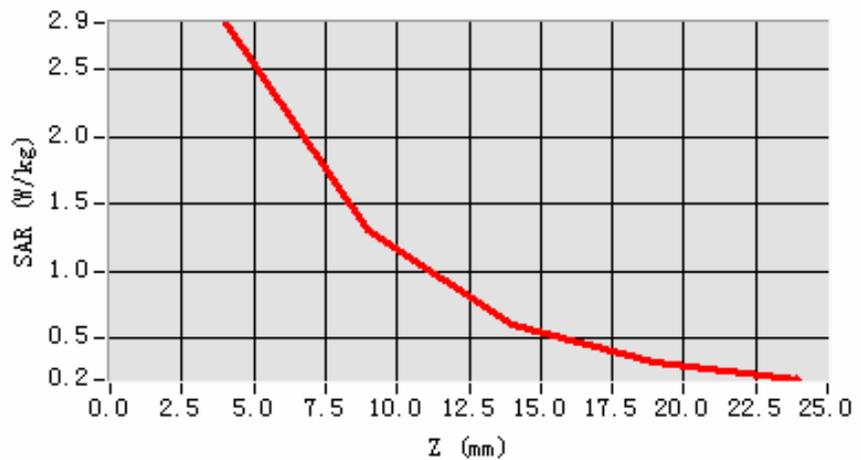
**Maximum location: X=5.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	6.856773
<b>SAR 1g (W/Kg)</b>	12.899365

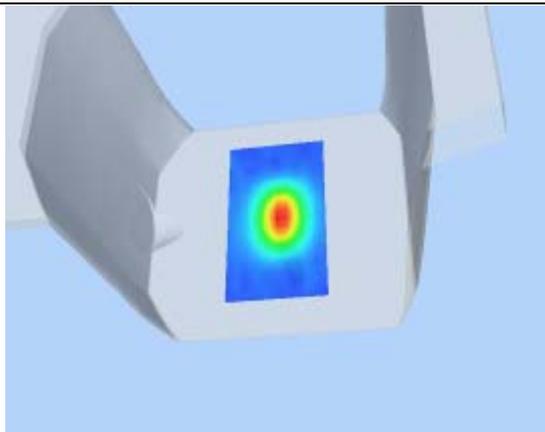
**Z Axis Scan**

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>2.8536</b>	<b>1.3061</b>	<b>0.6041</b>	<b>0.3211</b>

**SAR, Z Axis Scan (X = 5, Y = 1)**



**3D scene shot**



**Hot spot position**

