FCC SAR

TEST REPORT

of

HC-D2100

Model Name: HC-D2100
Trade Name: Haier
Report No.: SZ09010024S01
FCC ID: SG70901HC-D2100

prepared for

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No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China i

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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.:	SZ09010024S01
Date of Issue:	Jan 19, 2009
Date of Tests:	Jan 15, 2009 – Jan 15, 2009
Responsible for Accreditation:	Shu luan
Project Manager:	Li Lei
Deputy Project Manager:	Xuwwen Wu

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.

Li Lei
Tested by
(Responsible for the Test Report)

Xuwwen Wu
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:	Qingdao Haier Telecom Co., Ltd.
Address:	No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Contact Person:	Xu Jun
Telephone:	+86(532)88936583
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E-mail:	xu_jun@haier.com

3.2. Identification of Manufacturer

Company Name:	Qingdao Haier Telecom Co., Ltd.
Address:	No.1,Haier Road,Hi-tech Zone,Qingdao,266101,P.R.China
Contact Person:	Xu Jun
Telephone:	+86(532)88936583
Facsimile:	+86(532)88936583
E-mail:	xu_jun@haier.com

3.3. Equipment Under Test (EUT)

Brand Name:	Haier
Type Name:	Haier
Marking Name:	HC-D2100
Hardware Version:	H01
Software Version:	S007
Frequency Bands:	CDMA 800MHz (channel 9:825.27MHz,channel 384:836.52MHz, channel 758:847.74MHz) CDMA1900MHz (channel 25:1851.25MHz, channel 600:1880.00MHz, channel 1175:1908.75MHz)
Modulation Mode:	CDMA
Antenna type:	Build inside
Accessories:	Charger; Battery
Battery Model:	Haier
Battery specification:	800mAh 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#	N.A	H01	S007
2#	N.A	H01	S007

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)	=	3.70V
	Low Voltage (LV)	=	3.60V
	High Voltage (HV)	=	4.20V
Test frequency:	CDMA 800MHz.		
	CMDA 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 9, 384 and 758 respectively in the case of CDMA 800MHz or to 25, 600 and 1175 respectively in the case of CDMA 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

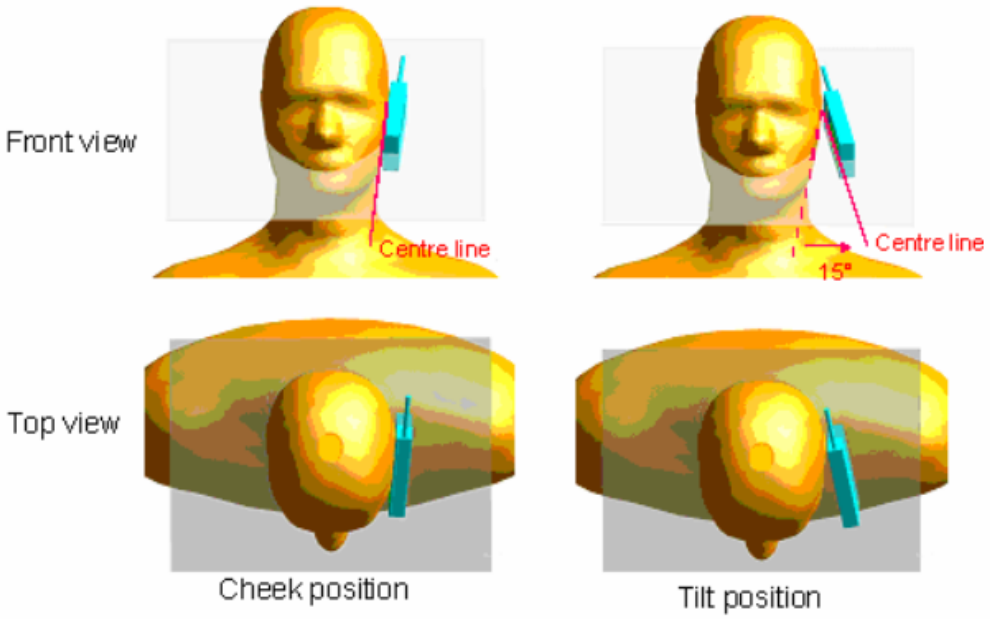
I.1. Normative reference

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:

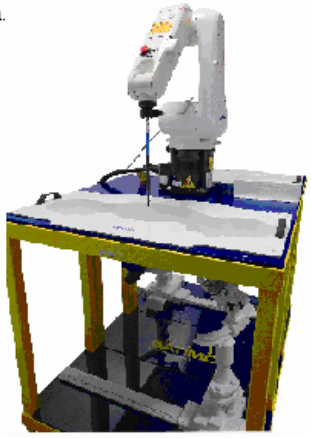
The mobile phone is well place in the "cheek" position as described above. Then the mobile phone is moved outward away from the mouth by an angle of 15 degrees or until contact with the ear lost.

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 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	$\sqrt{3}$	$(1\ Cp)^{1/2}$	$(1\ Cp)^{1/2}$	1.02	1.02	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	$\sqrt{Cp}$	$\sqrt{Cp}$	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	Target value（1g）	Test value（1g）	
835MHz	10.8W/Kg	10.13(head)	10.6(body)
1900MHz	39.7W/Kg	40.21(head)	42.16(body)

Results(2009/1/21)

Frequency	Target value（1g）	Test value（1g）	
835MHz	10.8W/Kg		9.908(body)

Note:Please refer to check the system performance data, the first 130-144 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 (Dec 22)	835 MHZ	42.002541	0.922145
Target value	1900 MHZ	40.0	1.40
Validation value (Dec 22)	1900 MHZ	39.521552	1.335397

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	1.05
Validation value (Dec 22)	835 MHZ	51.254412	0.9552364

Target value	1900 MHz	53.3	1.52
Validation value (Dec 22)	1900 MHZ	52.548876	1.395712

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.

Table3: 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	1.05
Validation value (Jan 21)	835 MHZ	54.116001	1.003105

4.3.6. Simulant liquids

Simulant liquids that are used for testing at frequencies of CDMA 850MHz, 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. 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 CDMA2000 1x

These procedures were followed according to FCC "SAR Measurement Procedures for 3G Devices", June 2006.

4.4.2.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by "SAR Measurement Procedures for 3G Devices", June 2006.
Maximum output power is verified on the High, Middle and Low channels according to procedures defined in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in “All Up” condition.
1. If the mobile station supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1 (Table.A) parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH0 and demodulation of RC 3, 4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2(Table.B) was applied.
5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.
Table.A Table.B

Parameters for Max. Power for RC1

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Table.A

Parameters for Max. Power for RC3

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Table.B

4.4.2.2 Head SAR Measurement

SAR for head exposure configurations is measured in RC3 with the DUT configured to transmit at

fullrate using Loopback Service Option SO55. SAR for RC1 is not required when the maximum average output of each channel is less than ¼ dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1 using the exposure configuration that results in the highest SAR for that channel in RC3.

4.4.2.3 Body SAR Measurement

SAR for body exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. SAR for multiple code channels (FCH + SCHn) is not required when the maximum average output of each RF channel is less than ¼ dB higher than that measured with FCH only. Otherwise, SAR is measured on the maximum output channel (FCH + SCHn) with FCH at full rate and SCH0 enabled at 9600 bps using the exposure configuration that results in the highest SAR for that channel with FCH only. When multiple code channels are enabled, the DUT output may shift by more than 0.5 dB and lead to higher SAR drifts and SCH dropouts. Body SAR in RC1 is not required when the maximum average output of each channel is less than ¼dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1; with Loopback Service Option SO55, at full rate, using the body exposure configuration that results in the highest SAR for that channel in RC3 .

Band	Channel	SO2(dBm)	SO2(dBm)	SO55(dBm)	**SO55(dBm)**	TDSO SO32(dBm)
		RC1/1	RC3/3	RC1/1	**RC3/3**	RC3/3
Cellular	9	24.07	24.59	24.44	24.19	24.35
	384	25.39	25.71	25.67	25.45	25.37
	758	24.70	24.83	24.31	24.67	23.81

Band	Channel	SO2(dBm)	SO2(dBm)	SO55(dBm)	**SO55(dBm)**	TDSO SO32(dBm)
		RC1/1	RC3/3	RC1/1	**RC3/3**	RC3/3
PCS	25	23.53	23.62	23.70	23.61	23.57
	600	22.34	22.27	22.35	22.25	22.31
	1175	22.37	22.41	22.36	22.37	22.39

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 (CDMA 800MHz Band)
SAR Values (CDMA 800MHz 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	0.360	24.19
Left head, Touch cheek, Channel Middle	0.475	25.45
Left head, Touch cheek, Channel High	0.621	24.67
Left head, Tilt 15 Degree, Channel Low	0.215	24.19
Left head, Tilt 15 Degree, Channel Middle	0.295	25.45
Left head, Tilt 15 Degree, Channel High	0.365	24.67
Right head, Touch cheek, Channel Low	0.424	24.19
Right head, Touch cheek, Channel Middle	0.538	25.45
Right head, Touch cheek, Channel High	0.661	24.67
Right head, Tilt 15 Degree, Channel Low	0.244	24.19
Right head, Tilt 15 Degree, Channel Middle	0.325	25.45
Right head, Tilt 15 Degree, Channel High	0.411	24.67

Summary of Measurement Results (PCS 1900MHz Band)
SAR Values (PCS 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	1.064	23.61
Left head, Touch cheek, Channel Middle	1.087	22.25
Left head, Touch cheek, Channel High	1.003	22.37
Left head, Tilt 15 Degree, Channel Low	1.037	23.61
Left head, Tilt 15 Degree, Channel Middle	1.136	22.25
Left head, Tilt 15 Degree, Channel High	1.118	22.37
Right head, Touch cheek, Channel Low	1.141	23.61

Right head, Touch cheek, Channel Middle	0.962	22.25
Right head, Touch cheek, Channel High	1.097	22.37
Right head, Tilt 15 Degree, Channel Low	1.311	23.61
Right head, Tilt 15 Degree, Channel Middle	0.968	22.25
Right head, Tilt 15 Degree, Channel High	1.252	22.37

SAR Values (CDMA 800MHz 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	0.157	24.19
Side, Middle frequency	0.212	25.45
Side, High frequency	0.285	24.67
Side, High frequency (back)	0.229	24.67
Side, High frequency(with earphone)	0.277	24.67

SAR Values (PCS 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	0.444	23.61
Side, Middle frequency	0.502	22.25
Side, High frequency	0.241	22.37
Side, Middle frequency (back)	0.389	22.25
Side, Middle frequency(with earphone)	0.494	22.25

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 1.5cm(taking into account of the IEEE 1528 and the place of the antenna)

Note 2： The test configuration is SO55, RC3

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

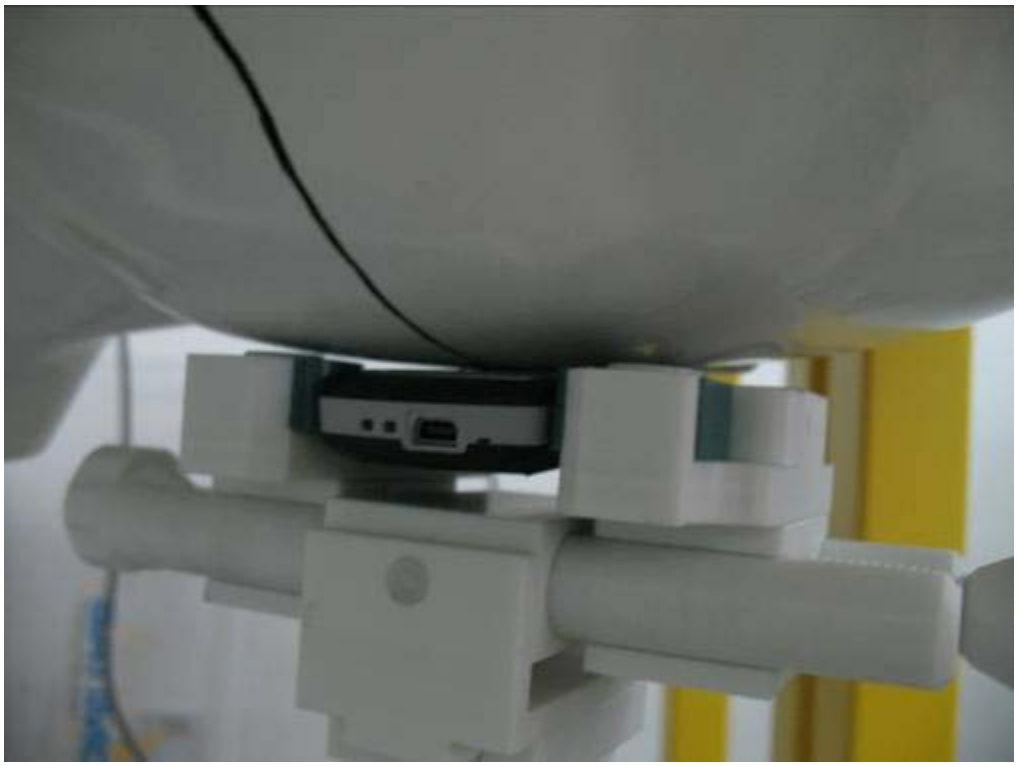
Date of Initial Accreditation: 1999-08-03

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).

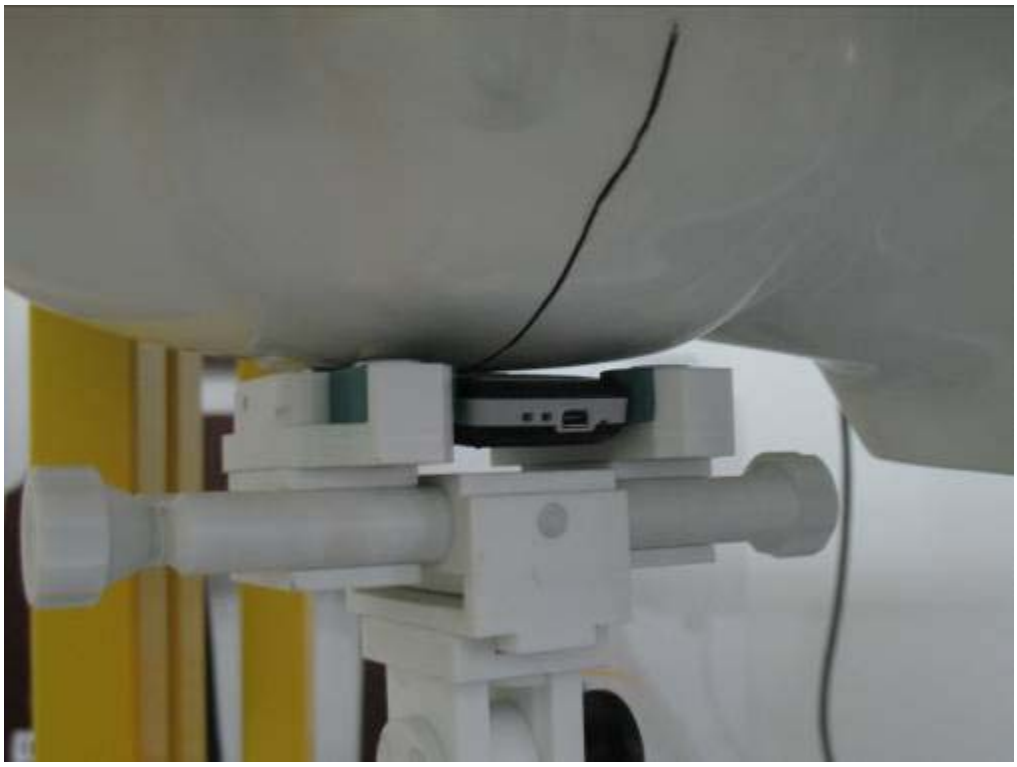
Annex B Photographs of the EUT

1 EUT 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

7Side Position EUT with Headphone

Annex C Graph Test Results

TYPE	BAND	PARAMETERS
Noise	--	--
	--	--
	CDMA850	Measurement 1: Right Head with Cheek device position on Low Channel in TDMA mode Measurement 2: Right Head with Cheek device position on Middle Channel in TDMA mode Measurement 3: Right Head with Cheek device position on High Channel in TDMA mode Measurement 4: Right Head with Tilt device position on Low Channel in TDMA mode Measurement 5: Right Head with Tilt device position on Middle Channel in TDMA mode Measurement 6: Right Head with Tilt device position on High Channel in TDMA mode Measurement 7: Left Head with Cheek device position on Low Channel in TDMA mode Measurement 8: Left Head with Cheek device position on Middle Channel in TDMA mode Measurement 9: Left Head with Cheek device position on High Channel in TDMA mode Measurement 10: Left Head with Tilt device position on Low Channel in TDMA mode Measurement 11: Left Head with Tilt device position on Middle Channel in TDMA mode Measurement 12: Left Head with Tilt device position on High Channel in TDMA mode_ Measurement 13: Validation Plane with Body device position on Low Channel in TDMA mode Measurement 14: Validation Plane with Body device position on Middle Channel in TDMA mode Measurement 15: Validation Plane with Body device position on High Channel in TDMA mode Measurement 16: Validation Plane with Body device position on High Channel in TDMA mode(back)

		Measurement 17: Validation Plane with Body device position on High Channel in TDMA mode(with Headphone)
	CDMA1900	Measurement 18: Right Head with Cheek device position on Low Channel in TDMA mode Measurement 19: Right Head with Cheek device position on Middle Channel in TDMA mode Measurement 20: Right Head with Cheek device position on High Channel in TDMA mode Measurement 21: Right Head with Tilt device position on Low Channel in TDMA mode Measurement 22: Right Head with Tilt device position on Middle Channel in TDMA mode Measurement123: Right Head with Tilt device position on High Channel in TDMA mode Measurement 24: Left Head with Cheek device position on Low Channel in TDMA mode Measurement 25: Left Head with Cheek device position on Middle Channel in TDMA mode Measurement 26: Left Head with Cheek device position on High Channel in TDMA mode Measurement 27: Left Head with Tilt device position on Low Channel in TDMA mode Measurement 28: Left Head with Tilt device position on Middle Channel in TDMA mode Measurement 29: Left Head with Tilt device position on High Channel in TDMA mode Measurement 30: Validation Plane with Body device position on Low Channel in TDMA mode Measurement 31: Validation Plane with Body device position on Middle Channel in TDMA mode Measurement 32: Validation Plane with Body device position on High Channel in TDMA mode Measurement 33: Validation Plane with Body device position on High Channel in TDMA mode(back) Measurement 34: Validation Plane with Body device position on High Channel in TDMA mode(with Headphone)

MEASUREMENT 1

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

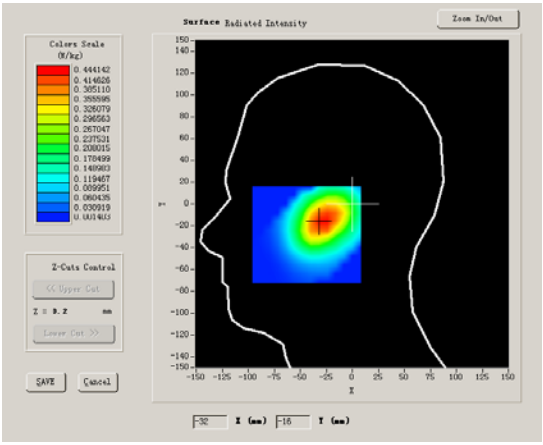
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	CDMA850
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9):

Frequency (MHz)	825.270020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.867737
Variation (%)	-1.580000

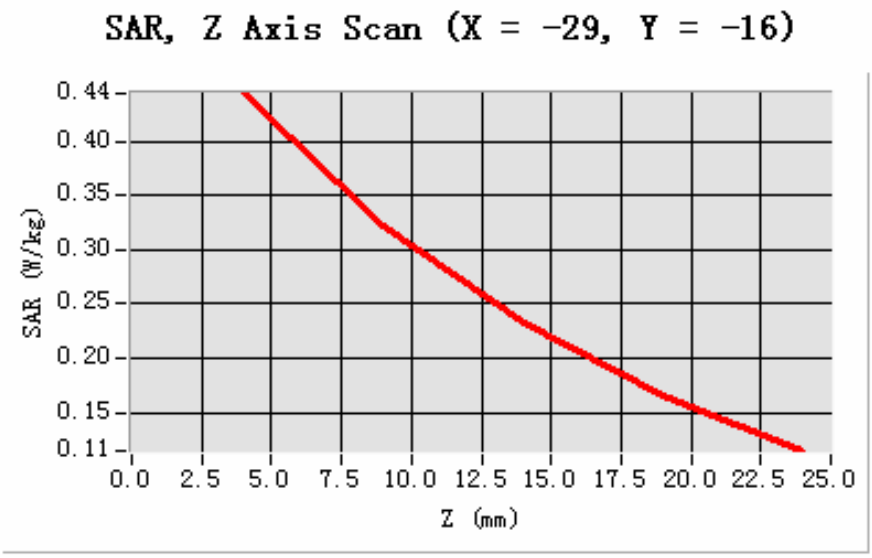
SURFACE SAR	VOLUME SAR
	

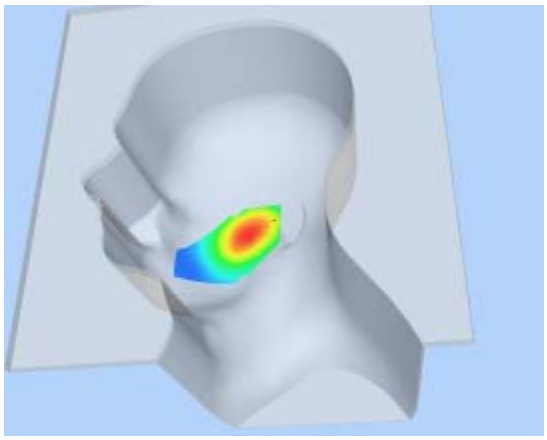
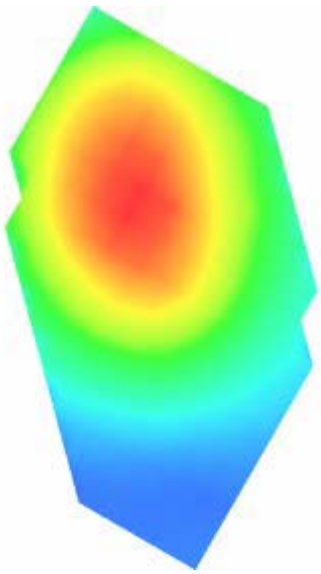
Maximum location: X=-29.00, Y=-16.00

SAR 10g (W/Kg)	0.283969
SAR 1g (W/Kg)	0.423618

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.4442	0.3227	0.2327	0.1661



3D sceen shot	Hot spot position
	

MEASUREMENT 2

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 58 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

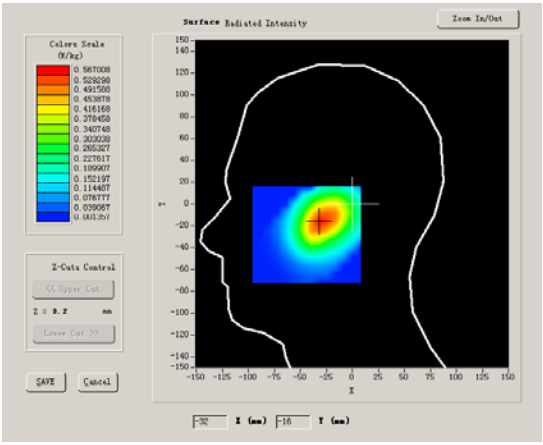
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	CDMA850
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 384):

Frequency (MHz)	836.520020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.879566
Variation (%)	-1.230000

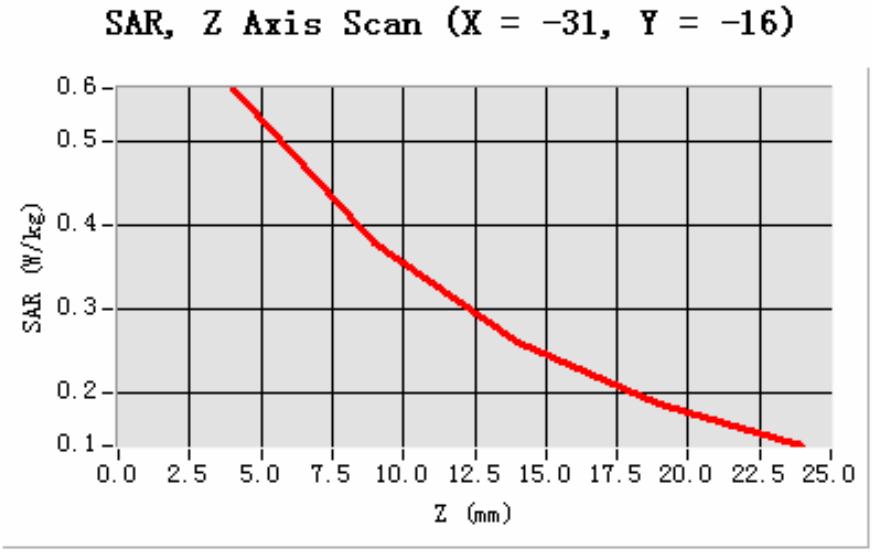
SURFACE SAR	VOLUME SAR
	

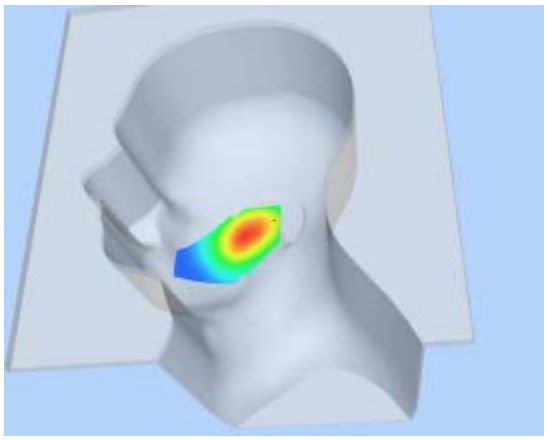
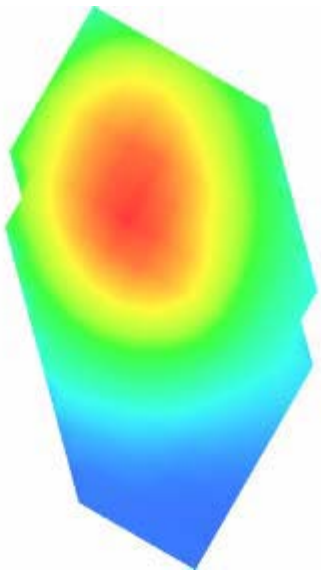
Maximum location: X=-31.00, Y=-16.00

SAR 10g (W/Kg)	0.346576
SAR 1g (W/Kg)	0.538485

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.5636	0.3779	0.2605	0.1877



3D sceen shot	Hot spot position
	

MEASUREMENT 3

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 52 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

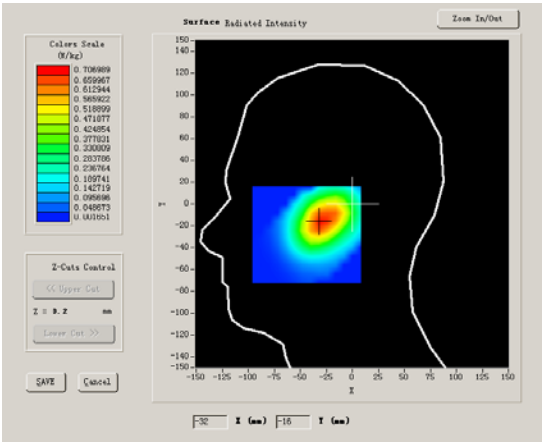
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.739990
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.891363
Variation (%)	-0.540000

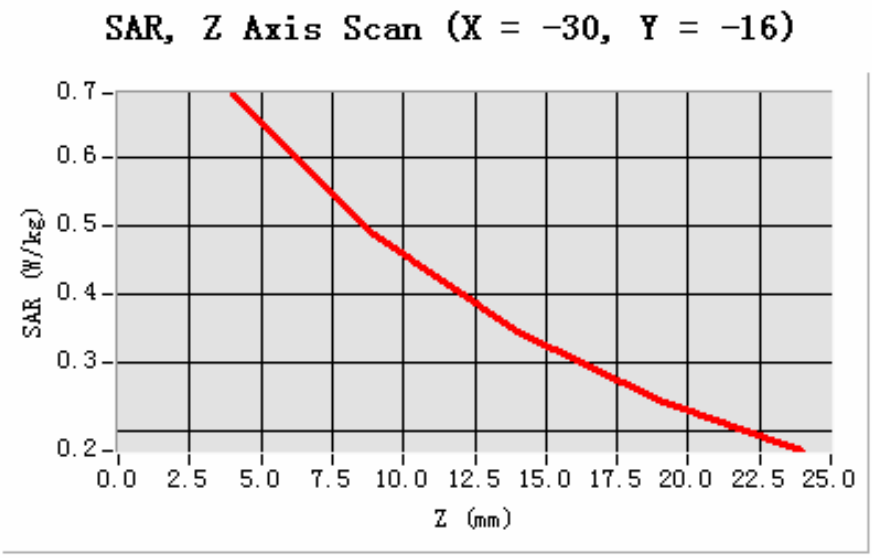
SURFACE SAR	VOLUME SAR
	

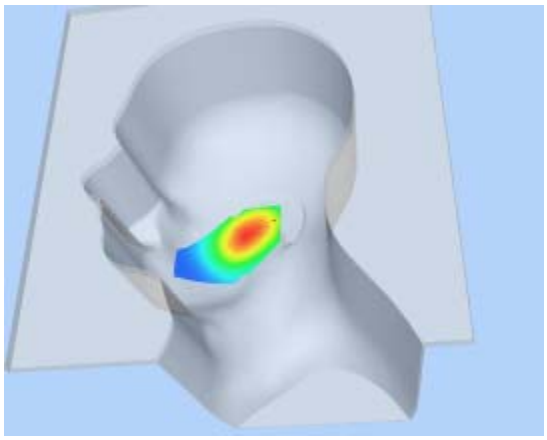
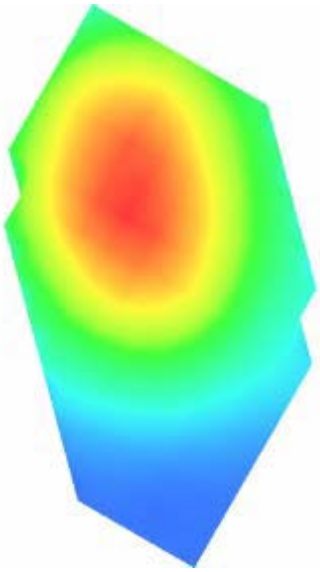
Maximum location: X=-30.00, Y=-16.00

SAR 10g (W/Kg)	0.434014
SAR 1g (W/Kg)	0.660789

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.6945	0.4878	0.3443	0.2452



3D sceen shot	Hot spot position
	

MEASUREMENT 4

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

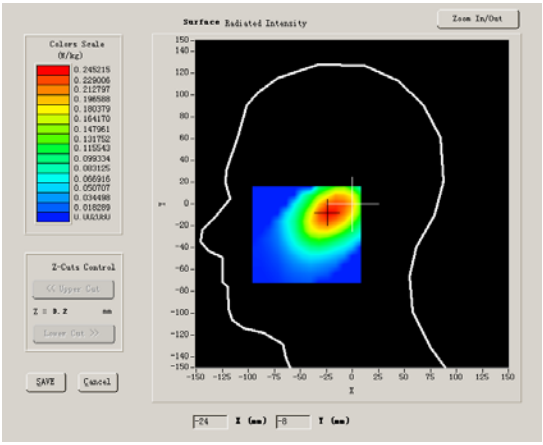
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	CDMA850
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9):

Frequency (MHz)	825.270020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.867737
Variation (%)	0.050000

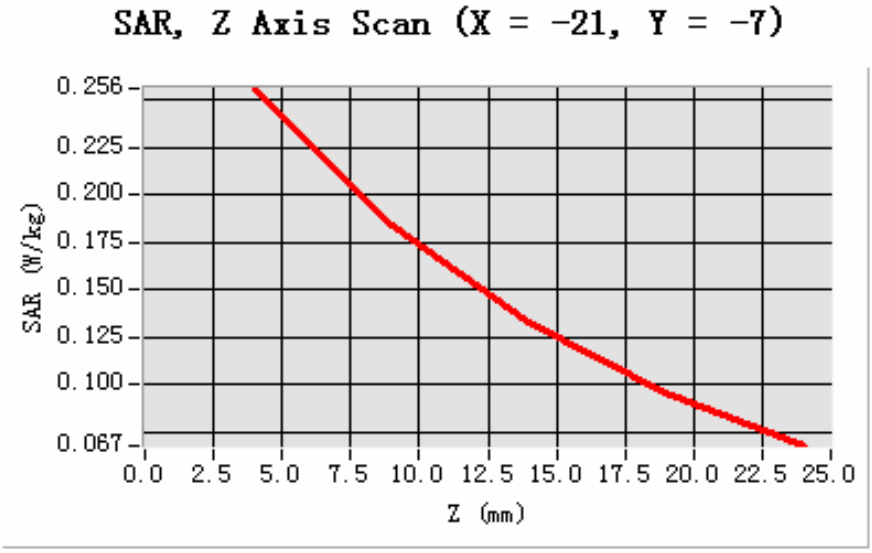
SURFACE SAR	VOLUME SAR
	

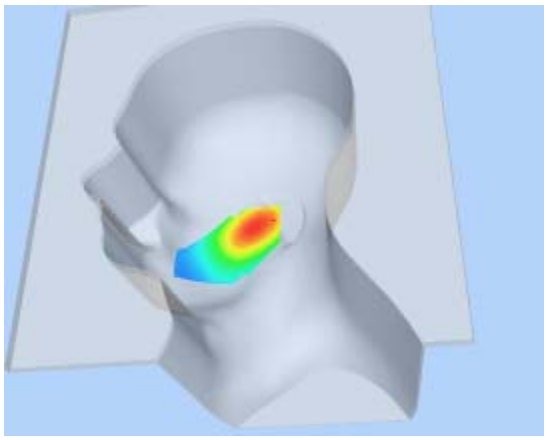
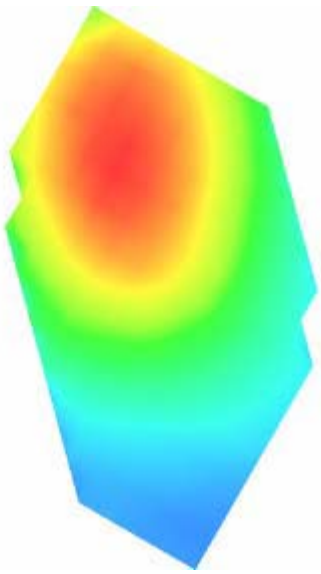
Maximum location: X=-21.00, Y=-7.00

SAR 10g (W/Kg)	0.164638
SAR 1g (W/Kg)	0.244063

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2562	0.1838	0.1322	0.0955



3D sceen shot	Hot spot position
	

MEASUREMENT 5

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

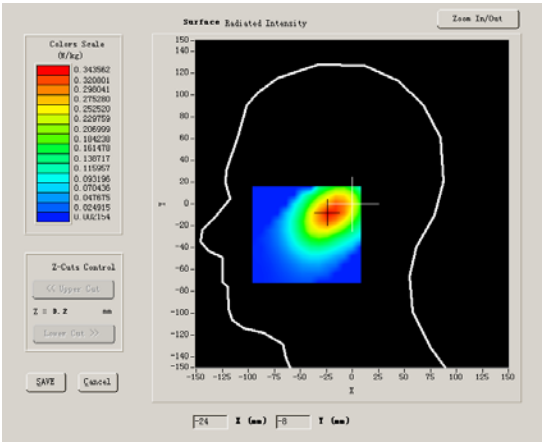
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	CDMA850
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 384):

Frequency (MHz)	836.520020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.879566
Variation (%)	1.480000

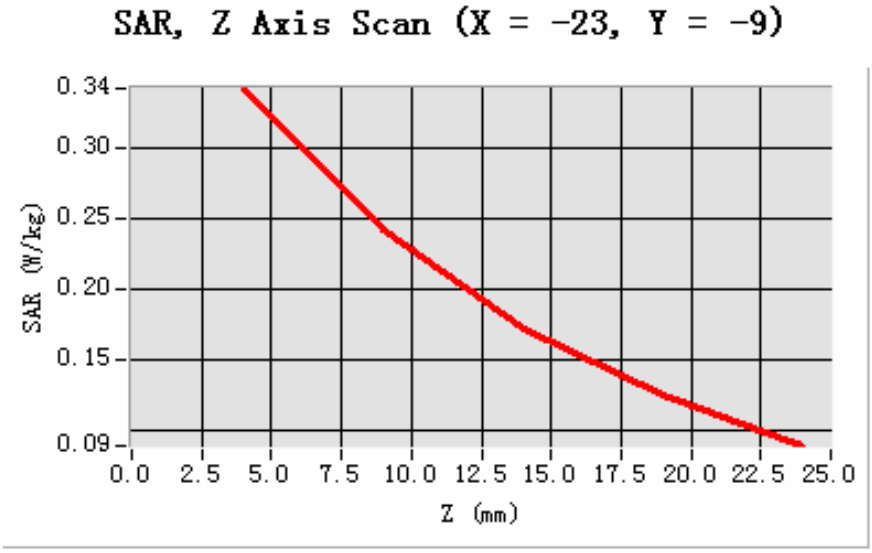
SURFACE SAR	VOLUME SAR
	

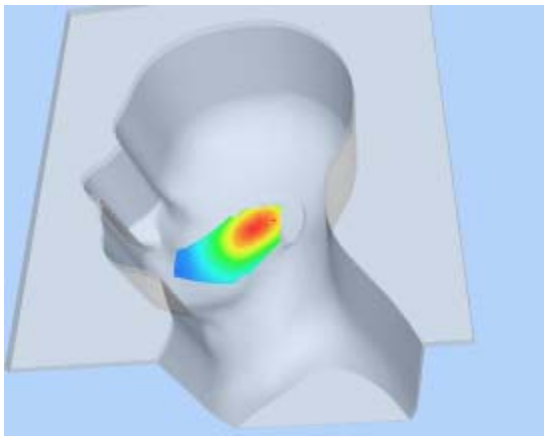
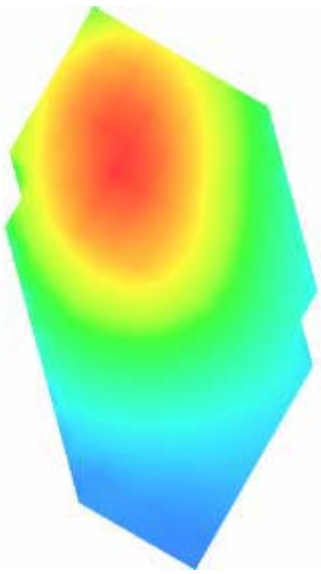
Maximum location: X=-23.00, Y=-9.00

SAR 10g (W/Kg)	0.218394
SAR 1g (W/Kg)	0.325174

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.3417	0.2413	0.1720	0.1242



3D sceen shot	Hot spot position
	

MEASUREMENT 6

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 53 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

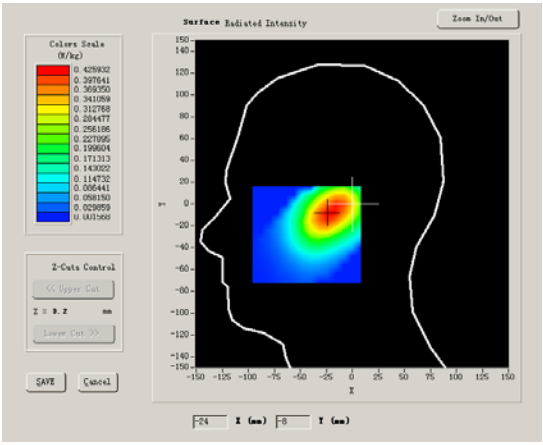
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.739990
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.891363
Variation (%)	-0.420000

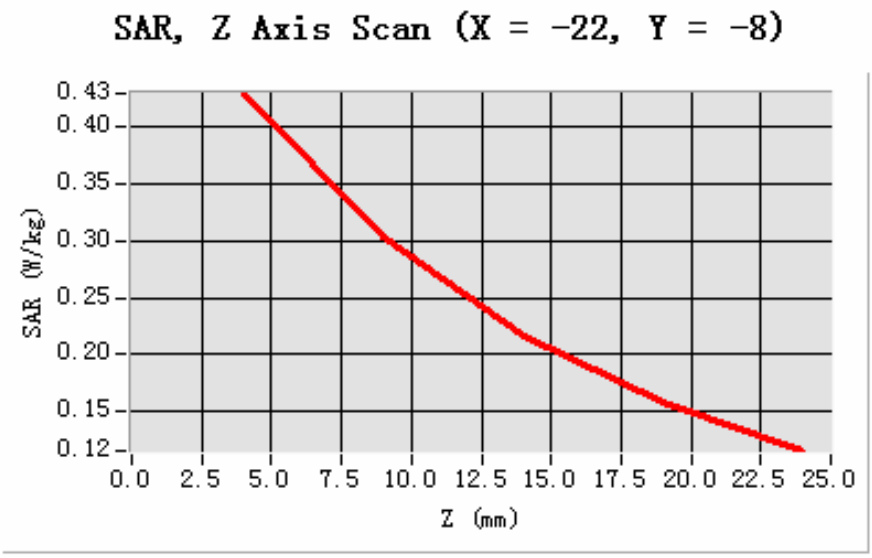
SURFACE SAR	VOLUME SAR
	

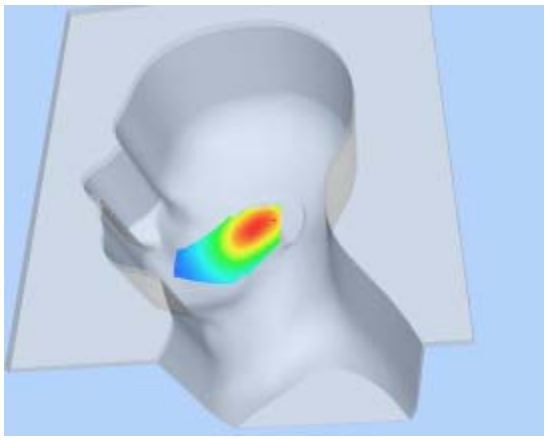
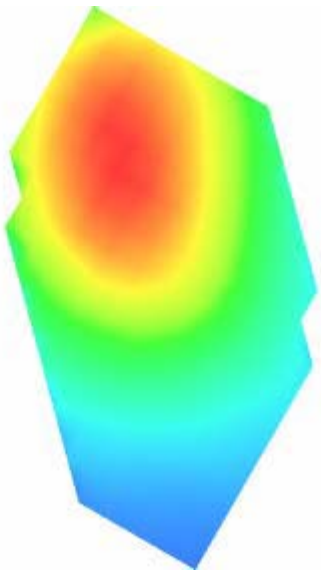
Maximum location: X=-22.00, Y=-8.00

SAR 10g (W/Kg)	0.277086
SAR 1g (W/Kg)	0.411381

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.4295	0.3030	0.2169	0.1587



3D sceen shot	Hot spot position
	

MEASUREMENT 7

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 53 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

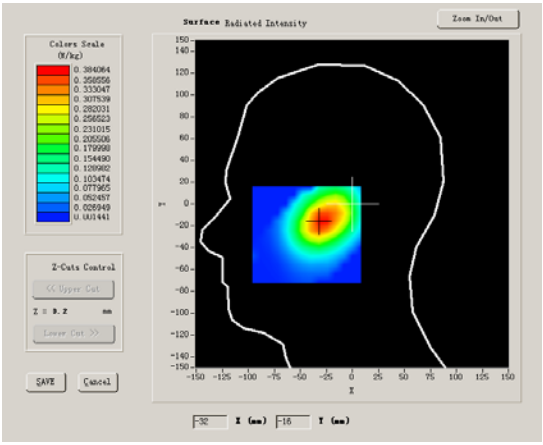
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	CDMA850
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9):

Frequency (MHz)	825.270020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.867737
Variation (%)	0.470000

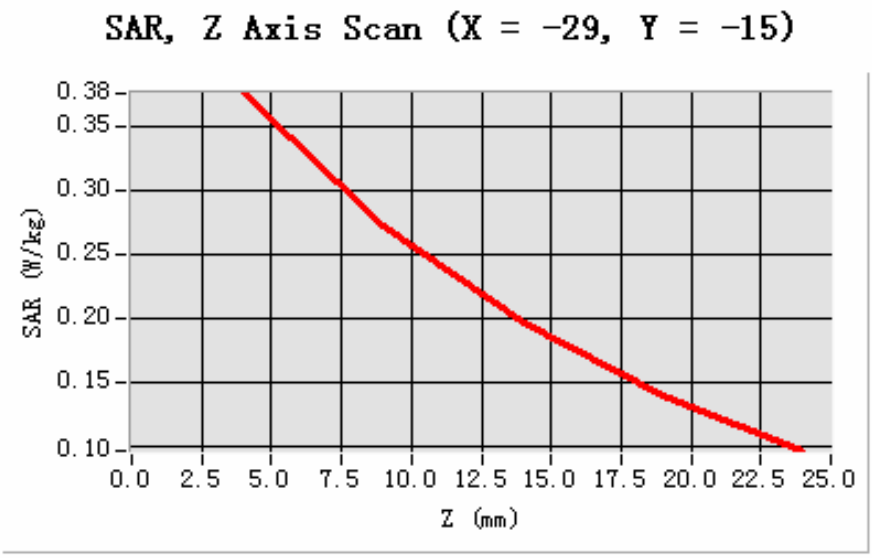
SURFACE SAR	VOLUME SAR
	

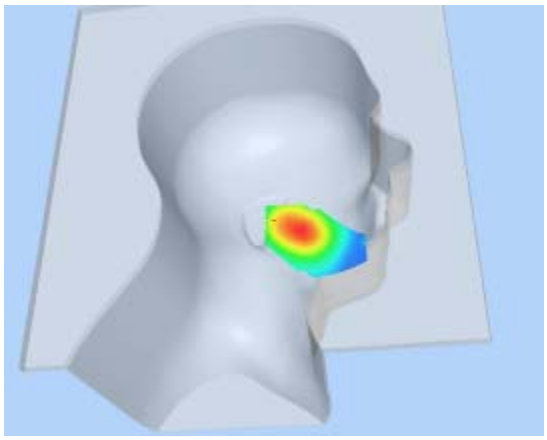
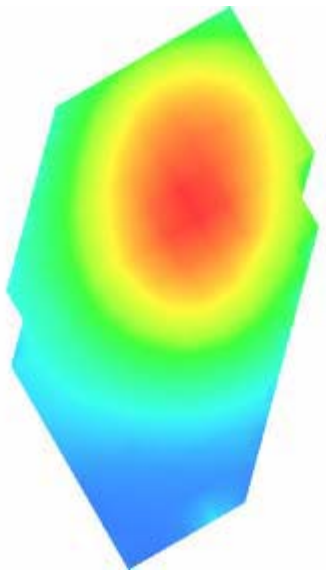
Maximum location: X=-29.00, Y=-15.00

SAR 10g (W/Kg)	0.240918
SAR 1g (W/Kg)	0.359756

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.3767	0.2736	0.1973	0.1410



3D sceen shot	Hot spot position
	

MEASUREMENT 8

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 52 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

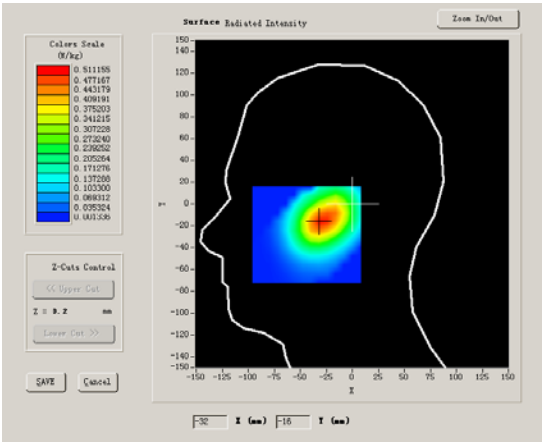
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	CDMA850
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 384):

Frequency (MHz)	836.520020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.879566
Variation (%)	-1.560000

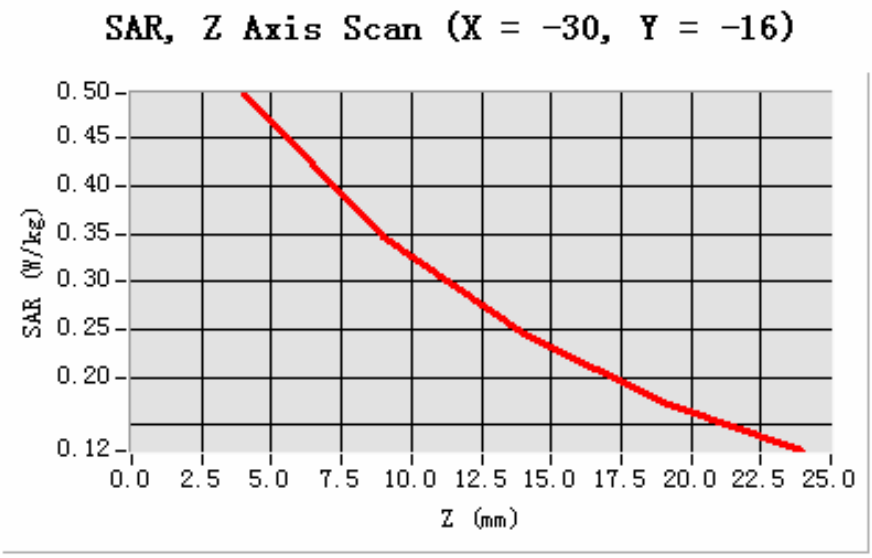
SURFACE SAR	VOLUME SAR
	

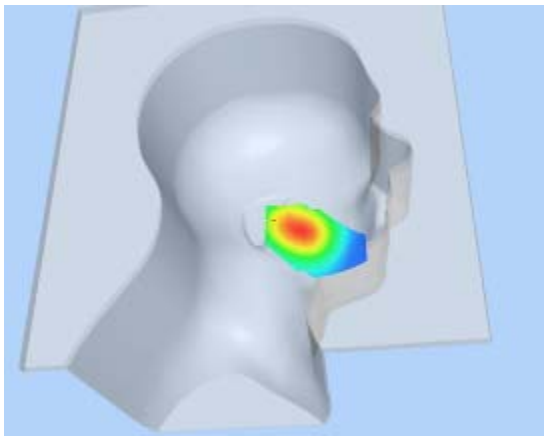
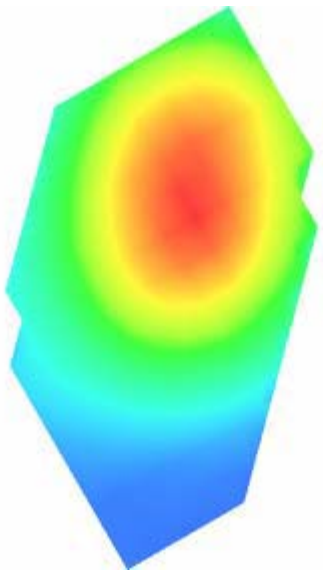
Maximum location: X=-30.00, Y=-16.00

SAR 10g (W/Kg)	0.311824
SAR 1g (W/Kg)	0.475035

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.4969	0.3472	0.2447	0.1749



3D sceen shot	Hot spot position
	

MEASUREMENT 9

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 49 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

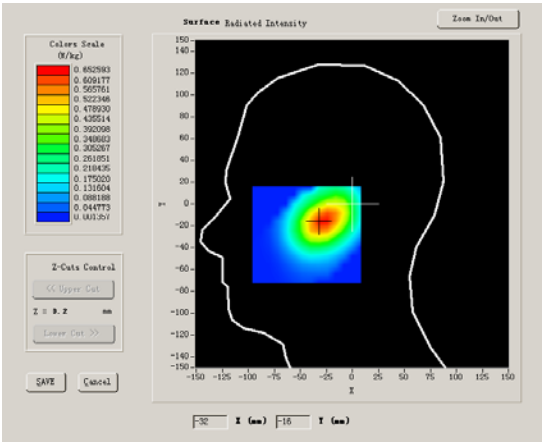
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.739990
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.891363
Variation (%)	-1.200000

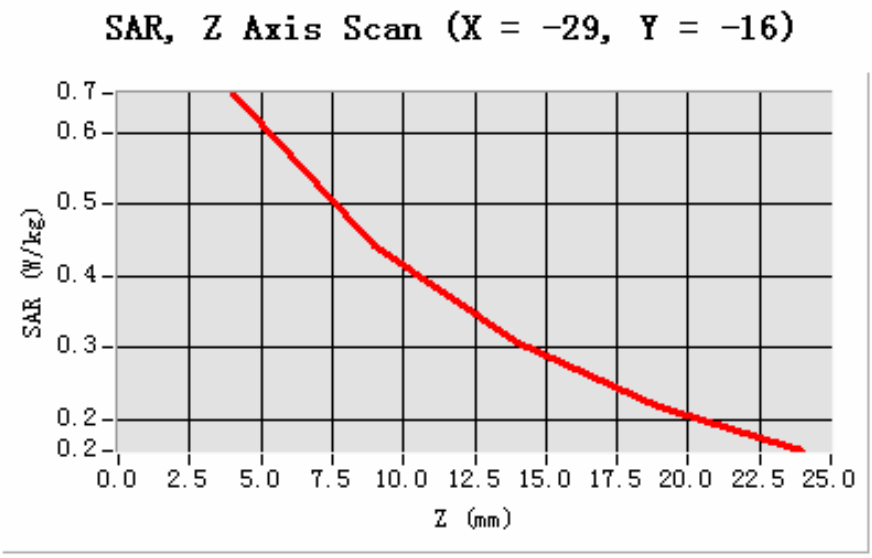
SURFACE SAR	VOLUME SAR
	

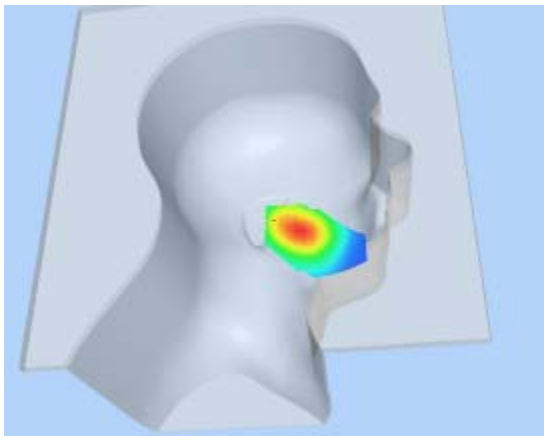
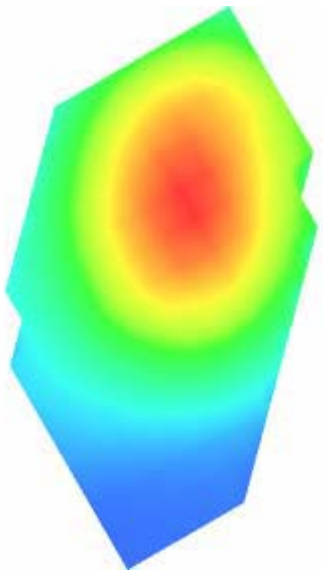
Maximum location: X=-29.00, Y=-16.00

SAR 10g (W/Kg)	0.398509
SAR 1g (W/Kg)	0.621127

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.6545	0.4440	0.3072	0.2195



3D sceen shot	Hot spot position
	

MEASUREMENT 10

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 54 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

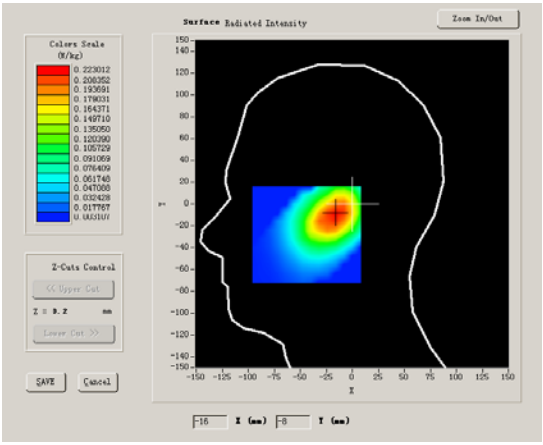
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	CDMA850
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9):

Frequency (MHz)	825.270020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.867737
Variation (%)	1.030000

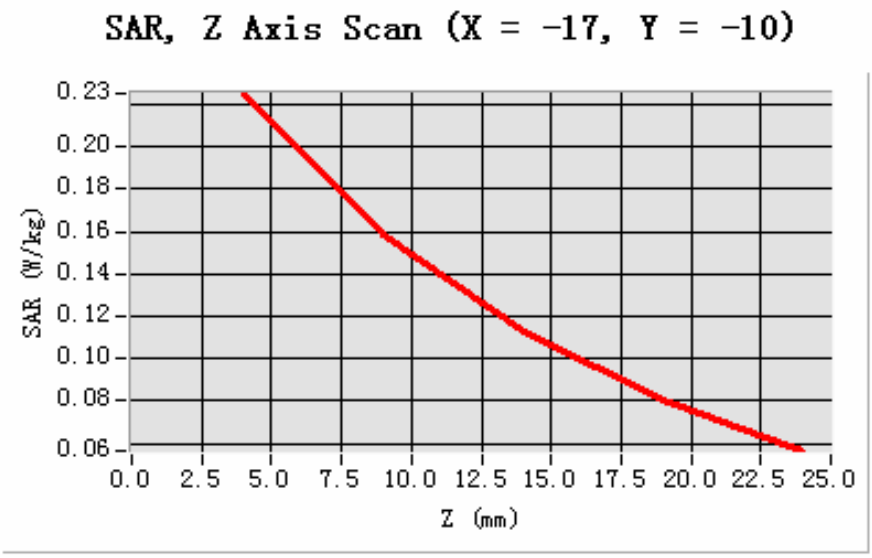
SURFACE SAR	VOLUME SAR
	

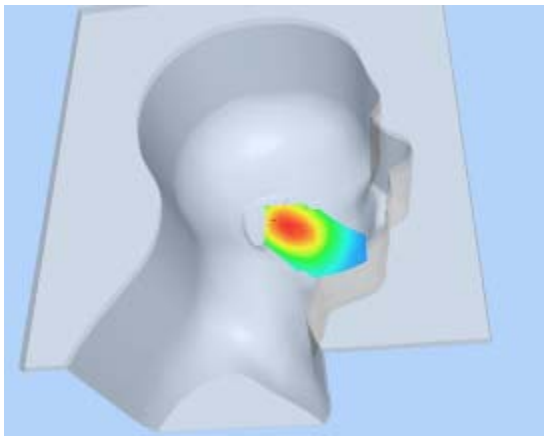
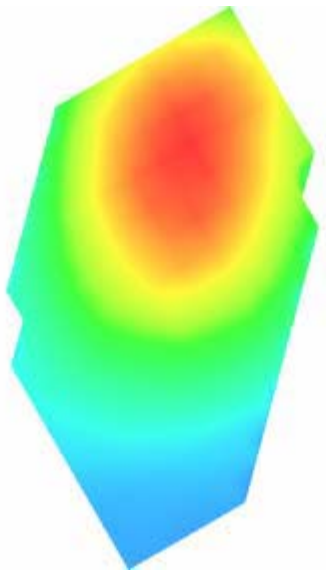
Maximum location: X=-17.00, Y=-10.00

SAR 10g (W/Kg)	0.144265
SAR 1g (W/Kg)	0.214756

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2251	0.1586	0.1124	0.0804



3D sceen shot	Hot spot position
	

MEASUREMENT 11

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 48 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

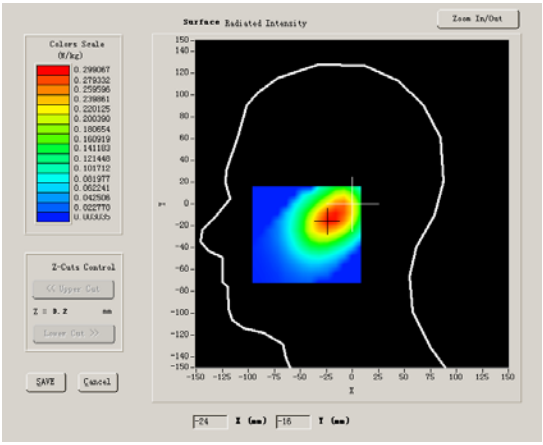
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	CDMA850
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 384):

Frequency (MHz)	836.520020
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.879566
Variation (%)	-0.900000

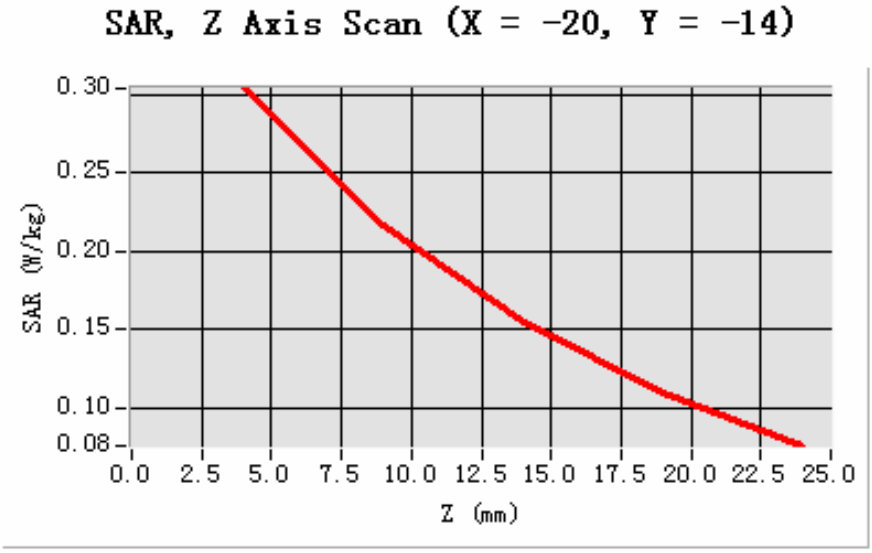
SURFACE SAR	VOLUME SAR
	

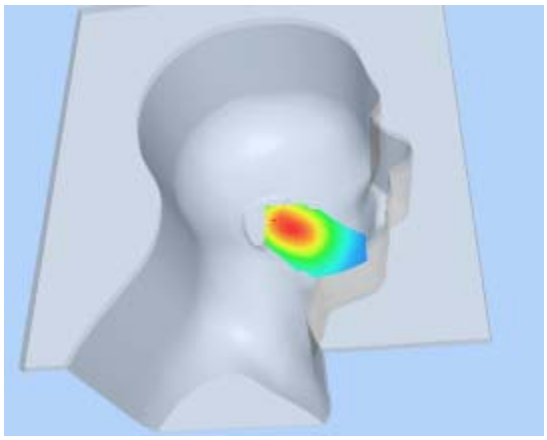
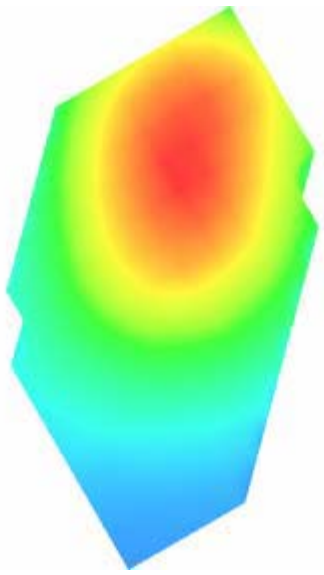
Maximum location: X=-20.00, Y=-14.00

SAR 10g (W/Kg)	0.193739
SAR 1g (W/Kg)	0.289501

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.3039	0.2169	0.1545	0.1099



3D sceen shot	Hot spot position
	

MEASUREMENT 12

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 48 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

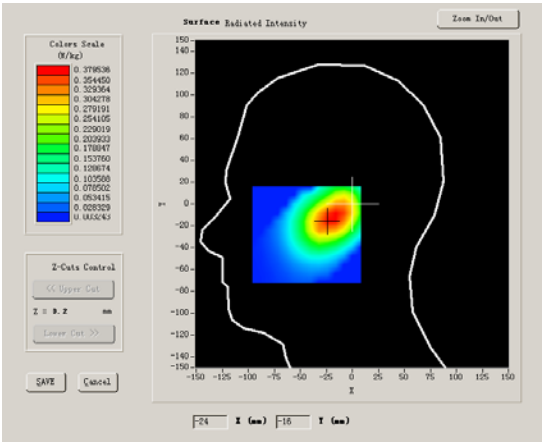
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.739990
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.891363
Variation (%)	-0.440000

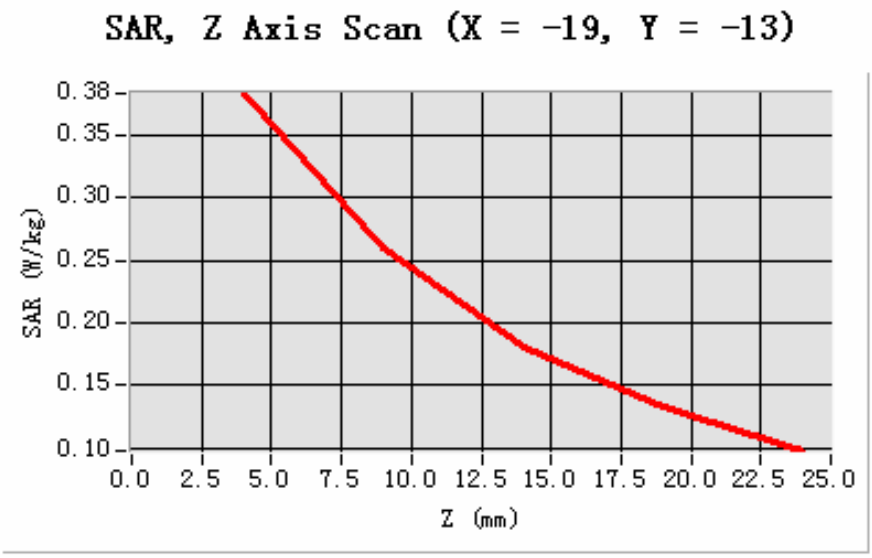
SURFACE SAR	VOLUME SAR
	

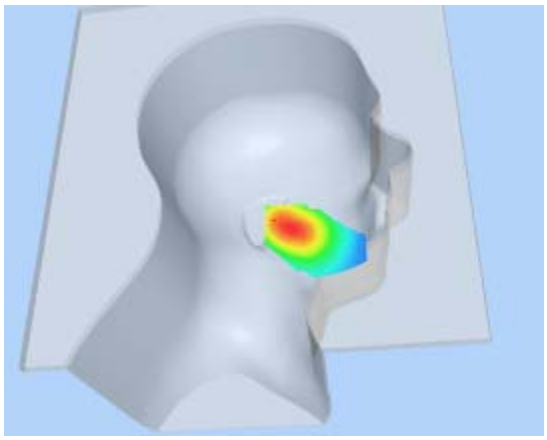
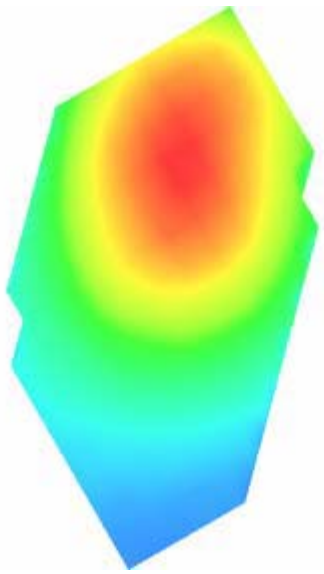
Maximum location: X=-19.00, Y=-13.00

SAR 10g (W/Kg)	0.240471
SAR 1g (W/Kg)	0.365488

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.3837	0.2599	0.1813	0.1323



3D sceen shot	Hot spot position
	

MEASUREMENT 13

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 25 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

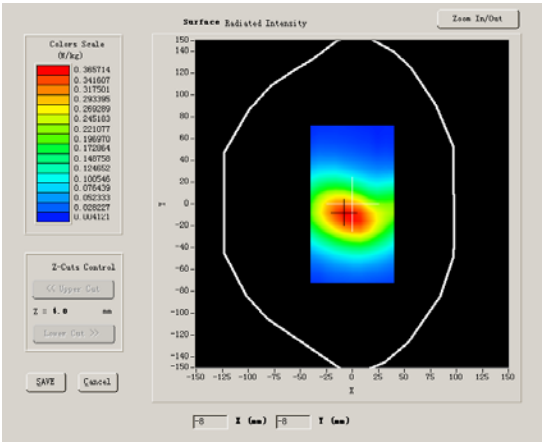
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Tilt
Band	CDMA850
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 9):

Frequency (MHz)	825.27
Relative permittivity (real part)	41.790001
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.867737
Variation (%)	1.070000

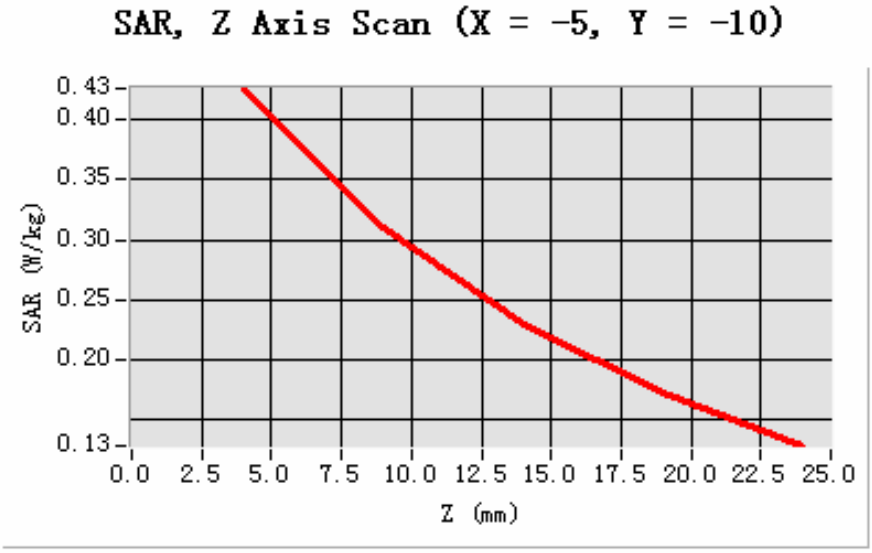
SURFACE SAR	VOLUME SAR
	

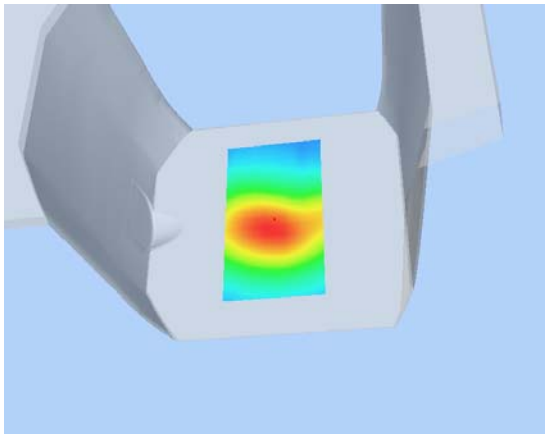
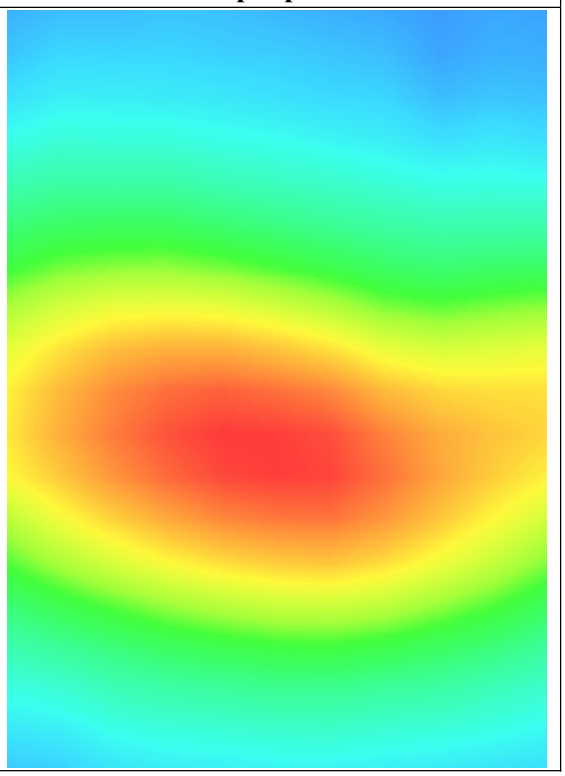
Maximum location: X=-5.00, Y=-10.00

SAR 10g (W/Kg)	0.095773
SAR 1g (W/Kg)	0.156994

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.4264	0.3108	0.2293	0.1720



3D sceen shot	Hot spot position
	

MEASUREMENT 14

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 25 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

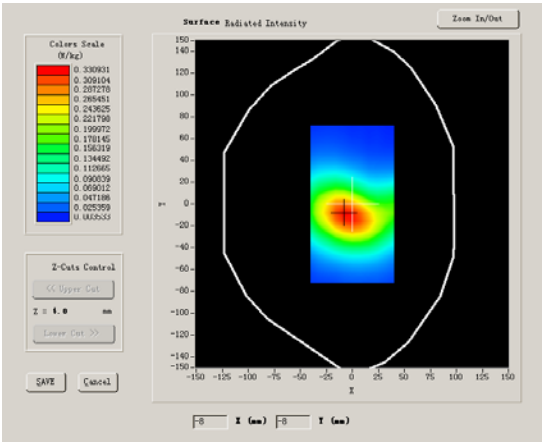
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Tilt
Band	CDMA850
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 384):

Frequency (MHz)	836.520020
Relative permittivity (real part)	54.116001
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.989164
Variation (%)	-1.620000

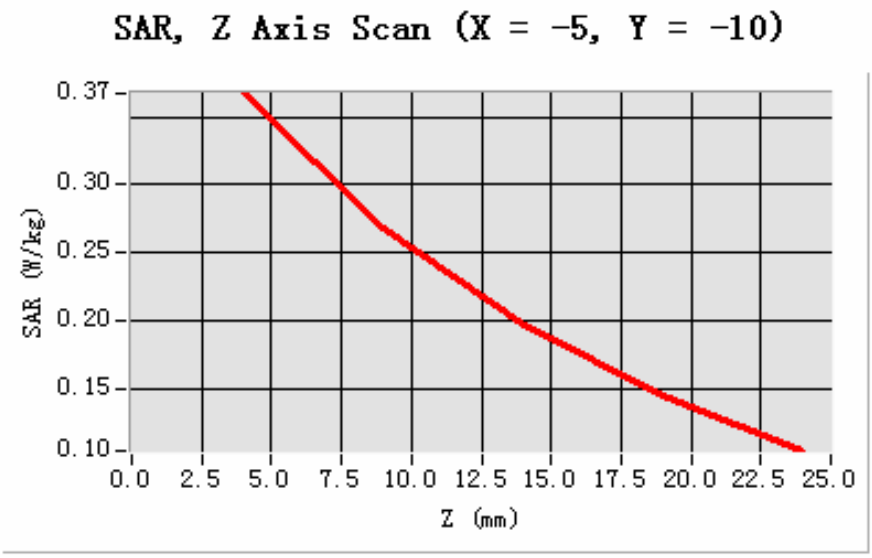
SURFACE SAR	VOLUME SAR
	

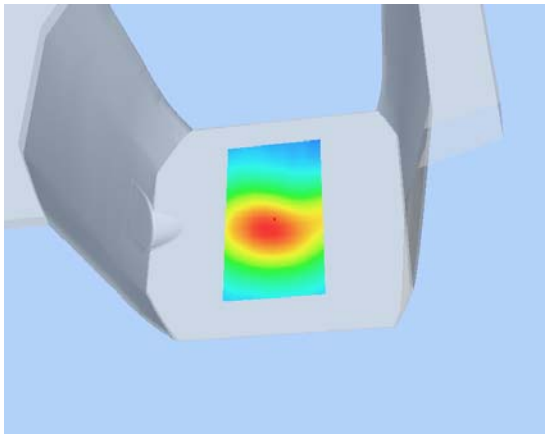
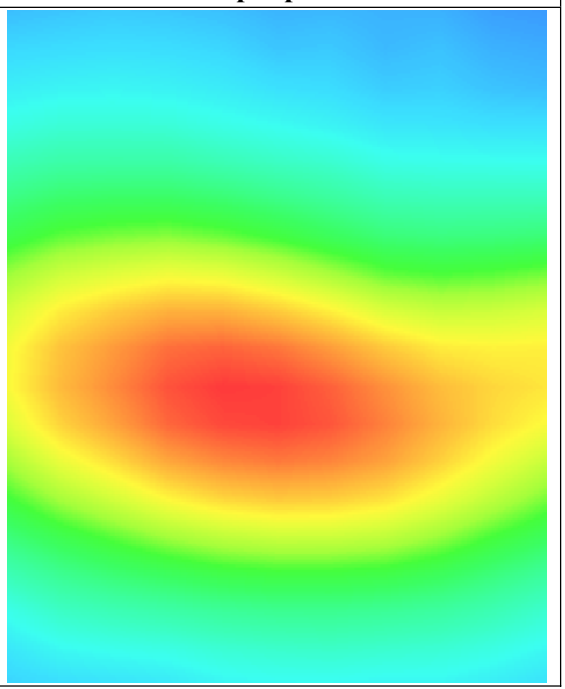
Maximum location: X=-5.00, Y=-10.00

SAR 10g (W/Kg)	0.100854
SAR 1g (W/Kg)	0.211788

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.3671	0.2682	0.1966	0.1447



3D sceen shot	Hot spot position
	

MEASUREMENT 15

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 25 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

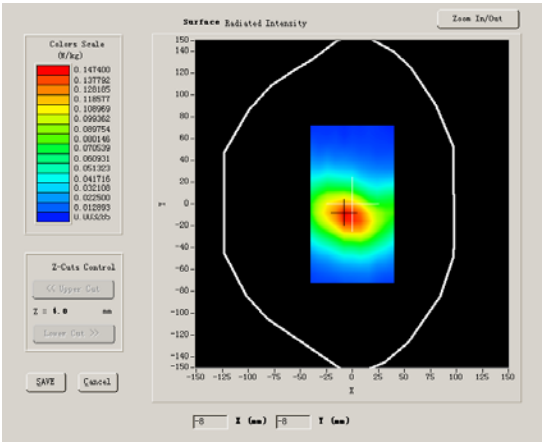
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Tilt
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.74
Relative permittivity (real part)	54.116001
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	1.003105
Variation (%)	-2.800000

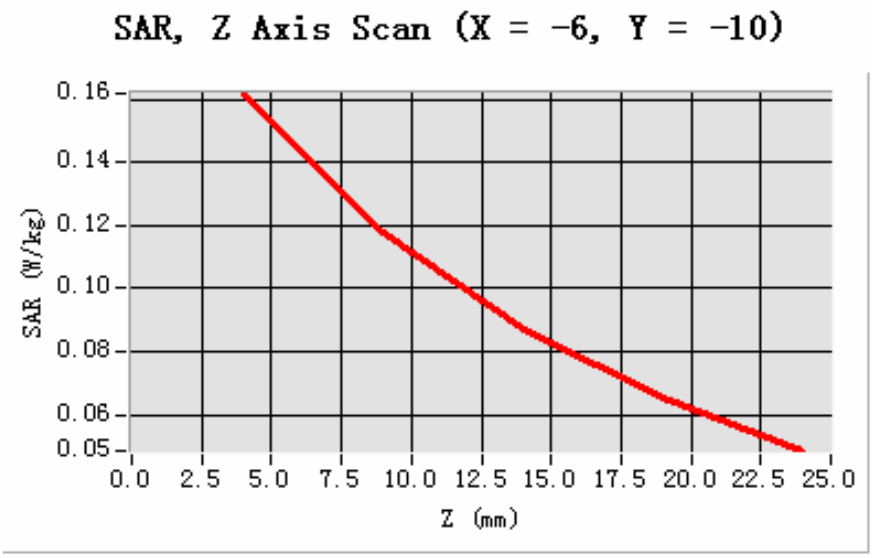
SURFACE SAR	VOLUME SAR
	

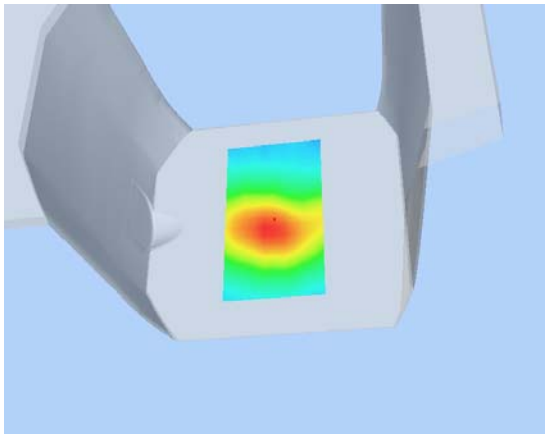
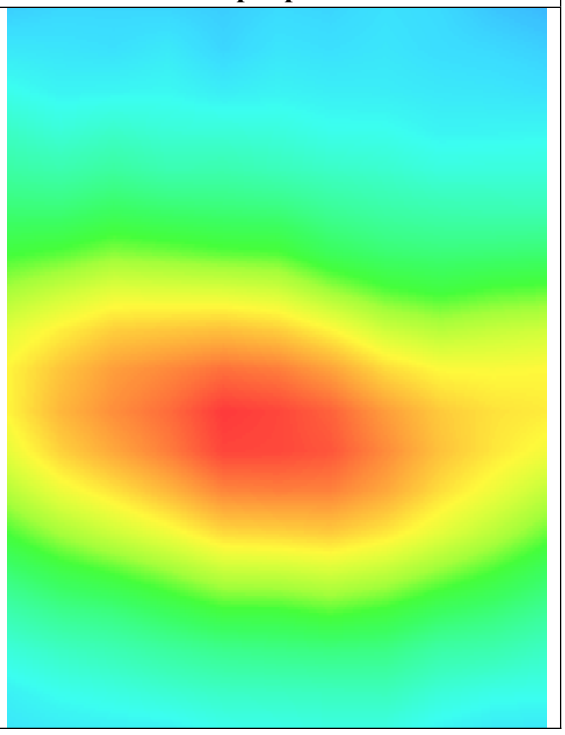
Maximum location: X=-6.00, Y=-10.00

SAR 10g (W/Kg)	0.147739
SAR 1g (W/Kg)	0.285994

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1619	0.1179	0.0870	0.0652



3D sceen shot	Hot spot position
	

MEASUREMENT 16

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 25 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

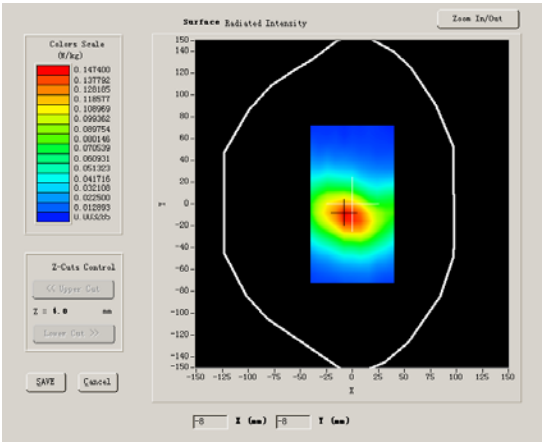
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Tilt
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.74
Relative permittivity (real part)	54.116001
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	1.003105
Variation (%)	-2.800000

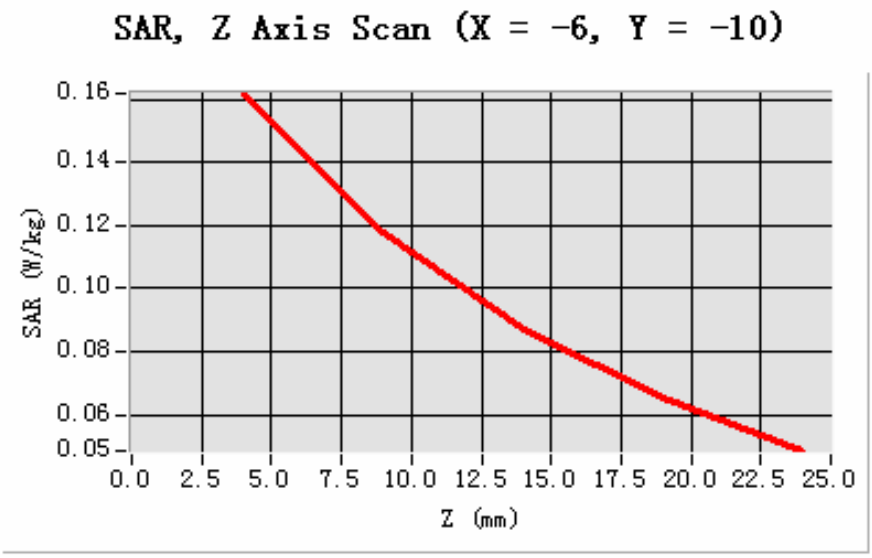
SURFACE SAR	VOLUME SAR
	

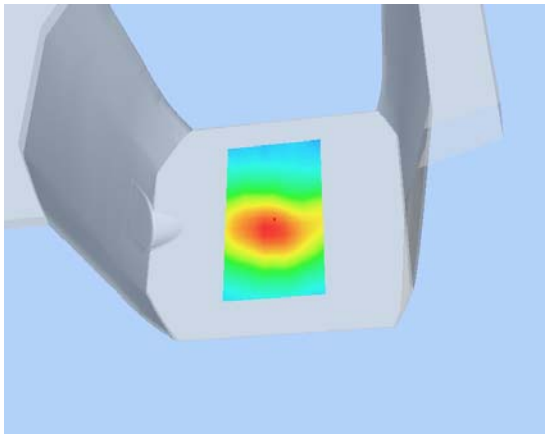
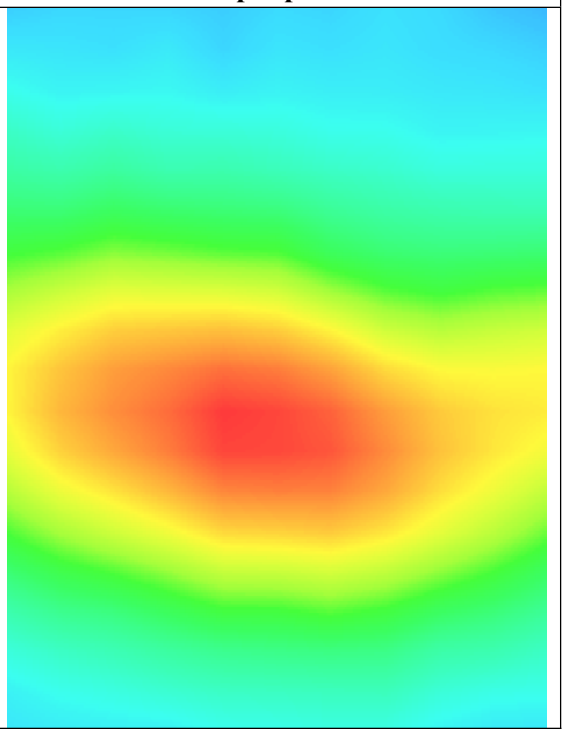
Maximum location: X=-6.00, Y=-10.00

SAR 10g (W/Kg)	0.117462
SAR 1g (W/Kg)	0.228850

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1619	0.1179	0.0870	0.0652



3D sceen shot	Hot spot position
	

MEASUREMENT 17

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 25 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

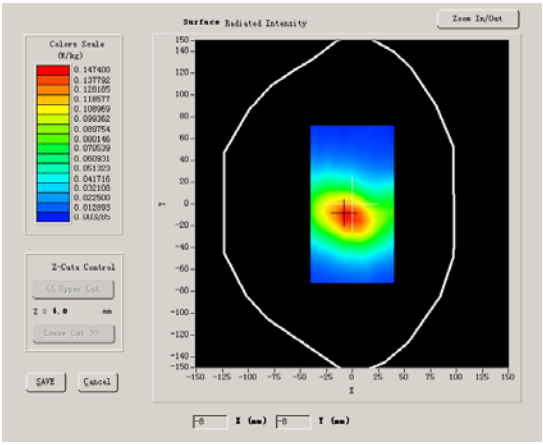
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Tilt
Band	CDMA850
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 758):

Frequency (MHz)	847.74
Relative permittivity (real part)	54.116001
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	1.003105
Variation (%)	-2.800000

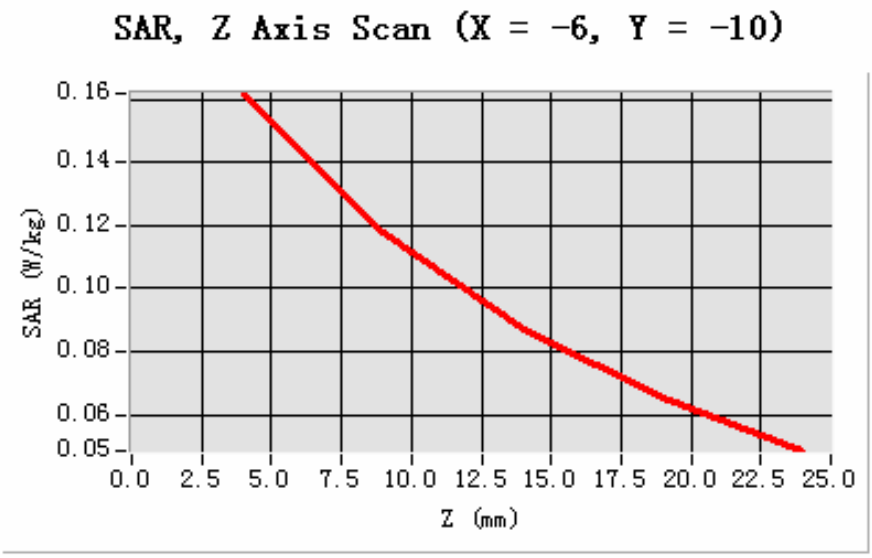
SURFACE SAR	VOLUME SAR
	

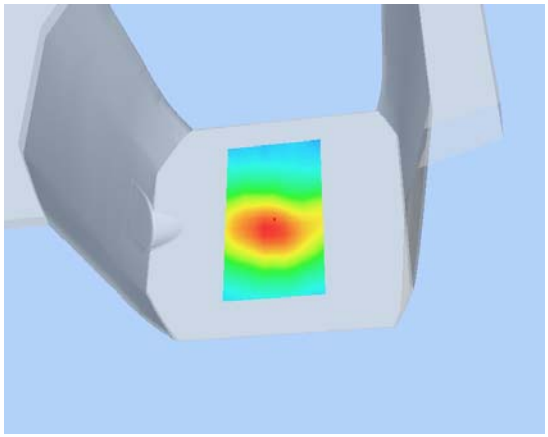
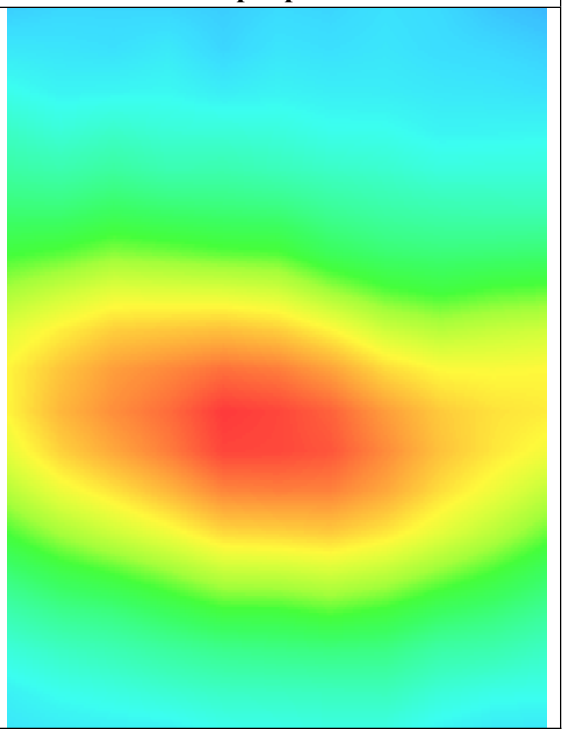
Maximum location: X=-6.00, Y=-10.00

SAR 10g (W/Kg)	0.143050
SAR 1g (W/Kg)	0.277495

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.1619	0.1179	0.0870	0.0652



3D sceen shot	Hot spot position
	

MEASUREMENT 18

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 50 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

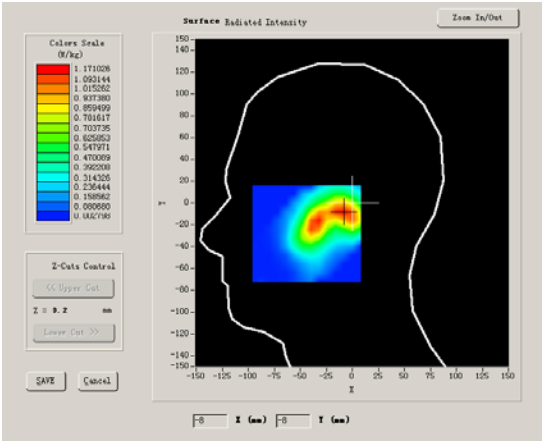
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	US_PCS
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 25):

Frequency (MHz)	1851.250000
Relative permittivity (real part)	38.209000

Relative permittivity (imaginary part)	13.915650
Conductivity (S/m)	1.431186
Variation (%)	1.840000

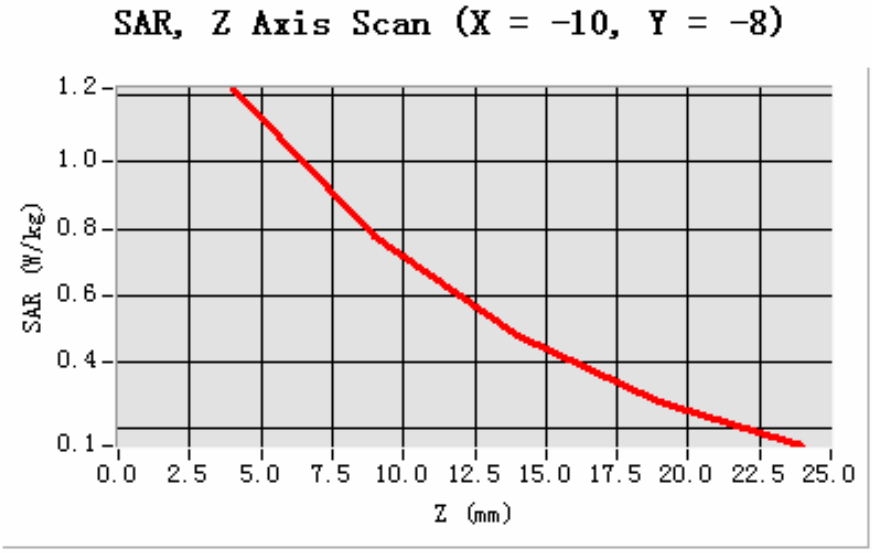
SURFACE SAR	**VOLUME SAR**
	

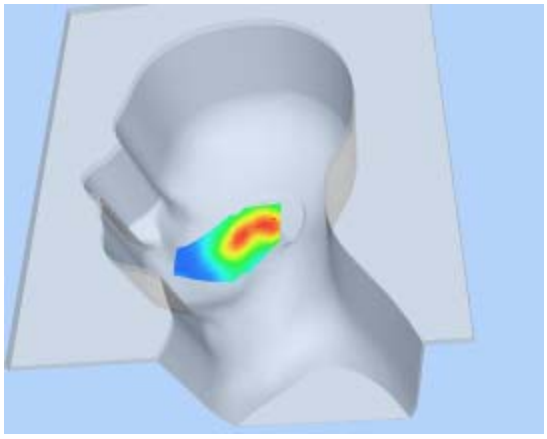
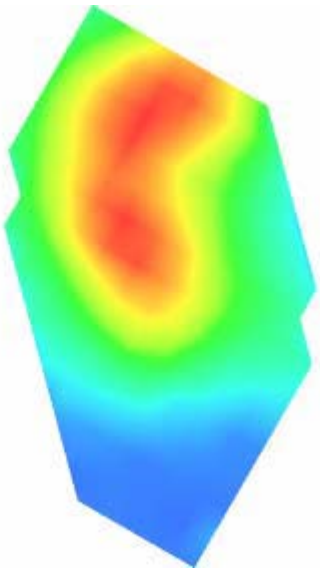
Maximum location: X=-10.00, Y=-8.00

SAR 10g (W/Kg)	0.657943
SAR 1g (W/Kg)	1.141161

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.2215	0.7783	0.4802	0.2837



3D sceen shot	Hot spot position
	

MEASUREMENT 19

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

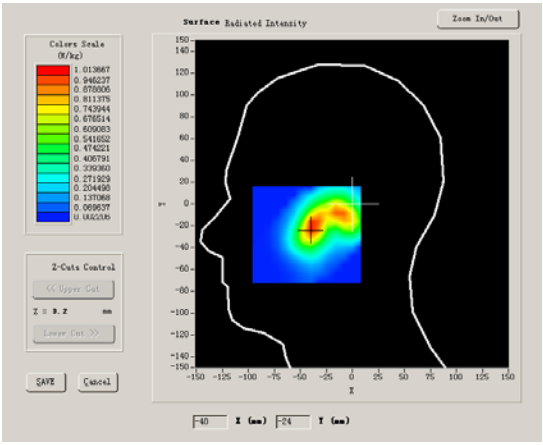
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	US_PCS
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.453412
Variation (%)	-0.930000

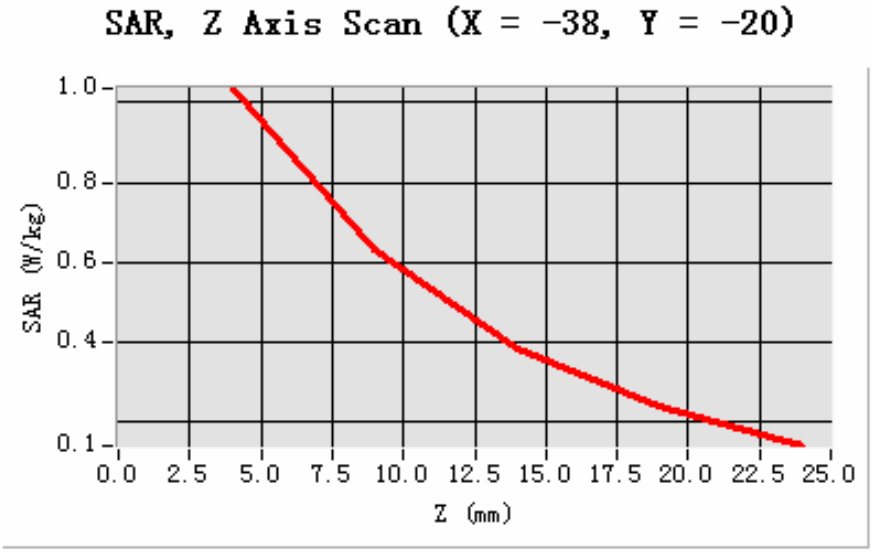
SURFACE SAR	VOLUME SAR
	

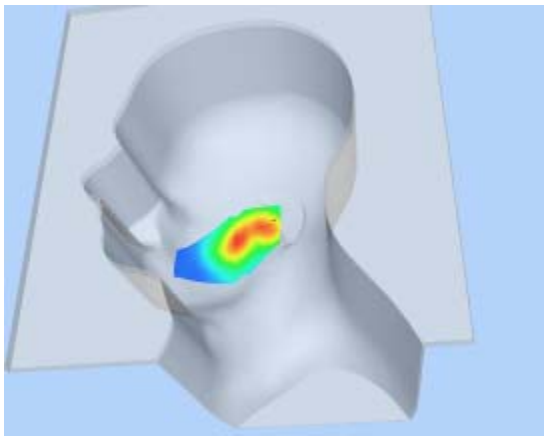
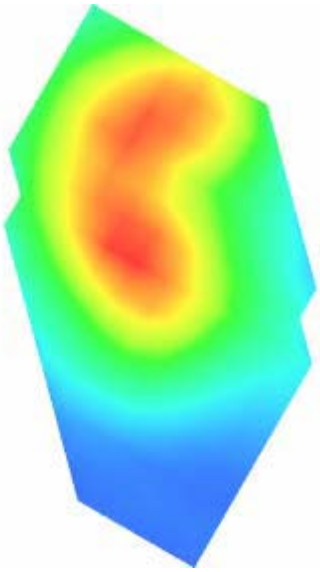
Maximum location: X=-38.00, Y=-20.00

SAR 10g (W/Kg)	0.538258
SAR 1g (W/Kg)	0.962429

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.0353	0.6311	0.3839	0.2363



3D sceen shot	Hot spot position
	

MEASUREMENT 20

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 48 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

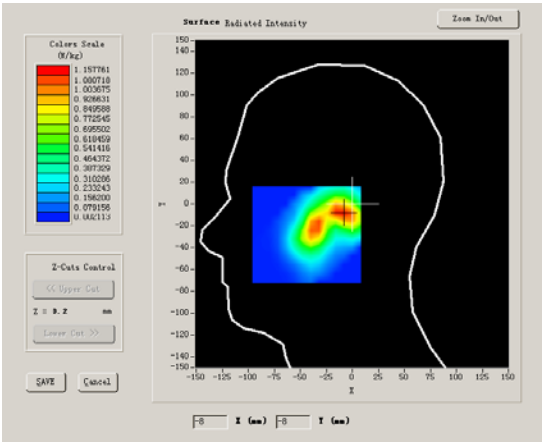
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	US_PCS
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 1175):

Frequency (MHz)	1908.750000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.475639
Variation (%)	0.820000

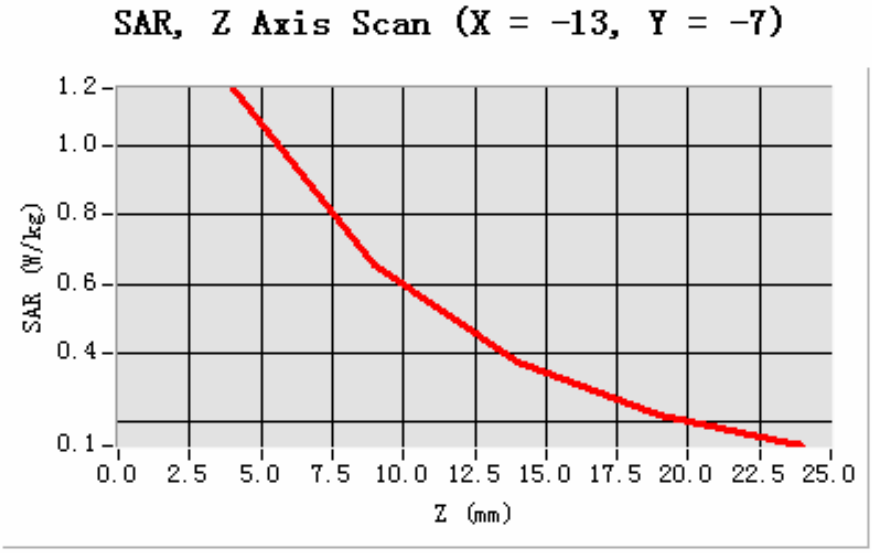
SURFACE SAR	VOLUME SAR
	

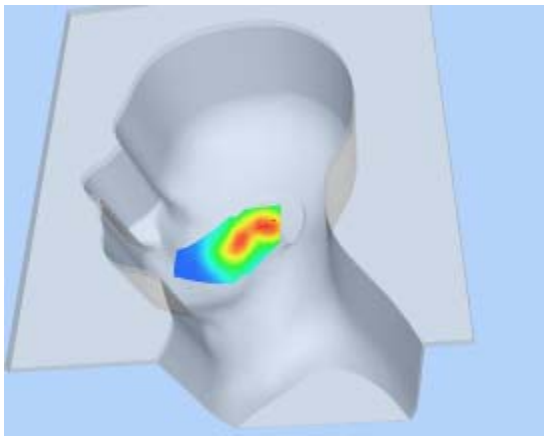
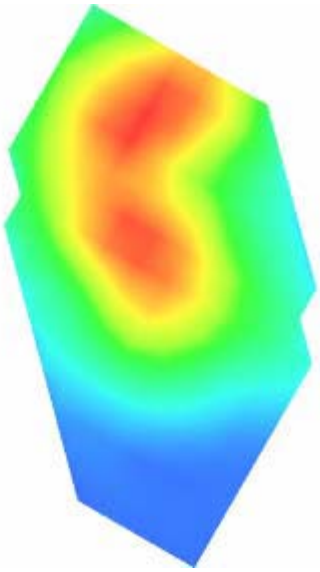
Maximum location: X=-13.00, Y=-7.00

SAR 10g (W/Kg)	0.598267
SAR 1g (W/Kg)	1.096860

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.1677	0.6542	0.3702	0.2201



3D sceen shot	Hot spot position
	

MEASUREMENT 21

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 4 minutes 50 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

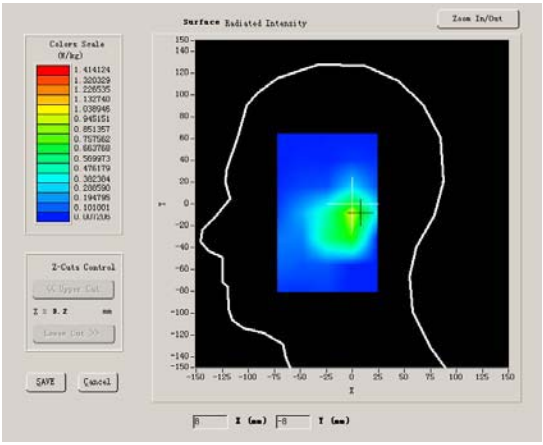
Phantom File	zinf5.txt
Phantom	Right head
Device Position	Tilt
Band	US_PCS
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 25):

Frequency (MHz)	1851.250000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.431186
Variation (%)	0.870000

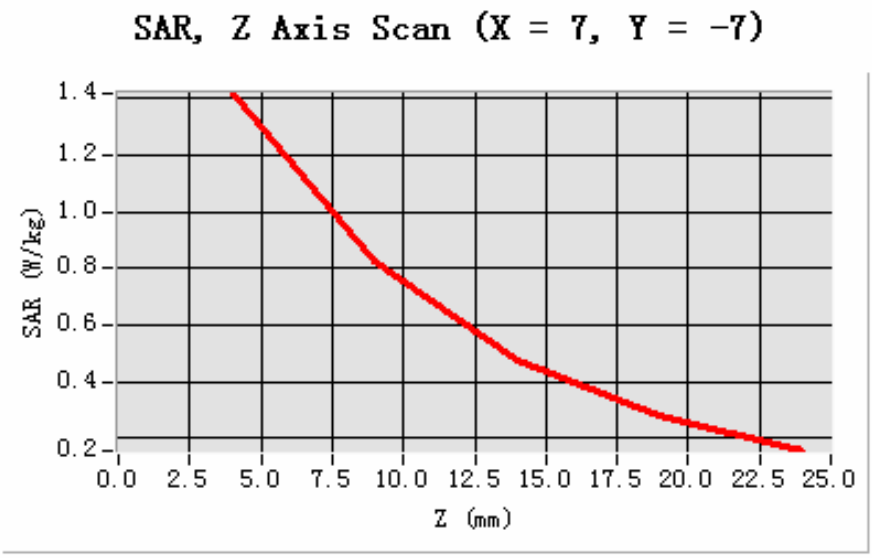
SURFACE SAR	VOLUME SAR
	

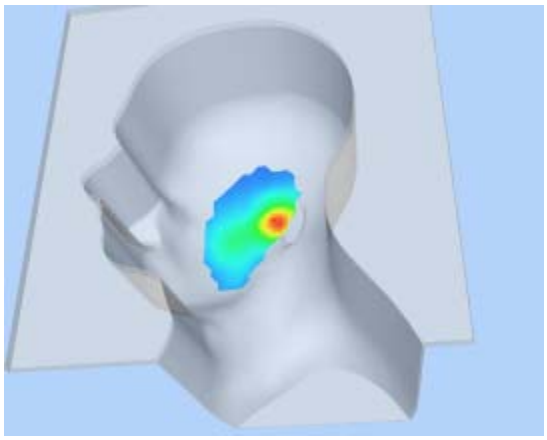
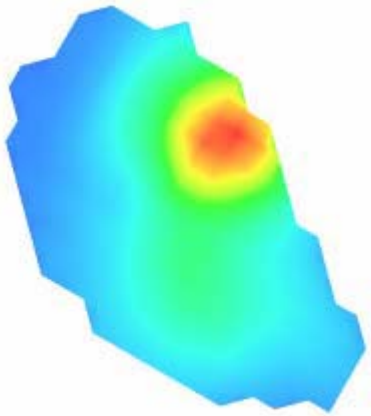
Maximum location: X=7.00, Y=-7.00

SAR 10g (W/Kg)	0.698008
SAR 1g (W/Kg)	1.310584

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.4157	0.8226	0.4758	0.2798



3D sceen shot	Hot spot position
	

MEASUREMENT 22

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 40 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

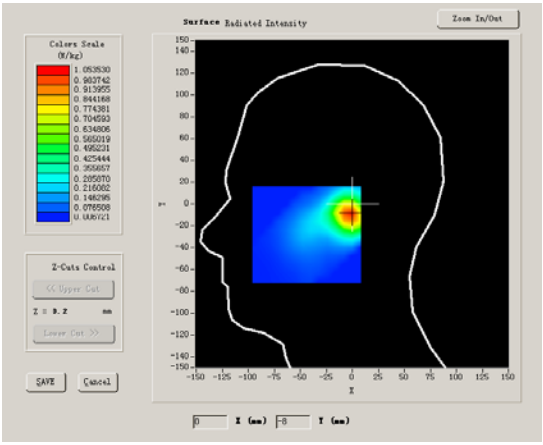
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	US_PCS
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.453412
Variation (%)	0.640000

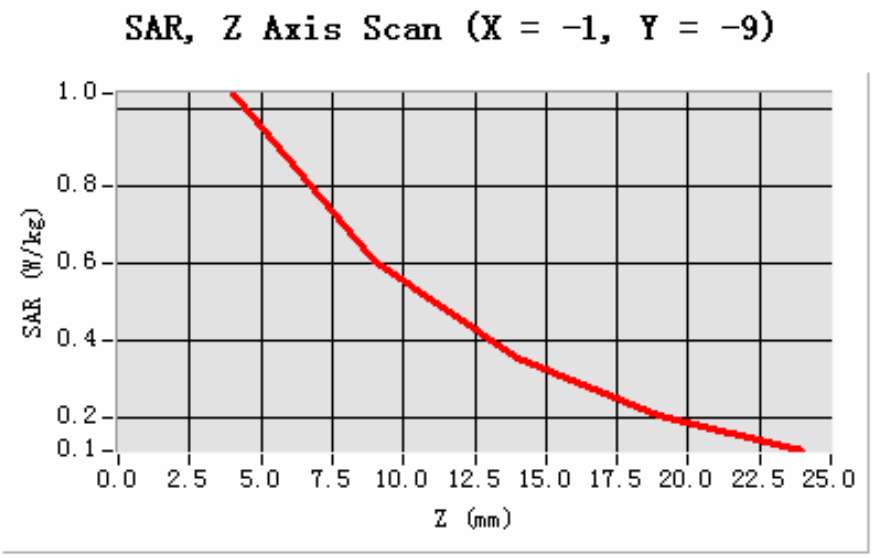
SURFACE SAR	VOLUME SAR
	

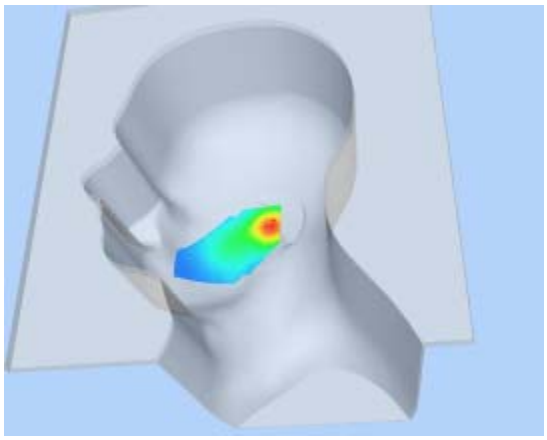
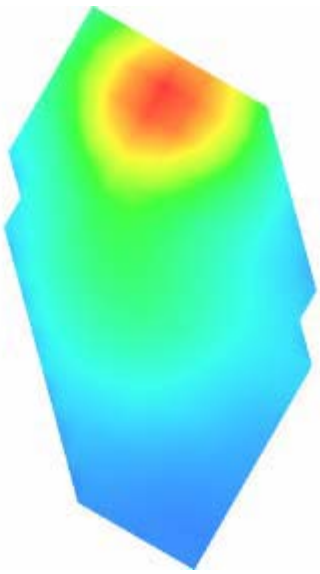
Maximum location: X=-1.00, Y=-9.00

SAR 10g (W/Kg)	0.521328
SAR 1g (W/Kg)	0.967710

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.0398	0.6075	0.3521	0.2060



3D sceen shot	Hot spot position
	

MEASUREMENT 23

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 4 minutes 4 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

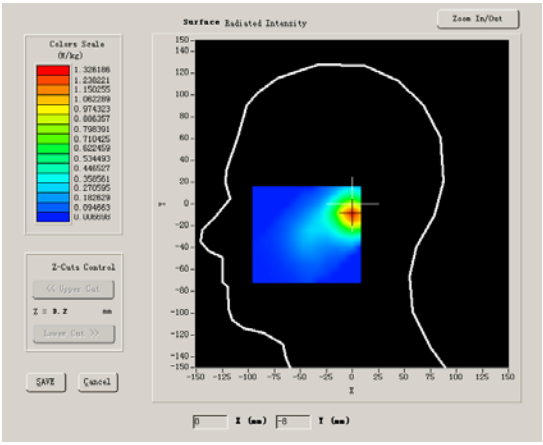
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Tilt
Band	US_PCS
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 1175):

Frequency (MHz)	1908.750000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.475639
Variation (%)	0.010000

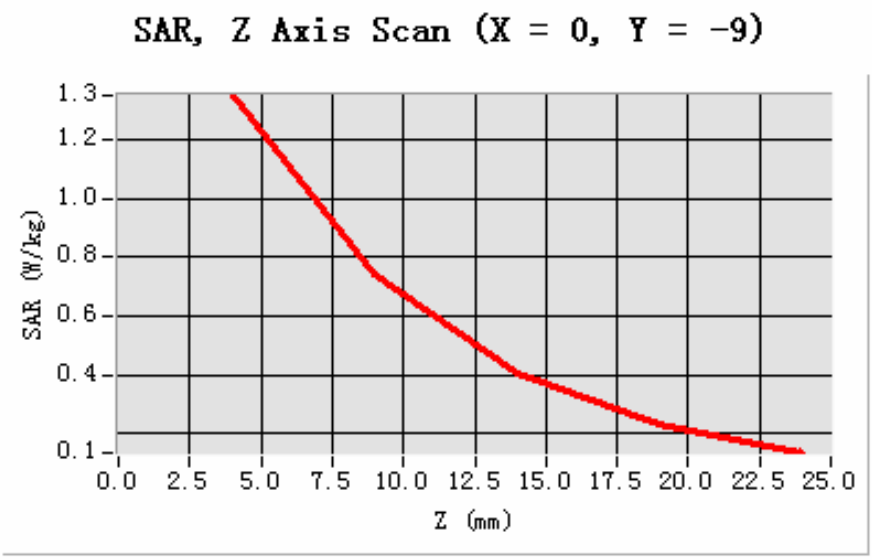
SURFACE SAR	VOLUME SAR
	

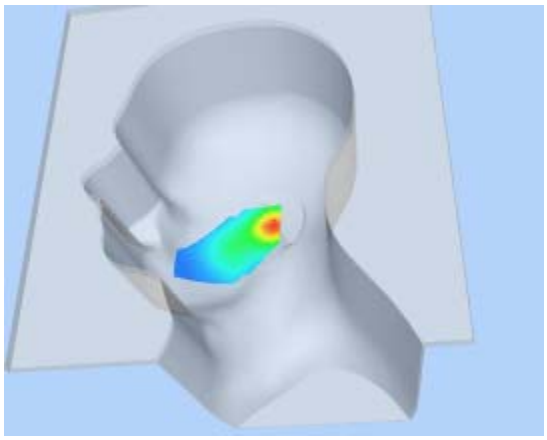
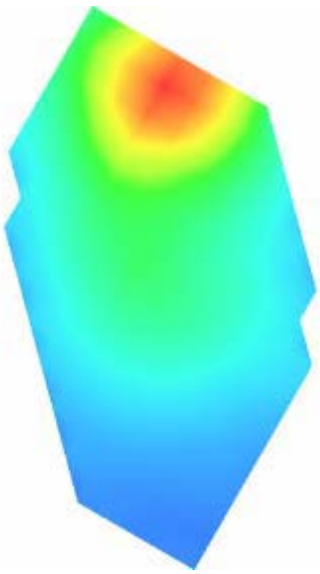
Maximum location: X=0.00, Y=-9.00

SAR 10g (W/Kg)	0.650283
SAR 1g (W/Kg)	1.251908

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3487	0.7379	0.4061	0.2347



3D sceen shot	Hot spot position
	

MEASUREMENT 24

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 45 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

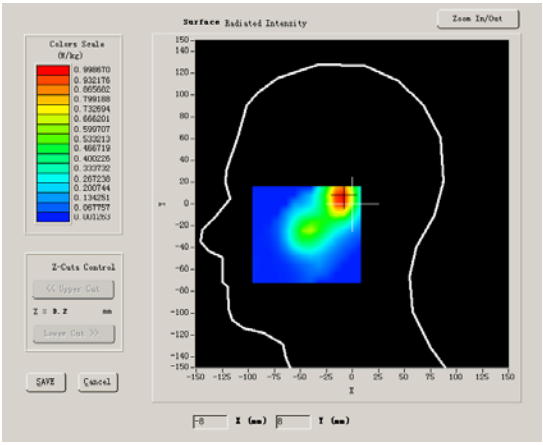
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	US_PCS
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 25):

Frequency (MHz)	1851.250000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.431186
Variation (%)	3.320000

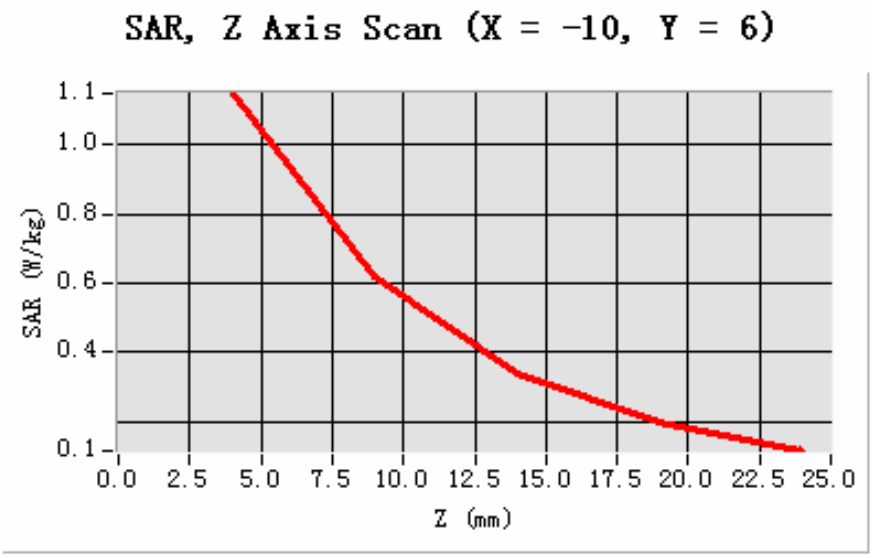
SURFACE SAR	VOLUME SAR
	

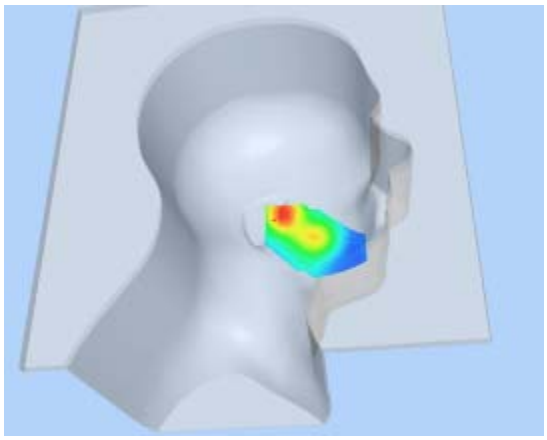
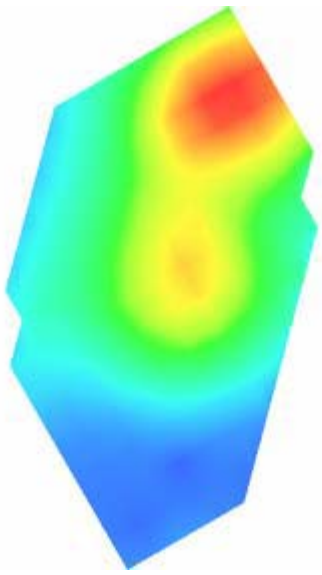
Maximum location: X=-10.00, Y=6.00

SAR 10g (W/Kg)	0.550718
SAR 1g (W/Kg)	1.064151

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.1488	0.6179	0.3361	0.1950



3D sceen shot	Hot spot position
	

MEASUREMENT 25

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 4 minutes 50 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

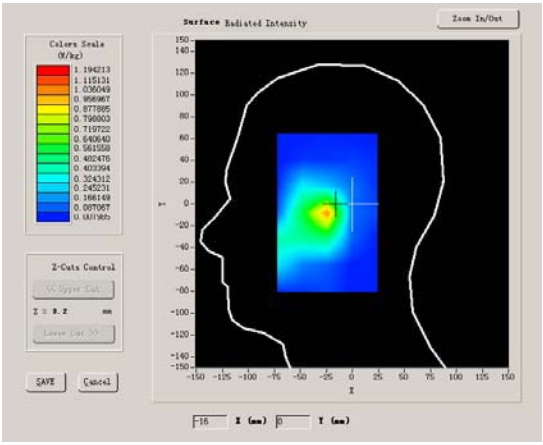
Phantom File	zinf5.txt
Phantom	Left head
Device Position	Cheek
Band	US_PCS
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.453412
Variation (%)	-3.940000

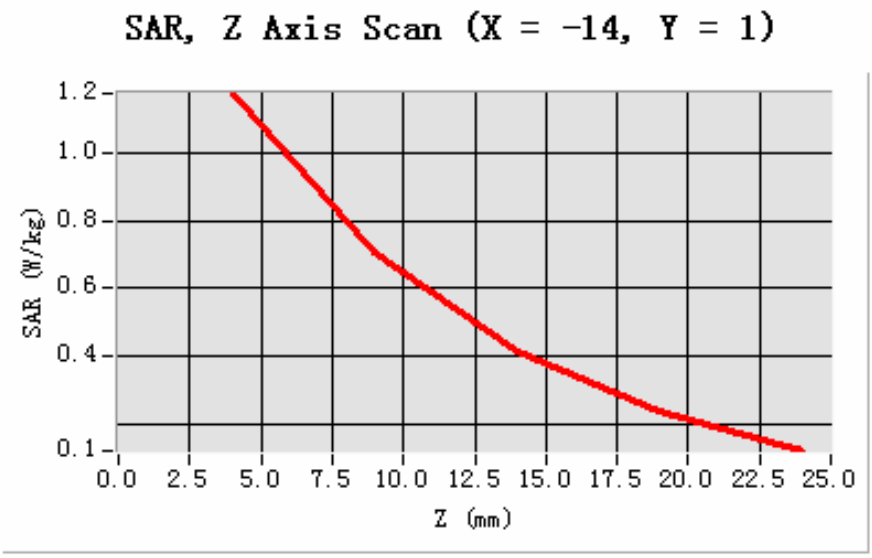
SURFACE SAR	VOLUME SAR
	

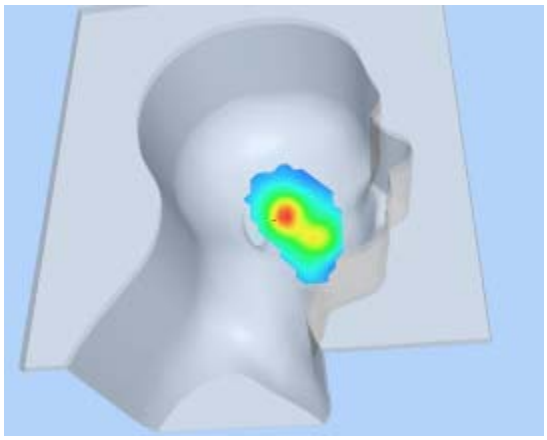
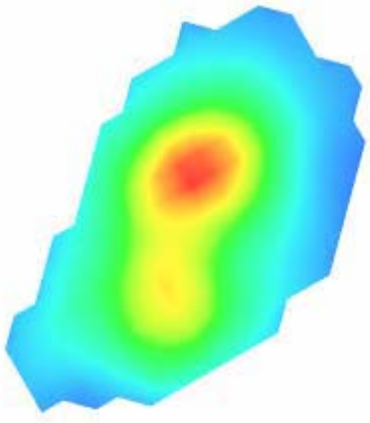
Maximum location: X=-14.00, Y=1.00

SAR 10g (W/Kg)	0.591036
SAR 1g (W/Kg)	1.086873

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.1745	0.7041	0.4116	0.2346



3D sceen shot	Hot spot position
	

MEASUREMENT 26

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 50 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

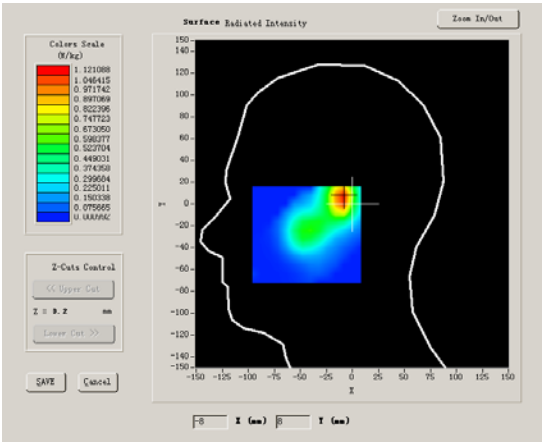
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	US_PCS
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 1175):

Frequency (MHz)	1908.750000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.475639
Variation (%)	-2.570000

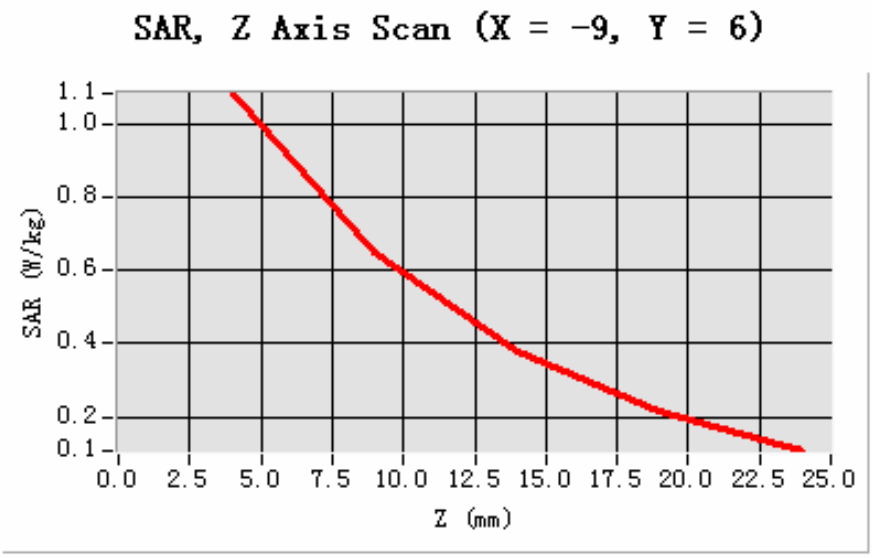
SURFACE SAR	VOLUME SAR
	

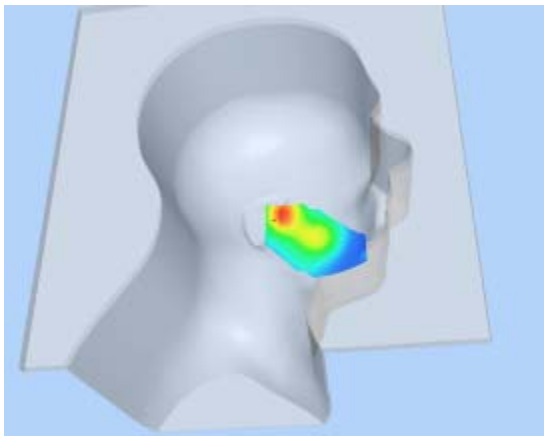
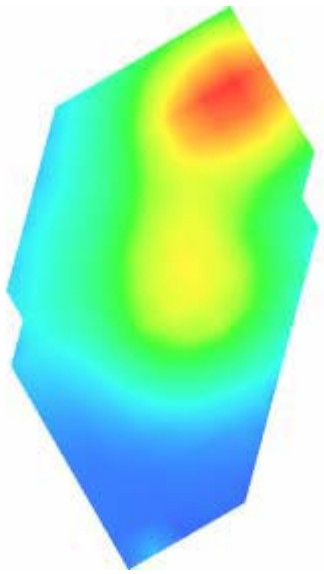
Maximum location: X=-9.00, Y=6.00

SAR 10g (W/Kg)	0.548429
SAR 1g (W/Kg)	1.003208

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.0832	0.6526	0.3814	0.2151



3D sceen shot	Hot spot position
	

MEASUREMENT 27

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

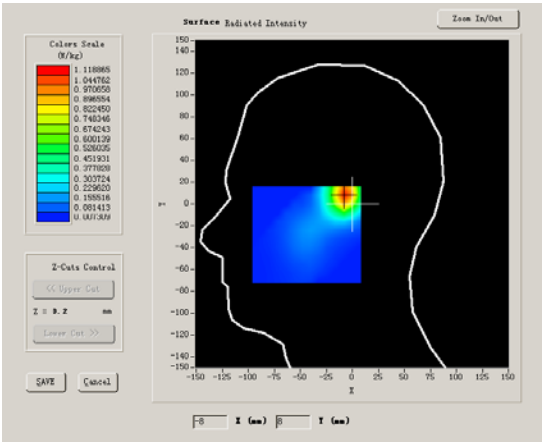
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	US_PCS
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 25):

Frequency (MHz)	1851.250000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.431186
Variation (%)	-0.100000

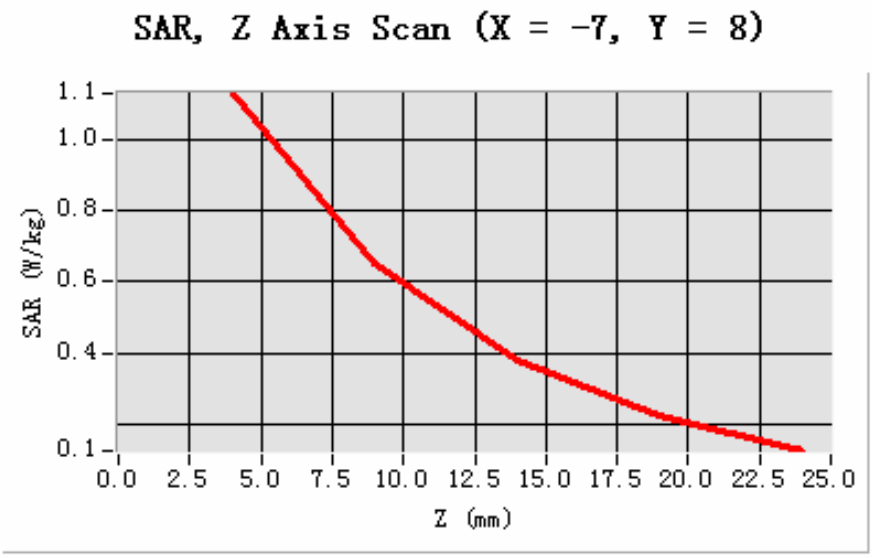
SURFACE SAR	VOLUME SAR
	

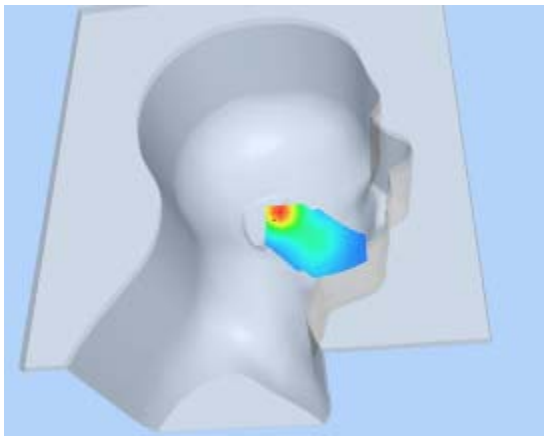
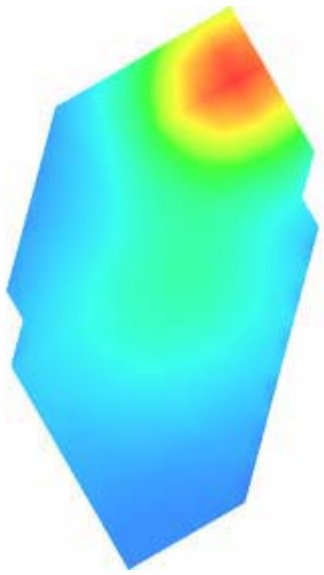
Maximum location: X=-7.00, Y=8.00

SAR 10g (W/Kg)	0.551043
SAR 1g (W/Kg)	1.037144

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.1272	0.6543	0.3791	0.2243



3D sceen shot	Hot spot position
	

MEASUREMENT 28

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 4 minutes 54 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

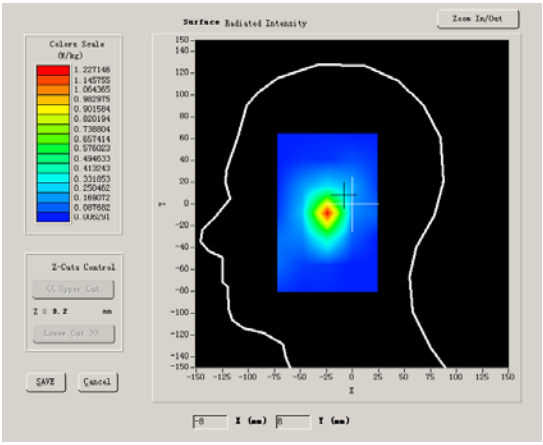
Phantom File	zinf5.txt
Phantom	Left head
Device Position	Tilt
Band	US_PCS
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.453412
Variation (%)	-0.410000

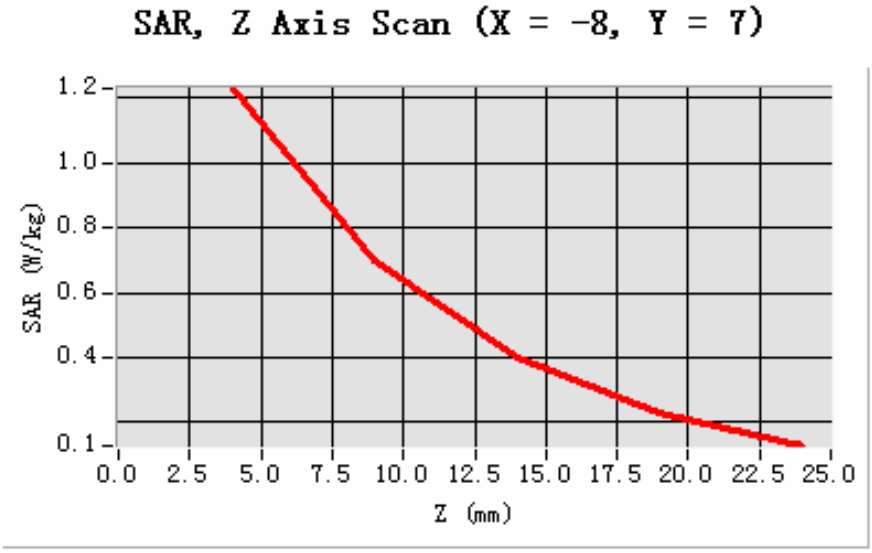
SURFACE SAR	VOLUME SAR
	

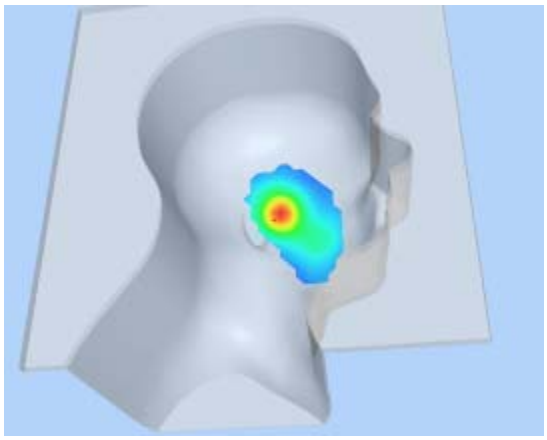
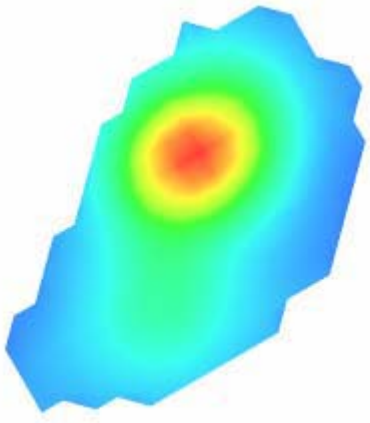
Maximum location: X=-8.00, Y=7.00

SAR 10g (W/Kg)	0.601732
SAR 1g (W/Kg)	1.136347

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.2288	0.6992	0.3964	0.2299



3D sceen shot	Hot spot position
	

MEASUREMENT 29

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 3 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

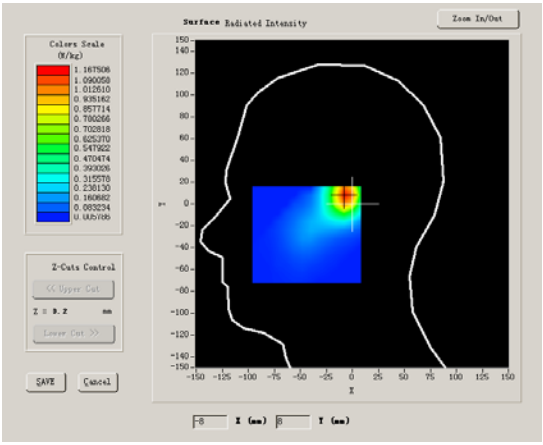
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Tilt
Band	US_PCS
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 1175):

Frequency (MHz)	1908.750000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	13.915650

part)	
Conductivity (S/m)	1.475639
Variation (%)	-0.680000

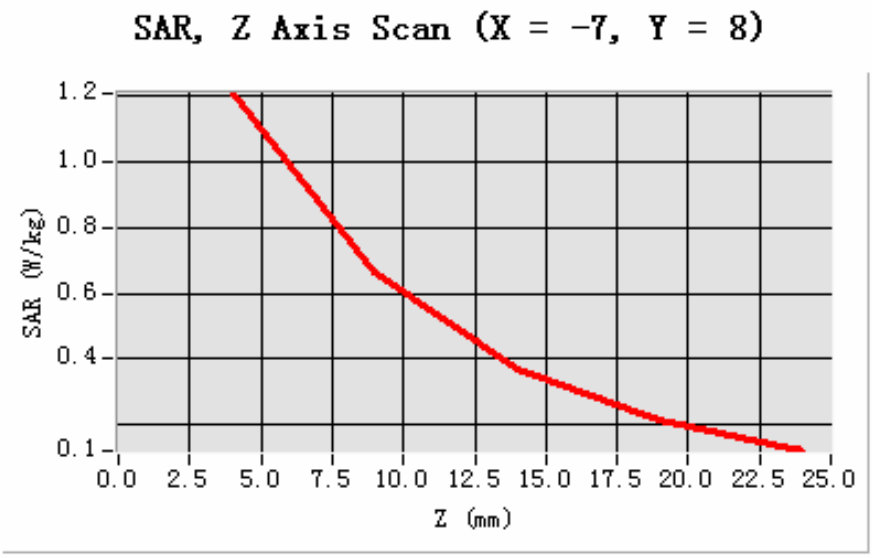
SURFACE SAR	VOLUME SAR
	

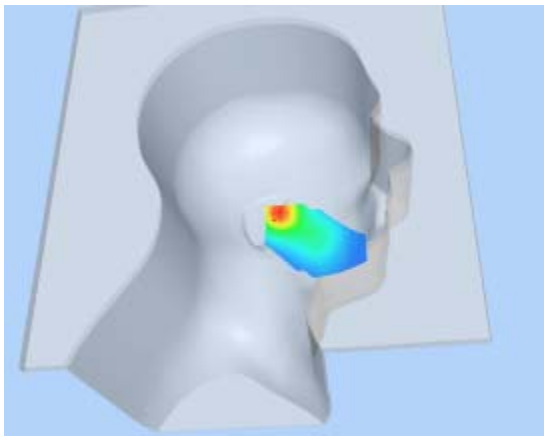
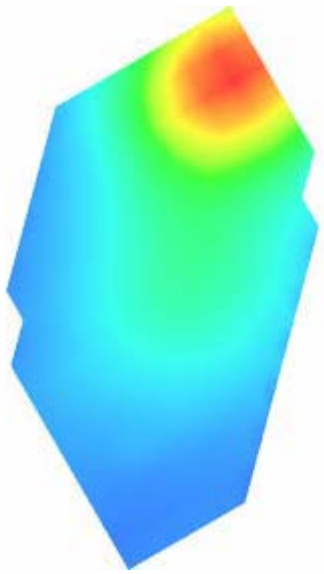
Maximum location: X=-7.00, Y=8.00

SAR 10g (W/Kg)	0.578280
SAR 1g (W/Kg)	1.118260

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.2092	0.6646	0.3670	0.2120



3D sceen shot	Hot spot position
	

MEASUREMENT 30

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 30 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

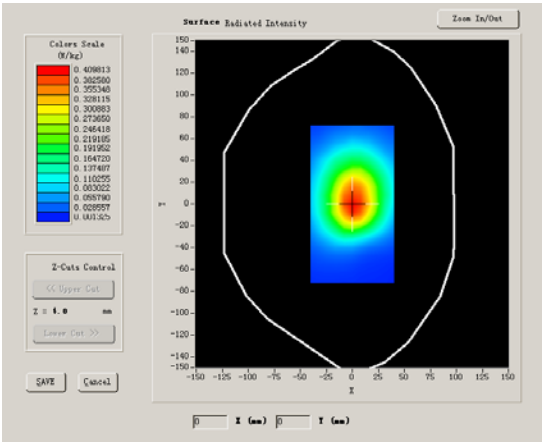
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	Low
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR (Channel 25):

Frequency (MHz)	1851.250000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.975861
Variation (%)	0.160000

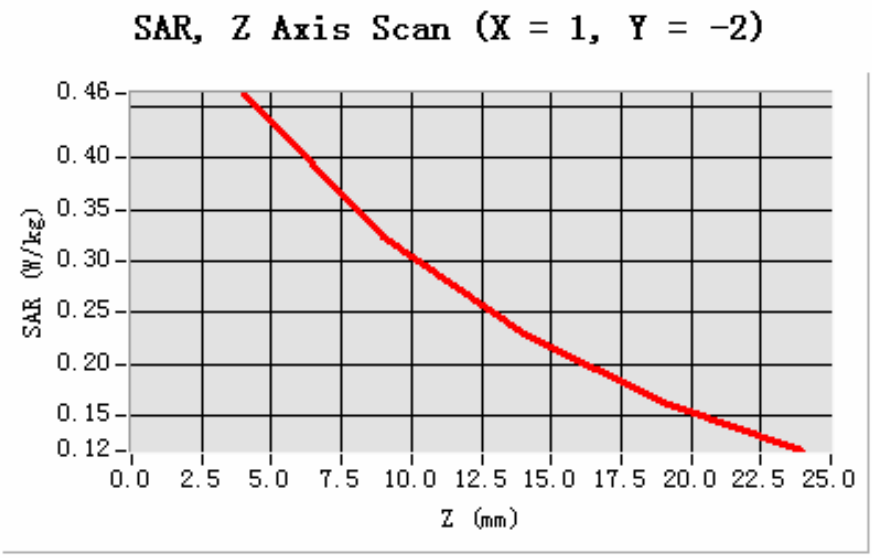
SURFACE SAR	VOLUME SAR
	

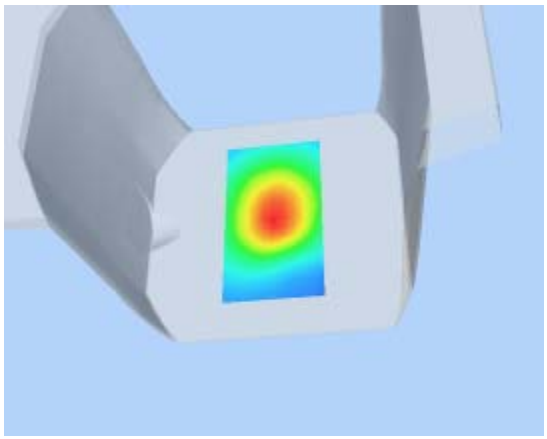
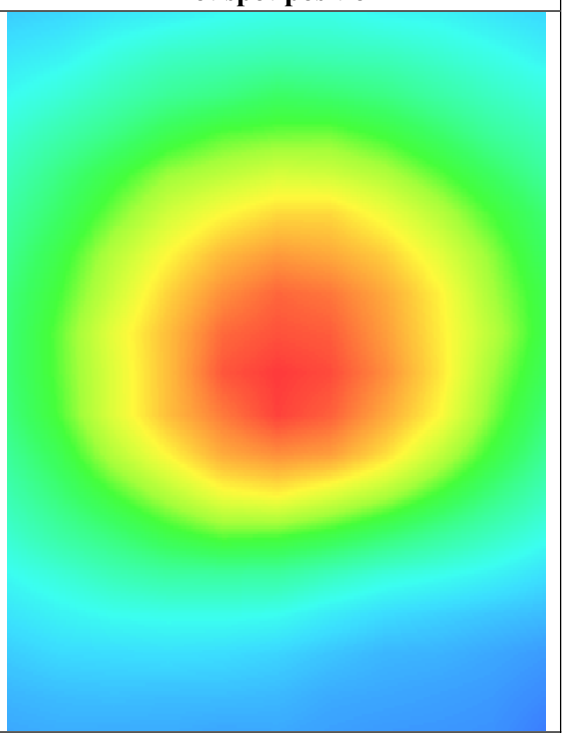
Maximum location: X=1.00, Y=-2.00

SAR 10g (W/Kg)	0.299359
SAR 1g (W/Kg)	0.443731

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.4625	0.3234	0.2284	0.1639



3D sceen shot	Hot spot position
	

MEASUREMENT 31

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 31 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

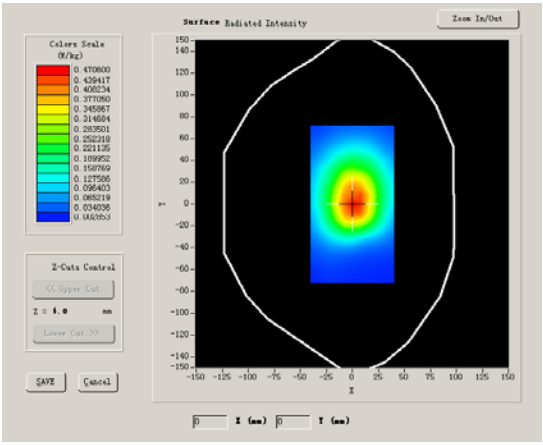
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.989164
Variation (%)	-1.230000

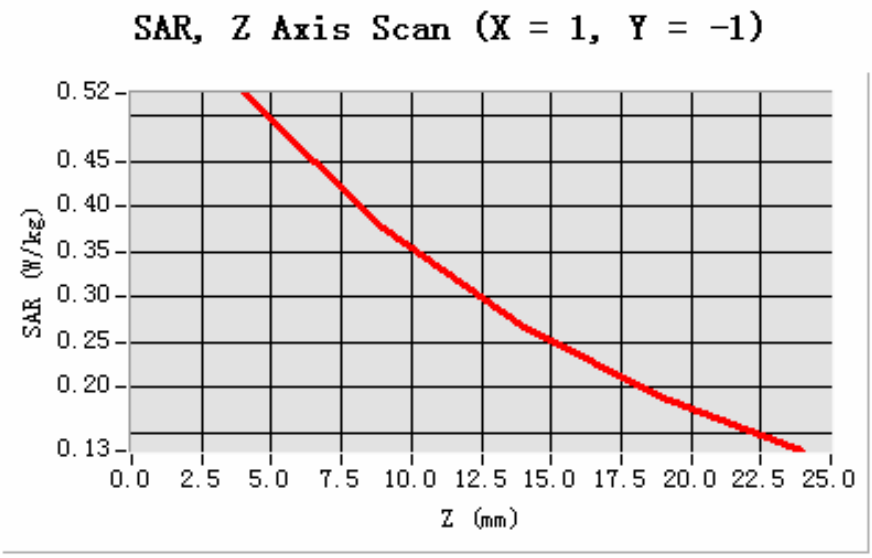
SURFACE SAR	VOLUME SAR
	

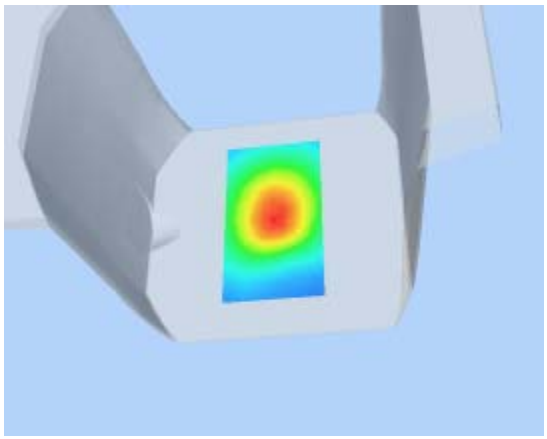
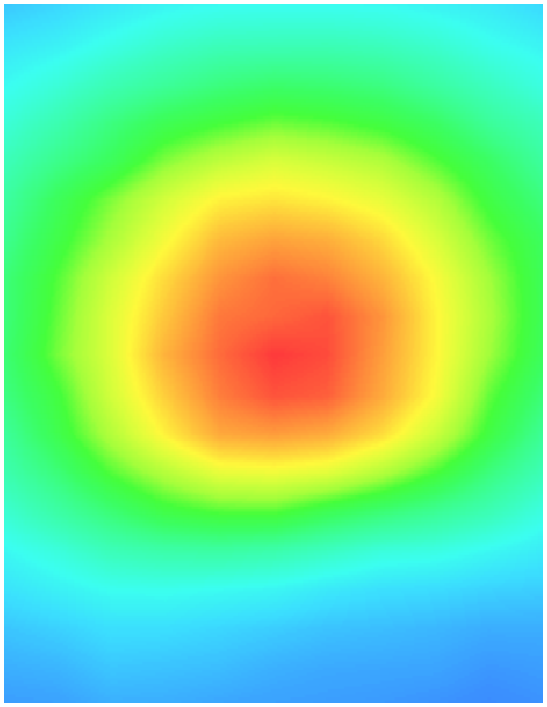
Maximum location: X=1.00, Y=-1.00

SAR 10g (W/Kg)	0.339271
SAR 1g (W/Kg)	0.502240

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.5250	0.3753	0.2673	0.1895



3D sceen shot	Hot spot position
	

MEASUREMENT 32

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 30 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

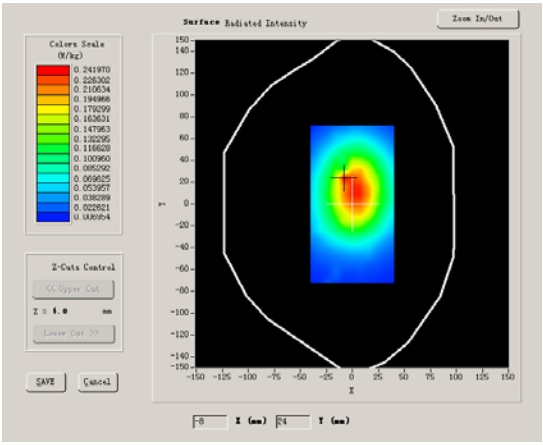
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	High
Signal	CDMA

B. SAR Measurement Results

Higher Band SAR (Channel 1175):

Frequency (MHz)	1908.750000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	1.002431
Variation (%)	-11.690000

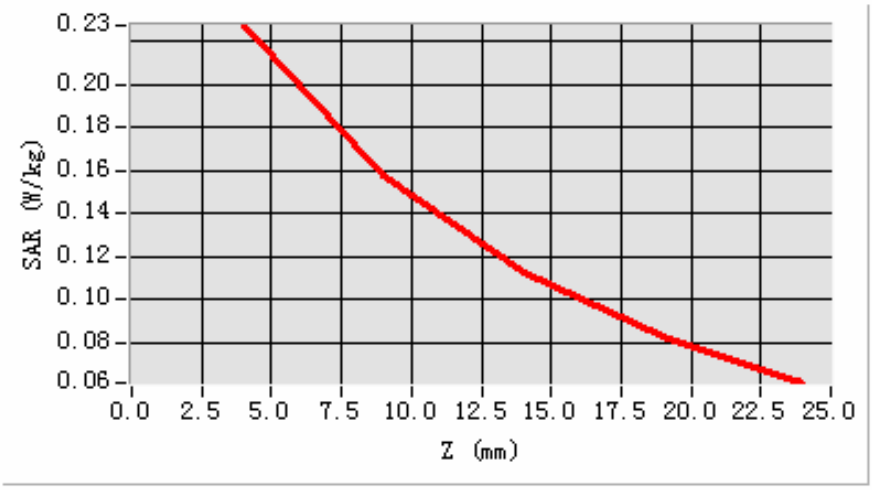
SURFACE SAR	VOLUME SAR
	

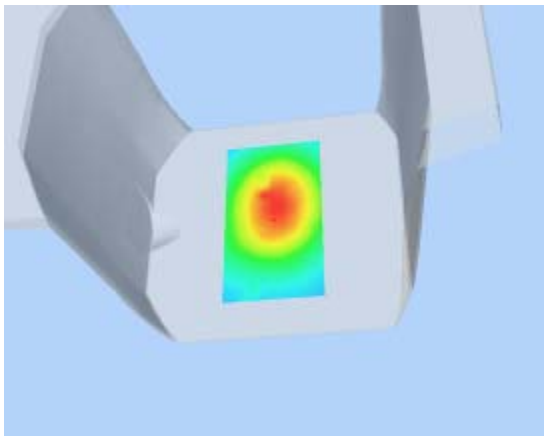
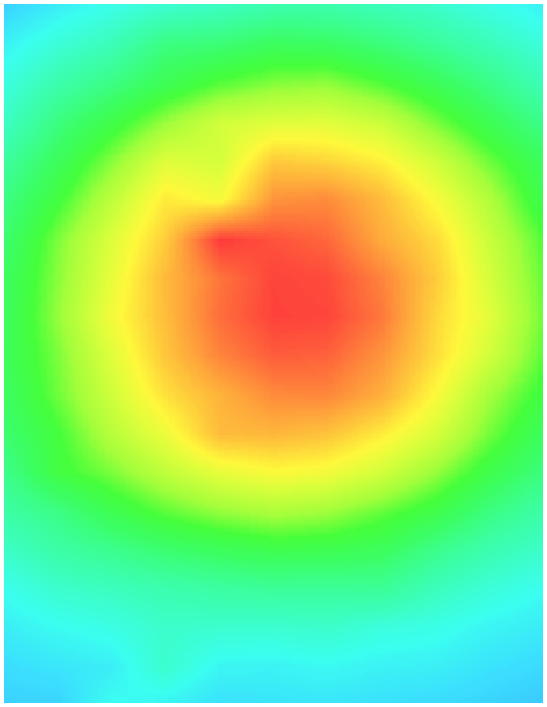
Maximum location: X=-7.00, Y=23.00

SAR 10g (W/Kg)	0.165808
SAR 1g (W/Kg)	0.240778

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.2273	0.1580	0.1125	0.0830



3D sceen shot	Hot spot position
	

MEASUREMENT 33back)

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 31 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

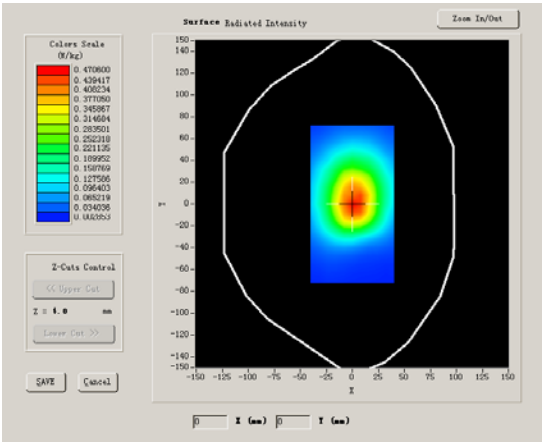
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.989164
Variation (%)	-1.230000

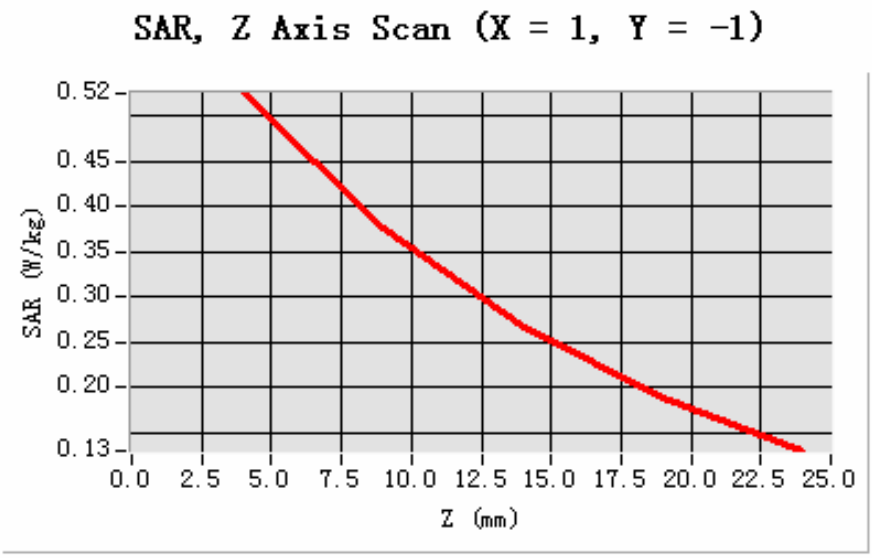
SURFACE SAR	VOLUME SAR
	

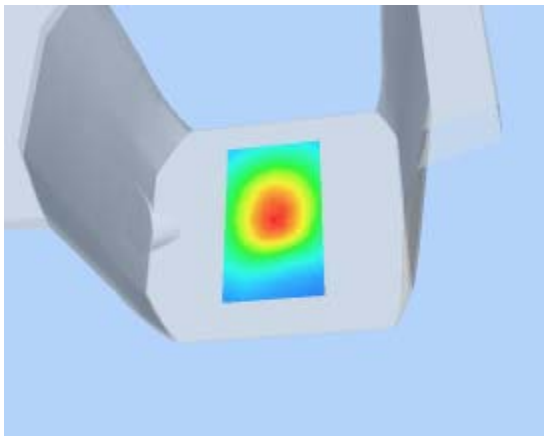
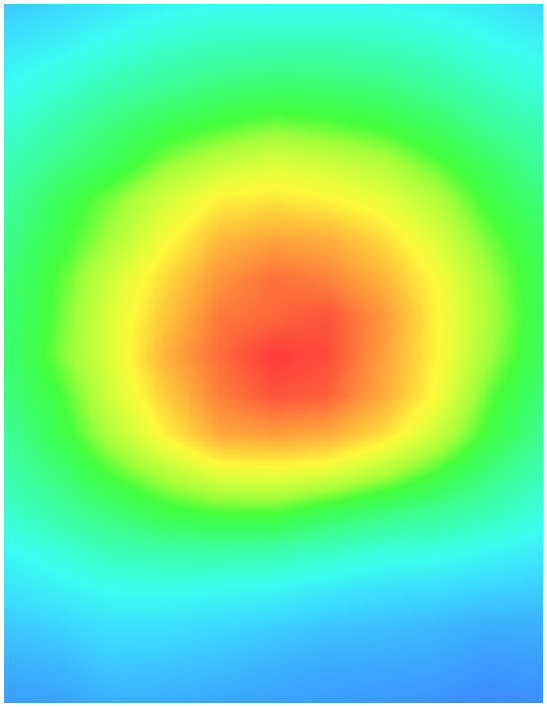
Maximum location: X=1.00, Y=-1.00

SAR 10g (W/Kg)	0.2398174
SAR 1g (W/Kg)	0.389472

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.5250	0.3753	0.2673	0.1895



3D sceen shot	Hot spot position
	

MEASUREMENT 34 with earphone)

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 31 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

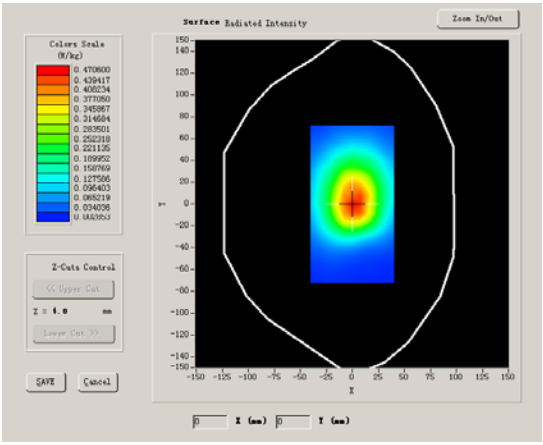
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	Middle
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR (Channel 600):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.209000
Relative permittivity (imaginary	21.284550

part)	
Conductivity (S/m)	0.989164
Variation (%)	-1.230000

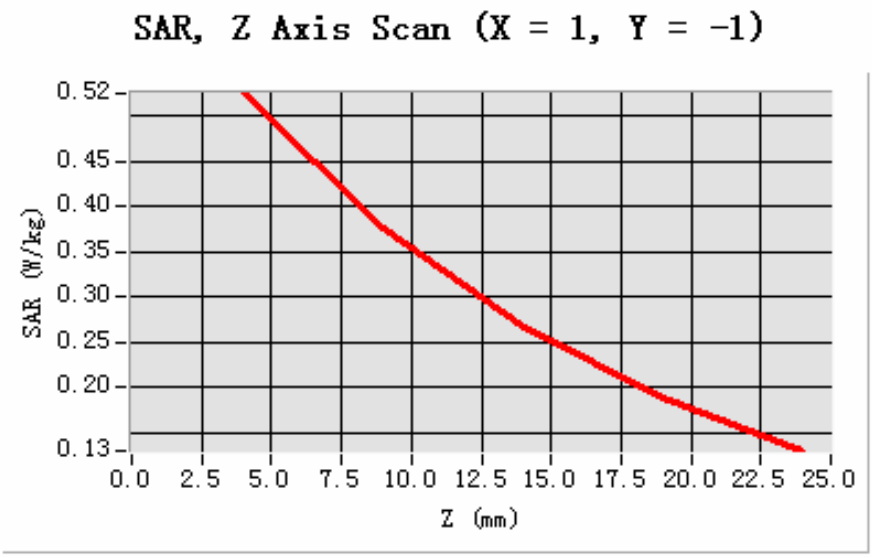
SURFACE SAR	VOLUME SAR
	

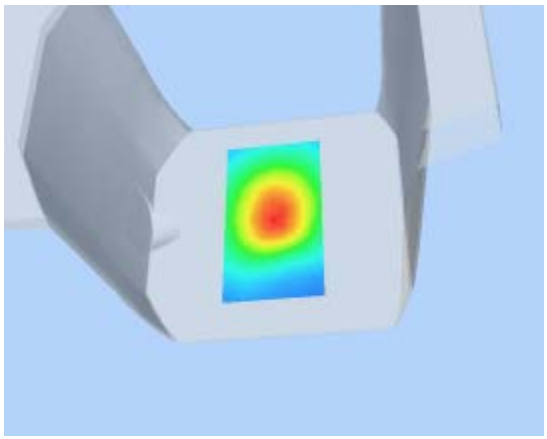
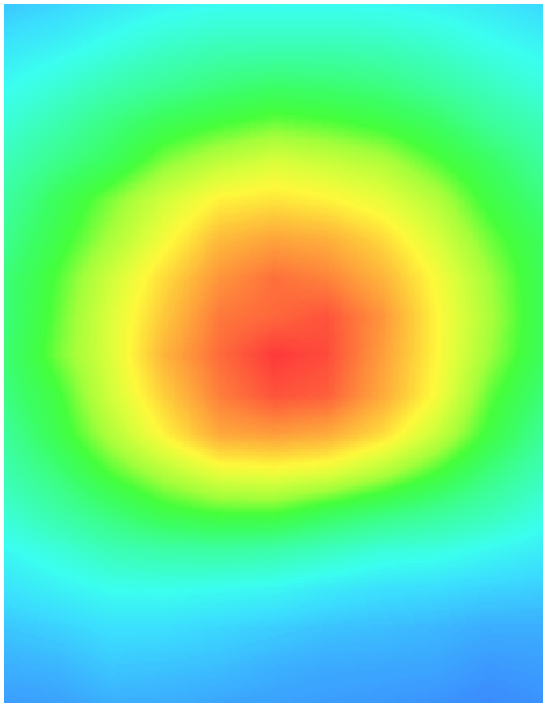
Maximum location: X=1.00, Y=-1.00

SAR 10g (W/Kg)	0.264465
SAR 1g (W/Kg)	0.494656

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	0.5250	0.3753	0.2673	0.1895



3D sceen shot	Hot spot position
	

System Performance Check Data(835MHz Head)

Type: Validation measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

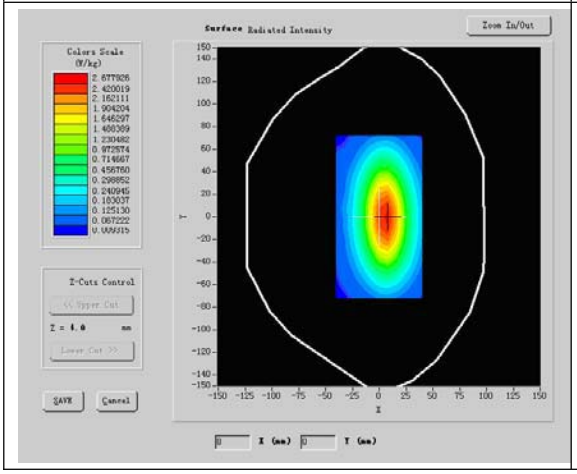
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	
Band	CDMA 835MHz
Channels	
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR:

Frequency (MHz)	835.00000
Relative permittivity (real part)	42.002541
Relative permittivity (imaginary	18.926250

part)	
Conductivity (S/m)	0.922145
Variation (%)	-0.050000

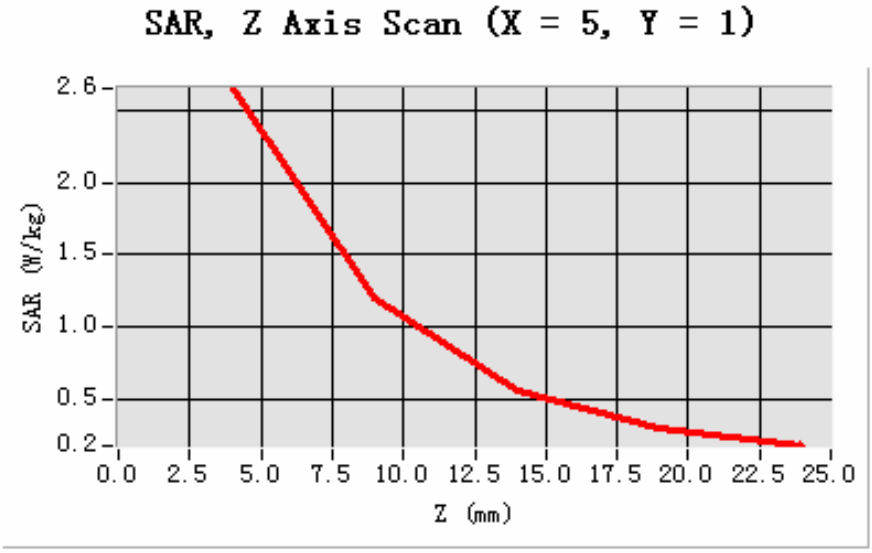
SURFACE SAR	VOLUME SAR
	

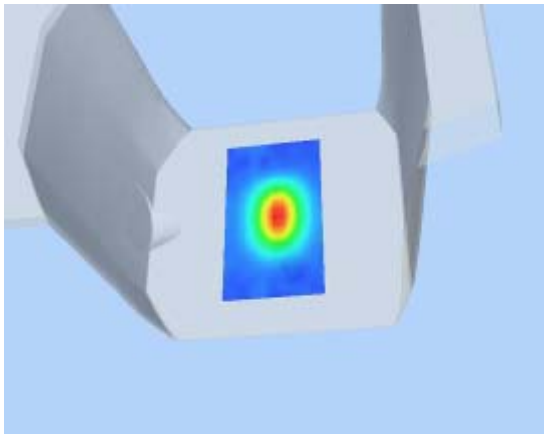
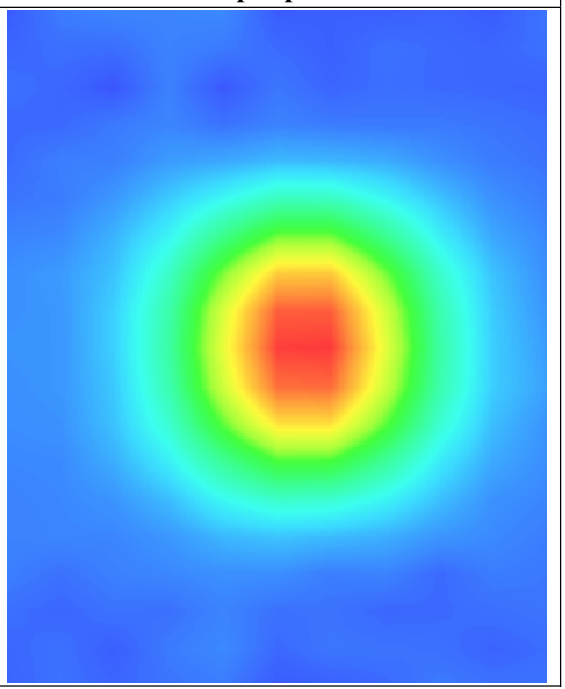
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.254555
SAR 1g (W/Kg)	2.534344

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



3D sceen shot	Hot spot position
	

System Performance Check Data(835MHz Body)

Type: Validation measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

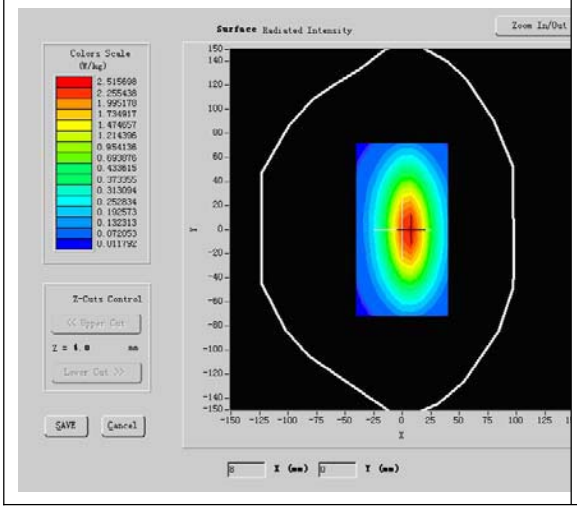
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA 835MHz
Channels	
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR:

Frequency (MHz)	835.000000
Relative permittivity (real part)	51.254412
Relative permittivity (imaginary	15.070000

part)	
Conductivity (S/m)	0.9552364
Variation (%)	-0.140000

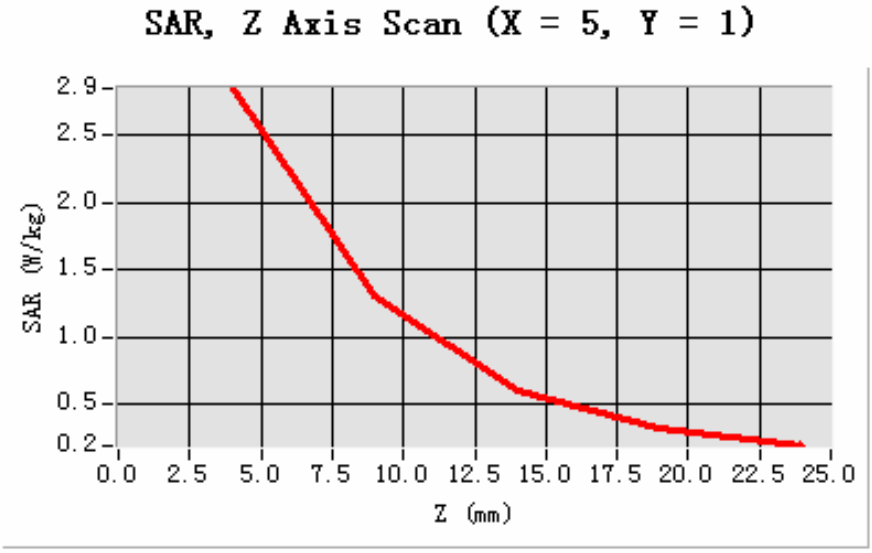
SURFACE SAR	VOLUME SAR
	

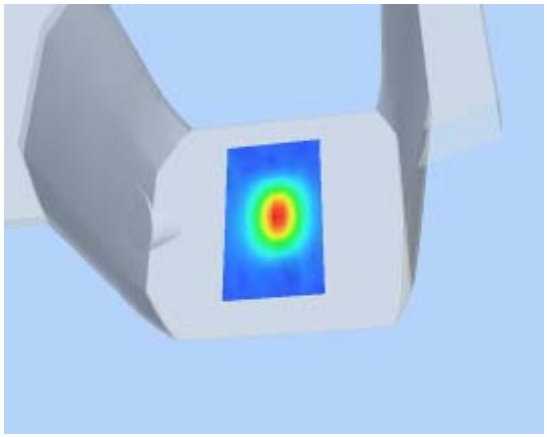
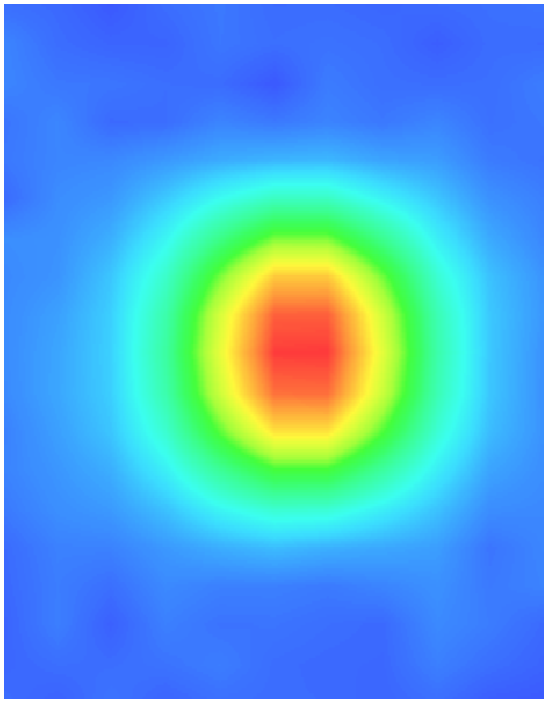
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.331444
SAR 1g (W/Kg)	2.653442

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



3D sceen shot	Hot spot position
	

System Performance Check Data(1900MHz Head)

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 23 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

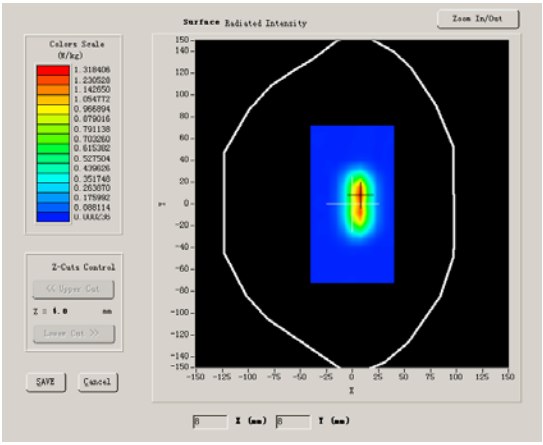
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	
Signal	CDMA

B. SAR Measurement Results

Lower Band SAR:

Frequency (MHz)	1900.000000
Relative permittivity (real part)	39.521552
Relative permittivity (imaginary	12.991650

part)	
Conductivity (S/m)	0.9552364
Variation (%)	0.570000

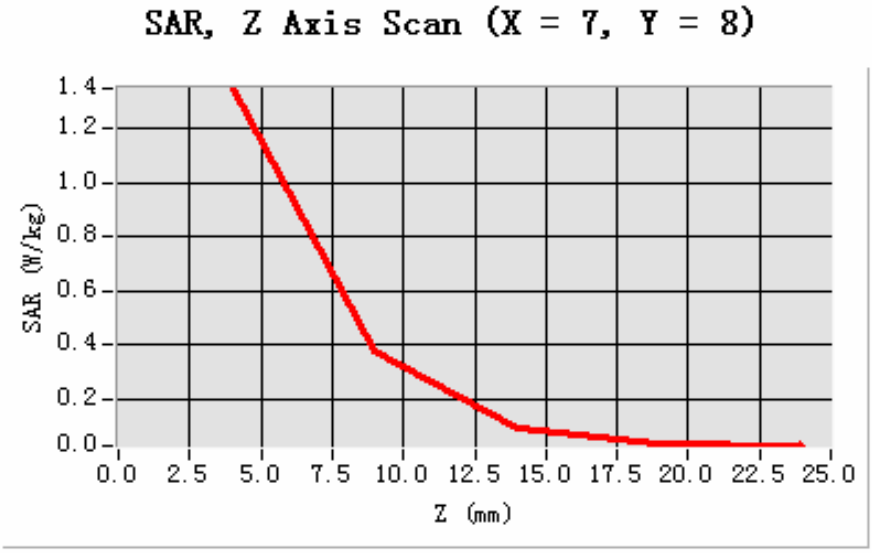
SURFACE SAR	VOLUME SAR
	

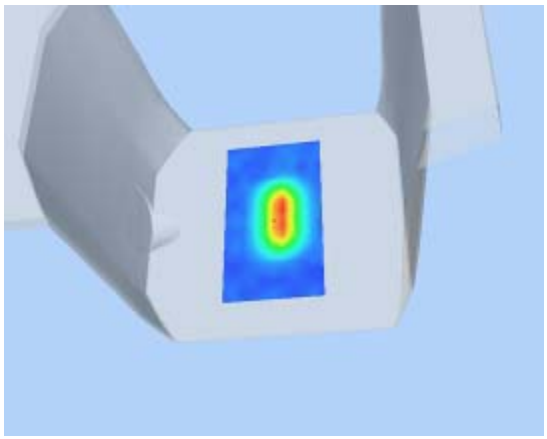
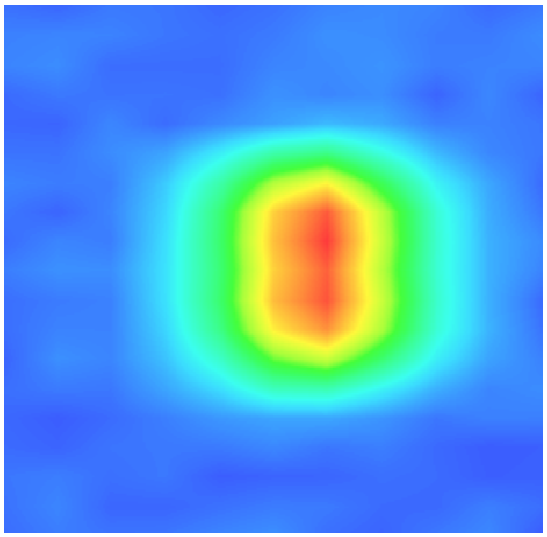
Maximum location: X=7.00, Y=8.00

SAR 10g (W/Kg)	5.858642
SAR 1g (W/Kg)	10.054664

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



3D sceen shot	Hot spot position
	

System Performance Check Data(1900MHz Body)

Type: Phone measurement (Very fast, 27 points in the volume)

Date of measurement: 15/1/2009

Measurement duration: 5 minutes 23 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

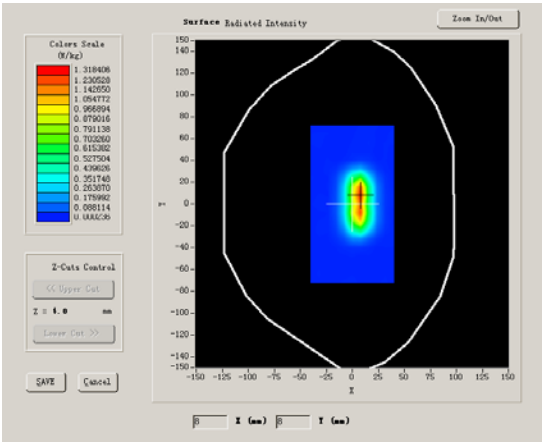
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA1900
Channels	
Signal	TDMA

B. SAR Measurement Results

Lower Band SAR:

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

part)	
Conductivity (S/m)	1.395712
Variation (%)	0.570000

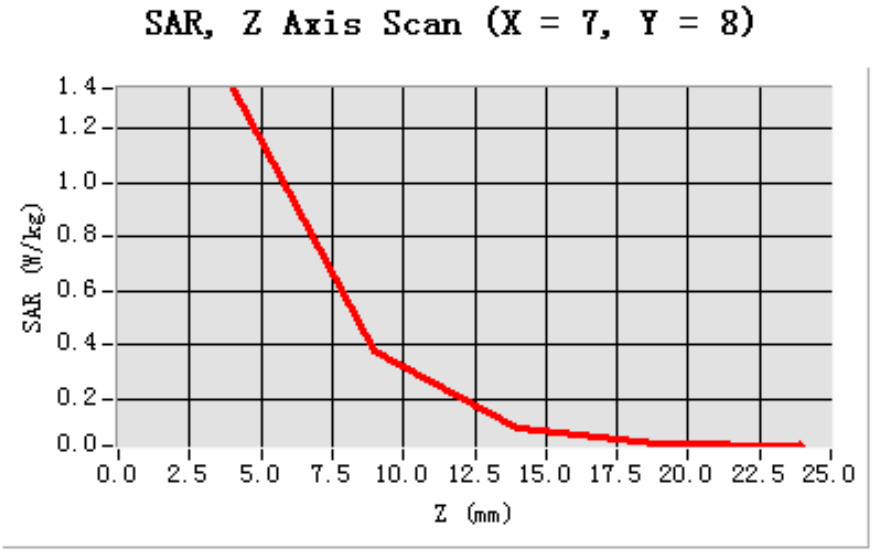
SURFACE SAR	VOLUME SAR
	

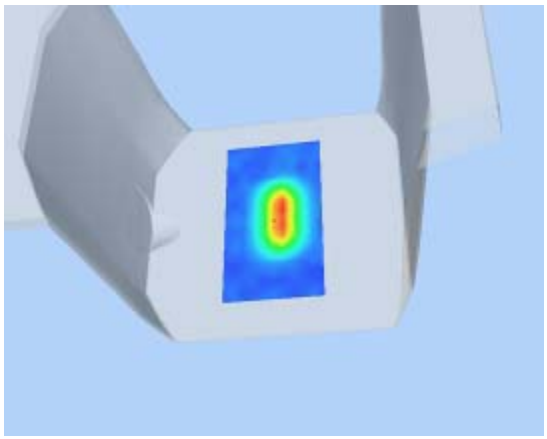
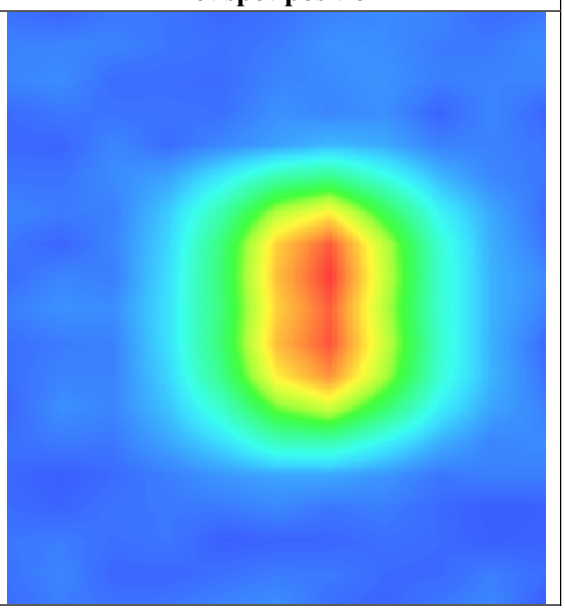
Maximum location: X=7.00, Y=8.00

SAR 10g (W/Kg)	6.344452
SAR 1g (W/Kg)	10.544334

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



3D sceen shot	Hot spot position
	

System Performance Check Data(835MHz Body)

Type: Validation measurement (Very fast, 27 points in the volume)

Date of measurement: 21/1/2009

Measurement duration: 5 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

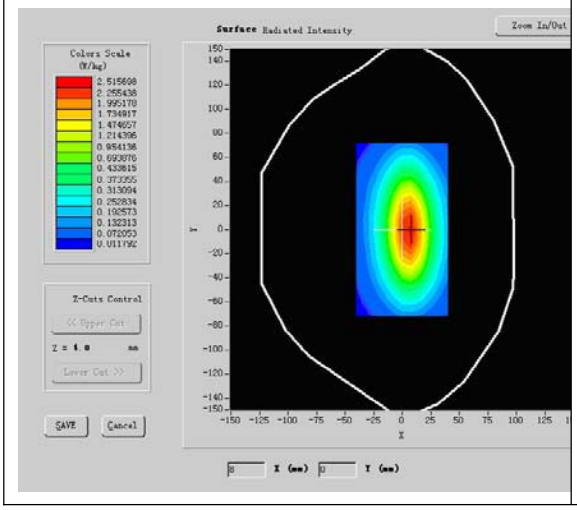
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	CDMA 835MHz
Channels	
Signal	CDMA

B. SAR Measurement Results

Middle Band SAR:

Frequency (MHz)	835.000000
Relative permittivity (real part)	51.254412
Relative permittivity (imaginary	15.070000

part)	
Conductivity (S/m)	0.9552364
Variation (%)	-0.140000

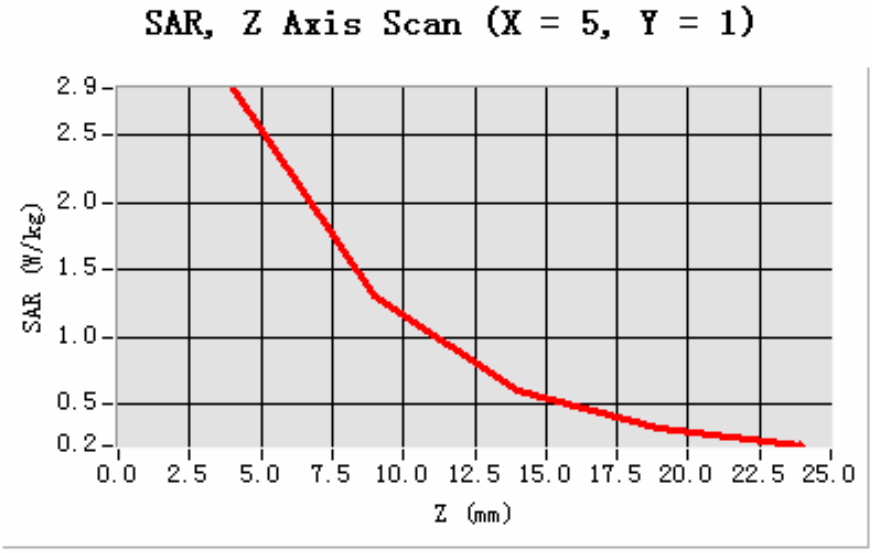
SURFACE SAR	VOLUME SAR
	

Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.288504
SAR 1g (W/Kg)	2.477389

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



3D sceen shot	Hot spot position