

Report No.: SZ12040087S01





# SAR TEST REPORT

Issued to

#### DDM Brands LLC

For

#### Mobile Phone

Model Name

: ANDY 3G 2.8

Trade Name

: YEZZ

Brand Name

: YEZZ

FCC ID

: A4JANDY3G28

Standard

: FCC Oet65 Supplement C Jun.2001

47CFR 2.1093

ANSI C95.1-1999

IEEE 1528-2003

MAX SAR

: Head: 1.160W/kg

Body: 0.959W/kg

Test date

2012-5-21

Issue date

Shenzhen MORLAB

ology Co., Ltd.

Zhu Zhan

Approved by (orguon Wei Yanguan

Date

2012.5.30

Date

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FCC Reg. No.

**IEEE 1725** 

BQTF

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	Change History				
Issue	Date	Reason for change			
1.0	May 30, 2012	First edition			



## **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

### 1.4. List of Test Equipments

No.	Instrument	Туре	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)	2011-9-26	1year
3	Voltmeter	Keithley (2000, SN:1000572)	2011-9-24	1 year
4	Synthetizer	Rohde&Schwarz (SML_03, SN:101868)	2011-9-24	1year
5	Amplifier	Nucl udes (ALB216, SN:10800)	2011-9-24	1 year
6	Power Meter	Rohde&Schwarz (NRVD, SN:101066)	2011-9-24	1 year
7	Probe	Satimo (SN:SN_3708_EP80)	2011-9-24	1 year
8	Phantom	Satimo (SN:SN_36_08_SAM62)	2011-9-24	1 year
9	Liquid	Satimo (Last Calibration: 2012-5-21)	N/A	N.A
10	Dipole 835MHz	Satimo (SN 36/08 DIPC 99)	2011-9-24	1 year
11	Dipole 1900MHz	Satimo (SN 36/08 DIPF 102)	2011-9-24	1 year
12	Dipole 2450MHz	Satimo (SN 36/08 DIPJ 103)	2011-9-24	lyear



### 2. Technical Information

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

### 2.1.Identification of Applicant

Company Name: DDM Brands LLC

Address: 1612 NW, 84TH Ave. Miami, Florida, U.S.A 33126

#### 2.2. Identification of Manufacturer

Company Name: Guangdong Tianjin electronic Co.,Ltd.

Address: 3rdBuilding, LongFuIndustrialPark, HuaRong Road, DaLang,

LongHua, ShenZhen 518000

### 2.3. Equipment Under Test (EUT)

Model Name: ANDY 3G 2.8

Trade Name: YEZZ
Brand Name: YEZZ
Hardware Version: WMABb
Software Version: N/A

Frequency Bands: GSM 850MHz / PCS 1900MHz; WCDMA 850MHz/1900MHz;

WIFI802.11 B/G/N; Bluetooth

Modulation Mode: GSM/GPRS: GMSK; EDGE: 8PSK

WIFI802.11B: DSSS; WIFI802.11G: OFDM

WIFI 802.11N: OFDM

WCDMA/HSDPA/HSUPA:QPSK BT: GFSK/Π/4-DQPSK/8-DPSK

Multislot Class GPRS: Multislot Class 12; EDGE: Multislot Class 12

Antenna type: Fixed Internal Antenna
Development Stage: Identical prototype
Battery Model: ANDY 3G 2.8 YZ11

Battery specification: 1000mAh3.7V WCDMA release: Release 6

#### 2.3.1. Photographs of the EUT

Please see for photographs of the EUT.



#### 2.3.2. Identification of all used EUT

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#	WMABb	N/A

## 2.4. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title								
1	47 CFR§2.1O93	Radiofrequency Radiation Exposure Evaluation: Portable								
		Devices								
2	FCC OET Bulletin	Evaluating Compliance with FCC Guidelines for Human								
	65 (Edition 97-01),	Exposure to Radiofrequency Electromagnetic Fields								
	Supplement C									
	(Edition 01-01)									
3	ANSI C95.1-1999	IEEE Standard for Safety Levels with Respect to Human								
		xposure to Radio Frequency Electromagnetic Fields, 3kHz to								
		300 GHz								
4	IEEE 1528-2003	Recommended Practice for Determining the Peak								
		Spatial-Average Specific Absorption Rate(SAR) in the Human								
		Body Due to Wireless Communications Devices: Experimental								
		Techniques.								
5	KDB 648474 D1	SAR Evaluation Considerations for Handsets with Multiple								
		Transmitters and Antennas								
6	KDB941225D1 v02	SAR Measurement Procedures for 3G Devices								
7	KDB 941225 D6	SAR Evaluation Procedures for Portable Devices with Wireless								
		Router Capabilities								
8	KDB 2484227	SAR Measurement Procedures for 802.11 a/b/g Transmitters								

# 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: GSM 850MHz PCS 1900MHz

WCDMA 850MHz WCDMA1900MHz

Operation mode: Call established

Power Level: GSM 850 MHz Maximum output power(level 5)

PCS 1900 MHz Maximum output power(level 0)

WCDMA Maximum output power

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 to 125, 190 and 251 respectively in the case of GSM 850 MHz, or to 512, 661 and 810 respectively in the case of PCS 1900 MHz, or to 9262, 9400 and 9538 respectively in the case of WCDMA 19000, or to 4132, 4175 and 4233 respectively in the case of WCDMA 850. 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 or WCDMA link mode. In GPRS/EDGE link mode, its crest factor is 2, because EUT is set in GPRS/EDGE multi-slot class 12 with 4 uplink slots. In WCDMA and WIFI mode, its crest factor is 1.



## 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:

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

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

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

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

, where C is the specific head capacity,  $\delta$  T is the temperature rise and  $\delta$  t the exposure duration,

or related to the electrical field in the tissue by

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

, 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)

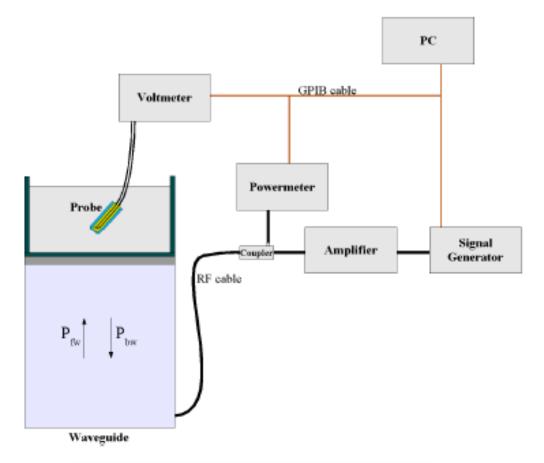


- Probe linearity: <0.25 dB</li>
- Axial Isotropy: <0.25 dB</li>
- Spherical Isotropy: <0.25 dB</li>

- Calibration range: 835to 2500MHz for head & body simulating liquid.

Angle between probe axis (evaluation axis) and suface normal line:1ess than 30°

Probe calibration is realized, in compliance with CENELEC EN 62209 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 622091 annexe technique using reference guide at the five frequencies.



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

Where:

Pfw = Forward Power Pbw = Backward Power

a and b = Waveguide dimensions

= Skin depth

Keithley configuration:

Rate = Medium; Filter =ON; RDGS=10; FILTER TYPE =MOVING AVERAGE; RANGE AUTO After each calibration, a SAR measurement is performed on a validation dipole and compared with a



NPL calibrated probe, to verify it.

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

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

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

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

where DCP is the diode compression point in mV.

#### 4.3. Probe Calibration Process

### 4.3.1 Dosimetric Assessment Procedure

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

### **4.3.2** Free Space Assessment Procedure

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

## 4.3.2 Temperature Assessment Procedure

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate

simulated head tissue. The E-field in the medium correlates with the temperature rise in the dielectric

medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

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

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

exposure.

SAR is proportional to  $\Delta T/\Delta t$ , the initial rate of tissue heating, before thermal diffusion takes



place. The electric field in the simulated tissue can be used to estimate SAR by equating the thermally derived SAR to that with the E- field component.

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

 $\sigma = \text{simulated tissue conductivity,}$ 

 $\rho$  = Tissue density (1.25 g/cm3 for brain

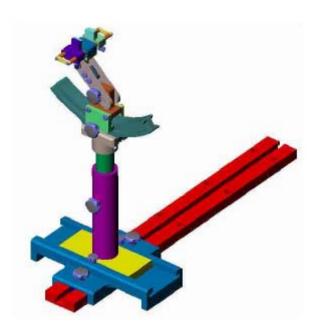
tissue)

#### 4.4. Phantom

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

#### 4.5. Device Holder

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



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 850MHz, 1900MHz and 2450MHz . 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 or from the flat phantom to the liquid top surface is 15cm.

Following are the recipes for one liter of head and body tissue simulating liquid for frequency band  $835~\mathrm{MHz}$  and  $1900~\mathrm{MHz}$ .

Ingredients	Frequency Band		Frequen	cy Band	Frequency Band		
(% by weight)	835]	MHz	1900	MHz	2450MHz		
Tissue Type	Head	Body	Head	Body	Head	Body	
Water	41.45	52.4	54.9	40.4	62.7	73.2	
Salt(NaCl)	1.45	1.4	0.18	0.5	0.5	0.04	
Sugar	56.0	45.0	0.0	58.0	0.0	0.0	
HEC	1.0	1.0	0.0	1.0	0.0	0.0	
Bactericide	0.1	0.1	0.0	0.1	0.0	0.0	
Triton	0.0	0.0	0.0	0.0	0.0	0.0	
DGBE	0.0	0.0	44.92	0.0	36.8	0.0	
Acticide SPX	0.0	0.0	0.0	0.0	0.0	26.7	
Dielectric Constant	42.45	56.1	39.9	54.0	39.7	52.7	
Conductivity (S/m)	0.91	0.95	1.42	1.45	1.88	1.97	

Recipes for Tissue Simulating Liquid

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: 22.0~23.8°C, humidity: 54~60%.							
Frequency	Description	Permittivity ε	Conductivity σ (S/m)				
	Reference result	41.5	0.90				
835 MHz	±5% window	39.425 to 43.575	0.855 to 0.945				
	Validation value	41.675999	0.894409				
	(May 21)	41.073999	0.094409				
	Reference result	40	1.40				
1900 MHz	±5% window	38 to 42	1.33 to 1.47				
1900 MITZ	Validation value	38.509998	1.436111				
	(May 21)	30.20,770	1.130111				
	Target value	39.7	1.88				
2450 MHz	Validation value (Mar. 17)	39.622857	1.864313				



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

Temperature: 22.0~23.8°C, humidity: 54~60%.							
Frequency	Description	escription Permittivity ε					
	Reference result	55.2	0.97				
925 MHz	±5% window	52.44 to 57.96	0.9215 to 1.0185				
835 MHz	Validation value (May 21)	55.709999	0.9809033				
	Reference result	53.3	1.52				
1000 MHz	±5% window	50.635 to 55.965	1.444 to 1.596				
1900 MHz	Validation value (May 21)	52.548876	1.553978				
2450 MHz	Reference result ±5% window	52.7	1.97				
	Validation value (May 21)	52.427771	1.916882				



# 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

	1.			0.11	Ι.,		1,	Τ.	١.
a	b	С	d	e=f(d,k)	f	g	h=c*f/e	i=	k
								c*g/	
77	~		- 1		a:	a.	4	e	
Uncertainty Component	Sec.	Tol	Prob.	Div.	Ci	Ci	1g Ui	10g	Vi
		(+- %	Dist.		(1g)	(10g)	(+-%)	Ui	
		)						(+-	
16.								%)	
Measurement System	E 0.1	176	<b>N</b> T		1	1	4.76	4.776	
Probe calibration	E.2.1	4.76	N	1	1	1	4.76	4.76	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	0.7	0.7	1.01	1.01	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	0.7	0.7	1.62	1.62	$\infty$
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	$\infty$
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	8
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	8
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∞
Reponse Time	E.2.7	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	$\infty$
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner Mechanical	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Tolerance									
Probe positioning with respect	E.6.3	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	$\infty$
to Phantom Shell	F. 7. 2	5.0	D	<u></u>	1	1	2.00	2.00	
Extrapolation, interpolation and	E.5.2	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
integration Algoritms for Max.									
SAR Evaluation									
Test sample Related	I	T	T		Ι.	Τ.	T	1	T
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	N-
									1
Output power Power drift -	6.6.2	4.04	R	$\sqrt{3}$	1	1	2.33	2.33	∞
SAR drift measurement									
Phantom and Tissue Parameter	·s								
Phantom Uncertainty (Shape	E.3.1	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
and thickness tolerances)			<u> </u>				0.03	0.03	



Liquid conductivity - deviation	E.3.2	4.57	R	$\sqrt{3}$	0.64	0.43	1.69	1.13	∞
from target value									
Liquid conductivity -	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	M
measurement uncertainty									
Liquid permittivity - deviation	E.3.2	3.69	R	$\sqrt{3}$	0.6	0.49	1.28	1.04	∞
from target value									
Liquid permittivity -	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
measurement uncertainty									
Combined Standard			RSS				11.55	10.6	
Uncertainty								7	
Expanded Uncertainty			K=2				23.11	21.3	
(95% Confidence interval)								3	

## 6.2. UNCERTAINTY FOR SYSTEM PERFORMANCE CHECK

a	b	С	d	e = f(d,k)	f	α	h= c*f/e	i=	k
a	U		u	e- I(u,k)	1	g	11-6-1/6	c*g/	K
								_	
	G	m 1	D 1	D.	G:	G:	1 11	e	* T'
Uncertainty Component	Sec.	Tol	Prob.	Div.	Ci	Ci	1g Ui	10g	Vi
		(+- %	Dist.		(1g)	(10g)	(+-%)	Ui	
		)						(+-	
								%)	
Measurement System	ı	1	1	T			ı	T	
Probe calibration	E.2.1	4.76	N	1	1	1	4.76	4.76	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	0.7	0.7	1.01	1.01	8
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	0.7	0.7	1.62	1.62	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	8
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	$\infty$
Reponse Time	E.2.7	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner Mechanical	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Tolerance									
Probe positioning with respect	E.6.3	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
to Phantom Shell									
Extrapolation, interpolation and	E.5.2	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	$\infty$
integration Algoritms for Max.									
SAR Evaluation									
Dipole									
Dipole axis to liquid Distance	8,E.4.2	1.00	N	$\sqrt{3}$	1	1	0.58	0.58	∞
	•	•	•		•	•	•	•	



measurement  Phantom and Tissue Parameters  Phantom Uncertainty (Shape and thickness tolerances)  Liquid conductivity - deviation from target value  Liquid conductivity - E.3.2   4.57   R   $\sqrt{3}$   0.64   0.43   1.69   1.13   0.64   0.43   1.85   1.24   N    measurement   E.3.2   3.69   R   $\sqrt{3}$   0.66   0.49   1.28   1.04   0.66   0.49   1.28   0.66   0.49   1.28   0.66   0.49   0.45   0.66   0.49   0.45										
Phantom and Tissue ParametersPhantom Uncertainty (Shape and thickness tolerances)E.3.1 $0.05$ R $\sqrt{3}$ 11 $0.03$ $0.03$ $0.03$ Liquid conductivity - deviation from target valueE.3.2 $4.57$ R $\sqrt{3}$ $0.64$ $0.43$ $1.69$ $1.13$ $0.64$ Liquid conductivity - measurement uncertaintyE.3.3 $5.00$ N $\sqrt{3}$ $0.64$ $0.43$ $1.85$ $1.24$ $0.64$ Liquid permittivity - deviation from target valueE.3.2 $3.69$ R $\sqrt{3}$ $0.6$ $0.49$ $1.28$ $1.04$ $0.64$ Liquid permittivity - measurement uncertaintyE.3.3 $10.00$ N $\sqrt{3}$ $0.6$ $0.49$ $3.46$ $2.83$ $0.64$ Combined Standard UncertaintyRSS $0.6$ $0.49$ <	Input power and SAR drift	8,6.6.2	4.04	R	$\sqrt{3}$	1	1	2.33	2.33	∞
Phantom Uncertainty (Shape and thickness tolerances)E.3.1 $0.05$ R $\sqrt{3}$ 11 $0.03$ $0.03$ $0.03$ Liquid conductivity - deviation from target valueE.3.2 $4.57$ R $\sqrt{3}$ $0.64$ $0.43$ $1.69$ $1.13$ $0.69$ Liquid conductivity - measurement uncertaintyE.3.3 $5.00$ N $\sqrt{3}$ $0.64$ $0.43$ $1.85$ $1.24$ $0.64$ Liquid permittivity - deviation from target valueE.3.2 $3.69$ R $\sqrt{3}$ $0.6$ $0.49$ $1.28$ $1.04$ $0.64$ Liquid permittivity - measurement uncertaintyE.3.3 $10.00$ N $\sqrt{3}$ $0.6$ $0.49$ $3.46$ $2.83$ $0.64$ Combined Standard UncertaintyRSS $0.6$ $0.49$	measurement									
and thickness tolerances)  Liquid conductivity - deviation from target value  Liquid conductivity - E.3.2 5.00 N $\sqrt{3}$ 0.64 0.43 1.69 1.13 $\circ$ measurement uncertainty  Liquid permittivity - deviation from target value  Liquid permittivity - deviation from target value  Liquid permittivity - E.3.3 10.00 N $\sqrt{3}$ 0.6 0.49 1.28 1.04 $\circ$ measurement uncertainty  Combined Standard Uncertainty  RSS 8.83 8.37	Phantom and Tissue Parameters									
Liquid conductivity - deviation from target valueE.3.24.57R $\sqrt{3}$ 0.640.431.691.13 $\circ$ Liquid conductivity - measurement uncertaintyE.3.35.00N $\sqrt{3}$ 0.640.431.851.24NLiquid permittivity - deviation from target valueE.3.23.69R $\sqrt{3}$ 0.60.491.281.04 $\circ$ Liquid permittivity - measurement uncertaintyE.3.310.00N $\sqrt{3}$ 0.60.493.462.83NCombined Standard UncertaintyRSS8.838.37	Phantom Uncertainty (Shape	E.3.1	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	8
from target value  Liquid conductivity - measurement uncertainty  Liquid permittivity - deviation from target value  E.3.2 3.69 R $\sqrt{3}$ 0.6 0.49 1.28 1.04 of from target value  Liquid permittivity - measurement uncertainty  E.3.3 10.00 N $\sqrt{3}$ 0.6 0.49 3.46 2.83 N measurement uncertainty  Combined Standard Uncertainty  RSS 8.83 8.37	and thickness tolerances)									
Liquid conductivity - E.3.3   5.00   N   $\sqrt{3}$   0.64   0.43   1.85   1.24   N    E.3.3   5.00   N   $\sqrt{3}$   0.64   0.43   1.85   1.24   N    Liquid permittivity - deviation   E.3.2   3.69   R   $\sqrt{3}$   0.6   0.49   1.28   1.04   $^{\circ}$    from target value   E.3.3   10.00   N   $\sqrt{3}$   0.6   0.49   3.46   2.83   N    E.3.3   10.00   N   $\sqrt{3}$   0.6   0.49   3.46   2.83   N    E.3.4   E.3.5   E.3.5   E.3.5   E.3.5   E.3.5   E.3.5    E.3.5   E.3.6   E.3.7   E.3.7   E.3.7    E.3.6   E.3.7   E.3.7   E.3.7    E.3.7   E.3.8   E.3.7    E.3.8   E.3.9   E.3.9   E.3.7    E.3.9   E.3.9   E.3.9   E.3.9    E.3.1   E.3.2   E.3.9   E.3.9    E.3.2   E.3.3   E.3.9    E.3.3   E.3.9   E.3.9    E.3.3   E.3.9    E.3.4   E.3.9    E.3.5   E.3.9    E.3.7   E.3.9    E.3.8   E.3.9    E.3.9   E.3.9    E.3.9   E.3.9    E.3.9   E.3.9    E.3.1   E.3.9    E.3.2   E.3.9    E.3.2   E.3.9    E.3.3   E.3.9    E.3.4   E.3.9    E.3.5   E.3.9    E.3.7   E.3.9    E.3.8   E.3.9    E.3.9   E.3.	Liquid conductivity - deviation	E.3.2	4.57	R	$\sqrt{3}$	0.64	0.43	1.69	1.13	8
measurement uncertaintyE.3.23.69R $\sqrt{3}$ 0.60.491.281.04 $\circ$ from target valueLiquid permittivity - measurement uncertaintyE.3.310.00N $\sqrt{3}$ 0.60.493.462.83NCombined Standard UncertaintyRSS8.838.37	from target value									
Liquid permittivity - deviation from target valueE.3.23.69R $\sqrt{3}$ 0.60.491.281.04 $\circ$ Liquid permittivity - measurement uncertaintyE.3.310.00N $\sqrt{3}$ 0.60.493.462.83NCombined Standard UncertaintyRSS8.838.37	Liquid conductivity -	E.3.3	5.00	N	$\sqrt{3}$	0.64	0.43	1.85	1.24	M
from target value  Liquid permittivity -  measurement uncertainty  Combined Standard  Uncertainty  E.3.3 10.00 N $\sqrt{3}$ 0.6 0.49 3.46 2.83 N  RSS 8.83 8.37	measurement uncertainty									
Liquid permittivity - E.3.3 10.00 N $\sqrt{3}$ 0.6 0.49 3.46 2.83 N measurement uncertainty  Combined Standard Uncertainty  RSS 8.83 8.37	Liquid permittivity - deviation	E.3.2	3.69	R	$\sqrt{3}$	0.6	0.49	1.28	1.04	8
measurement uncertainty  Combined Standard  Uncertainty  RSS  8.83  8.37	from target value									
Combined Standard RSS 8.83 8.37 Uncertainty	Liquid permittivity -	E.3.3	10.00	N	$\sqrt{3}$	0.6	0.49	3.46	2.83	M
Uncertainty	measurement uncertainty									
	Combined Standard			RSS				8.83	8.37	
Expanded Uncertainty K=2 17.66 16.7	Uncertainty									
	Expanded Uncertainty			K=2				17.66	16.7	
(95% Confidence interval)	(95% Confidence interval)								3	



## 7. SAR Measurement Evaluation

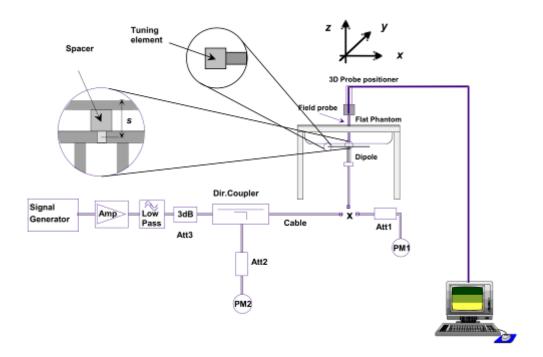
## 7.1. System Setup

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 835 MHz, 1900 MHz and 2450MHz. 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)
	835MHz:SN 36/08 DIPC 99
Reference dipole	1900MHz:SN 36/08 DIPF 102
	2450MHz:SN 36/08 DIPJ 103

### System Verification Setup Block Diagram





## 7.2. Validation Results

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

Evaguanay	Description	SAR[W	// <b>Kg</b> ] 1g
Frequency	Description	Head	Body
	Reference result	9.714	9.714
925 MHz	±10% window	8.743 to 10.685	8.743 to 10.685
835 MHz	Validation value (May 21)	9.912	9.544
	Reference result	39.890	39.890
1000 MII-	±10% window	35.901 to 43.879	35.901 to 43.879
1900 MHz	Validation value (May 21)	37.820	38.960
2450MHz	Reference result	53.850	50.820
	±10% window	48.465 to 59.235	45.738 to 55.902
	Validation value (May 21)	49.772	51.156

Note: System checks the specific test data please see page 164~175

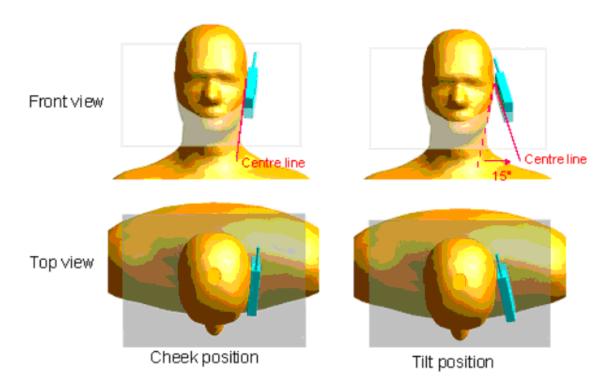


## 8. Operational Conditions During Test

#### 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.

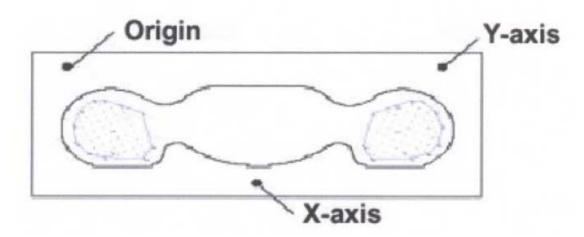


### 8.2. Body-worn Configurations

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

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



### 9. 3G MEASUREMENT PROCEDURES

### 9.1.WCDMA Handsets Test Configuration

The following procedures are applicable to WCDMA handsets operating under 3GPP Release 99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (refer measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCHn), HSDPA and HSPA(HSDPA/HSUPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fised reference channel) and E-DCH reference channek configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

### 9.2. Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC(transmit power control) set to all "1's" for WCDMA/HSDPA or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCH and spreading codes) should be tabulated in the test report. All configurations that are not supported by the EUT or cannot be measured due to technical or equipment limitations should be clearly identified.

If Maximum SAR for 12.2kbps RMC is  $\leq$  75% of the SAR limit and maximum average output of each RF channel with HSUPA/HSDPA active is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2kbps RMC, according to KDB 941225D01v02, SAR is not required for this handset with HSPA capabilities.

#### 9.3. Head SAR measurements

SAR for head exposure configurations in voice mode is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2kbps RMC and the maximum SAR for 12.2 kbps RMC is  $\leq 75\%$  of the SAR limit. Otherwise, SAR is measured on the maximum output channel in 12.2 kbps AMR with a 3.4 kbps SRB (signaling radio bearer) using the exposure configuration that result in the highest SAR 12.2 kbps RMC for that RF channel.

## 9.4. Body SAR measurements

SAR for body exposure configurations in voice and data modes is measured using a 12.2 kbps



RMC with TPC bits configured to all "1's". SAR for other spreading codes and multiple DPDCHn, when supported by the DUT, are not required when the maximum average output of each RF channek, for spreading codes and multiple DPDCHn configuration are less than 1/4 dB higher than those measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel with an applicable RMC configuration for the corresponding spreading code or DPDCHn using the exposure configuration that results in the highest SAR with 12.2 kbps RMC. When more than 2 DPDCHn are supported by the DUT, it may be necessary to configure additional DPDCHn for a DUT using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC.

### 9.5. Handsets with Release 6 HSPA(HSDPA/HSUPA)

Body SAR is not required for handsets with HSPA capabilities when the maximum average output of each RF channel with HSUPA/HSDPA active is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2 kbps RMC and maximum SAR for 12.2 kbps RMC is  $\leq$  75% of the SAR limit. Otherwise, SAR is measured for HSPA using the additional body SAR procedures in the "Release 6 HSPA Data Devices" section of this document, on the maximum output channel with the body exposure configuration that results in the highest SAR in 12.2 kbps RMC for that RF channel.

When VOIP is applicable for head exposure in HSPA, SAR is not required when the maximum output of each RF channel with HSPA is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2kbps RMC; otherwise, the same HSPA configuration used for body measurement should be tested for head exposure.



# 10. Measurement Of Conducted Peak Output Power.

## 1. WCDMA Conducted peak output power

	band	W	CDMA 8	50	W	CDMA 19	900
Item	ARFCN	4132	4175	4233	9262	9400	9538
	subtest	dBm			dBm		
5.2(WCDMA)	non	22.39	22.35	22.43	22.67	22.68	22.77
HSDPA	1	22.25	22.29	22.31	22.65	22.57	22.68
	2	22.23	22.27	22.29	22.61	22.53	22.67
	3	21.76	21.75	21.82	22.01	22.06	22.17
	4	21.75	21.75	21.81	22.03	22.05	22.17
	1	22.25	22.29	22.30	22.63	22.55	22.68
	2	20.19	20.27	20.27	20.65	20.49	20.73
HSUPA	3	21.25	21.27	21.28	21.59	21.58	21.69
	4	20.25	20.31	20.29	20.59	20.52	20.65
	5	22.19	22.27	22.29	22.62	26.49	22.66

## 2. GSM Conducted peak output power

Band	Channel	Frequency (MHz)	Output Power (dBm)
GSM	128	824.2	31.00
850	190	836.6	30.80
	251	848.8	31.13
DCC	512	1850.2	28.64
PCS 1900	661	1880.0	29.03
1900	810	1909.8	28.68



## 2. GPRS Mode Conducted peak output power

Band	Champal	Frequency	Output Power(dBm)				
	Channel	(MHz)	Slot 1	Slot 2	Slot 3	Slot 4	
CCM	128	824.2	30.54	30.10	29.94	29.80	
GSM	190	836.6	30.48	30.03	29.94	29.84	
850	251	848.8	30.00	30.44	29.95	29.88	
DCC	512	1850.2	25.83	25.79	25.08	25.30	
PCS	661	1880.0	25.46	25.53	24.96	24.97	
1900	810	1909.8	25.52	25.57	25.59	25.05	

## GPRS Time-based Average Power

Band	Channel	Frequency	Output Power(dBm)					
	C1.W111.01	(MHz)	Slot 1	Slot 2	Slot 3	Slot 4		
CCM	128	824.2	21.54	24.08	25.68	26.79		
GSM	190	836.6	21.48	24.01	25.68	26.83		
850	251	848.8	21.00	24.42	25.69	26.87		
DCC	512	1850.2	16.83	19.77	20.82	22.29		
PCS 1900	661	1880.0	16.46	19.51	20.70	21.96		
1900	810	1909.8	16.52	19.55	21.33	22.04		

## 3. EDGE Mode Conducted peak output power

Band	Channal	Frequency	Output Power(dBm)				
	Channel	(MHz)	Slot 1	Slot 2	Slot 3	Slot 4	
CCM	128	824.2	32.00	32.02	31.80	31.59	
GSM 850	190	836.6	31.44	31.23	31.12	30.78	
830	251	848.8	31.20	31.50	31.31	30.76	
DCC	512	1850.2	28.22	28.41	27.90	28.43	
PCS	661	1880.0	29.08	28.64	28.97	28.87	
1900	810	1909.8	28.95	29.48	28.81	28.42	



## EDGE Time-based Average Power

Band	Channel	Frequency	Output Power(dBm)				
	Chamier	(MHz)	Slot 1	Slot 2	Slot 3	Slot 4	
CCM	128	824.2	23.00	26.00	27.54	28.58	
GSM	190	836.6	22.44	25.21	26.86	27.77	
850	251	848.8	22.20	25.48	27.05	27.75	
DCC	512	1850.2	19.22	22.39	23.64	25.42	
PCS 1900	661	1880.0	20.08	22.62	24.71	25.86	
	810	1909.8	19.95	23.46	24.55	25.41	

## Timeslot consignations:

No. Of Slots	Slot 1	Slot 2	Slot 3	Slot 4
Slot Consignation	1Up4Down	2Up2Down	3Up2Down	4Up1Down
Duty Cycle	1:8	1:4	1:2.67	1:2
Correct Factor	-9.00dB	-6.02dB	-4.26dB	-3.01dB

Note: 1. Correct Factor=10\*log (Duty Cycle)

2. Average Power= Peak Power+ Correct Factor

## 4. Wifi peak output power

	Channe	Frequenc	Output Power(dBm)					
Band	1	у	802.11B	802.11G	802.11N20			
	(N	(MHz)	(DSSS)	(OFDM)	(OFDM)			
	1	2412	13.12	9.58	9.75			
WiFi	6	2437	13.25	9.67	9.74			
	11	2462	13.27	9.82	9.68			

## 5. Bluetooth peak output power

D 4	Changel Frequence		Output Power(dBm)			
Band	Channel	(MHz)	GFSK	Output Power(dB  Π/4-DQPSK  1.727  0.262	8-DPSK	
ВТ	0	2402	3.669	1.727	1.628	
	38	2441	2.224	0.262	0.388	
	79	2480	0.555	-1.421	-1.528	



### 11. Wireless Hot Spot SAR Evaluation Procedures

This Portable Devices with Wireless Router function. And the SAR evaluation procedures accord with KDB 941225 D06 Hot Spot SAR v01.

- 1. SAR must be tested for all surfaces and edges (side) with a transmitting antenna with in 2.5 cm from that surface or edge, at a test separation distance of 10 mm, in the wireless modes that support wireless routing.
- 2. Edge configurations:



- 3. WCDMA&GSM antenna is located at edge A, based on the distance between Main Antenna and Edge A&B&C&D, according to KDB941225 D06, the SAR measurement of Edge A&B&C of WCDMA & GSM are required, Edge D is not required.
- 4. Wifi antenna is located at Edge D, based on the distance between WiFi antenna and Edge A&B&C&D, according to KDB941225 D06, the SAR measurement of edge C are required, but Edge A&B&D are not required.



## 12. Test Results List

Summary of Measurement Results (GSM 850MHz Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.						
			Device	Device		
Phanto	om	Device Test	Test	SAR(W/K	Scaling	Scaled
Configura	ntions	Positions	Channel	g), 1g Peak	Factor	SAR
			128	0.782	1.047	0.819
Right S	ide	Cheek/Touch	190	0.836	1.096	0.916
Of He	ad		251	0.897	1.016	0.911
		Ear/Tilt	251	0.590	1.047 1.096	0.599
			128	0.814	1.047	0.852
Left Si	de	Cheek/Touch	190	0.875	1.096	0.959
Of Hea	ad		251	0.995	1.016	1.011
		Ear/Tilt	251	0.636	1.016	0.646
	GSM	Back upward	251	0.460	1.016	0.467
		Face Upward	251	0.363	1.016	0.369
		Back upward	128	0.877	1.230	1.079
			190	0.822	1.219	1.002
D 1			251	0.959	1.208	1.158
Body	GPRS	Face Upward	251	0.607	1.016	0.617
(10mm		Edge A	251	0.217	1.016	0.220
Separation)		Edge B	251	0.621	1.016	0.631
		Edge C	251	0.567	1.016	0.576
		Back upward	128	0.919	1.151	1.058
	EDGE	Back upward	190	0.813	1.387	1.128
		Back upward	251	0.808	1.393	1.126

#### Note:

1. The main antenna to Edge D is greater than 2.5cm, so the Edge D configuration is not required.



## Summary of Measurement Results (GSM 1900MHz Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.						
Phantom Configurations		Device Test Positions	Device Test channel	SAR(W/ Kg), 1g Peak	Scaling Factor	Scaled SAR
Right S	ide	Cheek/Touch	661	0.602	1.262	0.760
Of Hea	ad	Ear/Tilt	661	0.127	1.262	0.160
Left Si	Left Side		661	0.356	1.262	0.449
Of Hea	Of Head		661	0.149	1.262	0.188
	GSM	Back upward	661	0.307	1.262	0.387
		Face Upward	661	0.155	1.262	0.196
Dody	Rody   -	Back upward	512	0.563	1.175	0.662
		Face Upward	512	0.323	1.175	0.380
`		Edge A	512	0.496	1.175	0.583
Separation)		Edge B	512	0.154	1.175	0.181
		Edge C	512	0.155	1.175	0.182
	EDGE	Back upward	661	0.439	1.156	0.507

### Note:

1. The main antenna to Edge D is greater than 2.5cm, so the Edge D configuration is not required.

Summary of Measurement Results (WCDMA 850MHz Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.					
		Device			
Phantom	Device Test	Test	SAR(W/K	Scaling	Scaled
Configurations	Positions	Channel	g), 1g Peak	Factor	SAR
		4132	1.050	1.156	1.214
Right Side	Cheek/Touch	4175	1.041	1.026	1.068
Of Head		4233	0.958	1.035	0.992
	Ear/Tilt	4233	0.581	1.035	0.601
		4132	1.160	1.156	1.341
Left Side	Cheek/Touch	4175	0.945	1.026	0.970
Of Head		4233	1.016	1.035	1.052
	Ear/Tilt	4233	0.539	1.035	0.558
	Back upward	4233	0.753	1.035	0.779
	Face Upward	4233	0.494	1.035	0.511
Body	Edge A	4233	0.102	1.035	0.106
	Edge B	4233	0.516	1.035	0.534
	Edge C	4233	0.535	1.035	0.554



#### Note:

- 1. The main antenna to Edge D is greater than 2.5cm, so the Edge D configuration is not required.
- 2.Maximum SAR for 12.2kbps RMC is 1.160 W/Kg≤ 75% of the SAR limit (i.e. 1.2W/Kg 1g) and maximum average output of each RF channel with HSUPA/HSDPA active is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2kbps RMC (refer to Page 24 of the report), according to KDB 941225D01v02, SAR is not required for this handset with HSPA capabilities.

Summary of Measurement Results (WCDMA 1900MHz Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.					
Phantom Configurations	Device Test Positions	Device Test channel	SAR(W/Kg), 1g Peak	Scaling Factor	Scaled SAR
Right Side	Cheek/Touch	9538	0.792	1.054	0.835
Of Head	Ear/Tilt	9538	0.581	1.054	0.612
Left Side	Cheek/Touch	9538	0.798	1.054	0.841
Of Head	Ear/Tilt	9538	0.421	1.054	0.444
	Back upward	9538	0.481	1.054	0.507
Body	Face Upward	9538	0.217	1.054	0.229
(10mm	Edge A	9538	0.316	1.054	0.333
Separation)	Edge B	9538	0.269	1.054	0.284
	Edge C	9538	0.274	1.054	0.289

#### Note:

- 1. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode, when the SAR of highest power channel of each configurations is less than 0.8 W/kg, refer to KDB 648474, testing for the other channels is not required.
- 2. The main antenna to Edge D is greater than 2.5cm, so the Edge D configuration is not required.
- 3.Maximum SAR for 12.2kbps RMC is 0.792 W/Kg≤ 75% of the SAR limit (i.e. 1.2W/Kg 1g) and maximum average output of each RF channel with HSUPA/HSDPA active is less than 1/4 dB higher than that measured without HSUPA/HSDPA using 12.2kbps RMC (refer to Page 24 of the report), according to KDB 941225D01v02, SAR is not required for this handset with HSPA capabilities.



#### Summary of Measurement Results (WLAN 802.11B Band)

Temperature: 21.0~23.8°C, humidity: 54~60%.						
			SAR(W/Kg), 1g Peak			
Phantom	Device Test	Antenna	Device Test channel			
Configurations	Positions	Positions	Channel	6	Channel	
			1	0	11	
Right Side	Cheek/Touch	Internal	/	/	0.138	
Of Head	Ear/Tilt	Internal	/	/	0.085	
Left Side	Cheek/Touch	Internal	/	/	0.111	
Of Head	Ear/Tilt	Internal	/	/	0.085	
Body	Back upward	Internal	/	/	0.107	
(10mm	Face Upward	Internal	/	/	0.035	
Separation)	Edge C	Internal	/	/	0.103	

#### Note:

- 1. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode, when the SAR of highest power channel of each configurations is less than 0.8 W/kg, refer to KDB 648474, testing for the other channels is not required.
- 2.Based on Multiple Transmitters Evaluation, SAR test for 802.11b is required, but 802.11g/HT20 is not required, for the maximum average output power is not 1/4 dB higher than measured on the corresponding 802.11b channels.
- 3.Only Edge C is required for SAR test, Edge A&B&D are not, for the WiFi antenna to these Edges are greater than 2.5cm.

#### 4. Scaled SAR calculation

Band	Tune-up power tolerance	SAR test channel	Scaling
Dallu	(dBm)	Power (dBm)	Factor
		31.00	1.047
GSM 850	$PCL = 5$ , $PWR = 30.2 \pm 1$	30.80	1.096
		Power (dBm)  31.00  31.00  31.13  29.80  30.7  29.84  29.88  31.59  30.78  30.76  5 ±0.7  28.19  <26  29.5  28.87  22.39  (+0.5/-2)  22.35  22.43	1.016
		29.80	1.230
GPRS 850	Max output power <30.7	29.84	1.219
		Power (dBm)  31.00  31.00  31.13  29.80  29.84  29.88  31.59  29.88  31.59  30.76  28.5 ±0.7  28.19  29.89  22.39  22.43	1.208
		31.59	1.151
EDGE 850	Max output power <32.2	30.78	1.387
		30.76	1.393
PCS 1900	$PCL = 0$ , $PWR = 28.5 \pm 0.7$	28.19	1.262
GPRS 1900	Max output power <26	25.30	1.175
EDGE 1900	Max output power <29.5	28.87	1.156
		22.39	1.026
WCDMA 850	Max output power =22 $(+0.5/-2)$	22.35	1.035
		22.43	1.016
WCDMA 1900	Max output power =22 (+1/-2)	22.77	1.054



### 13. Multiple Transmitters Evaluation

The are three transmitters build in EUT, As followed:



#### Stand-alone SAR

The output power of Wifi transmitter is 13.27mW>Pref((Pref= 12mW)), and the distance between WiFi antenna and GSM&WCDMA antenna is 2.3cm<2.5cm, stand-alone SAR evaluation is required for Wifi.

The BT Max. Peak output power is  $2.33\text{mW} \le \text{Pref}$  (Pref= 12mW), and the distance between BT antenna and main antenna is  $2.3 \text{ cm} \le 2.5 \text{ cm}$ , and the SARmax for main antenna  $\le 1.2\text{W/Kg}$ , standalone SAR evaluation is not required for Bluetooth antenna.

#### Simultaneous SAR

The GSM and WCDMA can't simultaneous transmitting. The BT and Wifi can't simultaneous transmitting.

Test	GSM&WCDMA	Bluetooth SAR(W/Kg)	WiFi	∑1-g SARMax(W/Kg)		
Position	SARMax(W/Kg)		SAR(W/Kg)	BT&Main Ant	WiFi&Main Ant	
Head SAR	1.160	0	0.138	1.160	1.298	
Body SAR	0.959	0	0.107	0.959	1.066	

Simultaneous Transmission SAR evaluation is not required for BT and GSM&WCDMA, because the sum of 1g SARMax is 1.160W/Kg < 1.6W/Kg for BT and GSM&WCDMA.

Simultaneous Transmission SAR evaluation is not required for WiFi and GSM&WCDMA, because the sum of 1g SARMax is 1.298W/Kg < 1.6W/Kg for BT and GSM&WCDMA



# **Annex A EUT Setup Photos**

1 EUT Left Head Touch Cheek Position



2 EUT Left Head Tilt15 Position

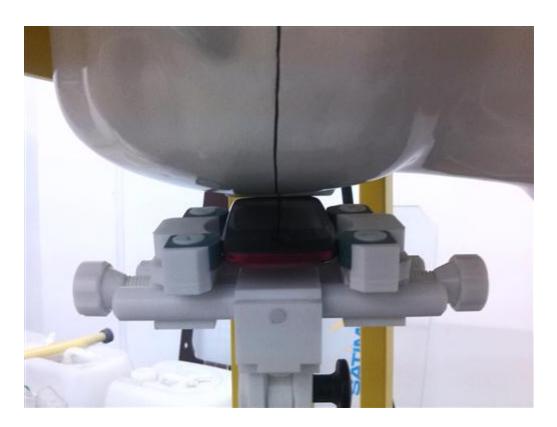




# 3 EUT Right Head Touch Cheek Position



# 4 EUT Right Head Tilt15 Position





## 5 Side Position

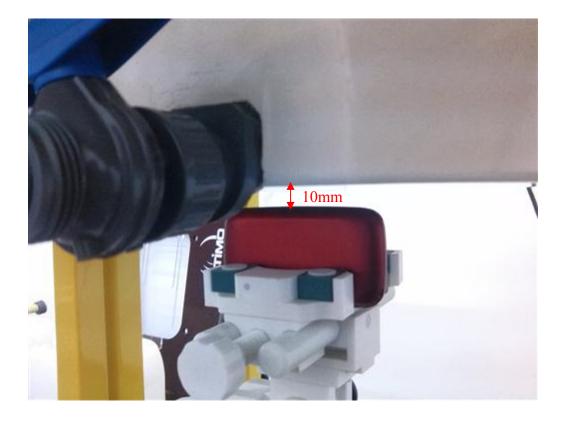


# 6 Edge A

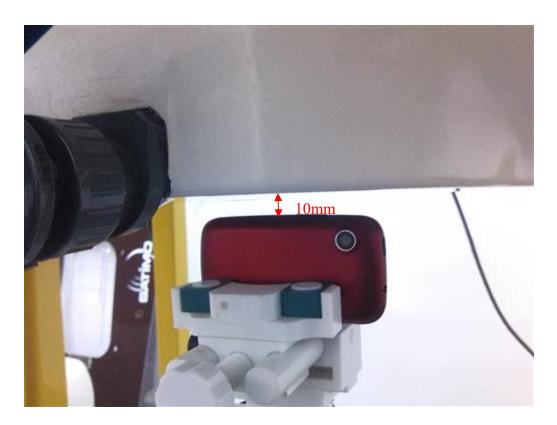




### 7 Edge B

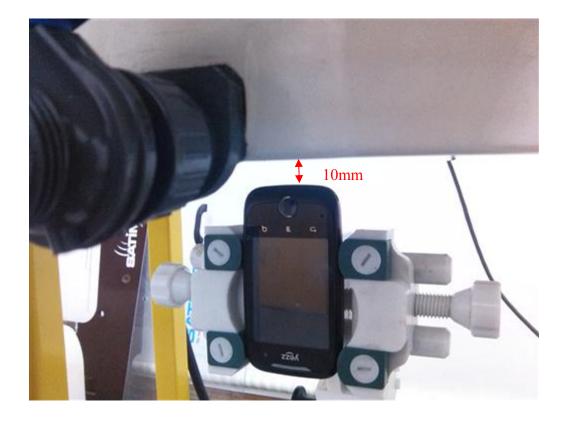


# 8 Edge C





## 9 Edge D



Liquid Level Photo





# **Annex B Graph Test Results**

BAND	PARAMETERS
	Measurement 1: Right Head with Cheek device position on Low
	Channel in GSM mode
	Measurement 2: Right Head with Cheek device position on Middle
	Channel in GSM mode
	Measurement 3: Right Head with Cheek device position on High
	Channel in GSM mode
	Measurement 4: Right Head with Tilt device position on High
	Channel in GSM mode
	Measurement 5: Left Head with Cheek device position on Low
	Channel in GSM mode
	Measurement 6: Left Head with Cheek device position on Middle
	Channel in GSM mode
	Measurement 7: Left Head with Cheek device position on High
CCMOEO	Channel in GSM mode
<u>GSM850</u>	Measurement 8: Left Head with Tilt device position on High
	Channel in GSM mode
	Measurement 9: Body position on High Channel in GSM mode
	Measurement 10: Body position on High Channel in GSM mode
	Measurement 11: Body position on Low Channel in GPRS mode
	Measurement 12: Body position on Middle Channel in GPRS mode
	Measurement 13: Body position on High Channel in GPRS mode
	Measurement 14: Body position on High Channel in GPRS mode
	Measurement 15: Body position on High Channel in GPRS mode
	Measurement 16: Body position on High Channel in GPRS mode
	Measurement 17: Body position on High Channel in GPRS mode
	Measurement 18: Body position on Low Channel in EDGE mode
	Measurement 19: Body position on Middle Channel in EDGE mode
	Measurement 20: Body position on High Channel in EDGE mode
	Measurement 21: Right Head with Cheek device position on Middle
	Channel in GSM mode
	Measurement 22: Right Head with Tilt device position on Middle
	Channel in GSM mode
	Measurement 23: Left Head with Cheek device position on Middle
667.54000	Channel in GSM mode
<u>GSM1900</u>	Measurement 24: Left Head with Tilt device position on Middle
	Channel in GSM mode
	Measurement 25: Body position on Middle Channel in GSM mode
	Measurement 26: Body position on Middle Channel in GSM mode
	Measurement 27: Body position on Middle Channel in GPRS mode
	Measurement 28: Body position on Middle Channel in GPRS mode
	Measurement 29: Body position on Middle Channel in GPRS mode



	Measurement 30: Body position on Middle Channel in GPRS mode
	Measurement 31: Body position on Middle Channel in GPRS mode
	Measurement 32: Body position on Middle Channel in EDGE mode
	Measurement 33: Right Head with Cheek device position on Low
	Channel in CDMA mode
	Measurement 34: Right Head with Cheek device position on Middle
	Channel in CDMA mode
	Measurement 35: Right Head with Cheek device position on High
	Channel in CDMA mode
	Measurement 36: Right Head with Tilt device position on Low
	Channel in CDMA mode
	Measurement 37: Left Head with Cheek device position on Low
	Channel in CDMA mode
<b>WCDMA</b>	Measurement 38: Left Head with Cheek device position on Middle
<u>850</u>	Channel in CDMA mode
	Measurement 39: Left Head with Cheek device position on High
	Channel in CDMA mode
	Measurement 40: Left Head with Tilt device position on Low
	Channel in CDMA mode
	Measurement 41: Body position on Low Channel in CDMA mode
	Measurement 42: Body position on Low Channel in CDMA mode
	Measurement 43: Body position on Low Channel in CDMA mode
	Measurement 44: Body position on Low Channel in CDMA mode
	Measurement 45: Body position on Low Channel in CDMA mode
	Measurement 46: Right Head with Cheek device position on High
	Channel in CDMA mode
	Measurement 47: Right Head with Tilt device position on High
	Channel in CDMA mode
	Measurement 48: Left Head with Cheek device position on High
WCDMA	Channel in CDMA mode
<u>WCDMA</u>	Measurement 49: Left Head with Tilt device position on High
<u>1900</u>	Channel in CDMA mode
	Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode Measurement 55: Right Head with Cheek device position on High
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode Measurement 55: Right Head with Cheek device position on High Channel in DSSS mode
<u>WIFI</u>	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode Measurement 55: Right Head with Cheek device position on High Channel in DSSS mode Measurement 56: Right Head with Tilt device position on High
<u>WIFI</u> 802.11B	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode Measurement 55: Right Head with Cheek device position on High Channel in DSSS mode Measurement 56: Right Head with Tilt device position on High Channel in DSSS mode
	Measurement 50: Body position on High Channel in CDMA mode Measurement 51: Body position on High Channel in CDMA mode Measurement 52: Body position on High Channel in CDMA mode Measurement 53: Body position on High Channel in CDMA mode Measurement 54: Body position on High Channel in CDMA mode Measurement 55: Right Head with Cheek device position on High Channel in DSSS mode Measurement 56: Right Head with Tilt device position on High







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 3 seconds

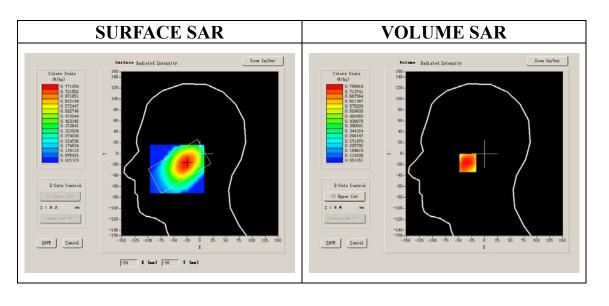
### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt		
Phantom	Right head		
<b>Device Position</b>	Cheek		
Band	GSM850		
Channels	Low		
Signal	GSM		

#### **B. SAR Measurement Results**

Lower Band SAR (Channel 128):

	<u> </u>
Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250
Conductivity (S/m)	0.866612
Power drift (%)	-1.210000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

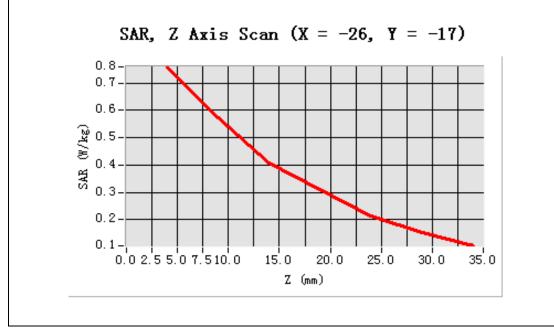


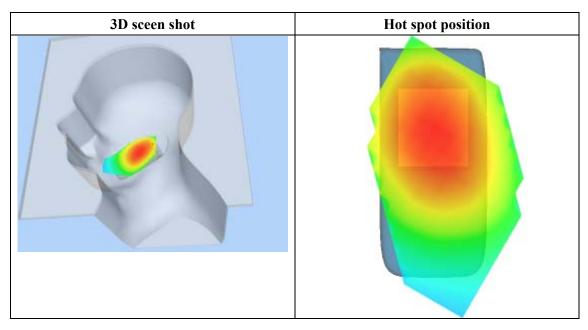


### **Maximum location: X=-26.00, Y=-17.00**

SAR 10g (W/Kg)	0.509596
SAR 1g (W/Kg)	0.782154

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.7599	0.5748	0.4066	0.3096	0.2111	0.1515
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 59 seconds

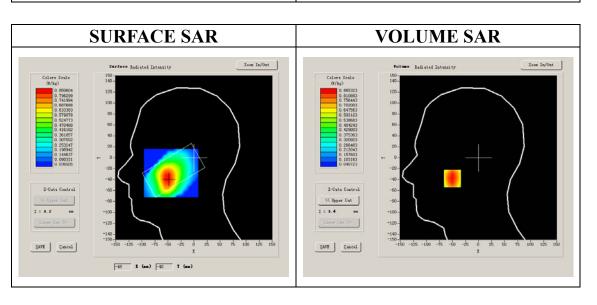
### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt		
Phantom	Right head		
<b>Device Position</b>	Cheek		
Band	GSM850		
Channels	Middle		
Signal	GSM		

#### **B. SAR Measurement Results**

Middle Band SAR (Channel 190):

die Bund Stiff (Chamier 190).	
Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001
Conductivity (S/m)	0.888655
Power drift (%)	-0.380000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

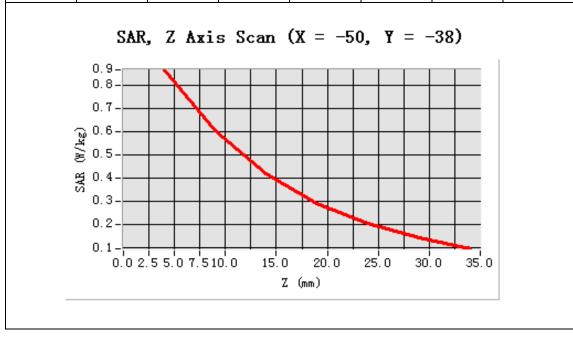


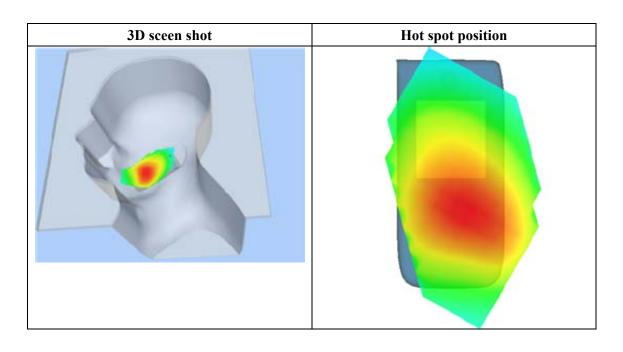


### **Maximum location: X=-50.00, Y=-38.00**

SAR 10g (W/Kg)	0.559309
SAR 1g (W/Kg)	0.835704

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8653	0.6032	0.4214	0.2933	0.2050	0.1435
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

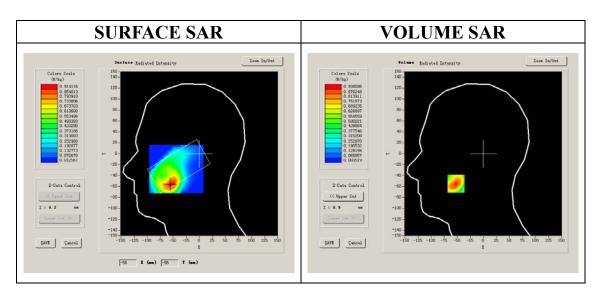
Measurement duration: 7 minutes 57 seconds

### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt		
Phantom	Right head		
<b>Device Position</b>	Cheek		
Band	GSM850		
Channels	High		
Signal	GSM		

#### **B. SAR Measurement Results**

Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199
Conductivity (S/m)	0.894409
Power drift (%)	-0.570000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

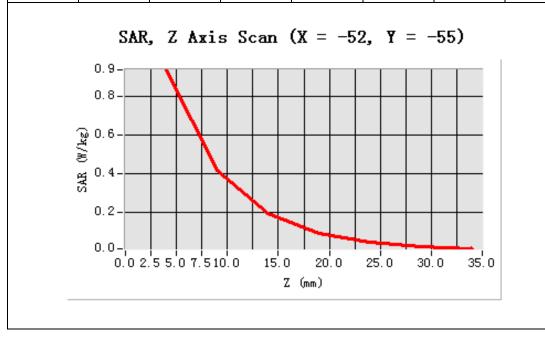


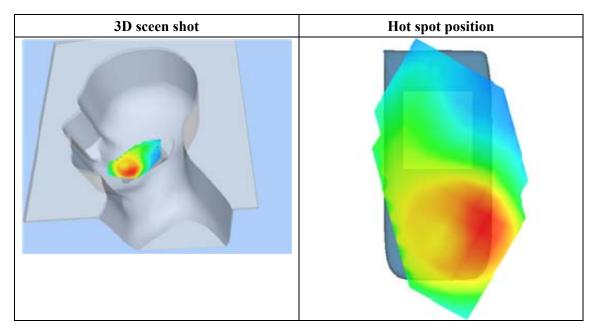


### **Maximum location: X=-52.00, Y=-55.00**

SAR 10g (W/Kg)	0.446458	
SAR 1g (W/Kg)	0.896695	

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.9386	0.4190	0.1900	0.0897	0.0436	0.0189
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

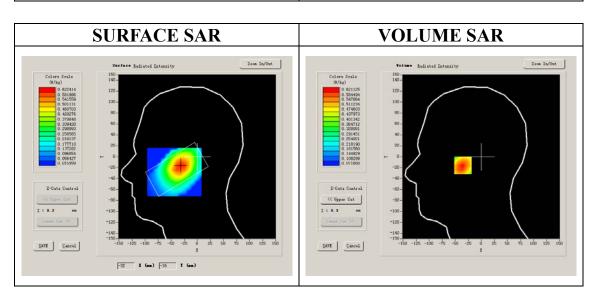
Measurement duration: 7 minutes 33 seconds

### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
<b>Device Position</b>	Tilt
Band	GSM850
Channels	High
Signal	GSM

#### **B. SAR Measurement Results**

Frequency (MHz)	848.800000
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001
Conductivity (S/m)	0.888655
Power drift (%)	0.050000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

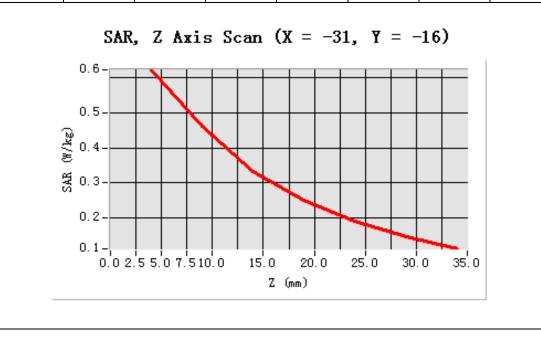


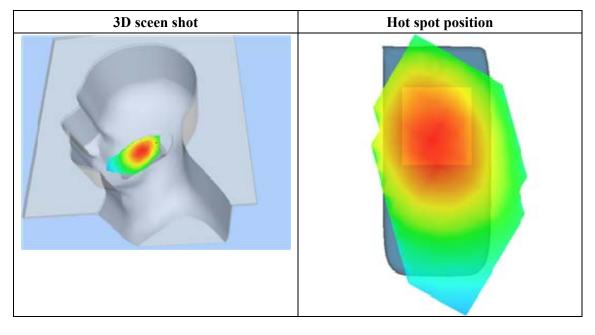


### **Maximum location: X=-31.00, Y=-16.00**

SAR 10g (W/Kg)	0.412985
SAR 1g (W/Kg)	0.590496

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6211	0.4623	0.3339	0.2498	0.1911	0.1493
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 57 seconds

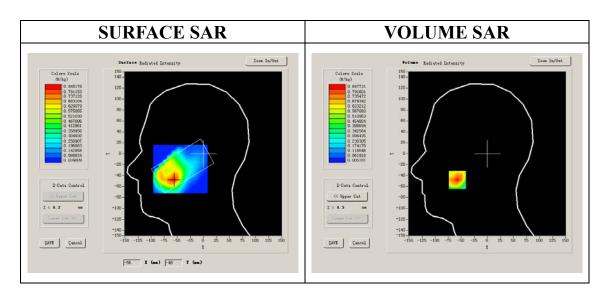
### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
<b>Device Position</b>	Cheek
Band	GSM850
Channels	Low
Signal	GSM

#### **B. SAR Measurement Results**

Lower Band SAR (Channel 128):

	<del>-</del>
Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250
Conductivity (S/m)	0.866612
Power drift (%)	-0.180000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

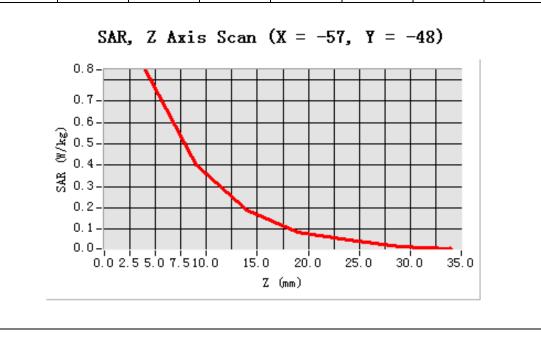


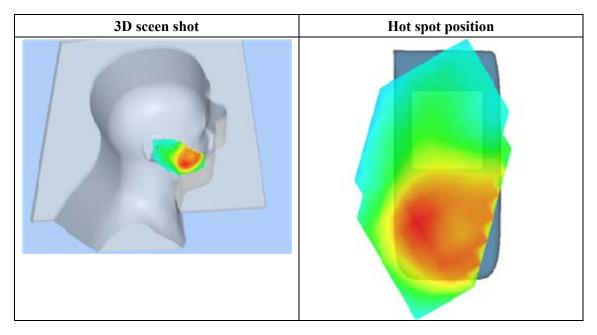


### **Maximum location: X=-57.00, Y=-48.00**

SAR 10g (W/Kg)	0.417275
SAR 1g (W/Kg)	0.814366

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8477	0.4020	0.1889	0.0844	0.0492	0.0160
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 59 seconds

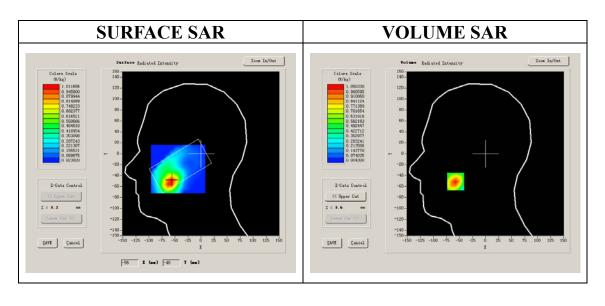
### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
<b>Device Position</b>	Cheek
Band	GSM850
Channels	Middle
Signal	GSM

#### **B. SAR Measurement Results**

Middle Band SAR (Channel 190):

are Buna of the Chamiler 170).	T
Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001
Conductivity (S/m)	0.888655
Power drift (%)	1.900000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

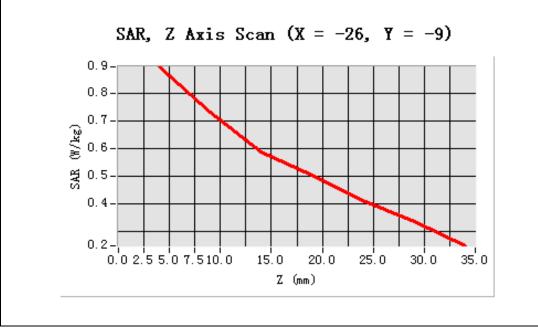


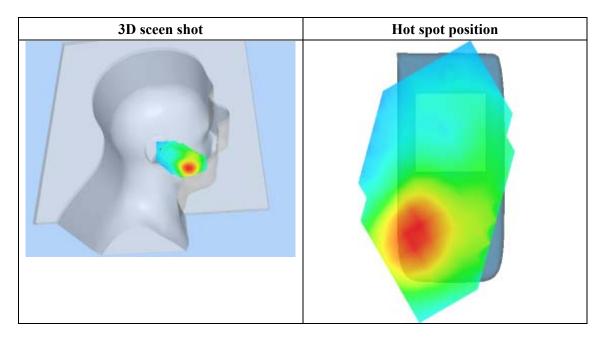


### **Maximum location: X=-26.00, Y=-9.00**

SAR 10g (W/Kg)	0.670152
SAR 1g (W/Kg)	0.874962

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8968	0.7319	0.5896	0.5029	0.4144	0.3375
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

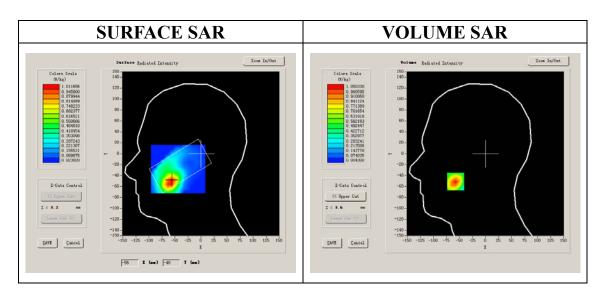
Measurement duration: 7 minutes 58 seconds

### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt			
Phantom	Left head			
<b>Device Position</b>	Cheek			
Band	GSM850			
Channels	High			
Signal	GSM			

#### **B. SAR Measurement Results**

Ter Build Stiff (Chaimer 251):	
Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199
Conductivity (S/m)	0.894409
Power drift (%)	-1.840000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

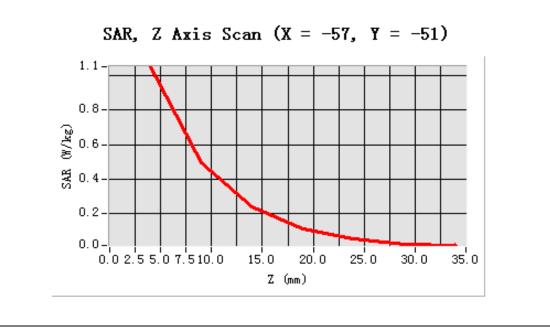


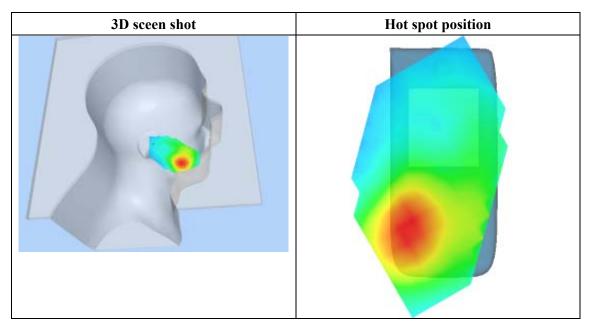


### **Maximum location: X=-57.00, Y=-51.00**

SAR 10g (W/Kg)	0.494179
SAR 1g (W/Kg)	0.995102

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0503	0.4965	0.2434	0.1148	0.0573	0.0210
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

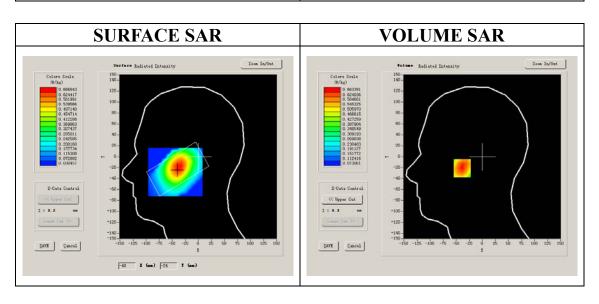
Measurement duration: 7 minutes 41 seconds

### A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
<b>Device Position</b>	Tilt
Band	GSM850
Channels	High
Signal	GSM

#### **B. SAR Measurement Results**

ier Build Stiff (Chaimer 251):	
Frequency (MHz)	848.800000
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001
Conductivity (S/m)	0.888655
Power drift (%)	-2.150000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:8

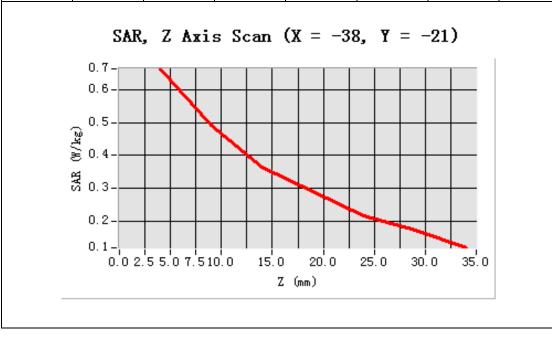


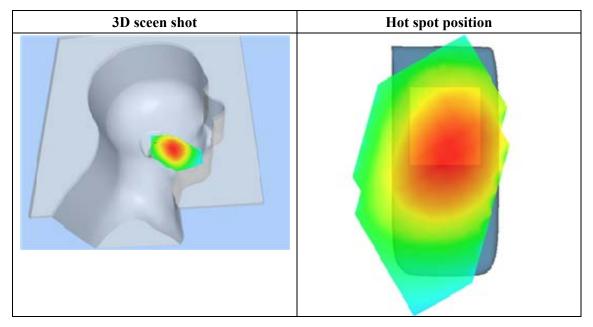


### **Maximum location: X=-38.00, Y=-21.00**

SAR 10g (W/Kg)	0.448512
SAR 1g (W/Kg)	0.636482

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6634	0.4920	0.3644	0.2915	0.2159	0.1714
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

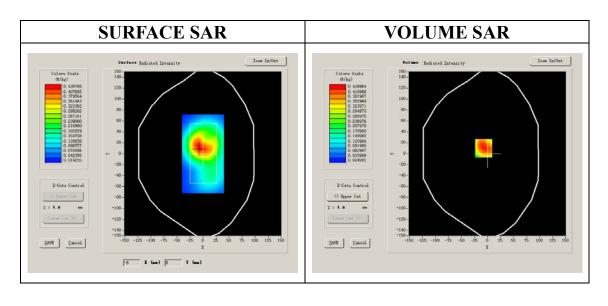
Measurement duration: 9 minutes 11 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	High
Signal	GSM

#### **B. SAR Measurement Results**

Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift(%)	-1.680000
Ambient Temperature:	22.8°C
Liquid Temperature:	22.6°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:8

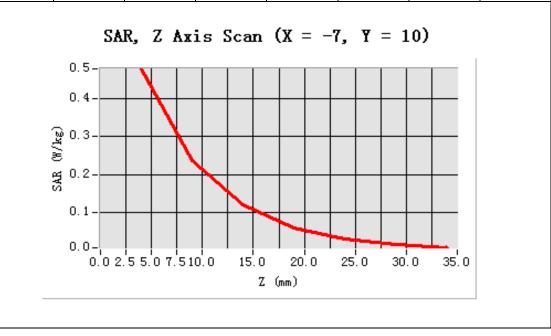


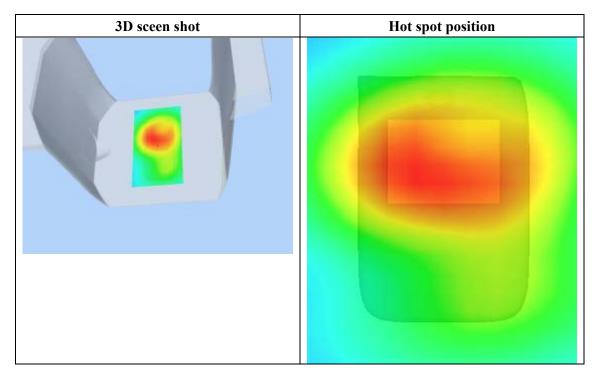


#### Maximum location: X=-7.00, Y=10.00

SAR 10g (W/Kg)	0.250638
SAR 1g (W/Kg)	0.460141

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.4791	0.2380	0.1197	0.0600	0.0294	0.0169
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

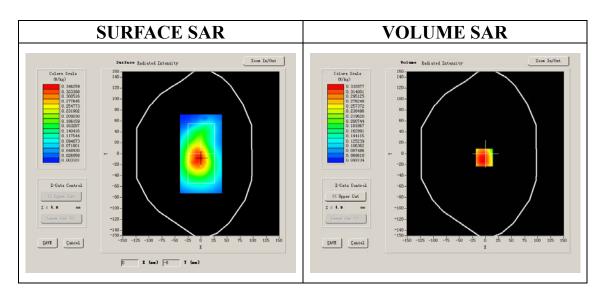
Measurement duration: 9 minutes 10 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	High
Signal	GSM

#### **B. SAR Measurement Results**

ier Build Stiff (Chaimer 251).	
Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift(%)	680000
Ambient Temperature:	22.8°C
Liquid Temperature:	22.6°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:8

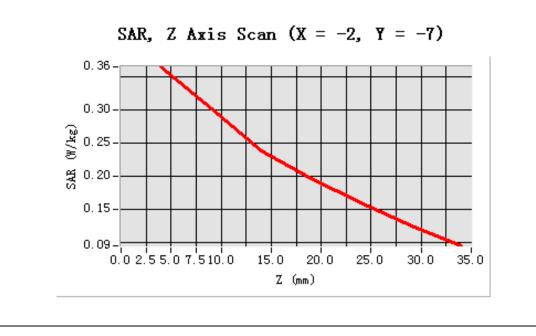


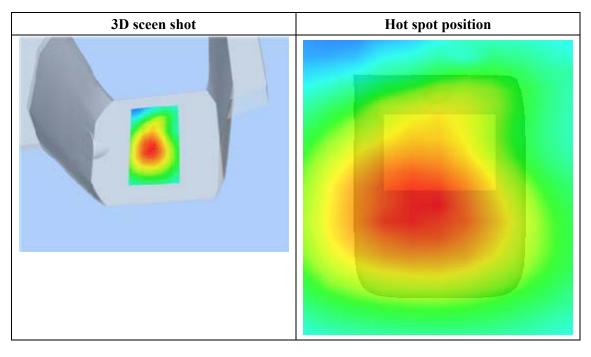


### Maximum location: X=-2.00, Y=-7.00

SAR 10g (W/Kg)	0.275871
SAR 1g (W/Kg)	0.362573

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3643	0.3005	0.2380	0.1962	0.1597	0.1237
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 6 seconds

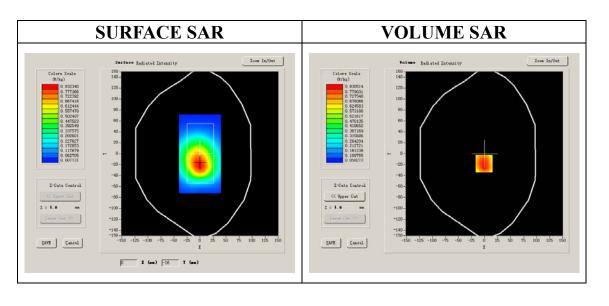
### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	Low
Signal	GPRS

#### **B. SAR Measurement Results**

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	54.116001
Relative permittivity	21.284550
Conductivity (S/m)	0.974596
Power drift (%)	-0.540000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

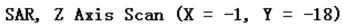


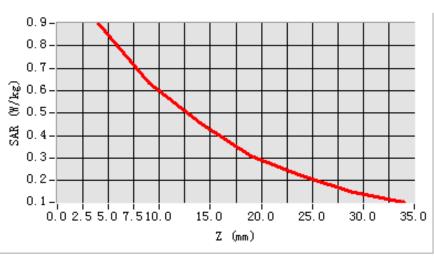


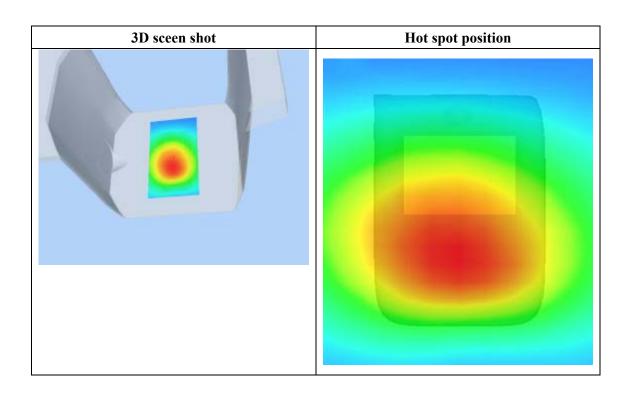
### **Maximum location: X=-1.00, Y=-18.00**

SAR 10g (W/Kg)	0.587449
SAR 1g (W/Kg)	0.877276

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.9003	0.6335	0.4557	0.3115	0.2204	0.1471
(W/Kg)							









Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 7 seconds

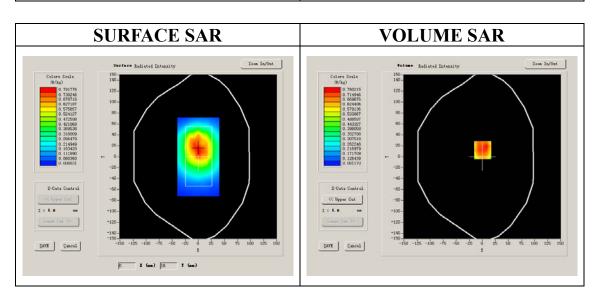
### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	Middle
Signal	GPRS

#### **B. SAR Measurement Results**

Middle Band SAR (Channel 190):

are Barra Stric (Chamier 190).	
Frequency (MHz)	836.599976
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	3.390000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

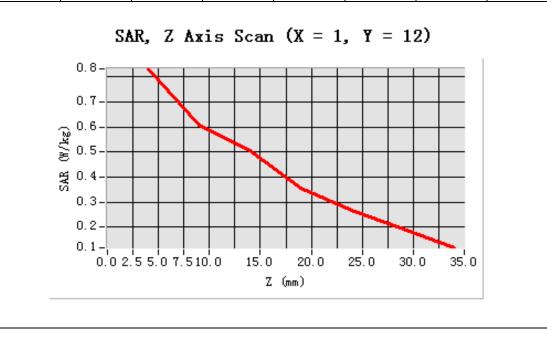


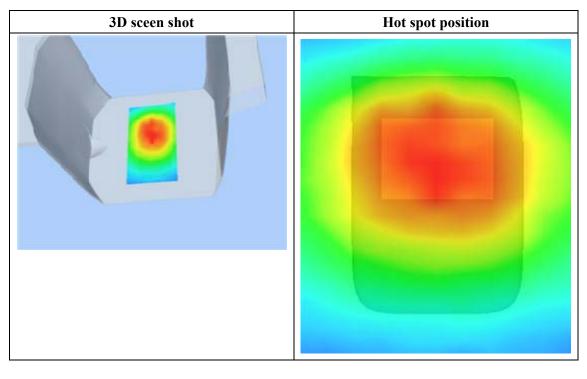


### Maximum location: X=1.00, Y=12.00

SAR 10g (W/Kg)	0.576584
SAR 1g (W/Kg)	0.821763

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8330	0.6061	0.5062	0.3562	0.2674	0.1923
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

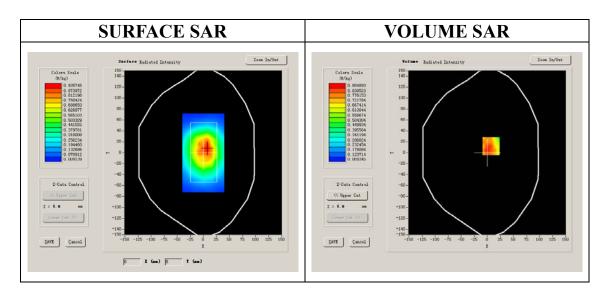
Measurement duration: 9 minutes 7 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	High		
Signal	GPRS		

#### **B. SAR Measurement Results**

ier Build Stiff (Chaimer 251).	
Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	3.390000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

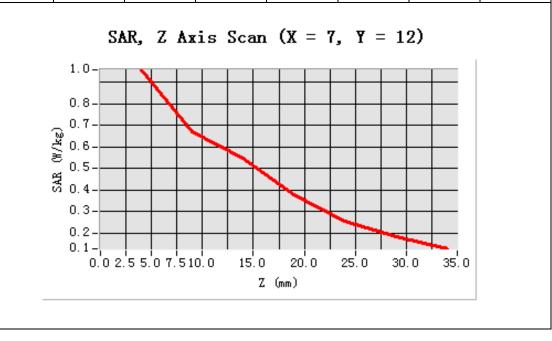


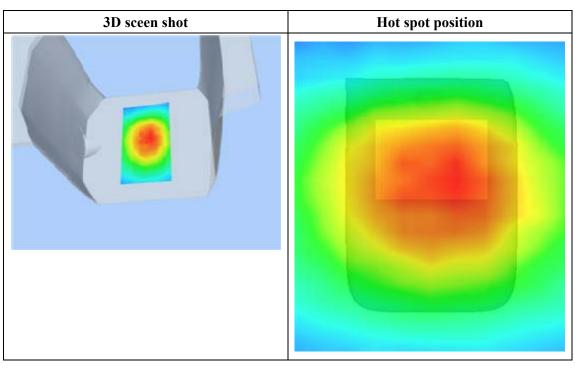


Maximum location: X=7.00, Y=12.00

SAR 10g (W/Kg)	0.665055
SAR 1g (W/Kg)	0.958886

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.9569	0.6708	0.5466	0.3753	0.2555	0.1840
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

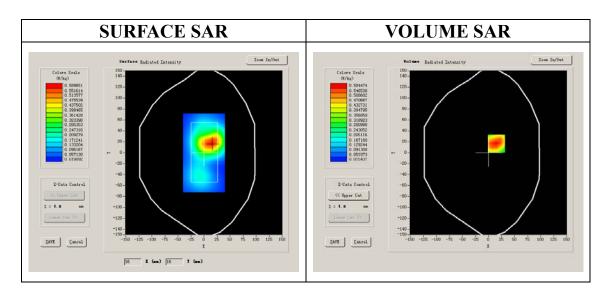
Measurement duration: 9 minutes 11 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	High
Signal	GPRS

#### **B. SAR Measurement Results**

<u> </u>	
Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	-2.150000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

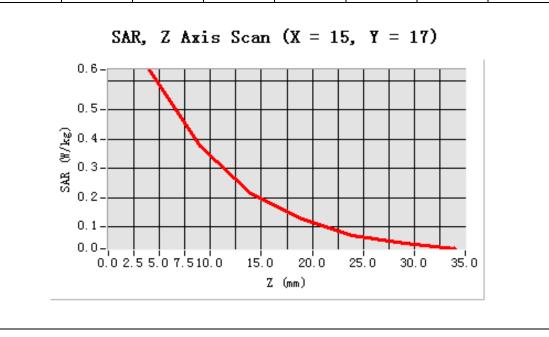


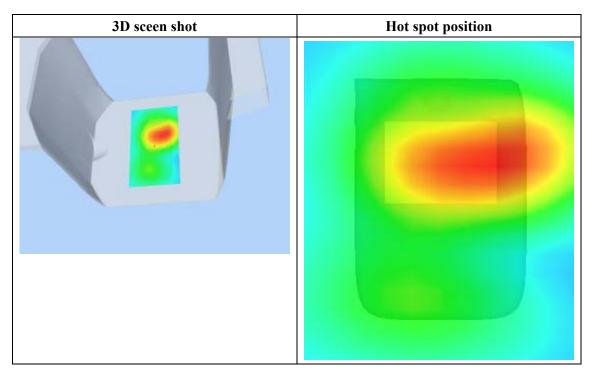


### Maximum location: X=15.00, Y=17.00

SAR 10g (W/Kg)	0.349839
SAR 1g (W/Kg)	0.606770

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6364	0.3758	0.2145	0.1275	0.0715	0.0440
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

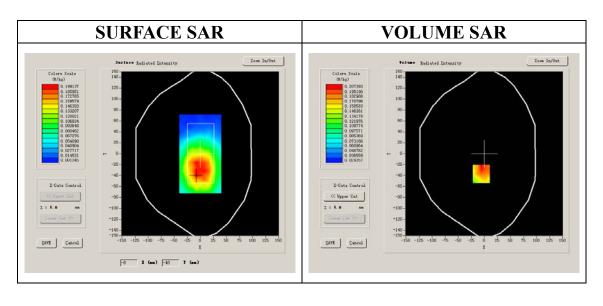
Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	High
Signal	GPRS

#### **B. SAR Measurement Results**

ier Build Stiff (Chaimer 251).	
Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	-0.720000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

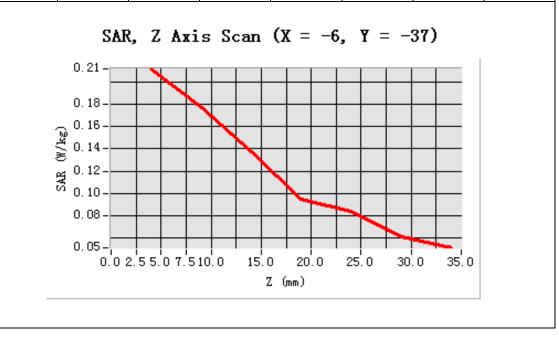


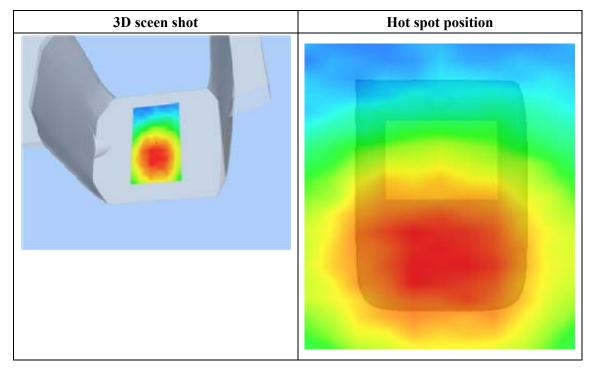


## **Maximum location: X=-6.00, Y=-37.00**

SAR 10g (W/Kg)	0.160811
SAR 1g (W/Kg)	0.216682

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.2118	0.1769	0.1372	0.0952	0.0843	0.0609
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

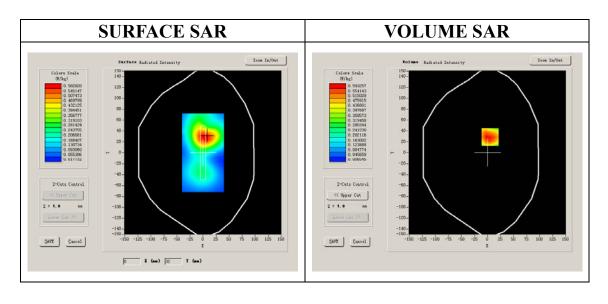
Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	High		
Signal	GPRS		

#### **B. SAR Measurement Results**

ier Build Stiff (Chaimer 251).		
Frequency (MHz)	848.800000	
Relative permittivity (real part)	55.709999	
Relative permittivity	21.709999	
Conductivity (S/m)	1.009033	
Power drift (%)	-1.120000	
Ambient Temperature:	22.6°C	
Liquid Temperature:	22.3°C	
ConvF:	28.559,25.681,27.588	
Crest factor:	1:2	

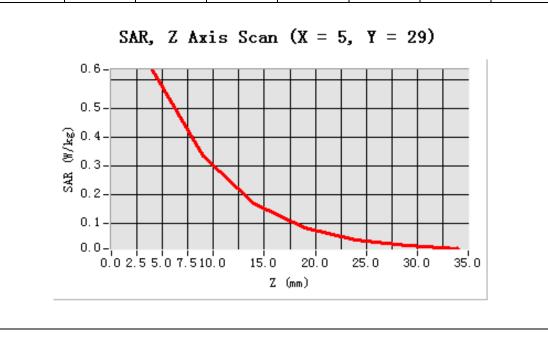


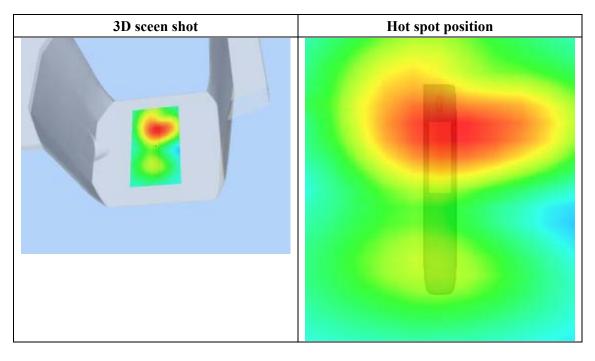


### Maximum location: X=5.00, Y=29.00

SAR 10g (W/Kg)	0.337828
SAR 1g (W/Kg)	0.621266

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6347	0.3332	0.1682	0.0848	0.0427	0.0236
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 8 seconds

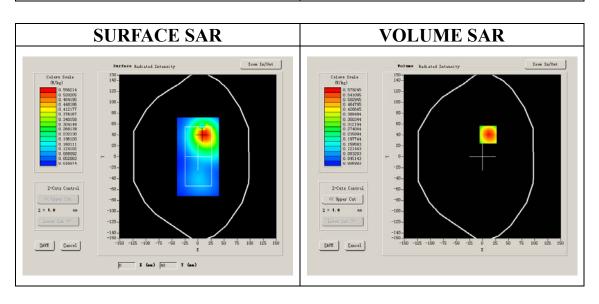
# A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	High		
Signal	GPRS		

### **B. SAR Measurement Results**

Higher Band SAR (Channel 251):

ier Build Stiff (Chaimer 251):	
Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	-0.310000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

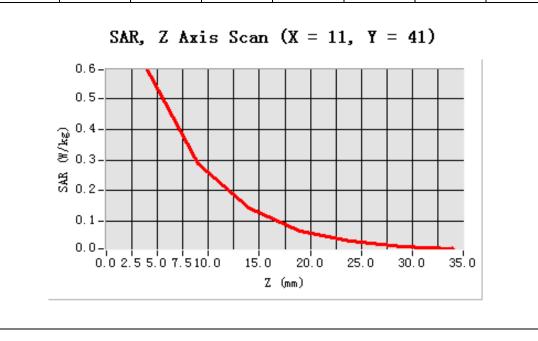


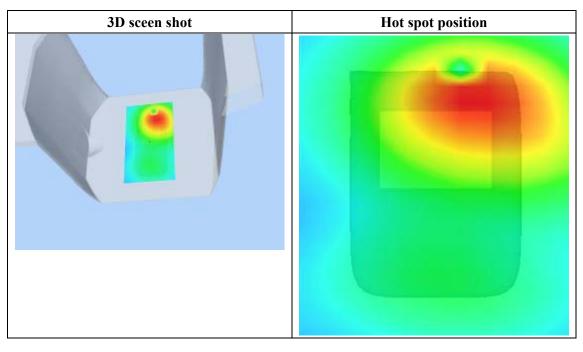


# Maximum location: X=11.00, Y=41.00

SAR 10g (W/Kg)	0.298919
SAR 1g (W/Kg)	0.567283

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5927	0.2878	0.1422	0.0697	0.0359	0.0185
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 6 seconds

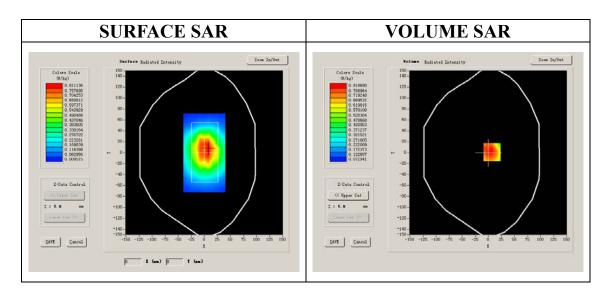
# A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	Low		
Signal	EDGE		

### **B. SAR Measurement Results**

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	54.116001
Relative permittivity	21.284550
Conductivity (S/m)	0.974596
Power drift (%)	-1.230000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

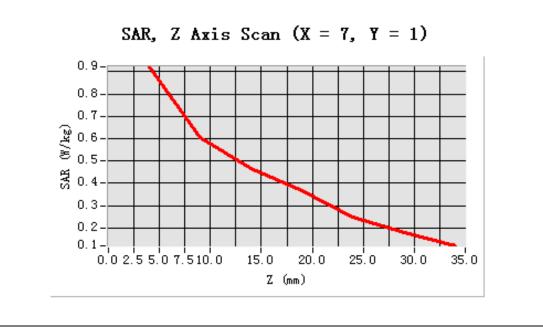


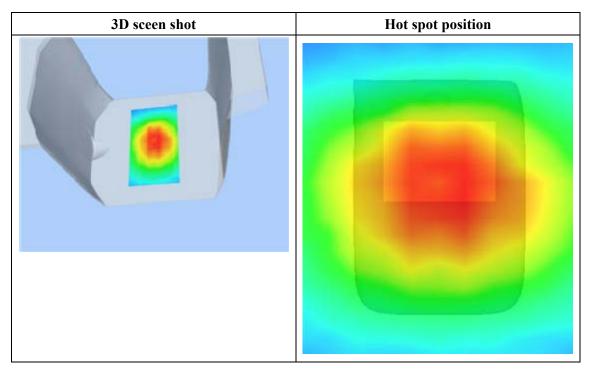


Maximum location: X=7.00, Y=1.00

SAR 10g (W/Kg)	0.621892
SAR 1g (W/Kg)	0.918548

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.9217	0.6032	0.4688	0.3666	0.2504	0.1791
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

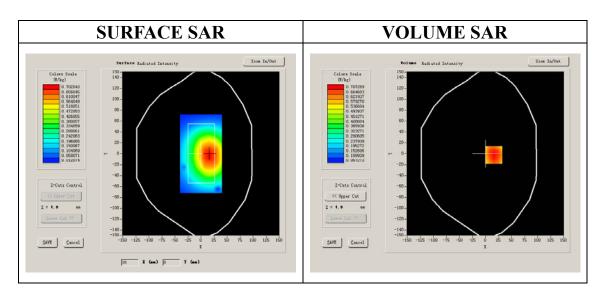
Measurement duration: 9 minutes 7 seconds

# A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	Middle		
Signal	EDGE		

### **B. SAR Measurement Results**

are Bana Britt (Chamber 170).	
Frequency (MHz)	836.599976
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	2.480000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

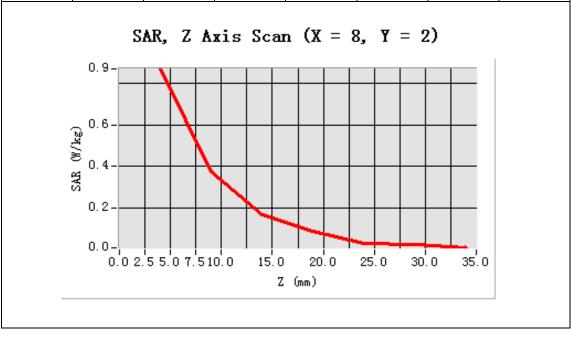


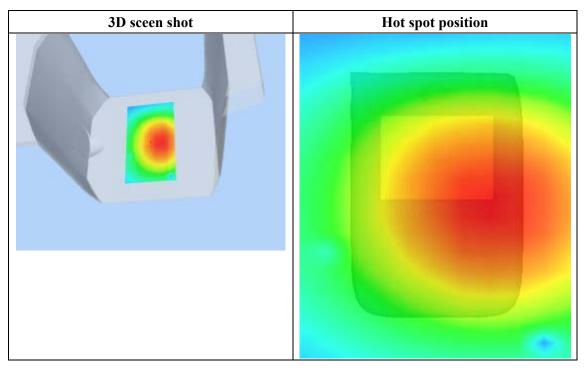


Maximum location: X=8.00, Y=2.00

SAR 10g (W/Kg)	0.400957
SAR 1g (W/Kg)	0.812846

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8708	0.3731	0.1648	0.0887	0.0308	0.0250
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 7 seconds

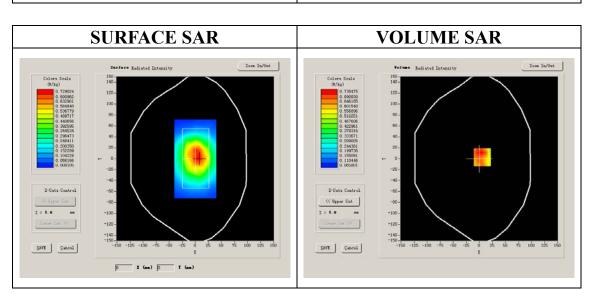
# A. Experimental conditions.

Phantom File	surf_sam_plan.txt		
Phantom	Validation plane		
<b>Device Position</b>	Body		
Band	GSM850		
Channels	High		
Signal	EDGE		

### **B. SAR Measurement Results**

Higher Band SAR (Channel 251):

Frequency (MHz)	848.800000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	1.009033
Power drift (%)	2.340000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:2

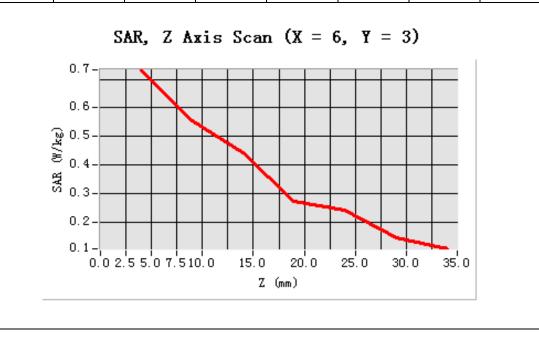


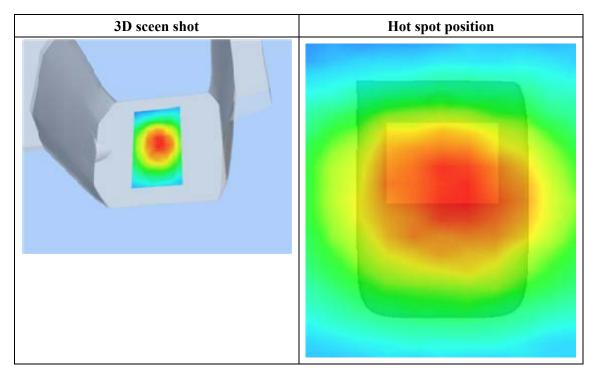


Maximum location: X=6.00, Y=3.00

SAR 10g (W/Kg)	0.548592
SAR 1g (W/Kg)	0.807639

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.7334	0.5552	0.4434	0.2720	0.2403	0.1446
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

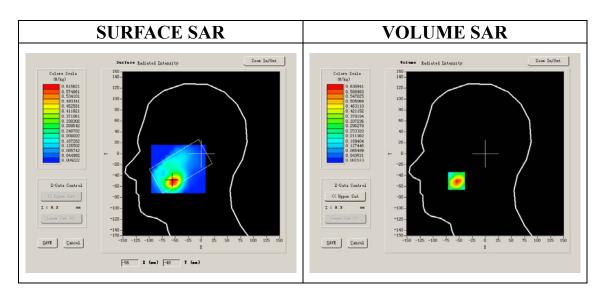
Measurement duration: 8 minutes 3 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Buna of the Chammer out j.	T
Frequency (MHz)	1880.00000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000
Conductivity (S/m)	1.436111
Power drift (%)	-3.570000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:2

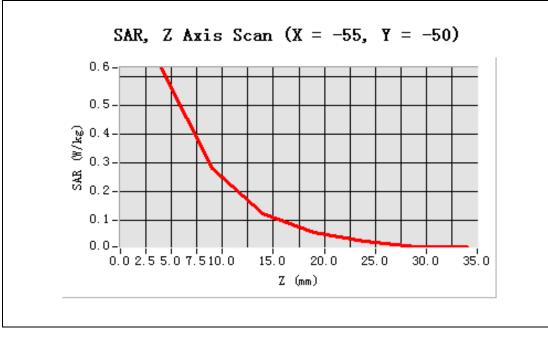


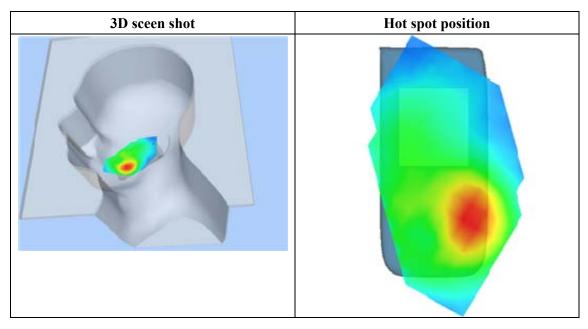


# **Maximum location: X=-55.00, Y=-50.00**

SAR 10g (W/Kg)	0.271750
SAR 1g (W/Kg)	0.601921

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6309	0.2790	0.1210	0.0561	0.0270	0.0073
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

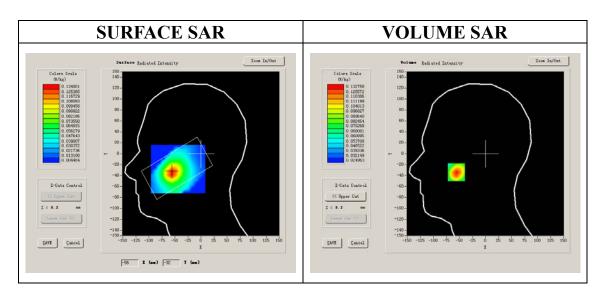
Measurement duration: 7 minutes 23 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Buna of the Chammer out j.	T
Frequency (MHz)	1880.00000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000
Conductivity (S/m)	1.436111
Power drift (%)	-2.080000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:8

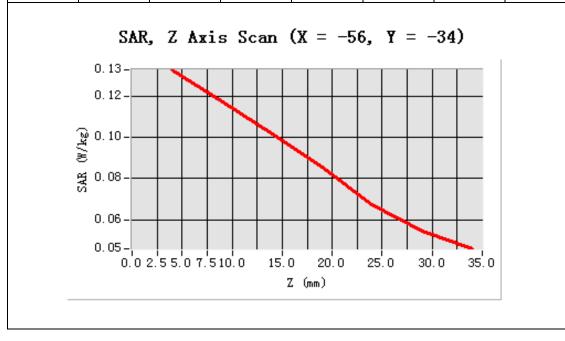


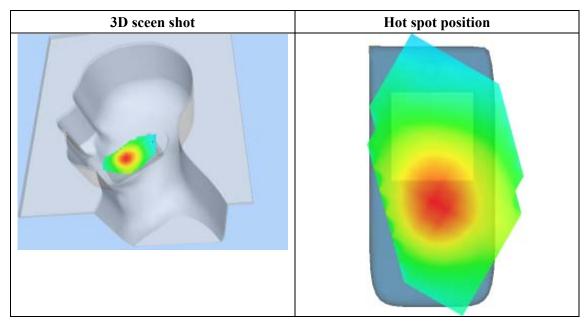


# **Maximum location: X=-56.00, Y=-34.00**

SAR 10g (W/Kg)	0.098993
SAR 1g (W/Kg)	0.126820

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1328	0.1171	0.1015	0.0853	0.0675	0.0547
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

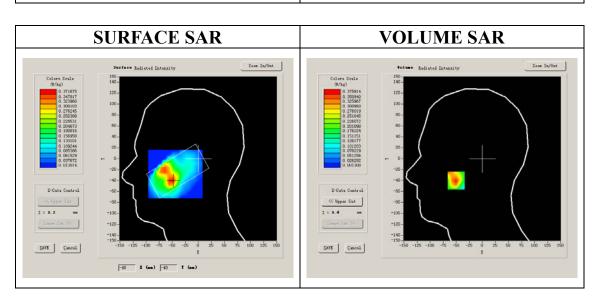
Measurement duration: 7 minutes 55 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000
Conductivity (S/m)	1.436111
Power drift (%)	-3.390000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:8

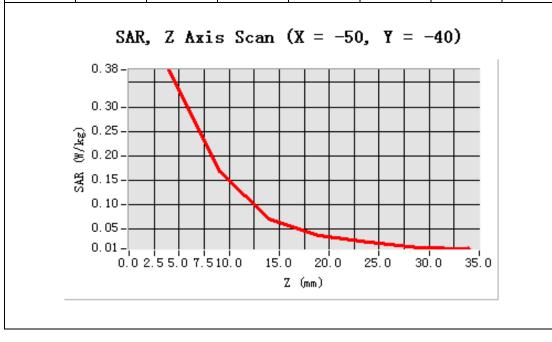


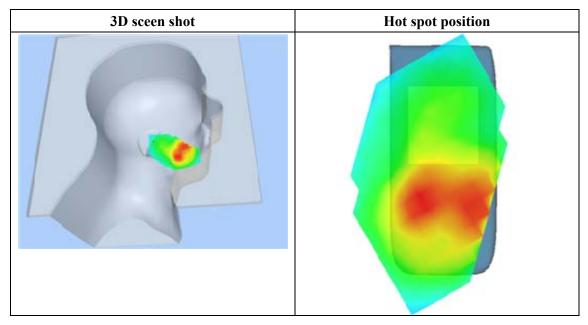


# **Maximum location: X=-50.00, Y=-40.00**

SAR 10g (W/Kg)	0.170846
SAR 1g (W/Kg)	0.356282

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3759	0.1685	0.0711	0.0371	0.0221	0.0116
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

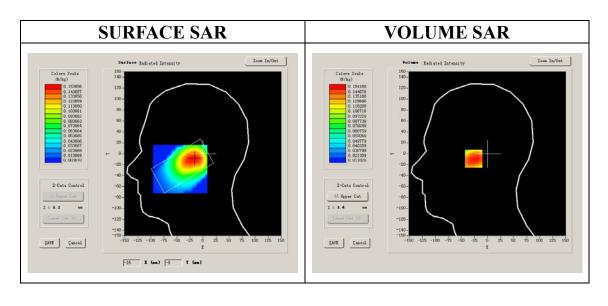
Measurement duration: 7 minutes 26 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

( ) - (	
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000
Conductivity (S/m)	1.436111
Power drift (%)	-1.680000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:8

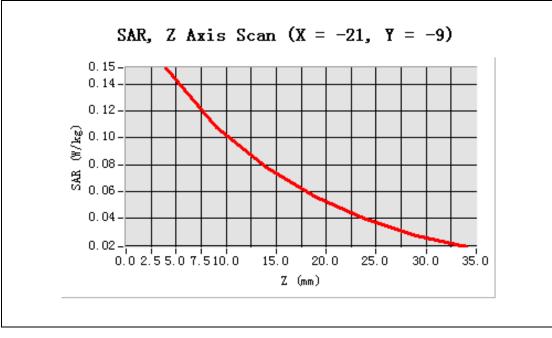


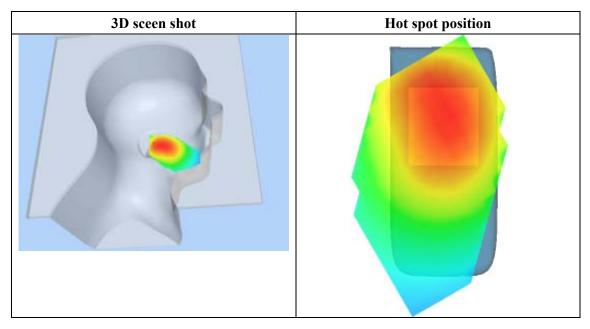


# **Maximum location: X=-21.00, Y=-9.00**

SAR 10g (W/Kg)	0.101844
SAR 1g (W/Kg)	0.149169

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1520	0.1074	0.0781	0.0560	0.0393	0.0270
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

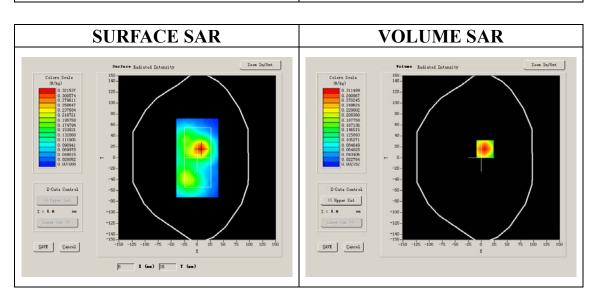
Measurement duration: 9 minutes 6 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Buna of the Chammer out j.	T
Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-0.970000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:8

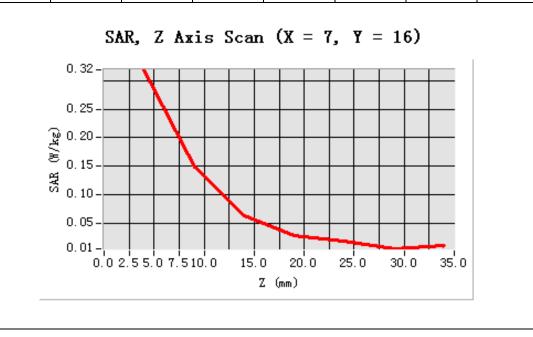


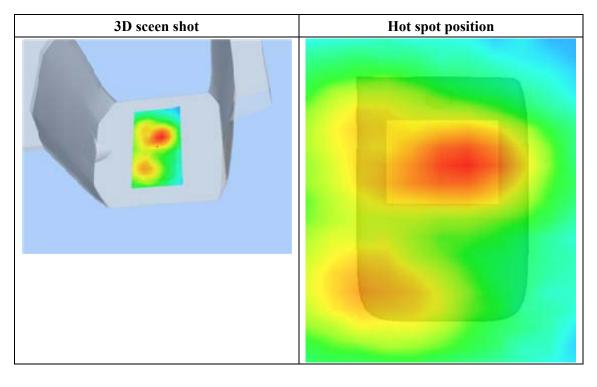


Maximum location: X=7.00, Y=16.00

SAR 10g (W/Kg)	0.155987
SAR 1g (W/Kg)	0.306874

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3187	0.1485	0.0628	0.0277	0.0187	0.0053
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

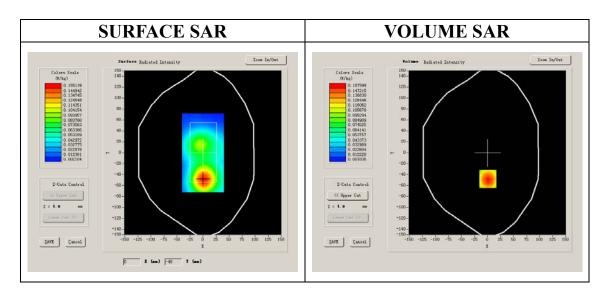
Measurement duration: 9 minutes 11 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Buna of the Chammer out j.	T
Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-0.820000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:8



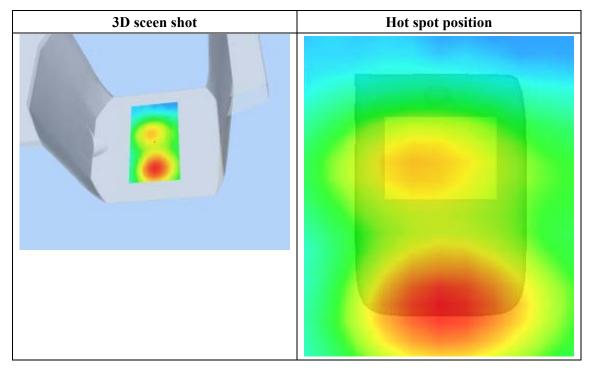


# Maximum location: X=1.00, Y=-48.00

SAR 10g (W/Kg)	0.084342
SAR 1g (W/Kg)	0.155475

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1613	0.0798	0.0412	0.0215	0.0112	0.0067
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

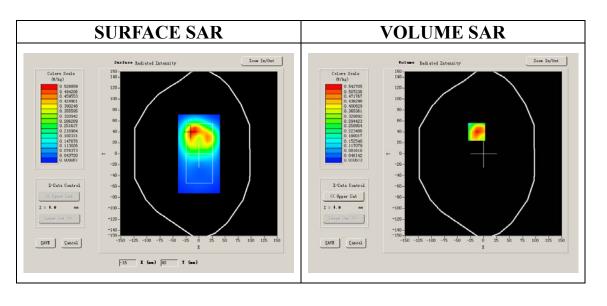
Measurement duration: 9 minutes 6 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-1.680000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

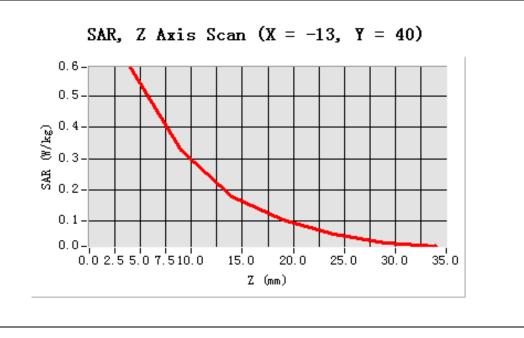


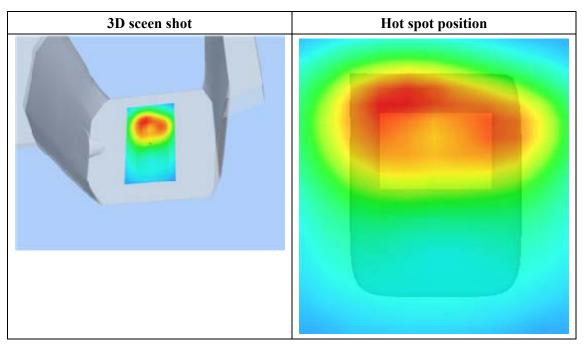


**Maximum location: X=-13.00, Y=40.00** 

SAR 10g (W/Kg)	0.307709
SAR 1g (W/Kg)	0.563176

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5910	0.3257	0.1806	0.1050	0.0599	0.0325
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

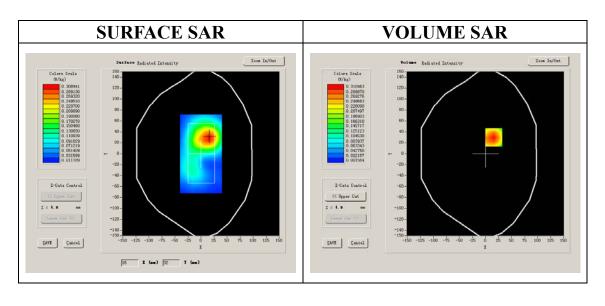
Measurement duration: 9 minutes 9 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Buna of the Chammer out j.	T
Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-1.990000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

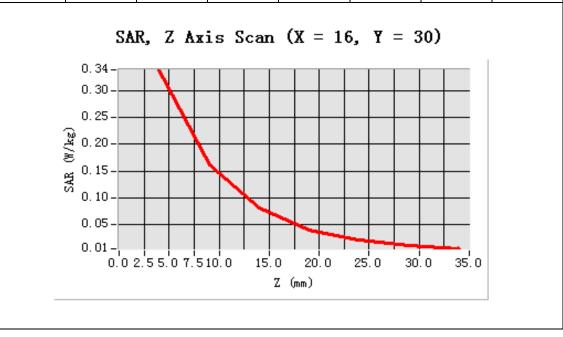


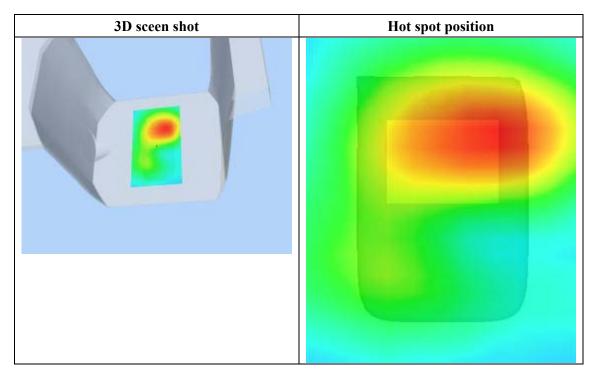


# Maximum location: X=16.00, Y=30.00

SAR 10g (W/Kg)	0.172644
SAR 1g (W/Kg)	0.323413

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3381	0.1620	0.0822	0.0398	0.0220	0.0107
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

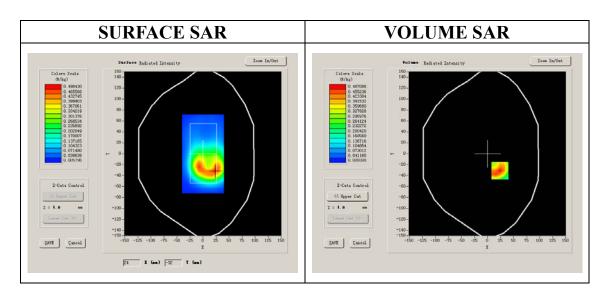
Measurement duration: 9 minutes 11 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-1.010000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

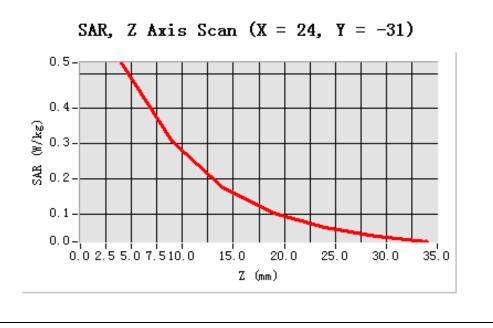


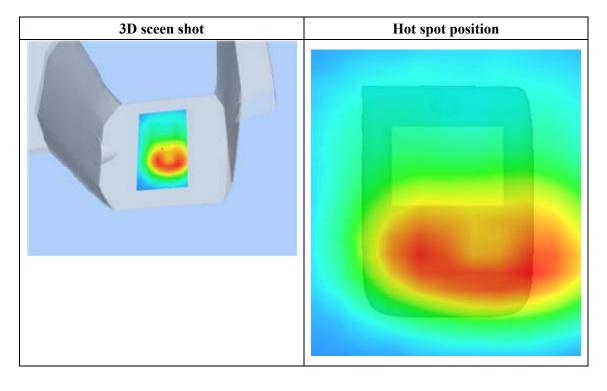


# **Maximum location: X=24.00, Y=-31.00**

SAR 10g (W/Kg)	0.282804
SAR 1g (W/Kg)	0.496054

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5304	0.3074	0.1763	0.1017	0.0611	0.0366
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

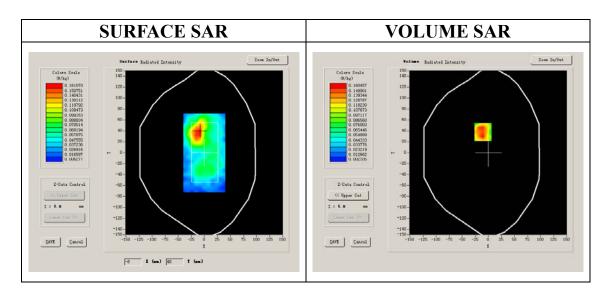
Measurement duration: 9 minutes 11 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-1.010000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

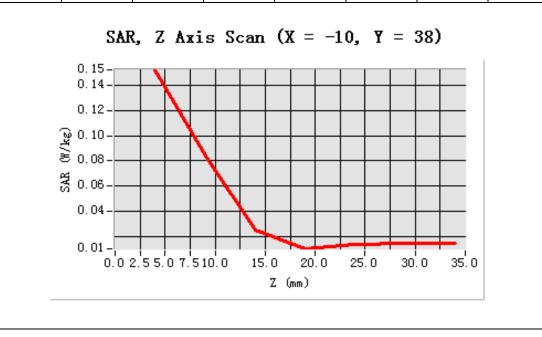


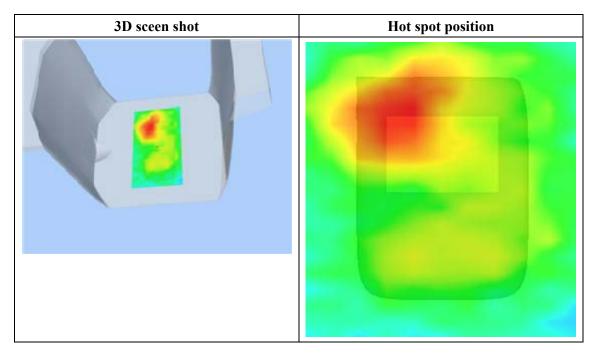


### **Maximum location: X=-10.00, Y=38.00**

SAR 10g (W/Kg)	0.077989
SAR 1g (W/Kg)	0.153988

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1524	0.0842	0.0249	0.0102	0.0139	0.0147
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

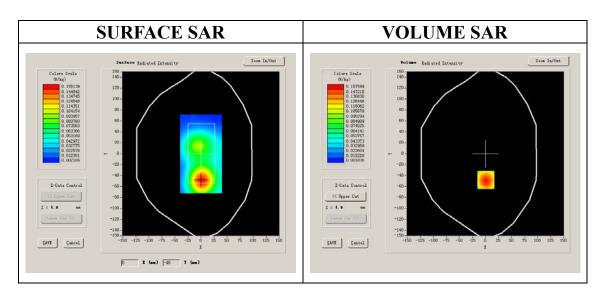
Measurement duration: 9 minutes 11 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

are Bana Britt (Chamber 001).	
Frequency (MHz)	1880.00000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-0.870000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

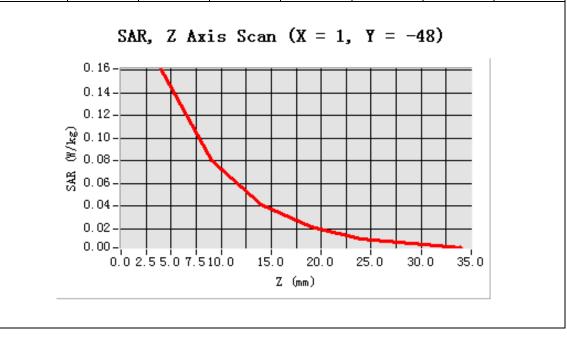


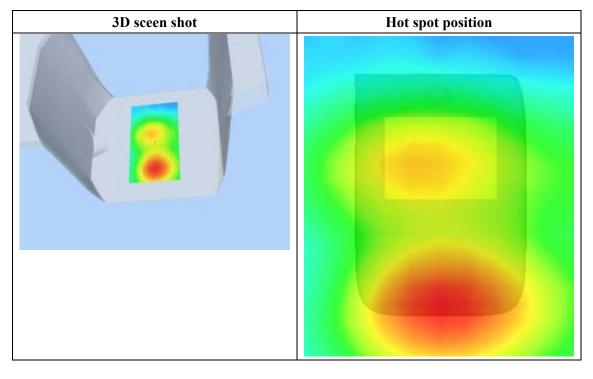


### Maximum location: X=1.00, Y=-48.00

SAR 10g (W/Kg)	0.084342
SAR 1g (W/Kg)	0.155475

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1613	0.0798	0.0412	0.0215	0.0112	0.0067
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

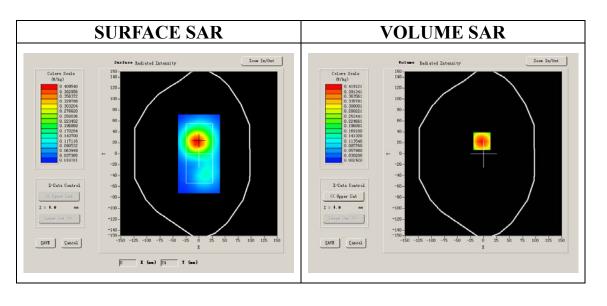
Measurement duration: 9 minutes 11 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Frequency (MHz)	1880.000000
Relative permittivity (real part)	52.540001
Relative permittivity	14.070000
Conductivity (S/m)	1.469533
Power drift (%)	-0.170000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:2

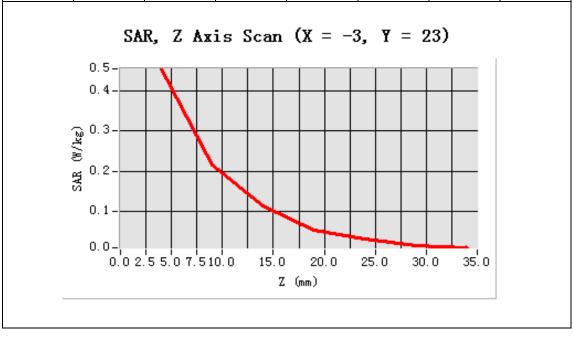


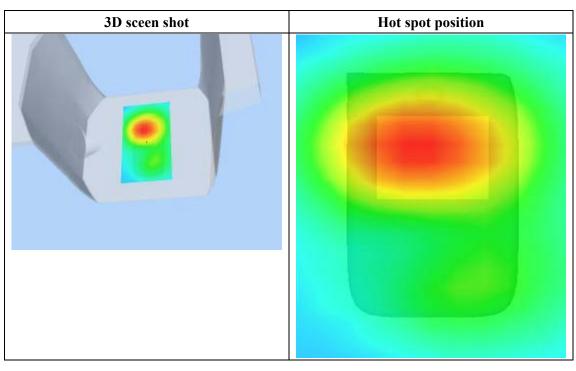


# Maximum location: X=-3.00, Y=23.00

SAR 10g (W/Kg)	0.232557
SAR 1g (W/Kg)	0.439273

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.4564	0.2166	0.1121	0.0520	0.0287	0.0132
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 3 seconds

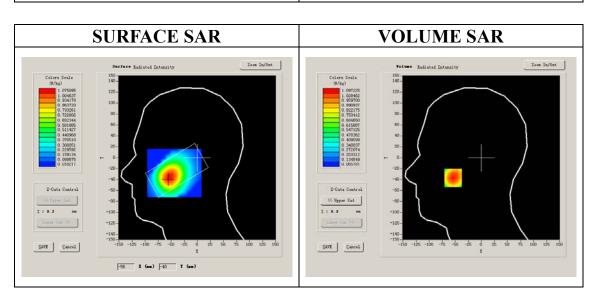
# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Lower Band SAR (Channel 4132):

er Build Britt (Chamier 1132).	
Frequency (MHz)	826.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000
Conductivity (S/m)	0.604357
Power drift (%)	0.280000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

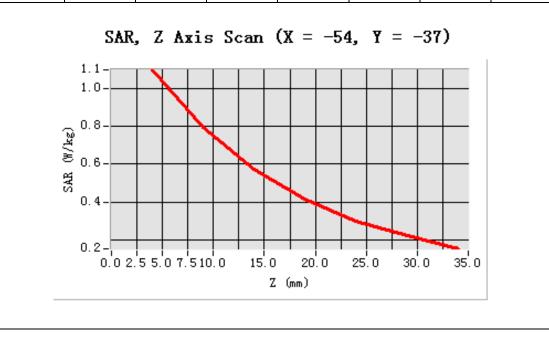


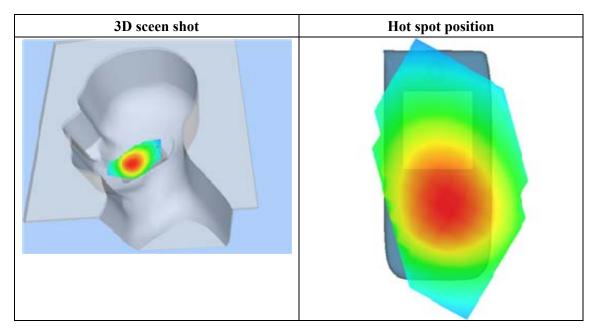


# **Maximum location: X=-54.00, Y=-37.00**

SAR 10g (W/Kg)	0.720406
SAR 1g (W/Kg)	1.050231

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0972	0.7933	0.5733	0.4162	0.3007	0.2217
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

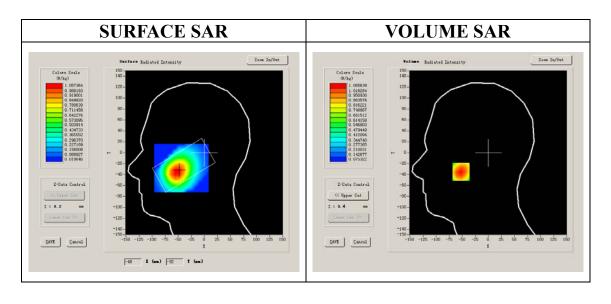
Measurement duration: 7 minutes 48 seconds

# A. Experimental conditions.

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

### **B. SAR Measurement Results**

Frequency (MHz)	835.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000
Conductivity (S/m)	0.614460
Power drift (%)	0.480000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

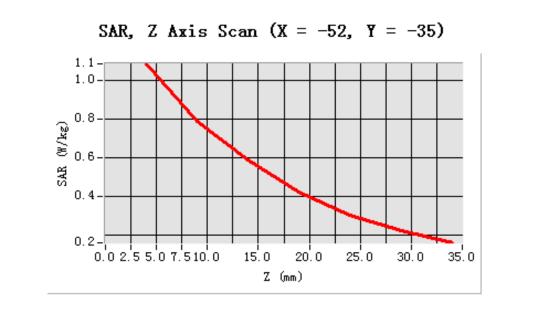


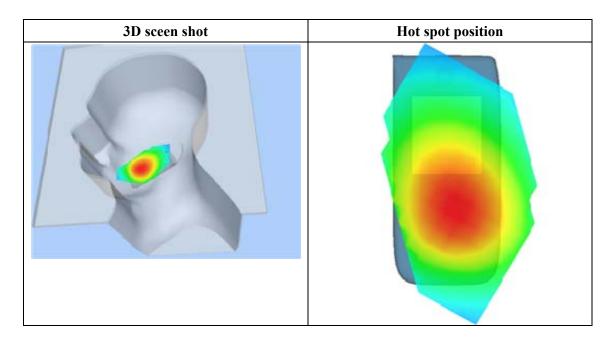


## **Maximum location: X=-52.00, Y=-35.00**

SAR 10g (W/Kg)	0.714092
SAR 1g (W/Kg)	1.040528

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0856	0.7883	0.5865	0.4216	0.3046	0.2218
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 48 seconds

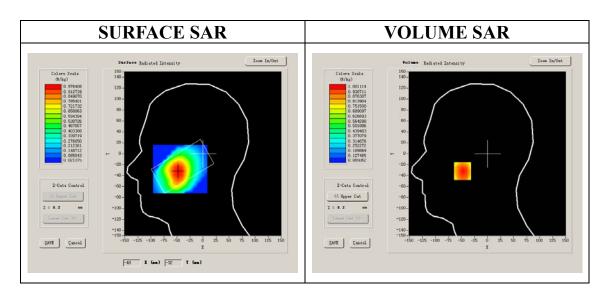
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

Frequency (MHz)	846.600000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000
Conductivity (S/m)	0.614460
Power drift (%)	0.970000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

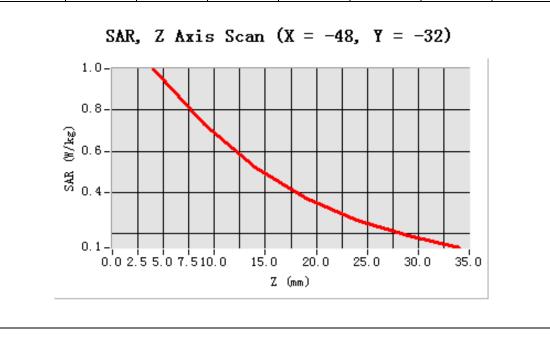


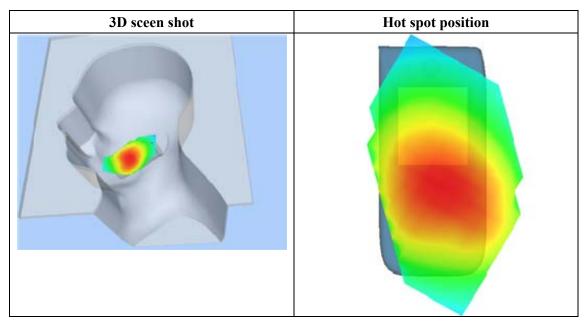


## **Maximum location: X=-48.00, Y=-32.00**

SAR 10g (W/Kg)	0.664470
SAR 1g (W/Kg)	0.957502

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0011	0.7340	0.5219	0.3735	0.2651	0.1865
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 3 seconds

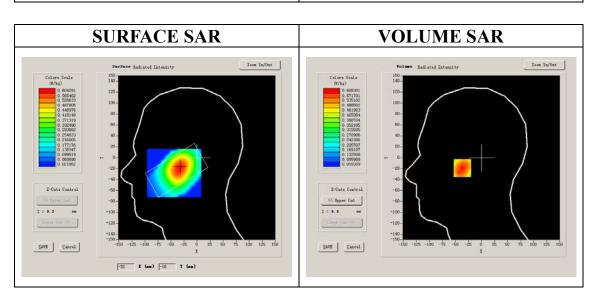
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Lower Band SAR (Channel 4132):

er Build Britt (Chamier 1132).	
Frequency (MHz)	826.400000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000
Conductivity (S/m)	0.604357
Power drift (%)	0.910000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

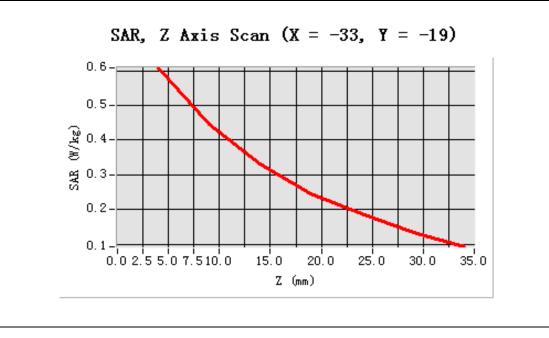


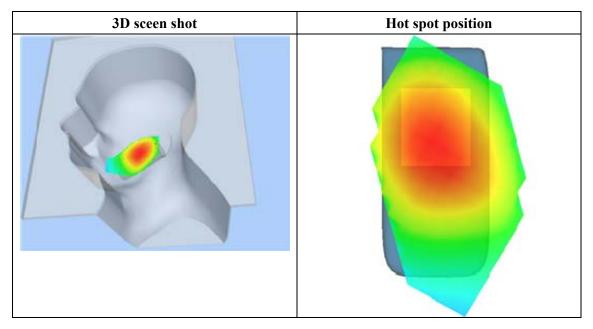


## **Maximum location: X=-33.00, Y=-19.00**

SAR 10g (W/Kg)	0.409781
SAR 1g (W/Kg)	0.581118

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6083	0.4455	0.3312	0.2455	0.1873	0.1350
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 0 seconds

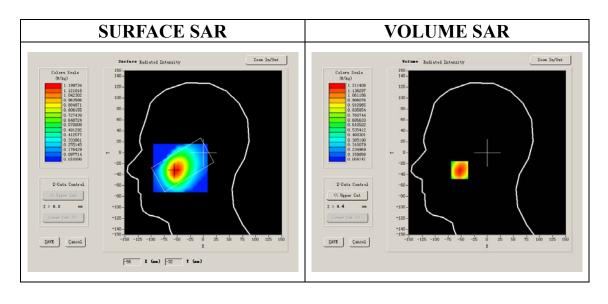
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Lower Band SAR (Channel 4132):

er Build Britt (Chamier 1132).	
Frequency (MHz)	826.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000
Conductivity (S/m)	0.604357
Power drift (%)	-0.040000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

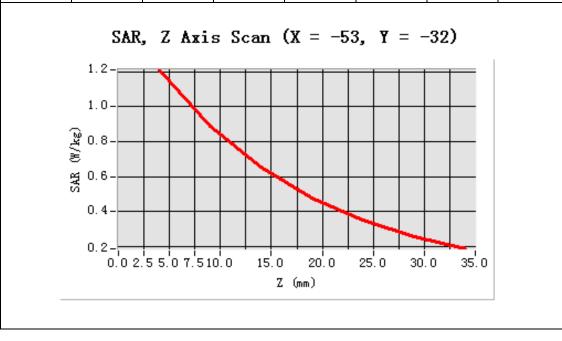


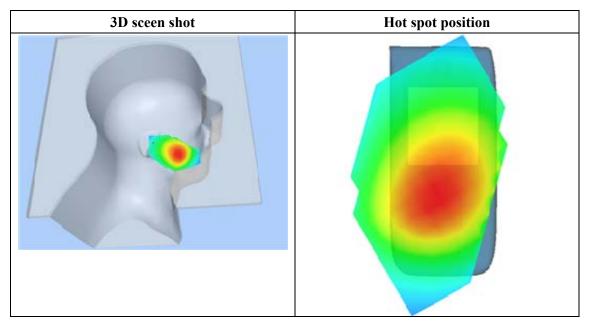


## **Maximum location: X=-53.00, Y=-32.00**

SAR 10g (W/Kg)	0.797709
SAR 1g (W/Kg)	1.160393

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.2114	0.8899	0.6548	0.4762	0.3475	0.2521
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 59 seconds

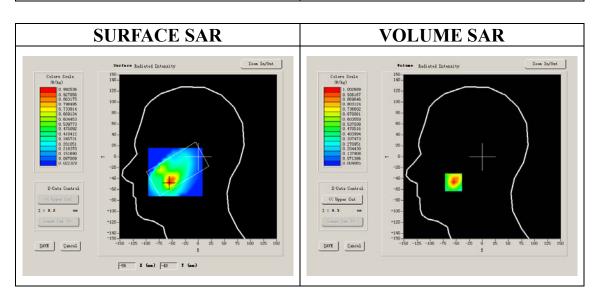
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Middle Band SAR (Channel 4175):

are Buna of the Chaimler 1170).	
Frequency (MHz)	835.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000
Conductivity (S/m)	0.614460
Power drift (%)	0.070000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

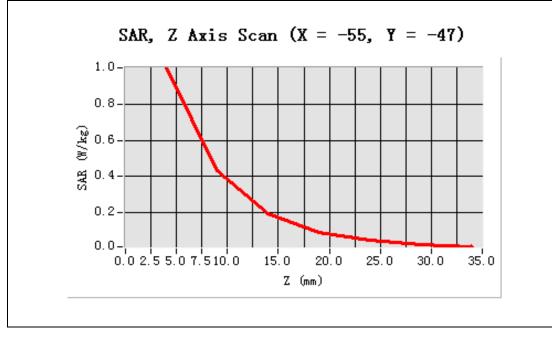


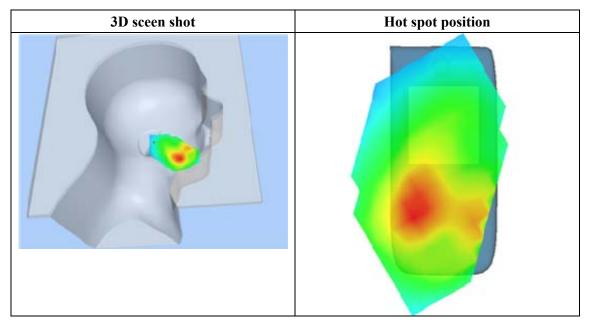


## **Maximum location: X=-55.00, Y=-47.00**

SAR 10g (W/Kg)	0.444982
SAR 1g (W/Kg)	0.945458

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0027	0.4302	0.1911	0.0854	0.0422	0.0218
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 0 seconds

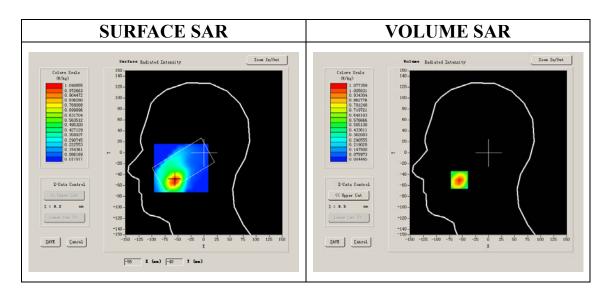
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

<u> </u>	
Frequency (MHz)	846.000000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000
Conductivity (S/m)	0.628860
Power drift (%)	-0.160000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

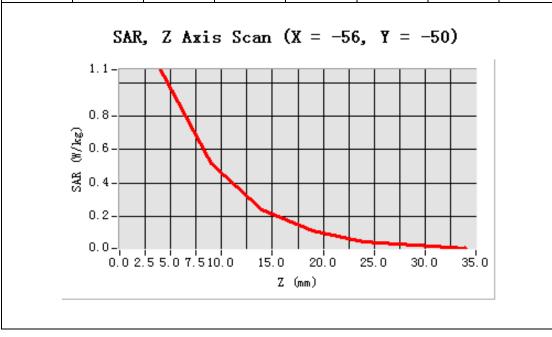


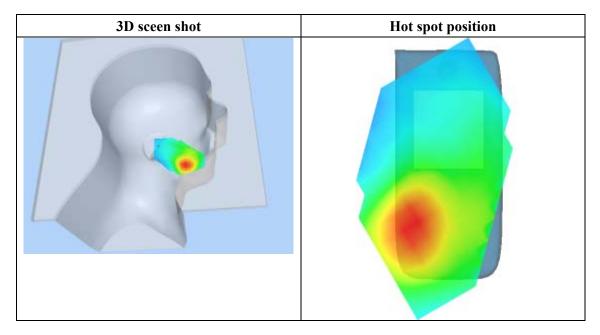


## **Maximum location: X=-56.00, Y=-50.00**

SAR 10g (W/Kg)	0.503442
SAR 1g (W/Kg)	1.016870

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	1.0774	0.5170	0.2393	0.1141	0.0506	0.0325
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 0 seconds

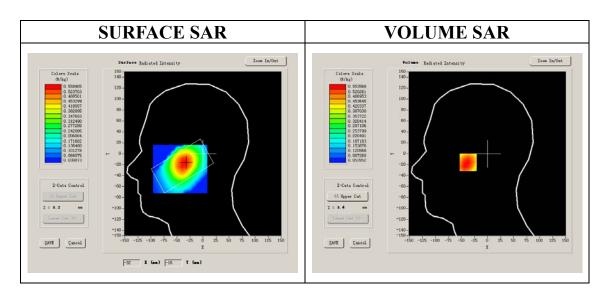
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

( )	
Frequency (MHz)	846.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000
Conductivity (S/m)	0.604357
Power drift (%)	-0.370000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.3°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1

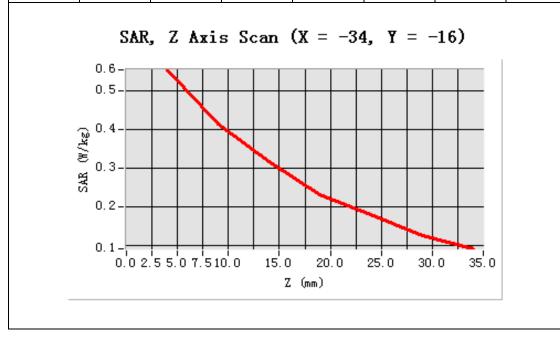


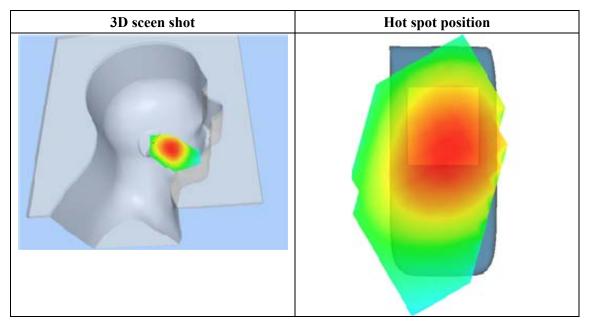


## **Maximum location: X=-34.00, Y=-16.00**

SAR 10g (W/Kg)	0.383182
SAR 1g (W/Kg)	0.539081

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5536	0.4136	0.3160	0.2316	0.1809	0.1260
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 4 seconds

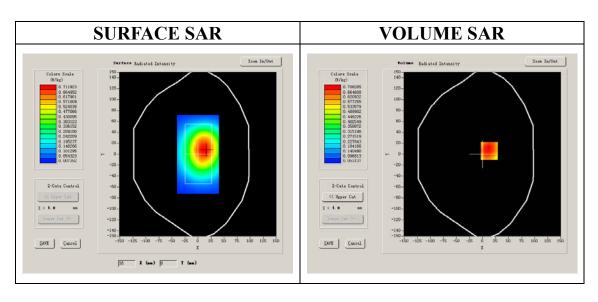
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

Frequency (MHz)	846.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	0.737401
Power drift(%)	0.320000
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:8

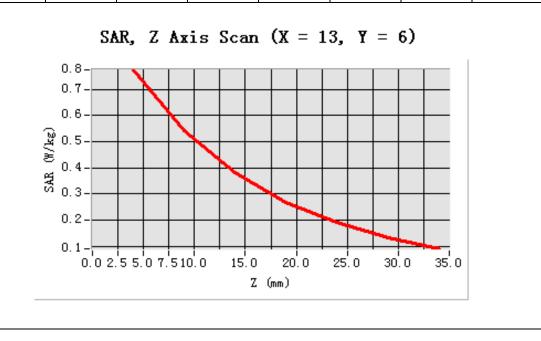


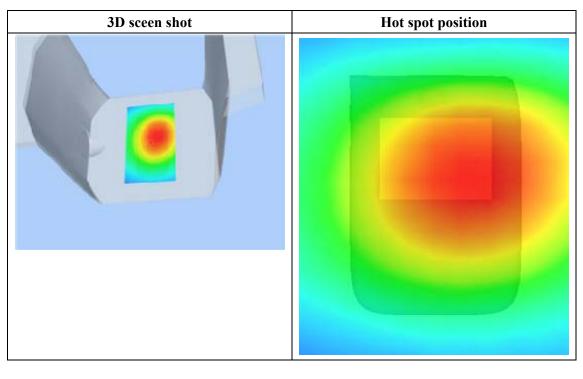


Maximum location: X=13.00, Y=6.00

SAR 10g (W/Kg)	0.502756
SAR 1g (W/Kg)	0.753016

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.7741	0.5425	0.3834	0.2668	0.1930	0.1334
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 8 seconds

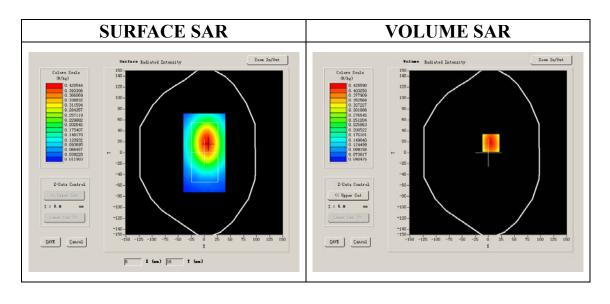
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4132):

Frequency (MHz)	846.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	0.737401
Power drift(%)	0.590000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:8

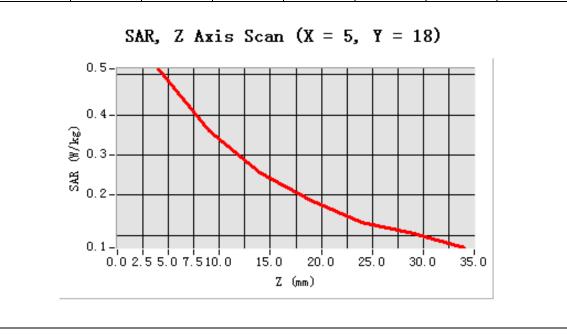


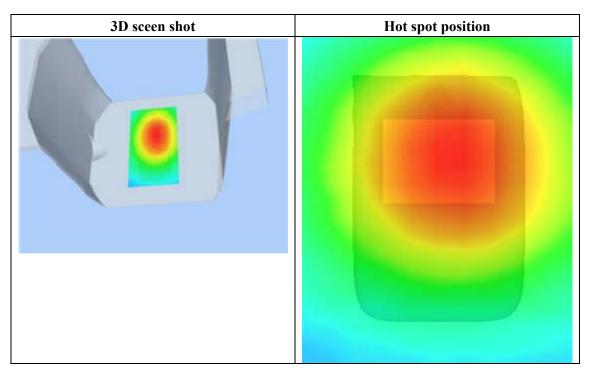


Maximum location: X=5.00, Y=18.00

SAR 10g (W/Kg)	0.337181
SAR 1g (W/Kg)	0.493518

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5143	0.3596	0.2563	0.1865	0.1311	0.1044
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 23 seconds

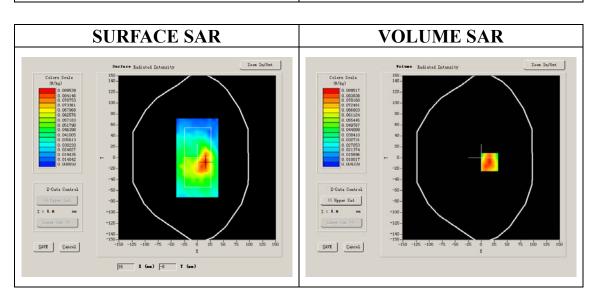
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

ter Bana St III (Chaimer 1235).	
Frequency (MHz)	846.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	0.737401
Power drift (%)	1.520000
Ambient Temperature:	22.9°C
Liquid Temperature:	22.7°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:1

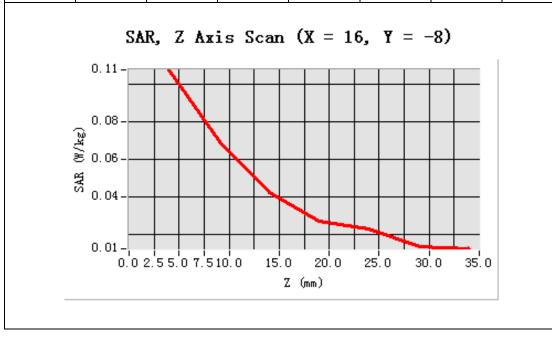


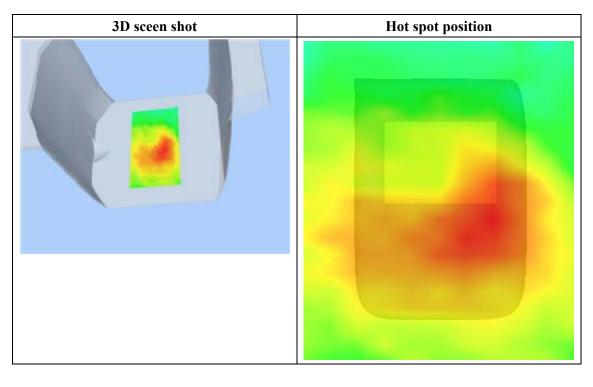


## Maximum location: X=16.00, Y=-8.00

SAR 10g (W/Kg)	0.062678
SAR 1g (W/Kg)	0.102229

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1074	0.0692	0.0420	0.0270	0.0230	0.0134
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 11 seconds

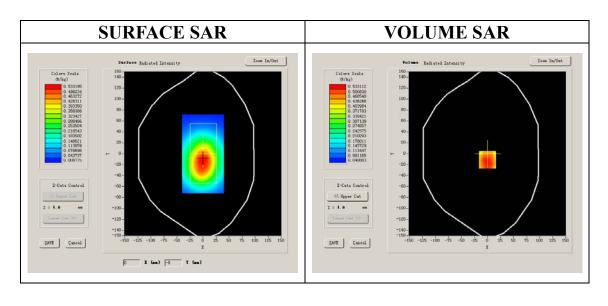
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

Frequency (MHz)	846.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	0.737401
Power drift (%)	-1.350000
Ambient Temperature:	22.9°C
Liquid Temperature:	22.7°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:1

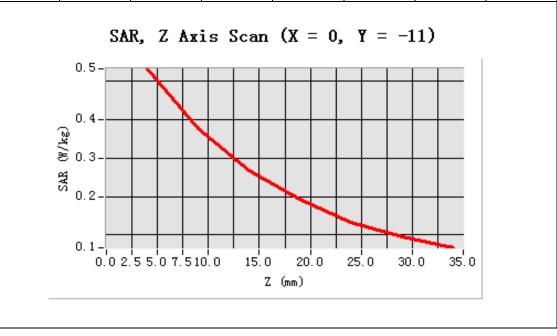


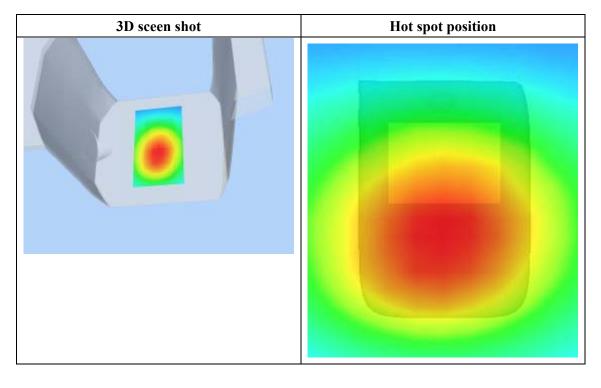


## Maximum location: X=0.00, Y=-11.00

SAR 10g (W/Kg)	0.351180
SAR 1g (W/Kg)	0.516075

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5331	0.3779	0.2672	0.1929	0.1326	0.0946
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 23 seconds

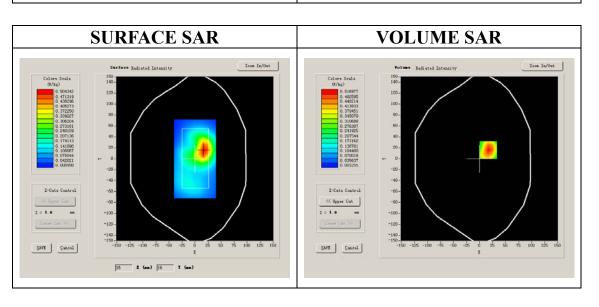
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 4233):

Frequency (MHz)	846.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	0.737401
Power drift (%)	-0.180000
Ambient Temperature:	22.9°C
Liquid Temperature:	22.7°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:1

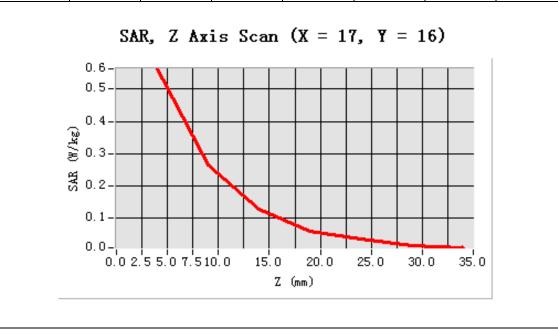


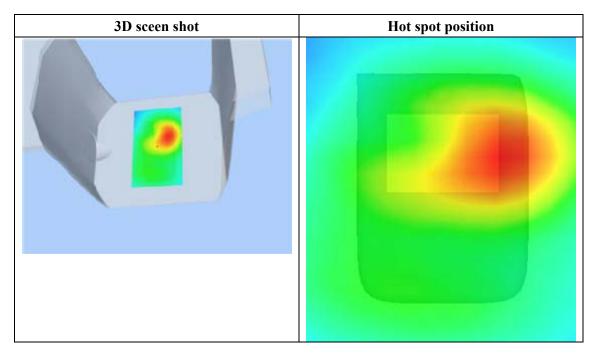


## Maximum location: X=17.00, Y=16.00

SAR 10g (W/Kg)	0.274776
SAR 1g (W/Kg)	0.534953

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5629	0.2657	0.1281	0.0588	0.0342	0.0152
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 4 seconds

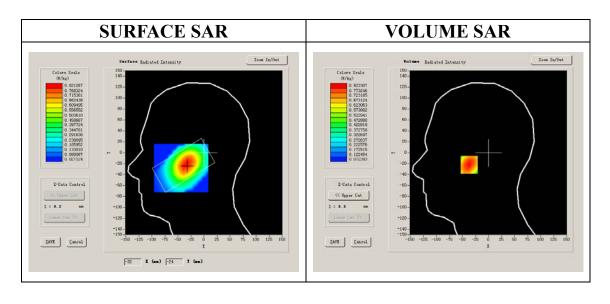
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	
Frequency (MHz)	1907.600000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000
Conductivity (S/m)	1.417537
Power drift (%)	0.220000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

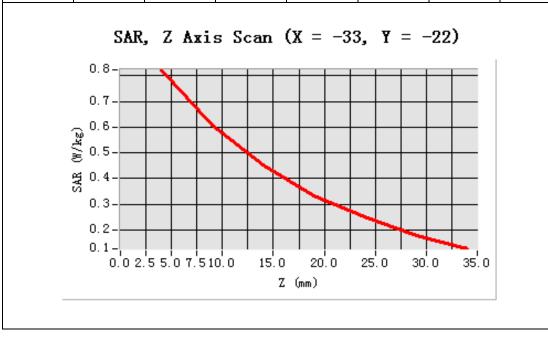


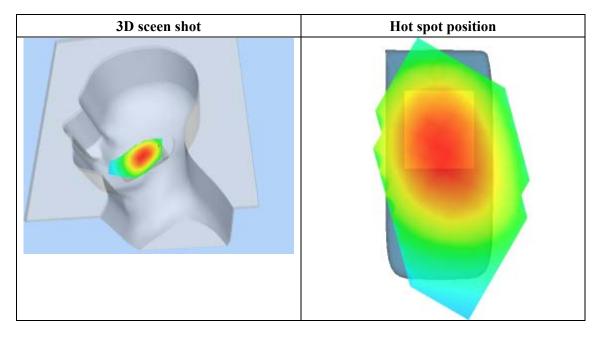


## **Maximum location: X=-33.00, Y=-22.00**

SAR 10g (W/Kg)	0.555502
SAR 1g (W/Kg)	0.792308

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8233	0.6098	0.4538	0.3306	0.2496	0.1777
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 29 seconds

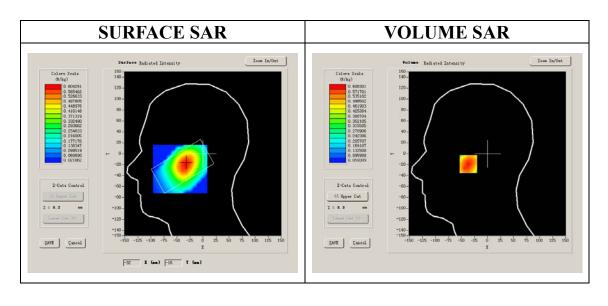
## A. Experimental conditions.

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

### B. SAR Measurement Results

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.600000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000
Conductivity (S/m)	1.381800
Power drift (%)	-0.650000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

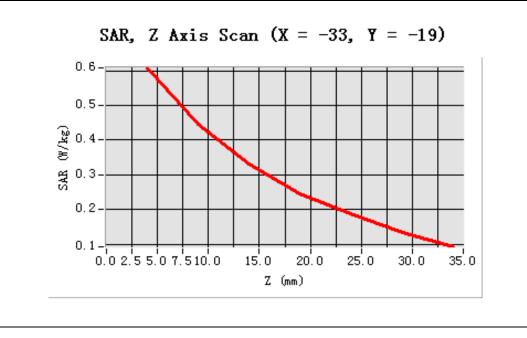


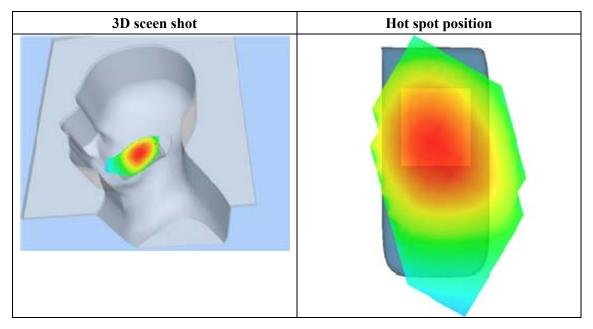


## **Maximum location: X=-33.00, Y=-19.00**

SAR 10g (W/Kg)	0.409781
SAR 1g (W/Kg)	0.581118

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.6083	0.4455	0.3312	0.2455	0.1873	0.1350
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 39 seconds

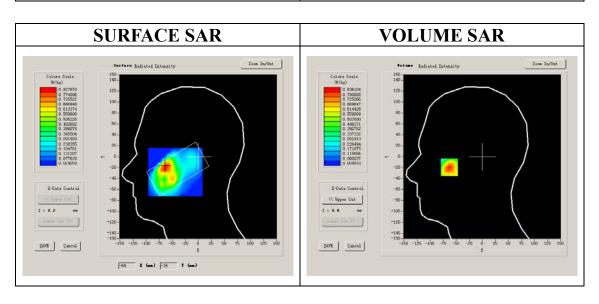
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.600000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000
Conductivity (S/m)	1.417537
Power drift (%)	0.410000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

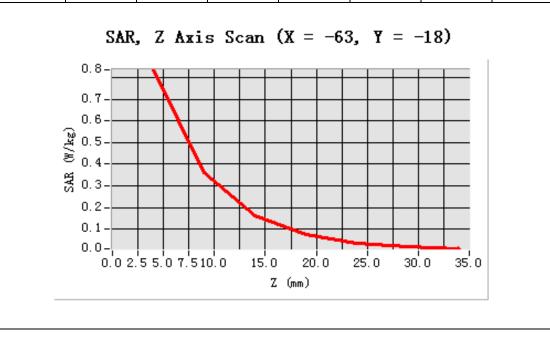


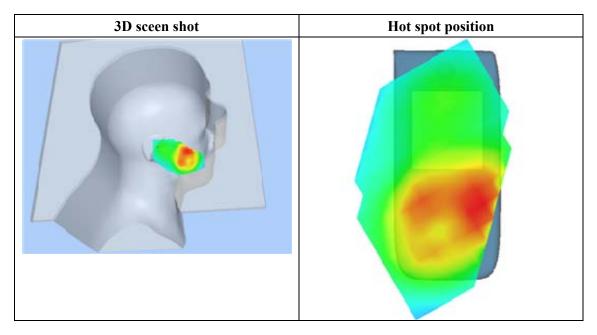


## **Maximum location: X=-63.00, Y=-18.00**

SAR 10g (W/Kg)	0.390978
SAR 1g (W/Kg)	0.797916

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8361	0.3594	0.1648	0.0756	0.0344	0.0199
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 7 minutes 25 seconds

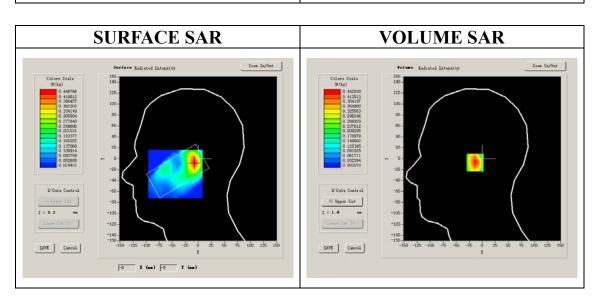
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.600000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000
Conductivity (S/m)	1.355047
Power drift (%)	-0.890000
Ambient Temperature:	22.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

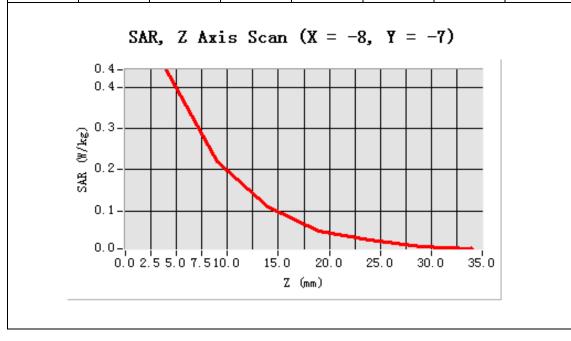


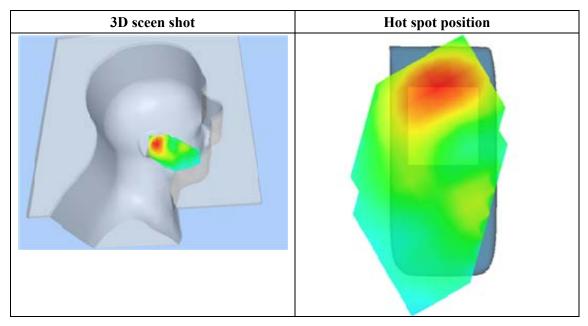


## Maximum location: X=-8.00, Y=-7.00

SAR 10g (W/Kg)	0.215910		
SAR 1g (W/Kg)	0.421237		

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.4428	0.2197	0.1092	0.0500	0.0296	0.0143
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 4 seconds

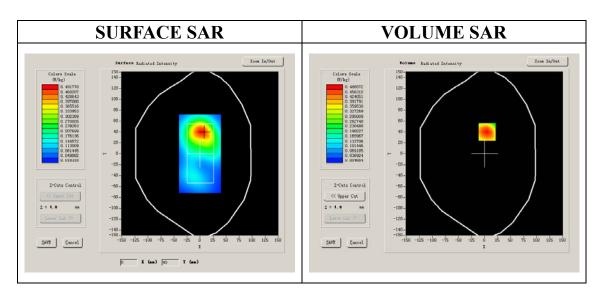
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.600000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	1.658270
Power drift(%)	-1.850000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

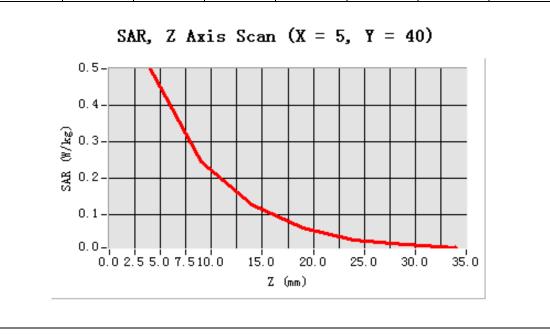


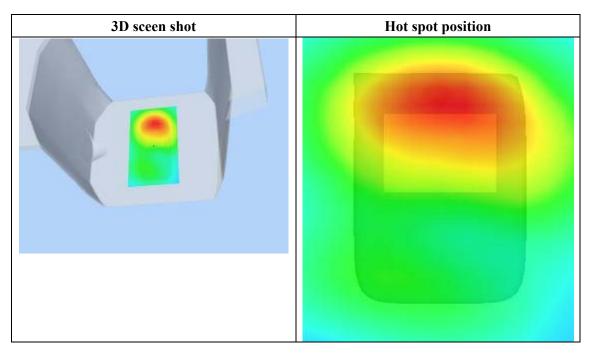


Maximum location: X=5.00, Y=40.00

SAR 10g (W/Kg)	0.260433
SAR 1g (W/Kg)	0.480771

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.4999	0.2467	0.1260	0.0631	0.0316	0.0181
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 8 seconds

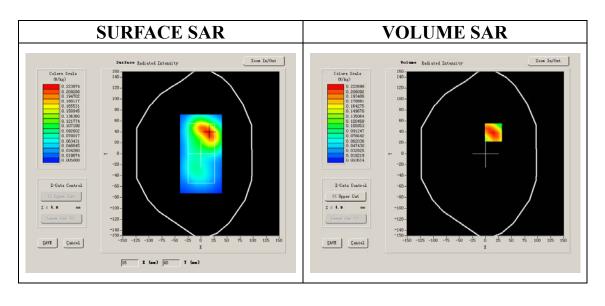
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

Ter Bana Star (Chamber 7000):	T
Frequency (MHz)	1907.600000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	1.658270
Power drift(%)	-0.650000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

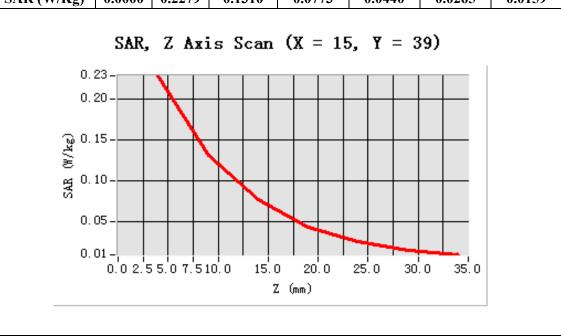


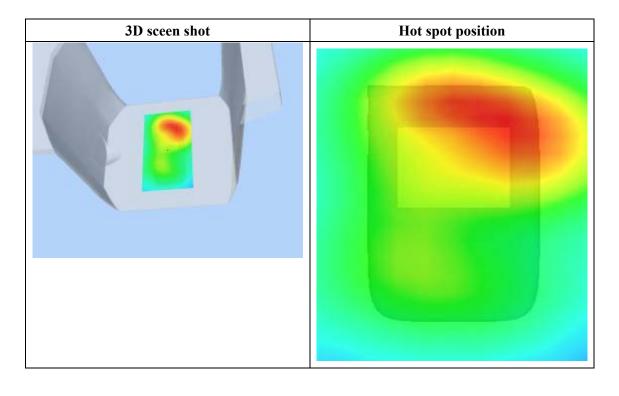


## Maximum location: X=15.00, Y=39.00

SAR 10g (W/Kg)	0.126936
SAR 1g (W/Kg)	0.216561

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2279	0.1310	0.0773	0.0440	0.0265	0.0159







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 8 seconds

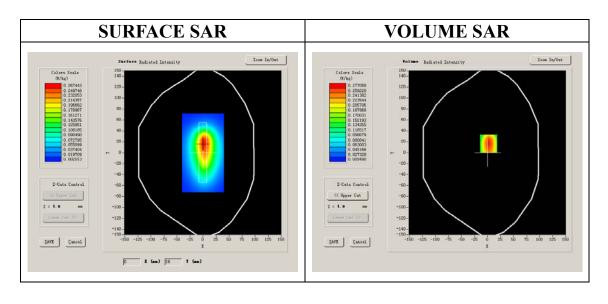
## A. Experimental conditions.

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

### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

Ter Bana Star (Chamber 7000):	T
Frequency (MHz)	1907.600000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	1.658270
Power drift(%)	-0.970000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

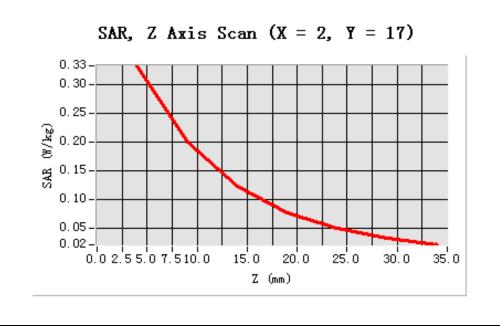


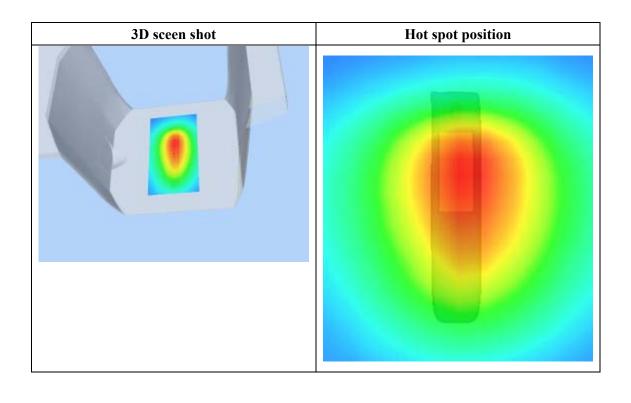


#### Maximum location: X=2.00, Y=17.00

SAR 10g (W/Kg)	0.187479
SAR 1g (W/Kg)	0.315546

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.3325	0.2002	0.1222	0.0762	0.0494	0.0313
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 9 seconds

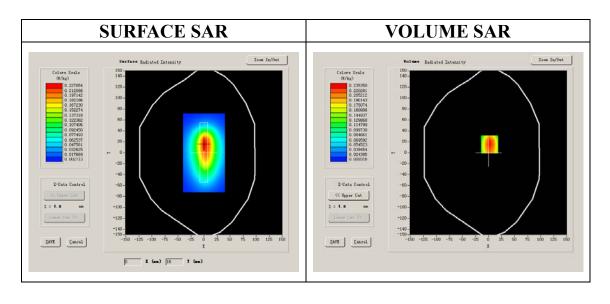
## A. Experimental conditions.

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

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

( )	
Frequency (MHz)	1907.600000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	1.658270
Power drift(%)	-0.720000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

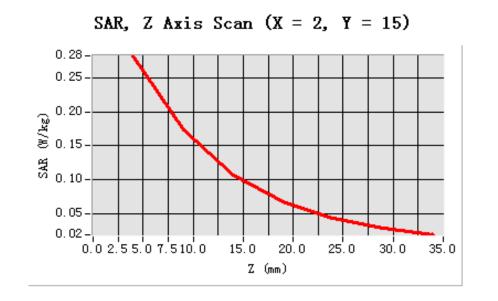


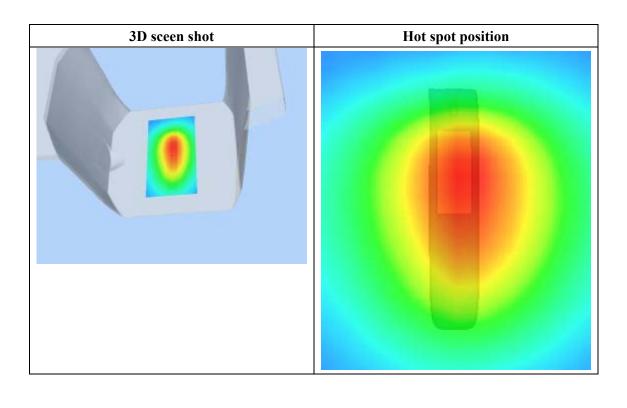


#### Maximum location: X=2.00, Y=15.00

SAR 10g (W/Kg)	0.162566
SAR 1g (W/Kg)	0.269013

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.2824	0.1730	0.1073	0.0678	0.0435	0.0291
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 8 seconds

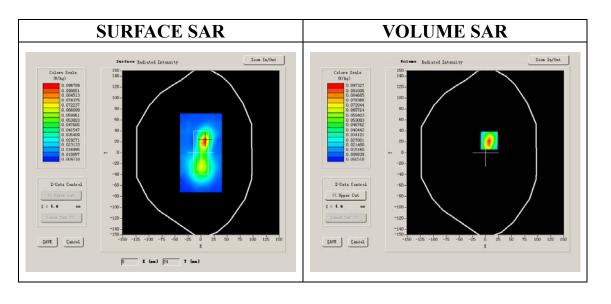
## A. Experimental conditions.

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

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 9538):

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	
Frequency (MHz)	1907.600000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050
Conductivity (S/m)	1.658270
Power drift(%)	-0.320000
Ambient Temperature:	22.6°C
Liquid Temperature:	22.7°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

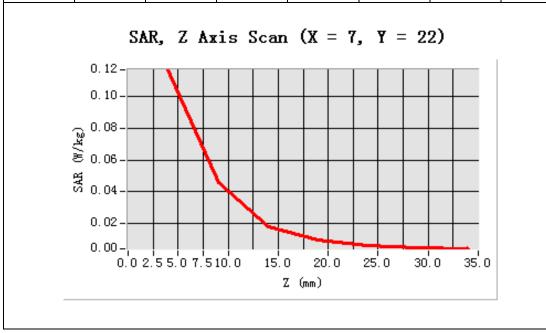


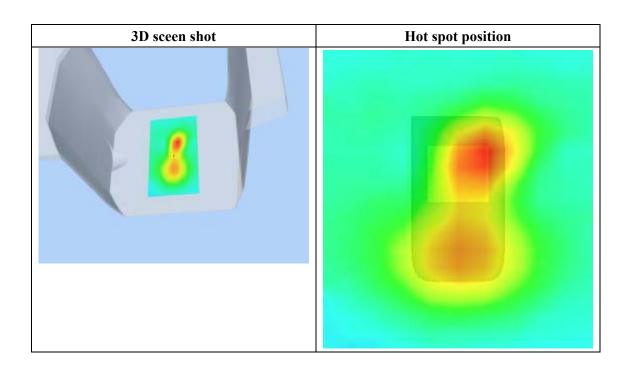


Maximum location: X=7.00, Y=22.00

SAR 10g (W/Kg)	0.144957
SAR 1g (W/Kg)	0.273573

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1168	0.0459	0.0177	0.0096	0.0063	0.0045
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 17 seconds

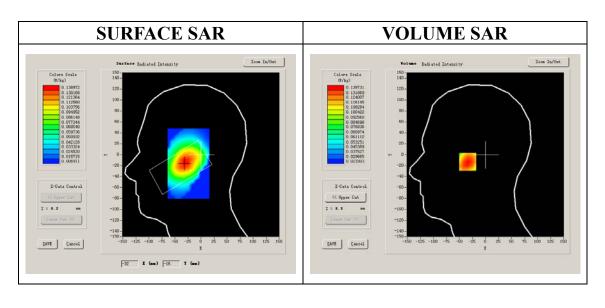
## A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Right head
<b>Device Position</b>	Cheek
Band	802.11B
Channels	Middle
Signal	DSSS

#### **B. SAR Measurement Results**

Middle Band SAR (Channel 6)

are Bana St Ire (Chamier o)	T
Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.622857
Relative permittivity	15.490000
Conductivity (S/m)	1.964313
Power drift (%)	-0.430000
Ambient Temperature:	22.3°C
Liquid Temperature:	21.5°C
ConvF:	39.563,33.614,37.677
Crest factor:	1:1

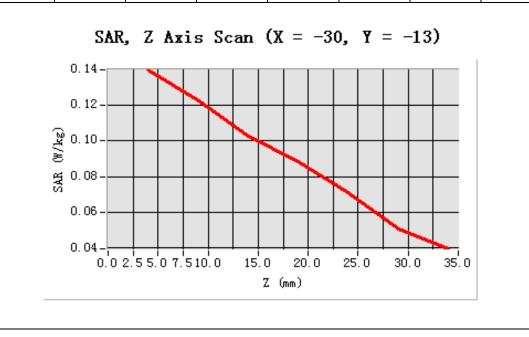


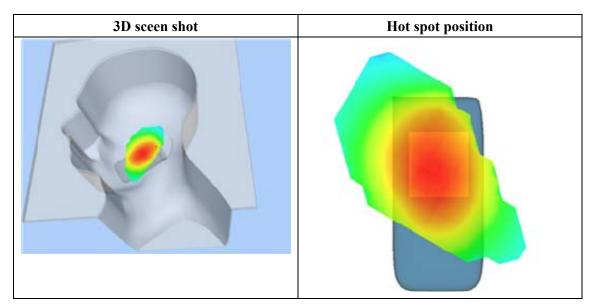


## **Maximum location: X=-30.00, Y=-13.00**

SAR 10g (W/Kg)	0.110815
SAR 1g (W/Kg)	0.137899

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1397	0.1223	0.1027	0.0886	0.0712	0.0508
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 15 seconds

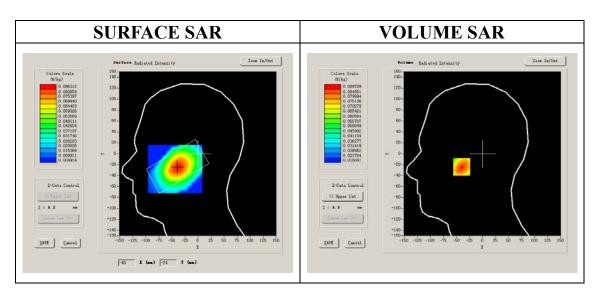
## A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Right head
<b>Device Position</b>	Tilt
Band	802.11B
Channels	Middle
Signal	DSSS

#### **B. SAR Measurement Results**

Middle Band SAR (Channel 6)

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.622857
Relative permittivity	15.490000
Conductivity (S/m)	1.964313
Power drift (%)	-0.630000
Ambient Temperature:	22.3°C
Liquid Temperature:	21.5°C
ConvF:	39.563,33.614,37.677
Crest factor:	1:1

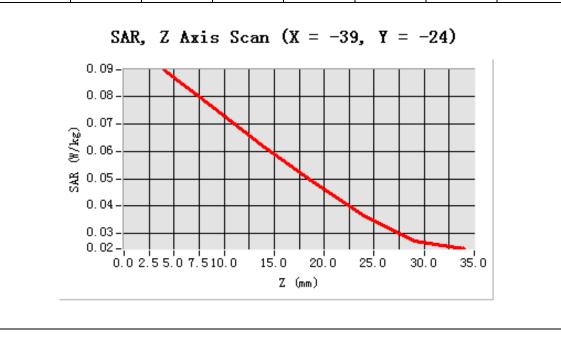


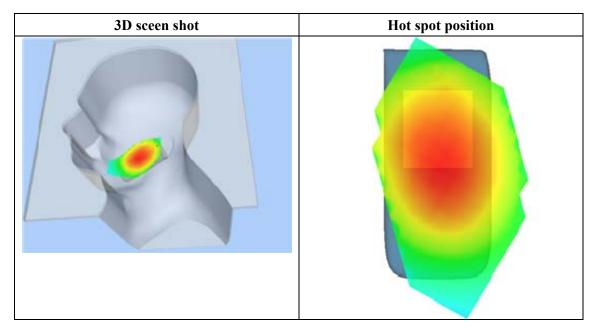


## **Maximum location: X=-39.00, Y=-24.00**

SAR 10g (W/Kg)	0.065979
SAR 1g (W/Kg)	0.085315

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.0897	0.0755	0.0615	0.0486	0.0367	0.0273
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 17 seconds

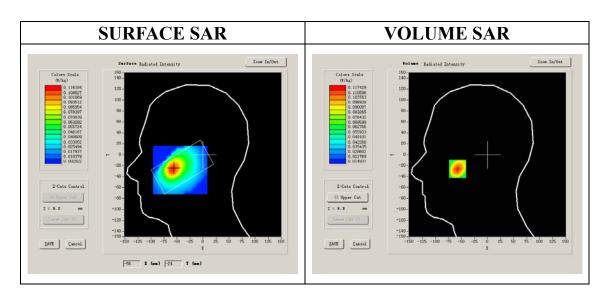
## A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Left head
<b>Device Position</b>	Cheek
Band	802.11B
Channels	High
Signal	DSSS

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 11)

Frequency (MHz)	2462.000000
Relative permittivity (real part)	39.622857
Relative permittivity	15.490000
Conductivity (S/m)	1.964313
Power drift (%)	0.510000
Ambient Temperature:	22.3°C
Liquid Temperature:	21.5°C
ConvF:	39.563,33.614,37.677
Crest factor:	1:1

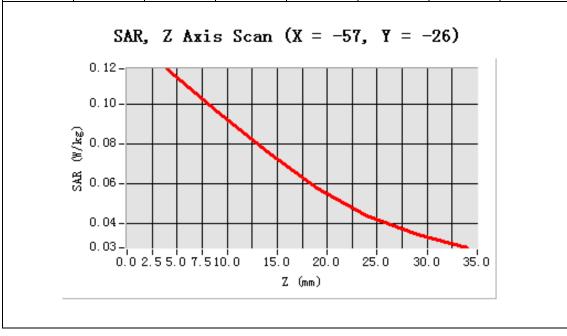


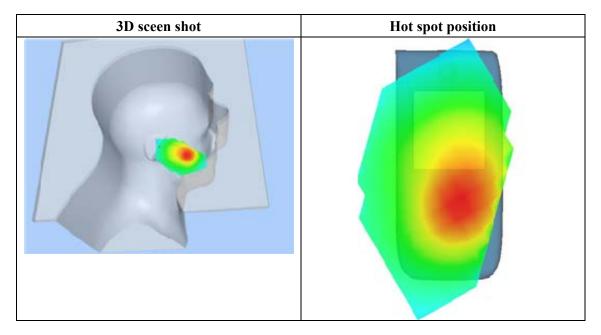


## **Maximum location: X=-57.00, Y=-26.00**

SAR 10g (W/Kg)	0.080597
SAR 1g (W/Kg)	0.111104

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1174	0.0960	0.0758	0.0580	0.0440	0.0343
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 8 minutes 17 seconds

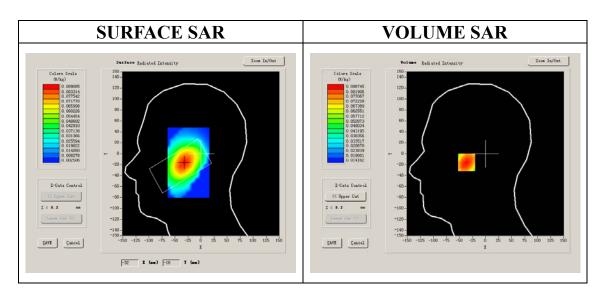
## A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Left head
<b>Device Position</b>	Tilt
Band	802.11B
Channels	High
Signal	DSSS

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 11)

ter Buna Britt (Chaimer 11)	T
Frequency (MHz)	2462.000000
Relative permittivity (real part)	39.622857
Relative permittivity	15.490000
Conductivity (S/m)	1.964313
Power drift (%)	0.620000
Ambient Temperature:	22.3°C
Liquid Temperature:	21.5°C
ConvF:	39.563,33.614,37.677
Crest factor:	1:1

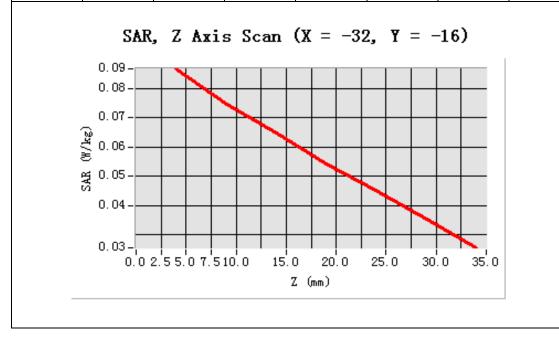


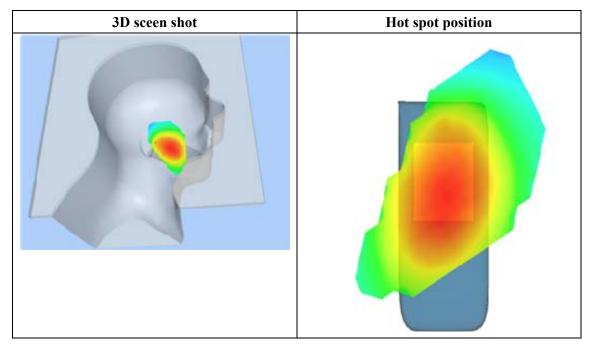


## **Maximum location: X=-32.00, Y=-16.00**

SAR 10g (W/Kg)	0.068461
SAR 1g (W/Kg)	0.084536

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.0867	0.0748	0.0649	0.0542	0.0451	0.0352
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 10 seconds

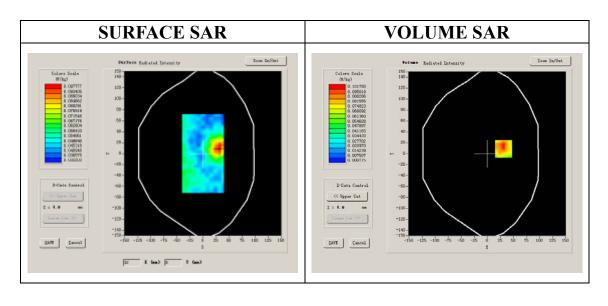
## A. Experimental conditions.

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

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 11)

Frequency (MHz)	2462000000
Relative permittivity (real part)	52.548876
Relative permittivity	15.500000
Conductivity (S/m)	1.974257
Power drift (%)	-0.910000
Ambient Temperature:	22.0°C
Liquid Temperature:	21.8°C
ConvF:	39.772,33.946,37.835
Crest factor:	1:1

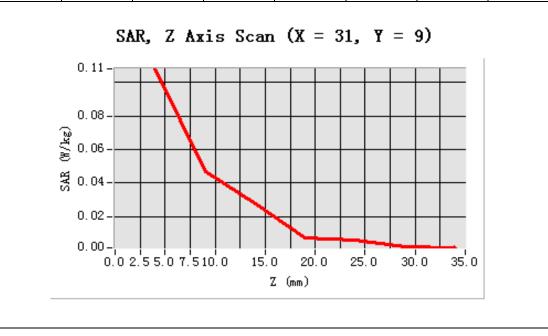


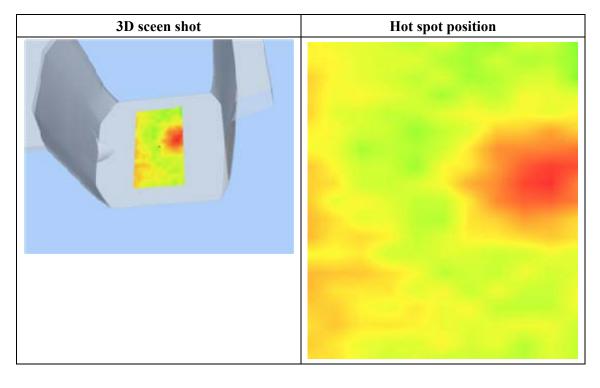


Maximum location: X=31.00, Y=9.00

SAR 10g (W/Kg)	0.054791
SAR 1g (W/Kg)	0.107228

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1080	0.0467	0.0275	0.0076	0.0057	0.0020
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 10 seconds

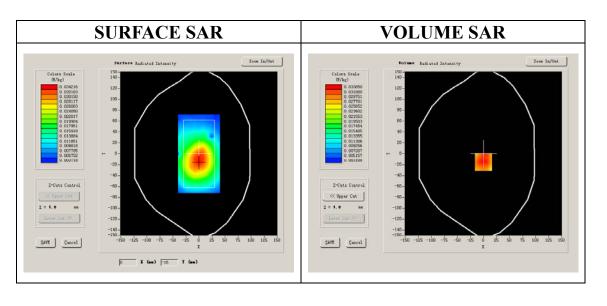
## A. Experimental conditions.

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

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 6)

<u> </u>	
Frequency (MHz)	2462.000000
Relative permittivity (real part)	52.548876
Relative permittivity	15.500000
Conductivity (S/m)	1.974257
Power drift (%)	-0.710000
Ambient Temperature:	22.0°C
Liquid Temperature:	21.8°C
ConvF:	39.772,33.946,37.835
Crest factor:	1:1

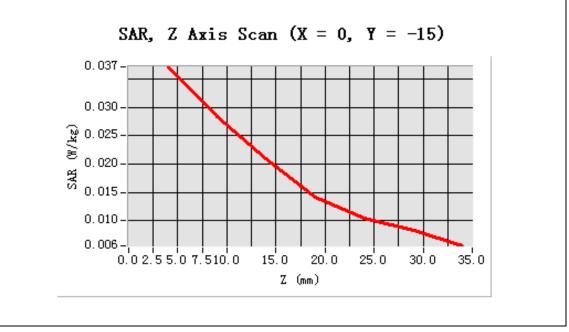


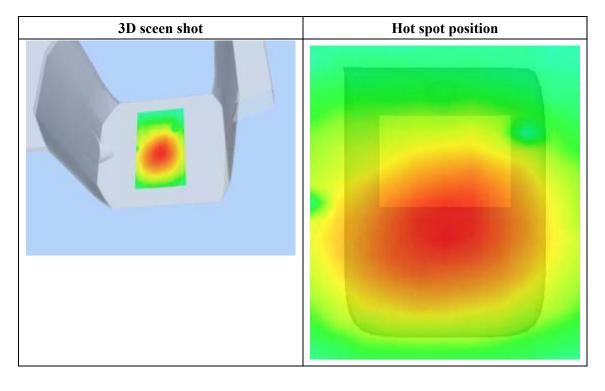


## Maximum location: X=0.00, Y=-15.00

SAR 10g (W/Kg)	0.024740
SAR 1g (W/Kg)	0.035394

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.0372	0.0283	0.0209	0.0142	0.0105	0.0083
(W/Kg)							







Type: Phone measurement (Complete)

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

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

Date of measurement: 21/5/2012

Measurement duration: 9 minutes 10 seconds

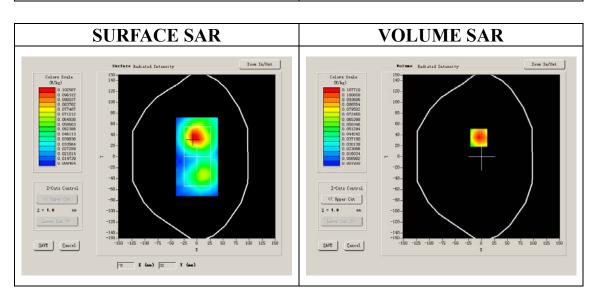
## A. Experimental conditions.

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

#### **B. SAR Measurement Results**

Higher Band SAR (Channel 11)

ter Bana St III (Chaimer 11)	
Frequency (MHz)	2462.000000
Relative permittivity (real part)	52.548876
Relative permittivity	15.500000
Conductivity (S/m)	1.974257
Power drift (%)	-1.360000
Ambient Temperature:	22.0°C
Liquid Temperature:	21.8°C
ConvF:	39.772,33.946,37.835
Crest factor:	1:1

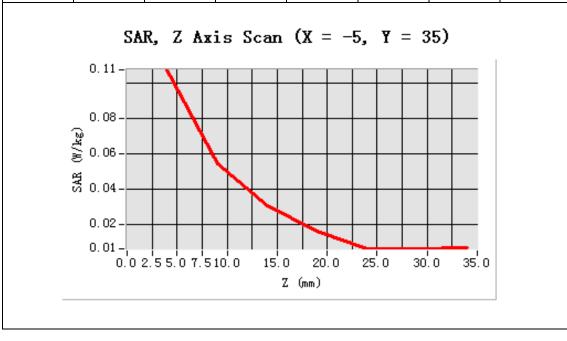


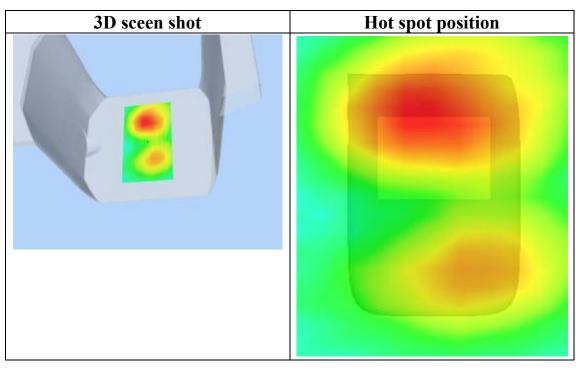


## Maximum location: X=-5.00, Y=35.00

SAR 10g (W/Kg)	0.056577
SAR 1g (W/Kg)	0.102899

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.1077	0.0547	0.0307	0.0164	0.0062	0.0063
(W/Kg)							







# **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: 21/5/2012

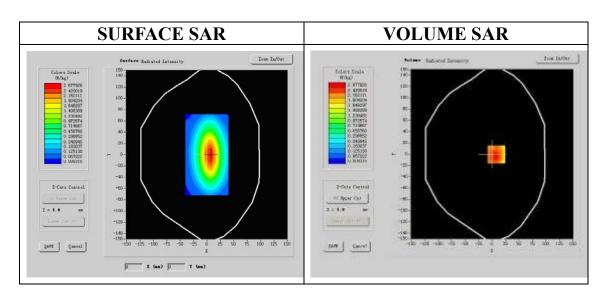
Measurement duration: 13 minutes 27 seconds

## A. Experimental conditions.

Phantom File	surf_sam_plan.txt			
Phantom	Validation plane			
<b>Device Position</b>				
Band	835MHz			
Channels				
Signal	CW			

# **B. SAR Measurement Results**

Frequency (MHz)	835.000000
Relative permittivity (real part)	41.675999
Relative permittivity	15.070000
Conductivity (S/m)	0.894409
Power drift (%)	-0.050000
Ambient Temperature:	22.4°C
Liquid Temperature:	21.5°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1



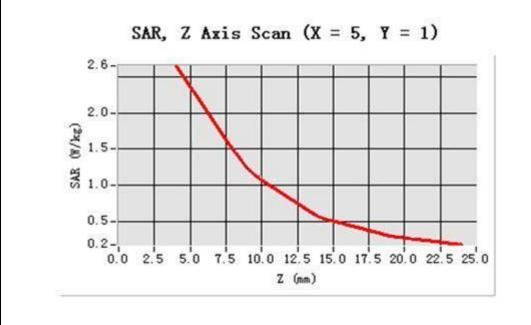


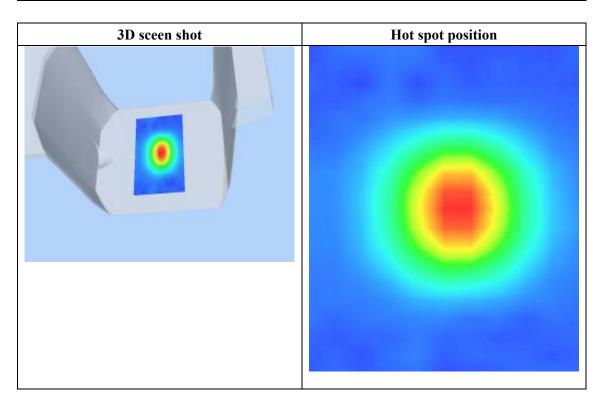
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.685732
SAR 1g (W/Kg)	2.478462

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	2.4754	1.2251	0.5257	0.2114







# **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: 21/5/2012

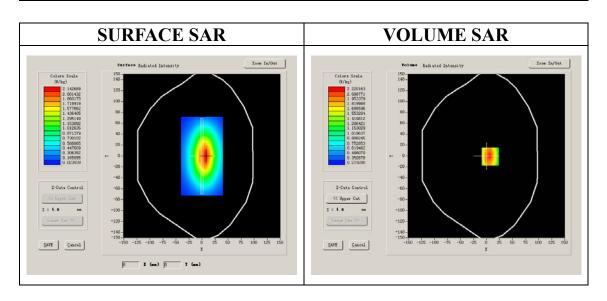
Measurement duration: 13 minutes 27 seconds

## A. Experimental conditions.

Phantom File	surf_sam_plan.txt			
Phantom	Validation plane			
<b>Device Position</b>				
Band	835MHz			
Channels				
Signal	CW			

#### **B. SAR Measurement Results**

Frequency (MHz)	835.000000
Relative permittivity (real part)	55.709999
Relative permittivity	21.709999
Conductivity (S/m)	0.9809033
Power drift (%)	-0.170000
Ambient Temperature:	22.4°C
Liquid Temperature:	21.5°C
ConvF:	28.559,25.681,27.588
Crest factor:	1:1

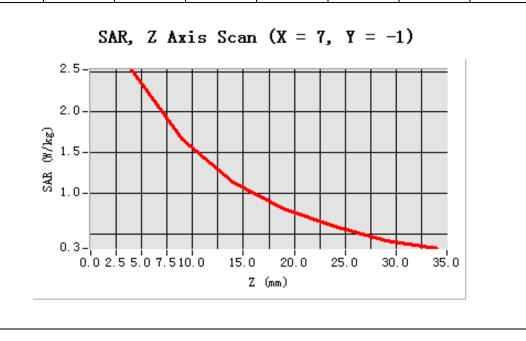


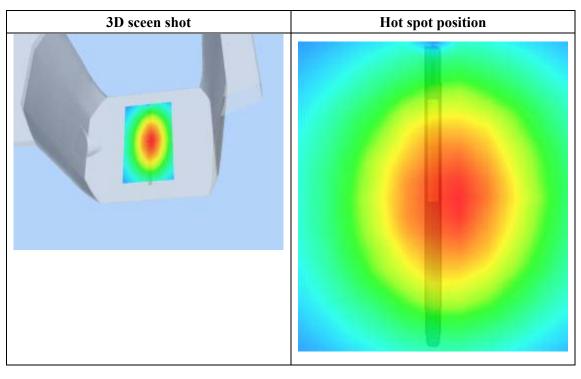


Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	1.539476
SAR 1g (W/Kg)	2.385979

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	2.5209	1.6629	1.1437	0.8075	0.5889	0.4143
(W/Kg)							







# **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: 21/5/2012

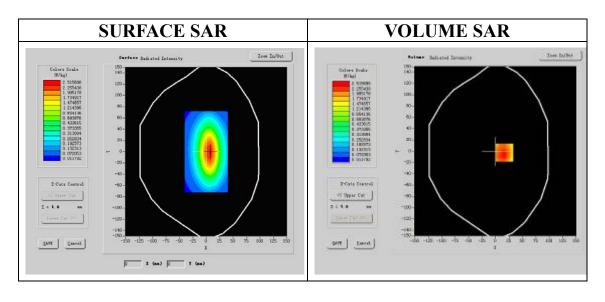
Measurement duration: 13 minutes 27 seconds

## A. Experimental conditions.

Phantom File	surf_sam_plan.txt			
Phantom	Validation plane			
<b>Device Position</b>				
Band	1900MHz			
Channels				
Signal	CW			

#### **B. SAR Measurement Results**

Frequency (MHz)	1900.000000
Relative permittivity (real part)	38.509998
Relative permittivity	15.070000
Conductivity (S/m)	1.436111
Power drift (%)	-0.140000
Ambient Temperature:	22.3°C
Liquid Temperature:	22.6°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

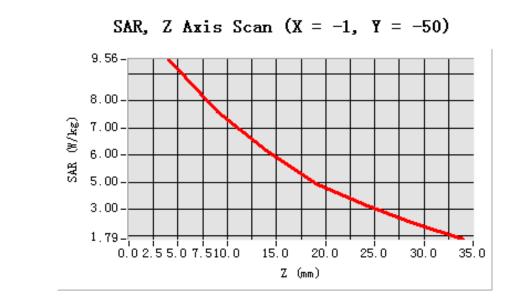


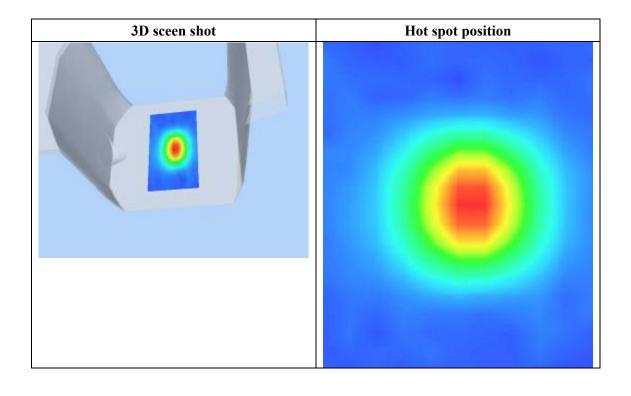


#### **Maximum location: X=-1.00, Y=-50.00**

SAR 10g (W/Kg)	4.884149
SAR 1g (W/Kg)	9.454628

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	9.4148	7.3955	6.3646	4.3955







# **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: 21/5/2012

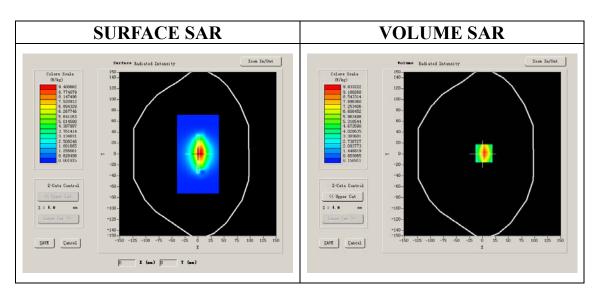
Measurement duration: 13 minutes 26 seconds

## A. Experimental conditions.

Phantom File	surf_sam_plan.txt			
Phantom	Validation plane			
<b>Device Position</b>				
Band	1900MHz			
Channels				
Signal	CW			

# **B. SAR Measurement Results**

Frequency (MHz)	1900.000000
Relative permittivity (real part)	52.548876
Relative permittivity	14.070000
Conductivity (S/m)	1.553978
Power drift (%)	-0.030000
Ambient Temperature:	22.3°C
Liquid Temperature:	22.6°C
ConvF:	40.625,34.773,38.535
Crest factor:	1:1

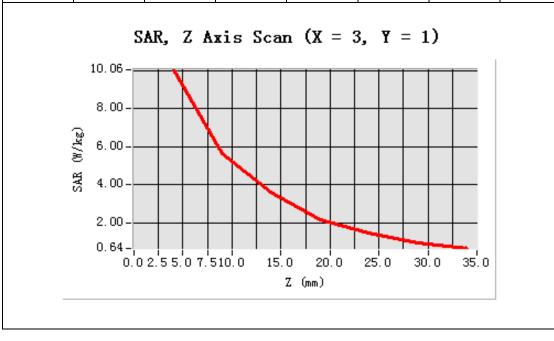


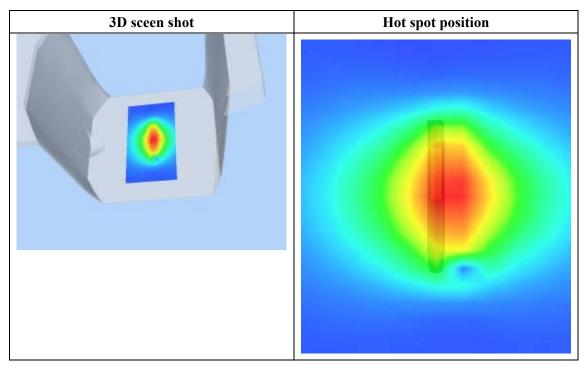


Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	4.981611
SAR 1g (W/Kg)	9.740177

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	10.0621	5.6445	3.6226	2.1642	1.4521	0.9078
(W/Kg)							







# **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: 21/5/2012

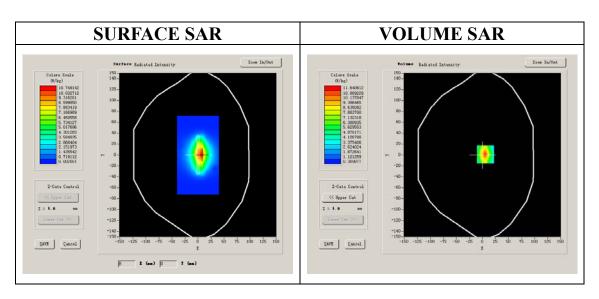
Measurement duration: 13 minutes 27 seconds

## A. Experimental conditions.

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

# **B. SAR Measurement Results**

Frequency (MHz)	2450.000000
Relative permittivity (real part)	39.622857
Relative permittivity	12.991650
Conductivity (S/m)	1.864313
Power Drift (%)	0.560000
Ambient Temperature:	22.0°C
Liquid Temperature:	21.8°C
ConvF:	39.563,33.614,37.677
Crest factor:	1:1

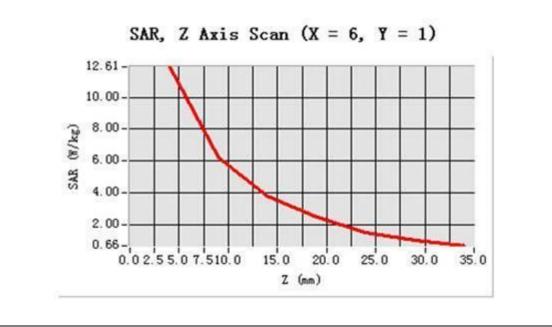


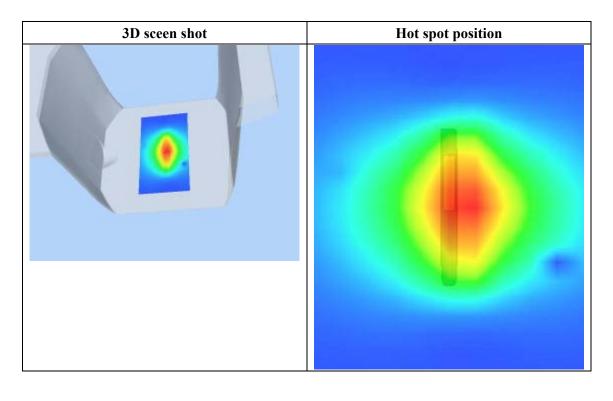


Maximum location: X=6.00, Y=1.00

SAR 10g (W/Kg)	5.938478	
SAR 1g (W/Kg)	12.442675	

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	12.7015	6.2096	3.8187	2.4504	1.5036	1.0219
(W/Kg)							







# **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: 21/5/2012

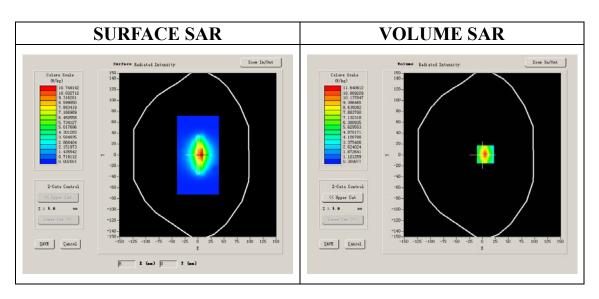
Measurement duration: 13 minutes 27 seconds

## A. Experimental conditions.

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

# **B. SAR Measurement Results**

Frequency (MHz)	2450.000000
Relative permittivity (real part)	52.548876
Relative permittivity	12.991650
Conductivity (S/m)	1.916882
Power Drift (%)	1.080000
Ambient Temperature:	22.0°C
Liquid Temperature:	21.8°C
ConvF:	39.772,33.946,37.835
Crest factor:	1:1





#### **Maximum location: X=-1.00, Y=-50.00**

SAR 10g (W/Kg)	6.256773
SAR 1g (W/Kg)	12.789110

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	13.1279	6.8312	3. 5991	1.3473

