FCC SAR

TEST REPORT

of

USB MODULE

Model Name: U100
Trade Name: PARAGON
Report No.: SZ09070075S01
FCC ID: XN9-U560FW-U100

prepared for

New Wireless Technology Co.Ltd
Room 1404 Tian'an Hi-Tech Plaza Tower A, Futian District, Shenzhen, China

and prepared by

Shenzhen Electronic Product Quality Testing Center
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Contents

General Information

1.1. Notes

The test results of this test report relate exclusively to the information specified in section 3.3. Shenzhen Electronic Product Quality Testing Center Morlab Laboratory does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the identification. The test report may only be reproduced or published in full. Reproduction or publications of extracts from the test report requires the prior written approval of Shenzhen Electronic Product Quality Testing Center Morlab Laboratory. The test report shall be invalid without all the signatures of testing the Project Manager, the Deputy Project Manager and the Test Lab Manager. Any objections must be raised to Morlab within 30 days since the date when the report is received. It will not be taken into consideration beyond this limit.

1.2. Organization item

Report No.:	SZ09070075S01
Date of Issue:	Aug 25, 2009
Date of Tests:	Aug 17, 2009 –Aug 17, 2009
Responsible for Accreditation:	Shu luan
Project Manager:	Chenchao
Deputy Project Manager:	Li Lei

1.3. Conclusion

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory has verified that all tests as listed in the section 4.6 of this report haven been performed successfully with the tested equipment.

Chenchao
Tested by
(Responsible for the Test Report)

Li Lei
Reviewed by
(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 Annex A)

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 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:	New Wireless Technology Co.Ltd
Address:	Room 1404 Tian'an Hi-Tech Plaza Tower A, Futian District, Shenzhen, China

3.2. Identification of Manufacturer

Company Name:	New Wireless Technology Co.Ltd
Address:	Room 1404 Tian'an Hi-Tech Plaza Tower A, Futian District, Shenzhen, China

3.3. Equipment Under Test (EUT)

Brand Name:	PARAGON
Type Name:	PARAGON
Marking Name:	U100
Hardware Version:	U560-MB-V1.0
Software Version:	M3G-MONRPINO_SIBLEY_02.04.00
Frequency Bands:	WCDMA 850MHz(channel 4132: 826.00MHz, channel 4182:836.00MHz, channel 4233: 846.00MHz,) WCDMA 1900MHz(channel 9262: 1852.00MHz, channel 9400: 1880.00MHz, channel 9538: 1907.00MHz,)
Modulation Mode:	GSM 850MHz,GSM 1900MHz,WCDMA 850MHz,WCDMA 1900MHz
Antenna type:	Build inside

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	Hardware Version	Software Version
1#	U560-MB-V1.0	M3G-MONRPINO_SIBLEY_02.04.00
2#	U560-MB-V1.0	M3G-MONRPINO_SIBLEY_02.04.00

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 Techuiques.

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)	=	4.75V
	Low Voltage (LV)	=	5.0V
	High Voltage (HV)	=	5.25V
Test frequency:	WCDMA 850MHz,WCDMA 1900MHz		
Operation mode:	Call established		
Power Level:	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 128, 190 and 251 respectively in the case of is allocated to 4132, 4182 and 4233 respectively in the case of WCDMA 850MHz and is allocated to 9262, 9400 and 9538 respectively in the case of WCDMA 1900MHz, 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

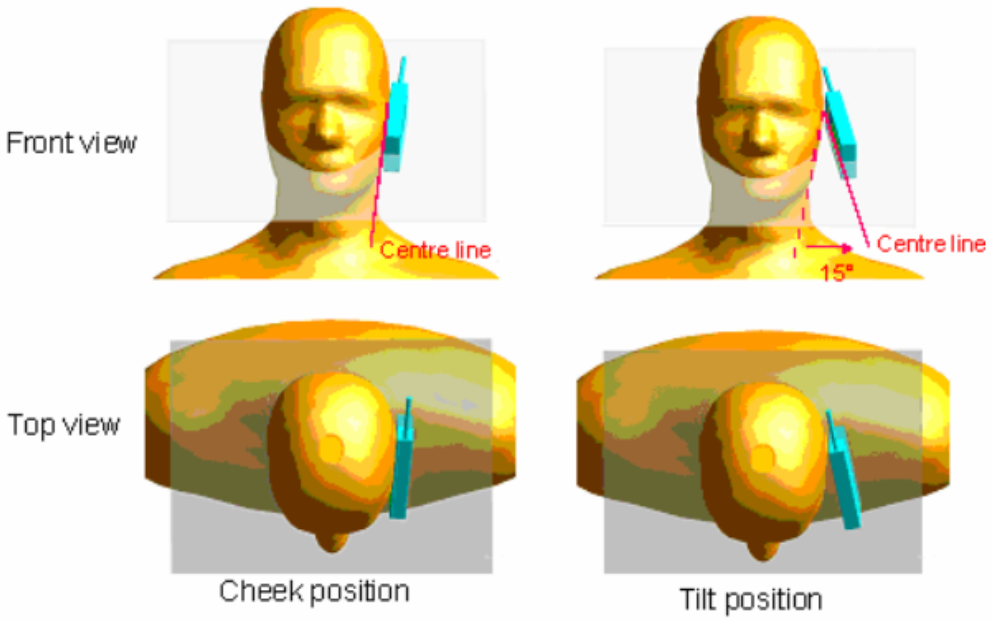
I.1. Normative reference

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:

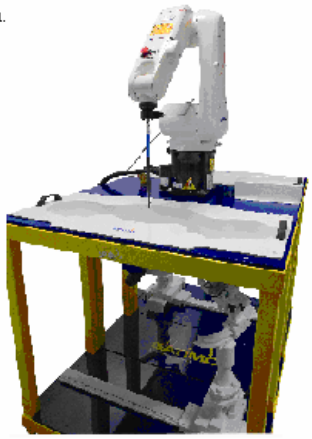
The mobile phone is well place in the "cheek" position as described above. Then the mobile phone is moved outward away from the mouth by an angle of 15 degrees or until contact with the ear lost.

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 suface 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 Algoritms 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
Directional coupler	450MHz-3GHz
Amplifier	3W 502(10-2500MHz)
Reference dipole	SN 36/08 DIPF 101

Results:

Frequency	835MHz
Target value（1g）	10.8 W/Kg(body)
250 mW input power	2.48 W/Kg (body)
Test value（1g）	9.92 W/Kg (body)

Note:Please refer to check the system performance data, the first 194-199 page. 250 mW input power

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.

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 1: 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	56.1	0.95
Validation value (Aug 17)	835 MHZ	54.540001	0.975187
Target value	1900 MHz	54	1.45
Validation value (Aug 17)	1900 MHz	53.345554	1.428747

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	
Tissue Type	Head	Body	Head	Body
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	0.38	1.45

4.4. 3G MEASUREMENT PROCEDURES

4.4.1. Procedures Used To Establish Test Signal

The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluating SAR. SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement software calculates a reference point at the start and end of the test to check for power drifts. If conducted power deviations of more then 5% occurred, the tests were repeated.

4.4.2. SAR Measurement Conditions for WCDMA

These procedures were followed according to FCC KDB 941225, October, 2007.

4.4.3. 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 “1s”. Results for all applicable physical channel configurations (DPCCH, DPDCHn 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.

4.4.4. Body SAR Measurement

SAR for body exposure configurations is measured using the 12.2 kbps RMC with TPC bits configured to all “1s”.

4.5. Items used in the Test Results List

Terms in the column “Verdict” for the test results list of the section 4.6:

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

4.6. Test Results List

Summary of Measurement Results (WCDMA 850MHz Band)
SAR Values (WCDMA 850MHz Band), Measured against the body0.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.2	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Validation Plane with Body device position on Low Channel in WCDMA mode（Horizontal-Up）	0.403	21.23
Validation Plane with Body device position on Middle Channel in WCDMA mode（Horizontal-Up）	0.510	23.70
Validation Plane with Body device position on High Channel in WCDMA mode（Horizontal-Up）	0.378	22.93
Validation Plane with Body device position on Low Channel in WCDMA mode（Horizontal-Down）	0.555	21.23
Validation Plane with Body device position on Middle Channel in WCDMA mode（Horizontal-Down）	0.976	23.70
Validation Plane with Body device position on High Channel in WCDMA mode（Horizontal-Down）	0.481	22.93
Validation Plane with Body device position on Low Channel in WCDMA mode（Vertical-Front）	0.318	21.23
Validation Plane with Body device position on Middle Channel in WCDMA mode（Vertical-Front）	0.419	23.70
Validation Plane with Body device position on High Channel in WCDMA mode（Vertical-Front）	0.290	22.93
Validation Plane with Body device position on Low Channel in WCDMA mode（Vertical-Back）	0.186	21.23
Validation Plane with Body device position on Middle Channel in WCDMA mode（Vertical-Back）	0.305	23.70
Validation Plane with Body device position on High Channel in WCDMA mode（Vertical-Back）	0.210	22.93

Summary of Measurement Results (WCDMA 1900MHz Band)
SAR Values (WCDMA 1900MHz Band), Measured against the body0.

Temperature: 23.0~23.8°C, humidity: 54~60%.		
Limit of SAR (W/kg)	1 g Average	
	1.2	
Test Case	Measurement Result (W/kg)	
	1 g Average (W/kg)	Power level (dBm)
Validation Plane with Body device position on Low Channel in WCDMA mode（Horizontal-Up）	0.285	22.77
Validation Plane with Body device position on Middle Channel in WCDMA mode（Horizontal-Up）	0.408	21.93
Validation Plane with Body device position on High Channel in WCDMA mode（Horizontal-Up）	0.356	21.32
Validation Plane with Body device position on Low Channel in WCDMA mode（Horizontal-Down）	0.350	22.77
Validation Plane with Body device position on Middle Channel in WCDMA mode（Horizontal-Down）	0.500	21.93
Validation Plane with Body device position on High Channel in WCDMA mode（Horizontal-Down）	0.405	21.32
Validation Plane with Body device position on Low Channel in WCDMA mode（Vertical-Front）	0.234	22.77
Validation Plane with Body device position on Middle Channel in WCDMA mode（Vertical-Front）	0.381	21.93
Validation Plane with Body device position on High Channel in WCDMA mode（Vertical-Front）	0.260	21.32
Validation Plane with Body device position on Low Channel in WCDMA mode（Vertical-Back）	0.154	22.77
Validation Plane with Body device position on Middle Channel in WCDMA mode（Vertical-Back）	0.288	21.93
Validation Plane with Body device position on High Channel in WCDMA mode（Vertical-Back）	0.200	21.32

Note：1. 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 0.5cm(taking into account of the IEEE 1528 and the place of the antenna)
2. The separation distance is determined corroding to FCC KDB 447498 D01 Section 2(b)(ii)(1) states, the SAR value of 5mm distance is less than 50% of initial touching position.

Annex A 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

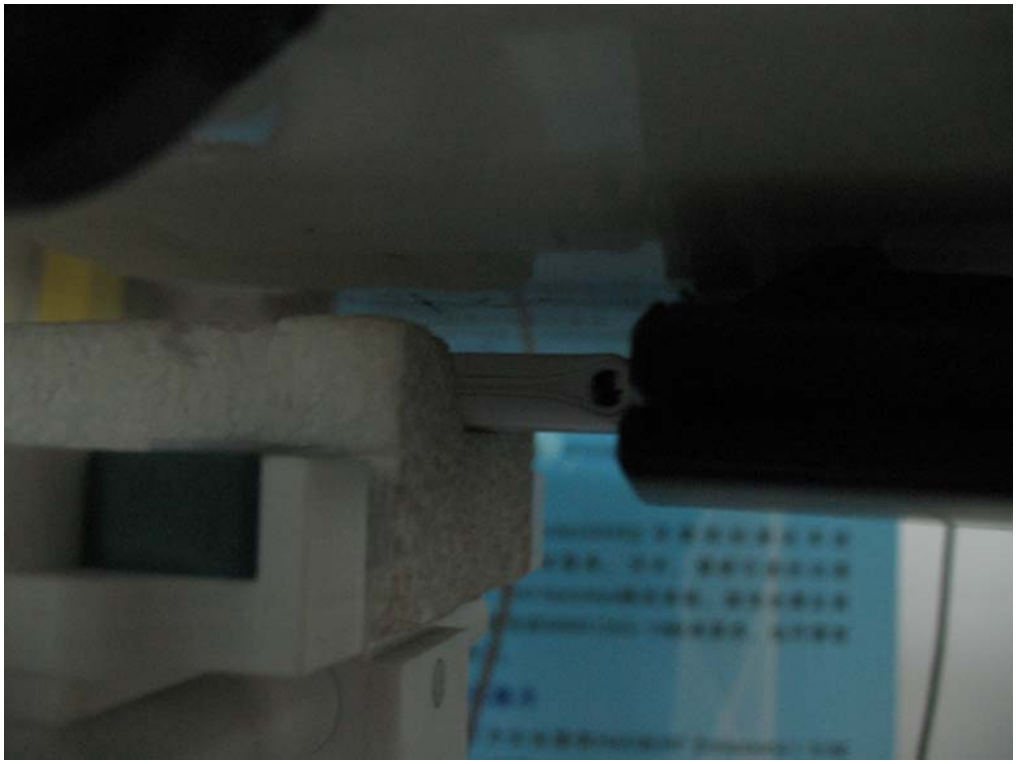
Date of Initial Accreditation: 1999-08-03

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 B Photographs of the EUT

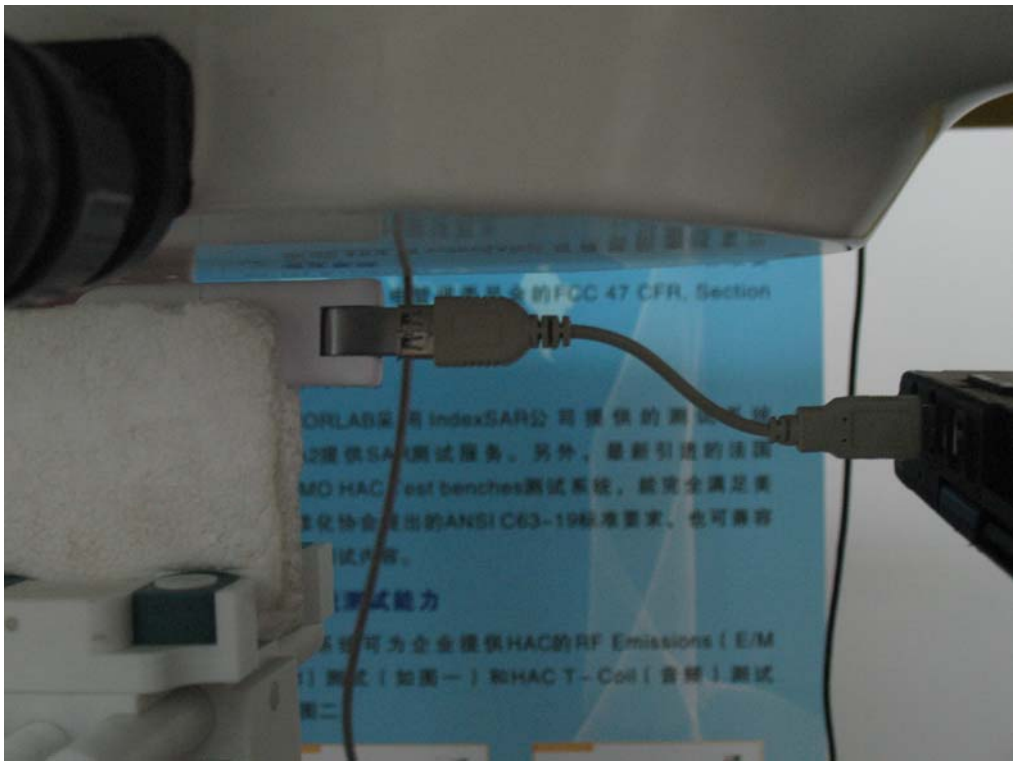
1 EUT Horizontal-Up(PC:IBM T42)



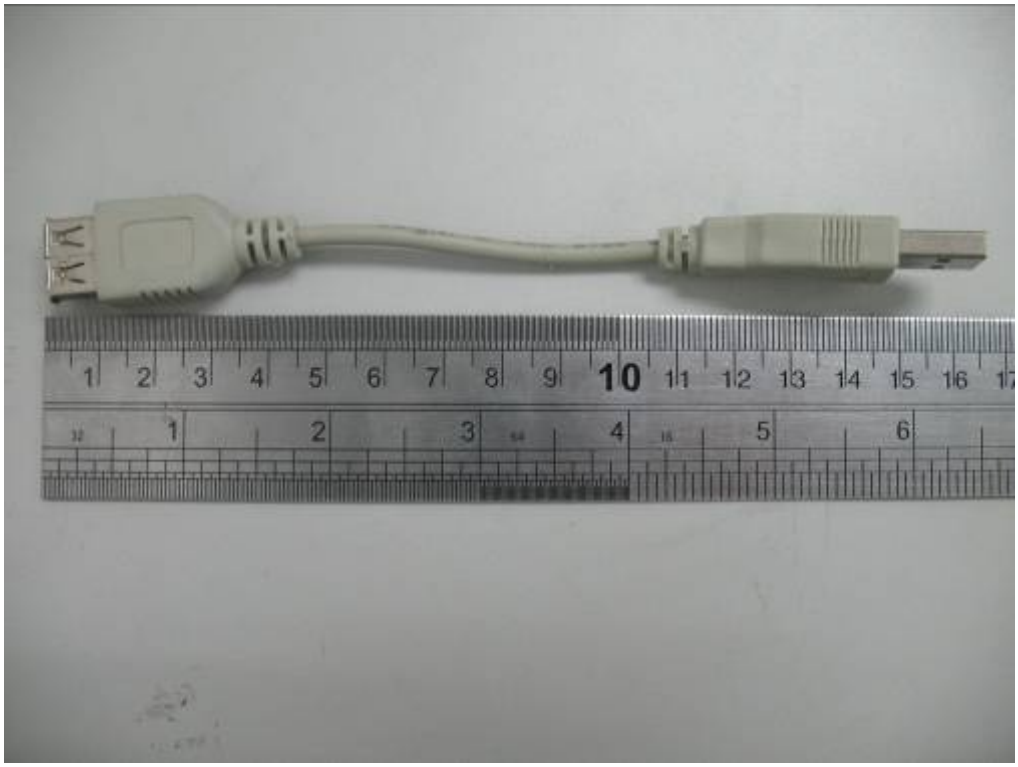
2 EUT Horizontal-Down

3 EUT Vertical-Front(PC:IBM T20)

4 EUT Vertical-Back



5 Data line



Annex C Graph Test Results

	WCDMA 850MHz	Validation Plane with Body device position on Low Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on High Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Back Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on High Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Vertical-Back**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Vertical-Back**） Validation Plane with Body device position on High Channel in WCDMA mode（**Vertical-Back**）
	WCDMA 1900MHz	Validation Plane with Body device position on Low Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on High Channel in WCDMA mode（**Horizontal-Up**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Back Channel in WCDMA mode（**Horizontal-Down**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on Middle

		Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on High Channel in WCDMA mode（**Vertical-Front**） Validation Plane with Body device position on Low Channel in WCDMA mode（**Vertical-Back**） Validation Plane with Body device position on Middle Channel in WCDMA mode（**Vertical-Back**） Validation Plane with Body device position on High Channel in WCDMA mode（**Vertical-Back**）

Note：1.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 5mm (taking into account of the IEEE 1528 and the place of the antenna)。

2. The separation distance is determined corroding to FCC KDB 447498 D01 Section 2(b)(ii)(1) states, the SAR value of 5mm distance is less than 50% of initial touching position.

MEASUREMENT 1

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 3 seconds

A. Experimental conditions.

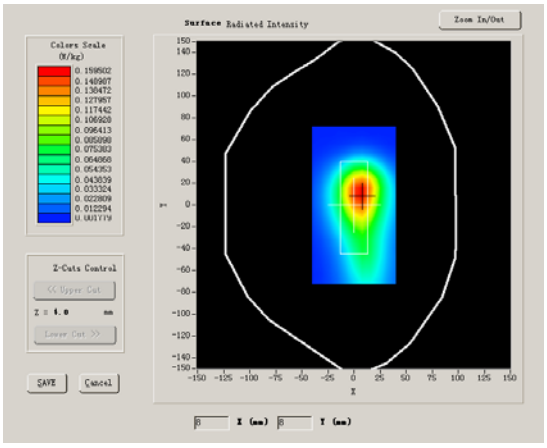
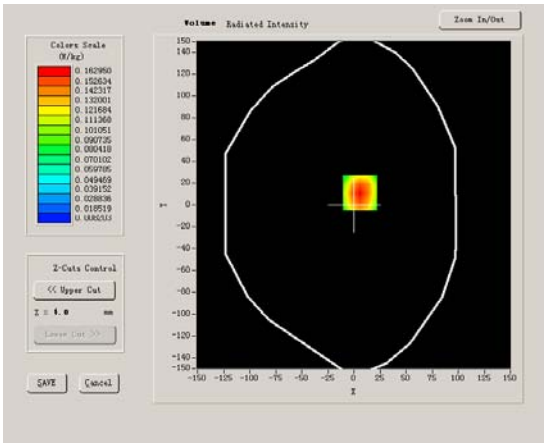
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 4132):

Frequency (MHz)	826.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.728580
Variation (%)	0.240000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

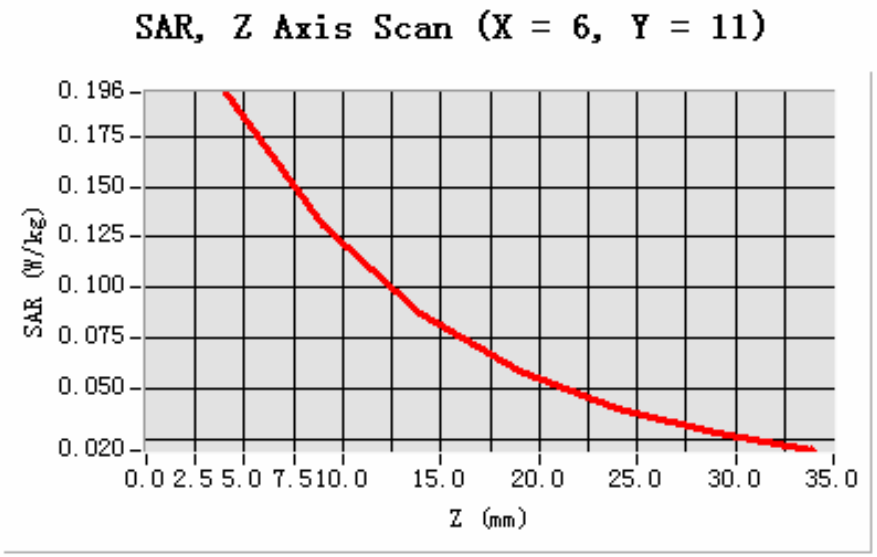
SURFACE SAR	**VOLUME SAR**
	

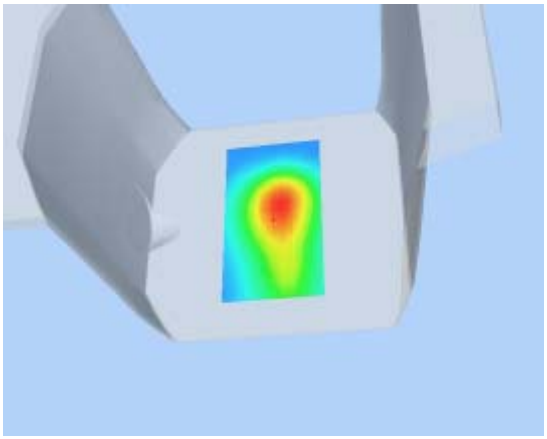
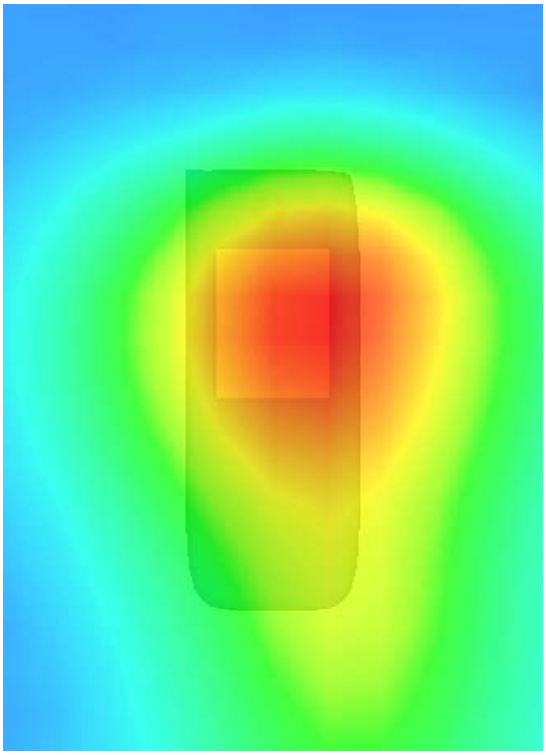
Maximum location: X=6.00, Y=11.00

SAR 10g (W/Kg)	0.219518
SAR 1g (W/Kg)	0.403208

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1964	0.1306	0.0873	0.0592	0.0405	0.0279



3D sceen shot	Hot spot position
	

MEASUREMENT 2

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 3 seconds

A. Experimental conditions.

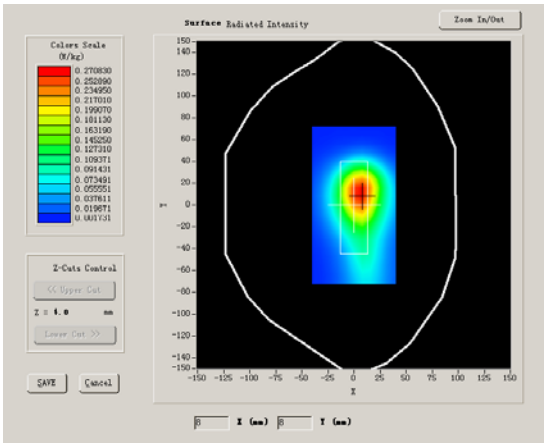
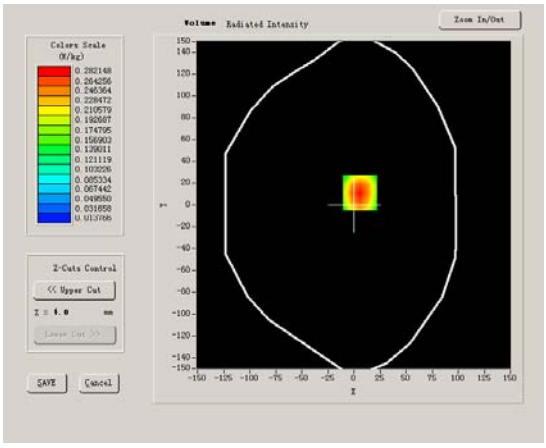
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 4182):

Frequency (MHz)	836.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.737401
Variation (%)	1.030000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

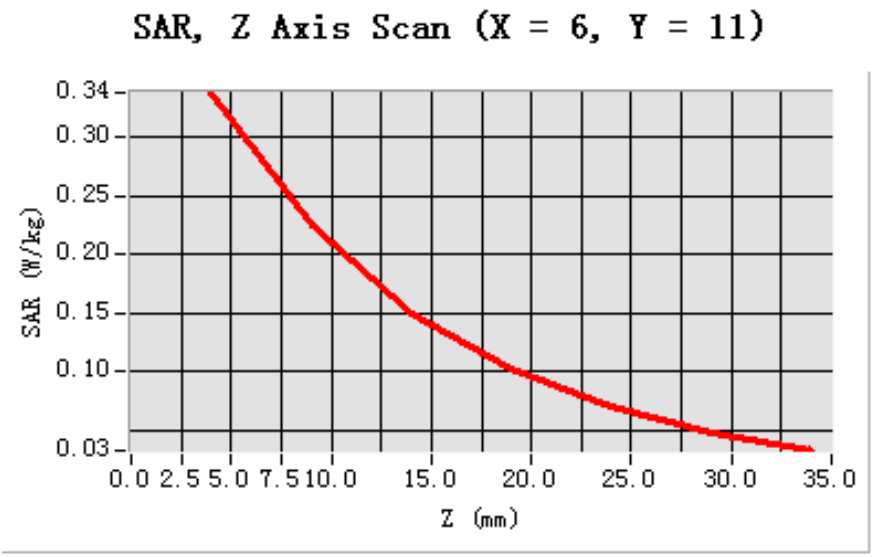
SURFACE SAR	**VOLUME SAR**
	

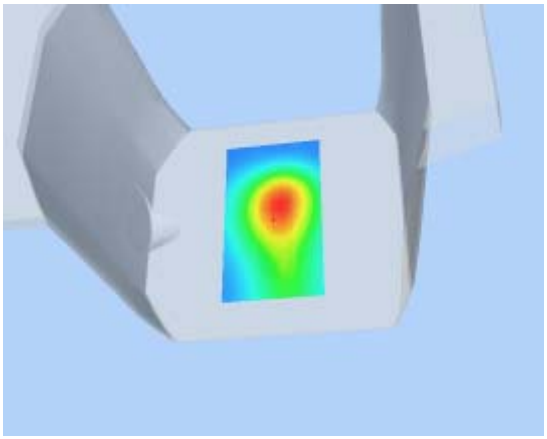
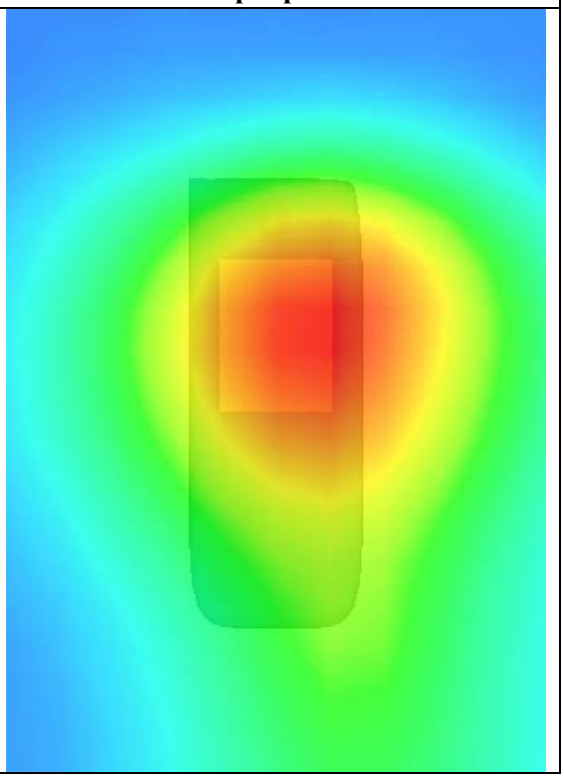
Maximum location: X=6.00, Y=11.00

SAR 10g (W/Kg)	0.304815
SAR 1g (W/Kg)	0.510835

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3386	0.2246	0.1505	0.1029	0.0698	0.0476



3D sceen shot	Hot spot position
	

MEASUREMENT 3

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

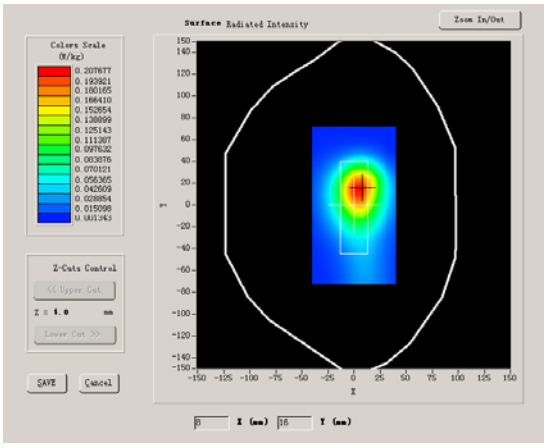
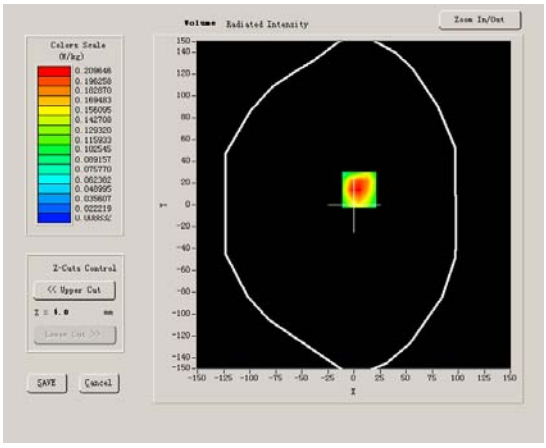
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

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)	0.746221
Variation (%)	-3.510000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

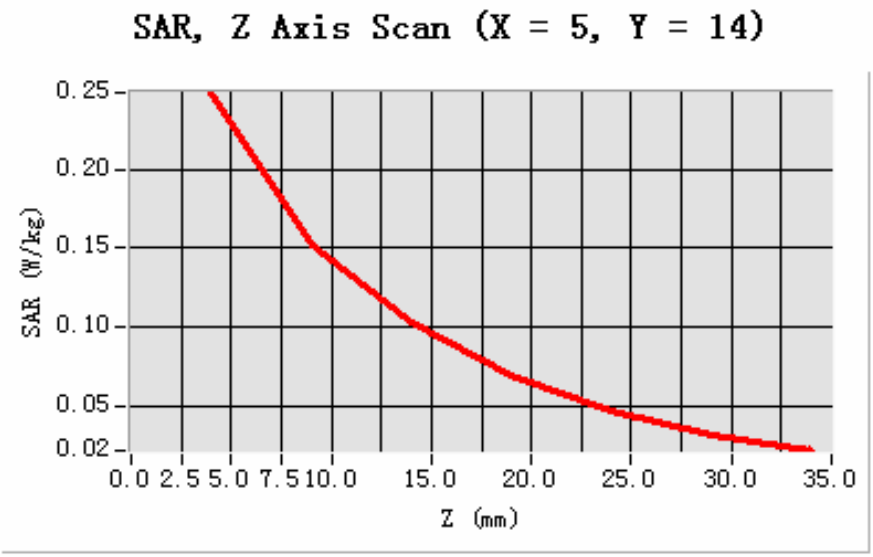
SURFACE SAR	**VOLUME SAR**
	

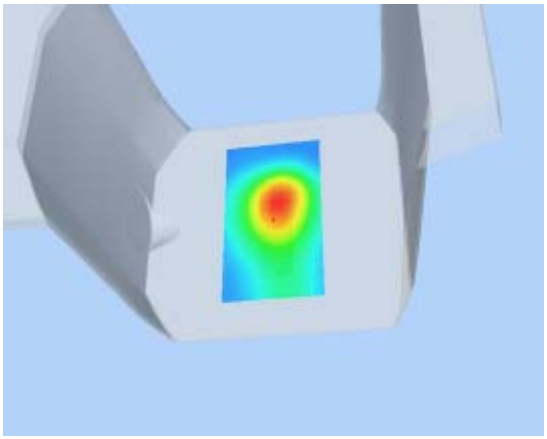
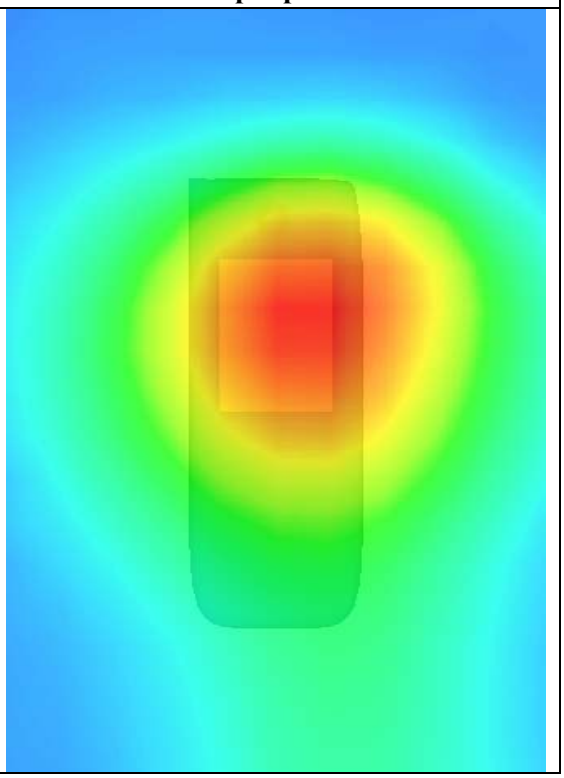
Maximum location: X=5.00, Y=14.00

SAR 10g (W/Kg)	0.186397
SAR 1g (W/Kg)	0.378944

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2488	0.1521	0.1022	0.0690	0.0464	0.0316



3D sceen shot	Hot spot position
	

MEASUREMENT 4

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 4 seconds

A. Experimental conditions.

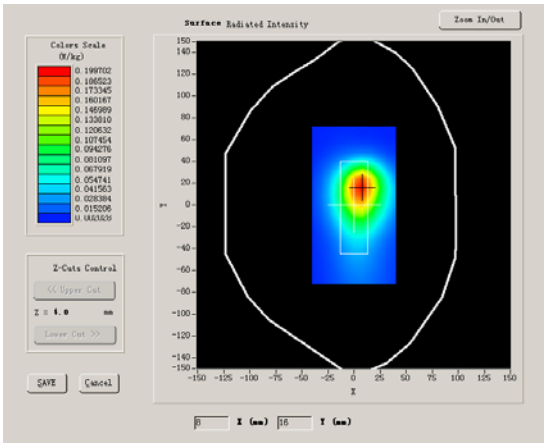
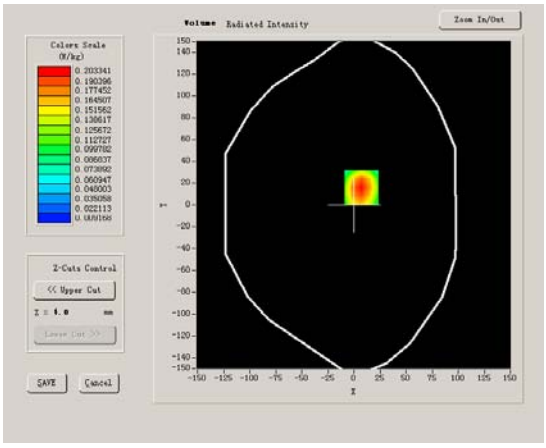
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 4132):

Frequency (MHz)	826.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.728580
Variation (%)	2.280000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

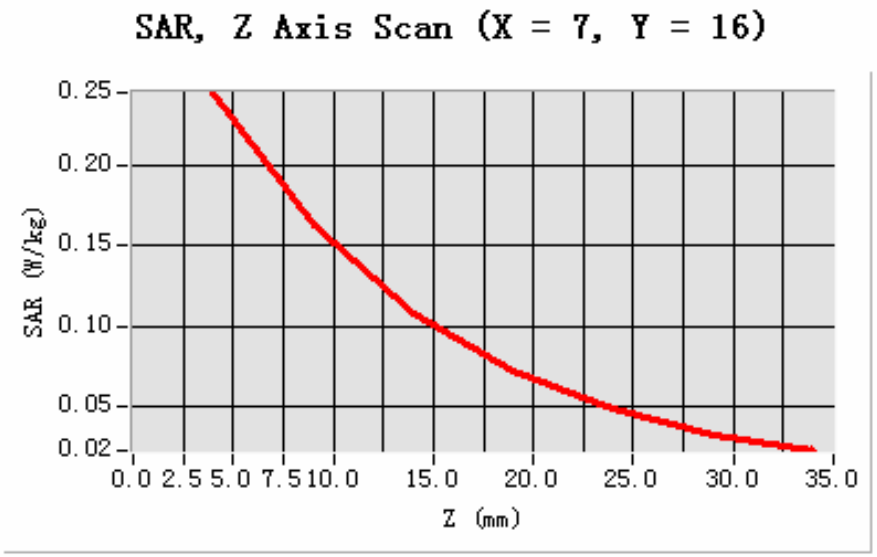
SURFACE SAR	**VOLUME SAR**
	

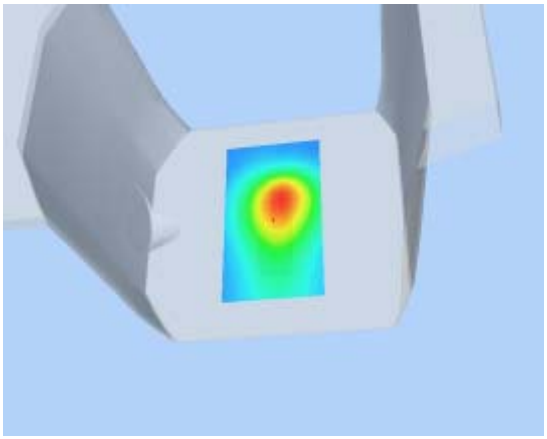
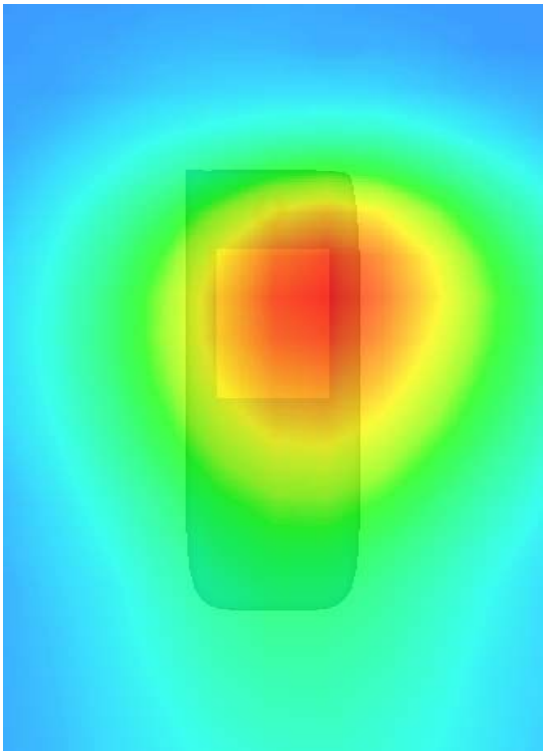
Maximum location: X=7.00, Y=16.00

SAR 10g (W/Kg)	0.345011
SAR 1g (W/Kg)	0.555782

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2451	0.1621	0.1072	0.0717	0.0482	0.0328



3D sceen shot	Hot spot position
	

MEASUREMENT 5

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 6 seconds

A. Experimental conditions.

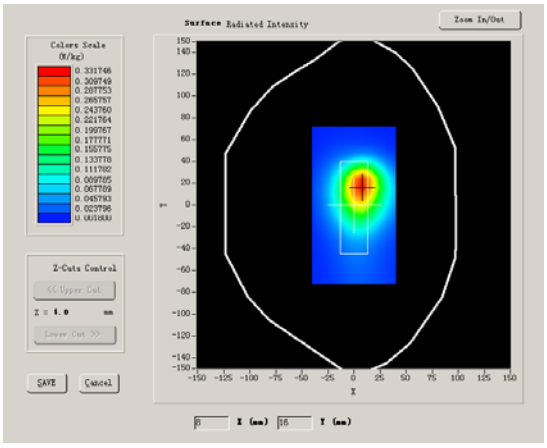
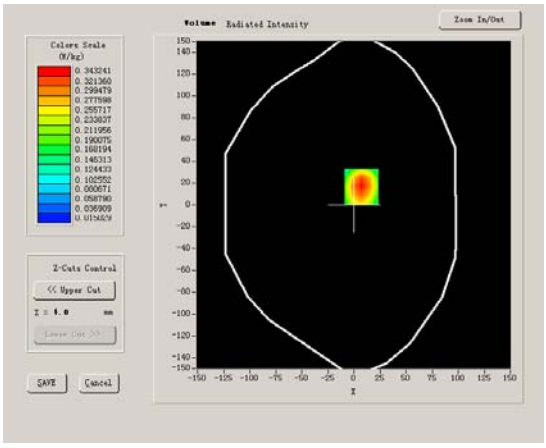
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 4182):

Frequency (MHz)	836.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.737401
Variation (%)	3.450000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

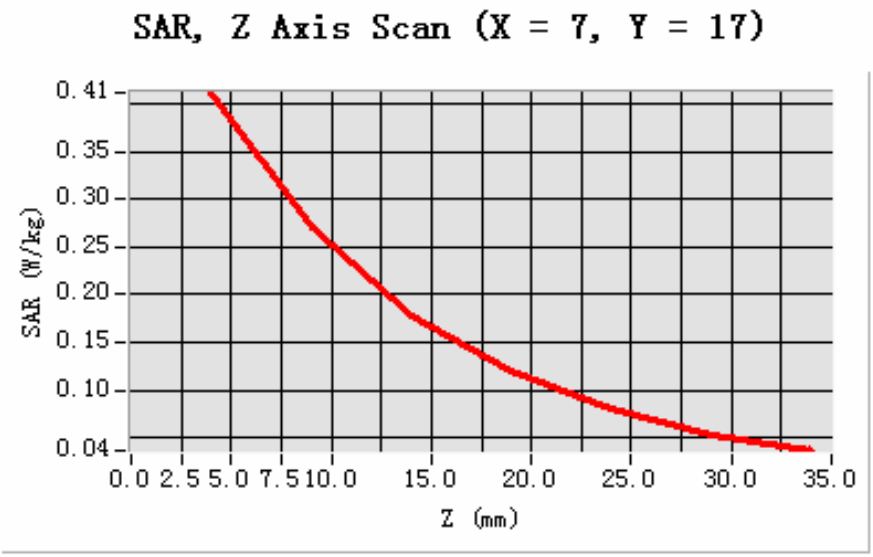
SURFACE SAR	**VOLUME SAR**
	

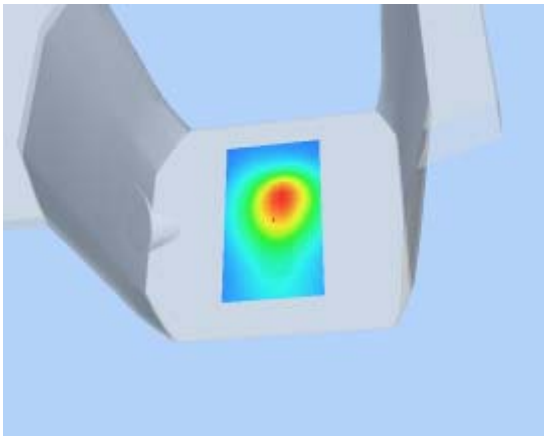
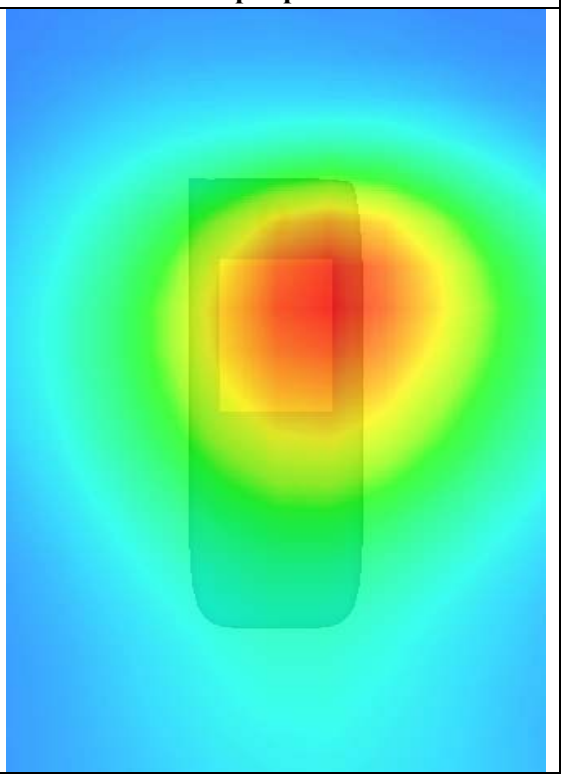
Maximum location: X=7.00, Y=17.00

SAR 10g (W/Kg)	0.540972
SAR 1g (W/Kg)	0.976063

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4119	0.2714	0.1784	0.1200	0.0802	0.0534



3D sceen shot	Hot spot position
	

MEASUREMENT 6

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

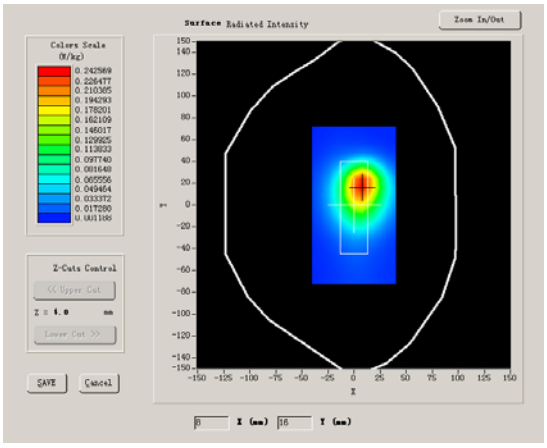
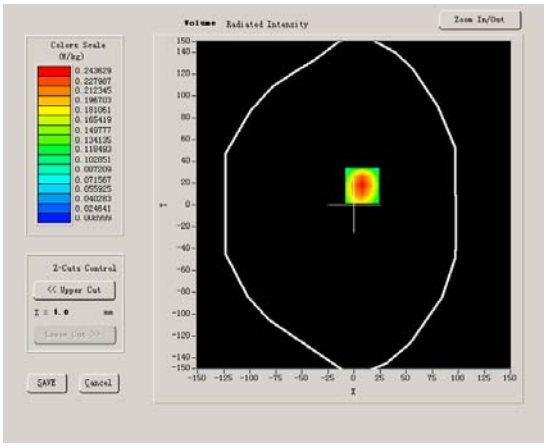
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

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)	0.746221
Variation (%)	-2.090000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

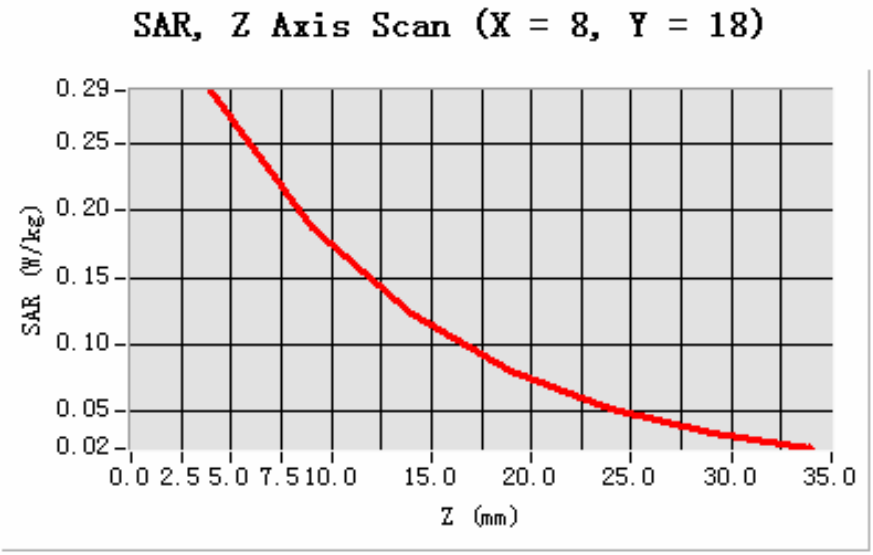
SURFACE SAR	**VOLUME SAR**
	

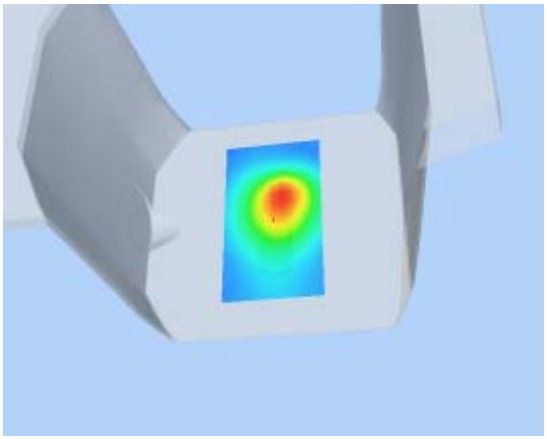
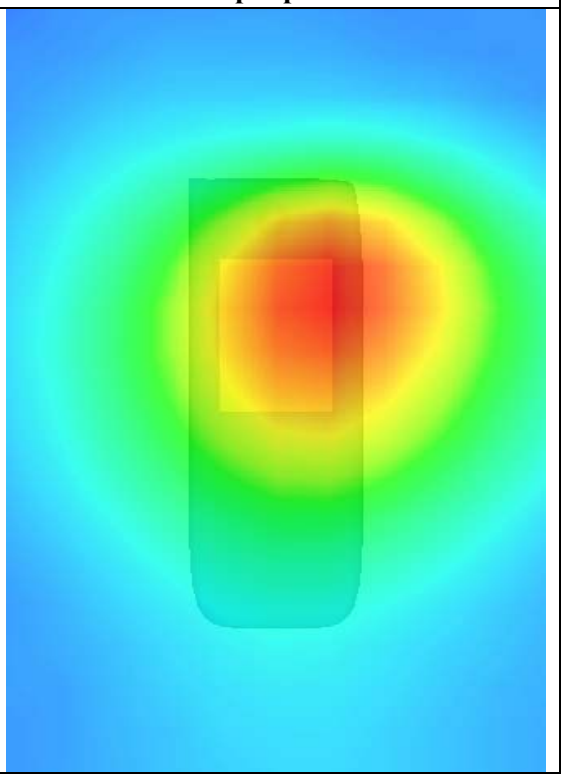
Maximum location: X=8.00, Y=18.00

SAR 10g (W/Kg)	0.266251
SAR 1g (W/Kg)	0.481657

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2891	0.1873	0.1221	0.0792	0.0515	0.0340



3D sceen shot	Hot spot position
	

MEASUREMENT 7

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

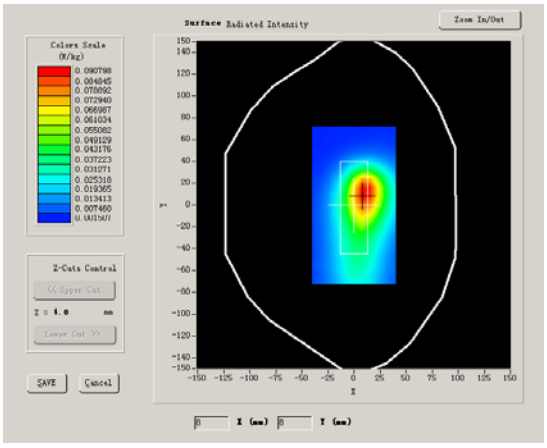
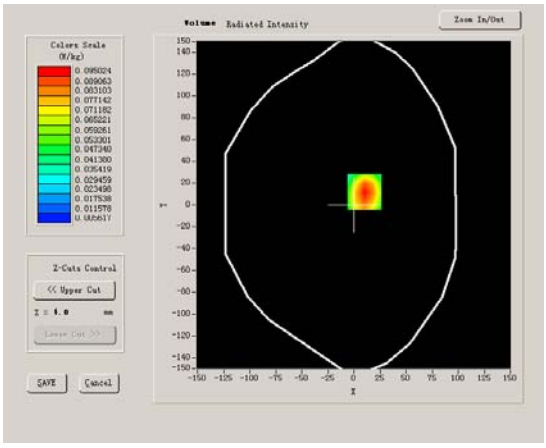
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 4132):

Frequency (MHz)	826.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.728580
Variation (%)	0.360000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

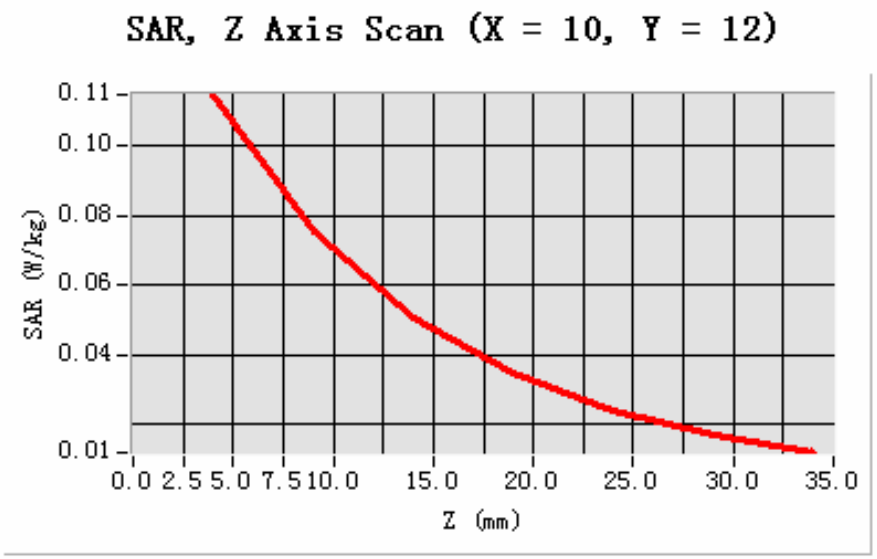
SURFACE SAR	**VOLUME SAR**
	

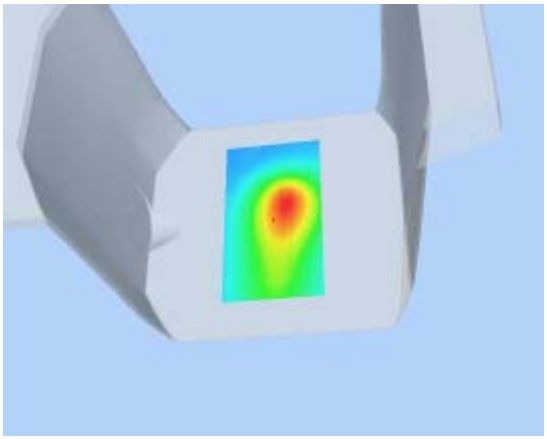
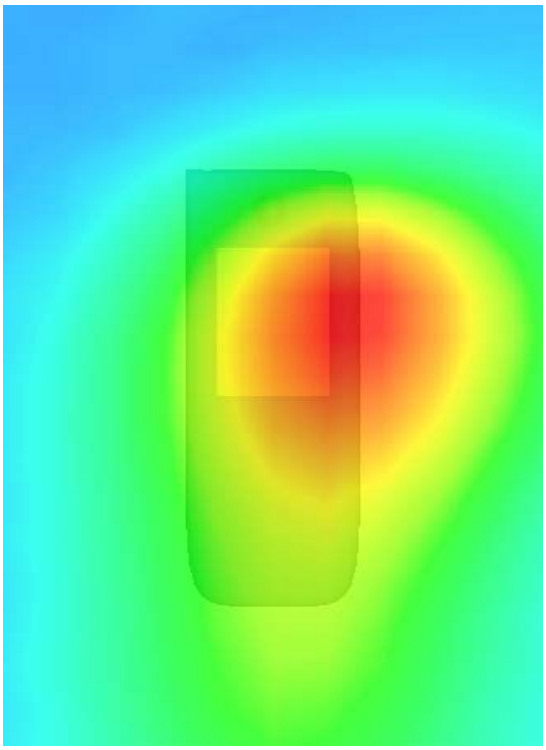
Maximum location: X=10.00, Y=12.00

SAR 10g (W/Kg)	0.167801
SAR 1g (W/Kg)	0.318460

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1146	0.0754	0.0504	0.0347	0.0241	0.0168



3D sceen shot	Hot spot position
	

MEASUREMENT 8

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

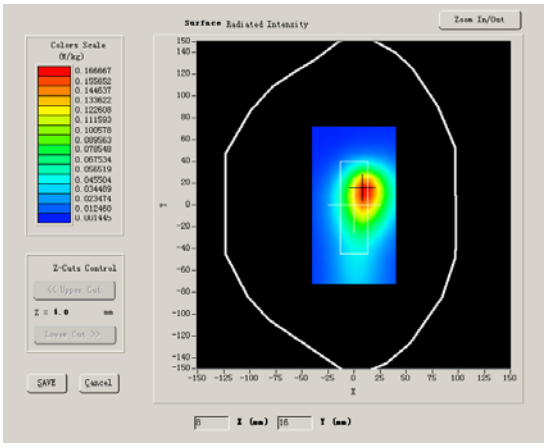
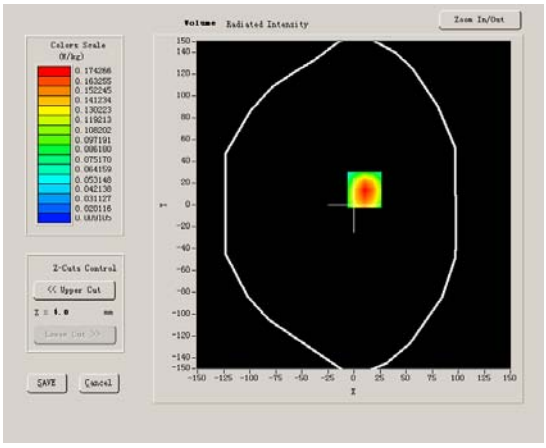
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 4182):

Frequency (MHz)	836.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.737401
Variation (%)	0.640000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

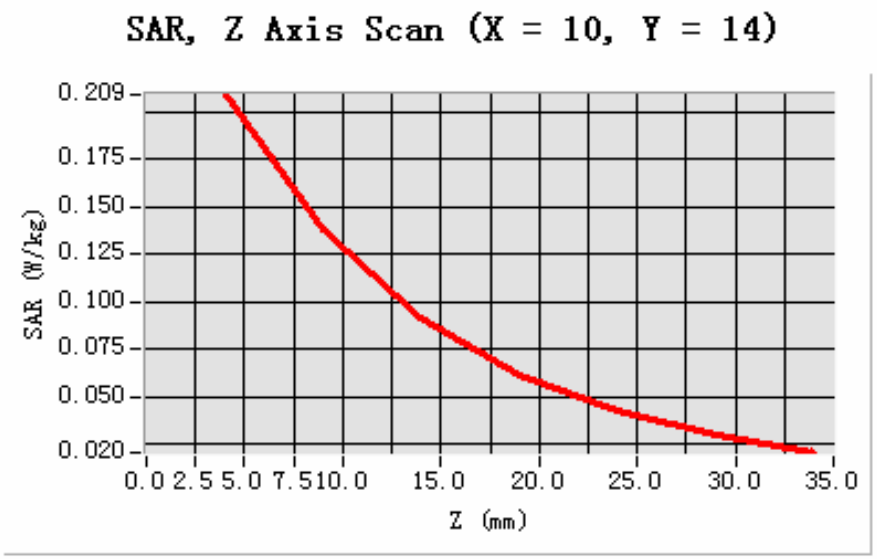
SURFACE SAR	**VOLUME SAR**
	

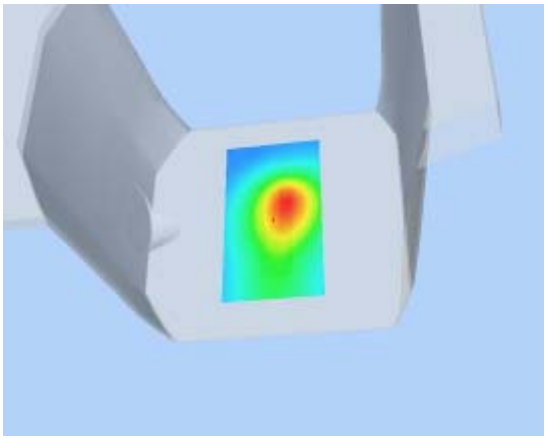
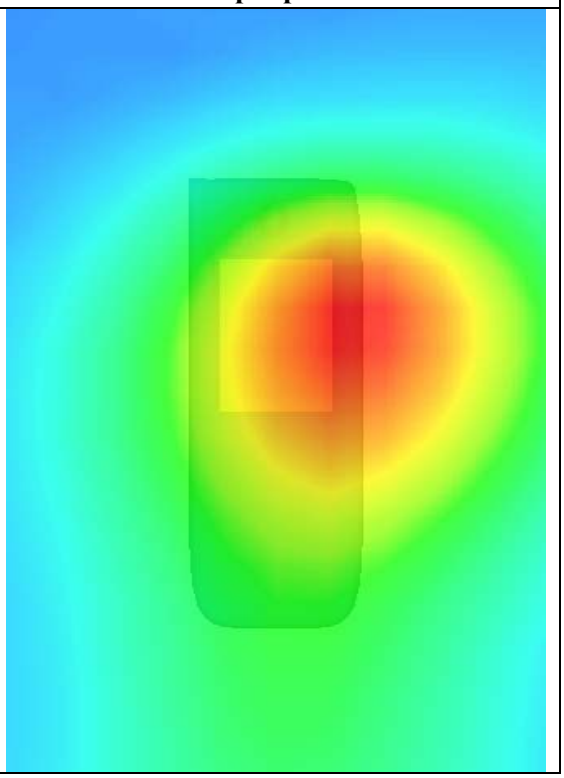
Maximum location: X=10.00, Y=14.00

SAR 10g (W/Kg)	0.223442
SAR 1g (W/Kg)	0.419027

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2091	0.1375	0.0909	0.0612	0.0420	0.0293



3D sceen shot	Hot spot position
	

MEASUREMENT 9

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

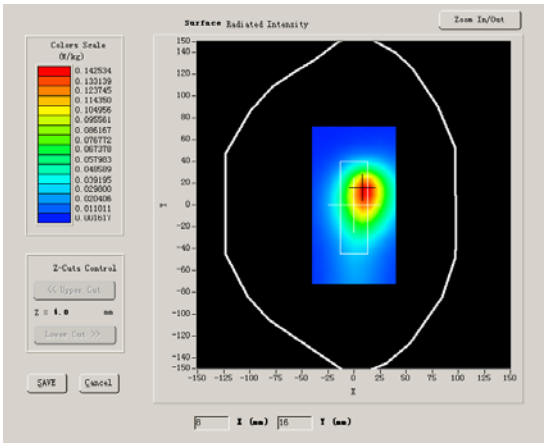
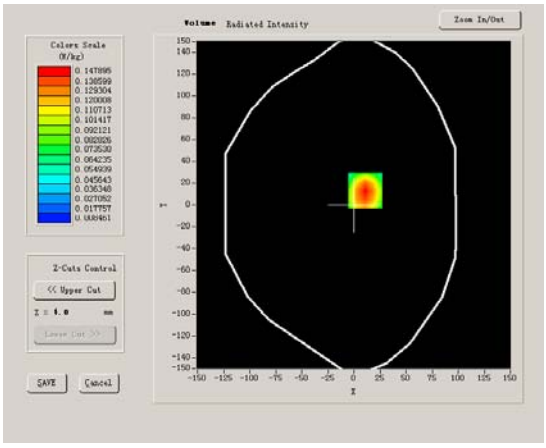
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

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)	0.746221
Variation (%)	0.500000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

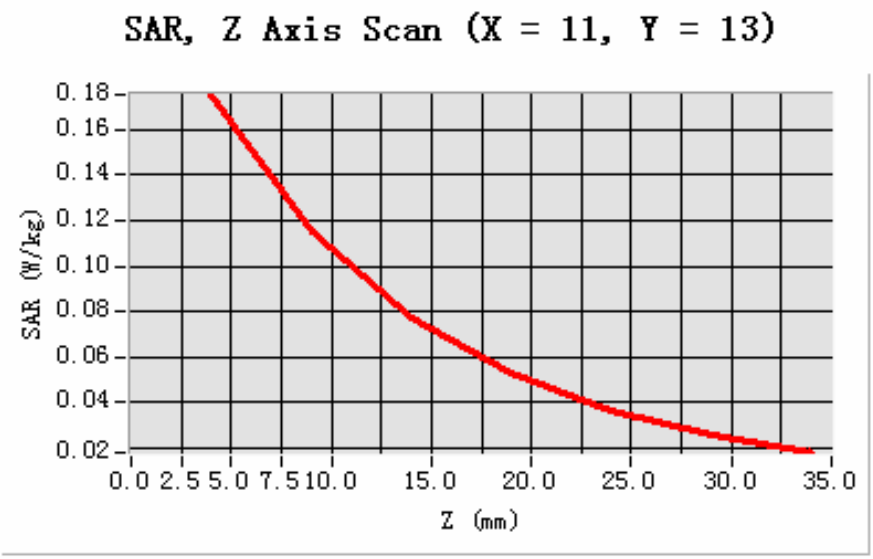
SURFACE SAR	**VOLUME SAR**
	

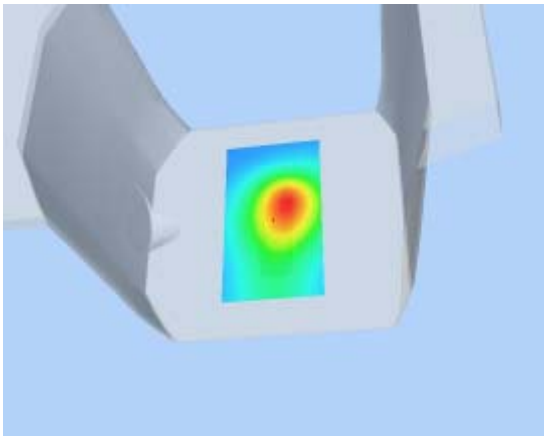
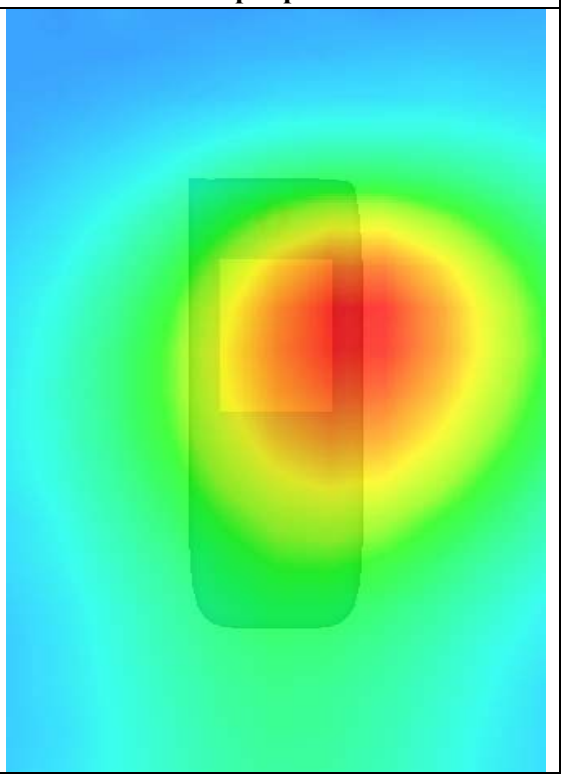
Maximum location: X=11.00, Y=13.00

SAR 10g (W/Kg)	0.164670
SAR 1g (W/Kg)	0.290646

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1755	0.1154	0.0772	0.0533	0.0361	0.0255



3D sceen shot	Hot spot position
	

MEASUREMENT 10

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

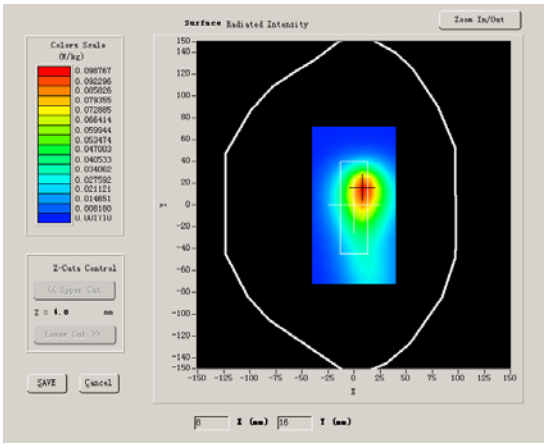
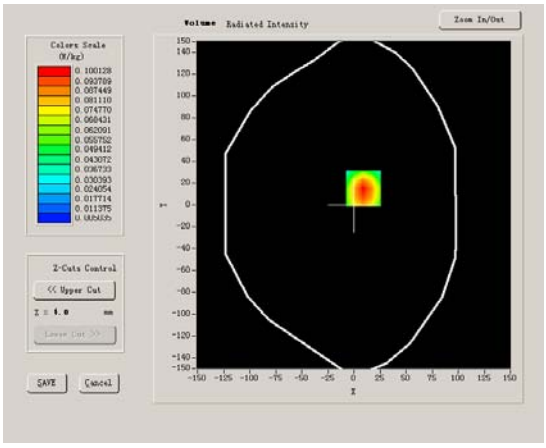
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

C. SAR Measurement Results

Lower Band SAR (Channel 4132):

Frequency (MHz)	826.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.728580
Variation (%)	-0.420000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

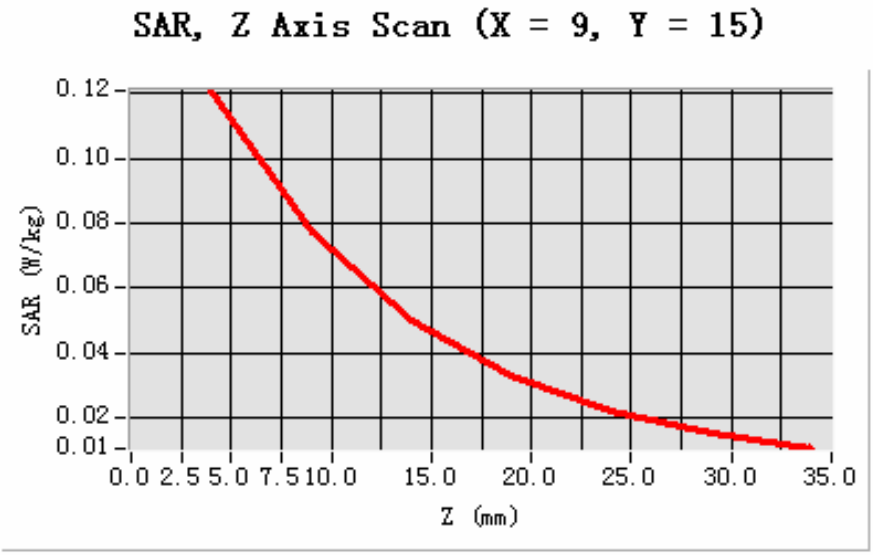
SURFACE SAR	**VOLUME SAR**
	

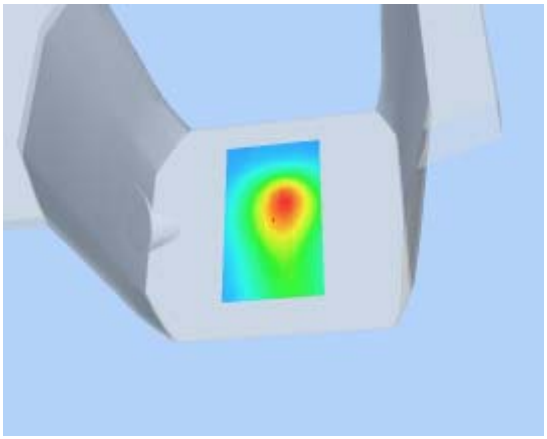
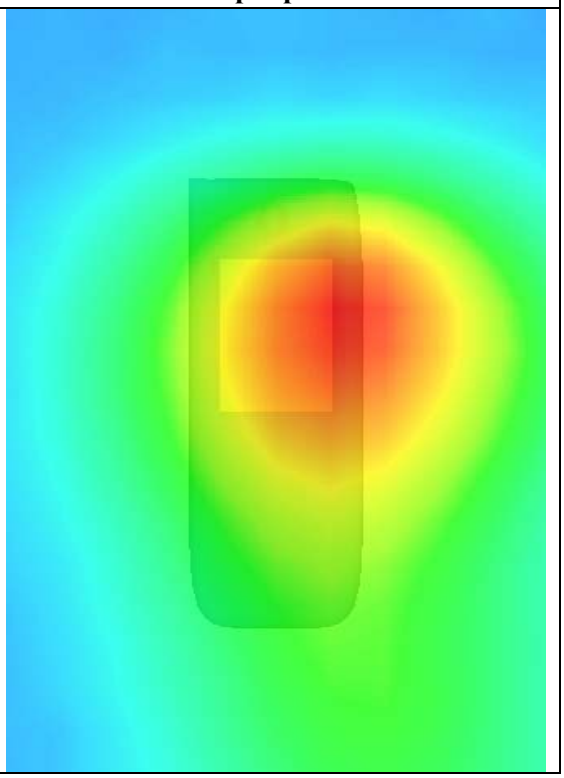
Maximum location: X=9.00, Y=15.00

SAR 10g (W/Kg)	0.110349
SAR 1g (W/Kg)	0.186278

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1207	0.0771	0.0498	0.0331	0.0225	0.0154



3D sceen shot	Hot spot position
	

MEASUREMENT 11

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 20 seconds

A. Experimental conditions.

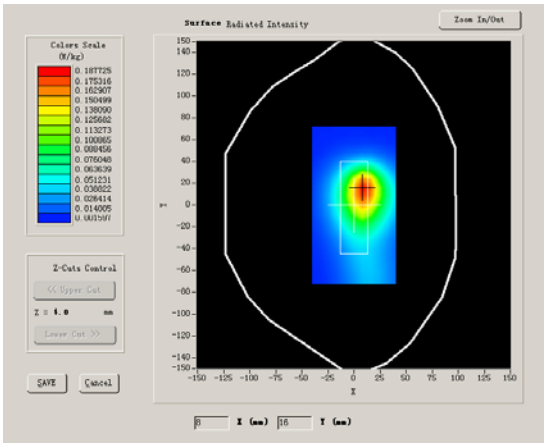
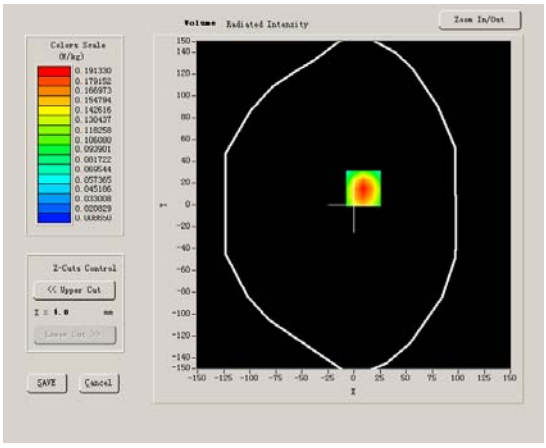
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 4182):

Frequency (MHz)	836.000000
Relative permittivity (real part)	51.341000
Relative permittivity	15.877050

Conductivity (S/m)	0.737401
Variation (%)	1.080000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

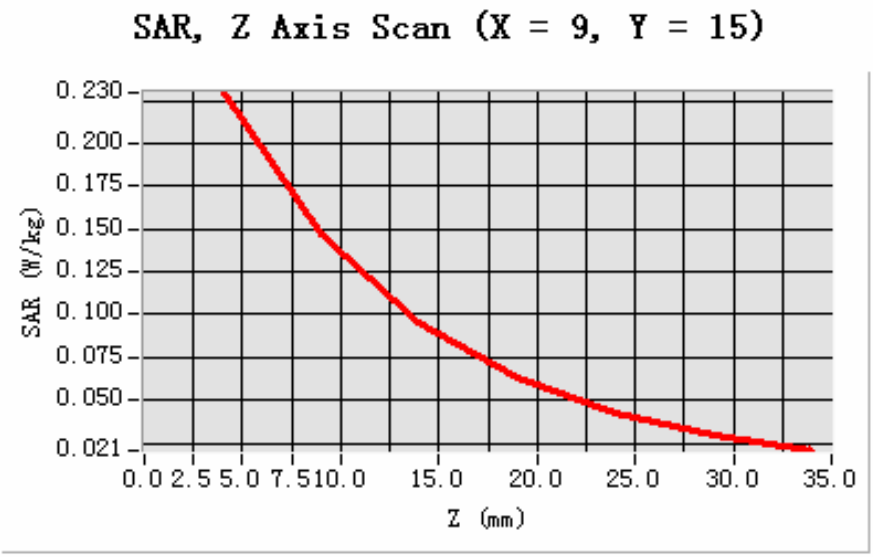
SURFACE SAR	**VOLUME SAR**
	

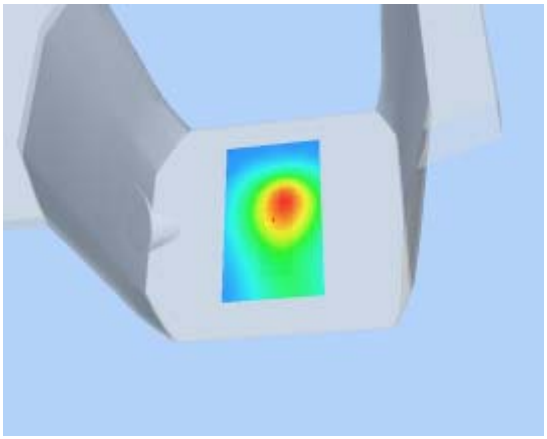
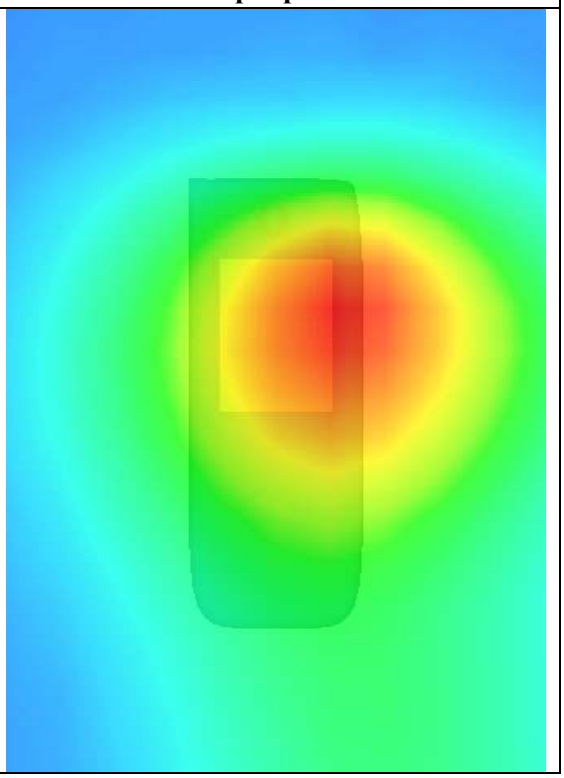
Maximum location: X=9.00, Y=15.00

SAR 10g (W/Kg)	0.182750
SAR 1g (W/Kg)	0.305020

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2296	0.1469	0.0956	0.0634	0.0427	0.0295



3D sceen shot	Hot spot position
	

MEASUREMENT 12

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 5 seconds

A. Experimental conditions.

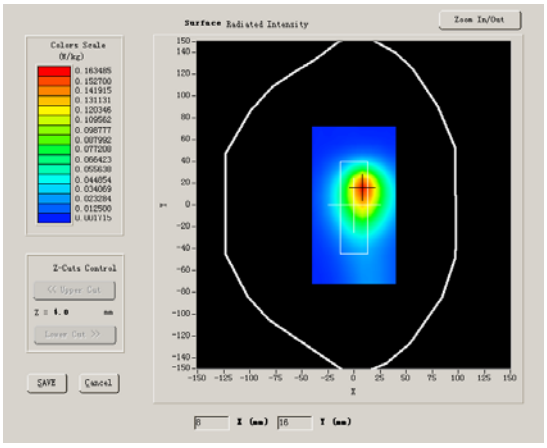
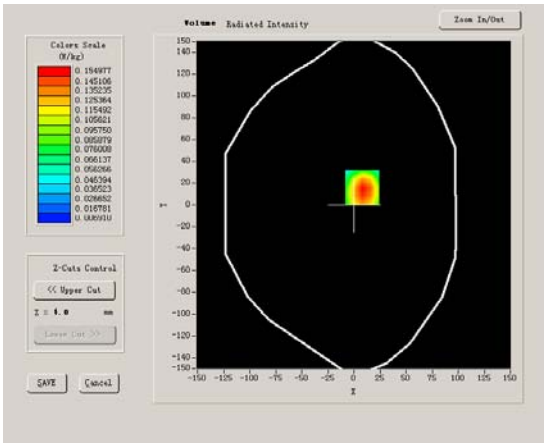
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

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)	0.746221
Variation (%)	-2.580000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	28.479,25.214,27.196
Crest factor：	1:1

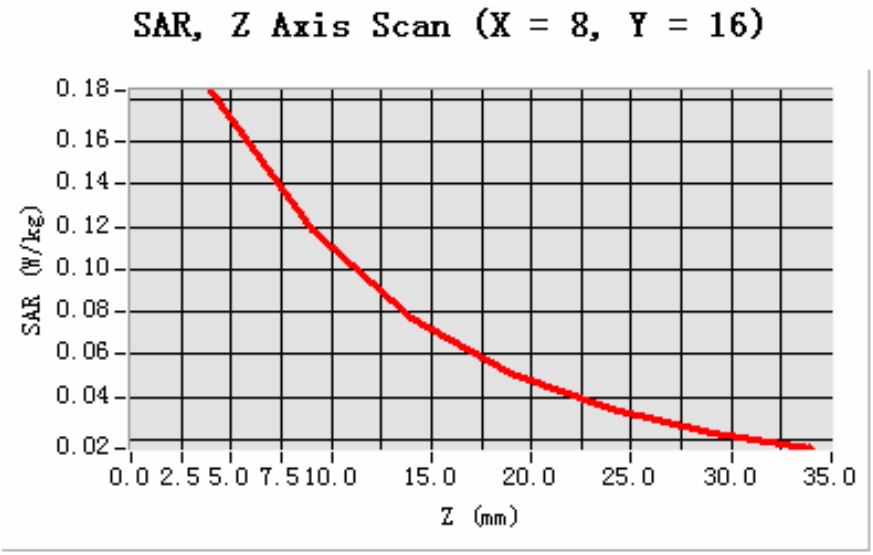
SURFACE SAR	**VOLUME SAR**
	

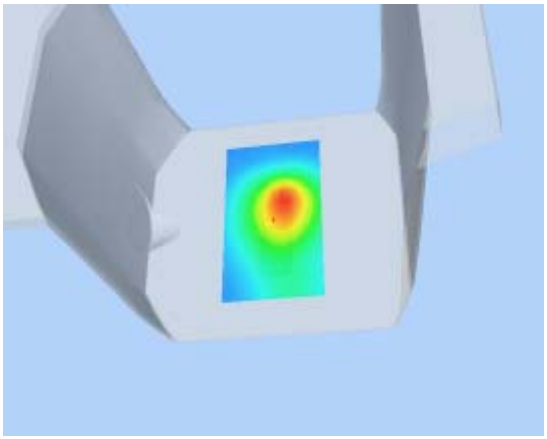
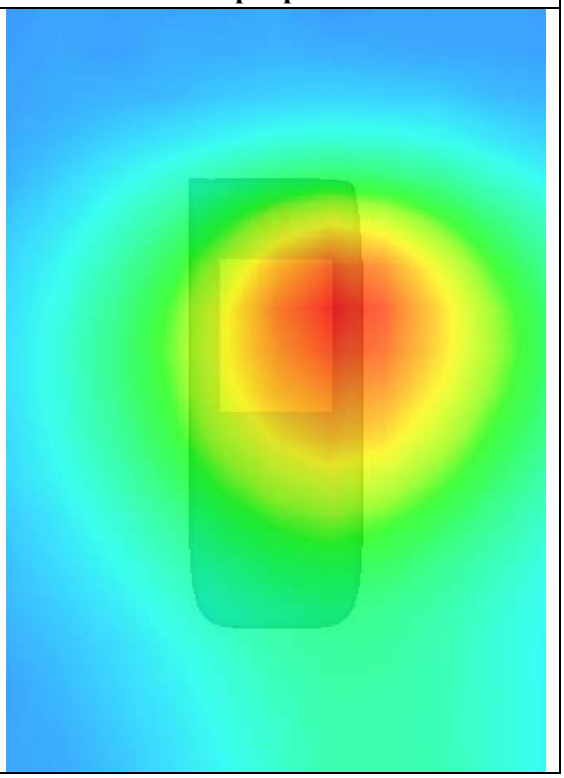
Maximum location: X=8.00, Y=16.00

SAR 10g (W/Kg)	0.168395
SAR 1g (W/Kg)	0.210797

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1839	0.1183	0.0765	0.0515	0.0342	0.0235



3D sceen shot	Hot spot position
	

MEASUREMENT 13

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 9 seconds

A. Experimental conditions.

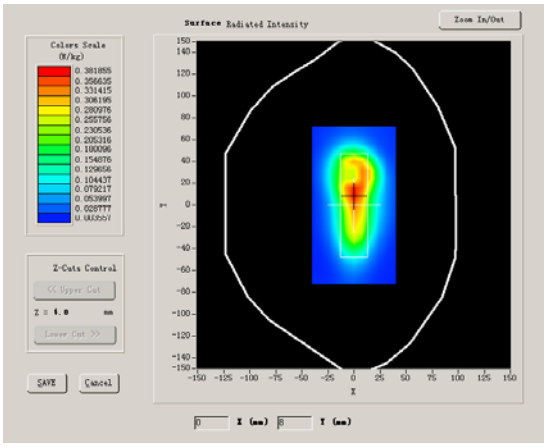
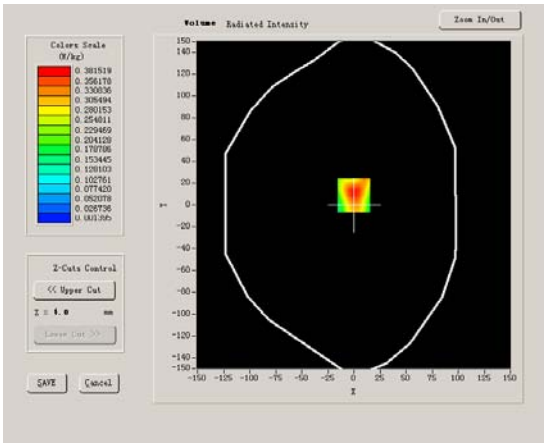
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9262):

Frequency (MHz)	1852.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000

Conductivity (S/m)	1.355047
Variation (%)	-2.980000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

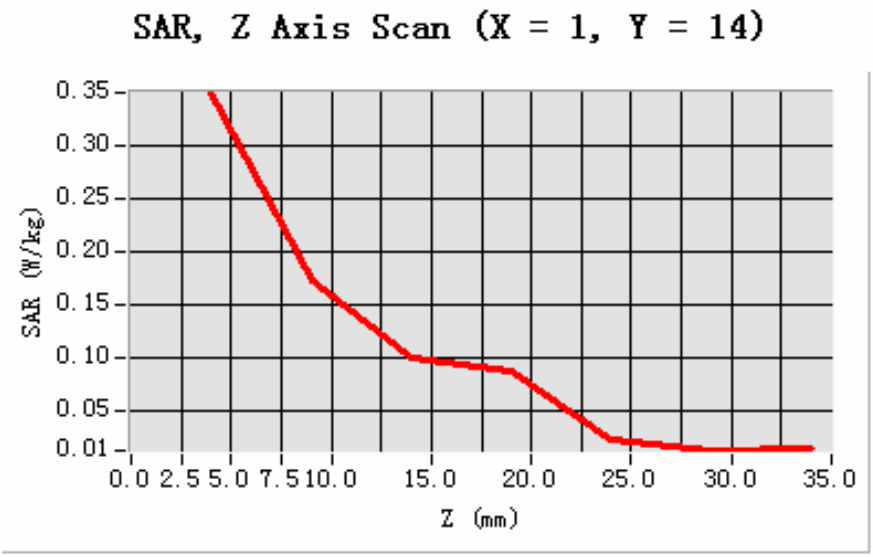
SURFACE SAR	VOLUME SAR
	

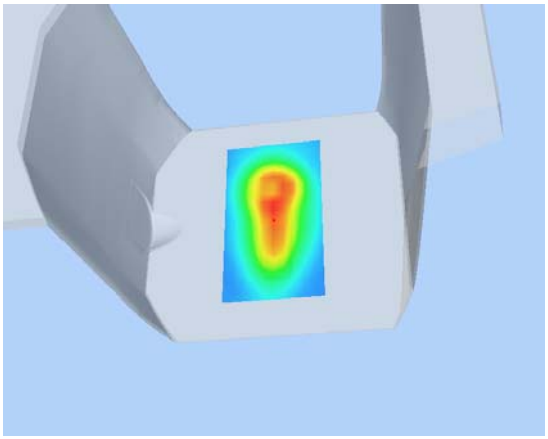
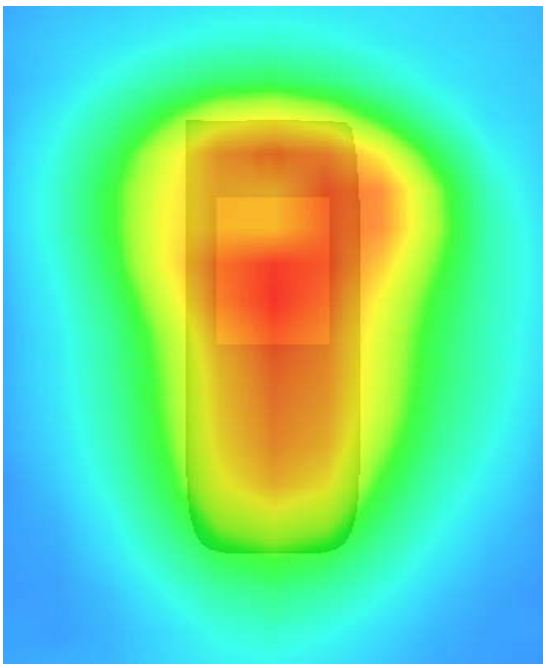
Maximum location: X=1.00, Y=14.00

SAR 10g (W/Kg)	0.172083
SAR 1g (W/Kg)	0.285273

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3500	0.1715	0.0999	0.0867	0.0212	0.0118



3D sceen shot	Hot spot position
	

MEASUREMENT 14

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 9 seconds

A. Experimental conditions.

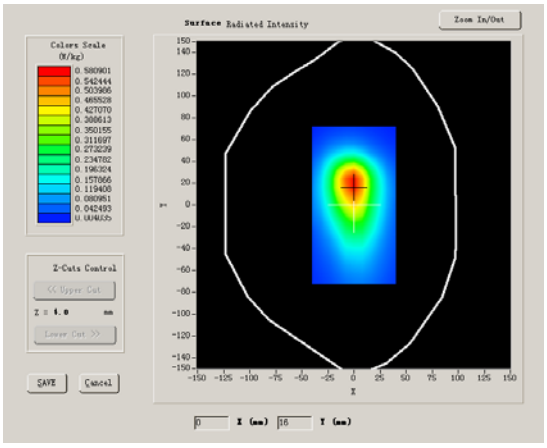
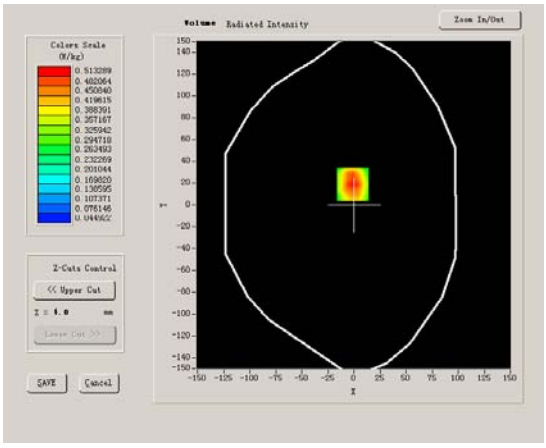
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 9400):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000

Conductivity (S/m)	1.381800
Variation (%)	0.290000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

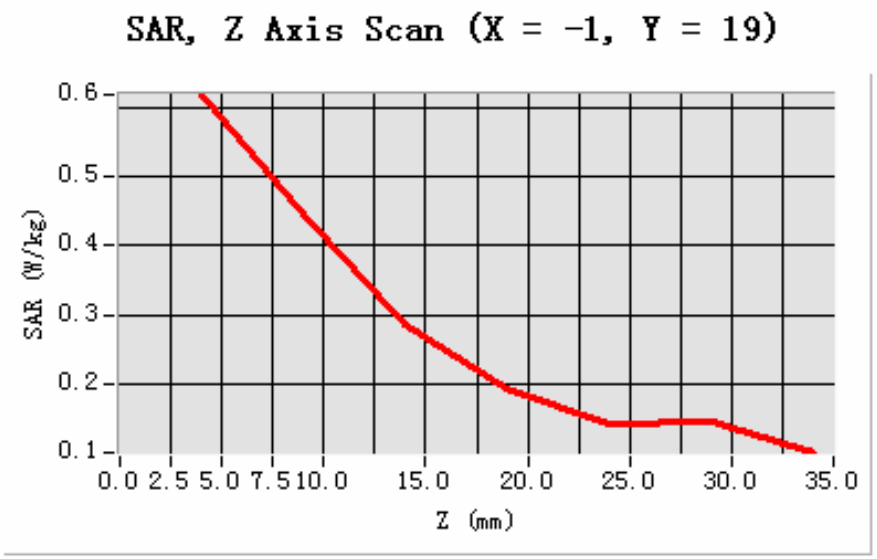
SURFACE SAR	**VOLUME SAR**
	

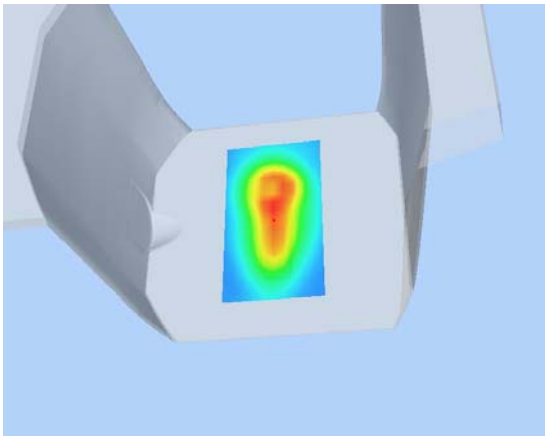
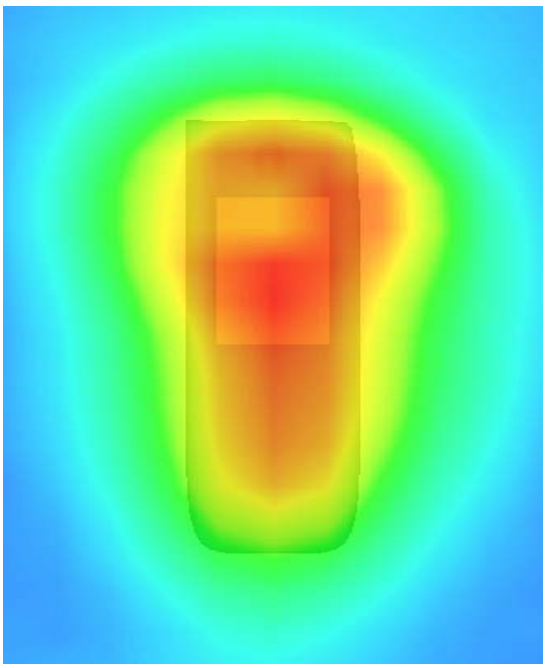
Maximum location: X=-1.00, Y=9.00

SAR 10g (W/Kg)	0.213896
SAR 1g (W/Kg)	0.408305

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4225	0.2232	0.1657	0.0493	0.0625	0.0160



3D sceen shot	Hot spot position
	

MEASUREMENT 15

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 10 seconds

A. Experimental conditions.

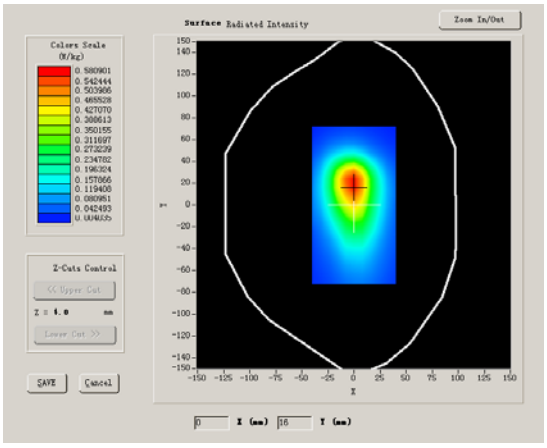
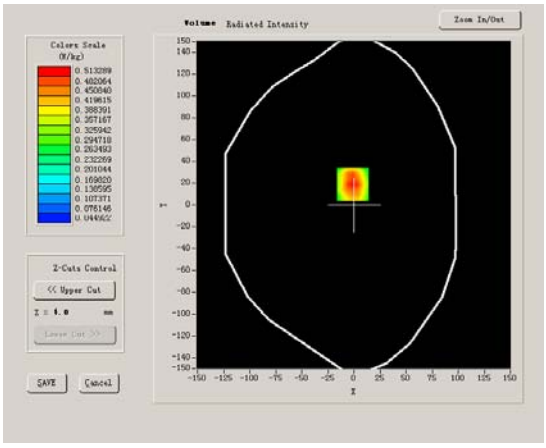
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.000000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000

Conductivity (S/m)	1.417537
Variation (%)	-4.970000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

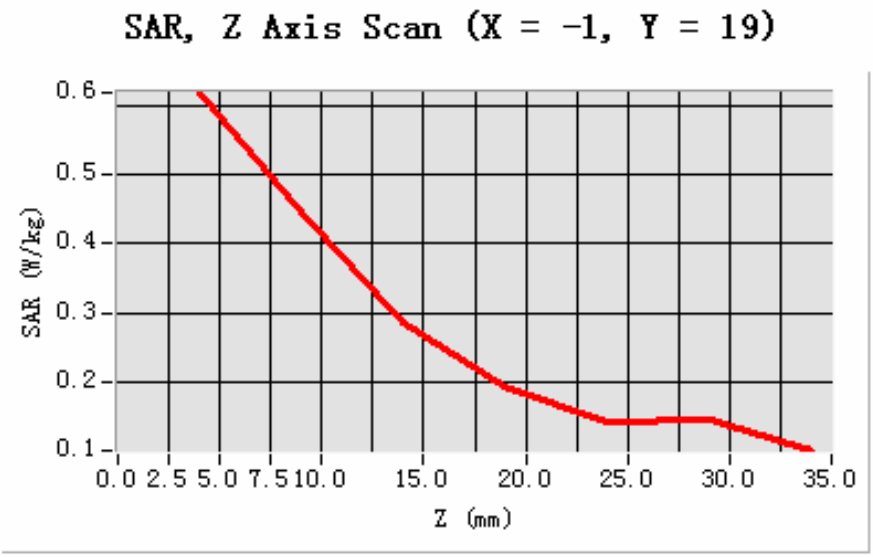
SURFACE SAR	**VOLUME SAR**
	

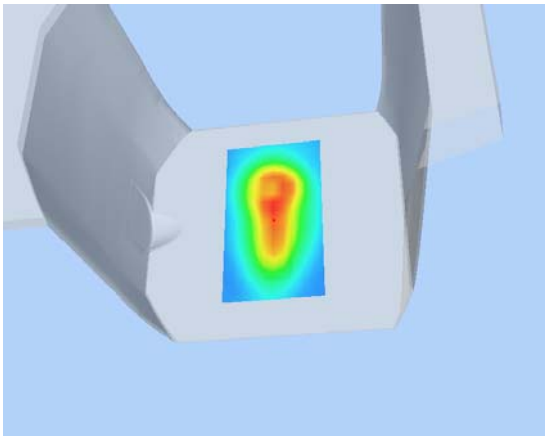
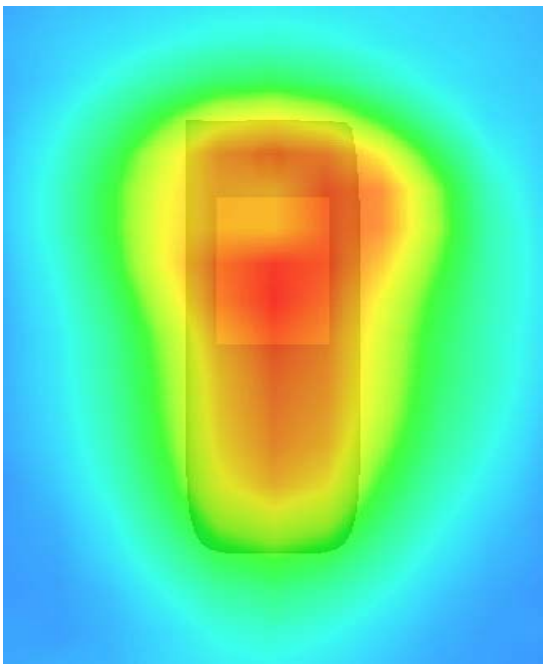
Maximum location: X=-1.00, Y=19.00

SAR 10g (W/Kg)	0.191139
SAR 1g (W/Kg)	0.356192

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4063	0.2076	0.1560	0.0788	0.0249	0.0146



3D sceen shot	Hot spot position
	

MEASUREMENT 16

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 7 seconds

A. Experimental conditions.

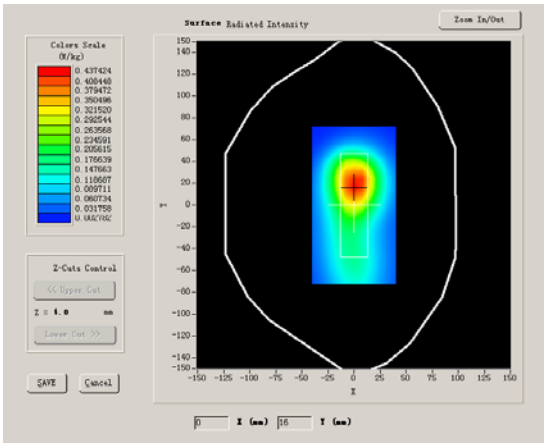
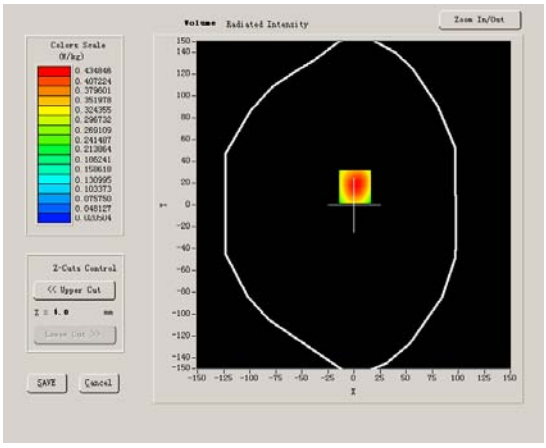
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9262):

Frequency (MHz)	1852.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000

Conductivity (S/m)	1.355047
Variation (%)	0.140000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

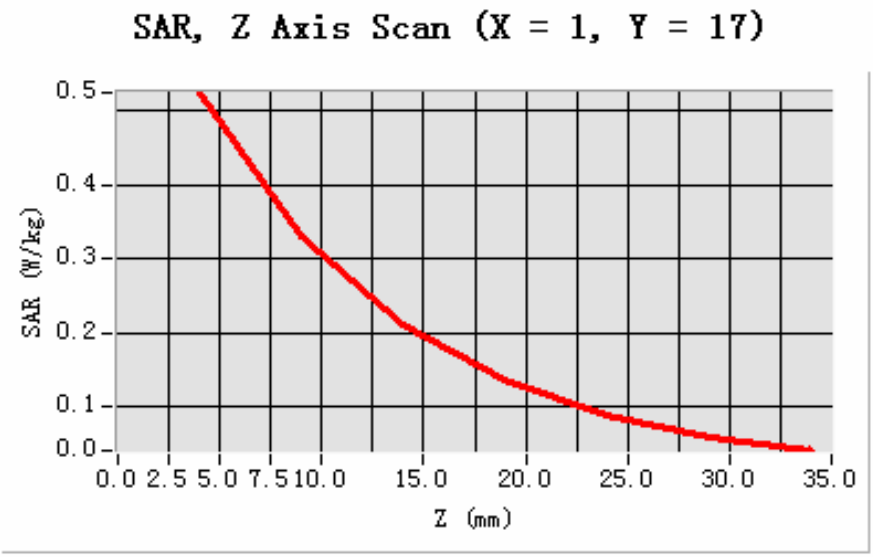
SURFACE SAR	**VOLUME SAR**
	

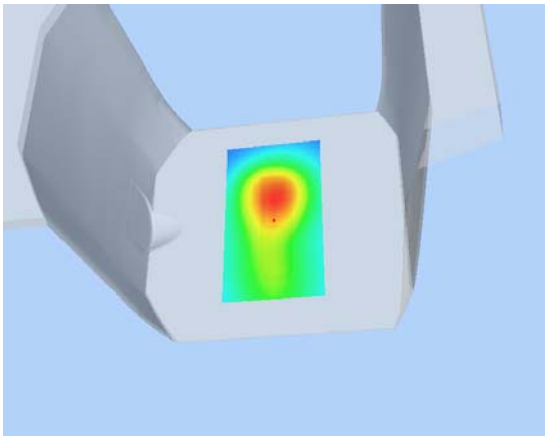
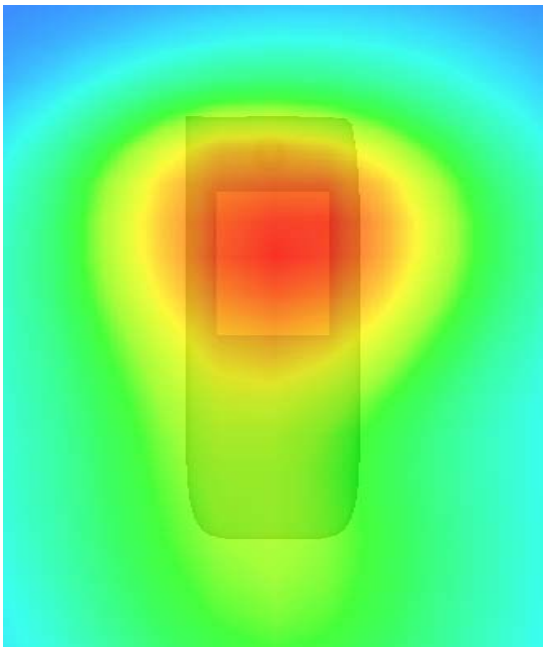
Maximum location: X=1.00, Y=17.00

SAR 10g (W/Kg)	0.176394
SAR 1g (W/Kg)	0.350734

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3501	0.2302	0.1030	0.1005	0.0286	0.0423



3D sceen shot	Hot spot position
	

MEASUREMENT 17

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 9 seconds

A. Experimental conditions.

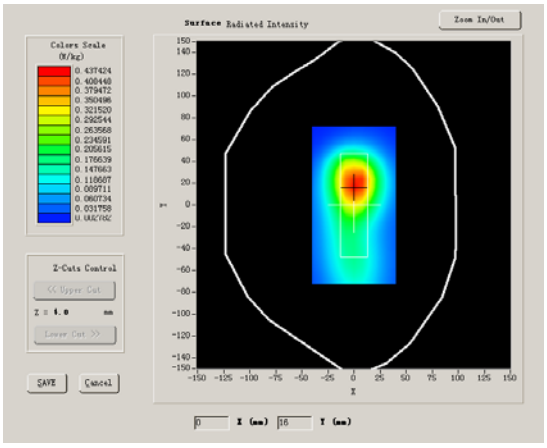
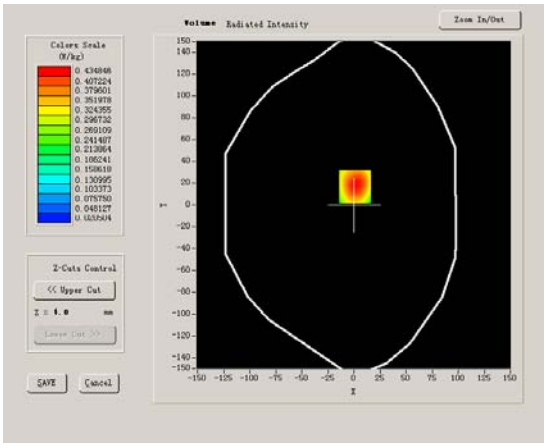
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 9400):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000

Conductivity (S/m)	1.381800
Variation (%)	-0.930000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

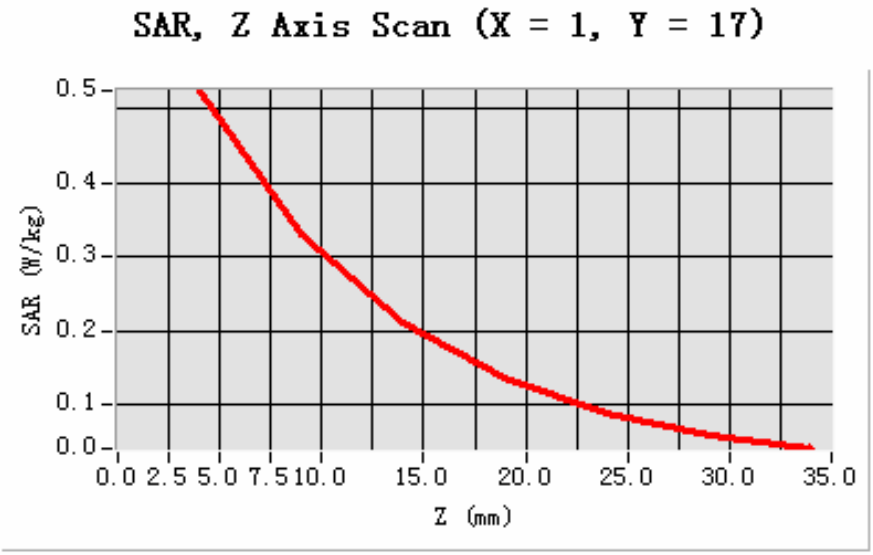
SURFACE SAR	**VOLUME SAR**
	

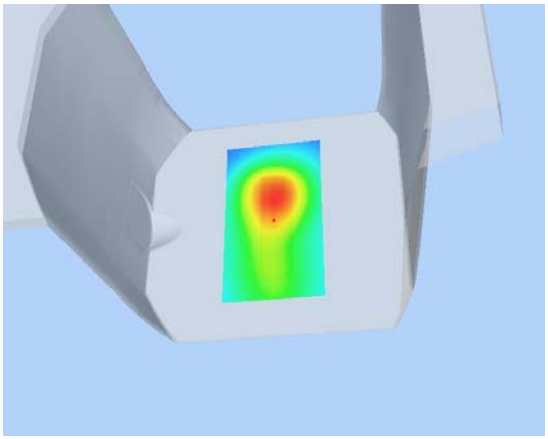
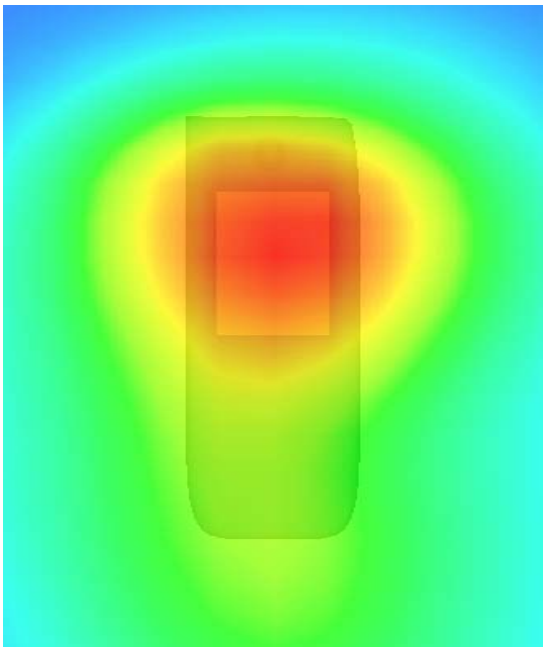
Maximum location: X=1.00, Y=17.00

SAR 10g (W/Kg)	0.272527
SAR 1g (W/Kg)	0.500880

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4449	0.2441	0.1366	0.0740	0.0738	0.0532



3D sceen shot	Hot spot position
	

MEASUREMENT 18

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 6 seconds

A. Experimental conditions.

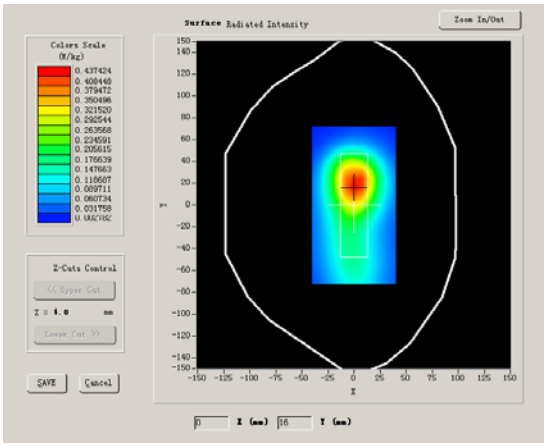
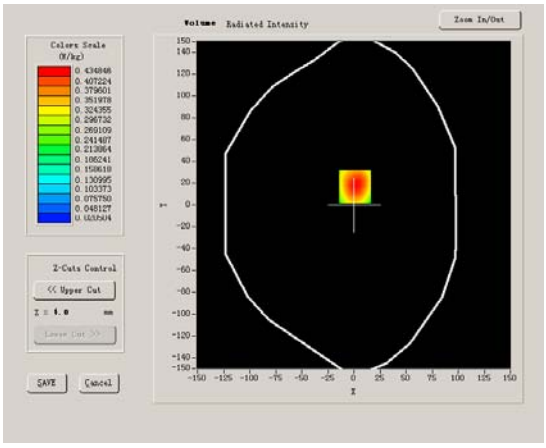
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

C. SAR Measurement Results

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.000000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000

Conductivity (S/m)	1.417537
Variation (%)	2.110000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

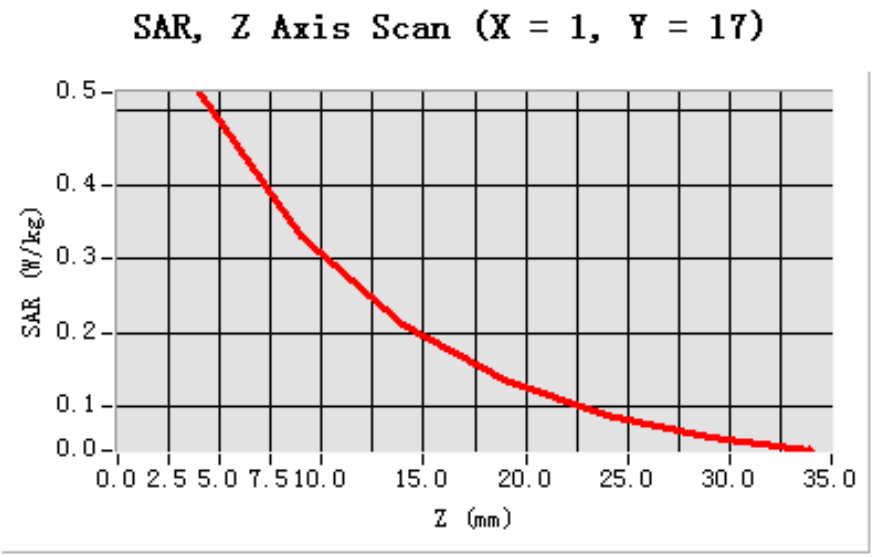
SURFACE SAR	**VOLUME SAR**
	

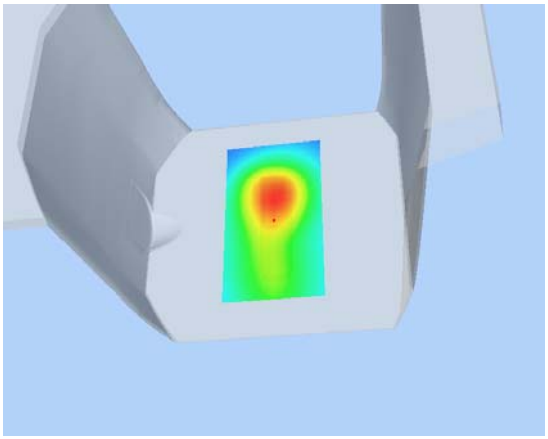
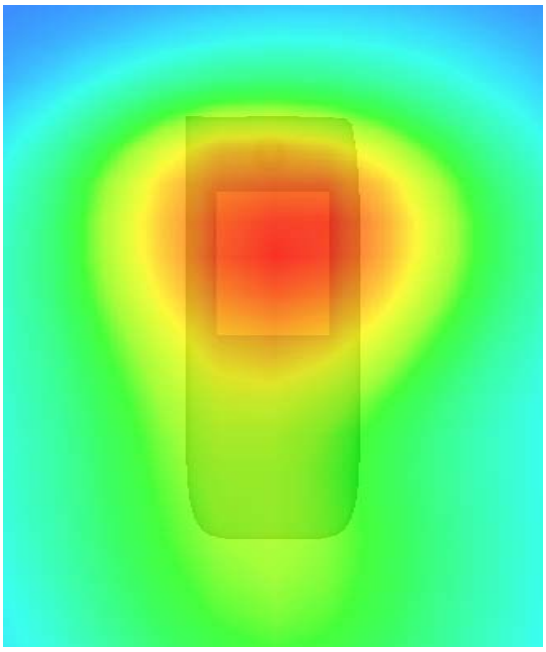
Maximum location: X=1.00, Y=17.00

SAR 10g (W/Kg)	0.263525
SAR 1g (W/Kg)	0.405088

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4302	0.2169	0.1439	0.1053	0.0686	0.0174



3D sceen shot	Hot spot position
	

MEASUREMENT 19

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 8 seconds

A. Experimental conditions.

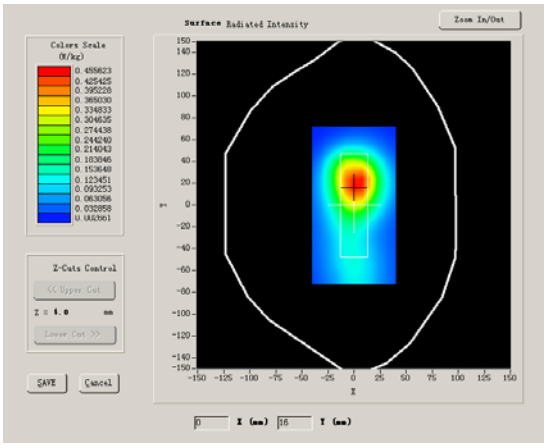
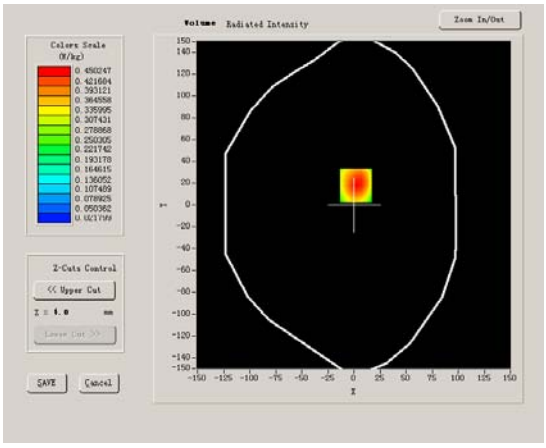
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9262):

Frequency (MHz)	1852.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000

Conductivity (S/m)	1.355047
Variation (%)	1.710000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

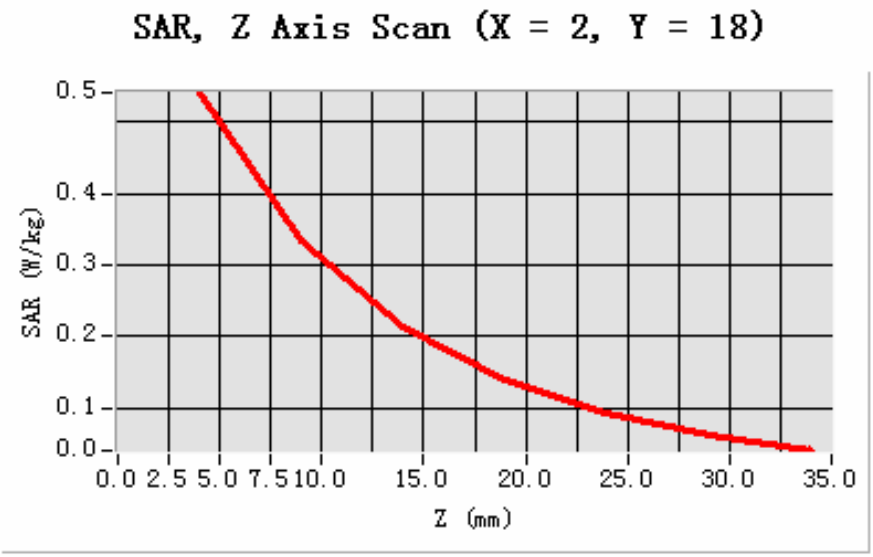
SURFACE SAR	**VOLUME SAR**
	

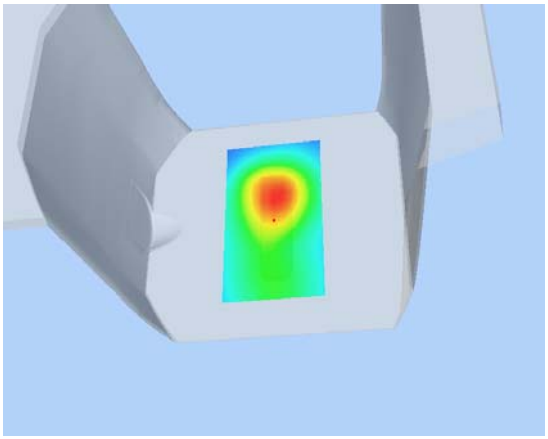
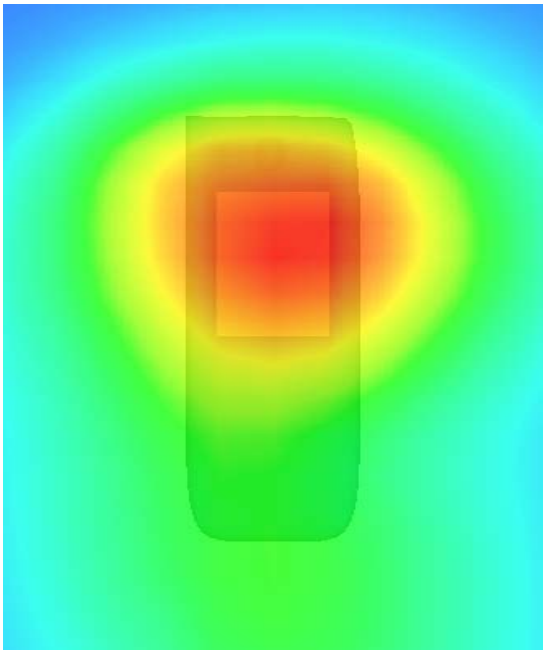
Maximum location: X=2.00, Y=18.00

SAR 10g (W/Kg)	0.121088
SAR 1g (W/Kg)	0.234679

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2798	0.1424	0.0762	0.0479	0.0234	0.0307



3D sceen shot	Hot spot position
	

MEASUREMENT 20

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 8 seconds

A. Experimental conditions.

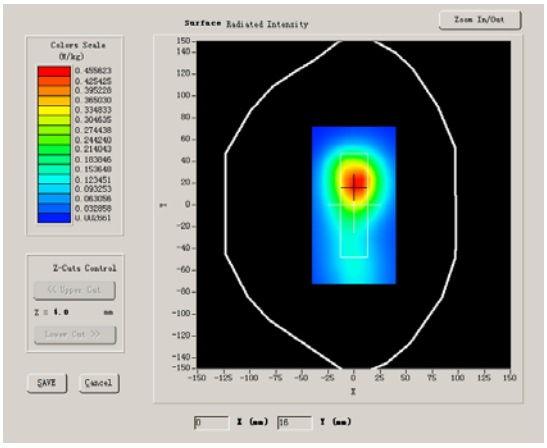
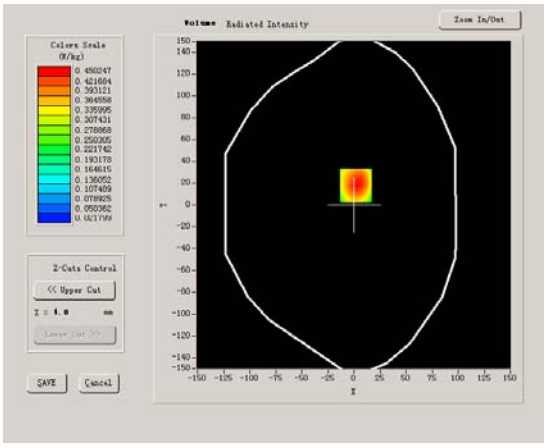
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 9400):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000

Conductivity (S/m)	1.381800
Variation (%)	1.340000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

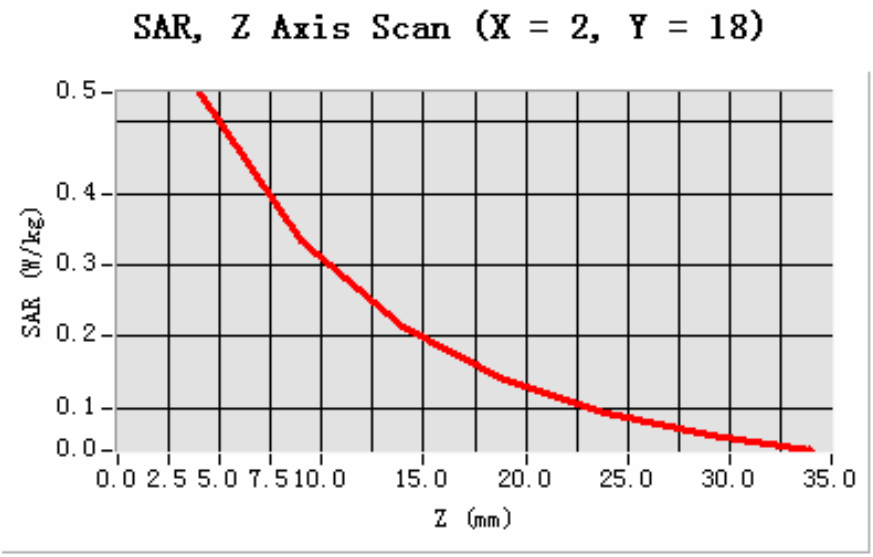
SURFACE SAR	**VOLUME SAR**
	

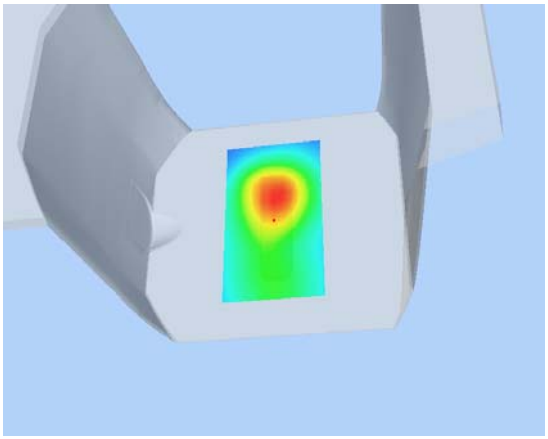
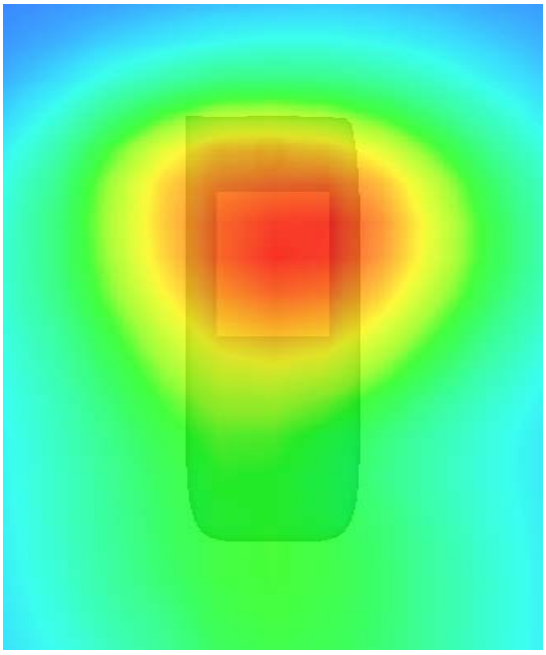
Maximum location: X=2.00, Y=18.00

SAR 10g (W/Kg)	0.243740
SAR 1g (W/Kg)	0.381368

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3768	0.1672	0.0967	0.0814	0.0506	0.0263



3D sceen shot	Hot spot position
	

MEASUREMENT 21

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 8 seconds

A. Experimental conditions.

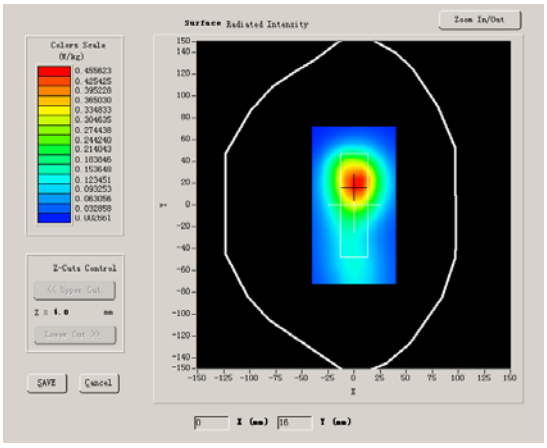
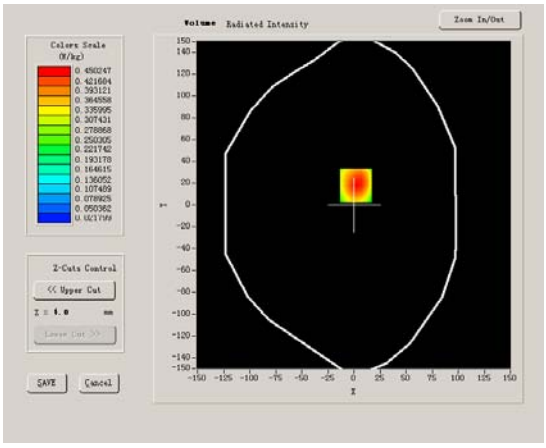
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.000000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000

Conductivity (S/m)	1.417537
Variation (%)	0.450000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

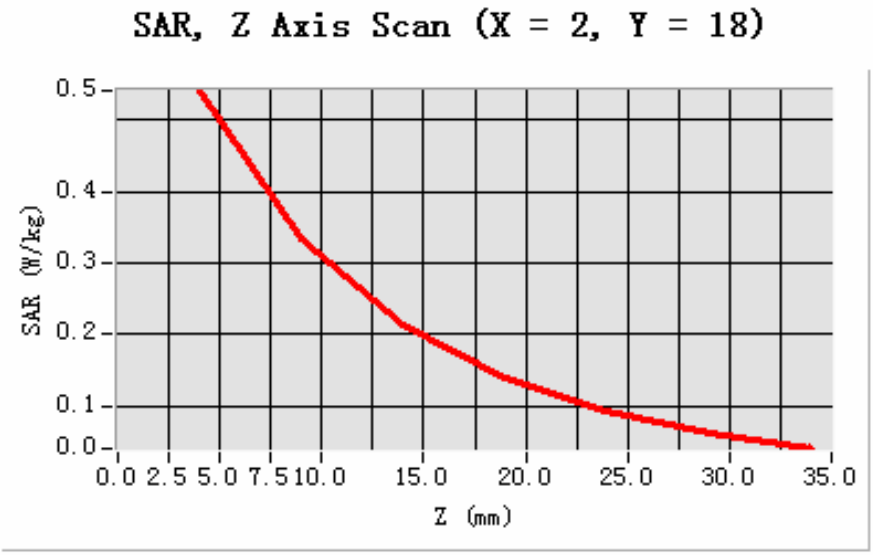
SURFACE SAR	**VOLUME SAR**
	

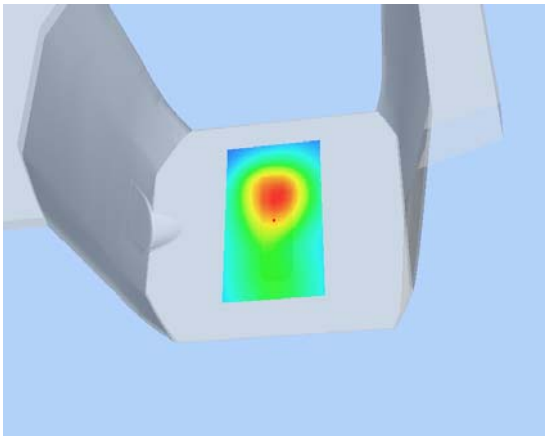
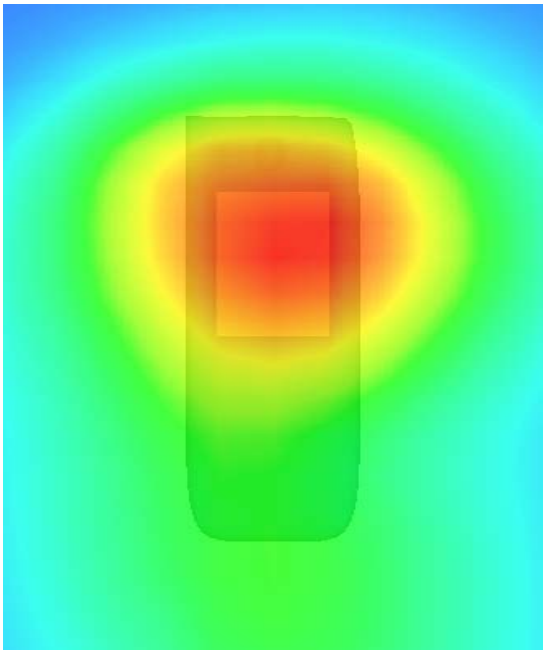
Maximum location: X=2.00, Y=18.00

SAR 10g (W/Kg)	0.130586
SAR 1g (W/Kg)	0.260890

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3544	0.1592	0.0845	0.0505	0.0593	0.0243



3D sceen shot	Hot spot position
	

MEASUREMENT 22

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 7 seconds

A. Experimental conditions.

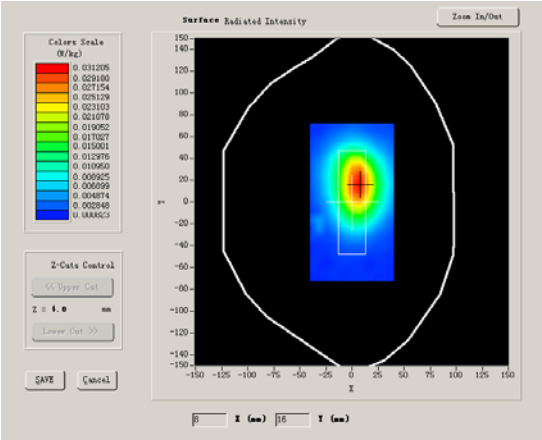
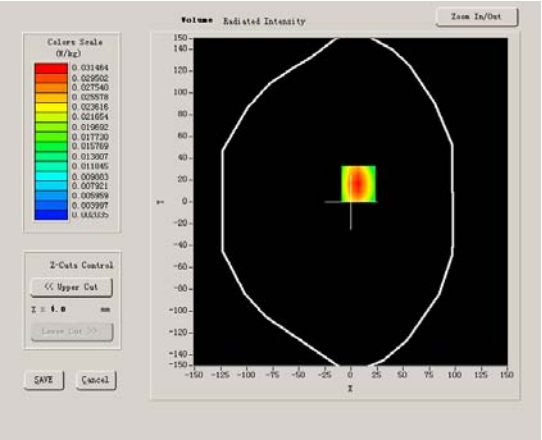
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9262):

Frequency (MHz)	1852.000000
Relative permittivity (real part)	39.980000
Relative permittivity	13.170000

Conductivity (S/m)	1.355047
Variation (%)	-0.910000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

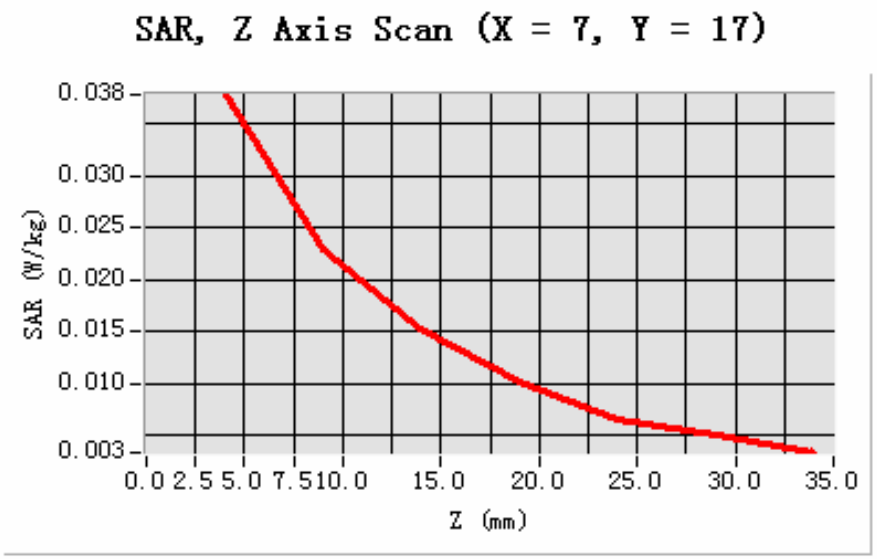
SURFACE SAR	VOLUME SAR
	

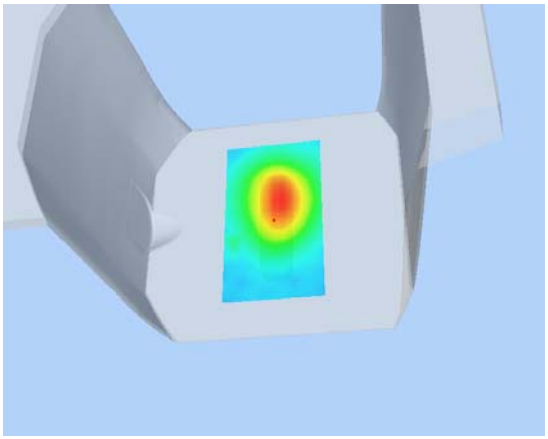
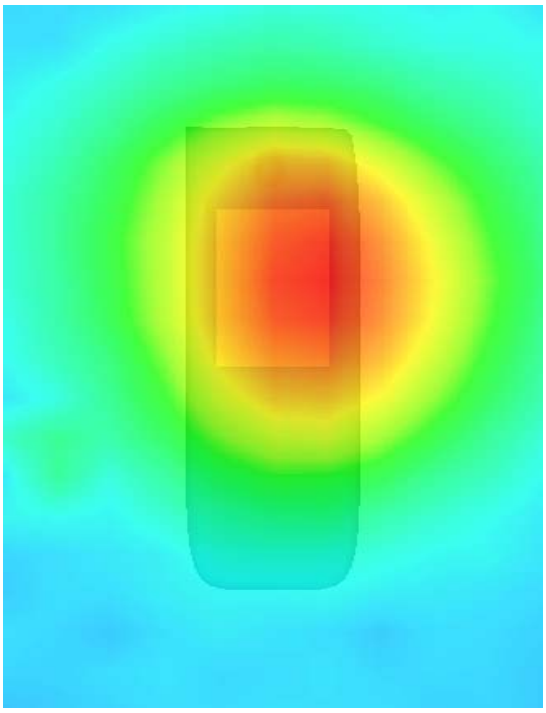
Maximum location: X=7.00, Y=-17.00

SAR 10g (W/Kg)	0.086348
SAR 1g (W/Kg)	0.154067

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1690	0.0956	0.0792	0.0291	0.0355	0.0107



3D sceen shot	Hot spot position
	

MEASUREMENT 23

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 8 seconds

A. Experimental conditions.

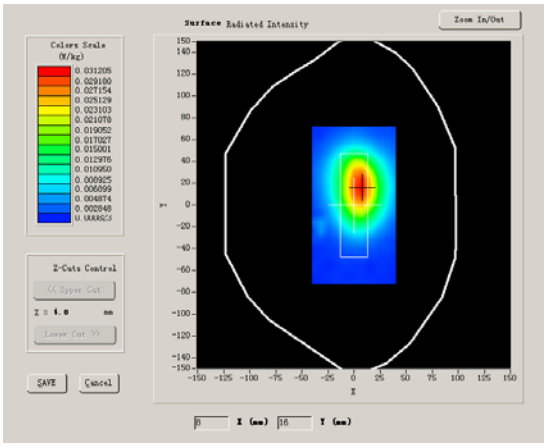
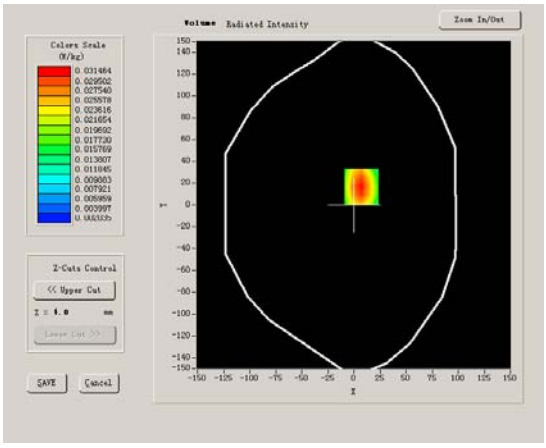
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 9400):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	39.910000
Relative permittivity	13.230000

Conductivity (S/m)	1.381800
Variation (%)	-1.190000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

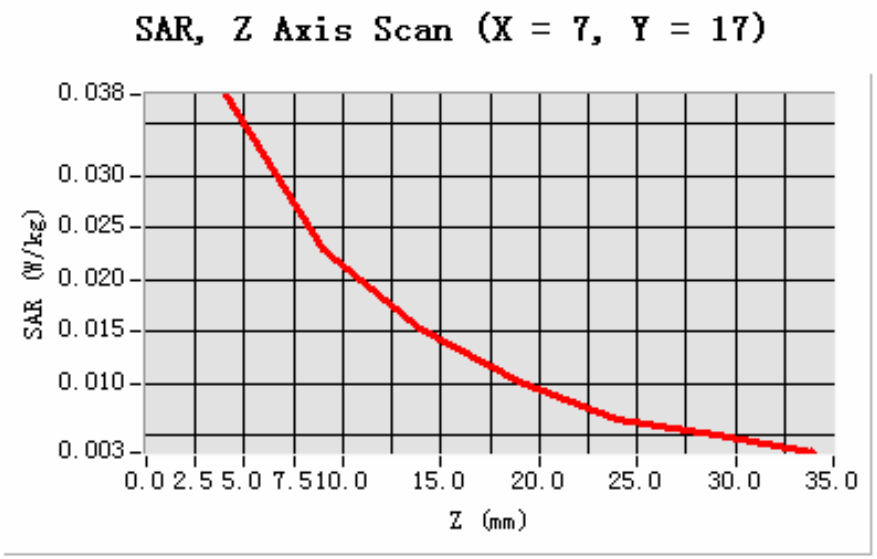
SURFACE SAR	**VOLUME SAR**
	

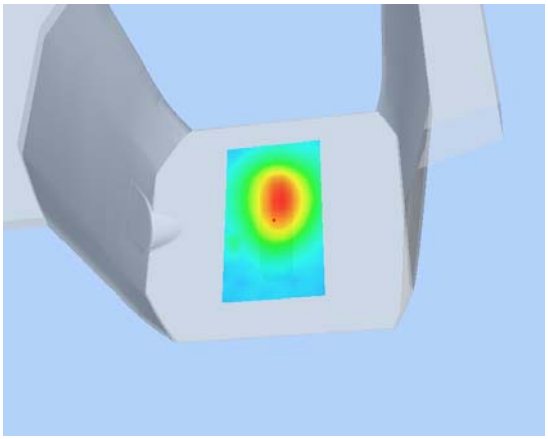
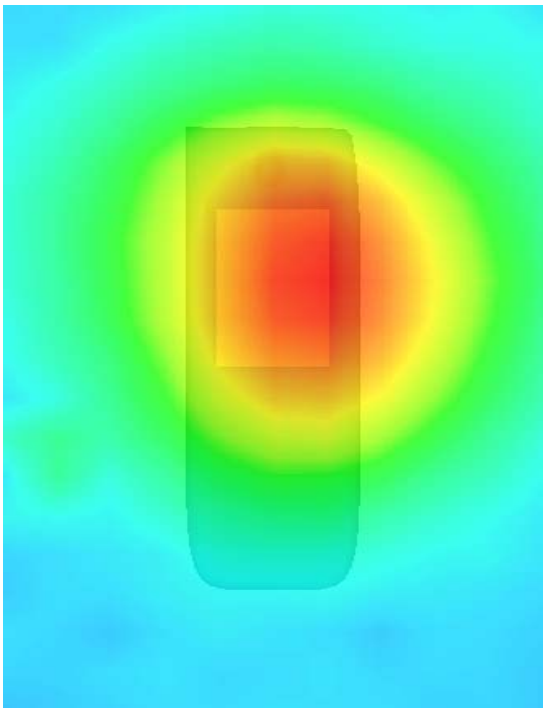
Maximum location: X=7.00, Y=-17.00

SAR 10g (W/Kg)	0.166449
SAR 1g (W/Kg)	0.288179

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1811	0.1115	0.0979	0.0732	0.0223	0.0438



3D sceen shot	Hot spot position
	

MEASUREMENT 24

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 13 minutes 9 seconds

A. Experimental conditions.

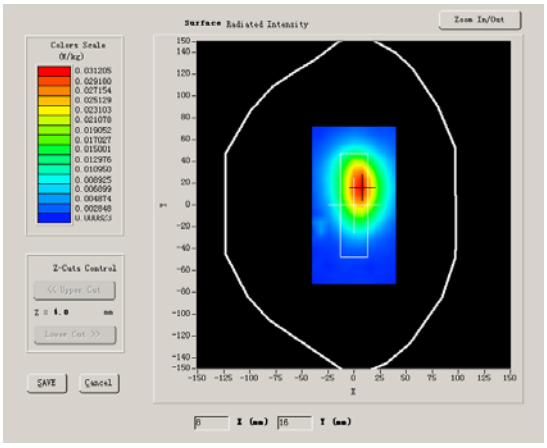
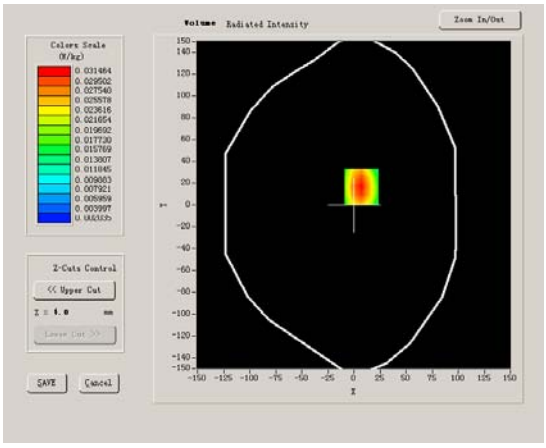
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	WCDMA
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 9538):

Frequency (MHz)	1907.000000
Relative permittivity (real part)	39.799999
Relative permittivity	13.380000

Conductivity (S/m)	1.417537
Variation (%)	-1.900000
Ambient Temperature:	21.9°C
Liquid Temperature:	21.3°C
ConvF:	40.136,34.843,38.721
Crest factor：	1:1

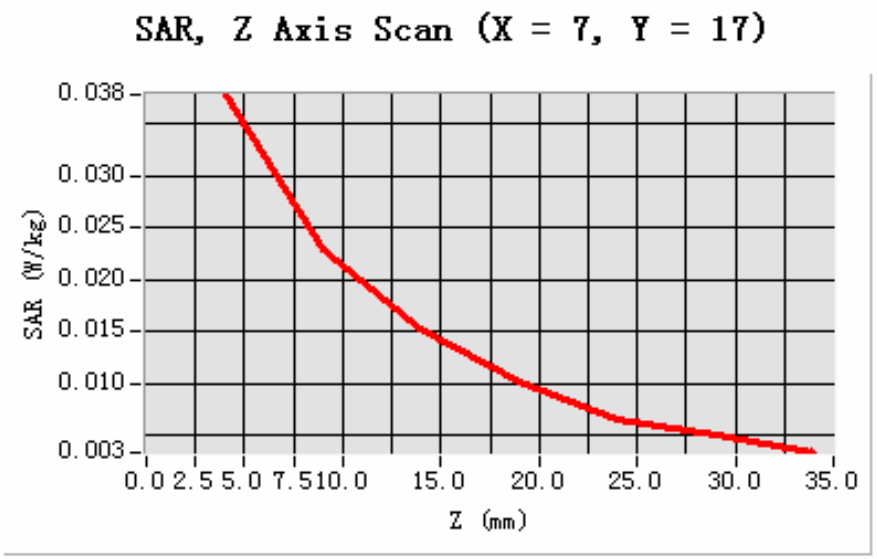
SURFACE SAR	VOLUME SAR
	

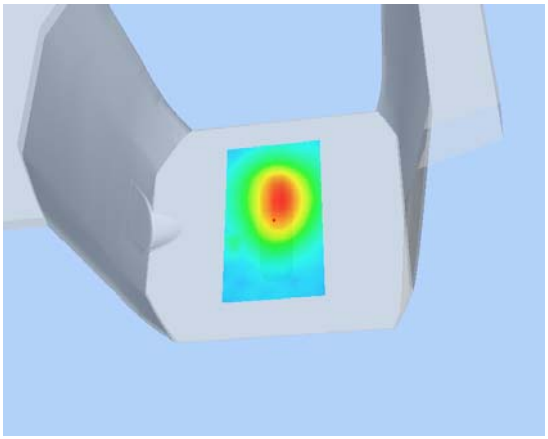
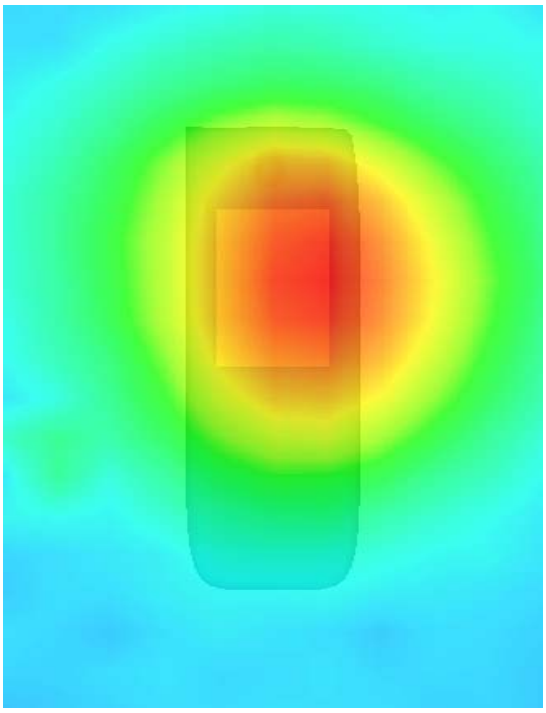
Maximum location: X=7.00, Y=-17.00

SAR 10g (W/Kg)	0.113197
SAR 1g (W/Kg)	0.200937

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1780	0.1255	0.0661	0.0620	0.0150	0.0086



3D sceen shot	Hot spot position
	

System Performance Check Data(Body)

Type: Phone measurement (Complete)

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

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

Date of measurement: 17/8/2009

Measurement duration: 9 minutes 27 seconds

A. Experimental conditions.

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

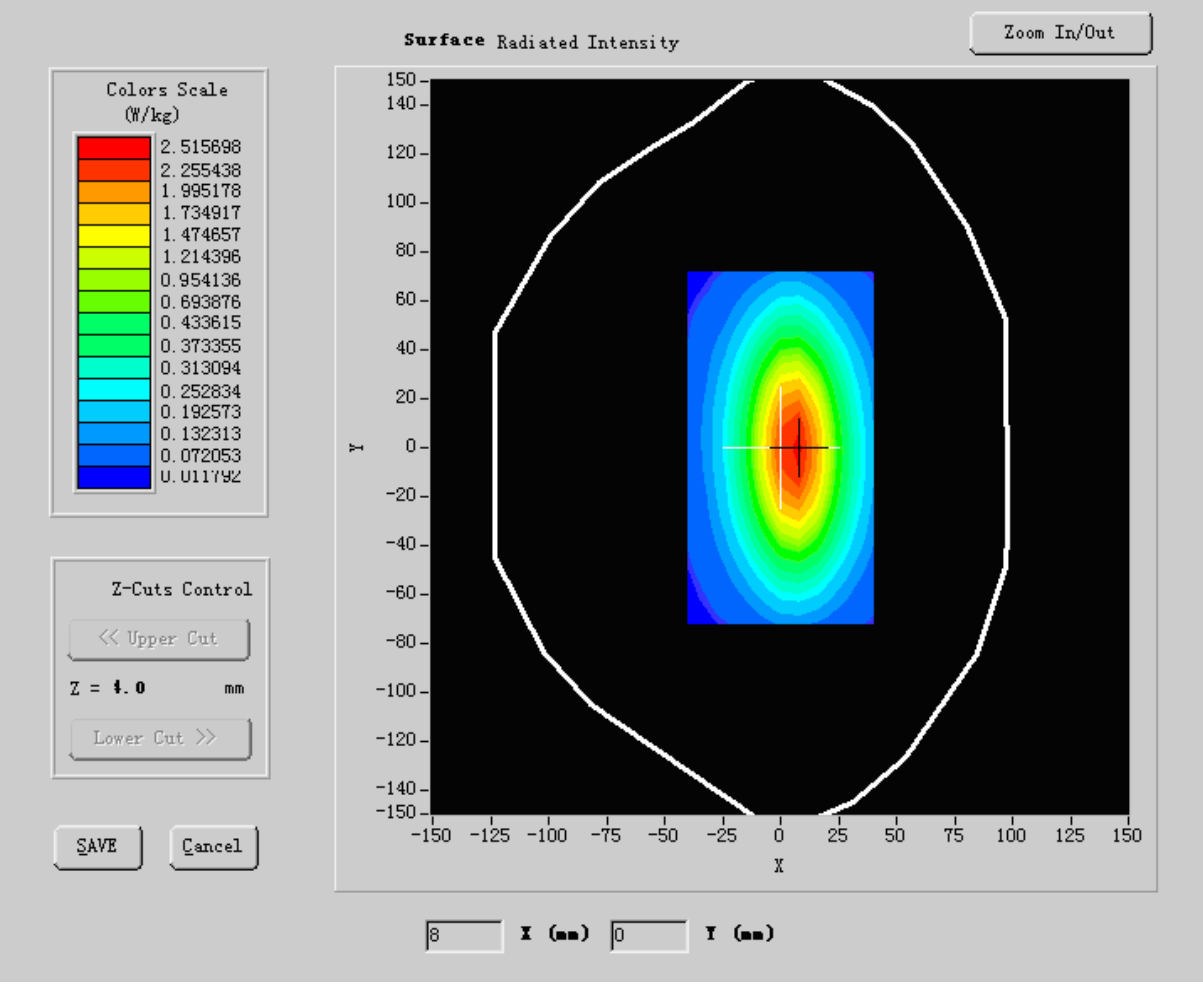
B. SAR Measurement Results

Band SAR:

Frequency (MHz)	835.000000
Relative permittivity (real part)	54.540001
Relative permittivity	15.070000

Conductivity (S/m)	0.975187
Variation (%)	-0.140000
Ambient Temperature:	22.4°C
Liquid Temperature:	22.1°C
Probe Serial Number:	SN_3708_EP80
Crest factor：	1:8.1

VOLUME SAR



Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.398753
SAR 1g (W/Kg)	2.487349

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