



FCC SAR

TEST REPORT

of

GSM Dual Band GPRS Function Digital Mobile Phone

Model Name: G6300
Trade Name: HUAWEI
Report No.: SZ09020100S01
FCC ID: QISG6300

prepared for

HUAWEI TECHNOLOGIES CO., LTD.

Administration Building, Huawei Base, Bantian, Longgang District,
Shenzhen 518129

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LAB CODE 20081223-00

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Contents

1. GENERAL INFORMATION.....	3
1.1. Notes	3
1.2. Organization item.....	3
1.3. Conclusion.....	3
2. TESTING LABORATORY	4
2.1. Identification of the Responsible Testing Laboratory.....	4
2.2. Identification of the Responsible Testing Location	4
2.3. Accreditation Certificate	4
2.4. List of Test Equipments	4
3. TECHNICAL INFORMATION	5
3.1. Identification of Applicant.....	5
3.2. Identification of Manufacturer	5
3.3. Equipment Under Test (EUT)	5
3.3.1. Photographs of the EUT	6
3.3.2. Identification of all used EUTs	6
4. TEST RESULTS.....	6
4.1. Applied Reference Documents	6
4.2. Test Environment/Conditions	7
4.3. Operational Conditions During Test	8
4.3.1. Informations On The Testing	8
4.3.2. The Measurement System	10
4.3.3. Uncertainty Assessment	12
4.4. Items used in the Test Results List.....	15
4.5. Test Results List.....	16
ANNEX A ACCREDITATION CERTIFICATE.....	18
ANNEX B PHOTOGRAPHS OF THE EUT.....	19
ANNEX C GRAPH TEST RESULTS	23

1. General Information

1.1. Notes

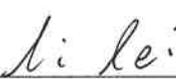
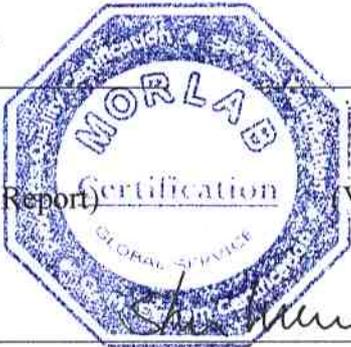
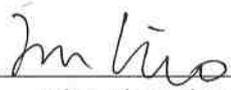
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1.2. Organization item

Report No.:	SZ09020100S01
Date of Issue:	Mar 31, 2009
Date of Tests:	Mar 6, 2009 –Mar 6, 2009
Responsible for Accreditation:	Shu luan
Project Manager:	Li Lei
Deputy Project Manager:	Liao Jianming

1.3. Conclusion

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory has verified that all tests as listed in the section 4.5 of this report haven been performed successfully with the tested equipment.

		
Li Lei		Liao Jianming
Tested by		Reviewed by
(Responsible for the Test Report)		(Verification of the Test Report)
		
	Shu luan	
	Approved by	
	(Responsible Test Lab Manager)	

2. Testing Laboratory

2.1. Identification of the Responsible Testing Laboratory

Company Name: Shenzhen Electronic Product Quality Testing Center
 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

2.2. Identification of the Responsible Testing Location

Name: Shenzhen Electronic Product Quality Testing Center Morlab Laboratory
 Address: 3/F, Electronic Testing Building, Shahe Road, Nanshan District, Shenzhen, 518055 P. R. China

2.3. Accreditation Certificate

Accredited Testing Laboratory: No. CNAS L1659 (see 0)

2.4. List of Test Equipments

No.	Instrument	Type
1	PC	Dell (Pentium IV 2.4GHz, SN:X10-23533)
2	Network Emulator	Rohde&Schwarz (CMU200, SN:105894)
3	Voltmeter	Keithley (2000, SN:1000572)
4	Synthetizer	Rohde&Schwarz (SML_03, SN:101868)
5	Amplifier	Nucl 閩 udes (ALB216, SN:10800)
6	Power Meter	Rohde&Schwarz (NRVD, SN:101066)
7	Probe	Antennessa (SN:SN_3708_EP80)
8	Phantom	Antennessa (SN:SN_36_08_SAM62)
9	Liquid	Antennessa (Last Calibration:21 08 04)

3. Technical Information

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

3.1. Identification of Applicant

Company Name: HUAWEI TECHNOLOGIES CO., LTD.
Address: Administration Building, Huawei Base, Bantian, Longgang District,
Shenzhen 518129
Contact Person: Li Xin
Telephone: 0755-2673 9633
Facsimile: 0755-26739500
E-mail: Xin.li@ck-telecom.com

3.2. Identification of Manufacturer

Company Name: HUAWEI TECHNOLOGIES CO., LTD.
Address: Administration Building, Huawei Base, Bantian, Longgang District,
Shenzhen 518129
Contact Person: Li Xin
Telephone: 0755-2673 9633
Facsimile: 0755-26739500
E-mail: Xin.li@ck-telecom.com

3.3. Equipment Under Test (EUT)

Brand Name: HUAWEI
Type Name: HUAWEI
Marking Name: G6300
Hardware Version: Apollo V2.0
Software Version: G6300CA.P00.M21.00.01
Frequency Bands: GSM 850MHz (channel 128:824.20MHz,channel 190:836.59MHz,
channel 251:848.29MHz)
PCS 1900MHz (channel 512:1850.19MHz,channel 661:1880.00MHz,
channel 810:1909.80MHz)
Modulation Mode: GMSK
Antenna type: Build inside
Accessories: Charger; Battery
Battery Model: XDRDG63003
Battery specification: 105000mAh 3.7V

3.3.1. Photographs of the EUT

Please see for photographs of the EUT.

3.3.2. Identification of all used EUTs

The EUT Identity consists of numerical and letter characters (see the table below), the first five numerical characters indicates the Type of the EUT defined by Morlab, the next letter character indicates the test sample, and the following two numerical characters indicates the software version of the test sample.

EUT Identity	IMEI	Hardware Version	Software Version
1#	135790246811220	Apollo V2.0	G6300CA.P00.M21.00.01
2#	135790246811220	Apollo V2.0	G6300CA.P00.M21.00.01

4. Test Results

4.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR § 2. 1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
2	FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01)	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields
3	ANSI C95.1-1999	IEEE Standard for Safety Levels with Respect to Human Exposure 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.

4.2. Test Environment/Conditions

Normal Temperature (NT):	20 ... 25 °C
Relative Humidity:	30 ... 75 %
Air Pressure:	980 ... 1020 hPa
Details of Power Supply:	220V/50Hz AC
Extreme Temperature:	Low Temperature (LT) = -10°C
	High Temperature (HT) = 55°C
Extreme Voltage of the EUT:	Normal Voltage (NV) = 3.70V
	Low Voltage (LV) = 3.60V
	High Voltage (HV) = 4.20V
Test frequency:	GSM 850MHz
	PCS 1900MHz
Operation mode:	Call established
Power Level:	GSM 850 MHz Maximum output power(level 5)
	PCS 1900 MHz Maximum output power(level 0)

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

The Absolute Radio Frequency Channel Number (ARFCN) is allocated to 125, 190 and 251 respectively in the case of GSM 850 MHz, or to 512, 661 and 810 respectively in the case of DCS 1900 MHz, 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.

4.3. Operational Conditions During Test

4.3.1. Informations On The Testing

I. INFORMATIONS ON THE TESTING

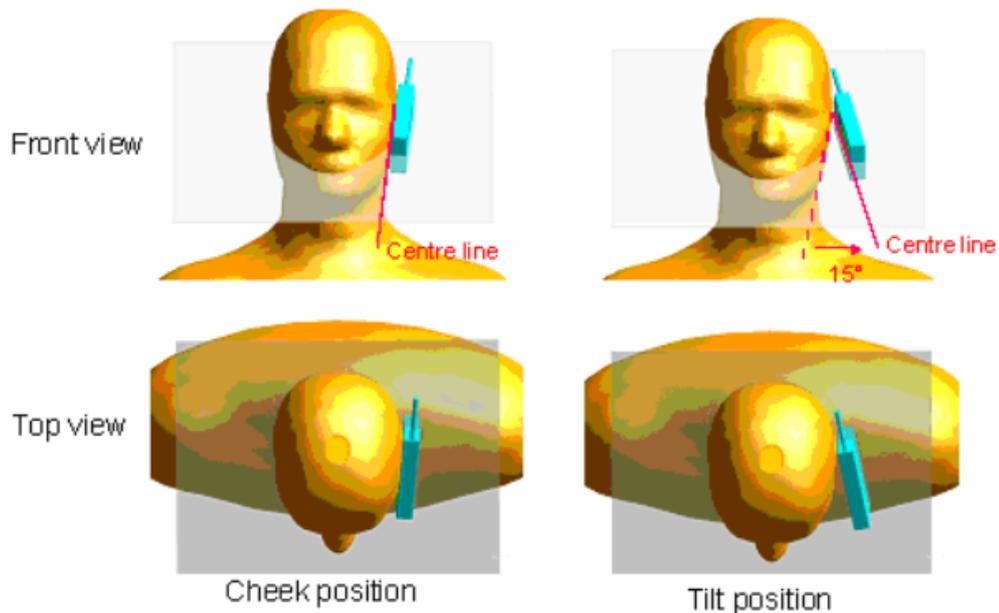
I.1. Normative reference

IEEE 1528: Recommended Practice for determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques. Institute of Electrical and Electronics Engineers, INC., 2003.

I.3. Positions and test conditions of the mobile phone under test

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 place in the "cheek" position as described above. Then the mobile phone is moved outward away from the mouth by an angle of 15 degrees or until contact with the ear lost.

4.3.2. 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.



COMOSAR bench

The mobile phone 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 10 g mass.

II.1. 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 2 mm +/- 0,2 mm. It enables the dosimetric evaluation of left and right hand 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.

II.2. Probe

For the measurements the Specific Dosimetric E-Field Probe SSE5 with following specifications is used.

- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 5 mm

- Distance between probe tip and sensor center : 2.5 mm
- Distance between sensor center and the inner phantom surface: 4 mm (repeatability better than +/- 1mm).
- Probe linearity : <0.25 dB
- Axial Isotropy : <0.25 dB
- Spherical Isotropy : <0.50 dB
- Calibration range : 835 to 2500 MHz for head & body simulating liquid
- Angle between probe axis (evaluation axis) and surface normal line : less than 30°

II.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 16 mm * 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.

II.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 minimise 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 1 mm 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.

4.3.3. Uncertainty Assessment

The following table includes the uncertainty table of the IEEE 1528.

The values are determined by Antennessa.

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	Sec.	Tol (+-% %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	$(1-C_p)^{1/2}$	$(1-C_p)^{1/2}$	1.02	1.02	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	$\sqrt{C_p}$	$\sqrt{C_p}$	1.63	1.63	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∞
Reponse Time	E.2.7	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	E.5.2	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Test sample Related									
Test sample positioning	E.4.2.1	0.03	N	1	1	1	0.03	0.03	N-1
Device Holder Uncertainty	E.4.1.1	5.00	N	1	1	1	5.00	5.00	
Output power Variation - SAR drift measurement	6.6.2	4.76	R	$\sqrt{3}$	1	1	2.75	2.75	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	$\sqrt{3}$	1	1	0.03	0.03	∞
Liquid conductivity - deviation from target value	E.3.2	0.57	R	$\sqrt{3}$	0.64	0.43	0.21	0.14	∞

Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	M
Liquid permittivity - deviation from target value	E.3.2	3.66	R	$\sqrt{3}$	0.6	0.49	1.27	1.04	∞
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
Combined Standard Uncertainty			RSS				11.28	10.78	
Expanded Uncertainty (95% Confidence interval)			k				21.99	21.03	

4.3.4. Equipments and results of validation testing

Equipments :

name	Type and specification
Signal generator	E4433B
Reference dipole	SN 36/08 DIPF 101

Results:

Frequency	835MHz	1900MHz
Target value (1g)	10.8 W/Kg (body)	39.7 W/Kg
250 mW input power	2.709 W/Kg (head)	9.843 W/Kg (head)
	2.701 W/Kg (body)	10.22 W/Kg (body)
Test value (1g)	10.836 W/Kg (head)	39.372 W/Kg (head)
	10.804 W/Kg (body)	40.88 W/Kg (body)

Note: Please refer to check the system performance data, the first 133-144 page.

4.3.5. Dielectric Performance

The measured 1-gram averaged SAR values of the device against the head and the body are provided in Tables 1 and 2 respectively. The humidity and ambient temperature of test facility were 54% ~60% and 23.0 °C ~23.8°C respectively. The SAM head phantom (SN 0381 SH) were full of the head tissue simulating liquid. 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). A base station simulator was used to control the device during the SAR measurement. The phone was supplied with full-charged battery for each measurement.

For head measurement, the device was tested at the lowest, middle and highest frequencies in the transmit band.

Table 1: Dielectric Performance of Head Tissue Simulating Liquid

Temperature: 23.0~23.8°C, humidity: 54~60%.			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHZ	41.5	0.90
Validation value (Mar 6)	835 MHZ	41.790001	0.896612
Target value	1900 MHZ	40	1.40
Validation value (Mar 6)	1900 MHZ	39.481223	1.395758

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

Table 2: Dielectric Performance of Body Tissue Simulating Liquid

Temperature: 23.0~23.8°C, humidity: 54~60%.			
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)
Target value	835 MHz	55.0	10.5
Validation value (Mar 6)	835 MHz	54.872231	10.548224

Target value	1900 MHz	53.3	1.52
Validation value (Mar 6)	1900 MHz	52.548876	1.573978

4.3.6. Simulant liquids

Simulant liquids that are used for testing at frequencies of GSM 1900MHz, which are made mainly of sugar, salt and water solutions may be left in the phantoms. Approximately 20litres are needed for an upright head compared to about 20litres for a horizontal bath phantom.

Ingredients (% by weight)	Frequency Band 835MHz		Frequency Band 1900MHz	
	Head	Body	Head	Body
Tissue Type				
Water	41.45	52.4	55.36	40.4
Salt(NaCl)	1.45	1.4	0.35	0.5
Sugar	56.0	45.0	30.45	58.0
HEC	1.0	1.0	0.0	1.0
Bactericide	0.1	0.1	0.0	0.1
Triton	0.0	0.0	0.0	0.0
DGBE	0.0	0.0	13.84	0.0
Acticide SPX	0.0	0.0	0.0	0.0
Dielectric Constant	42.45	56.1	41.00	54.0
Conductivity (S/m)	0.91	0.95	1.38	1.45

4.4. Items used in the Test Results List

Terms in the column “Verdict” for the test results list of the section 4.5:

Verdict	Description
PASS	EUT passed this test case
FAIL	EUT failed this test case
INC.	EUT did not pass and did not fail this test case, therefore the verdict is inconclusive
Decl.	“Declaration”: Morlab has received documents from the applicant and/or manufacturer which show conformity to the applied standards for this test case.
N/A	Test case not applicable for the EUT, see the column “Note” for detailed

4.5. Test Results List

Summary of Measurement Results (GSM 850MHz Band)

SAR Values (GSM 850MHz Band), Measured against the head.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.6	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Left head, Touch cheek, Channel Low	0.199	31.2
Left head, Touch cheek, Channel Middle	0.232	31.56
Left head, Touch cheek, Channel High	0.209	31.96
Left head, Tilt 15 Degree, Channel Low	0.136	31.2
Left head, Tilt 15 Degree, Channel Middle	0.156	31.56
Left head, Tilt 15 Degree, Channel High	0.152	31.96
Right head, Touch cheek, Channel Low	0.199	31.2
Right head, Touch cheek, Channel Middle	0.218	31.56
Right head, Touch cheek, Channel High	0.192	31.96
Right head, Tilt 15 Degree, Channel Low	0.140	31.2
Right head, Tilt 15 Degree, Channel Middle	0.164	31.56
Right head, Tilt 15 Degree, Channel High	0.143	31.96
Right head, Touch cheek, Channel High (with GPRS)	1.431	31.96

Summary of Measurement Results (GSM 1900MHz Band)

SAR Values (GSM 1900MHz Band), Measured against the head.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.6	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Left head, Touch cheek, Channel Low	0.276	28.78
Left head, Touch cheek, Channel Middle	0.234	28.82
Left head, Touch cheek, Channel High	0.184	28.56
Left head, Tilt 15 Degree, Channel Low	0.133	28.78
Left head, Tilt 15 Degree, Channel Middle	0.104	28.82
Left head, Tilt 15 Degree, Channel High	0.090	28.56

Right head, Touch cheek, Channel Low	0.322	28.78
Right head, Touch cheek, Channel Middle	0.242	28.82
Right head, Touch cheek, Channel High	0.173	28.56
Right head, Tilt 15 Degree, Channel Low	0.156	28.78
Right head, Tilt 15 Degree, Channel Middle	0.108	28.82
Right head, Tilt 15 Degree, Channel High	0.069	28.56
Right head, Touch cheek, Channel Low with GPRS	1.459	28.78

SAR Values (GSM 850MHz Band), Measured against the body.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.6	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Side, Low frequency	0.237	31.2
Side, Middle frequency	0.214	31.56
Side, High frequency	0.171	31.96
Side , High frequency(back)	0.134	31.96
Side , High frequency with Headphone	0.140	31.96

SAR Values(GSM 1900MHz Band), Measured against the body.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.6	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Side, Low frequency	0.226	28.78
Side, Middle frequency	0.223	28.82
Side, High frequency	0.158	28.56
Side, Low frequency (back)	0.094	28.56
Side, Low frequency with Headphone	0.086	28.78

Note: 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)

Accreditation Certificate



China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(No. CNAS L1659)

China National Accreditation Service for Conformity Assessment has accredited

Shenzhen Electronic Product Quality Testing Center
(CQCS Testing Co. Ltd.)

Electronic Testing Building Wenguang Road, Shahe West, Xili Town, Nanshan
District, Shenzhen, Guangdong, China

to ISO/IEC 17025:1999 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing and calibration.

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

Date of Issue: 2007-01-17
Date of Expiry: 2009-10-08
Date of Initial Accreditation: 1999-08-03


Signed on behalf of China National Accreditation Service
for Conformity Assessment

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

Annex A Photographs of the EUT

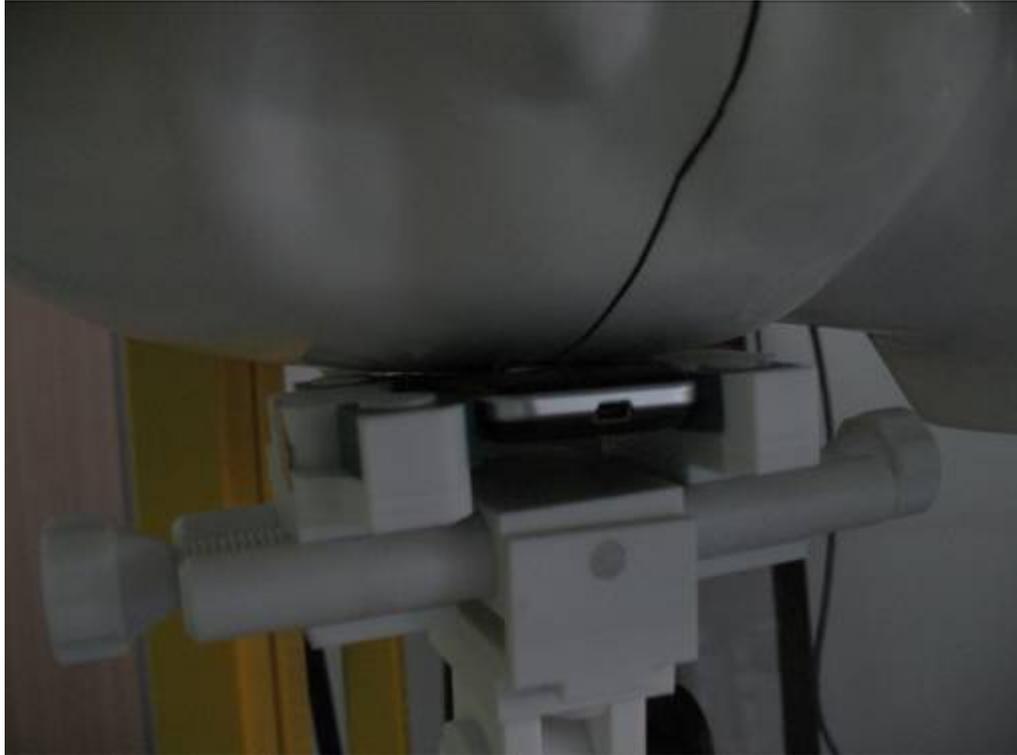
1 EUT Left Head Touch Cheek Position



2 EUT Left Head Tilt15 Position



3 EUT Right Head Touch Cheek Position



4 EUT Right Head Tilt15 Position



5 spacer 1.5cm



6 Side Position



7 Side Position EUT with Headphone



Annex B Graph Test Results

<u>TYPE</u>	<u>BAND</u>	<u>PARAMETERS</u>
	--	--
	--	--
<u>Noise</u>	<u>GSM850</u>	<p><u>Measurement 1:</u> Right Head with Cheek device position on Low Channel in TDMA mode</p> <p><u>Measurement 2:</u> Right Head with Cheek device position on Middle Channel in TDMA mode</p> <p><u>Measurement 3:</u> Right Head with Cheek device position on High Channel in TDMA mode</p> <p><u>Measurement 4:</u> Right Head with Tilt device position on Low Channel in TDMA mode</p> <p><u>Measurement 5:</u> Right Head with Tilt device position on Middle Channel in TDMA mode</p> <p><u>Measurement 6:</u> Right Head with Tilt device position on High Channel in TDMA mode</p> <p><u>Measurement 7:</u> Left Head with Cheek device position on Low Channel in TDMA mode</p> <p><u>Measurement 8:</u> Left Head with Cheek device position on Middle Channel in TDMA mode</p> <p><u>Measurement 9:</u> Left Head with Cheek device position on High Channel in TDMA mode</p> <p><u>Measurement 10:</u> Left Head with Tilt device position on Low Channel in TDMA mode</p> <p><u>Measurement 11:</u> Left Head with Tilt device position on Middle Channel in TDMA mode</p> <p><u>Measurement 12:</u> Left Head with Tilt device position on High Channel in TDMA mode_</p> <p><u>Measurement 13:</u> Right Head with Cheek device position on High Channel in TDMA mode (with GPRS)</p> <p><u>Measurement 14:</u> Validation Plane with Body device position on Low Channel in TDMA mode</p> <p><u>Measurement 15:</u> Validation Plane with Body device position on Middle Channel in TDMA mode</p> <p><u>Measurement 16:</u> Validation Plane with Body device position on High Channel in TDMA mode</p> <p><u>Measurement 17:</u> Validation Plane with Body device</p>

		<p>position on High Channel in TDMA mode(back) <u>Measurement 18:</u> Validation Plane with Body device position on High Channel in TDMA mode with Headphone</p>
	<p><u>GSM1900</u></p>	<p><u>Measurement 20:</u> Right Head with Cheek device position on Middle Channel in TDMA mode <u>Measurement 21:</u> Right Head with Cheek device position on High Channel in TDMA mode <u>Measurement 22:</u> Right Head with Tilt device position on Low Channel in TDMA mode <u>Measurement 23:</u> Right Head with Tilt device position on Middle Channel in TDMA mode <u>Measurement 24:</u> Right Head with Tilt device position on High Channel in TDMA mode <u>Measurement 25:</u> Left Head with Cheek device position on Low Channel in TDMA mode <u>Measurement 26:</u> Left Head with Cheek device position on Middle Channel in TDMA mode <u>Measurement 27:</u> Left Head with Cheek device position on High Channel in TDMA mode <u>Measurement 28:</u> Left Head with Tilt device position on Low Channel in TDMA mode <u>Measurement 29:</u> Left Head with Tilt device position on Middle Channel in TDMA mode <u>Measurement 30:</u> Left Head with Tilt device position on High Channel in TDMA mode <u>Measurement 31:</u> Right Head with Cheek device position on Low Channel in TDMA mode with GPRS <u>Measurement 32:</u> Validation Plane with Body device position on Low Channel in TDMA mode <u>Measurement 33:</u> Validation Plane with Body device position on Middle Channel in TDMA mode <u>Measurement 34:</u> Validation Plane with Body device position on High Channel in TDMA mode <u>Measurement 35:</u> Validation Plane with Body device position on Low Channel in TDMA mode (back) <u>Measurement 36:</u> Validation Plane with Body device position on Low Channel in TDMA mode with Headphone</p>

MEASUREMENT 1

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 35 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	TDMA

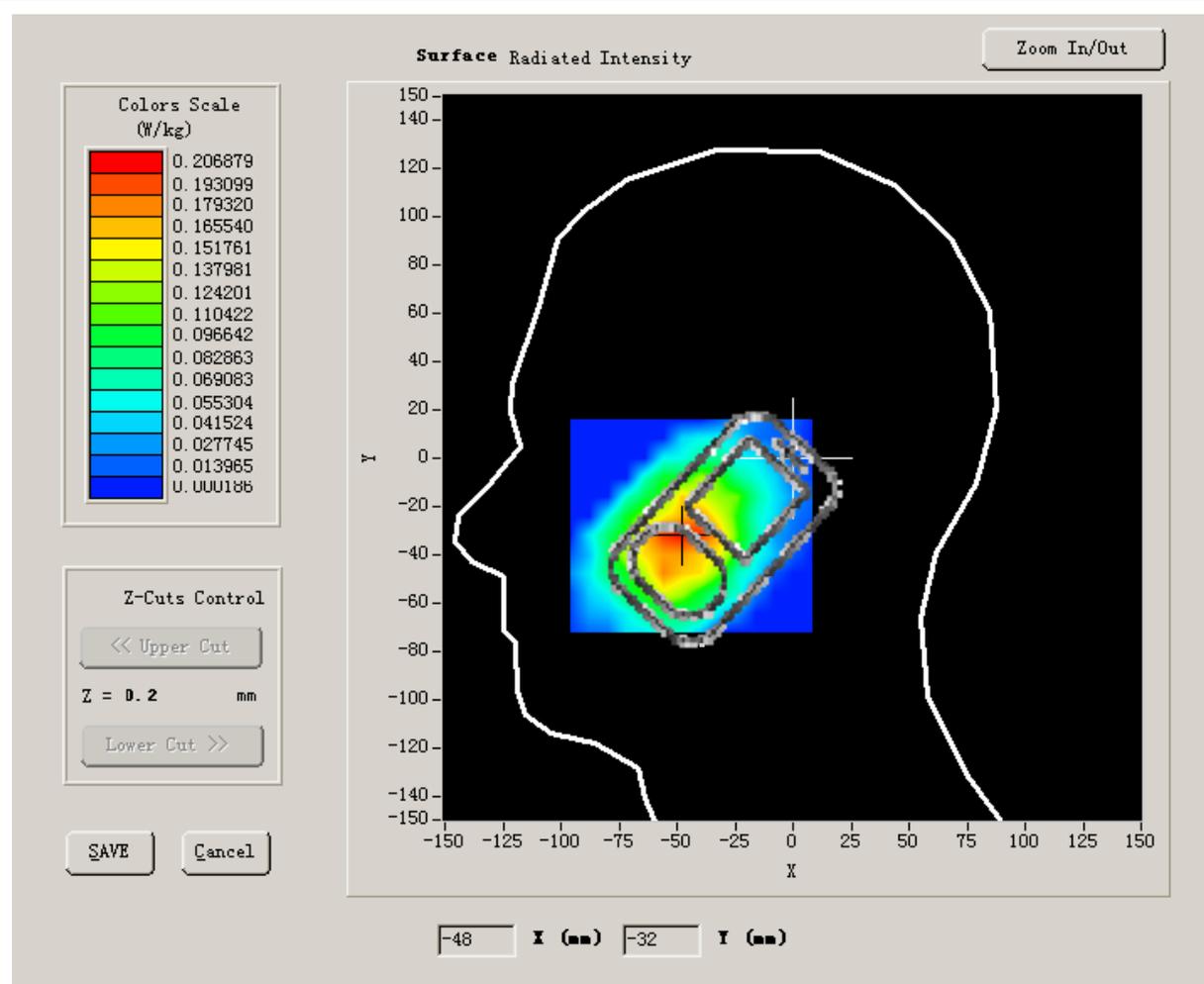
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250

Conductivity (S/m)	0.866612
Variation (%)	-0.740000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



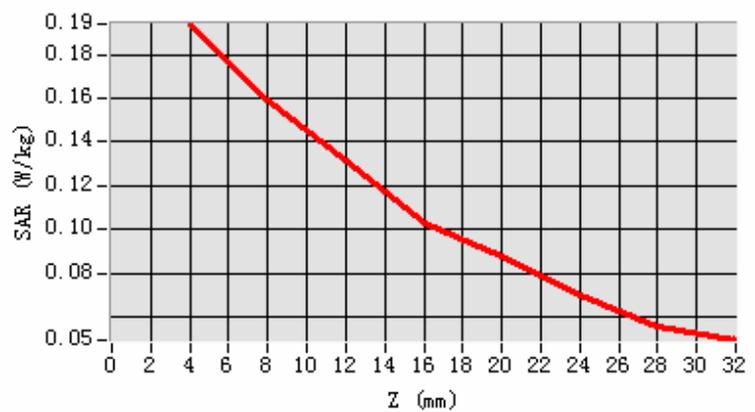
Maximum location: X=-48.00, Y=-32.00

SAR 10g (W/Kg)	0.137260
SAR 1g (W/Kg)	0.198661

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2062	0.1692	0.1411	0.0942	0.0859	0.0799	0.0607

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 2

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 34 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	TDMA

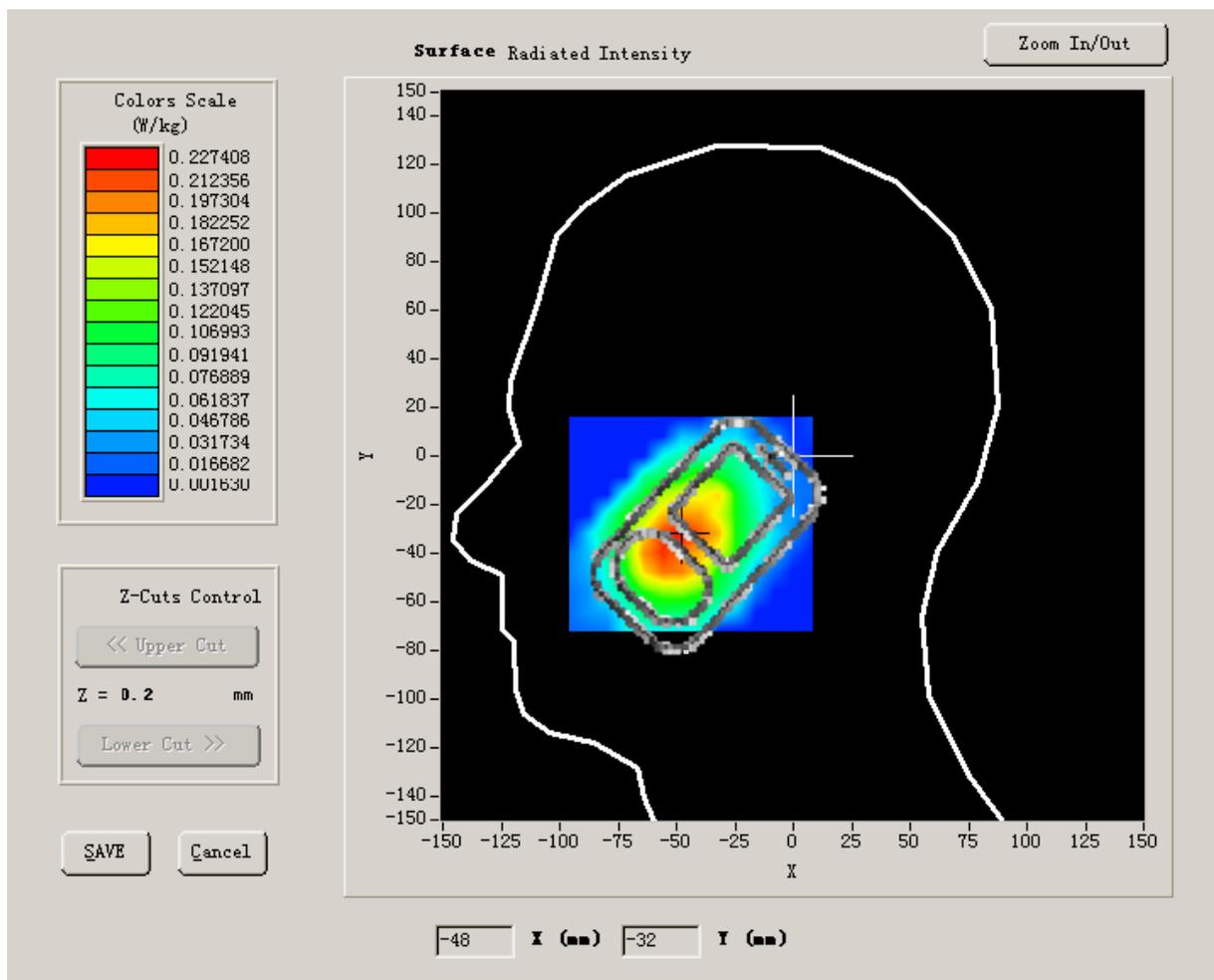
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001

Conductivity (S/m)	0.888655
Variation (%)	2.200000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



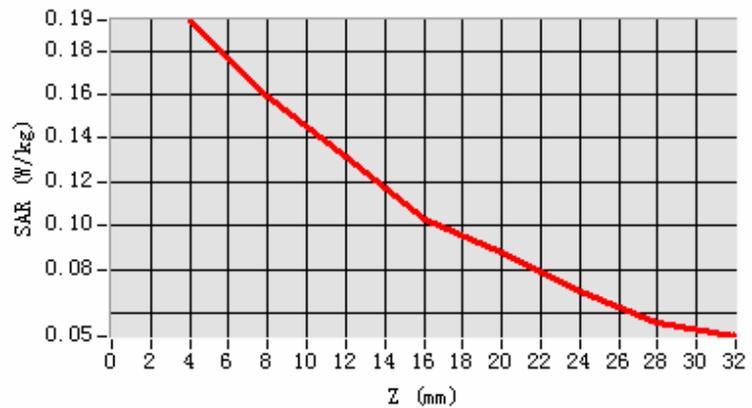
Maximum location: X=-48.00, Y=-32.00

SAR 10g (W/Kg)	0.152221
SAR 1g (W/Kg)	0.218294

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2115	0.1698	0.1552	0.1280	0.0865	0.0636	0.0490

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 3

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 28 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	High
Signal	TDMA

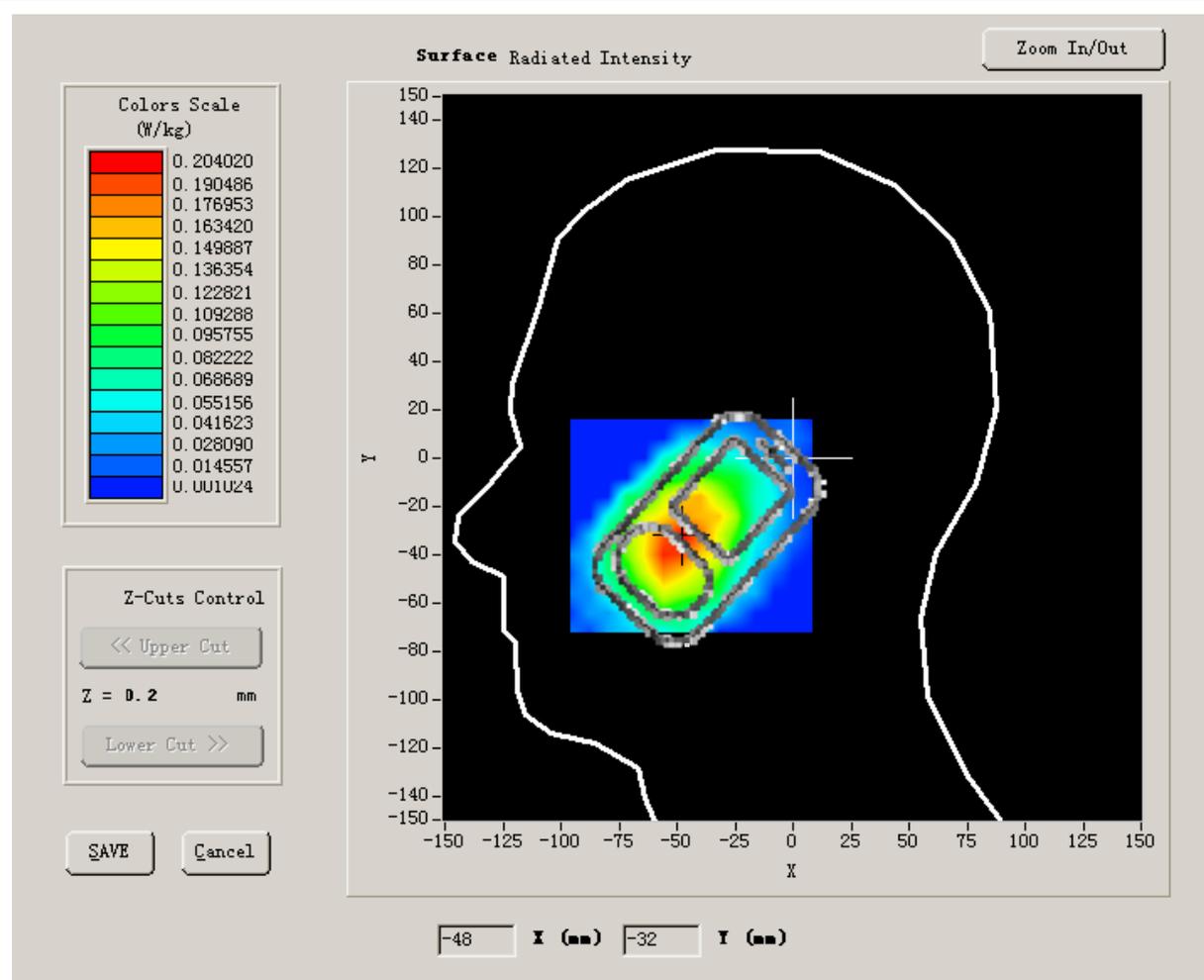
B. SAR Measurement Results

Higher Band SAR (Channel 251):

Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199

Conductivity (S/m)	0.894409
Variation (%)	-1.890000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



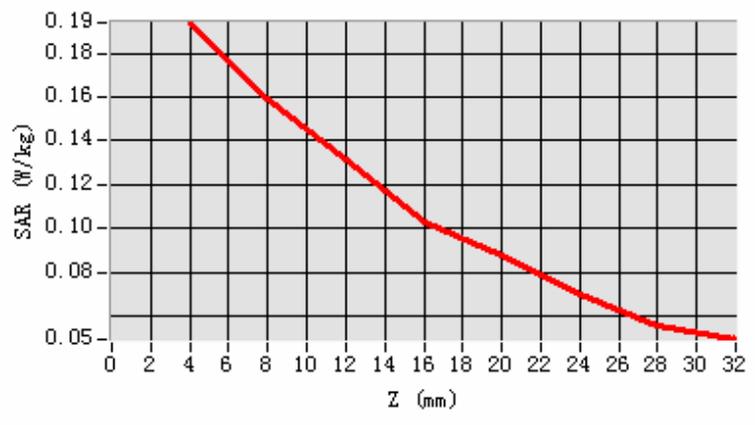
Maximum location: X=-48.00, Y=-33.00

SAR 10g (W/Kg)	0.134381
SAR 1g (W/Kg)	0.191821

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1801	0.1474	0.1300	0.1095	0.0752	0.0622	0.0622

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 4

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 23 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	TDMA

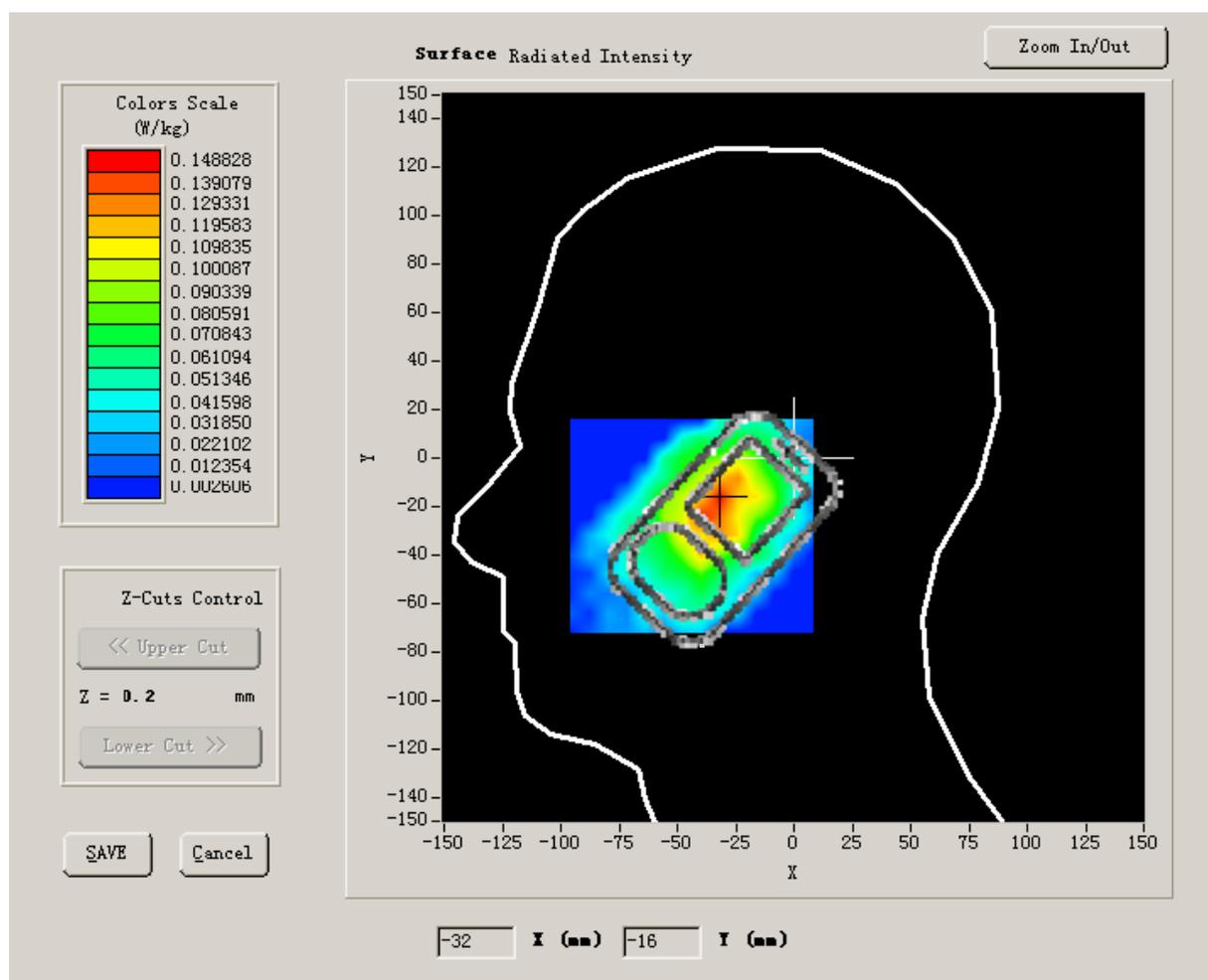
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250

Conductivity (S/m)	0.866612
Variation (%)	-0.440000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



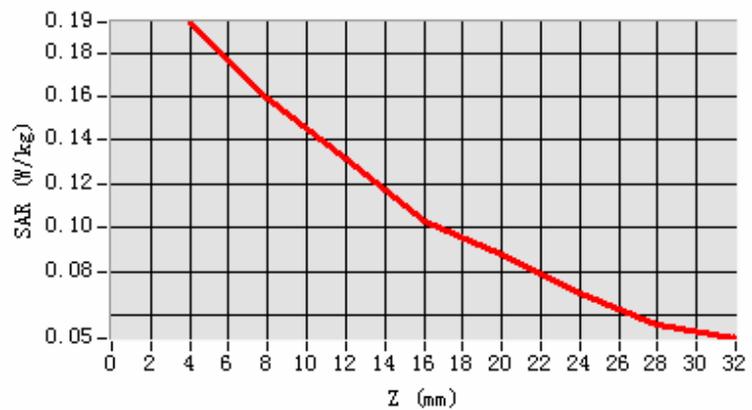
Maximum location: X=-32.00, Y=-16.00

SAR 10g (W/Kg)	0.094928
SAR 1g (W/Kg)	0.139502

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1223	0.1207	0.0976	0.0601	0.0602	0.0487	0.0364

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 5

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 26 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Middle
Signal	TDMA

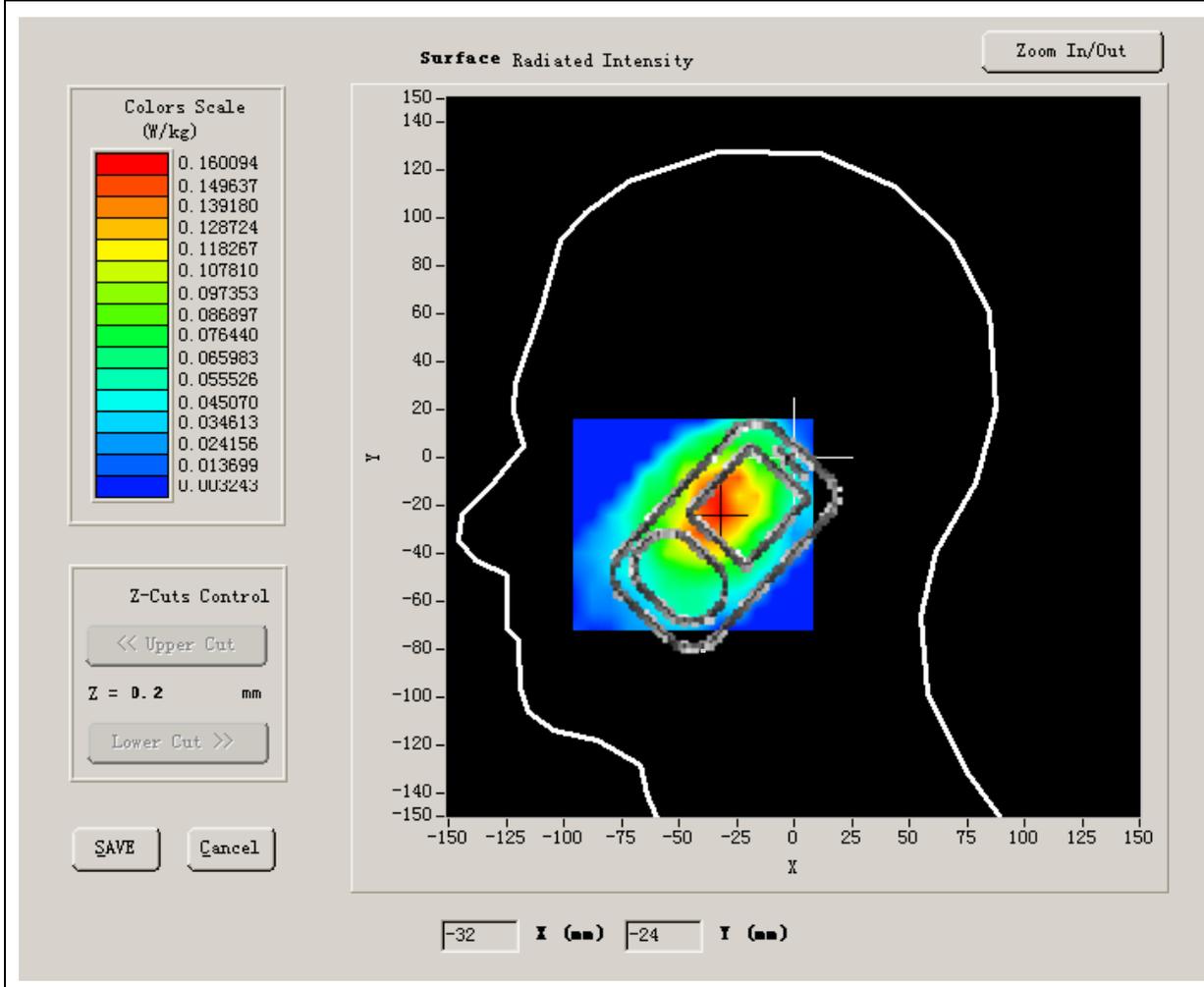
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001

Conductivity (S/m)	0.888655
Variation (%)	-1.800000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=-32.00, Y=-22.00

SAR 10g (W/Kg)	0.107988
SAR 1g (W/Kg)	0.163978

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1387	0.1202	0.1042	0.0759	0.0787	0.0531	0.0440

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 6

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 23 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	TDMA

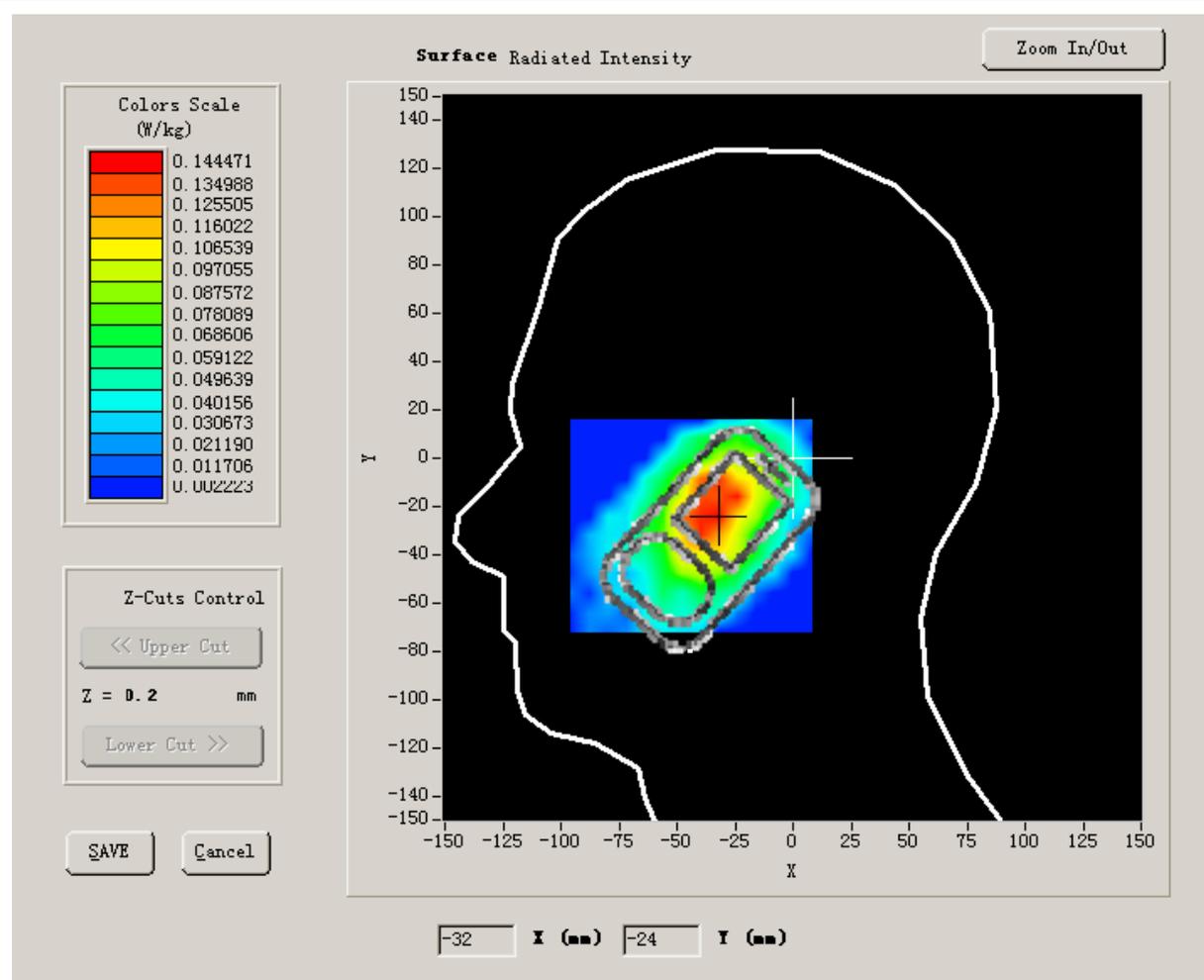
B. SAR Measurement Results

Higher Band SAR (Channel 251):

Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199

Conductivity (S/m)	0.894409
Variation (%)	-3.580000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



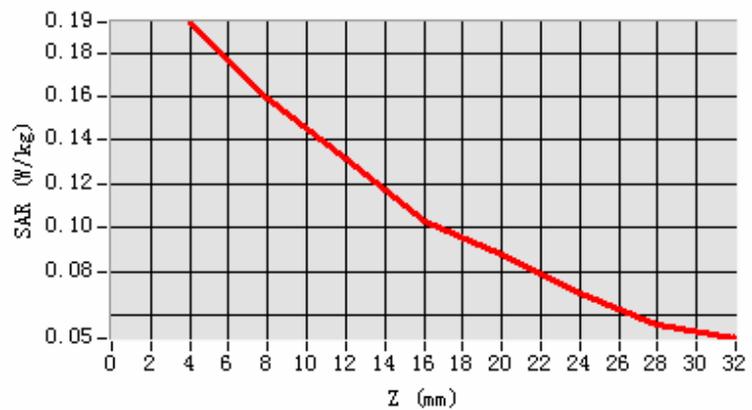
Maximum location: X=-33.00, Y=-24.00

SAR 10g (W/Kg)	0.096692
SAR 1g (W/Kg)	0.142919

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1480	0.1052	0.1068	0.0715	0.0719	0.0388	0.0282

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 7

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 50 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	TDMA

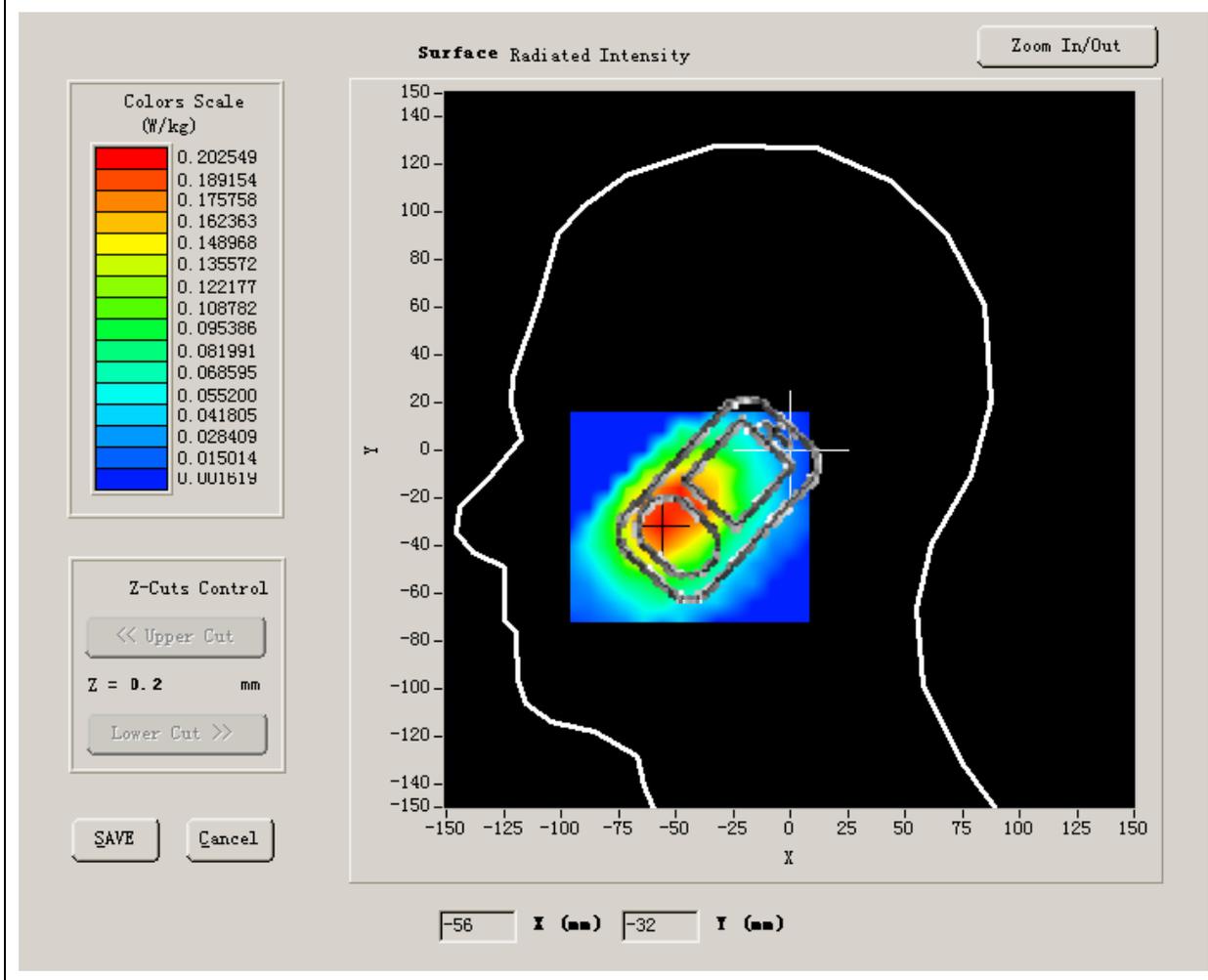
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250

Conductivity (S/m)	0.866612
Variation (%)	-0.640000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



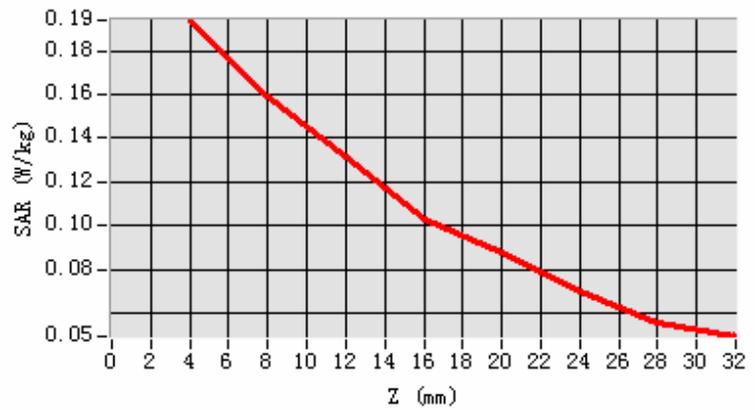
Maximum location: X=-56.00, Y=-32.00

SAR 10g (W/Kg)	0.145249
SAR 1g (W/Kg)	0.198715

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1939	0.1590	0.1311	0.1027	0.0878	0.0700	0.0557

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 8

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 33 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	TDMA

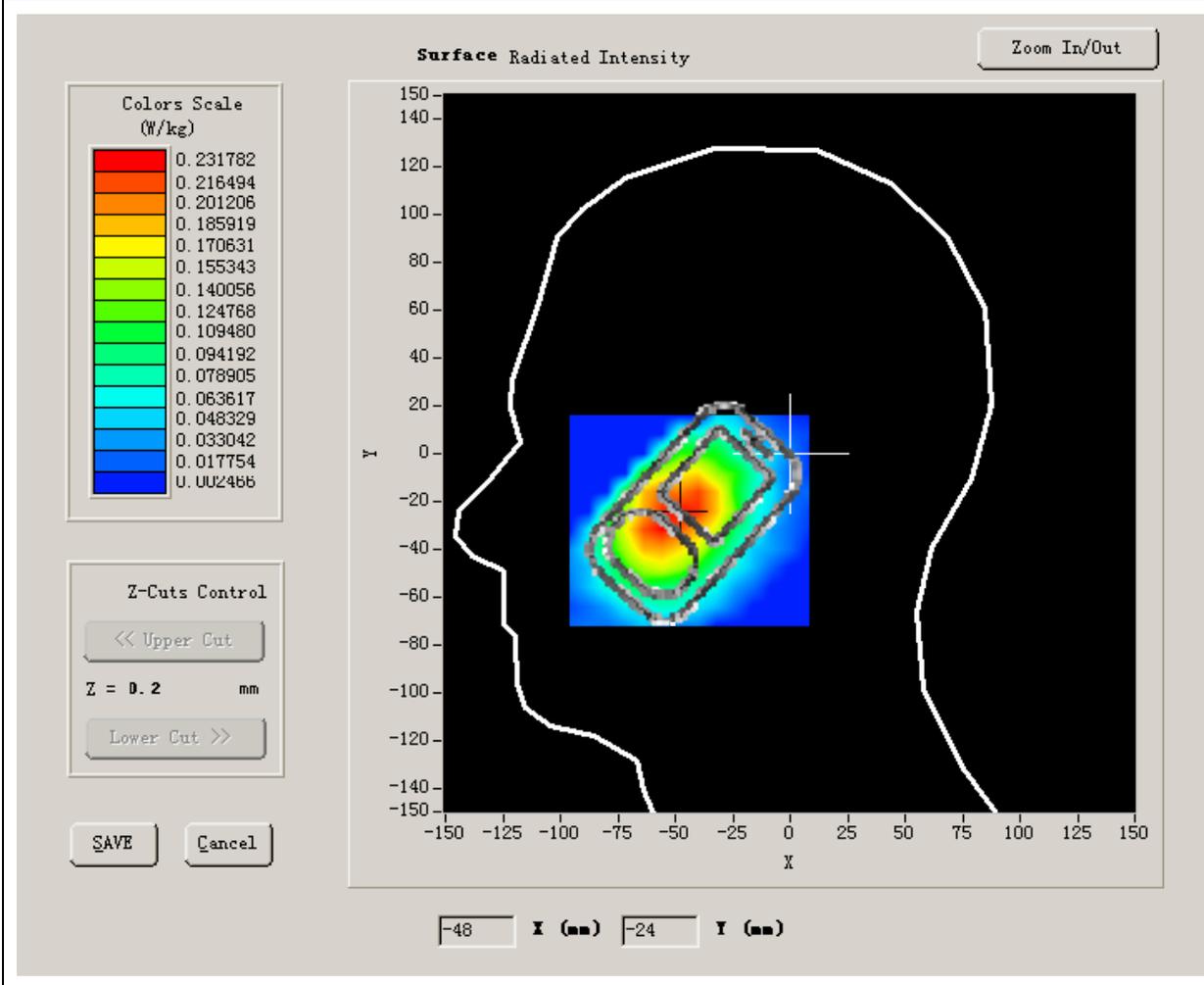
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001

Conductivity (S/m)	0.888655
Variation (%)	1.710000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



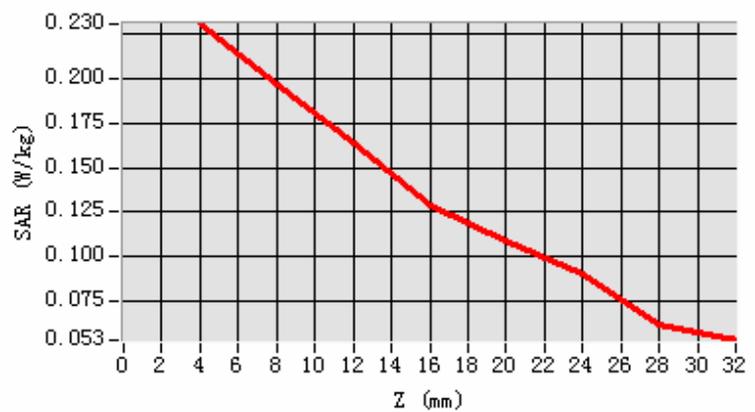
Maximum location: X=-48.00, Y=-24.00

SAR 10g (W/Kg)	0.166808
SAR 1g (W/Kg)	0.232259

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2303	0.1967	0.1640	0.1285	0.1085	0.0904	0.0621

SAR, Z Axis Scan (X = -48, Y = -24)



MEASUREMENT 9

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 36 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	High
Signal	TDMA

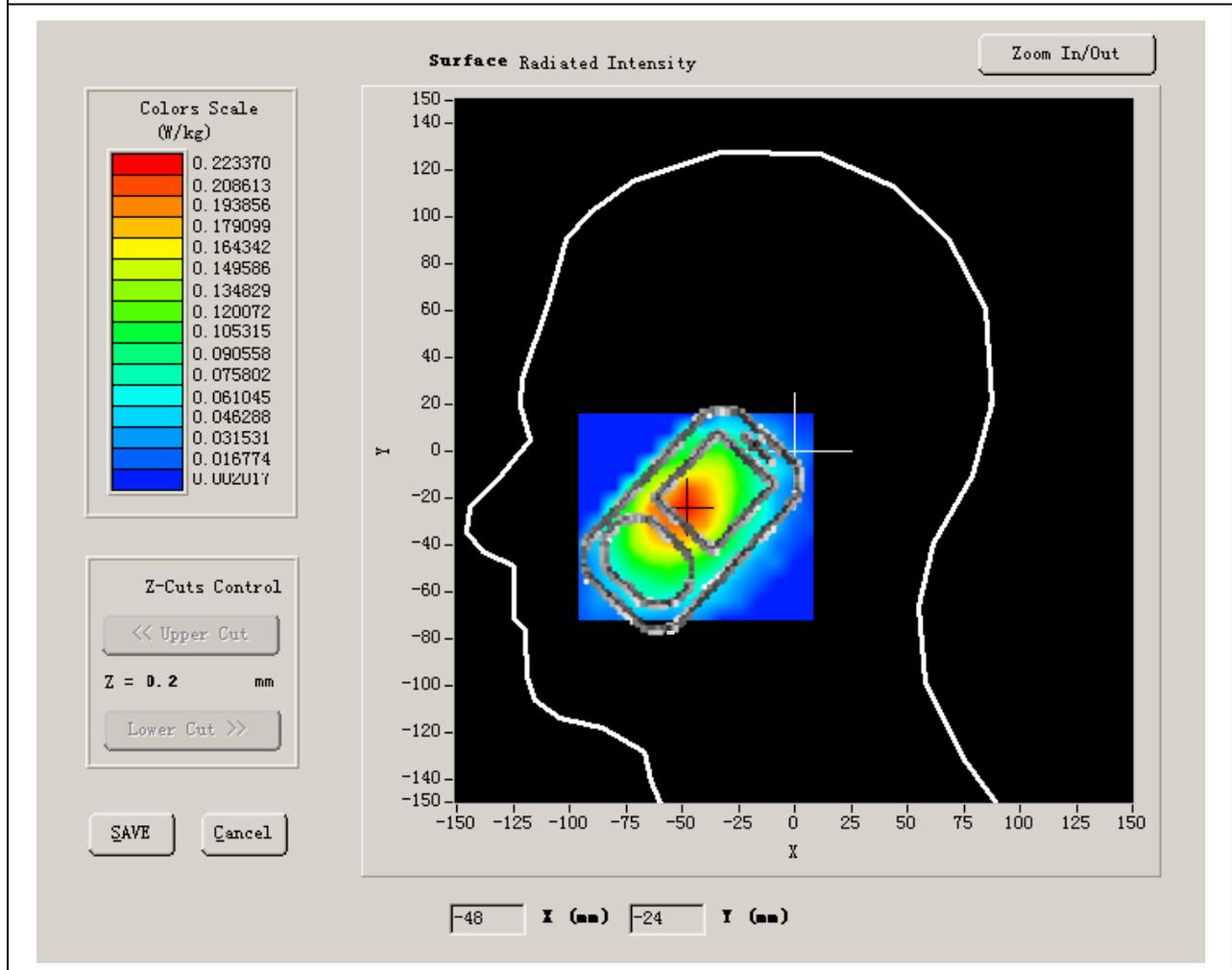
B. SAR Measurement Results

Higher Band SAR (Channel 251):

Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199

Conductivity (S/m)	0.894409
Variation (%)	-0.780000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR

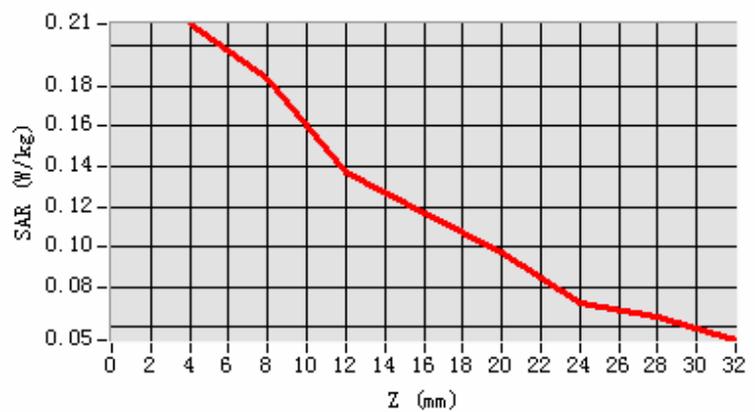


SAR 10g (W/Kg)	0.147675
SAR 1g (W/Kg)	0.209144

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2109	0.1833	0.1371	0.1171	0.0973	0.0715	0.0656

SAR, Z Axis Scan (X = -48, Y = -23)



MEASUREMENT 10

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 22 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	TDMA

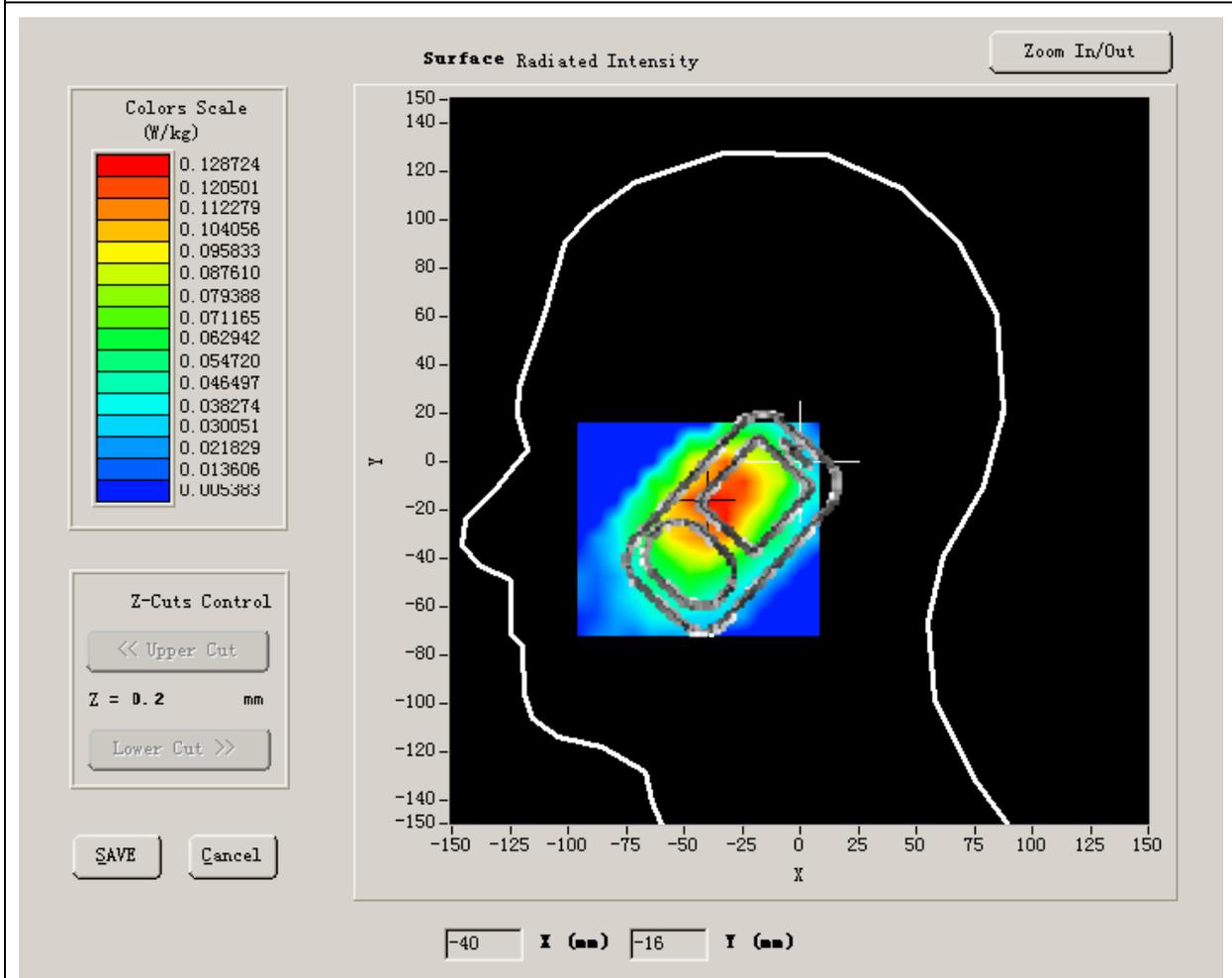
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	41.790001
Relative permittivity	18.926250

Conductivity (S/m)	0.866612
Variation (%)	-2.030000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



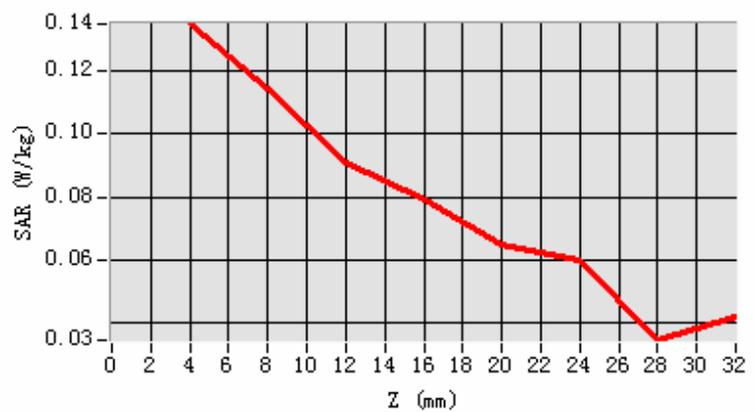
Maximum location: X=-40.00, Y=-16.00

SAR 10g (W/Kg)	0.092415
SAR 1g (W/Kg)	0.136279

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1351	0.1144	0.0909	0.0788	0.0649	0.0597	0.0343

SAR, Z Axis Scan (X = -40, Y = -16)



MEASUREMENT 11

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 24 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	Middle
Signal	TDMA

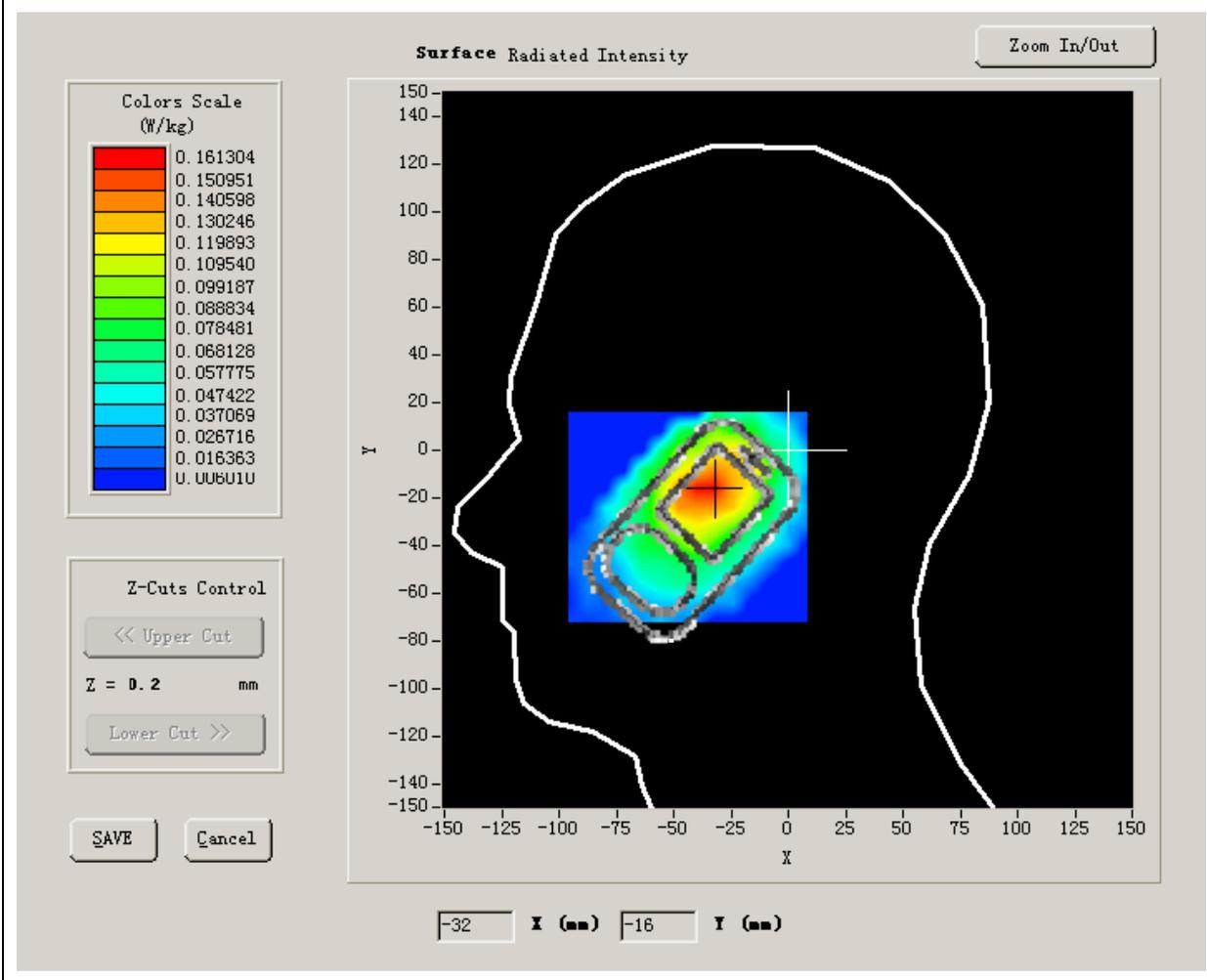
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001

Conductivity (S/m)	0.888655
Variation (%)	0.400000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



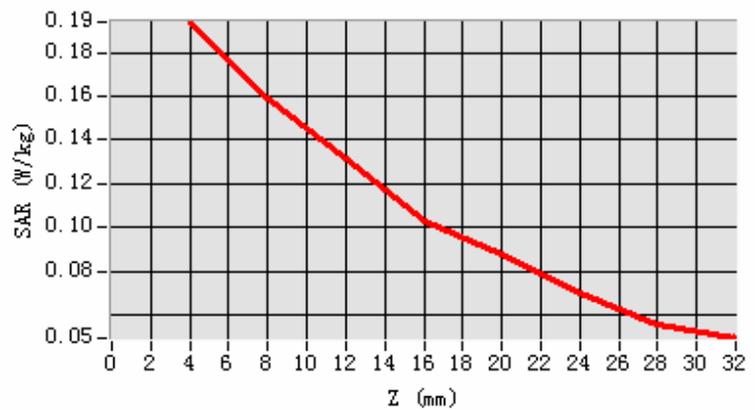
Maximum location: X=-36.00, Y=-16.00

SAR 10g (W/Kg)	0.105485
SAR 1g (W/Kg)	0.155940

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1593	0.1138	0.1025	0.0863	0.0729	0.0486	0.0480

SAR, Z Axis Scan (X = -56, Y = -32)



MEASUREMENT 12

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 19 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	TDMA

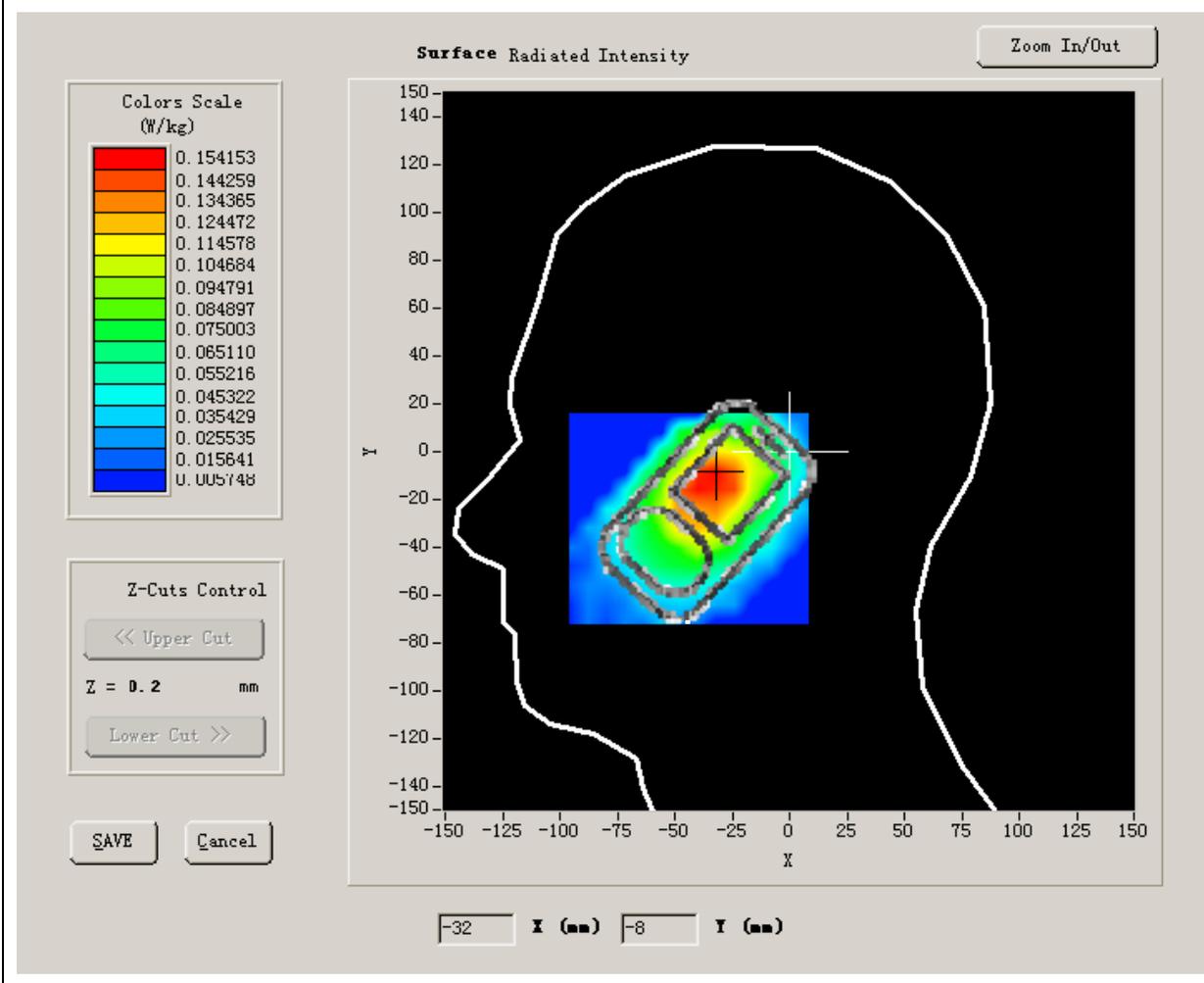
B. SAR Measurement Results

Higher Band SAR (Channel 251):

Frequency (MHz)	848.799988
Relative permittivity (real part)	41.675999
Relative permittivity	18.967199

Conductivity (S/m)	0.894409
Variation (%)	-1.480000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



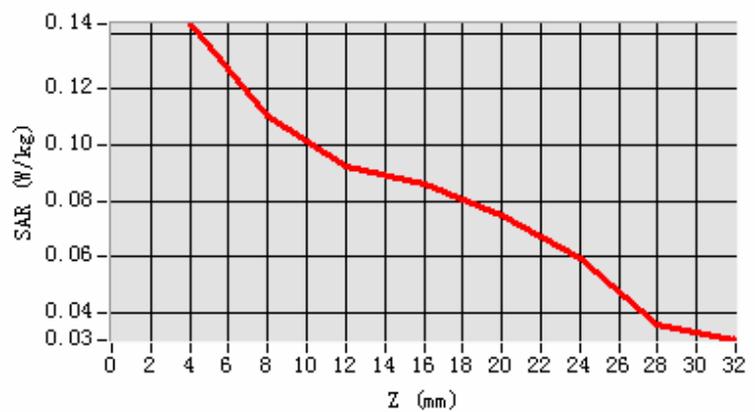
Maximum location: X=-35.00, Y=-11.00

SAR 10g (W/Kg)	0.104277
SAR 1g (W/Kg)	0.151926

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1433	0.1106	0.0921	0.0862	0.0749	0.0597	0.0358

SAR, Z Axis Scan (X = -35, Y = -11)



MEASUREMENT 13

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 48 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	TDMA

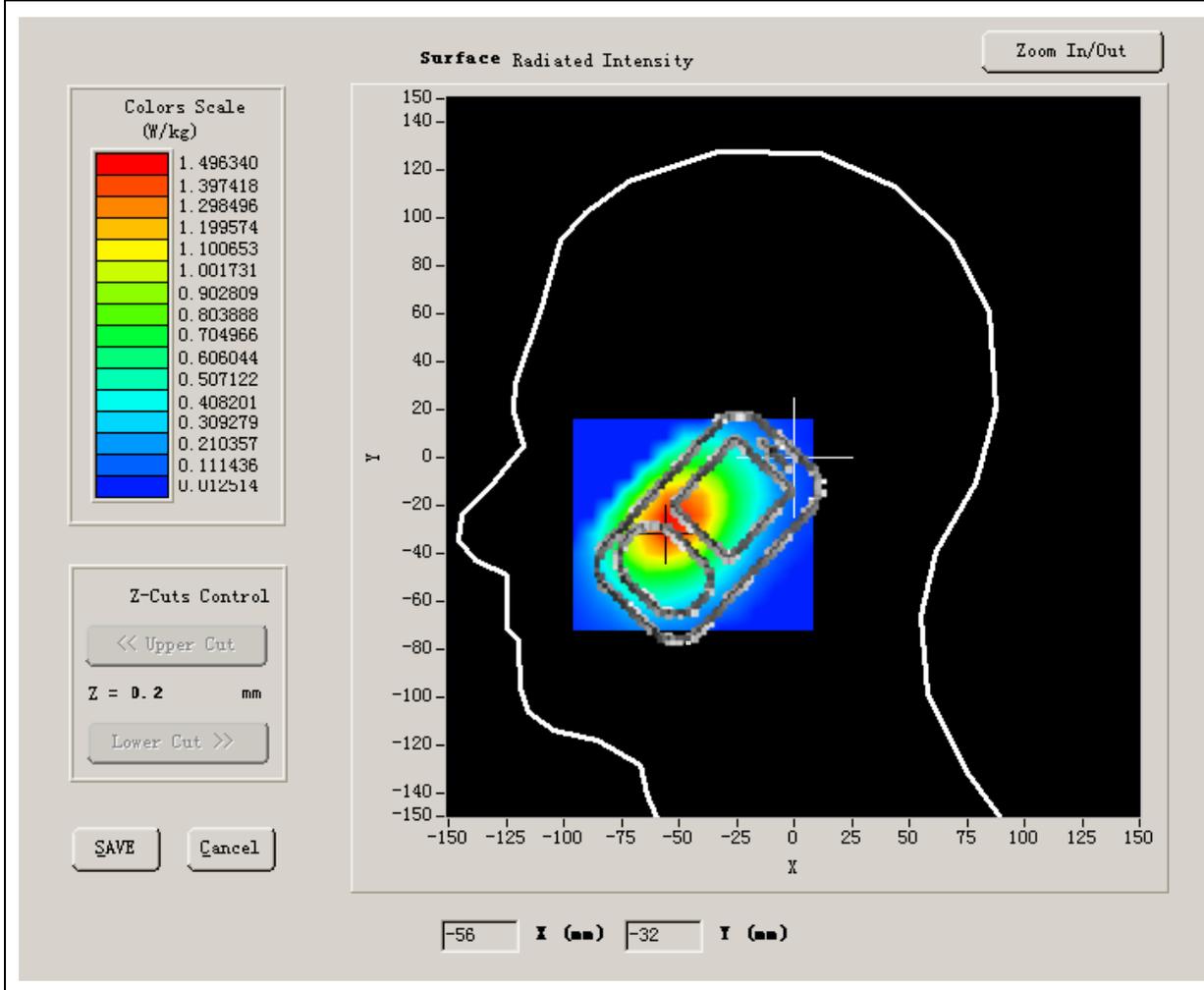
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	40.669998
Relative permittivity	19.120001

Conductivity (S/m)	0.888655
Variation (%)	-0.870000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



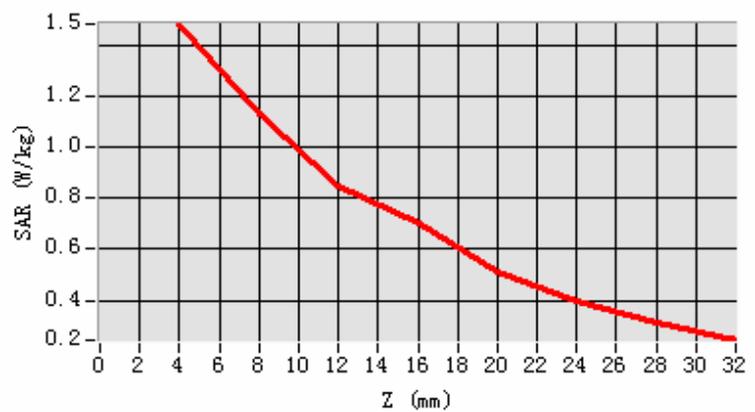
Maximum location: X=-54.00, Y=-29.00

SAR 10g (W/Kg)	0.950748
SAR 1g (W/Kg)	1.430897

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	1.4864	1.1334	0.8460	0.7030	0.5137	0.3957	0.3155

SAR, Z Axis Scan (X = -54, Y = -29)



MEASUREMENT 14

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 56 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Low
Signal	TDMA

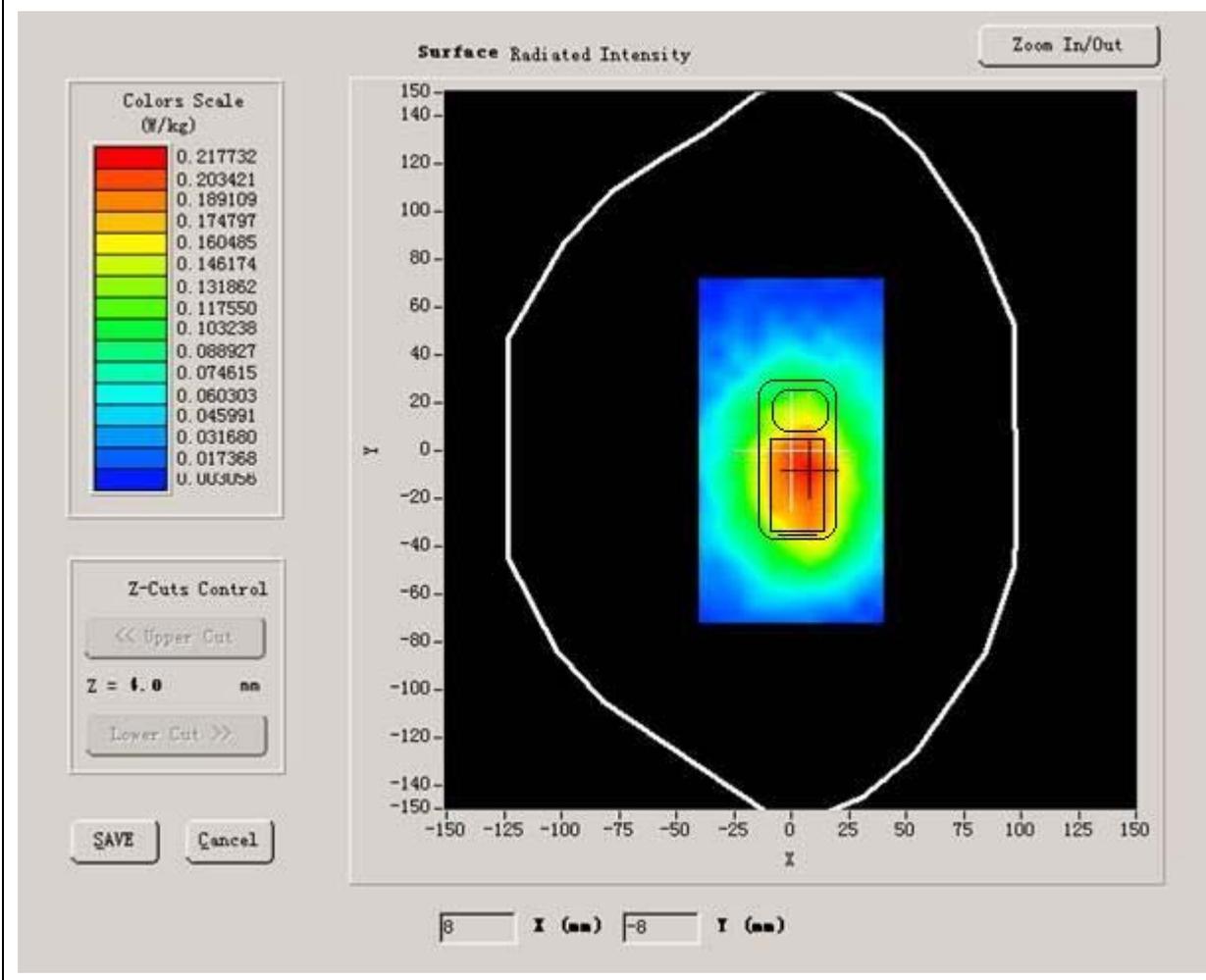
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	54.116001
Relative permittivity	21.284550

Conductivity (S/m)	0.974596
Variation (%)	-3.020000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



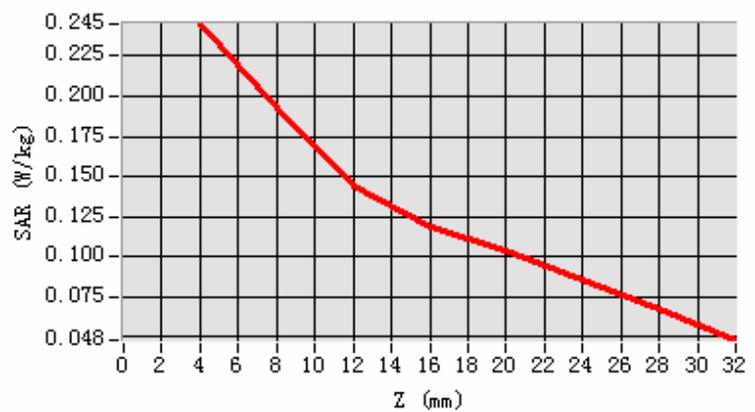
Maximum location: X=7.00, Y=-8.00

SAR 10g (W/Kg)	0.160068
SAR 1g (W/Kg)	0.237567

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2450	0.1929	0.1444	0.1188	0.1035	0.0859	0.0674

SAR, Z Axis Scan (X = 7, Y = -8)



MEASUREMENT 15

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 50 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Middle
Signal	TDMA

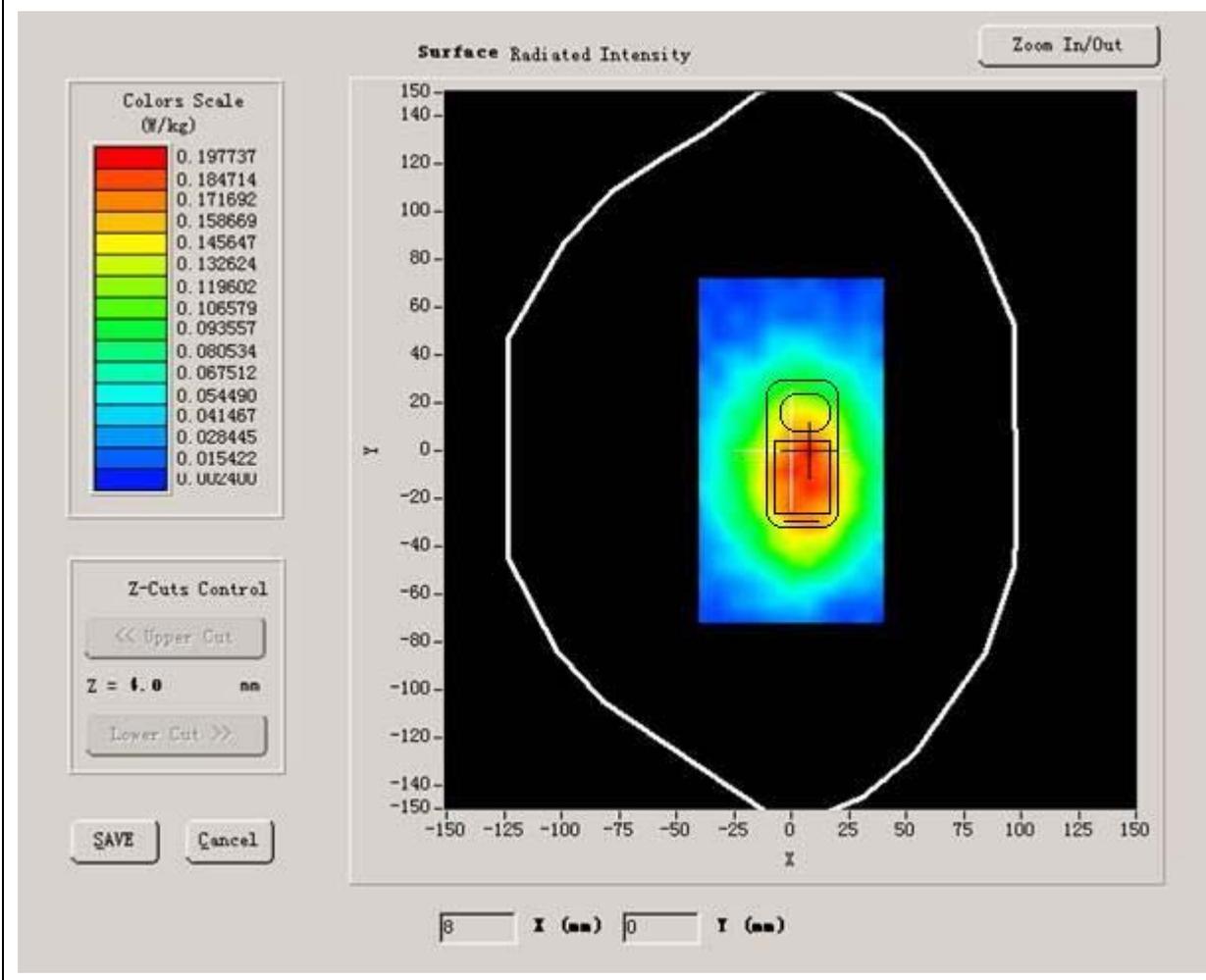
B. SAR Measurement Results

Middle Band SAR (Channel 190):

Frequency (MHz)	836.599976
Relative permittivity (real part)	55.70999
Relative permittivity	21.709999

Conductivity (S/m)	1.009033
Variation (%)	-3.370000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



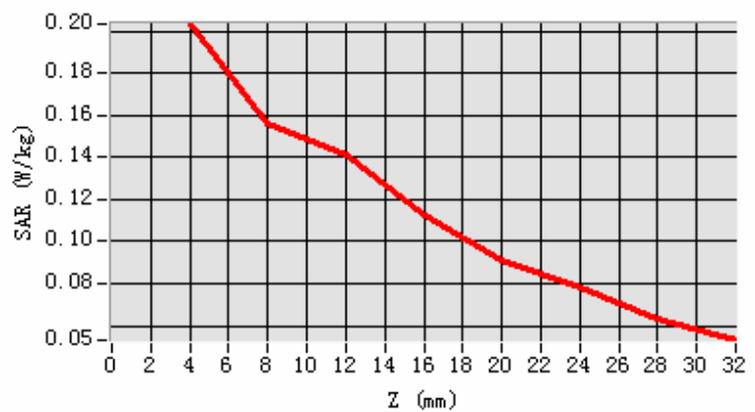
Maximum location: X=8.00, Y=-1.00

SAR 10g (W/Kg)	0.148794
SAR 1g (W/Kg)	0.214320

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2034	0.1563	0.1410	0.1129	0.0914	0.0780	0.0629

SAR, Z Axis Scan (X = 8, Y = -1)



MEASUREMENT 16

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 48 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	High
Signal	TDMA

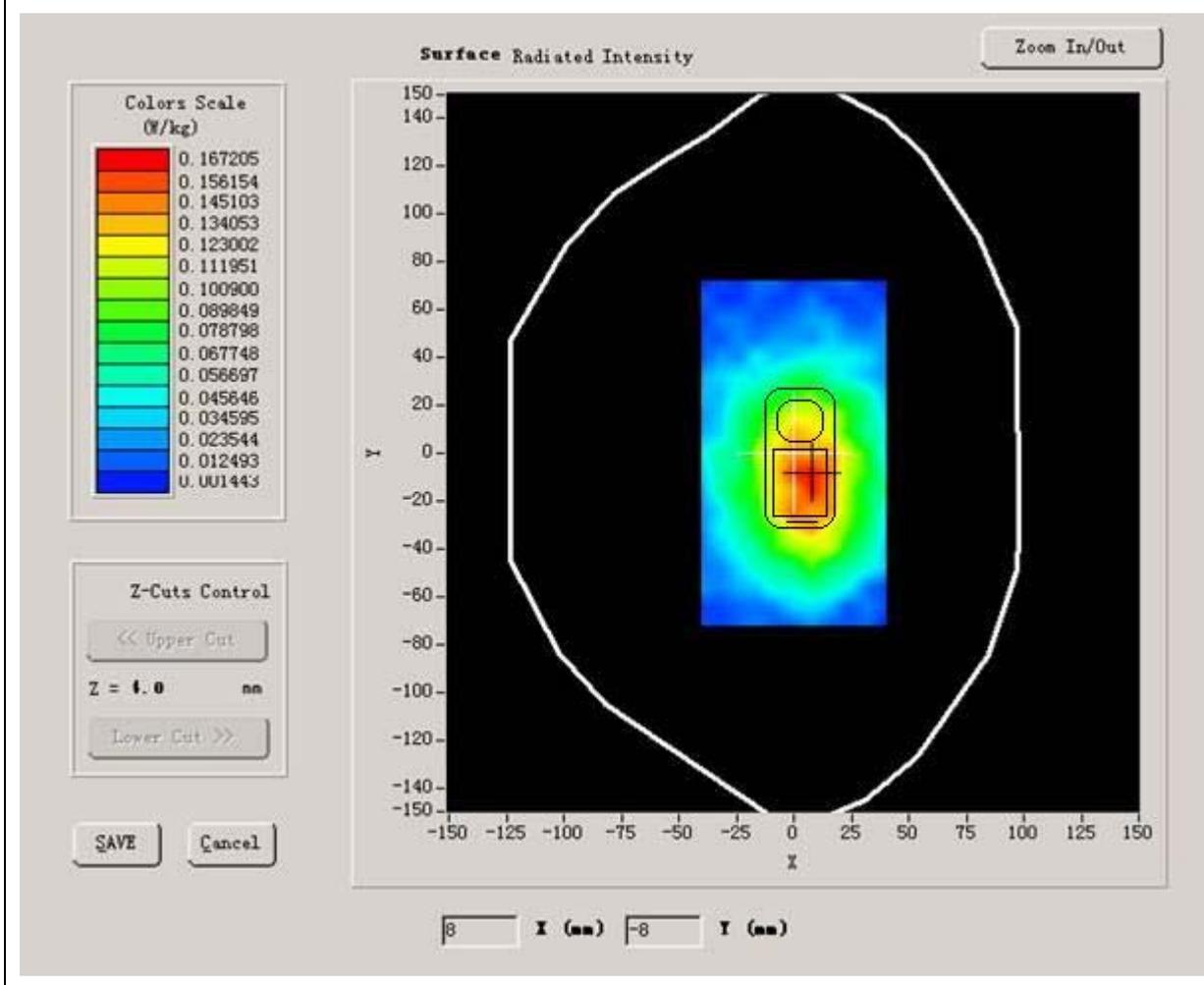
B. SAR Measurement Results

Higher Band SAR (Channel 251):

Frequency (MHz)	848.799988
Relative permittivity (real part)	54.014999
Relative permittivity	21.332850

Conductivity (S/m)	1.005962
Variation (%)	0.480000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=7.00, Y=-11.00

SAR 10g (W/Kg)	0.118537
SAR 1g (W/Kg)	0.171254

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1840	0.1380	0.1224	0.0751	0.0807	0.0438	0.0394

SAR, Z Axis Scan (X = 7, Y = -11)



MEASUREMENT 17

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 52 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Low
Signal	TDMA

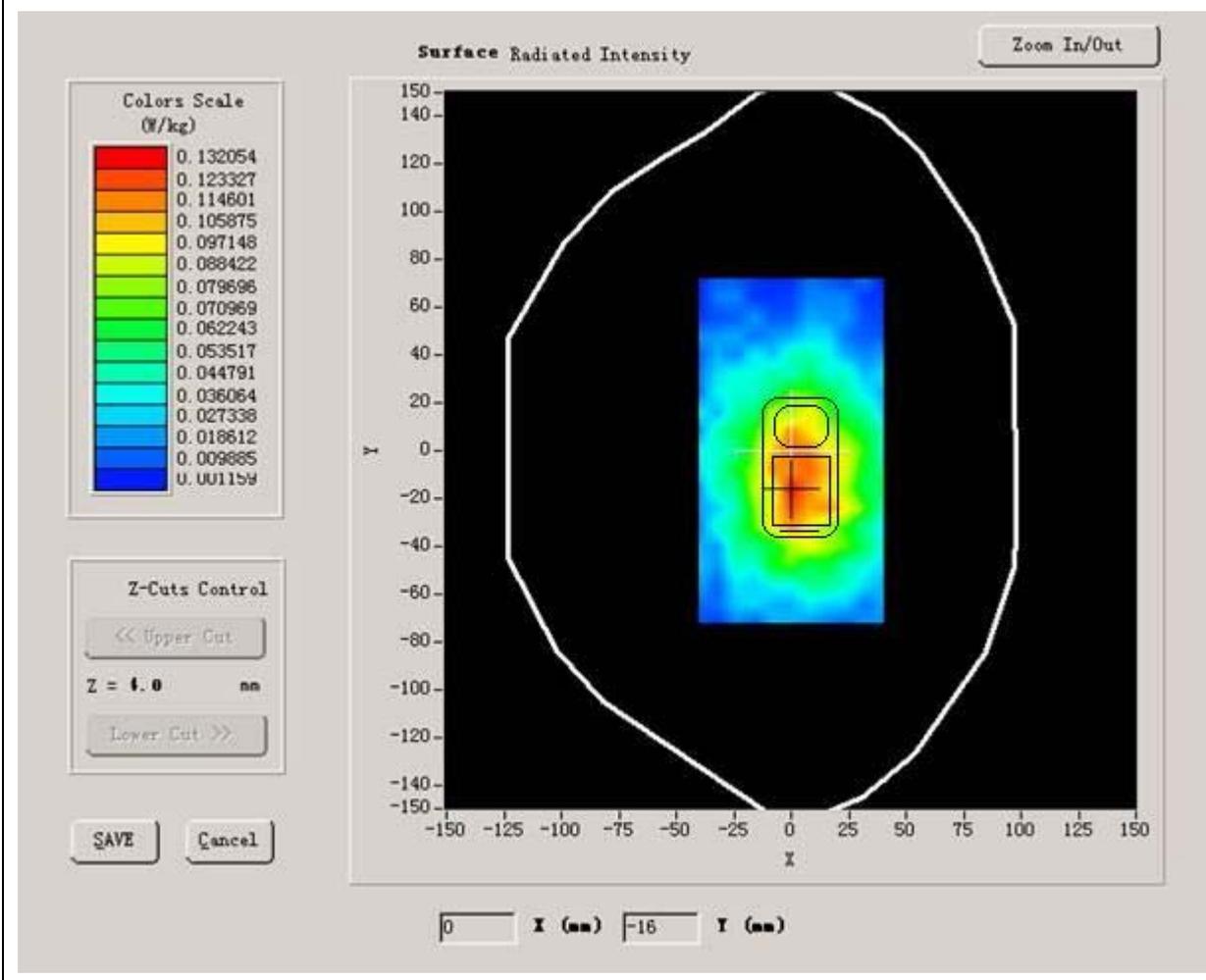
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	54.116001
Relative permittivity	21.284550

Conductivity (S/m)	0.974596
Variation (%)	-3.600000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



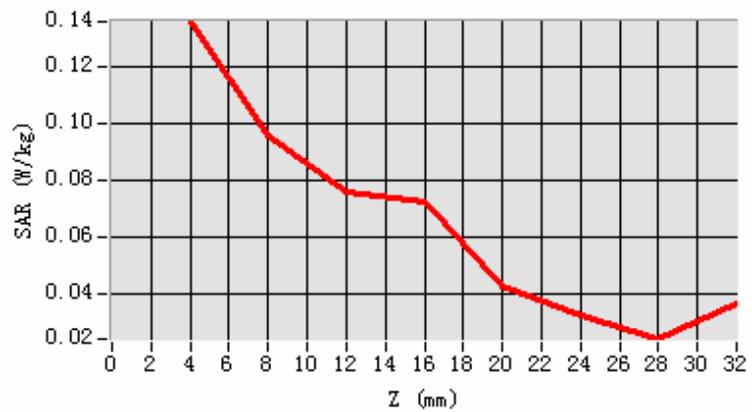
Maximum location: X=1.00, Y=-17.00

SAR 10g (W/Kg)	0.091564
SAR 1g (W/Kg)	0.134496

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1361	0.0958	0.0757	0.0720	0.0427	0.0322	0.0239

SAR, Z Axis Scan (X = 1, Y = -17)



MEASUREMENT 18

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 49 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Low
Signal	TDMA

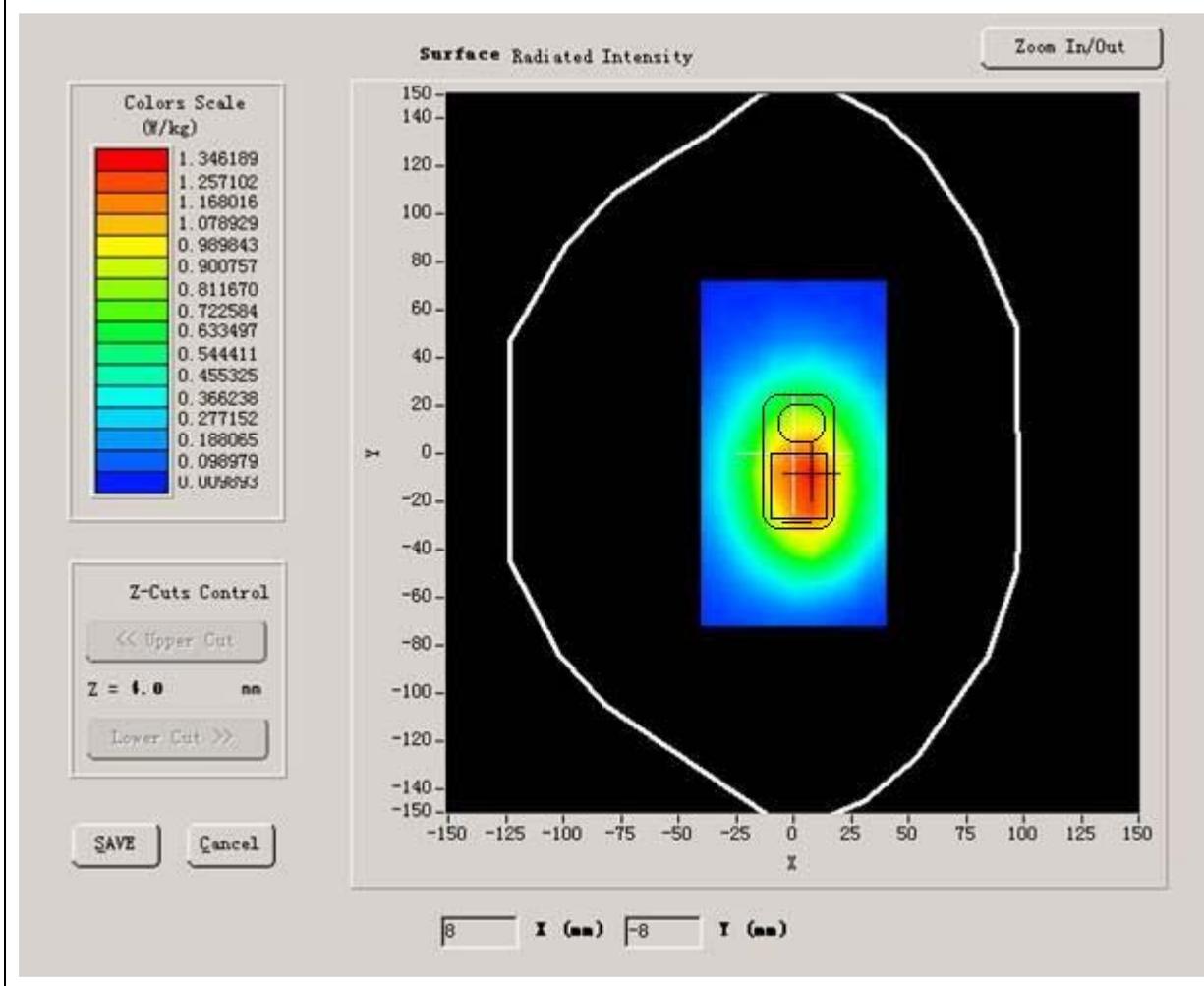
B. SAR Measurement Results

Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permittivity (real part)	54.116001
Relative permittivity	21.284550

Conductivity (S/m)	0.974596
Variation (%)	-4.570000
Ambient Temperature:	21.4°C
Liquid Temperature:	21.3°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



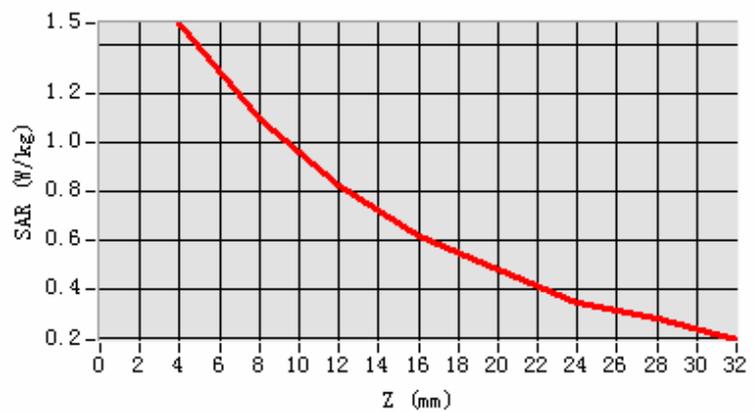
Maximum location: X=7.00, Y=-9.00

SAR 10g (W/Kg)	0.094284
SAR 1g (W/Kg)	0.140972

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	1.4912	1.1019	0.8248	0.6173	0.4839	0.3451	0.2792

SAR, Z Axis Scan (X = 7, Y = -9)



MEASUREMENT 19

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 53 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA

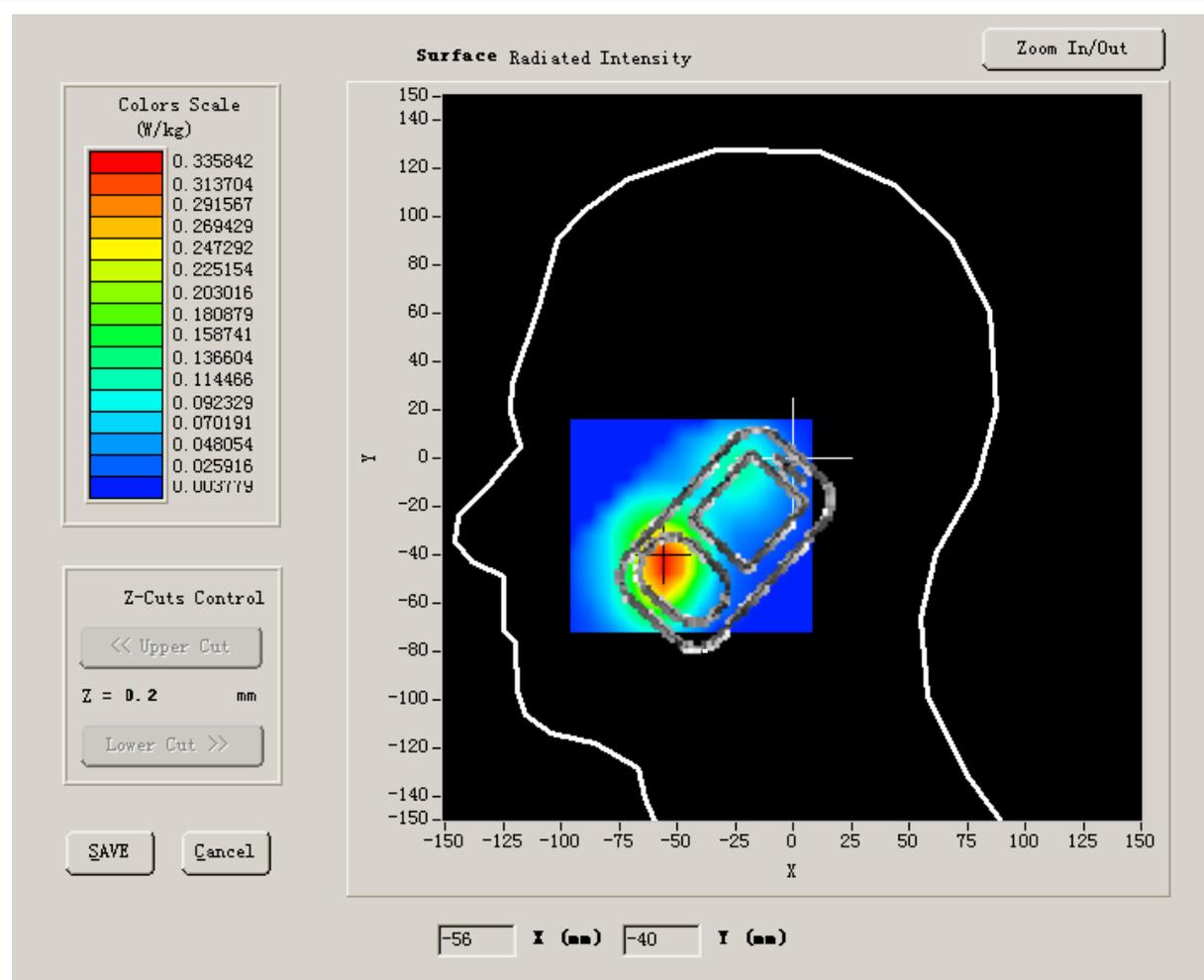
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

Conductivity (S/m)	1.335542
Variation (%)	0.600000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=-55.00, Y=-43.00

SAR 10g (W/Kg)	0.181861
SAR 1g (W/Kg)	0.321673

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.3429	0.2308	0.1575	0.1021	0.0709	0.0455	0.0294

SAR, Z Axis Scan (X = -55, Y = -43)



MEASUREMENT 20

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 54 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA

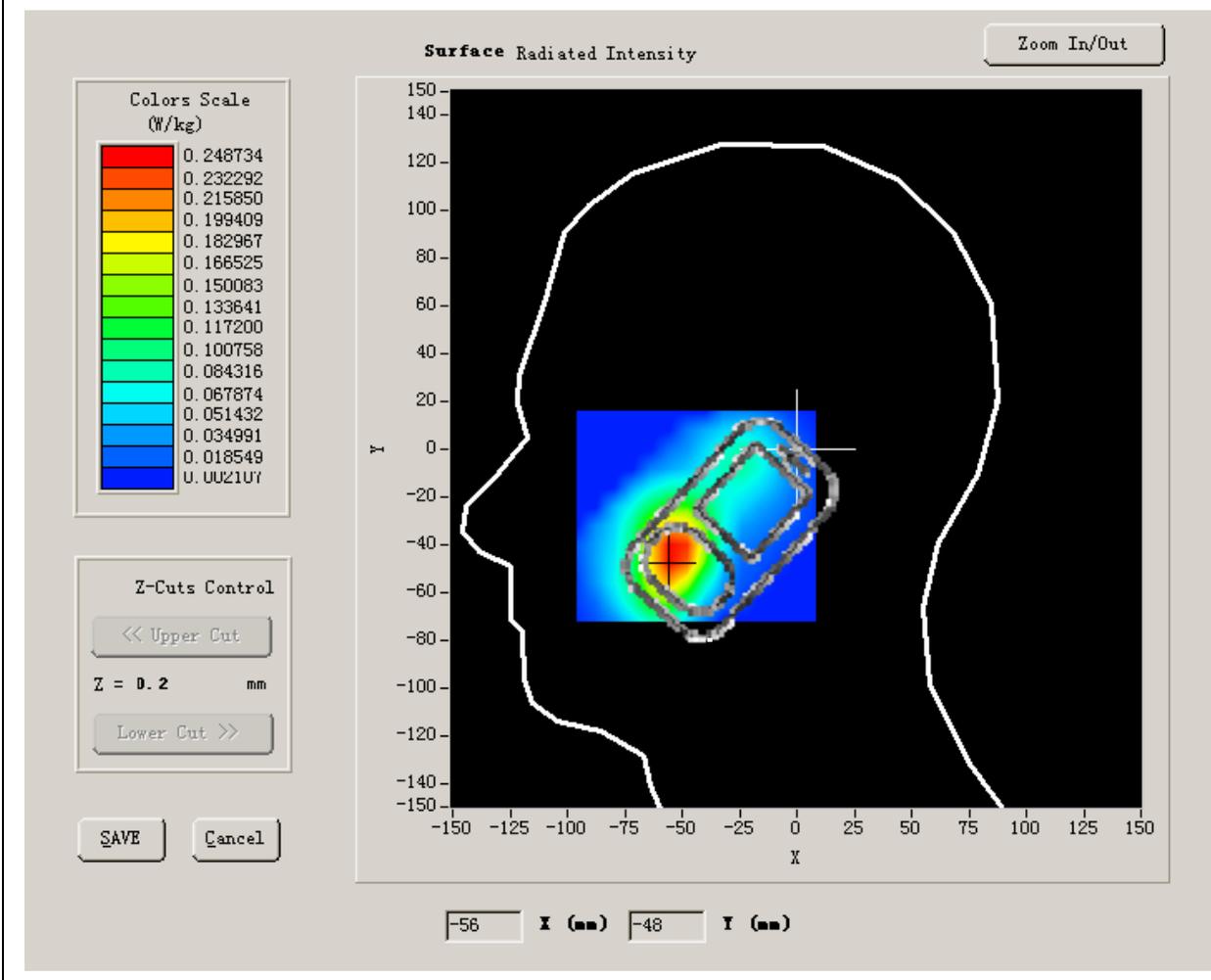
B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

Conductivity (S/m)	1.436111
Variation (%)	0.460000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=-54.00, Y=-44.00

SAR 10g (W/Kg)	0.137366
SAR 1g (W/Kg)	0.241567

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2571	0.1757	0.1186	0.0797	0.0522	0.0348	0.0237

SAR, Z Axis Scan (X = -54, Y = -44)



MEASUREMENT 21

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 7 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	TDMA

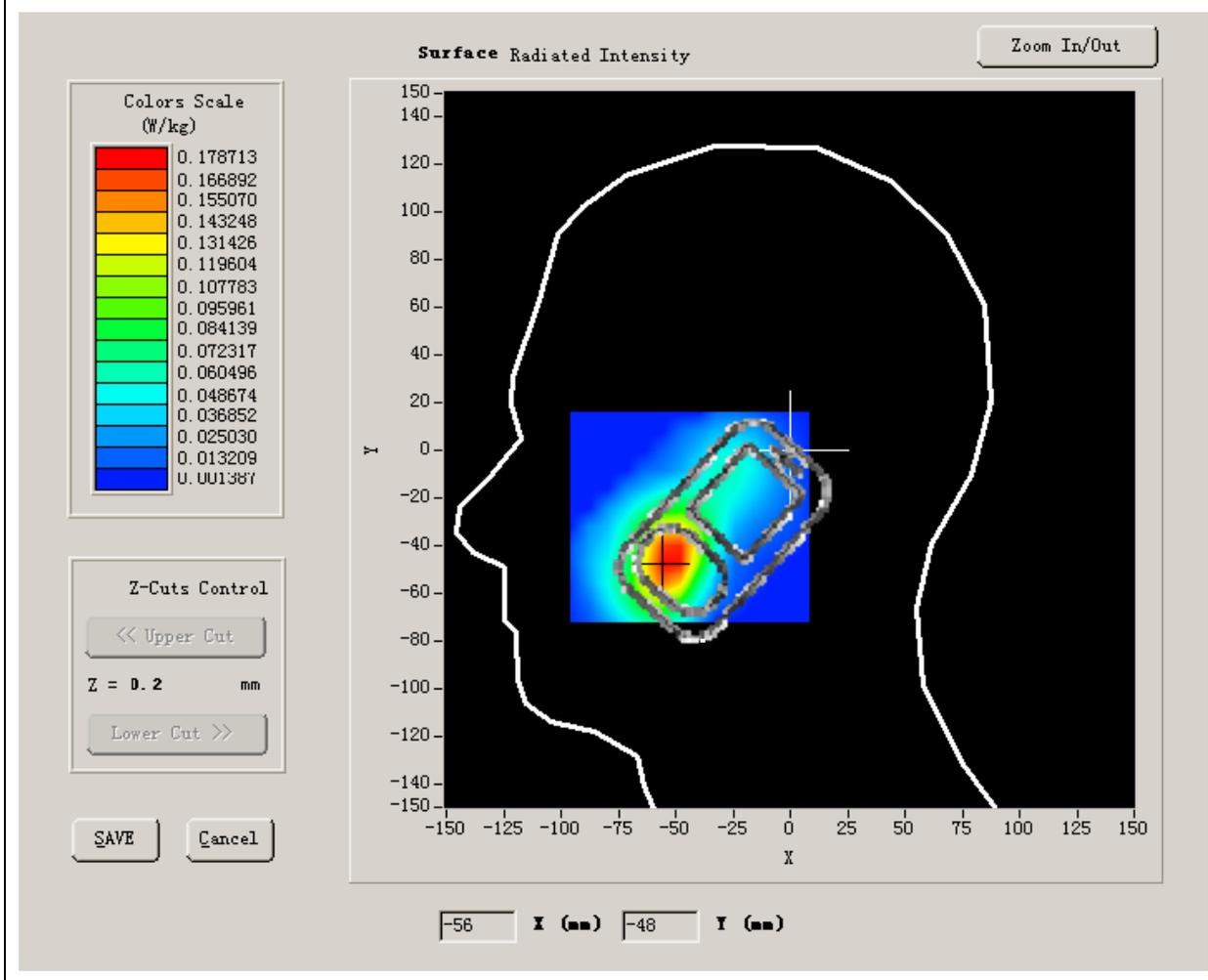
B. SAR Measurement Results

Higher Band SAR (Channel 809):

Frequency (MHz)	1909.599976
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500

Conductivity (S/m)	1.395758
Variation (%)	-0.450000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



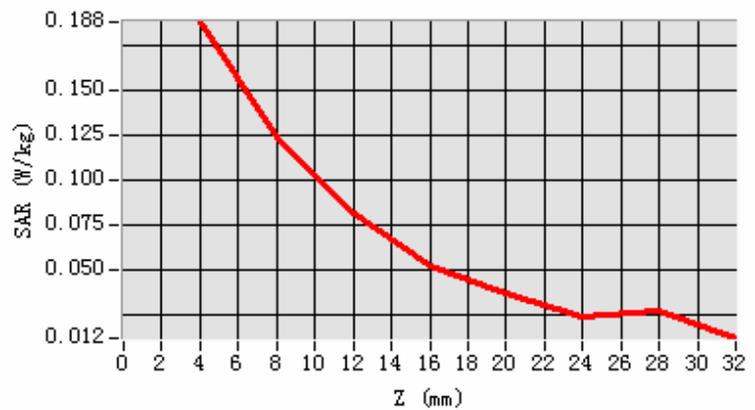
Maximum location: X=-52.00, Y=-46.00

SAR 10g (W/Kg)	0.097521
SAR 1g (W/Kg)	0.172574

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1875	0.1237	0.0812	0.0518	0.0363	0.0234	0.0269

SAR, Z Axis Scan (X = -52, Y = -46)



MEASUREMENT 22

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 13 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	TDMA

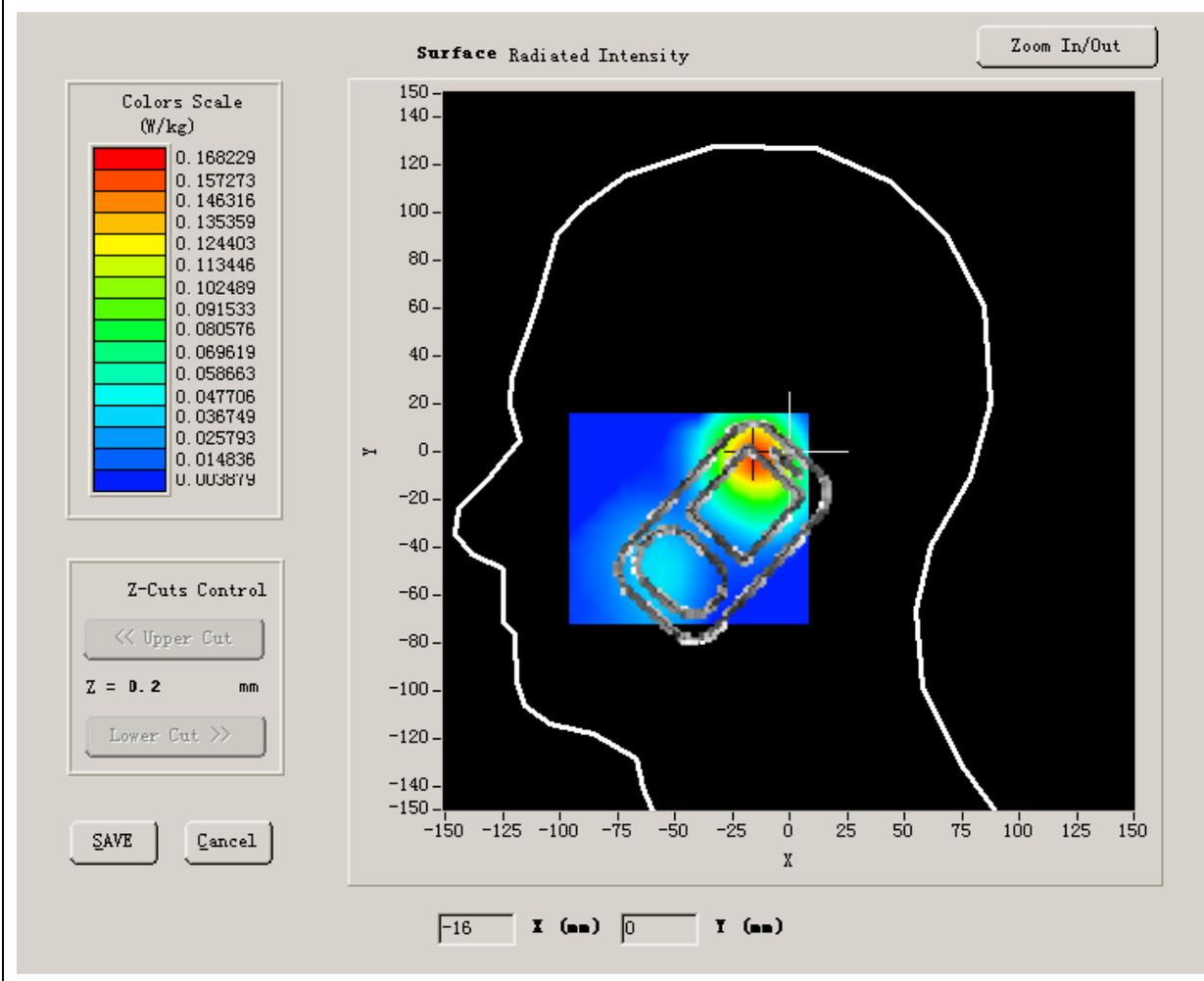
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

Conductivity (S/m)	1.335542
Variation (%)	-0.540000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



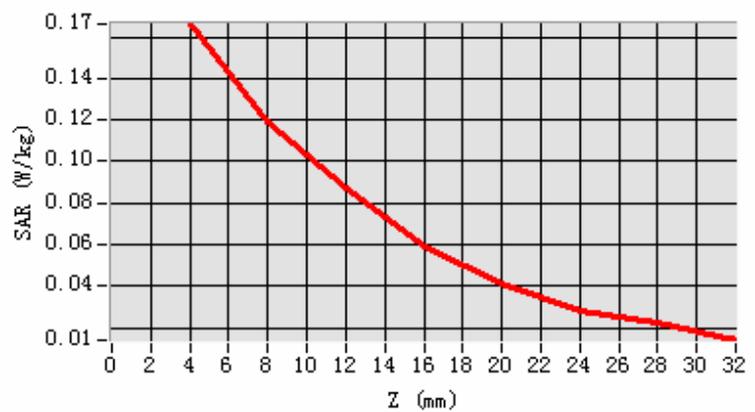
Maximum location: X=-15.00, Y=-1.00

SAR 10g (W/Kg)	0.093357
SAR 1g (W/Kg)	0.155547

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1661	0.1189	0.0877	0.0590	0.0409	0.0284	0.0225

SAR, Z Axis Scan (X = -15, Y = -1)





MEASUREMENT 23

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 9 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	TDMA

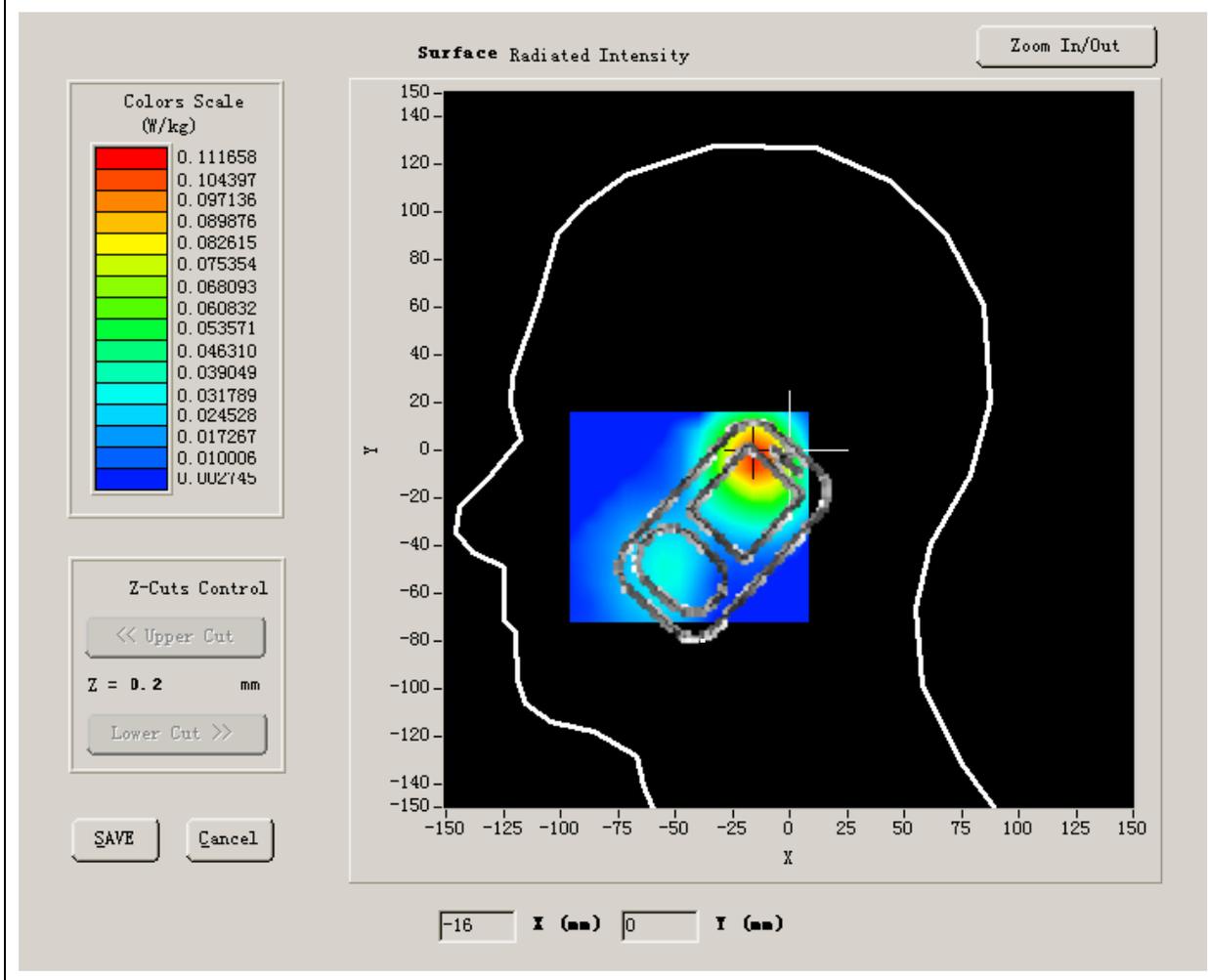
B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

Conductivity (S/m)	1.436111
Variation (%)	0.890000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR

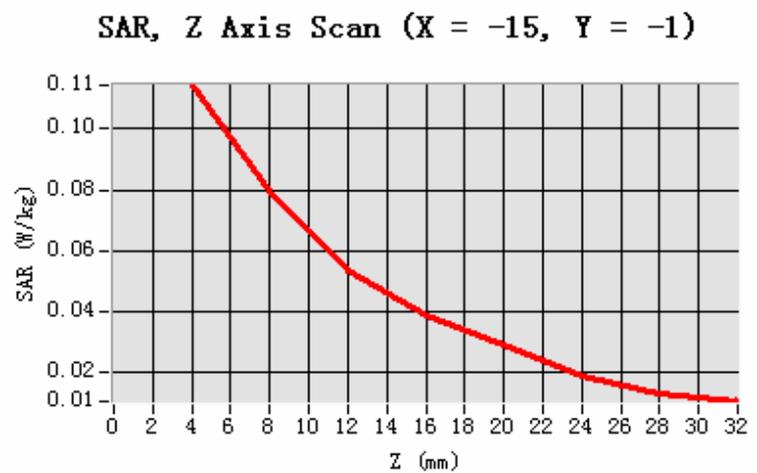


Maximum location: X=-15.00, Y=-1.00

SAR 10g (W/Kg)	0.063388
SAR 1g (W/Kg)	0.108397

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1143	0.0800	0.0537	0.0390	0.0291	0.0189	0.0135



MEASUREMENT 24

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 13 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	TDMA

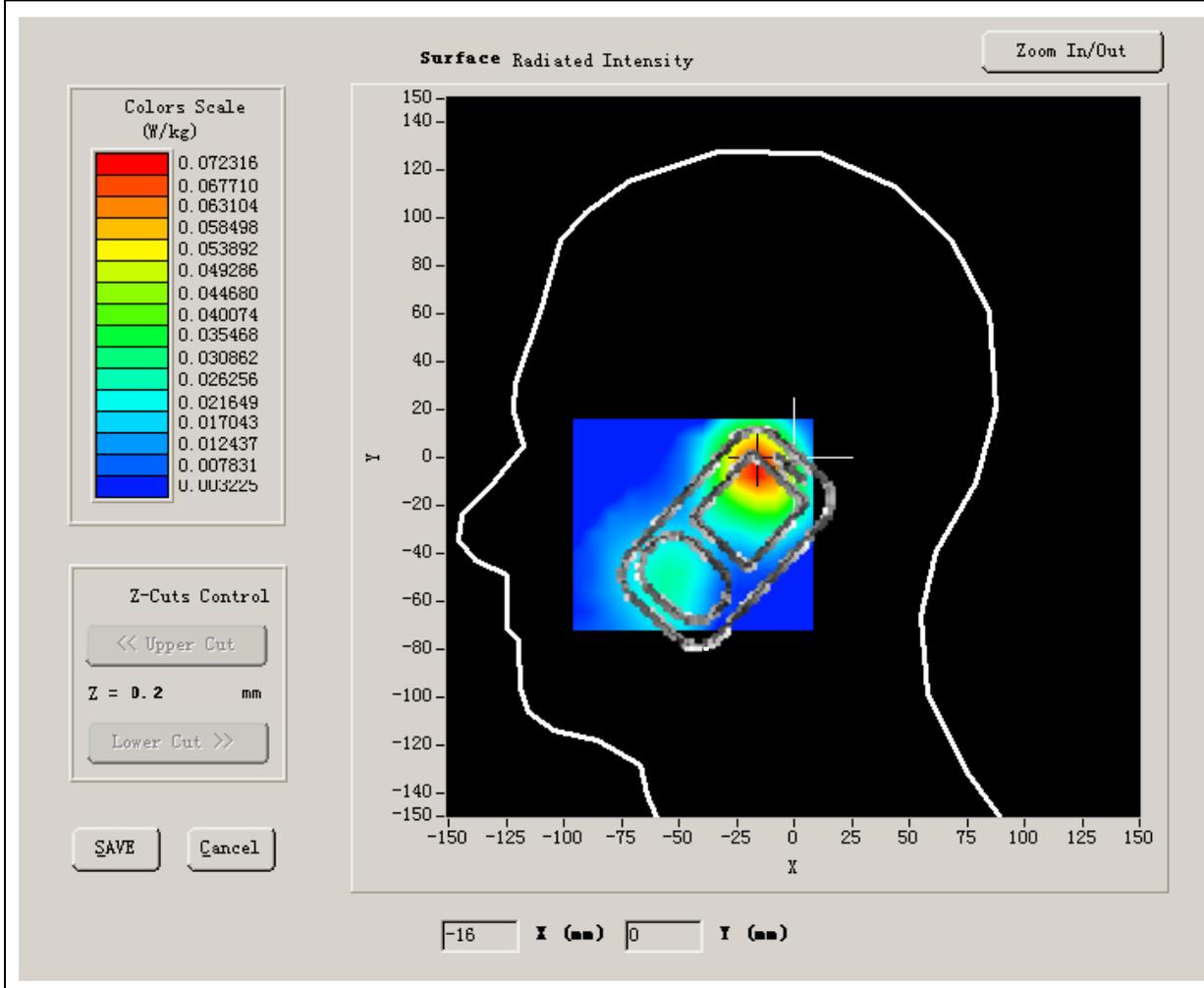
B. SAR Measurement Results

Higher Band SAR (Channel 809):

Frequency (MHz)	1909.599976
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500

Conductivity (S/m)	1.395758
Variation (%)	0.840000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



SAR 10g (W/Kg)	0.041729
SAR 1g (W/Kg)	0.069415

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.0733	0.0528	0.0370	0.0259	0.0191	0.0131	0.0102

SAR, Z Axis Scan (X = -16, Y = -3)



MEASUREMENT 25

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 47 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA

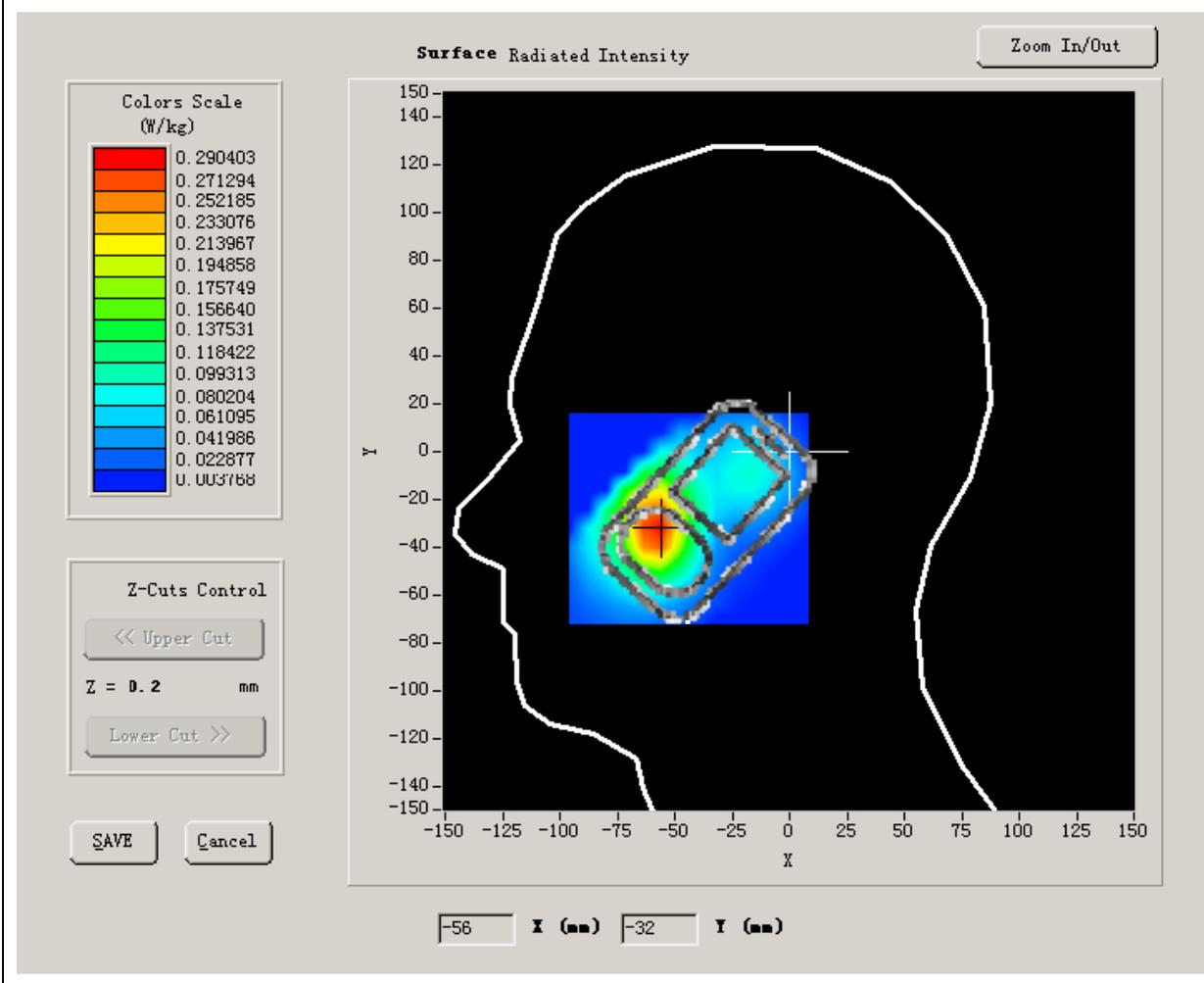
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

Conductivity (S/m)	1.335542
Variation (%)	0.710000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



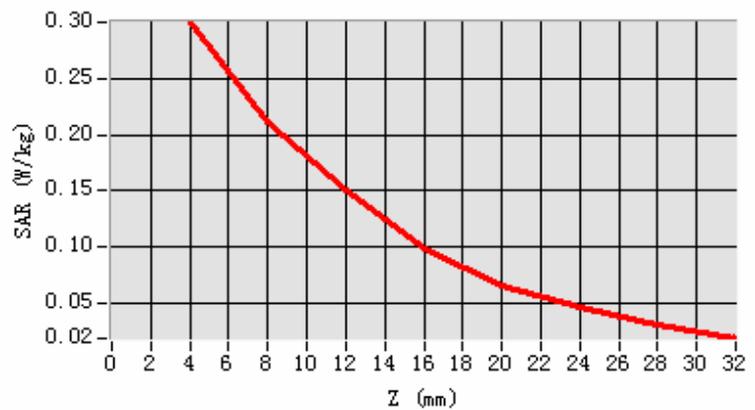
Maximum location: X=-58.00, Y=-32.00

SAR 10g (W/Kg)	0.160735
SAR 1g (W/Kg)	0.275550

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.3001	0.2118	0.1505	0.0991	0.0655	0.0467	0.0310

SAR, Z Axis Scan (X = -58, Y = -32)



MEASUREMENT 26

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 50 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA

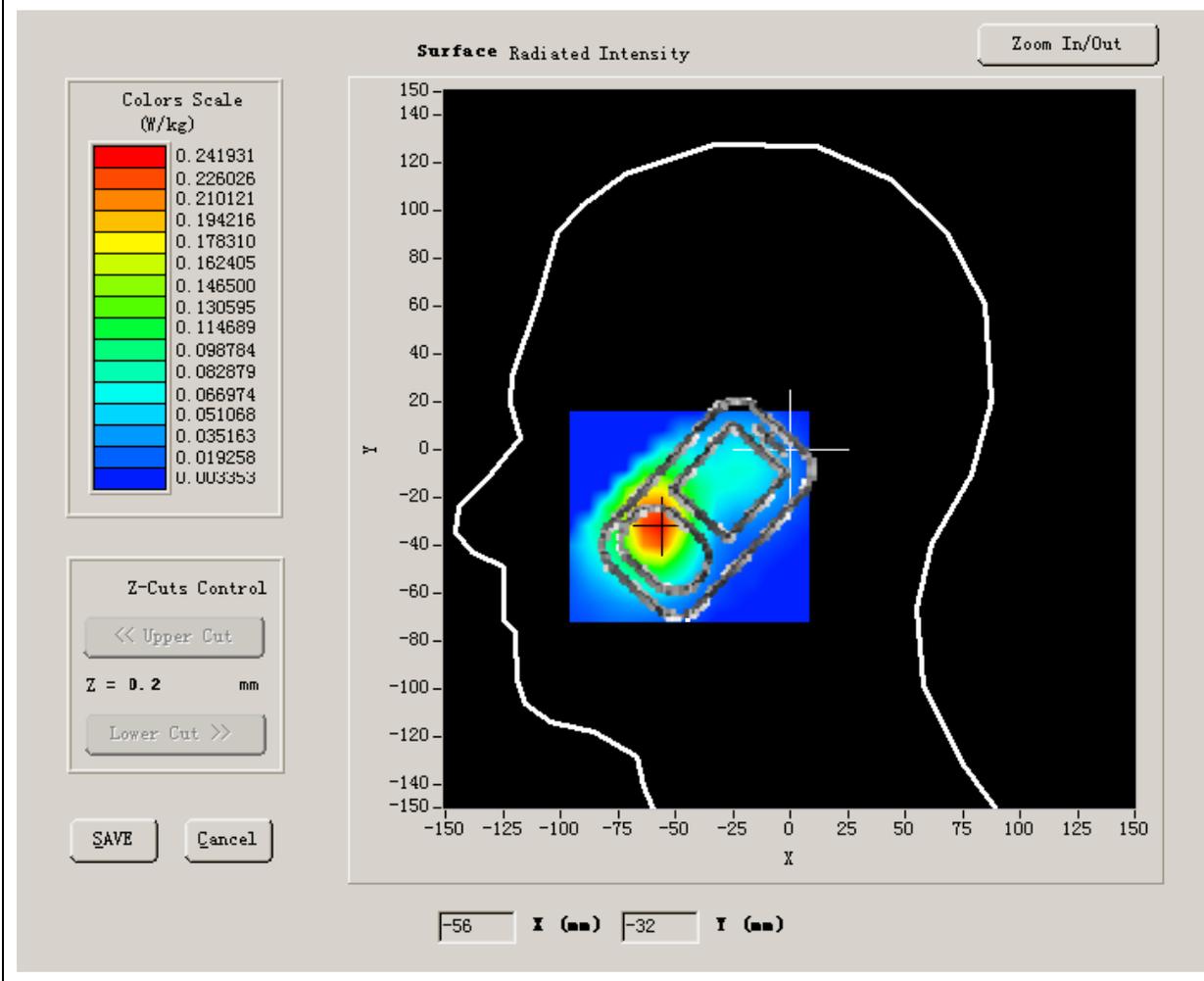
B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

Conductivity (S/m)	1.436111
Variation (%)	1.070000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=-58.00, Y=-32.00

SAR 10g (W/Kg)	0.135759
SAR 1g (W/Kg)	0.233762

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2508	0.1737	0.1231	0.0823	0.0543	0.0366	0.0262

SAR, Z Axis Scan (X = -58, Y = -32)



MEASUREMENT 27

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 53 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	TDMA

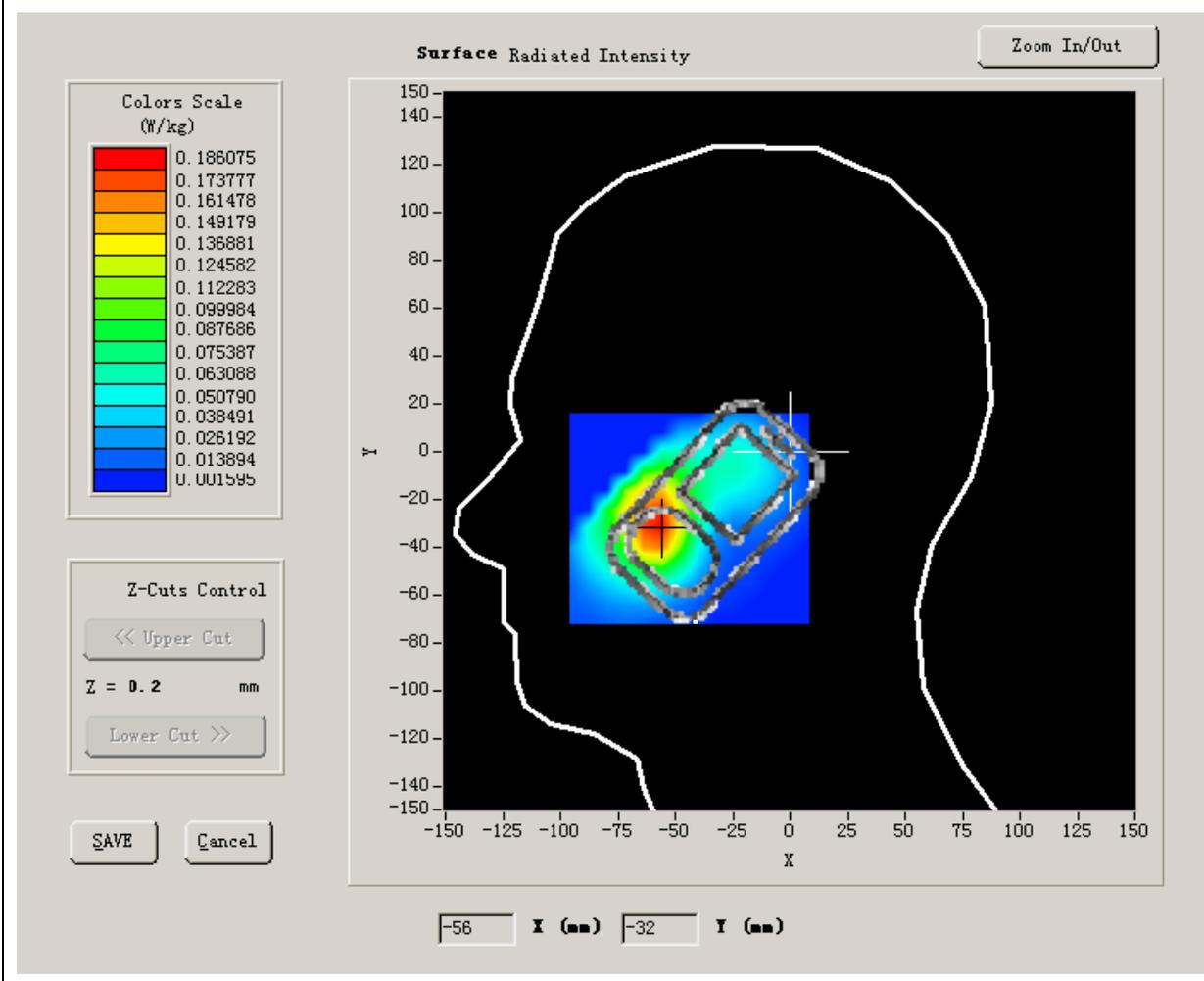
B. SAR Measurement Results

Higher Band SAR (Channel 809):

Frequency (MHz)	1909.599976
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500

Conductivity (S/m)	1.395758
Variation (%)	1.840000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



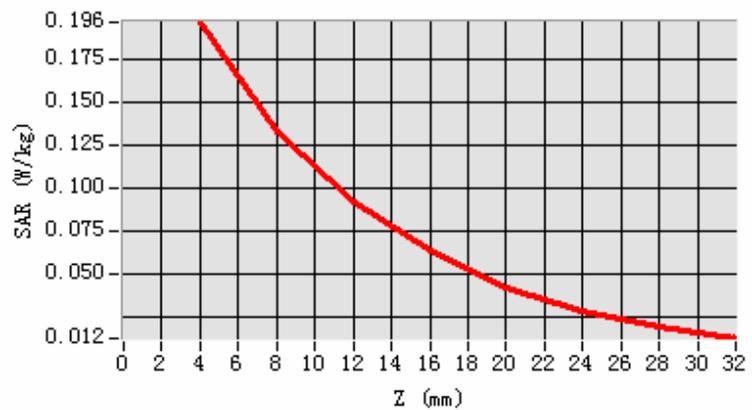
Maximum location: X=-58.00, Y=-31.00

SAR 10g (W/Kg)	0.106154
SAR 1g (W/Kg)	0.184296

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1965	0.1331	0.0916	0.0630	0.0418	0.0282	0.0191

SAR, Z Axis Scan (X = -58, Y = -31)



MEASUREMENT 28

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 8 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	TDMA

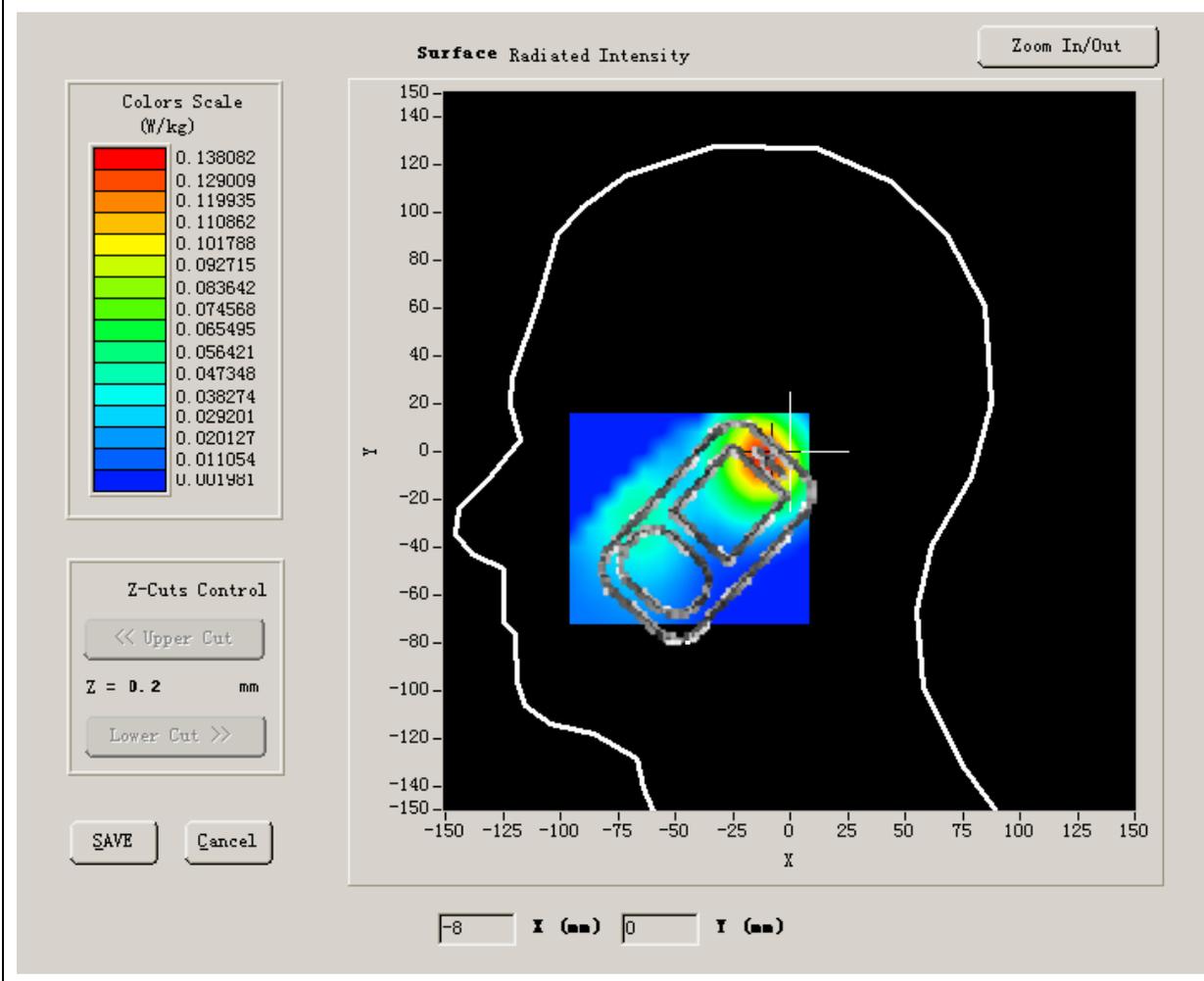
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

Conductivity (S/m)	1.335542
Variation (%)	-0.390000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



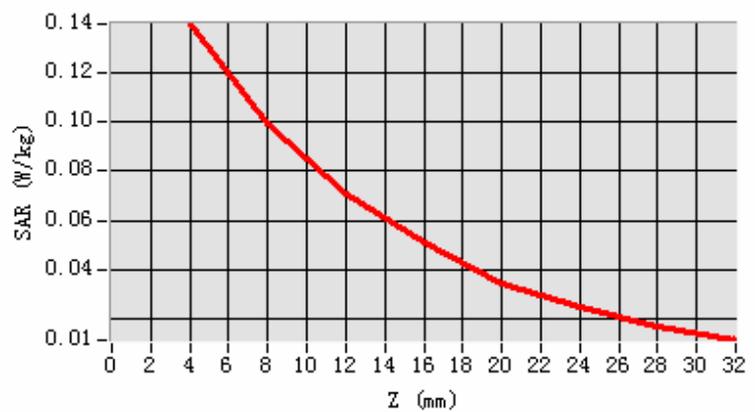
Maximum location: X=-11.00, Y=-1.00

SAR 10g (W/Kg)	0.079680
SAR 1g (W/Kg)	0.132975

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1395	0.0996	0.0711	0.0509	0.0350	0.0249	0.0170

SAR, Z Axis Scan (X = -11, Y = -1)



MEASUREMENT 29

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 12 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	TDMA

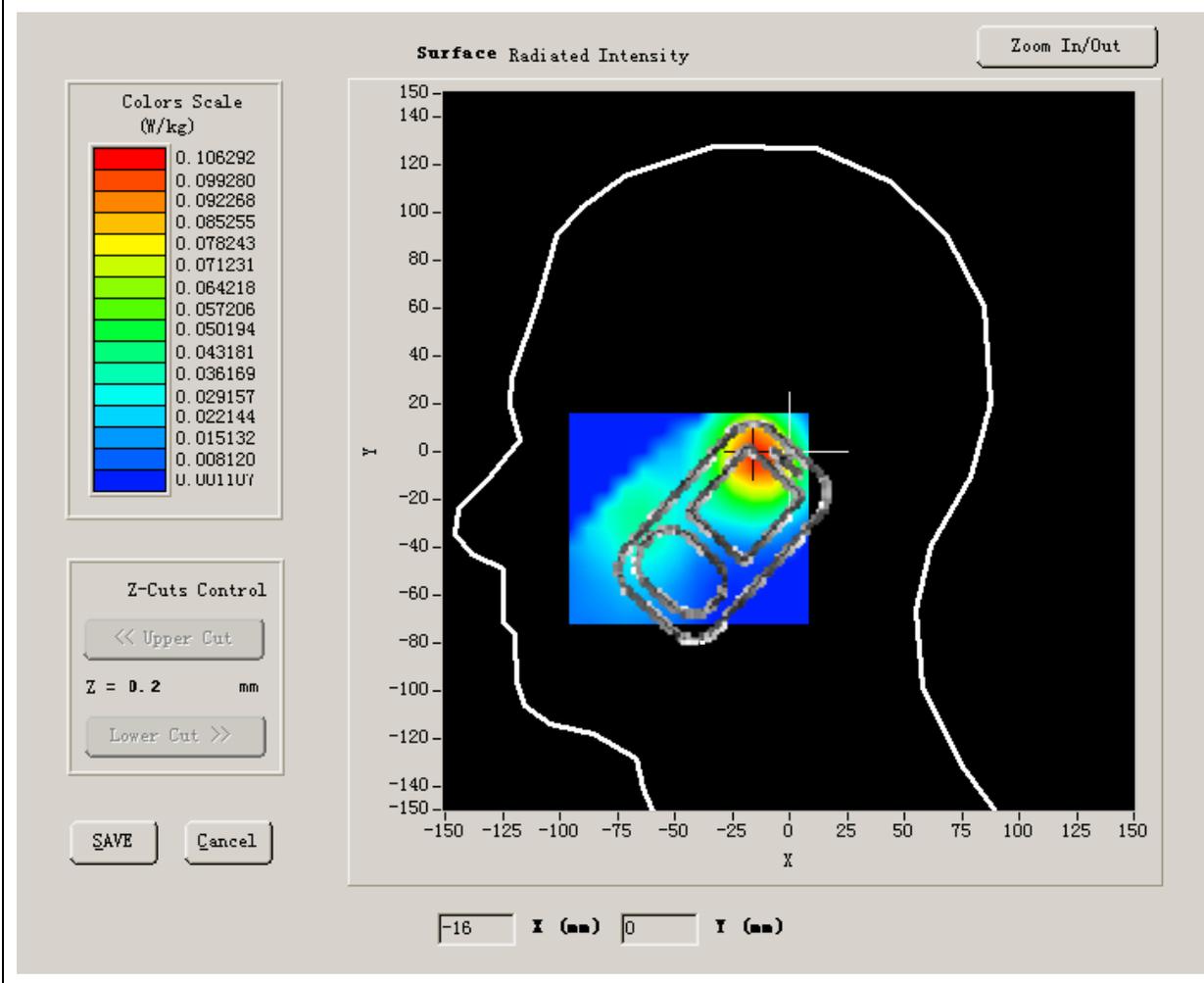
B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

Conductivity (S/m)	1.436111
Variation (%)	1.190000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



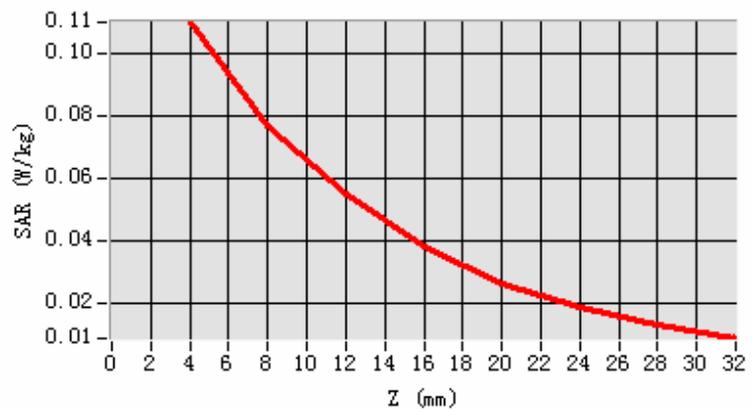
Maximum location: X=-15.00, Y=0.00

SAR 10g (W/Kg)	0.062241
SAR 1g (W/Kg)	0.103674

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1097	0.0764	0.0551	0.0379	0.0262	0.0188	0.0134

SAR, Z Axis Scan (X = -15, Y = 0)



MEASUREMENT 30

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 8 minutes 11 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	TDMA

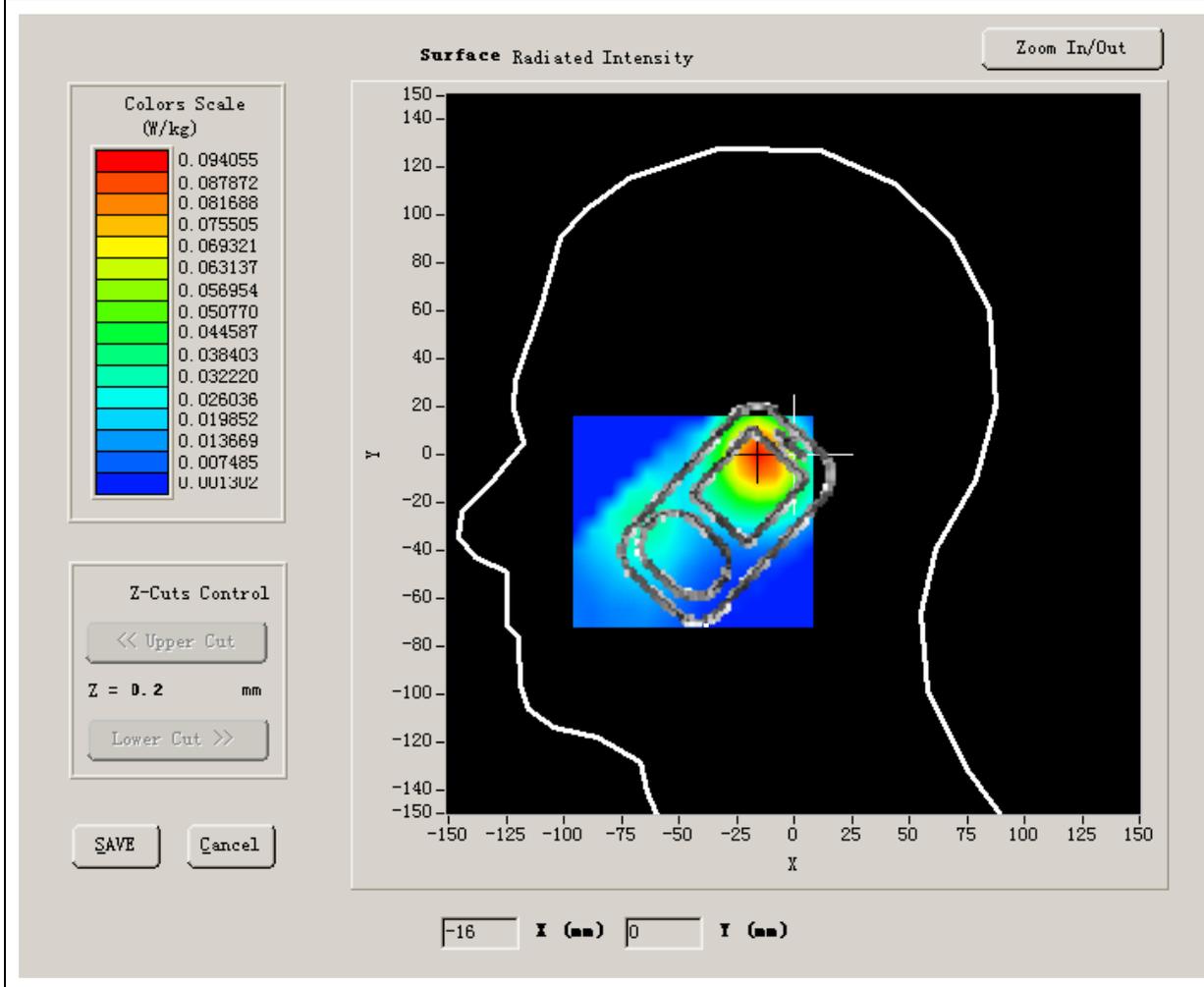
B. SAR Measurement Results

Higher Band SAR (Channel 809):

Frequency (MHz)	1909.599976
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500

Conductivity (S/m)	1.395758
Variation (%)	0.270000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR

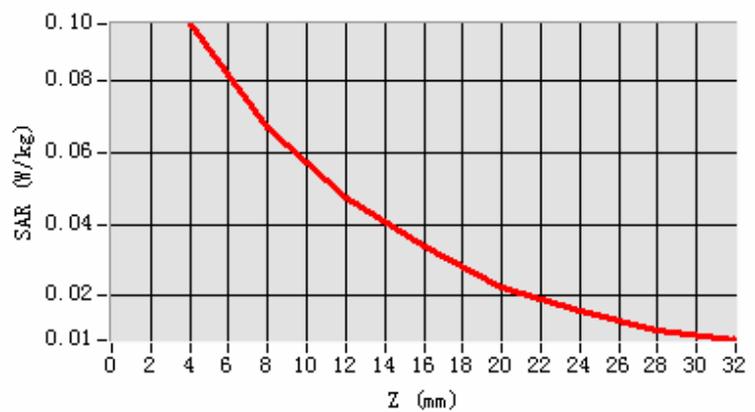


SAR 10g (W/Kg)	0.053469
SAR 1g (W/Kg)	0.090033

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.0957	0.0667	0.0476	0.0340	0.0223	0.0160	0.0107

SAR, Z Axis Scan (X = -15, Y = 0)



MEASUREMENT 31

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 4 seconds

A. Experimental conditions.

Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA

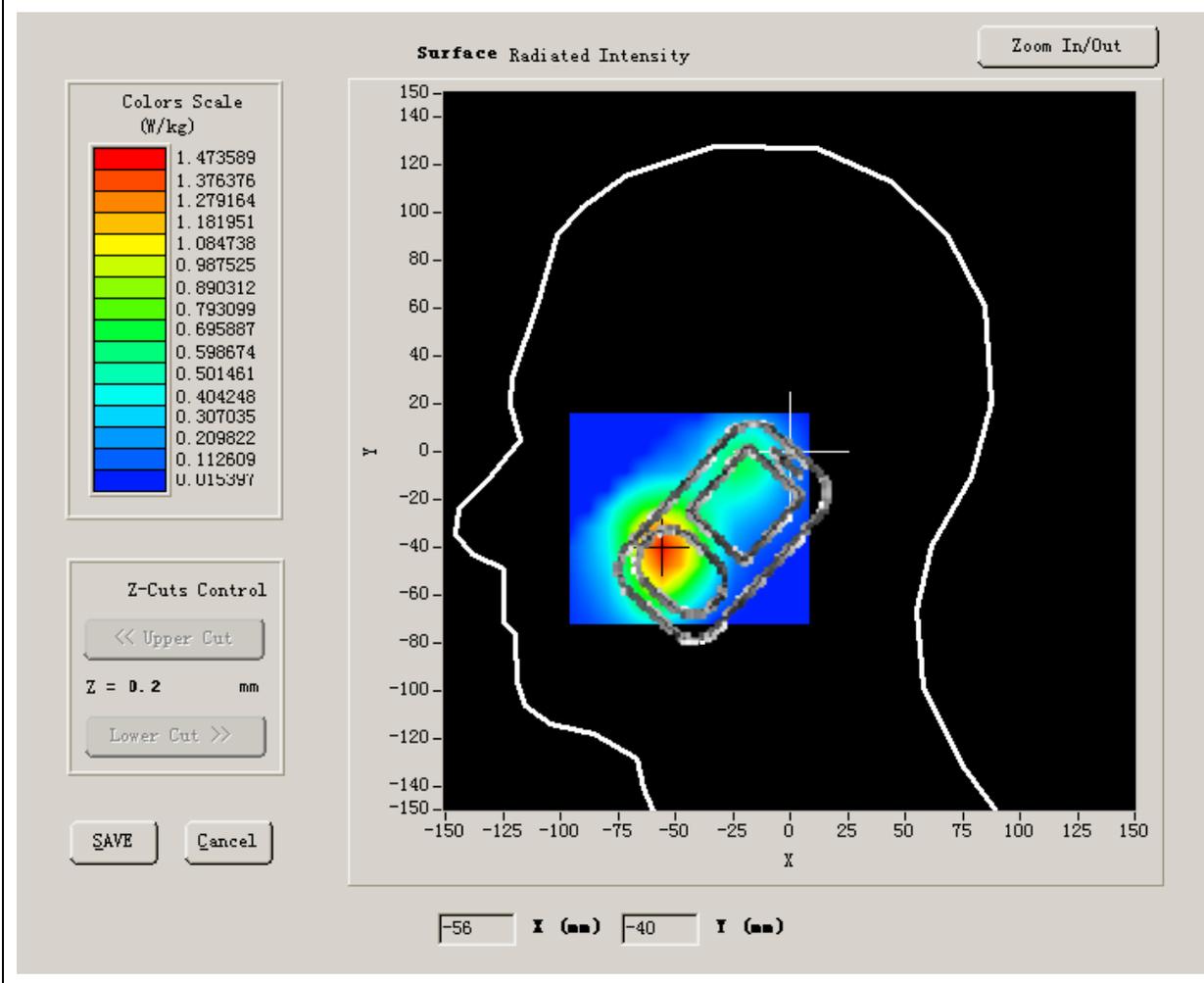
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

Conductivity (S/m)	1.335542
Variation (%)	-2.150000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=-56.00, Y=-40.00

SAR 10g (W/Kg)	0.790623
SAR 1g (W/Kg)	1.459720

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	1.5443	0.9088	0.6185	0.4071	0.2719	0.1727	0.1119

SAR, Z Axis Scan (X = -56, Y = -40)



MEASUREMENT 32

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 49 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Low
Signal	TDMA

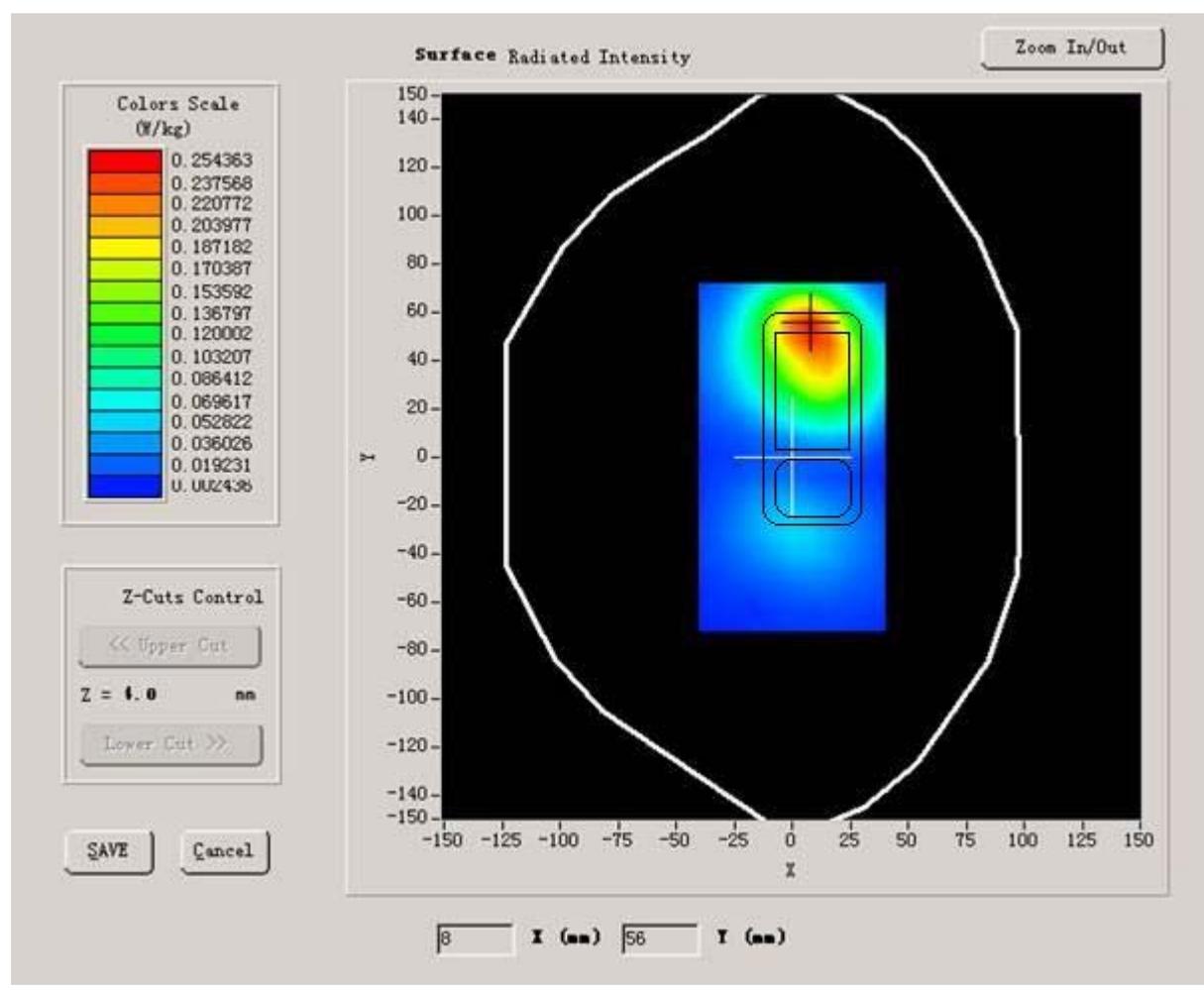
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	10.000000
Relative permittivity	12.000000

Conductivity (S/m)	1.233600
Variation (%)	-2.280000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



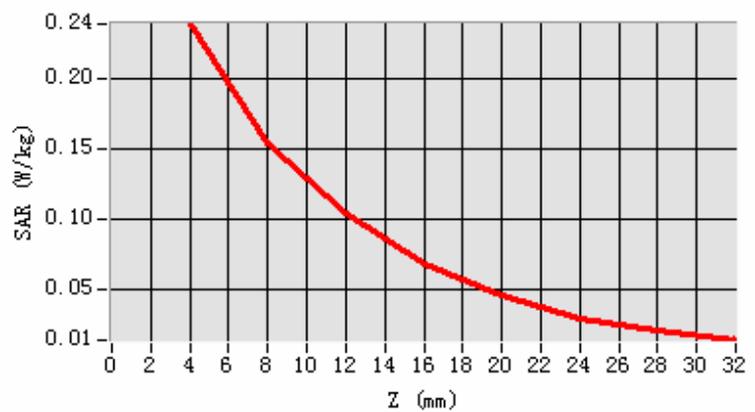
Maximum location: X=8.00, Y=54.00

SAR 10g (W/Kg)	0.130161
SAR 1g (W/Kg)	0.225796

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2386	0.1546	0.1043	0.0683	0.0458	0.0297	0.0212

SAR, Z Axis Scan (X = 8, Y = 54)



MEASUREMENT 33

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 49 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA

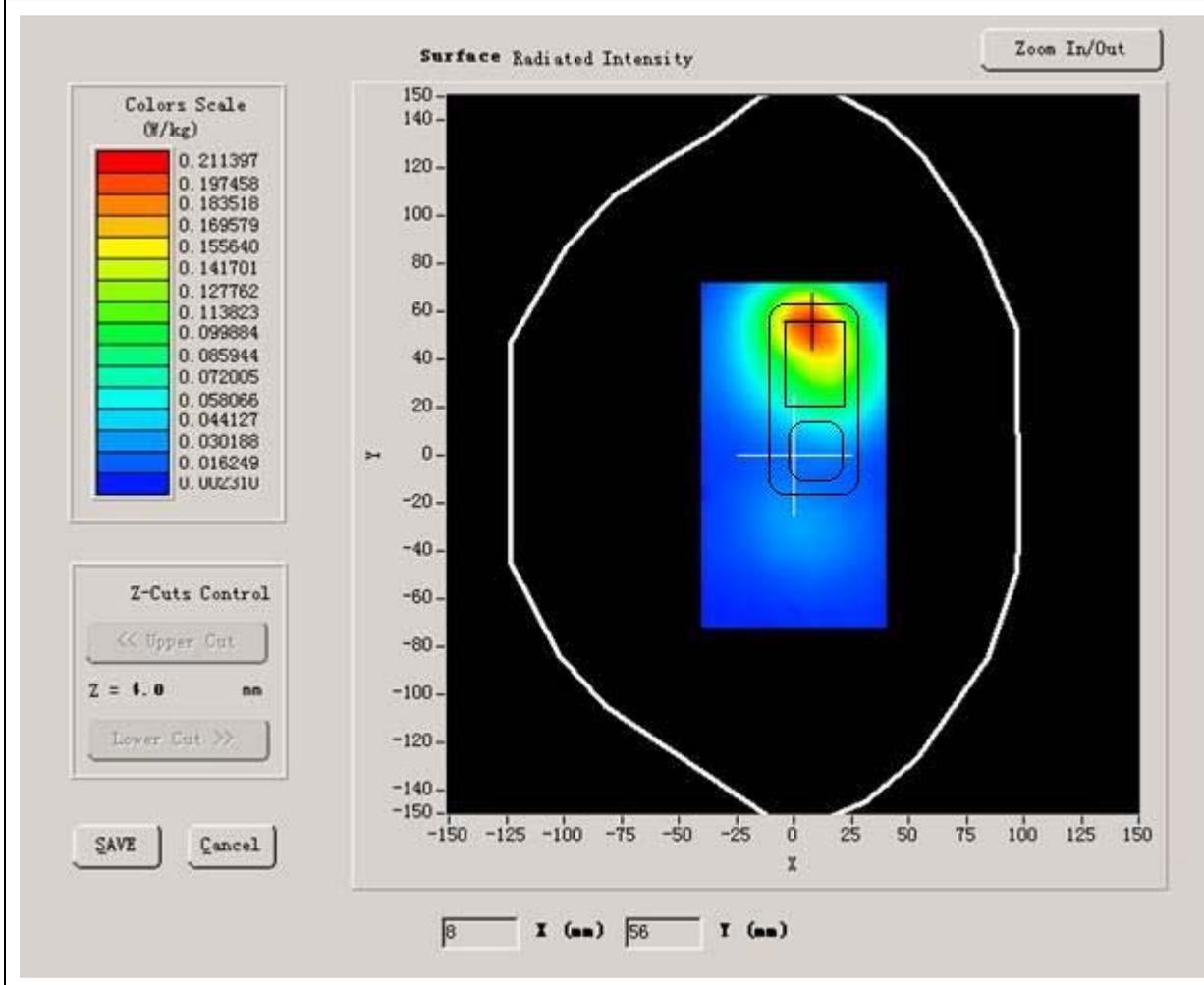
B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	51.540001
Relative permittivity	15.070000

Conductivity (S/m)	1.573978
Variation (%)	0.030000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=7.00, Y=55.00

SAR 10g (W/Kg)	0.125973
SAR 1g (W/Kg)	0.223193

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.2366	0.1534	0.1028	0.0677	0.0437	0.0292	0.0199

SAR, Z Axis Scan (X = 7, Y = 55)



MEASUREMENT 34

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 45 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	TDMA

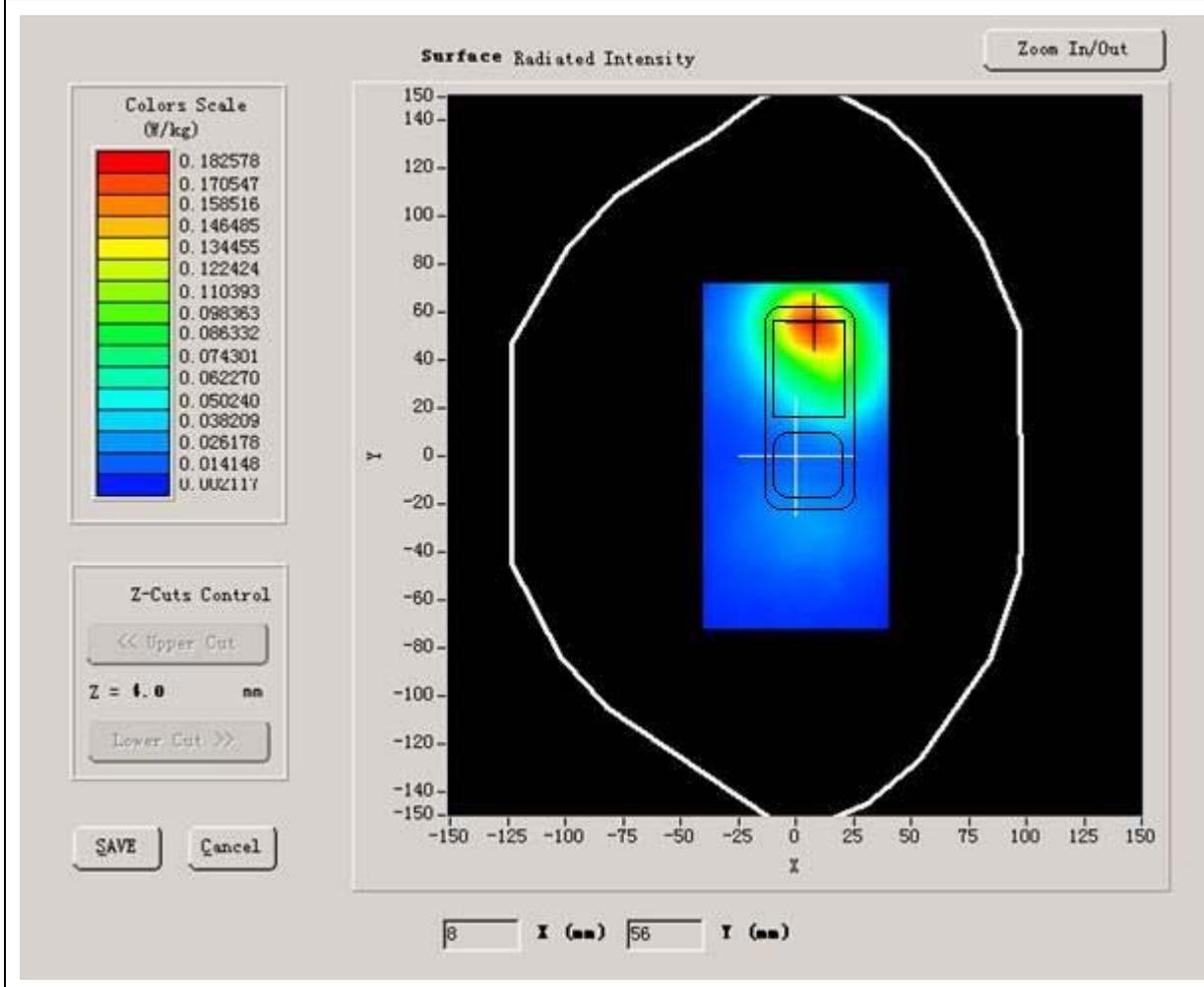
B. SAR Measurement Results

Higher Band SAR (Channel 809):

Frequency (MHz)	1909.599976
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

Conductivity (S/m)	1.273067
Variation (%)	0.820000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



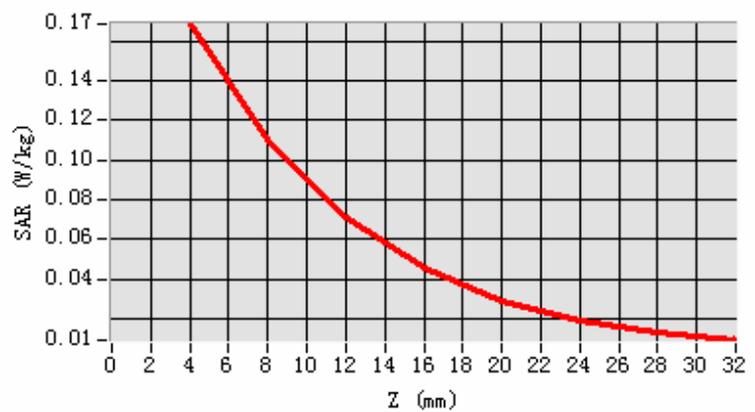
Maximum location: X=8.00, Y=55.00

SAR 10g (W/Kg)	0.087777
SAR 1g (W/Kg)	0.157558

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.1684	0.1104	0.0712	0.0451	0.0290	0.0193	0.0131

SAR, Z Axis Scan (X = 8, Y = 55)





MEASUREMENT 35

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 53 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Low
Signal	TDMA

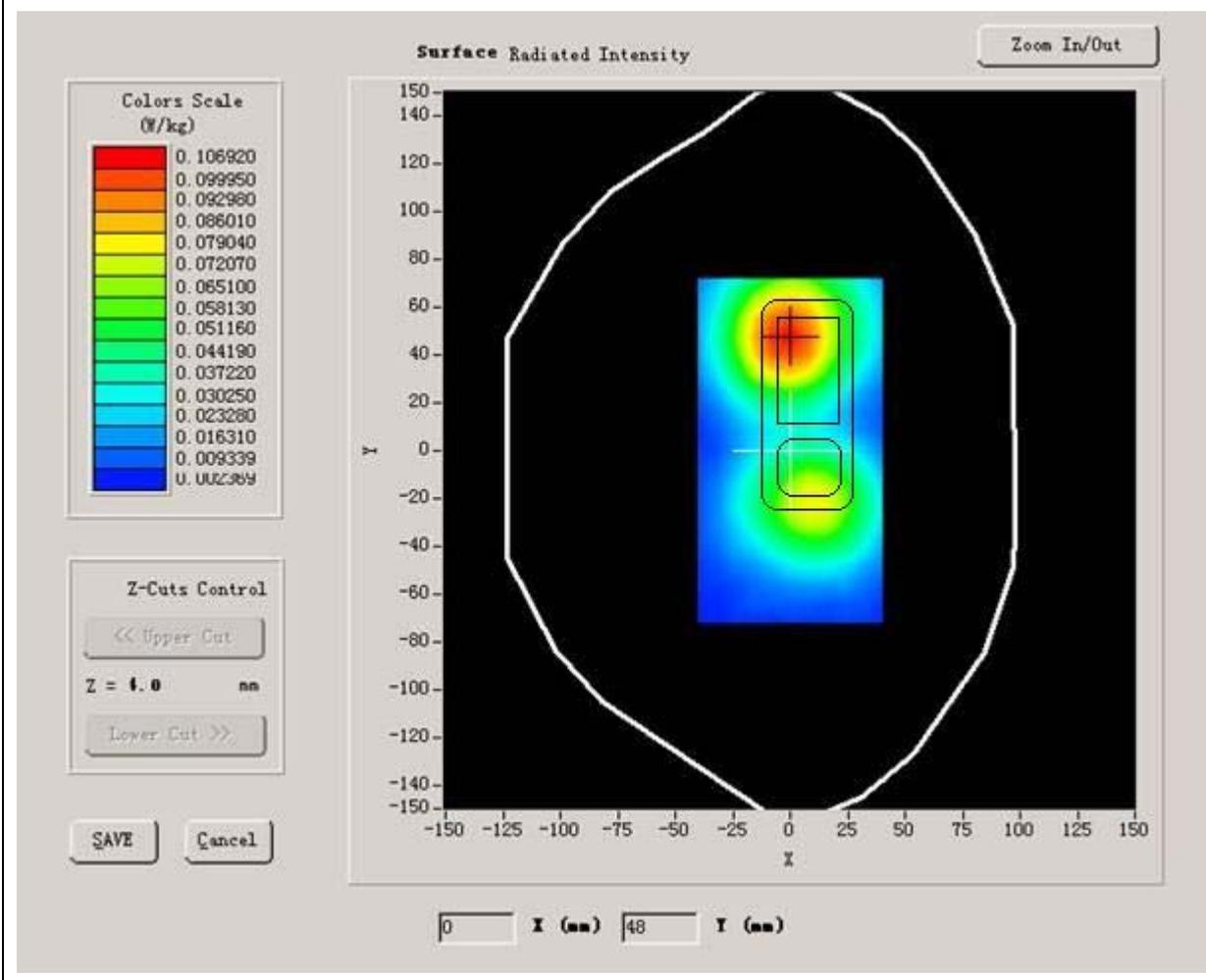
C. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

Conductivity (S/m)	1.233600
Variation (%)	3.920000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR

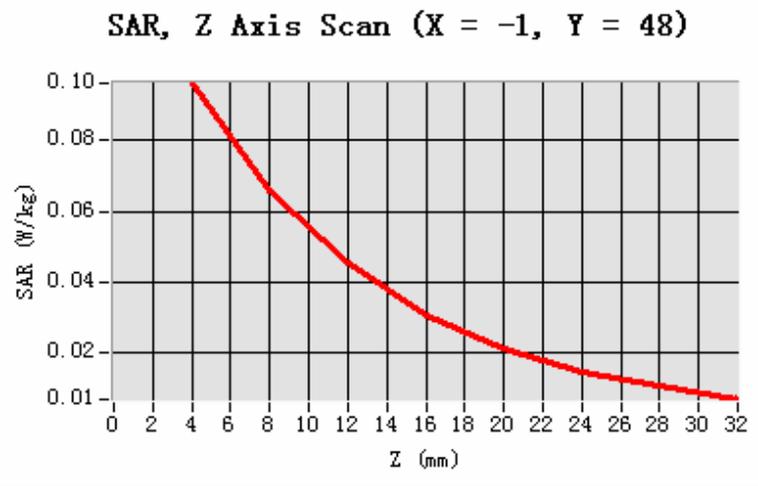


Maximum location: X=-1.00, Y=48.00

SAR 10g (W/Kg)	0.057061
SAR 1g (W/Kg)	0.094007

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.0960	0.0657	0.0454	0.0304	0.0211	0.0147	0.0108





MEASUREMENT 36

Type: Phone measurement (Complete)

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

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

Date of measurement: 6/3/2009

Measurement duration: 9 minutes 51 seconds

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Low
Signal	TDMA

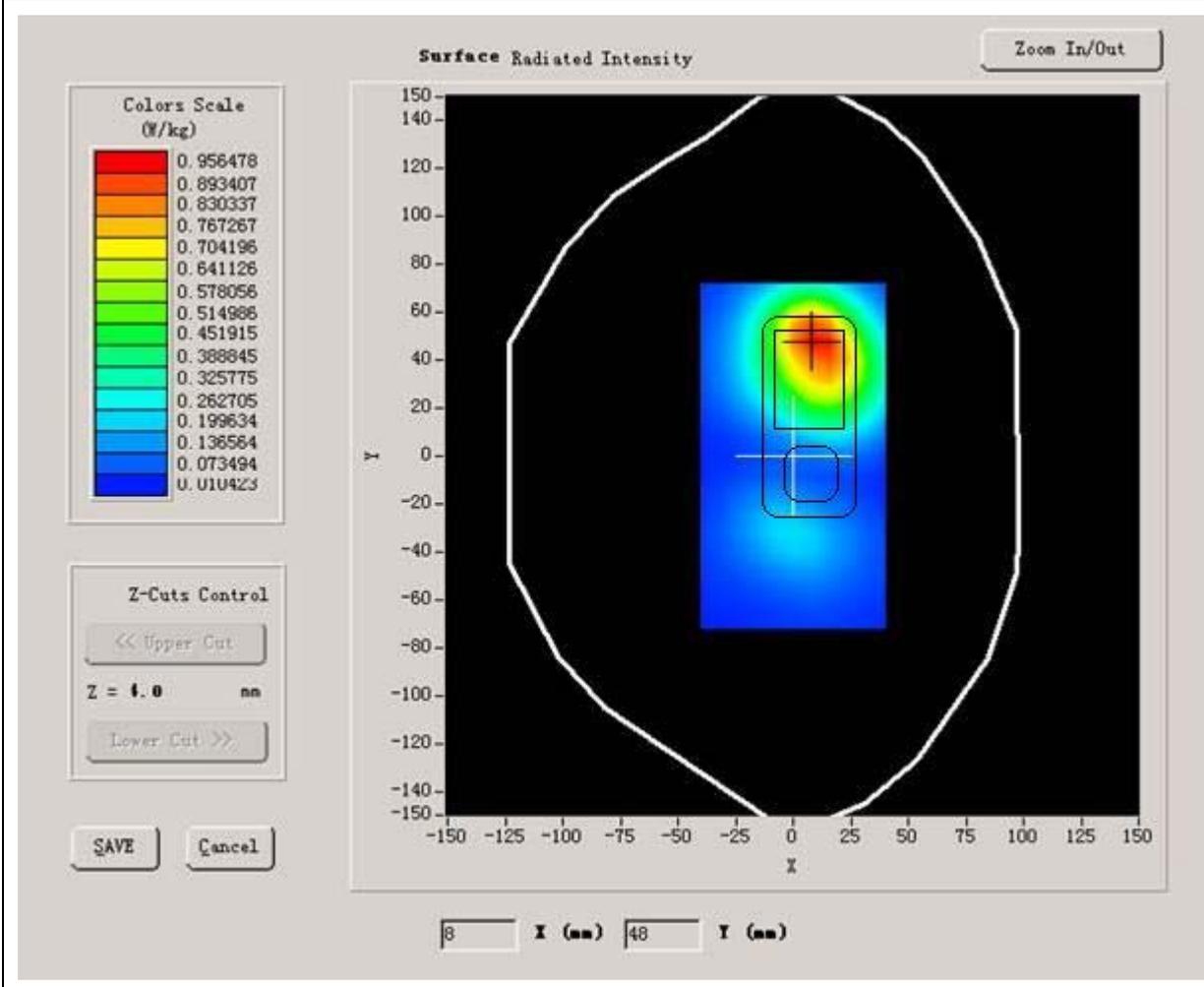
B. SAR Measurement Results

Lower Band SAR (Channel 513):

Frequency (MHz)	1850.400024
Relative permittivity (real part)	10.000000
Relative permittivity	12.000000

Conductivity (S/m)	1.233600
Variation (%)	-0.160000
Ambient Temperature:	21.5°C
Liquid Temperature:	21.5°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

VOLUME SAR



Maximum location: X=11.00, Y=48.00

SAR 10g (W/Kg)	0.048089
SAR 1g (W/Kg)	0.086669

Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00
SAR (W/Kg)	0.0000	0.9125	0.5491	0.3622	0.2299	0.1463	0.0989	0.0643

SAR, Z Axis Scan (X = 11, Y = 48)



System Performance Check Data(835MHz Head)

Type: Phone measurement (Complete)

Date of measurement: 6/3/2009

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

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

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM 835MHz
Channels	
Signal	GSM

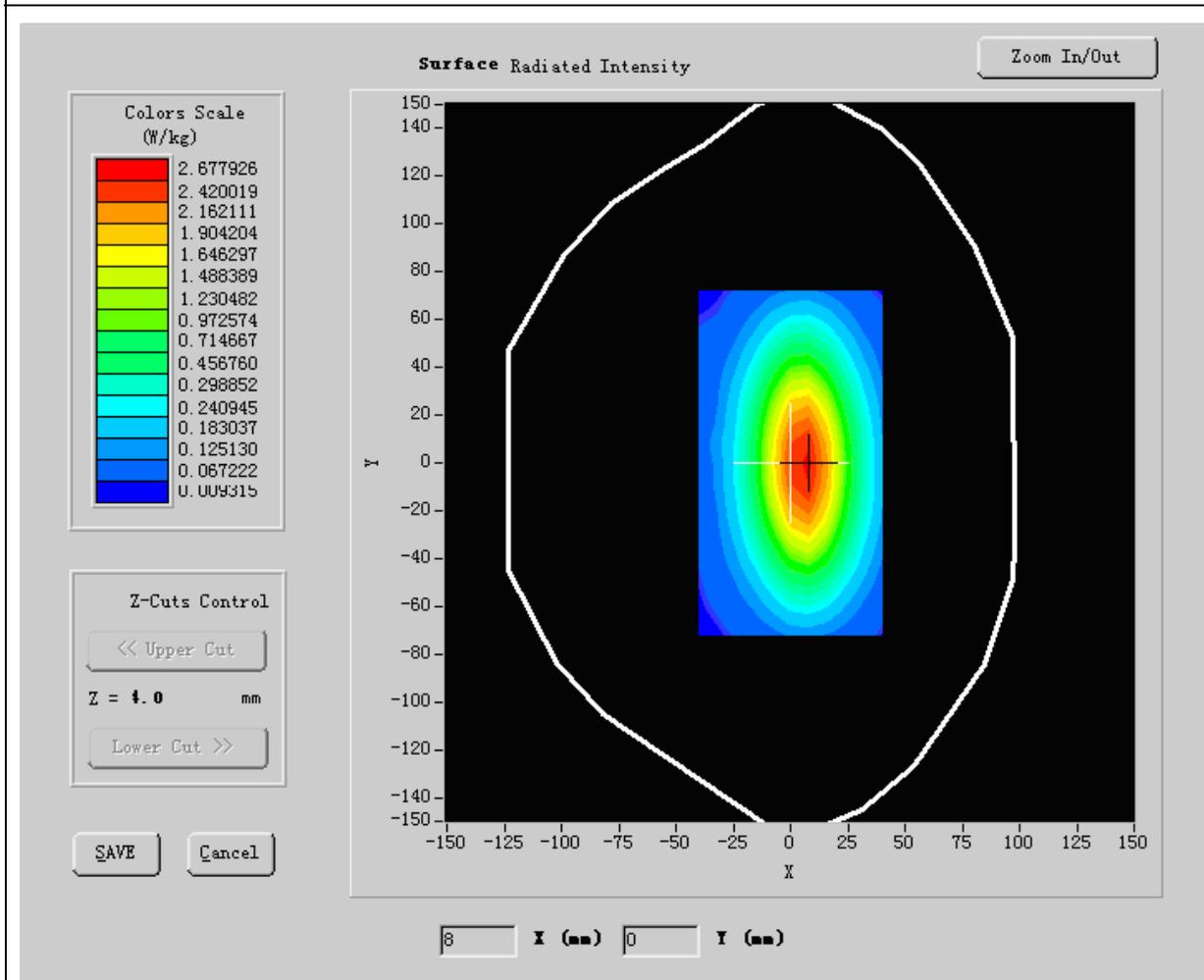
B. SAR Measurement Results

Middle Band SAR:

Frequency (MHz)	835.00000
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary part)	18.926250

Conductivity (S/m)	0.866612
Variation (%)	-0.050000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

SURFACE SAR



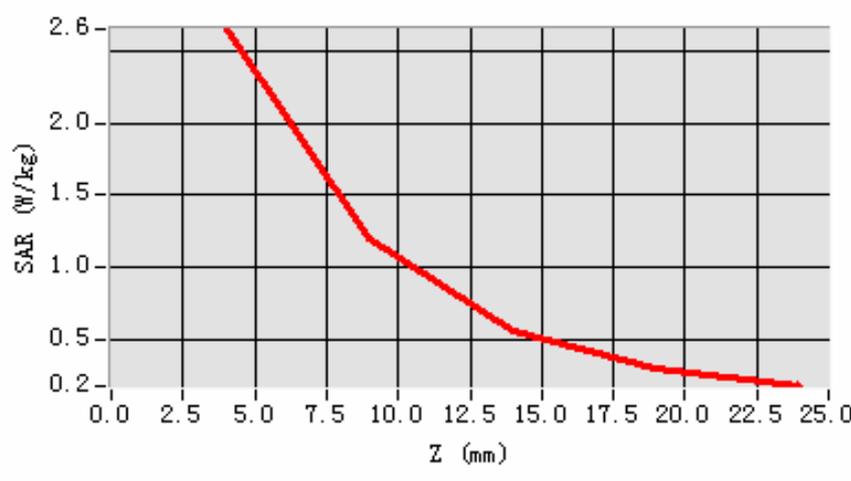
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.875252
SAR 1g (W/Kg)	2.709422

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	2.6486	1.2069	0.5583	0.3002

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



System Performance Check Data(835MHz Body)

Type: Phone measurement (Complete)

Date of measurement: 6/3/2009

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

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

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM 835MHz
Channels	
Signal	GSM

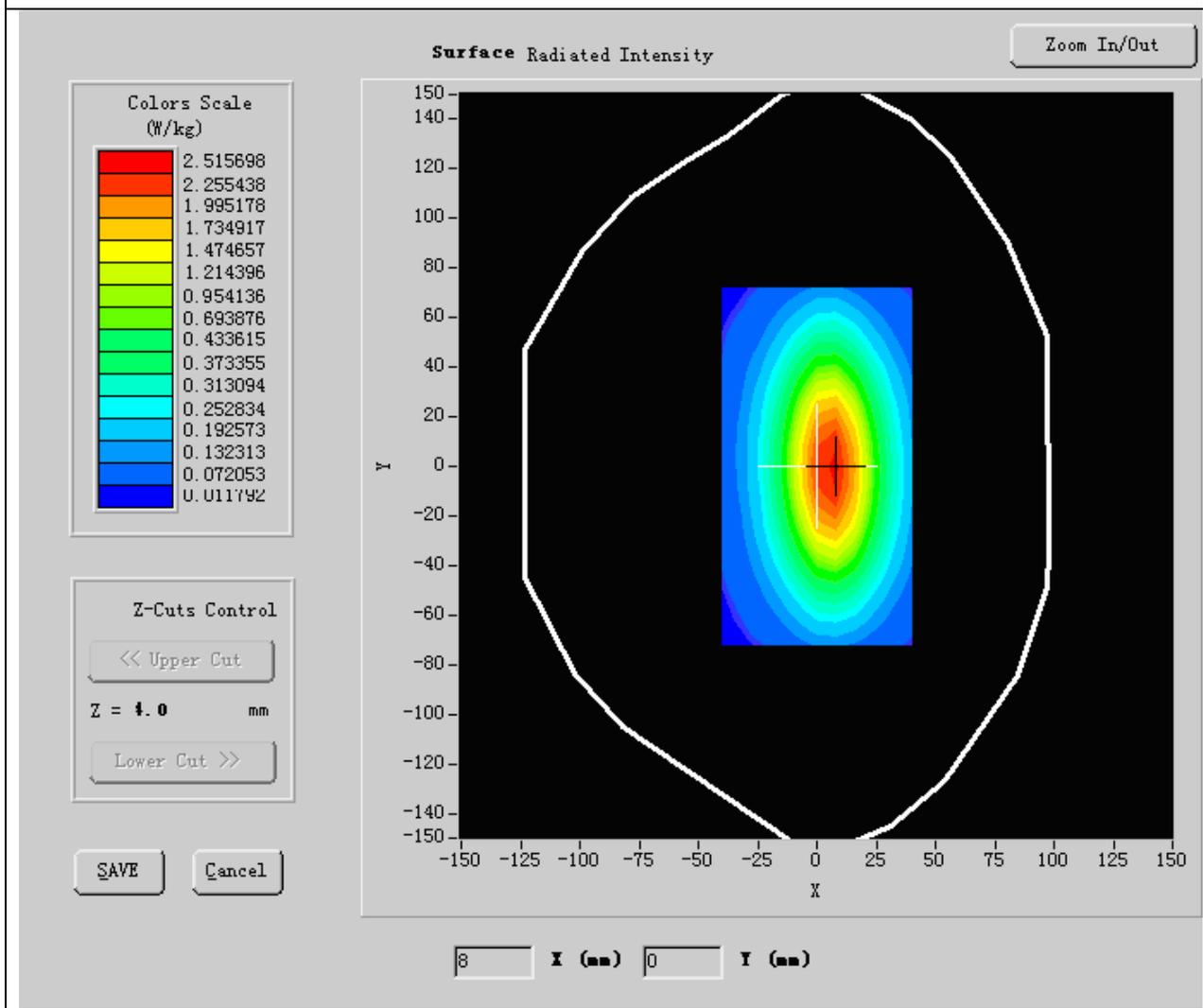
B. SAR Measurement Results

Middle Band SAR:

Frequency (MHz)	835.000000
Relative permittivity (real part)	54.872231
Relative permittivity (imaginary part)	15.070000

Conductivity (S/m)	1.054822
Variation (%)	-0.140000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

SURFACE SAR



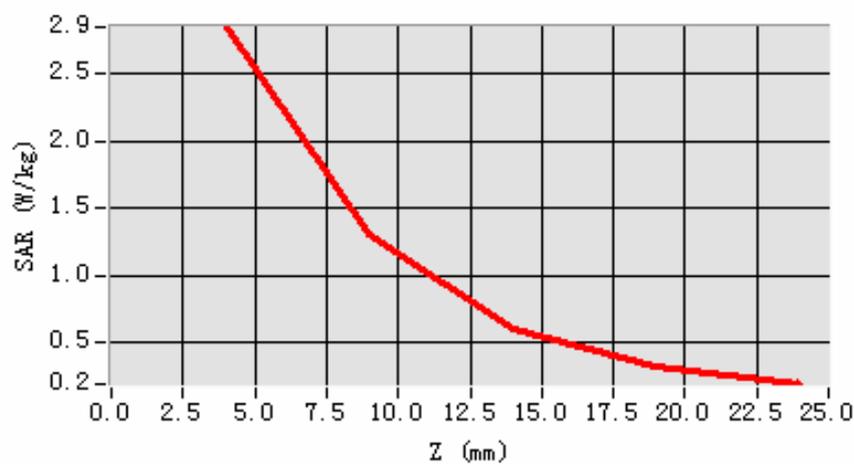
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.652852
SAR 1g (W/Kg)	2.701584

Z Axis Scan

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

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



System Performance Check Data(1900MHz Head)

Type: Phone measurement (Complete)

Date of measurement: 6/3/2009

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

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

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	
Signal	GSM

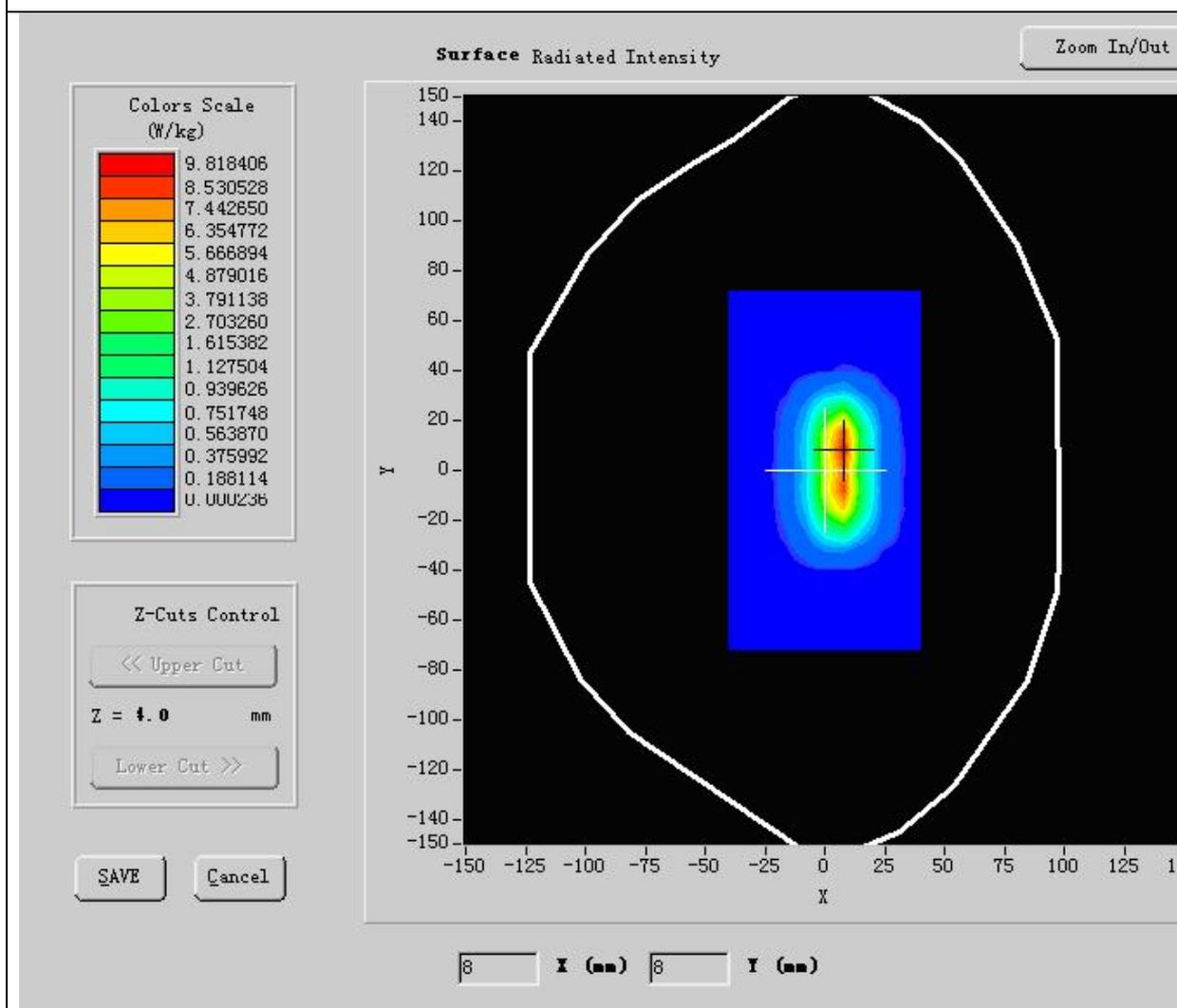
B. SAR Measurement Results

Lower Band SAR:

Frequency (MHz)	1900.000000
Relative permittivity (real part)	39.481223
Relative permittivity (imaginary part)	12.991650

Conductivity (S/m)	1.395758
Variation (%)	0.570000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

SURFACE SAR



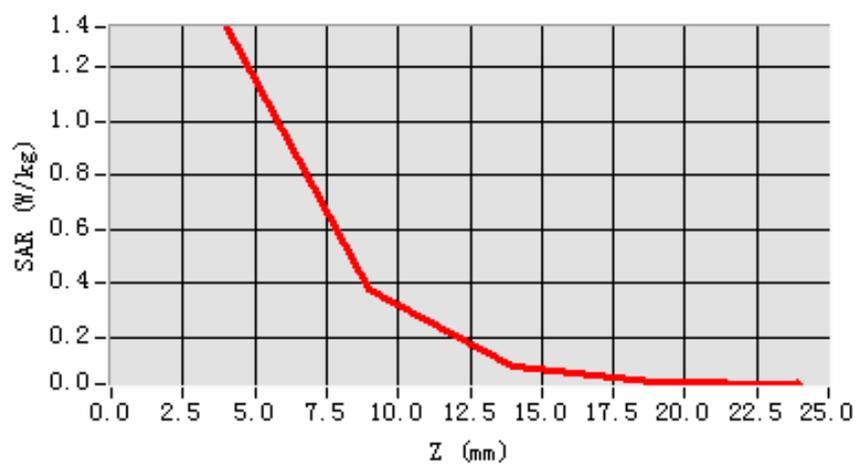
Maximum location: X=7.00, Y=8.00

SAR 10g (W/Kg)	5.873331
SAR 1g (W/Kg)	9.843651

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3503	0.3791	0.0904	0.0338

SAR, Z Axis Scan (X = 7, Y = 8)



System Performance Check Data(1900MHz Body)

Type: Phone measurement (Complete)

Date of measurement: 6/3/2009

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

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

A. Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	
Signal	TDMA(Crest factor: 8.0)

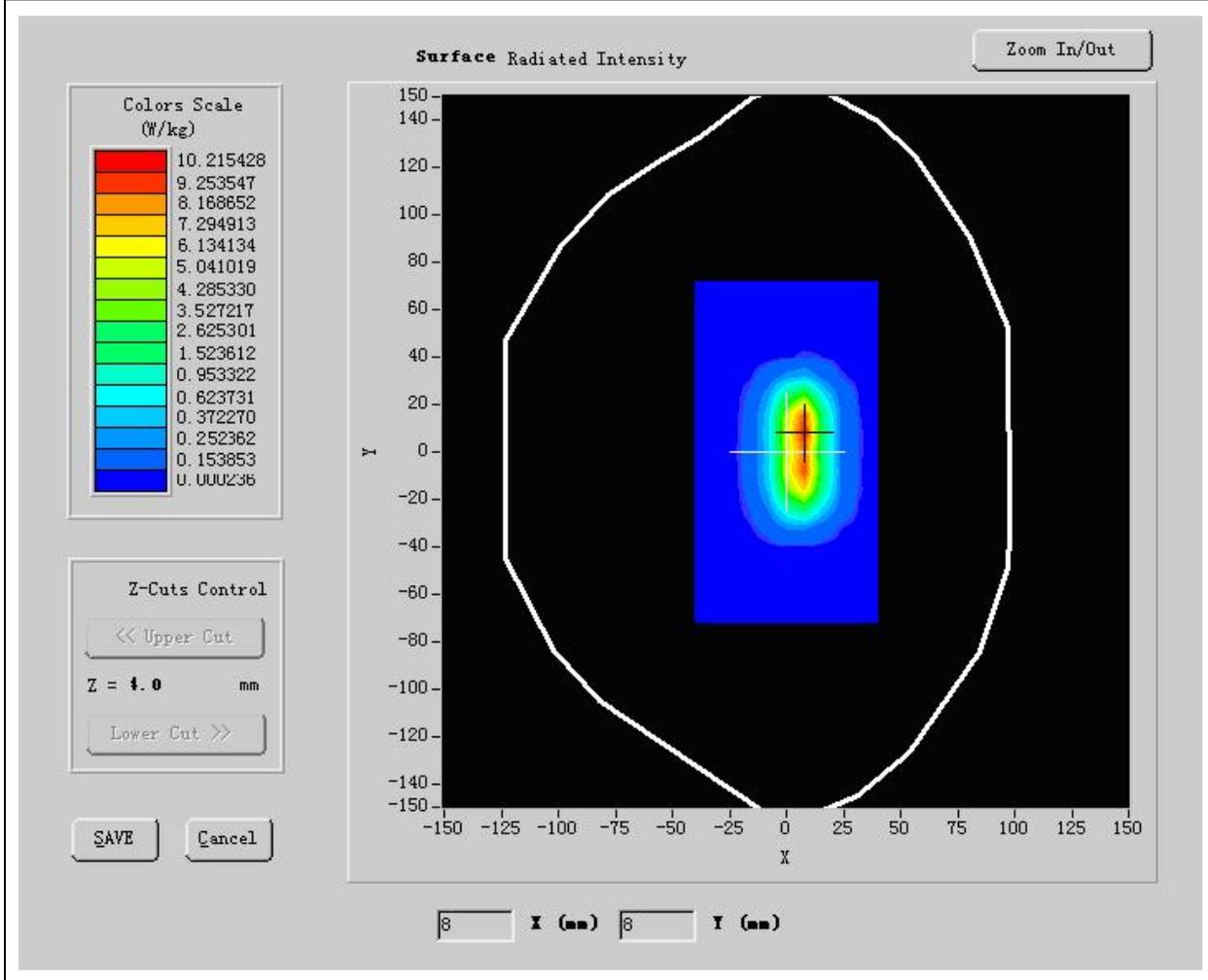
B. SAR Measurement Results

Lower Band SAR:

Frequency (MHz)	1900.000000
Relative permittivity (real part)	52.548876
Relative permittivity (imaginary part)	12.991650

Conductivity (S/m)	1.573978
Variation (%)	0.570000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
Probe Serial Number:	SN_3708_EP80
Crest factor:	1:8.2

SURFACE SAR



Maximum location: X=7.00, Y=8.00

SAR 10g (W/Kg)	5.487222
SAR 1g (W/Kg)	10.225723

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3503	0.3791	0.0904	0.0338

SAR, Z Axis Scan (X = 7, Y = 8)

