SPECIFIC ABSORPTION RATE (SAR)

TEST REPORT

of

GSM Dual-band Digital Mobile Phone

Model Name: ZTE A139
Trade Name: ZTE A139
FCC ID: Q78-ZTEA139
Report No.: SH07110011S01

prepared for

ZTE CORPORATION

Zhongxing Bldg, Hi-Tech Park, NanShan,
Shenzhen, P.R.China

prepared by

Shenzhen Electronic Product Quality Testing Center
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GENERAL SUMMARY

Product Name	850/1900 Dual-band Handset	Development Stage	Identical prototype
Standard(s)	**47CFR § 2.1093:** Radiofrequency Radiation Exposure Evaluation: Portable Devices **FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01):** Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields **ANSI C95.1–1999:** IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. **IEEE 1528–2003:** Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques.		
Conclusion	Localized Specific Absorption Rate (SAR) of this portable wireless equipment has been measured in all cases requested by the relevant standards cited in Clause 5.2 of this test report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 5.1 of this test report. General Judgment: **Pass** **Date of issue: Nov. 19, 2007**		
Comment	TX Freq. Band: 824.20 MHz-848.80 MHz(Cellular) 1850.20 MHz-1909.80 MHz(PCS) RX Freq. Band: 869.20 MHz-893.80 MHz(Cellular) 1930.20 MHz -1989.80 MHz(PCS) Antenna Character : build inside The test result only responds to the measured sample.		

Tested by: Zhang Min Date: 2007.11.17

Zhang Min

Checked by: Yang Jinhua Date: 2007.11.19

Yang Jinhua

Approved by: Shu Luan Date: 2007.11.29

Shu Luan

MORLAB Certification GLOBAL SERVICE

Contents

This Test Report consists of the following Annexes:

1. GENERAL CONDITIONS

1.1 This report only refers to the item that has undergone the test.

1.2 This report standalone does not constitute or imply by its own an approval of the product by the certification Bodies or competent Authorities.

1.3 This document is only valid if complete; no partial reproduction can be made without written approval of Shenzhen Morlab Communications Technology Co., Ltd.

1.4 This report cannot be used partially or in full for publicity and/or promotional purposes without previous written approval of Shenzhen Morlab Communications Technology Co., Ltd. and the Accreditation Bodies, if it applies.

2. Administrative Date

2.1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co.,Ltd.
Department:	Testing Department
Address:	3Fl, Electronic Testing Building, ShaHe Road, NanShan District, Shenzhen, P. R. China
Telephone:	+86 755 86130268
Fax:	+86 755 86130218
Responsible Test Lab Managers:	Mr. Shu Luan

2.2. Identification of the Responsible Testing Location(s)

Company Name:	Shenzhen Electronic Product Quality Testing Center Morlab Laboratory
Address:	3Fl, Electronic Testing Building, ShaHe Road, NanShan District, Shenzhen, P. R. China

2.3.Organization Item

Morlab Report No.:	SH07110011S01
Morlab Project Leader:	Mr. Yang Jinhua
Morlab Responsible for Accreditation scope:	Mr. Shu Luan
Start of Testing:	2007-11-17
End of Testing:	2007-11-17

2.4.Identification of Applicant

Company Name:	ZTE CORPORATION
Address:	Zhongxing Bldg, Hi-Tech Park, NanShan, Shenzhen, P.R.China
Contact person:	Li.dz
Telephone:	+86-021-68895196
Fax:	+86-021-50801070

2.5.Identification of Manufacture

Company Name:	ZTE CORPORATION
Address:	Zhongxing Bldg, Hi-Tech Park, NanShan, Shenzhen, P.R.China
Contact person:	Li.dz
Telephone:	+86-021-68895196
Fax:	+86-021-50801070

Notes: This data is based on the information offered by the applicant.

3. Equipment Under Test (EUT)

3.1. Identification of the Equipment under Test

Brand Name:	ZTE 中兴	
Type Name:	ZTE A139	
Marking Name:	ZTE A139	
	Test frequency	Cellular 850MHz PCS 1900MHz
	Development Stage	Identical prototype
	Accessories	Charger, Battery
	Battery Model	ZTE A139
	Battery specification	3.7V 770 mAh
General description:	Antenna type	Integrated
	Operation mode	Call established
	Modulation mode	GMSK
	Max. Power（EIRP）	0.023W Cellular 850MHz 0.290W PCS 1900MHz

3.2. Identification of all used Test Sample of the Equipment under Test

EUT Code	Serial Number	Hardware Version	Software Version	IMEI
SH07110011A01	N.A.	G4rA	SE-VE-MOVISTAR-P103C2V1.0.0B01	000000000000000

NOTE:

1. The EUT consists of Hand Telephone Set and normal options: Charger, Lithium Battery as listed above.
2. Please refer to Appendix C for the photographs of the EUT. For a more detailed features description of the EUT, please refer to its User's Manual.

4 OPERATIONAL CONDITIONS DURING TEST

4.1 Schematic Test Configuration

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 TCH is allocated to 0, 62 and 124 respectively in the case of GSM 900 MHz, or to 512, 700 and 885 respectively in the case of PCS 1800 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.

4.2 SAR Measurement System

The SAR measurement system being used is the COMOSAR Test Bench, which consists of a

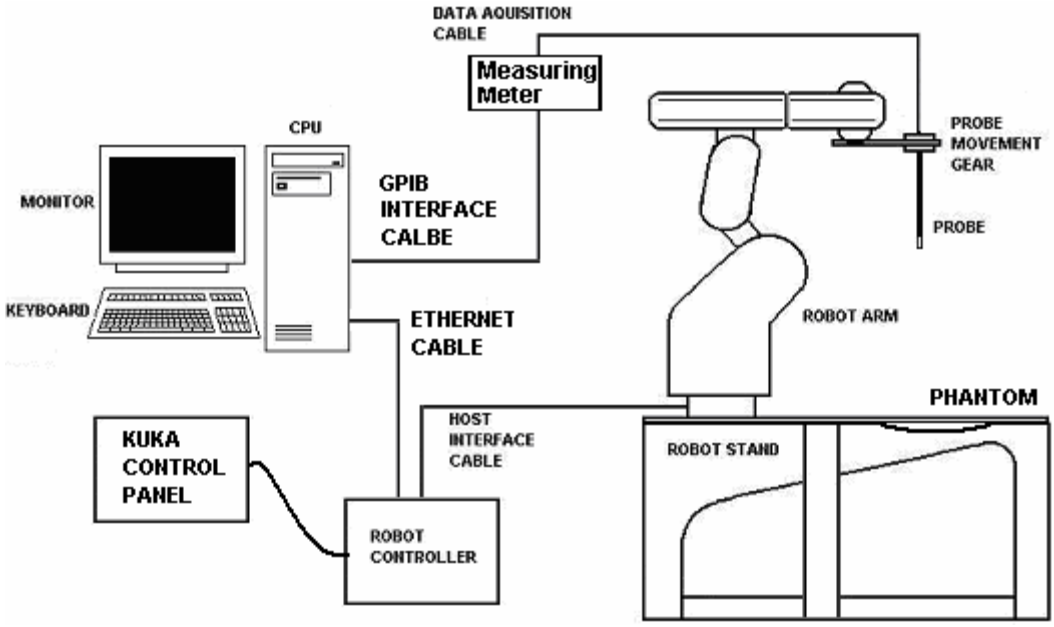


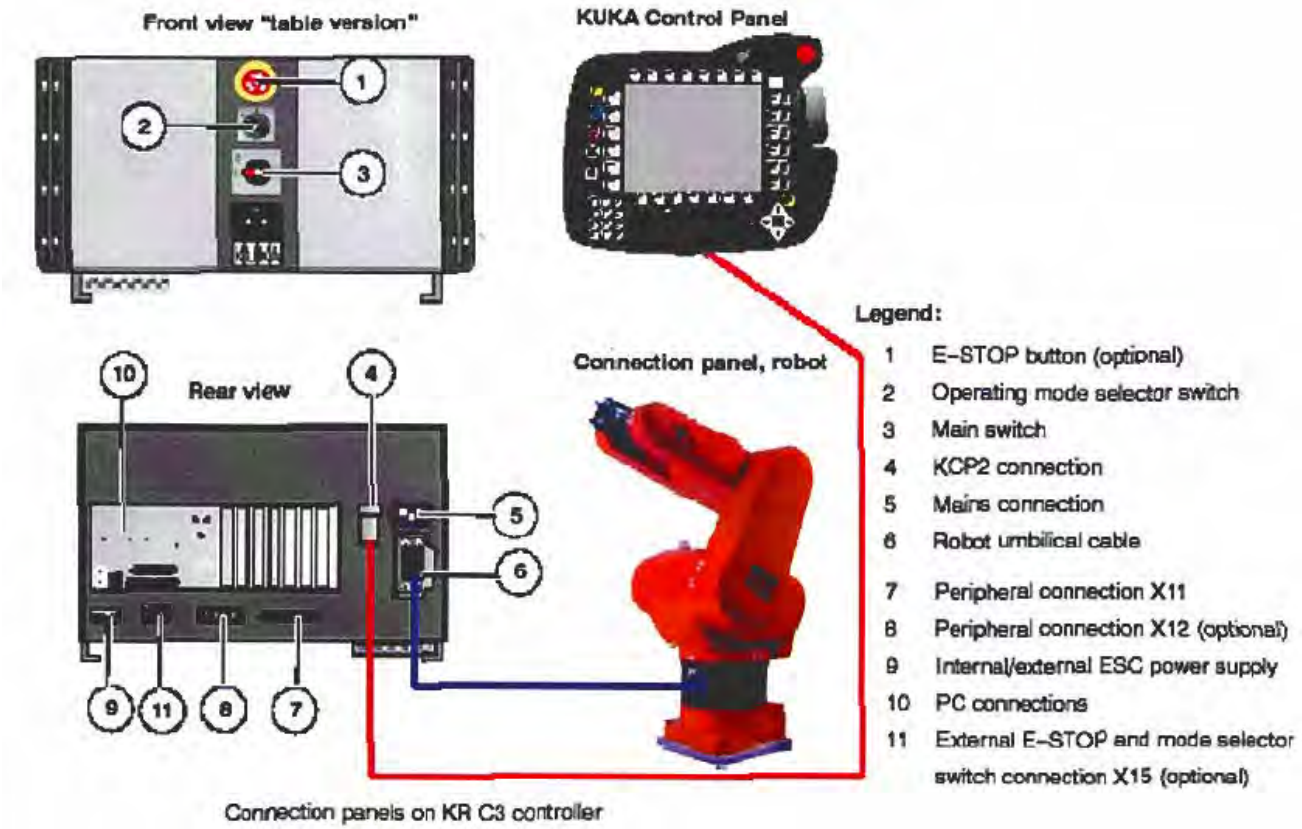
Figure1. SAR Lab Test Measurement Set-up

KUKA 6-axis robot arm and controller, Antennessa probe with *no amplifier* and SAM phantom. The system is controlled remotely from a PC, which contains the software to control most of the bench devices and stores measurement data. The software also displays the data obtained from test scans,

and determines the averaged SAR values (averaging region 1 gram or 10 gram) for compliance testing. In operation, the system first does an area (2D) scan at a fixed depth within the liquid from the inside wall of the phantom. When the maximum SAR point has been found, the system will then carry out a 3D scan centered at that point to determine volume averaged SAR level.

4.2.1 Robot system specification

The robot is used to articulate the probe to programmed positions inside the phantom head to obtain the SAR readings from the DUT.



4.2.2 Probe Specification

Antennessa isotropic waterproof and low loss SAR probe

Antennessa probes are constructed with a triangular section bar in alumina. On each face, a dipole and a resistive line are printed. A Schottky diode is placed in the center of each dipole.

This probe is designed to fulfill CENELEC, IEEE and FCC recommendations for the measurement of electromagnetic fields radiated by mobile phones and base stations.

All probes are protected by waterproof and low loss girdle. The dosimetric probe has special calibration factors for each frequency and mode.

Due to the specific structure and high sensitivity of Antennessa probes, the E field evaluation needs *no amplification* between the sensors and the PC.

Technical data

This E-field detection probe is composed of three orthogonal dipoles linked to special Schottky diodes with low detection thresholds. The probe allows the measurement of electric fields in liquids such as the on defined in the IEEEE and CENELEC standard. These uncoupled dipoles perform the isotropic and wideband measurements necessary to assess mobile phones SAR.

Frequency range	100 MHz - 30 GHz
Length	330 mm
Dipoles Length	4.5 mm
Maximum external diameter	8 mm
Probe tip external diameter	5 mm
Distance between dipoles and the probe tip	<2.7mm
Dipole resistance (in the connector plane)	1M| to 2M|
Axial isotropy in human-equivalent liquids	± 0.25 dB
Hemispherical Isotropy in human-equivalent liquids	± 0.5 dB
Linearity	± 0.5 dB
Maximum operating SAR	100 Watts/kg
Lower SAR detection threshold	0.0015 Watts/kg
Connectors	6 male wires (Hirose SR30)

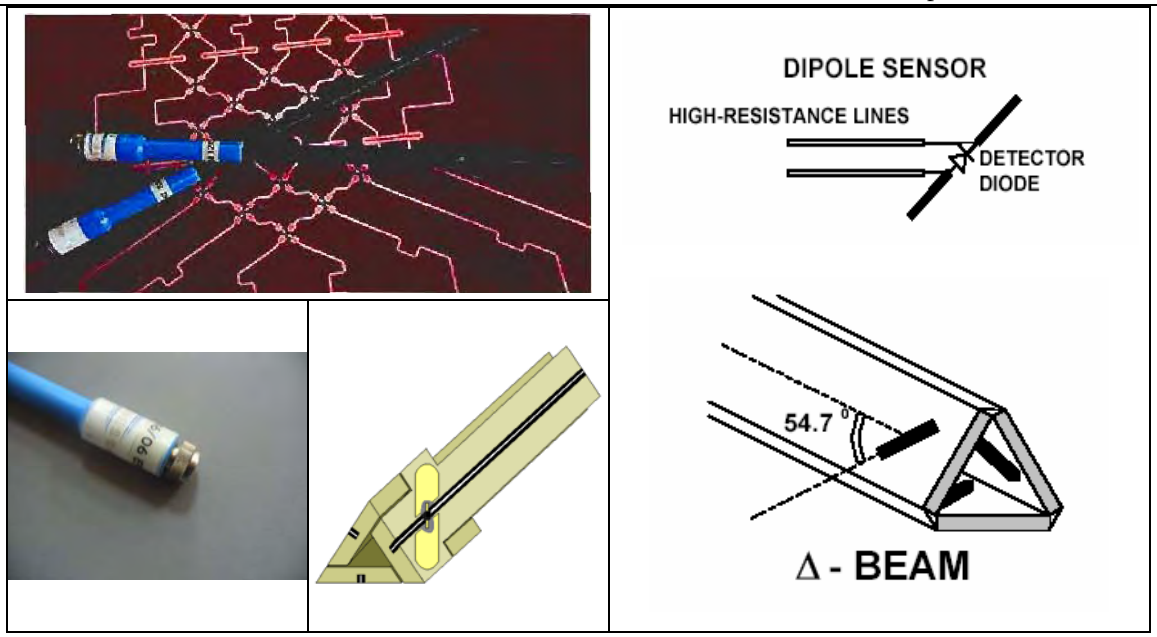
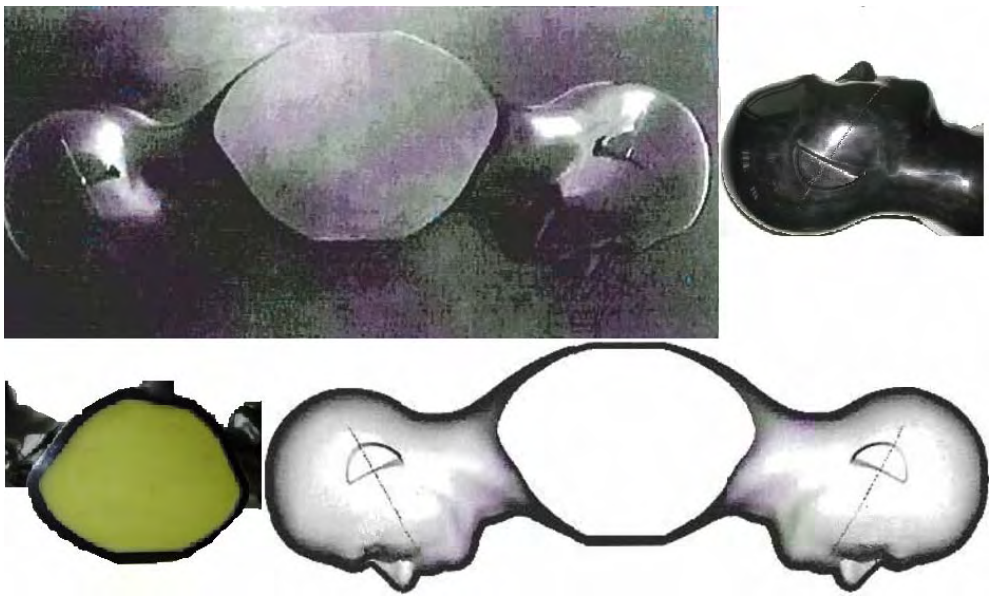


Figure2. Specification and characterization parameters of antennessa probe

4.2.3 Phantoms, Device Holder and Simulant Liquid

4.2.3.1 Sam Phantom

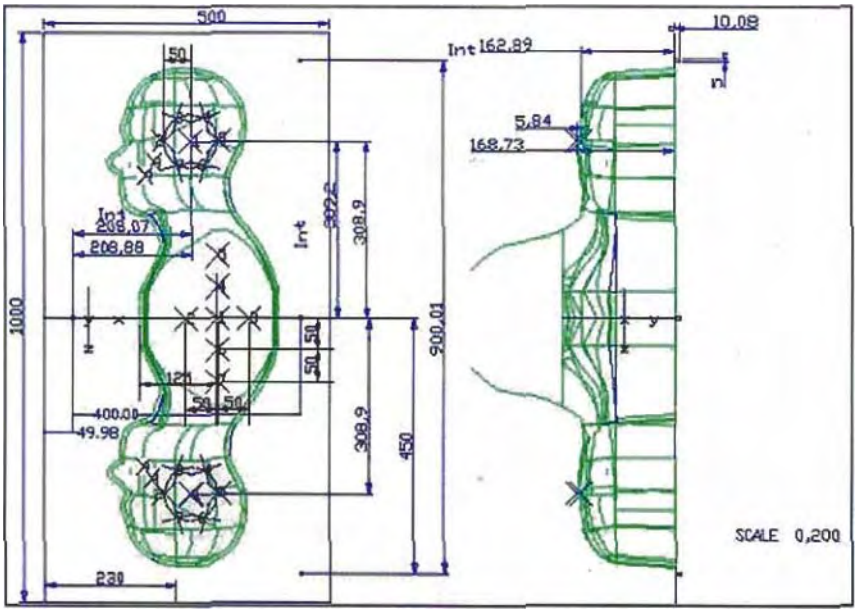


The SAM phantom is used to measure the SAR relative to person's exposure to electro-magnetic field radiated by mobile phones.

Technical Data

Shell thickness	2 mm +/-0.2 mm
Filling volume	27 liters
Dimensions	1000 mm (Length) ; 500 mm (Width) ; 200 mm (Height)
5 molded plastic points for high precision reference Delivered with 4 nylon screws	

For thickness control purposes, the phantom has several integrated thickness control points (see crosses on the picture below)



Position of the thickness control points

The SAM phantom is delivered with a CAD CD-ROM including the 3D data of the internal shape of the shell. These data are used by the 6 axis robot control software to define movements relative to its internal surface.

The SAM phantom also has 5 additional CAD-linked reference points to properly position the 6-axis robot (probe tip) in the phantom shell.

The SAM phantom has reference points at the center of the flat area (for measurements with dipoles) and near its mouth and ear for mobile phone positioning purposes.

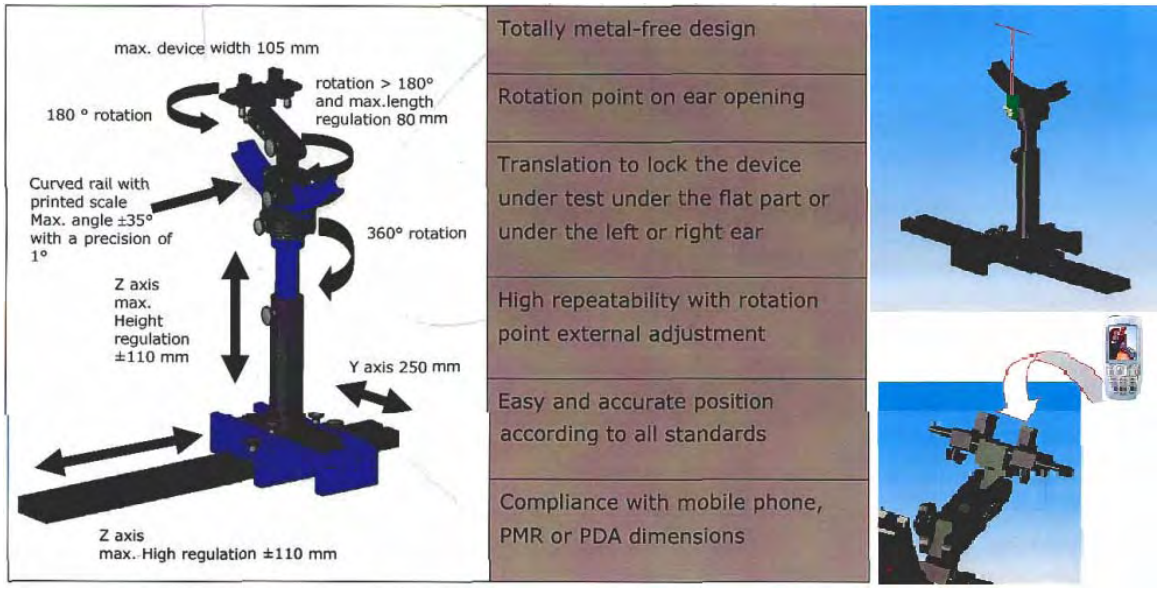
The phantom is equipped with a tap for draining the liquid.

The liquid quantity necessary t fill the phantom is approximately 20 liters.

All phantoms are tested after production. The test is made on 22 different points. It is based on an ultrasonic system measurement, which allows measuring the thickness with a precision of 10μm. The mould has been controlled by a certification company.

4.2.3.2 Device and Dipole Holder

The SAR value is approximatively inversely proportional to the square of the distance between the source and the internal phantom surface. For a source at 5mm distance, a positioning uncertainty of ±0.5mm would produce a SAR uncertainty of ±20%. An accurate device positioning is therefore essential for accurate and repeatable measurements.



This positioning system allows the translating of the mobile phone along the x, y and z axis, as well as the required rotation around the phantom ear, for the 2 positions defined by standards (0° “cheek” position and 15° “tilt” position).

The correct position can be easily determined thanks to an additional tool with a pointer. The top part of the system, above the curved rail, can be fixed definitively so that subsequent adjustments just concern the angle or the x, y or z axis.

This simplifies the positioning of the acoustic output of the telephone on the cross section of the phantom, before rolling the system underneath the phantom. It also improves the accuracy and repeatability of positioning with a tolerance ≤0.65mm.

4.2.3.3 Tissue Simulating Liquids

There is no simulating liquids that can cover all frequency bands. Therefore, our system is using different liquids for the measured band as explained bellows.

The parameters of the simulating solution strongly influence the SAR values. The different normalization organizations have defined adapted solutions for the each mobile system.

GSM liquid: is made of 1-2 Propylene Glycol, de-ionized water and NaCl, reconstituting the electric properties of human tissues at 900MHz.

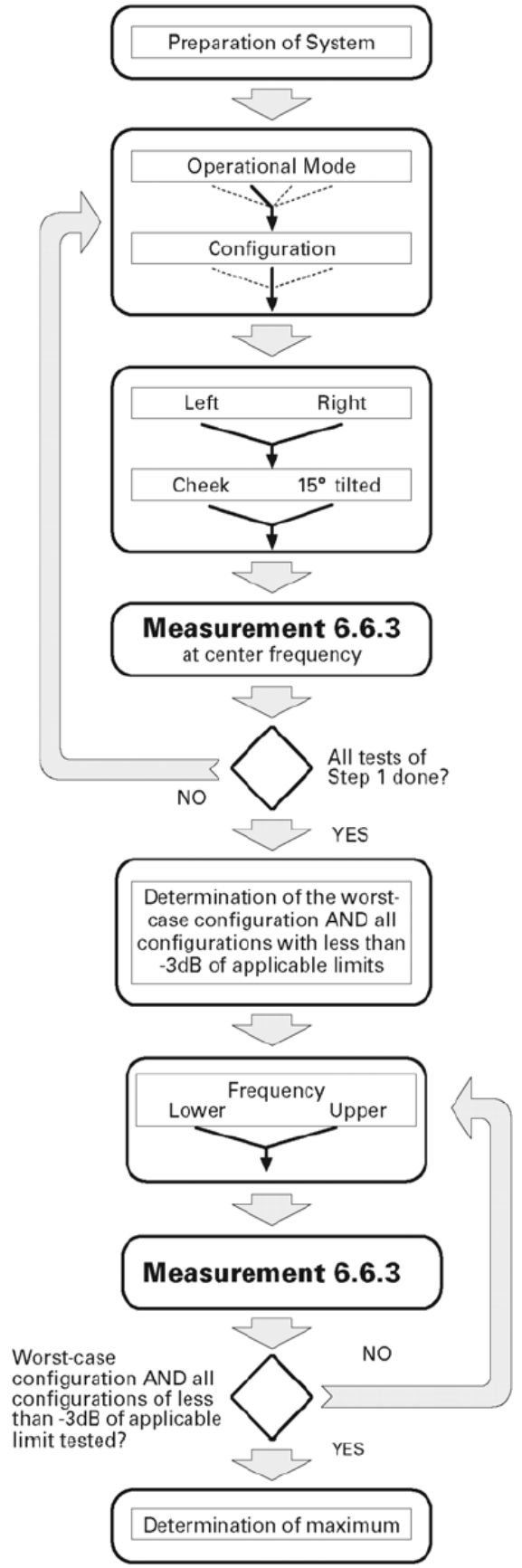
PCS Liquid: is made of de-ionized water, DGBE, Triton X 100 and NaCl, reconstituting the electric properties of human tissues at 1800MHz.

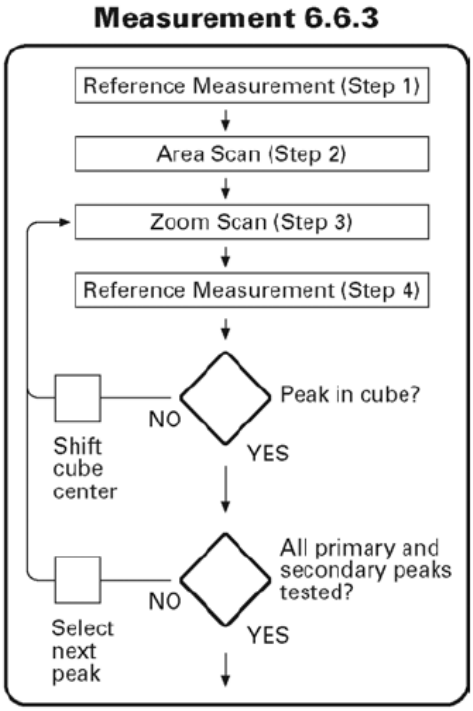
UMTS Liquid: is made of de-ionized water, DGBE, Triton X 100 and NaCl, reconstituting the electric properties of human tissues at 2000MHz.

Several measurement systems are available for measuring the dielectric parameters.

Antennessa has developed its own software, based on a coaxial probe. This method allows measurement of liquid permittivity between 300 MHz and 6GHz.

4.2.4 SAR measurement procedure





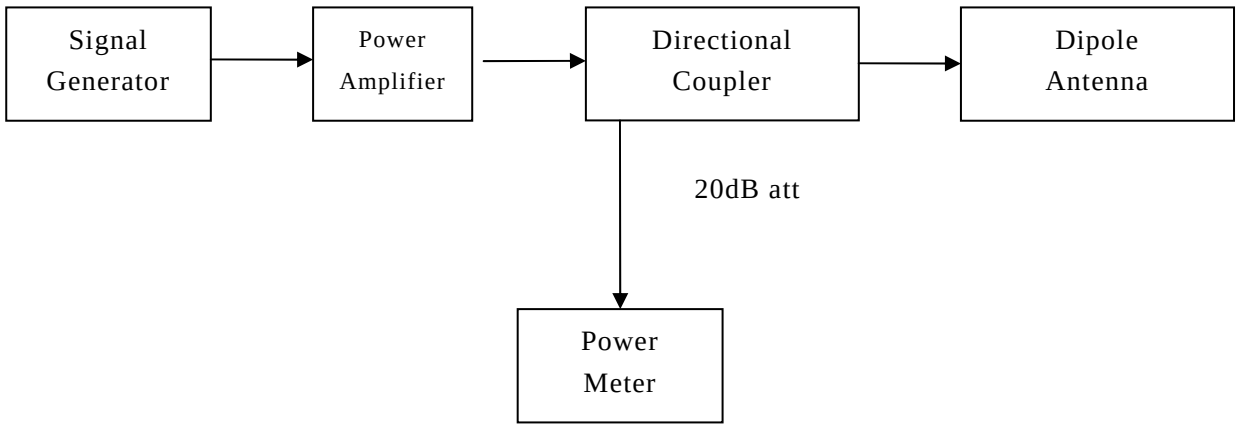
Channel	Left				Right			
	Cheek		Tilt		Cheek		Tilt	
	Retracted	Extended	Retracted	Extended	Retracted	Extended	Retracted	Extended
Mode 1:								
High			S2(-1.4dB)	S2(-0.4dB)			S2(-2.2dB)	S2(-1.4dB)
Middle	S1(-4dB)	S1(-4dB)	S1(-1.5dB)	S1(-0.5dB)	S1(-5dB)	S1(-5dB)	S1(-2.5dB)	S1(-1.5dB)
Low			S2(-1.3dB)	S2(-0.7dB)			S2(-2.7dB)	S2(-0.6dB)
Mode 2:								
High			S2(-2.7dB)	S2(-1.1dB)				
Middle	S1(-5dB)	S1(-5dB)	S1(-2.5dB)	S1(-1dB)	S1(-6dB)	S1(-6dB)	S1(-5dB)	S1(-5dB)
Low			S2(-2.2dB)	S2(-0.8dB)				

After an area scan has been done at a fixed distance of 8mm from the surface of the phantom on the source side, a 3D scan is set up around the location of the maximum spot SAR. First, a point within the scan area is visited by the probe and a SAR reading taken at the start of testing. At the end of testing, the probe is returned to the same point and a second reading is taken. Comparison between these start and end readings enables the power drift during measurement to be assessed.

Above is the scanning procedure flow chart and table from the IEEE p1528 standard. This is the procedure for which all compliant testing should be carried out to ensure that all variations of the device position and transmission behavior are tested.

4.2.5 Validation Test Using Flat Phantom

The following procedure, recommended for performing validation tests using flat phantom is based on the procedures described in the IEEE standard P1528. Setup according to the setup diagram below:



4.2.5.1 Setting up the Box Phantom for Validation Testing

One of the main purposes of the flat part of the phantom is for validation of the system. By placing the highly-symmetric and matched reference dipole below the phantom and using the same device holder, the system can now be used to check that the probe and software are giving accurate readings.

The antennas are developed with a $\lambda_0 / 4$ balun, so that all calibration dipoles are totally symmetrical.

Each validation dipole is used to check the whole SAR measurement chain in its frequency band. They are especially developed to make SAR measurements near a flat SAM phantom filled with human-equivalent liquid, according to the standards.

Each dipole has been designed to be plugged in the Antennessa phone positioning system. Validation measurements are made according to the standard, as the Antennessa phone positioning system is totally metal free.

4.2.5.2 Equipments and Results of Validation Testing

Equipments:

name	Type and specification
Signal generator	SMT 06
Directional coupler	MFR 34078
Amplifier	BLMA 0820-6
Reference dipole	SN 36/05 DIP C20
	SN 36/05 DIP G23

Results：

Frequency	Date	Target value(1g) W/kg	Test value(1g) W/kg	
850MHz	2007.11.16	9.5	9.08 (Head）	9.01 (Body)
1900MHz	2007.11.16	39.7	40.48 (Head）	38.66 (Body)

4.2.6 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 phone and the base station simulator is established via air interface.

Measurement of the local E-field distribution is done with a grid of 8 to 16mm*8 to 16mm and a constant distance to the inner surface of the phantom. Since the sensors cannot 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 interpolating scheme.

Around this point, a cube of 30*30*30mm or 32*32*32mm is assessed by measuring 5 or 8*5 or 8*4 or 5mm. With these data, the peak spatial-average SAR value can be calculated.

4.2.7 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 base on a fourth-order least square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1mm step.

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

5 CHARACTERISTICS OF THE TEST

5.1 Applicable Limit Regulations

47CFR § 2.1093: Radiofrequency Radiation Exposure Evaluation: Portable Devices

FCC OET Bulletin 65(Edition 97-01), Supplement C(Edition 01-01): Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2 Applicable Measurement Standards

IEEE 1528–2003: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption

Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques. They specify the measurement method for demonstration of compliance with the SAR limits for such equipments.

6 LABORATORY ENVIRONMENT

Table: The Ambient Conditions during SAR Test

Temperature	Min. =15°C, Max. =30°C
Relative humidity	Min. =30%, Max. =70%
Ground system resistance	<0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

7 TEST RESULTS

7.1 Dielectric Performance

The measured 1-gram averaged SAR values of the device against the head and the body are provided in Table 1. The relative humidity and ambient temperature of test facility were 60% ~65% and 21.0 °C ~23.5°C respectively. The SAM head phantom (SN 36/05 SAM 25) was full of the head tissue simulating liquid. The depth of the body tissue was 15.0cm. The distance between the back of the device and the bottom of the flat phantom is 1.5cm. 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: 21.0~23.5°C, Relative Humidity: 60~65%.			
/	**Frequency**	**Permittivity ε_r**	**Conductivity σ (S/m)**
Target value	850 MHZ	41.5	0.90
Validation value (Nov. 16)	850 MHZ	41.22	0.92
Target value	1900 MHz	40.0	1.40
Validation value (Nov. 16)	1900 MHz	40.04	1.42

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 3: Dielectric Performance of Body Tissue Simulating Liquid

Temperature: 21.0~23.5°C, Relative Humidity: 60~65%.			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	850 MHz	55.2	0.97
Validation value (Nov. 16)	850 MHz	55.09	0.97
Target value	1900 MHz	53.3	1.52
Validation value (Nov. 16)	1900 MHz	53.87	1.54

7.2 Summary of Measurement Results (Cellular 850MHz and PCS 1900MHz Band)

Table 3: SAR Values (Cellular 850 MHz Band), Measured against the head.

Temperature: 21.0~23.5°C, Relative Humidity: 60~65%.	
Limit of SAR (W/kg)	1 g Average
	1.6
Test Configuration	Measurement Result (W/kg)
	1 g Average (W/kg)
Left head, Touch cheek, Low Channel	0.520
Left head, Touch cheek, Middle Channel	0.524
Left head, Touch cheek, High Channel	0.429
Left head, Tilt 15 Degree, Low Channel	0.096
Left head, Tilt 15 Degree, Middle Channel	0.096
Left head, Tilt 15 Degree, High Channel	0.085
Right head, Touch cheek, Low Channel	0.846
Right head, Touch cheek, Middle Channel	0.811
Right head, Touch cheek, High Channel	0.715
Right head, Tilt 15 Degree, Low Channel	0.084
Right head, Tilt 15 Degree, Middle Channel	0.087
Right head, Tilt 15 Degree, High Channel	0.104

Table 5: SAR Values (PCS 1900MHz Band), Measured against the head.

Temperature: 21.0~23.5°C, Relative Humidity: 60~65%.	
Limit of SAR (W/kg)	1 g Average
	1.6
Test Configuration	Measurement Result (W/kg)
	1 g Average (W/kg)
Left head, Touch cheek, Low Channel	0.643
Left head, Touch cheek, Middle Channel	0.737
Left head, Touch cheek, High Channel	0.738
Left head, Tilt 15 Degree, Low Channel	0.183
Left head, Tilt 15 Degree, Middle Channel	0.146
Left head, Tilt 15 Degree, High Channel	0.114
Right head, Touch cheek, Low Channel	0.667
Right head, Touch cheek, Middle Channel	0.861
Right head, Touch cheek, High Channel	0.940
Right head, Tilt 15 Degree, Low Channel	0.158
Right head, Tilt 15 Degree, Middle Channel	0.170
Right head, Tilt 15 Degree, High Channel	0.152

Table 6: SAR Values (Cellular 850 MHz Band), Measured against the body

Temperature: 21.0~23.5°C, Relative Humidity: 60~65%.	
Limit of SAR (W/kg)	**1 g Average**
	1.6
Test Case	**Measurement Result (W/kg)**
	1 g Average (W/kg)
Side, Bottom Channel	0.388
Side, Mid Channel	0.298
Side, Top Channel	0.370
Side, Low Channel (face to bottom)	0.298

Table 7: SAR Values (PCS1900 MHz Band), Measured against the body

Temperature: 21.0~23.5°C, Relative Humidity: 60~65%.	
Limit of SAR (W/kg)	**1 g Average**
	1.6
Test Case	**Measurement Result (W/kg)**
	1 g Average (W/kg)
Side, Bottom Channel	0.290
Side, Mid Channel	0.284
Side , Top Channel	0.279
Side, Low Channel (face to bottom)	0.262

7.3 Conclusion

Peak Spatial-Average Specific Absorption Rate (SAR) of this portable wireless device has been measured in all configurations requested by the relevant standards cited in Clause 5.2 of this report. SAR values are **below** exposure limits specified in the relevant standards cited in Clause 5.1 of this test report.

8 Measurement Uncertainties

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

UNCERTAINTY EVALUATION FOR HANDSET SAR TEST

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	Sec.	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	6.0	N	1	1	1	6.0	6.0	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	$(1-Cp)^{1/2}$	$(1-Cp)^{1/2}$	1.0	1.0	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	$\sqrt{Cp}$	$\sqrt{Cp}$	1.6	1.6	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	0.5	N	1	1	1	0.5	0.5	∞
Reponse Time	E.2.7	0.2	R	$\sqrt{3}$	1	1	0.1	0.1	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
Probe positioning with respect to Phantom Shell	E.6.3	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Extrapolation, interpolation and integration Algoritms for Max. SAR Evaluation	E.5.2	1.5	R	$\sqrt{3}$	1	1	0.9	0.9	∞
Test sample Related									
Test sample positioning	E.4.2.1	1.5	N	1	1	1	1.5	1.5	N-1
Device Holder Uncertainty	E.4.1.1	5.0	N	1	1	1	5.0	5.0	
Output power Variation - SAR drift measurement	6.6.2	2.5	R	$\sqrt{3}$	1	1	1.4	1.4	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Liquid conductivity - deviation from target value	E.3.2	1.6	R	$\sqrt{3}$	0.64	0.43	0.6	0.4	∞

Liquid conductivity - measurement uncertainty	E.3.3	2.5	N	1	0.64	0.43	1.6	1.1	M
Liquid permitivity - deviation from target value	E.3.2	2.9	R	$\sqrt{3}$	0.6	0.49	1.0	0.8	∞
Liquid permitivity - measurement uncertainty	E.3.3	2.5	N	1	0.6	0.49	1.5	1.2	M
Combined Standard Uncertainty			RSS				9.5	9.4	
Expanded Uncertainty (95% Confidence interval)			k				18.6	18.4	

UNCERTAINTY FOR SYSTEM PERFORMANCE CHECK

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	Sec.	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	Vi
Measurement System									
Probe calibration	E.2.1	6.0	N	1	1	1	6.0	6.0	∞
Axial Isotropy	E.2.2	2.5	R	$\sqrt{3}$	$(1-Cp)^{1/2}$	$(1-Cp)^{1/2}$	1.0	1.0	∞
Hemispherical Isotropy	E.2.2	4.0	R	$\sqrt{3}$	$\sqrt{Cp}$	$\sqrt{Cp}$	1.6	1.6	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Linearity	E.2.4	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
System detection limits	E.2.5	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	0.5	N	1	1	1	0.5	0.5	∞
Reponse Time	E.2.7	0.2	R	$\sqrt{3}$	1	1	0.1	0.1	∞
Integration Time	E.2.8	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
RF ambient Conditions	E.6.1	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
Probe positioning with respect to Phantom Shell	E.6.3	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Extrapolation, interpolation and integration Algoritms for Max. SAR Evaluation	E.5.2	1.5	R	$\sqrt{3}$	1	1	0.9	0.9	∞
Dipole									
Dipole axis to liquid Distance	8,E.4.2	1.0	N	$\sqrt{3}$	1	1	0.6	0.6	N-1
Input power and SAR drift measurement	8,6.6.2	2.5	R	$\sqrt{3}$	1	1	1.4	1.4	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Liquid conductivity - deviation from target value	E.3.2	1.6	R	$\sqrt{3}$	0.64	0.43	0.6	0.4	∞
Liquid conductivity - measurement uncertainty	E.3.3	2.5	N	1	0.64	0.43	1.6	1.1	M

Liquid permitivity - deviation from target value	E.3.2	2.9	R	$\sqrt{3}$	0.6	0.49	1.0	0.8	∞
Liquid permitivity - measurement uncertainty	E.3.3	2.5	N	1	0.6	0.49	1.5	1.2	M
Combined Standard Uncertainty			RSS				8.0	7.9	
Expanded Uncertainty (95% Confidence interval)			k				15.6	15.4	

9 MAIN TEST INSTRUMENTS

Function	Name	Model No.	Series No.	Cal. Due Date
General	Desktop Computer	Pentium IV 2.4GHz	X1023533	2008-1-30
	SAR measurement software	OpenSAR V2.0.1e	/	2008-1-30
Liquid mixing and calibration	Vector Network Analyzer	ZVB 8	100154	2007-12-26
	PC 3.5 Calibration Kit	ZV-Z32	100356	2007-12-26
	Test Cable	ZV-Z13	100152	2008-1-15
	Constant temperature cultivating cabinet	DNP-9272	L-504468	2008-2-01
	Liquid thermometer	Testo 106-T1	/	2008-1-21
	Electric scale	YP20KN	/	2008-2-26
	Magnetic stirring machine	90-1B	/	2008-2-09
And calibration probe, beaker, test tube, injector, calibration bottles, mix barrel etc.				2008-1-30
SAR Measurement	Dipole antenna FREQ 850MHz	/	SN 36/05 DIP C20	2007-12-01
	Dipole antenna FREQ 1900MHz	/	SN 36/05 DIP G23	2007-12-01
	Power amplifier (Freq.: 0.8-2.0GHz)	BLMA 0820-6	056060A	2008-2-27
	Directional coupler (Freq.: 0.5-2.0GHz)	MFR 34078	CPL-5220-20-SMA-79	2007-12-24
	Signal generator	SMT 06	101836	2007-12-26
	Power meter	NRVD	101311	2007-12-25
	Multi meter	2000	1062728	2007-12-19
	Robot	KCP2 Std.ed05	00171	2008-1-01
	Measurement probe	/	SN 12/05 EP 61	2008-1-01
	Flat Phantom	/	SN 36/05 SAM 25	2008-1-01
	Test table	/	SN 35/05 TABP13	2008-1-01
	Supporter (Holder)	/	SN 45/04 MSH09	2008-1-01

ANNEX A

of

Shenzhen Morlab Communications Technology Co., Ltd.

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

REPORT NO: SH07110011S01

ZTE CORPORATION

GSM Dual-band Digital Mobile Phone

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

of

Shenzhen Morlab Communications Technology Co.,Ltd.

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

REPORT NO: SH07110011S01

ZTE CORPORATION

GSM Dual-band Digital Mobile Phone

Type Name: ZTE A139

Hardware Version: G4rA
Software Version: SE-VE-MOVISTAR-P103C2V1.0.0B01

TEST LAYOUT

Figure B.1 COMOSAR Test Bench Test Layout

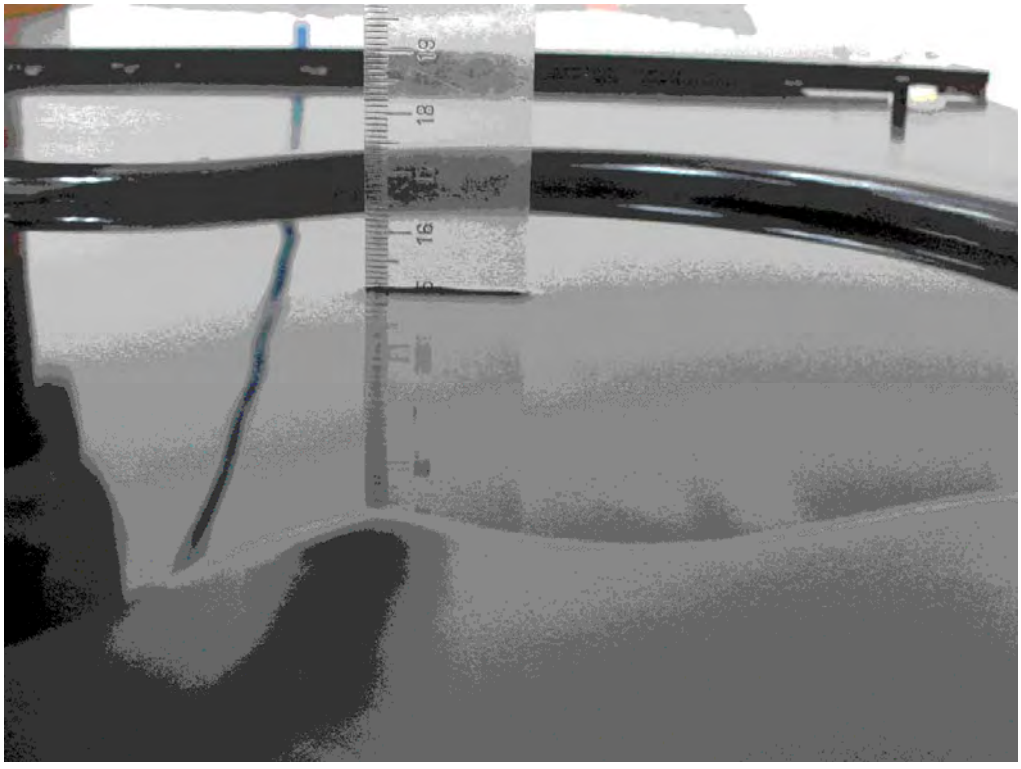


Figure B.2 Depth of Simulating Liquid in SAM Head Phantom

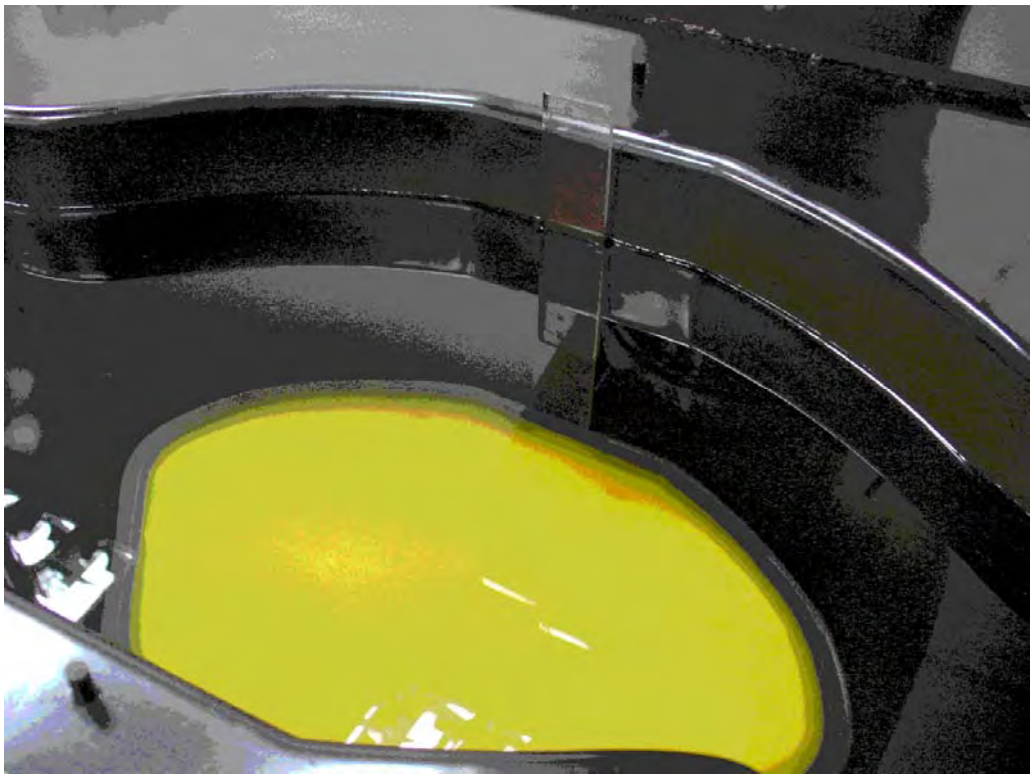


Figure B.3 Depth of Simulating Liquid in SAM Flat (Body) Phantom

Figure B.4 EUT Left Head Touch Cheek Position

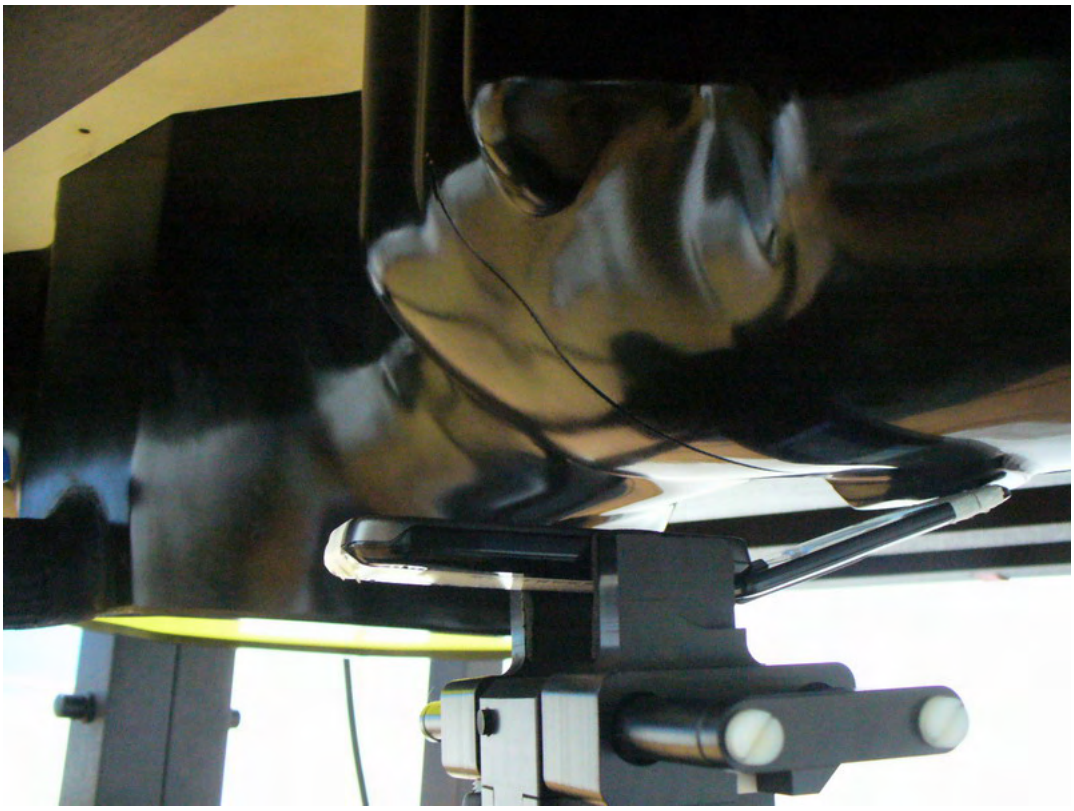


Figure B.5 EUT Left Head Tilt 15° Position

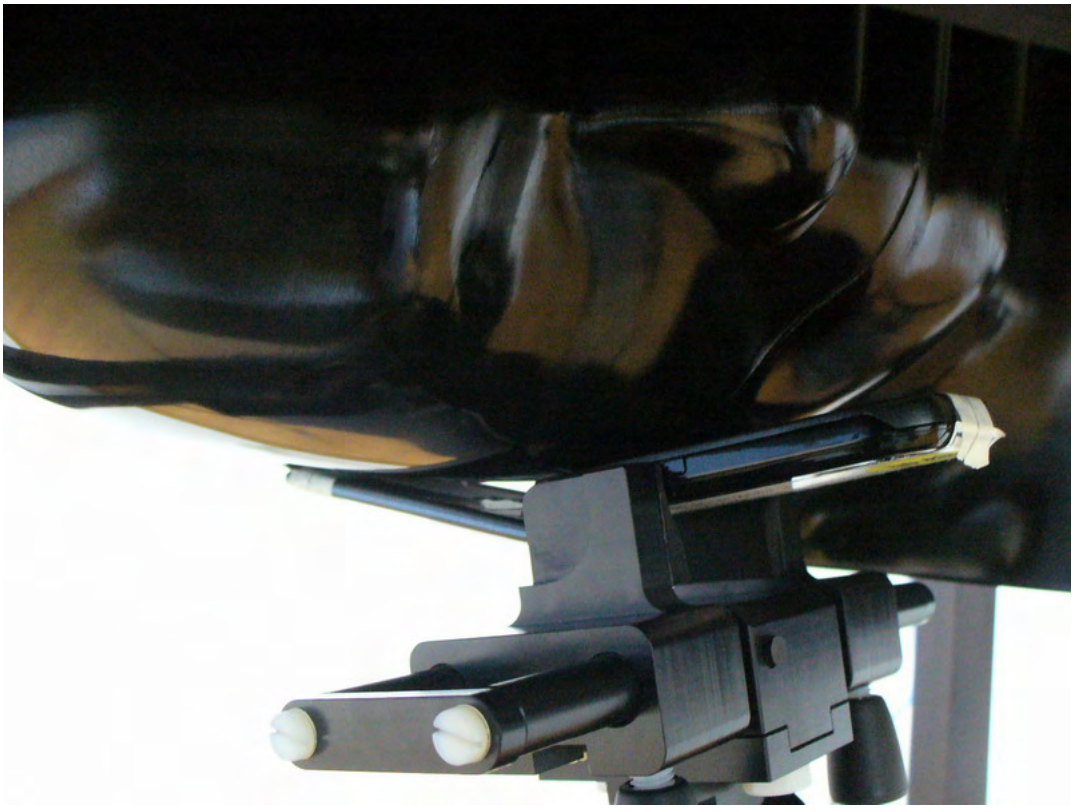


Figure B.6 EUT Right Head Touch Cheek Position

Figure B.7 EUT Right Head Tilt 15° Position

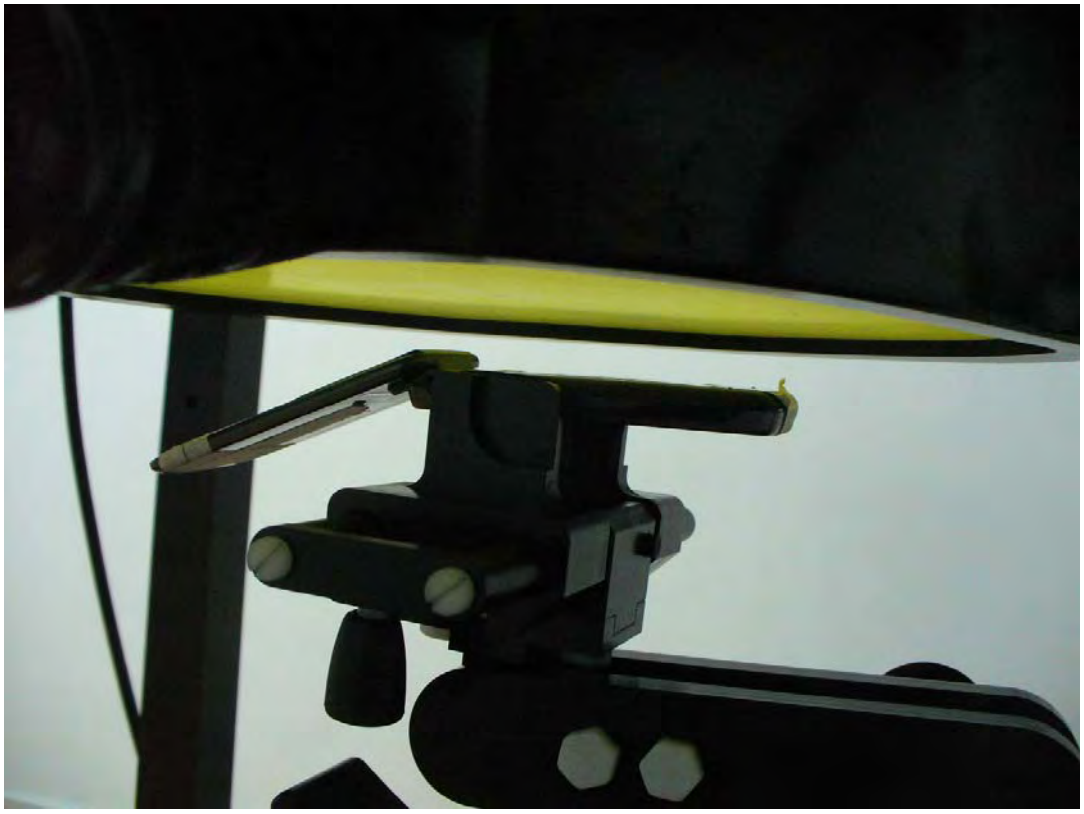


Figure B.8 EUT Body Position

ANNEX C

of

Shenzhen Morlab Communications Technology Co.,Ltd.

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

REPORT NO: SH07110011S01

ZTE CORPORATION

GSM Dual-band Digital Mobile Phone

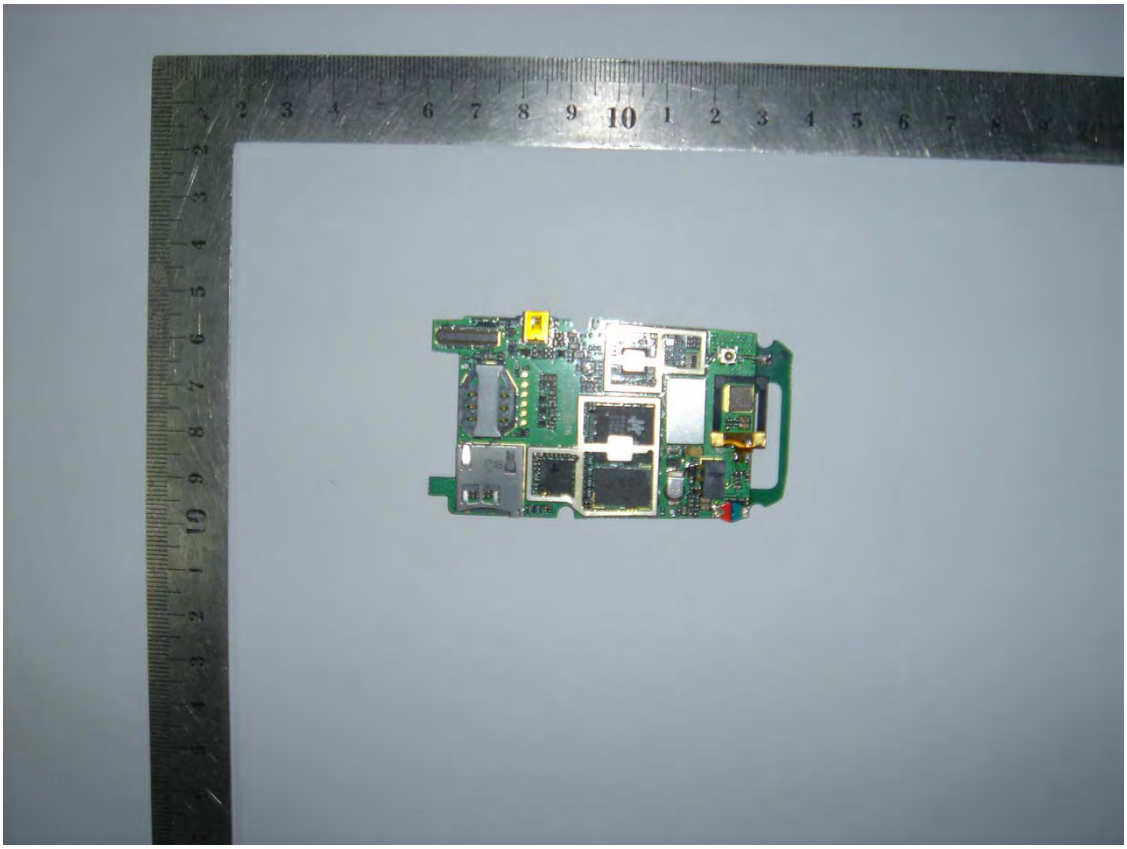
Type Name: ZTE A139

Hardware Version: G4rA
Software Version: SE-VE-MOVISTAR-P103C2V1.0.0B01

Sample Photographs

Photograph of the Equipment under Test

1.2 Inside

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ANNEX D

of

Shenzhen Morlab Communications Technology Co.,Ltd.

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

REPORT NO: SH07110011S01

ZTE CORPORATION

GSM Dual-band Digital Mobile Phone

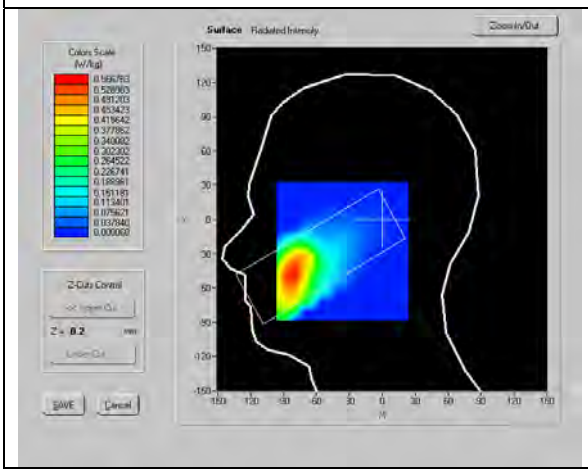
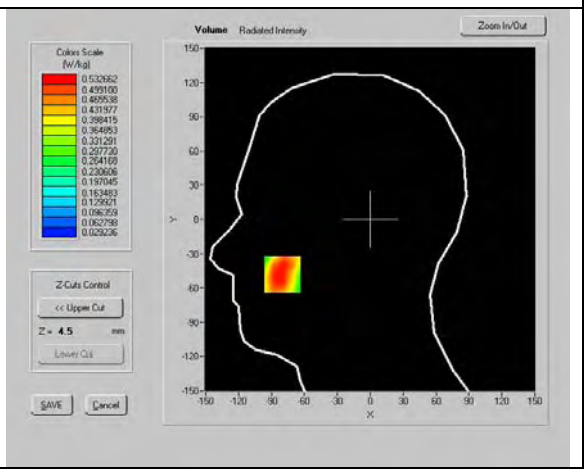
Type Name: ZTE A139

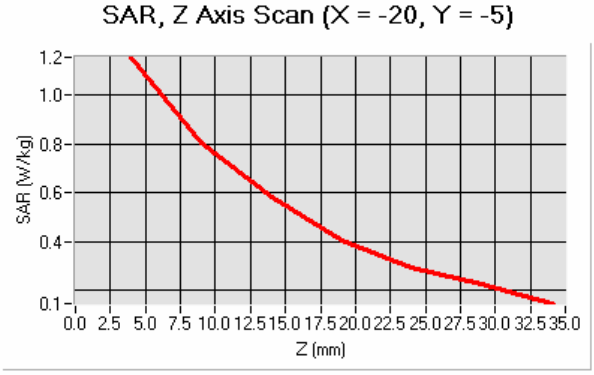
Hardware Version: G4rA
Software Version: SE-VE-MOVISTAR-P103C2V1.0.0B01

Graph Test Results

SAR Test Cellular 850 LH_TouchCheck (Low Channel)

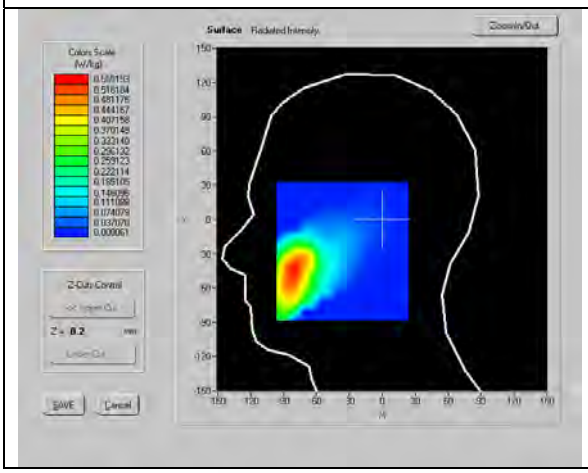
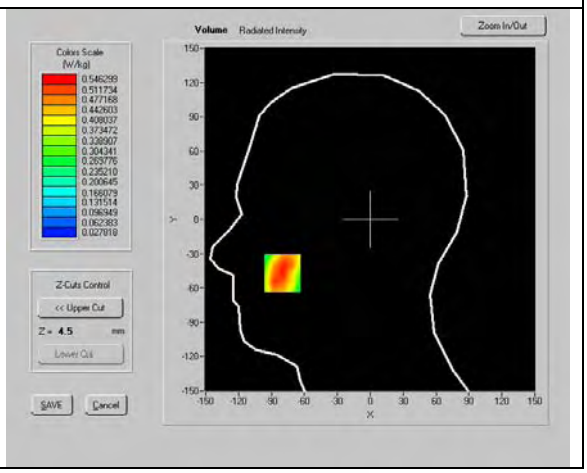
System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.35
Phantom name:	Left Head		**Conductivity:**	0.90
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-20.00 mm
Device Position:	850_LH_TouchCheek		**Max SAR Y-axis Location:**	-5.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.520 W/kg
Test Frequency:	824.20MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.20 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

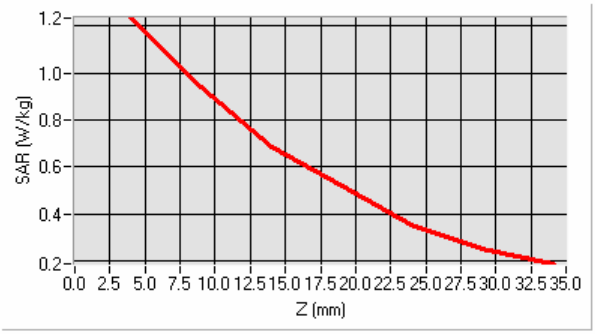


SAR Test Cellular 850 LH_TouchCheck (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.18dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.22
Phantom name:	Left Head		**Conductivity:**	0.92
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-23.00 mm
Device Position:	850_LH_TouchCheek		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.524 W/kg
Test Frequency:	836.40MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	4.75 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

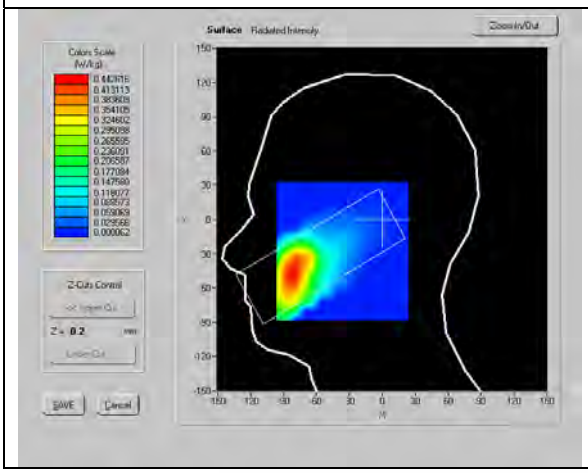
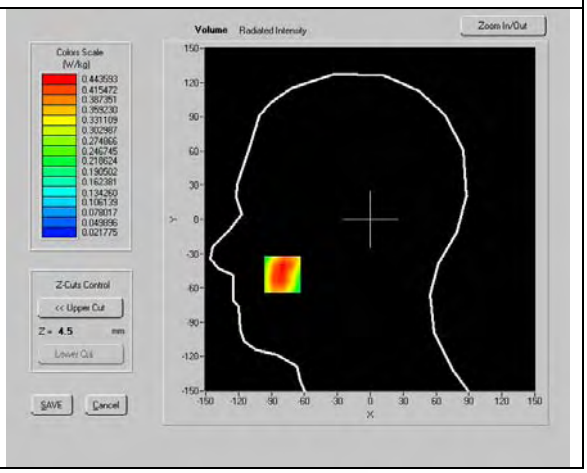
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -23, Y = -8)

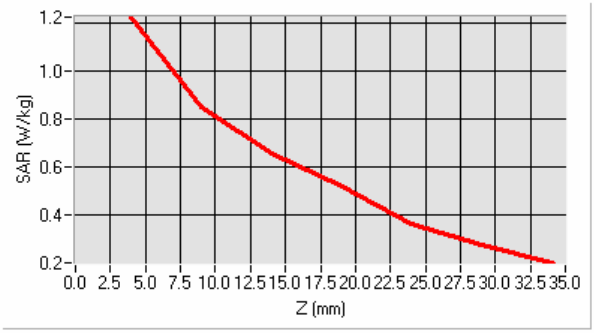


SAR Test Cellular 850 LH_TouchCheck (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.15dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.07
Phantom name:	Left Head		**Conductivity:**	0.93
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-22.00 mm
Device Position:	850_LH_TouchCheek		**Max SAR Y-axis Location:**	-7.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.429 W/kg
Test Frequency:	848.80MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	2.36 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

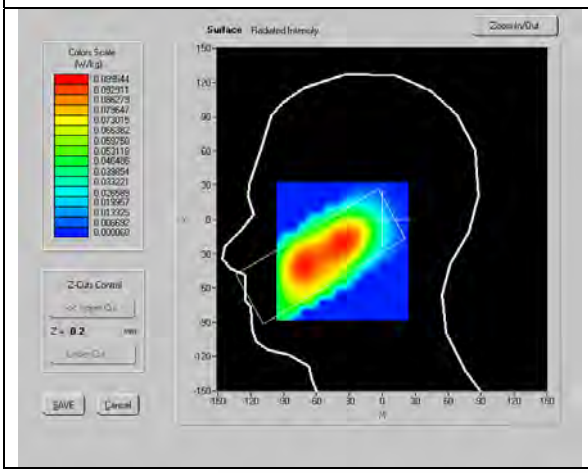
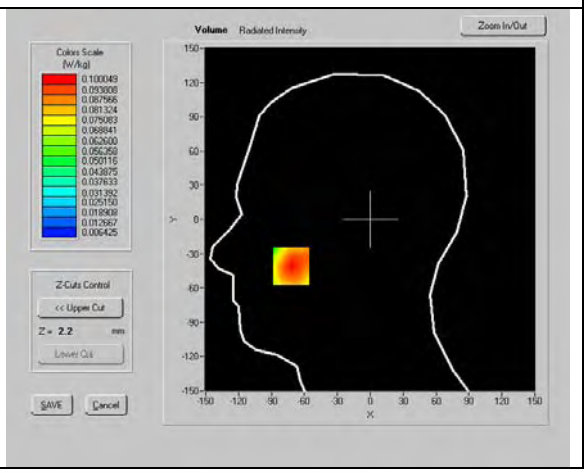
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -22, Y = -7)

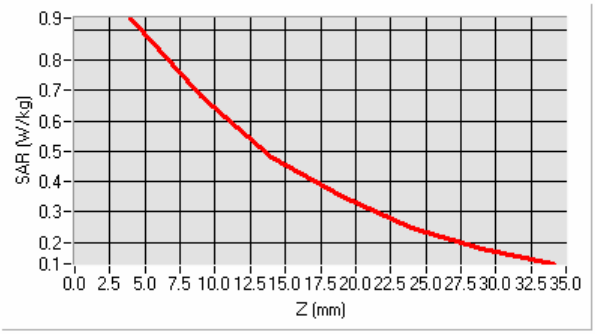


SAR Test Cellular 850 LH_Tilt15 (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.35
Phantom name:	Left Head		**Conductivity:**	0.90
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-16.00 mm
Device Position:	850_LH_Tilt15		**Max SAR Y-axis Location:**	-3.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.096 W/kg
Test Frequency:	824.20MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.04 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

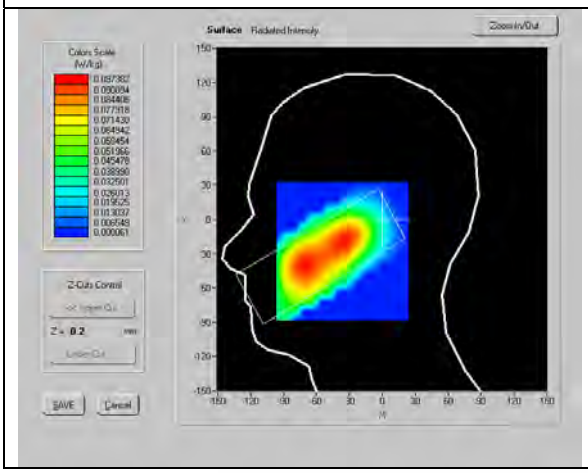
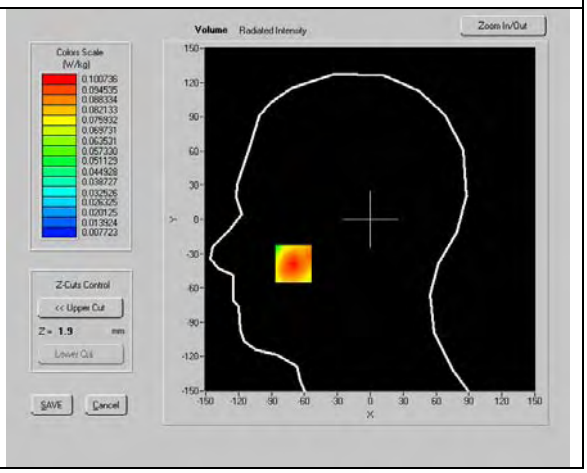
SURFACE SAR	VOLUME SAR
	

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

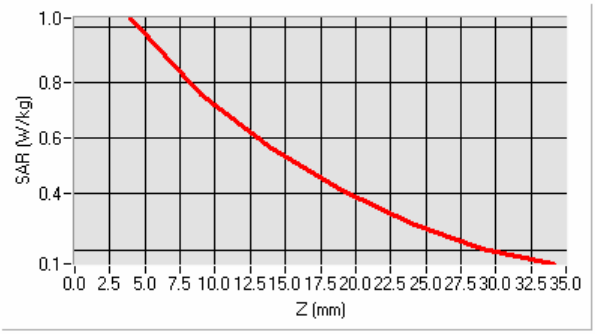


SAR Test Cellular 850 LH_Tilt15 (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.18dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.22
Phantom name:	Left Head		**Conductivity:**	0.92
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-17.00 mm
Device Position:	850_LH_Tilt15		**Max SAR Y-axis Location:**	-6.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.096 W/kg
Test Frequency:	836.40MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	1.38 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

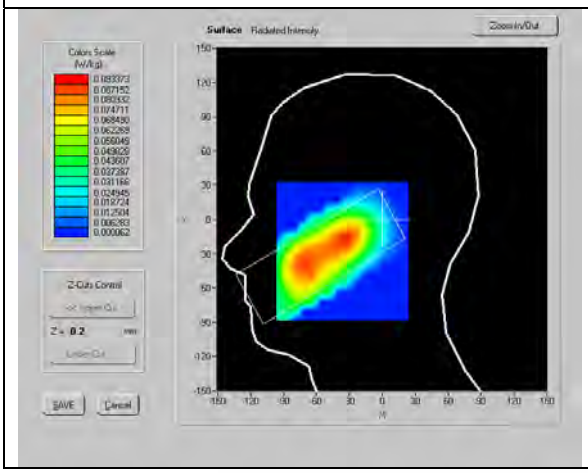
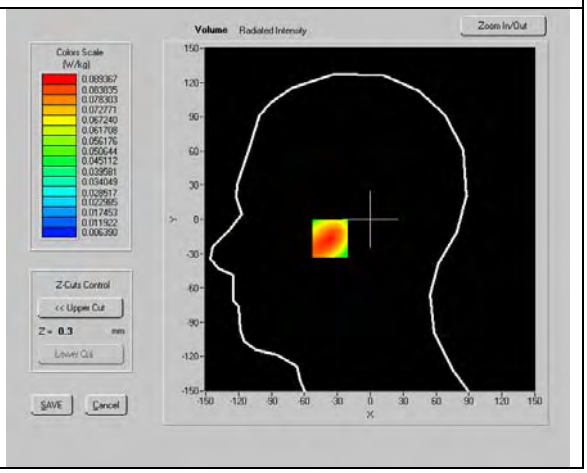
SURFACE SAR	VOLUME SAR
	

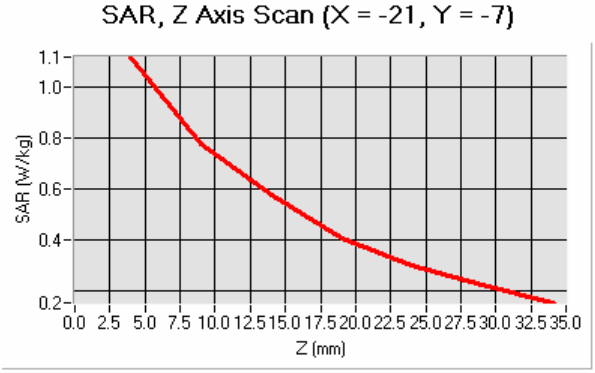
SAR, Z Axis Scan (X = -17, Y = -6)



SAR Test Cellular 850 LH_Tilt15 (High Channel)

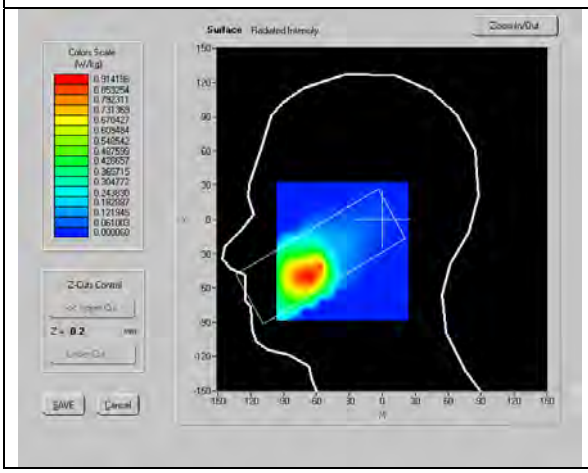
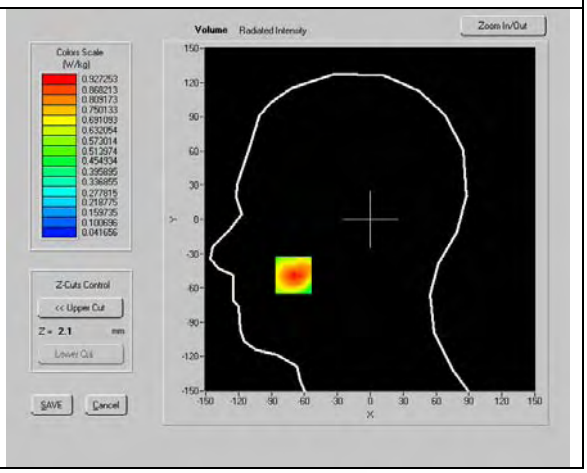
System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.15dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.07
Phantom name:	Left Head		**Conductivity:**	0.93
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-21.00 mm
Device Position:	850_LH_Tilt15		**Max SAR Y-axis Location:**	-7.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.085 W/kg
Test Frequency:	848.80MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.33 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

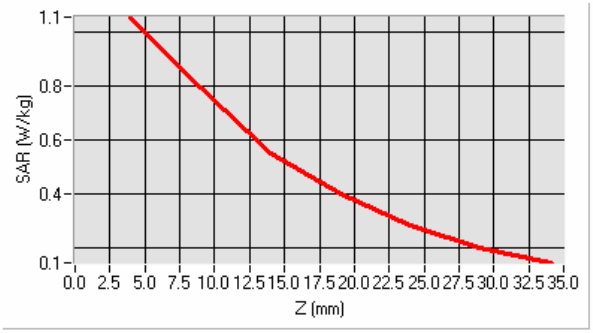


SAR Test Cellular 850 RH_TouchCheek (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.35
Phantom name:	Right Head		**Conductivity:**	0.90
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-15.00 mm
Device Position:	850_RH_TouchCheek		**Max SAR Y-axis Location:**	-6.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.846 W/kg
Test Frequency:	824.20MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.75 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

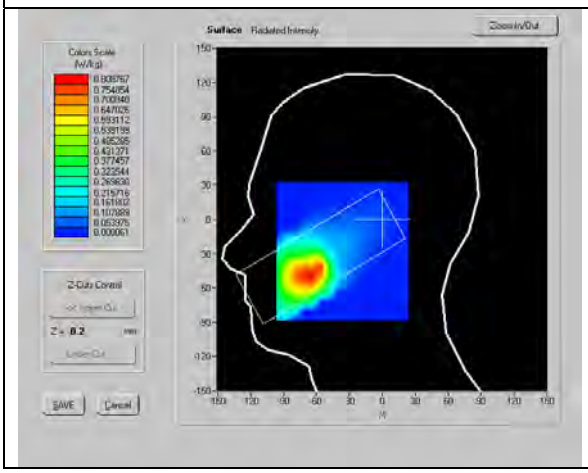
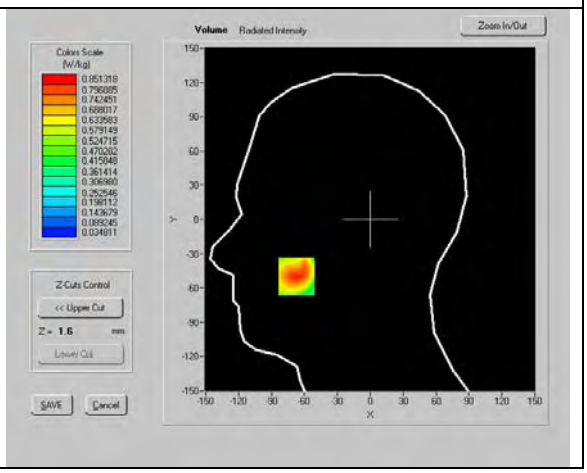
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -15, Y = -6)

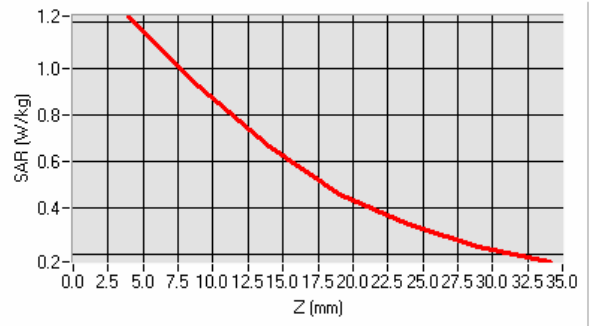


SAR Test Cellular 850 RH_TouchCheek (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.18dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.22
Phantom name:	Right Head		**Conductivity:**	0.92
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-25.00 mm
Device Position:	850_RH_TouchCheek		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.811 W/kg
Test Frequency:	836.40MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.94 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

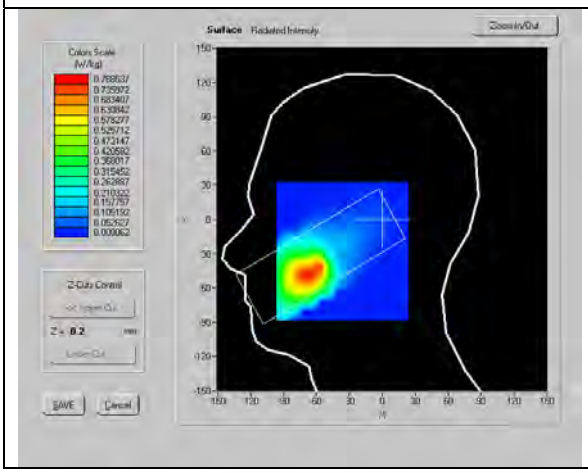
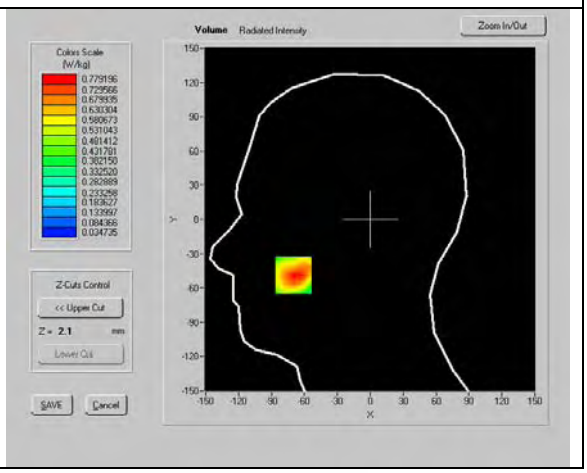
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -20, Y = -9)

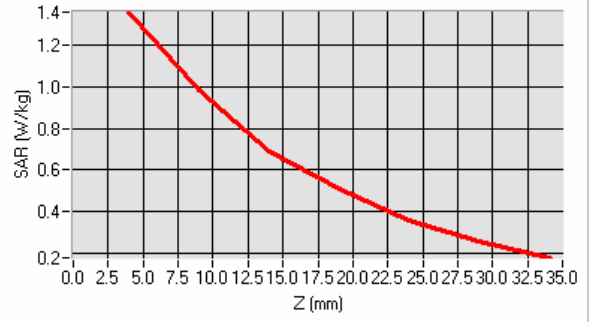


SAR Test Cellular 850 RH_TouchCheek (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.15dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.07
Phantom name:	Right Head		**Conductivity:**	0.93
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-15.00 mm
Device Position:	850_RH_TouchCheek		**Max SAR Y-axis Location:**	-7.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.715 W/kg
Test Frequency:	848.80MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	1.39 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

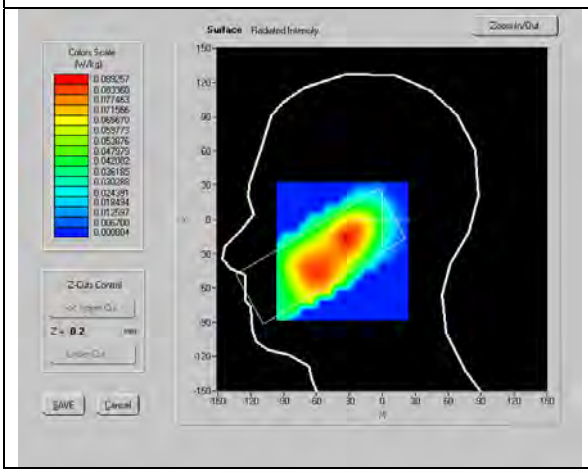
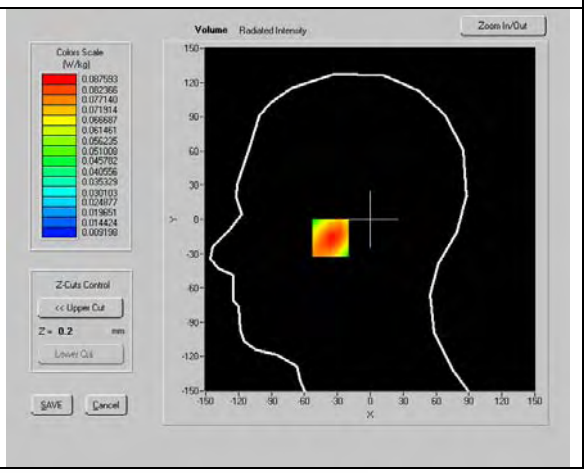
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -15, Y = -7)

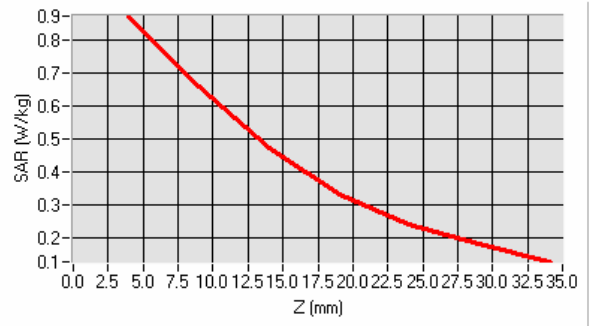


SAR Test Cellular 850 RH_Tilt15 (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.35
Phantom name:	Right Head		**Conductivity:**	0.90
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-15.00 mm
Device Position:	850_RH_Tilt15		**Max SAR Y-axis Location:**	-6.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.084 W/kg
Test Frequency:	824.20MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.34 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

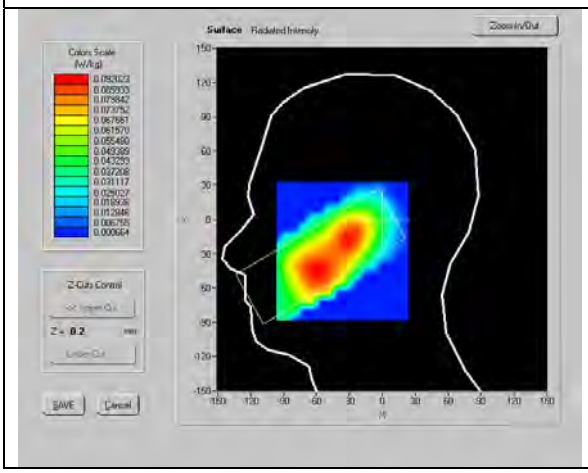
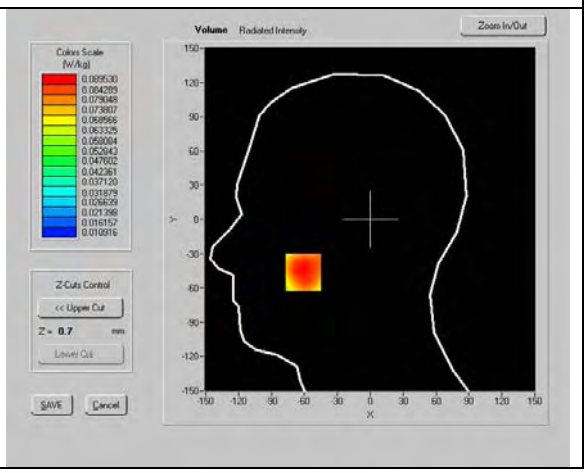
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -15, Y = -6)

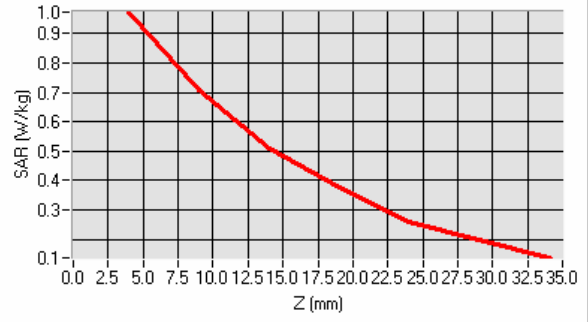


SAR Test Cellular 850 RH_Tilt15 (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.18dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.22
Phantom name:	Right Head		**Conductivity:**	0.92
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-15.00 mm
Device Position:	850_RH_Tilt15		**Max SAR Y-axis Location:**	-5.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.087 W/kg
Test Frequency:	836.40MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.53 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

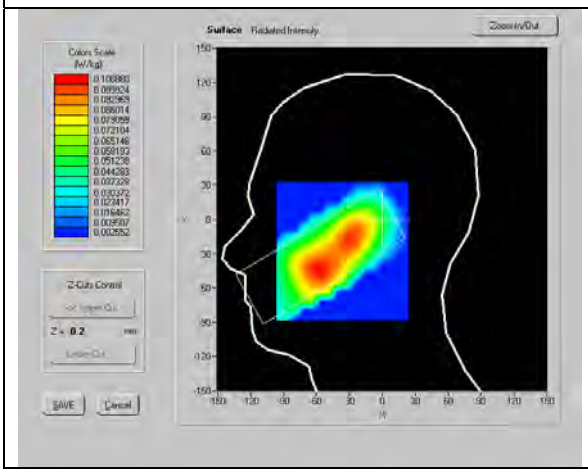
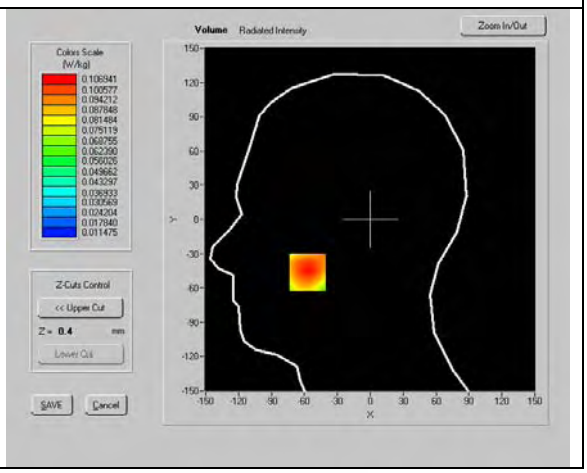
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -15, Y = -5)

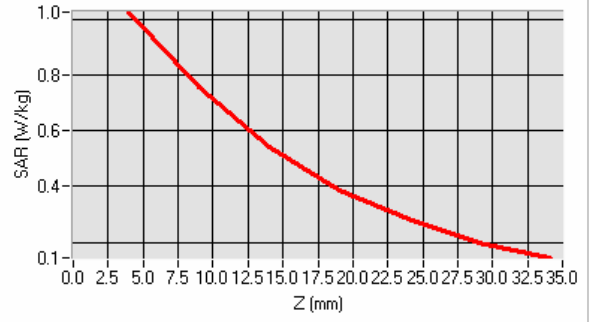


SAR Test Cellular 850 RH_Tilt15 (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.15dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.07
Phantom name:	Right Head		**Conductivity:**	0.93
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-14.00 mm
Device Position:	850_RH_Tilt15		**Max SAR Y-axis Location:**	-5.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.104 W/kg
Test Frequency:	848.80MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.47 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

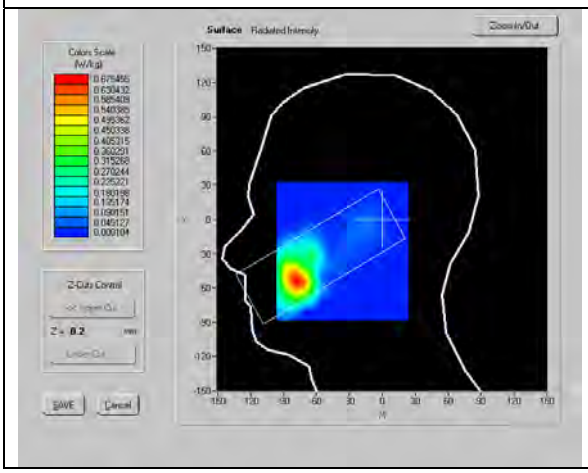
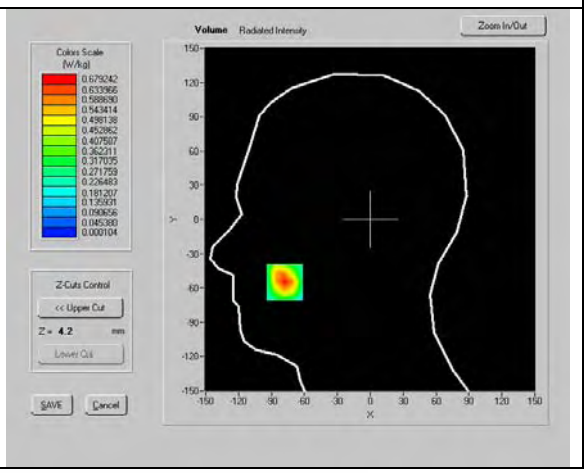
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -14, Y = -5)

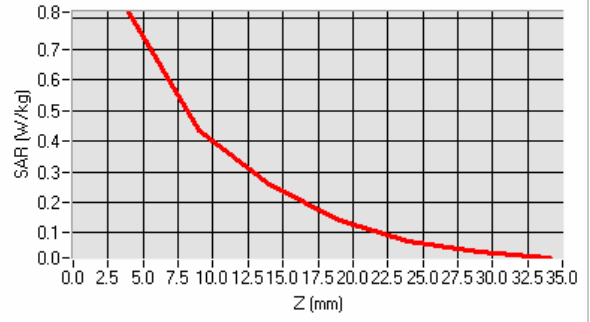


SAR Test PCS 1900 LH_TouchCheek (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.75
Phantom name:	Left Head		**Conductivity:**	1.39
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-17.00 mm
Device Position:	1900_LH_TouchCheek		**Max SAR Y-axis Location:**	5.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.643 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.32 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

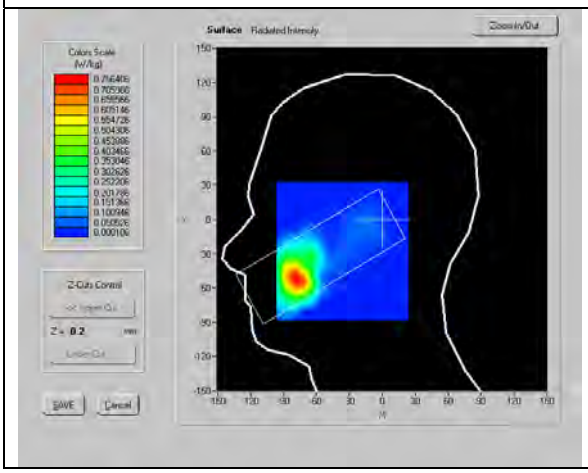
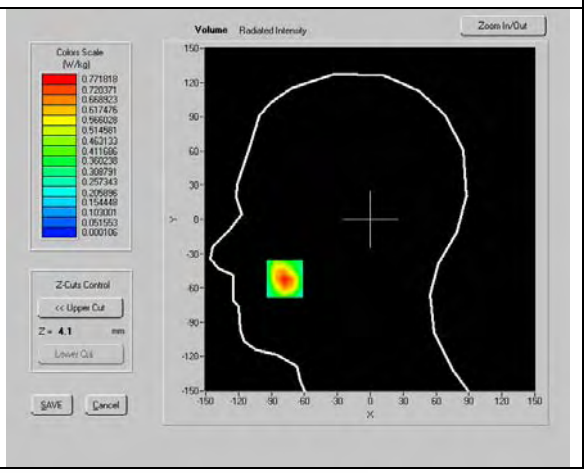
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -17, Y = 5)

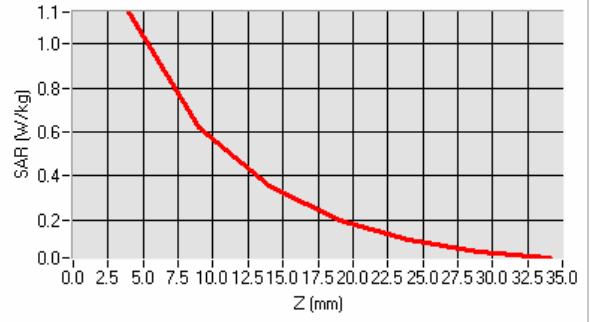


SAR Test PCS 1900 LH_TouchCheek (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.47dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.70
Phantom name:	Left Head		**Conductivity:**	1.42
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-17.00 mm
Device Position:	1900_LH_TouchCheek		**Max SAR Y-axis Location:**	5.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.737 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.77 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

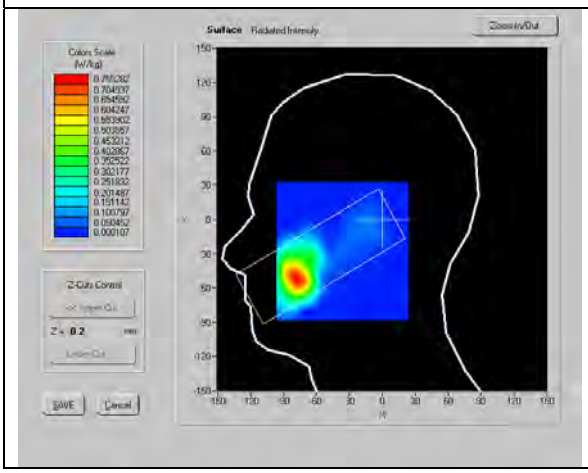
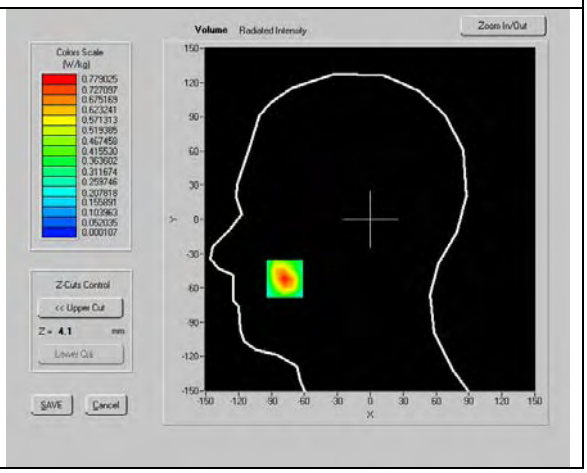
SURFACE SAR	VOLUME SAR
	

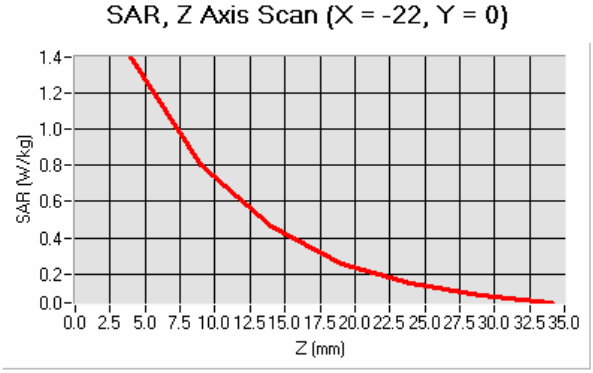
SAR, Z Axis Scan (X = -17, Y = 5)



SAR Test PCS 1900 LH_TouchCheek (High Channel)

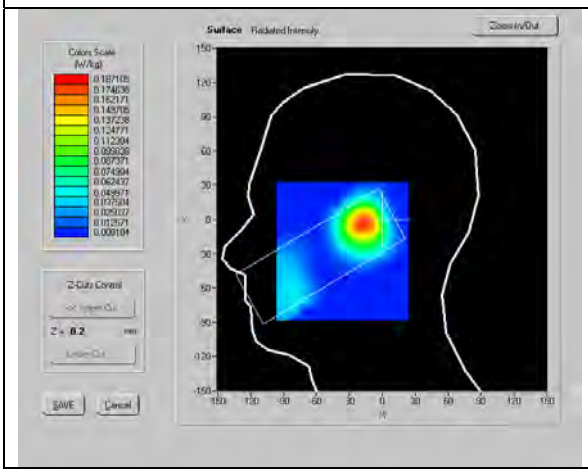
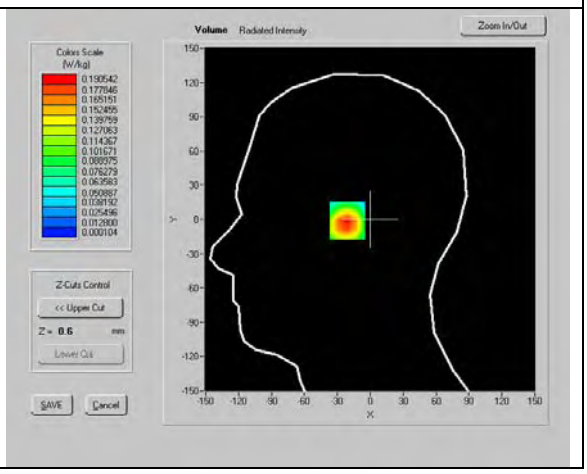
System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.89dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.61
Phantom name:	Left Head		**Conductivity:**	1.44
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-22.00 mm
Device Position:	1900_LH_TouchCheek		**Max SAR Y-axis Location:**	0.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.738 W/kg
Test Frequency:	1909.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	1.39 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

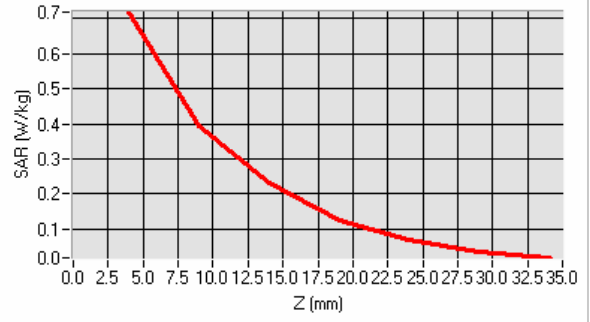


SAR Test PCS 1900 LH_Tilt15 (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.75
Phantom name:	Left Head		**Conductivity:**	1.39
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-16.00 mm
Device Position:	1900_LH_Tilt15		**Max SAR Y-axis Location:**	1.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.183 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.91 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

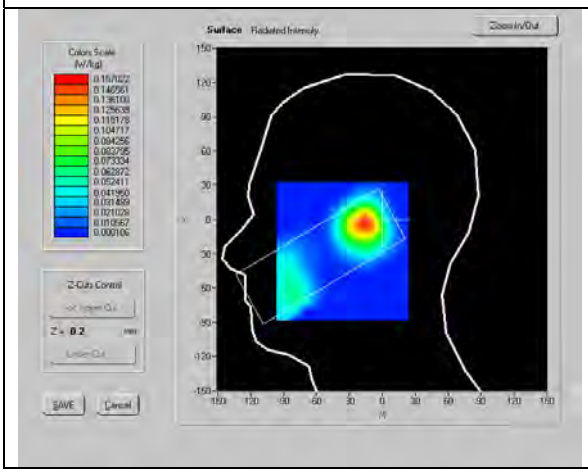
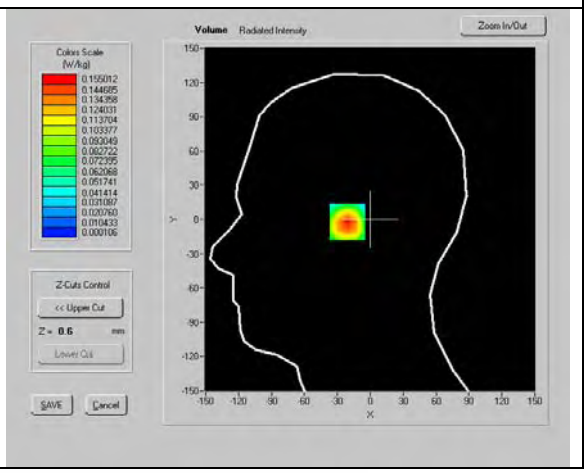
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -16, Y = 1)

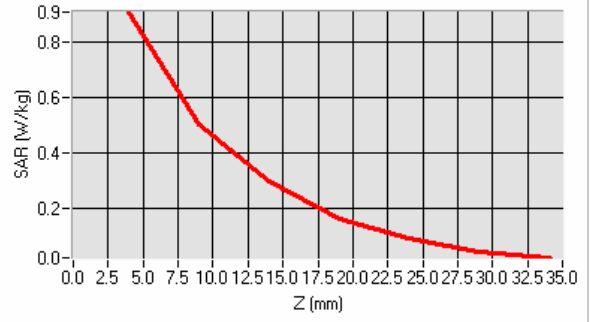


SAR Test PCS 1900 LH_Tilt15 (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.47dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.70
Phantom name:	Left Head		**Conductivity:**	1.42
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-16.00 mm
Device Position:	1900_LH_Tilt15		**Max SAR Y-axis Location:**	1.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.146 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	1.25 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

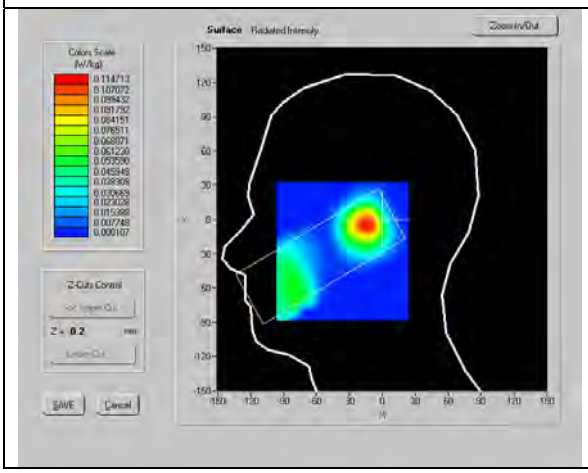
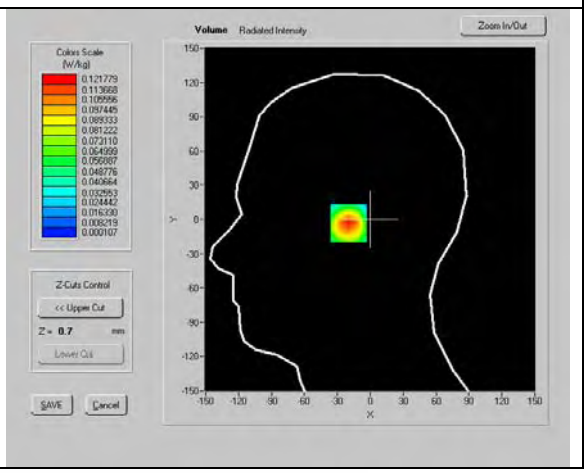
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -16, Y = 1)

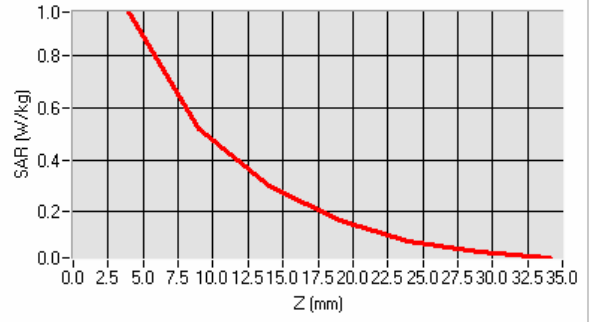


SAR Test PCS 1900 LH_Tilt15 (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.89dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.61
Phantom name:	Left Head		**Conductivity:**	1.44
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-16.00 mm
Device Position:	1900_LH_Tilt15		**Max SAR Y-axis Location:**	1.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.114 W/kg
Test Frequency:	1909.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.90 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

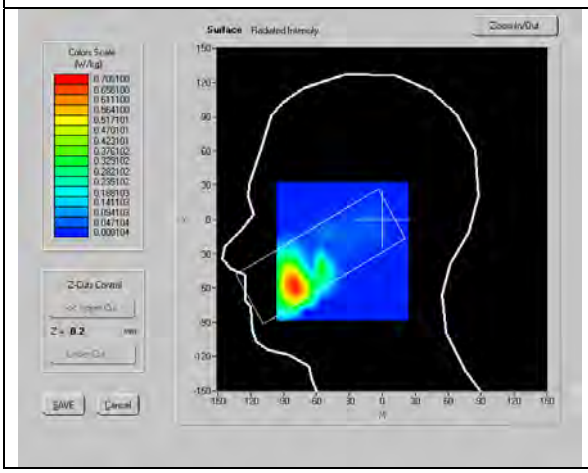
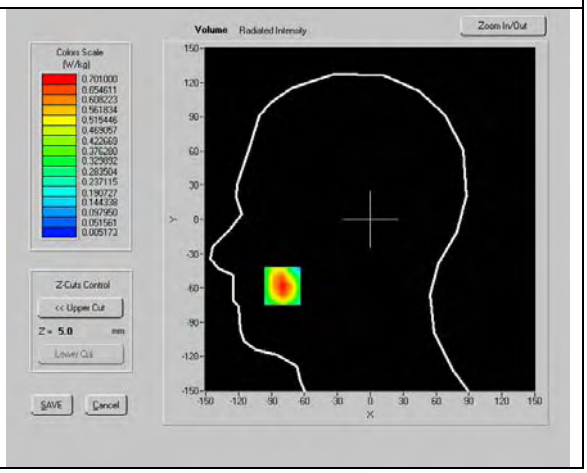
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -16, Y = 1)

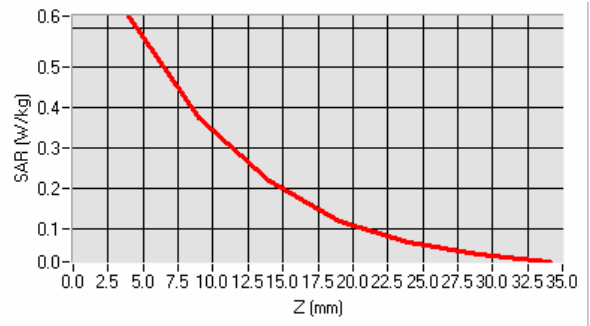


SAR Test PCS 1900 RH_TouchCheek (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.75
Phantom name:	Right Head		**Conductivity:**	1.39
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-8.00 mm
Device Position:	1900_RH_TouchCheek		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.667 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	2.11 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

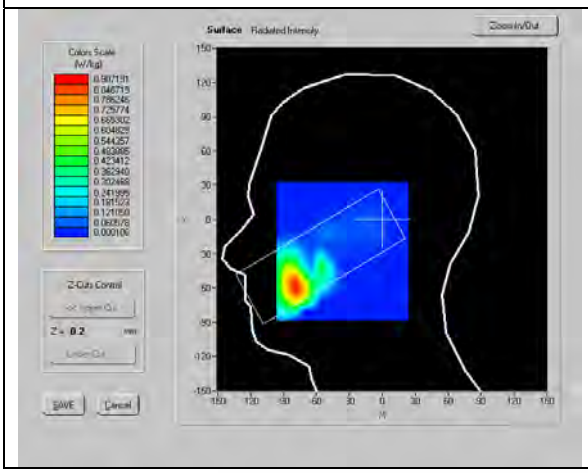
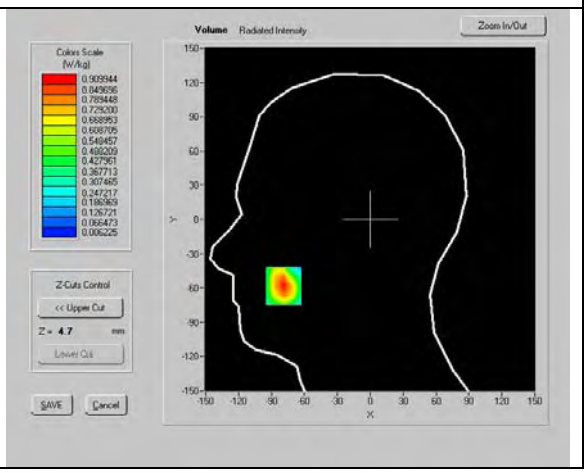
SURFACE SAR	VOLUME SAR
	

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

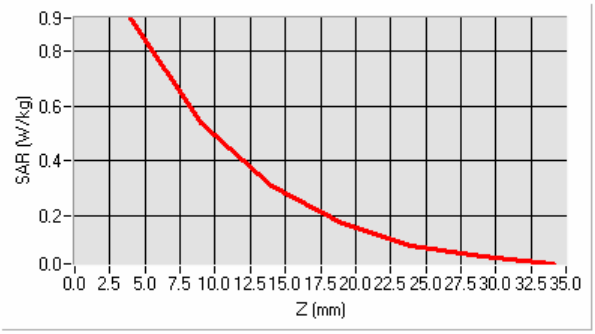


SAR Test PCS 1900 RH_TouchCheek (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.47dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.70
Phantom name:	Right Head		**Conductivity:**	1.42
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-14.00 mm
Device Position:	1900_RH_TouchCheek		**Max SAR Y-axis Location:**	-7.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.861 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.31 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

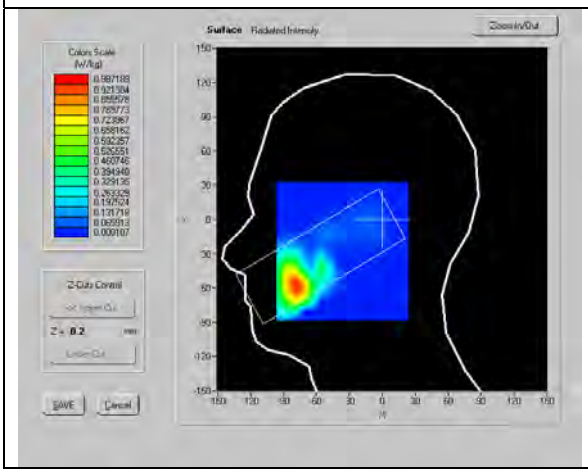
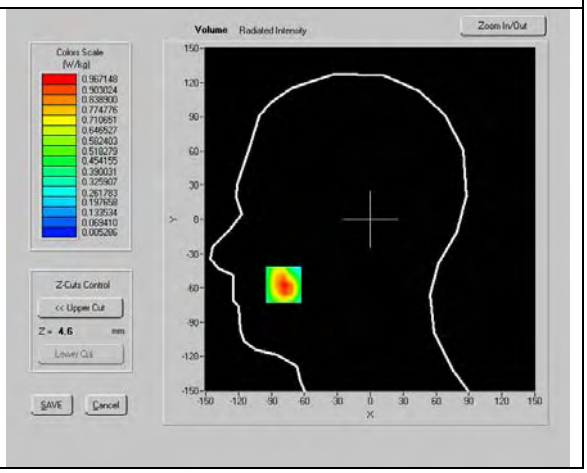
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -14, Y = -7)

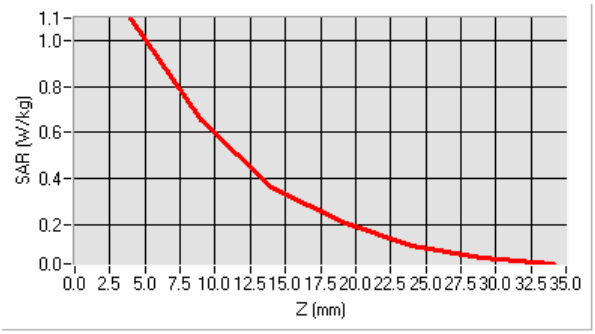


SAR Test PCS 1900 RH_TouchCheek (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.89dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.61
Phantom name:	Right Head		**Conductivity:**	1.44
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-15.00 mm
Device Position:	1900_RH_TouchCheek		**Max SAR Y-axis Location:**	-7.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.940 W/kg
Test Frequency:	1909.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-2.16 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

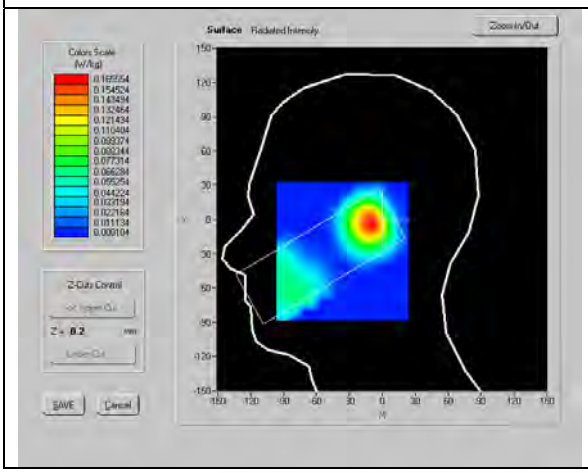
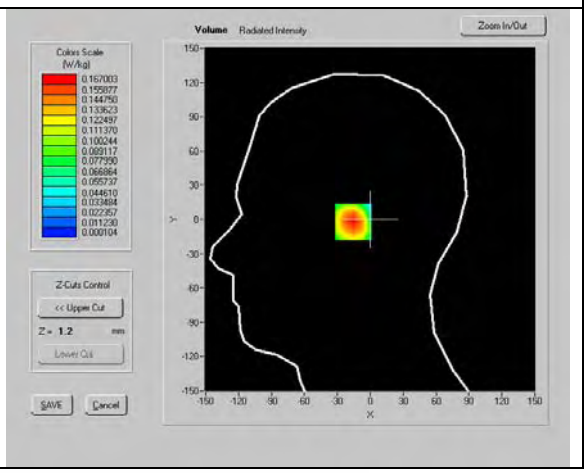
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -15, Y = -7)

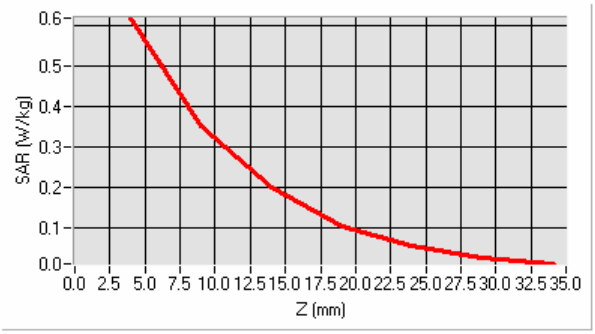


SAR Test PCS 1900 RH_Tilt15 (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.75
Phantom name:	Right Head		**Conductivity:**	1.39
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-3.00 mm
Device Position:	1900_RH_Tilt15		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.158 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.88 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

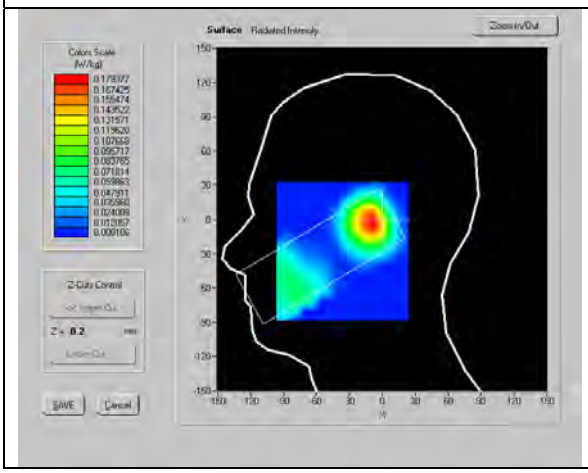
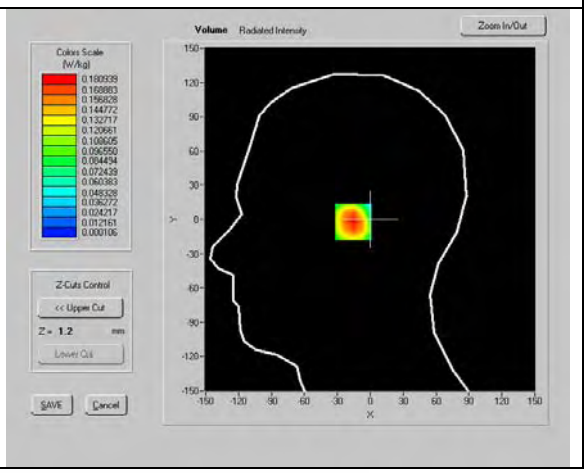
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -3, Y = -8)

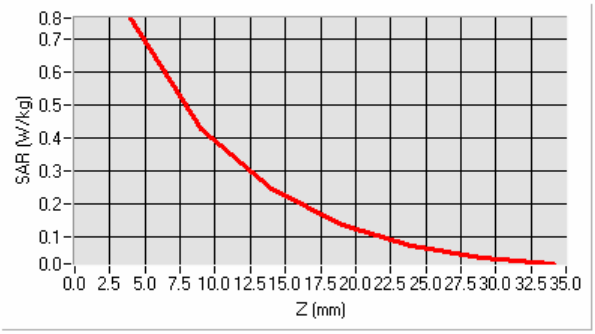


SAR Test PCS 1900 RH_Tilt15 (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.47dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.70
Phantom name:	Right Head		**Conductivity:**	1.42
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-7.00 mm
Device Position:	1900_RH_Tilt15		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.170 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.49 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

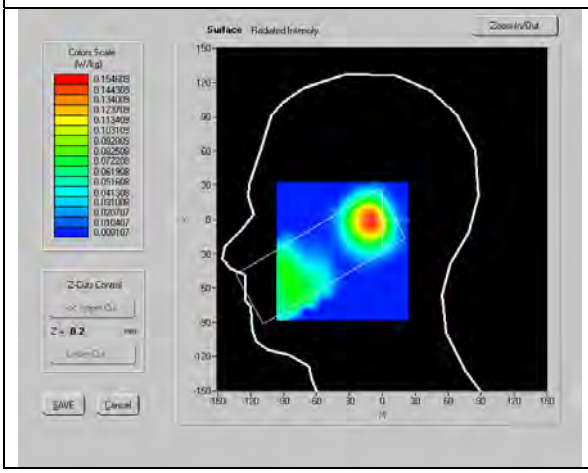
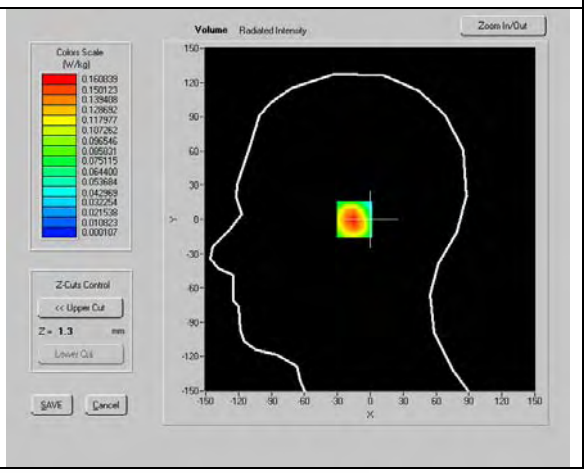
SURFACE SAR	VOLUME SAR
	

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

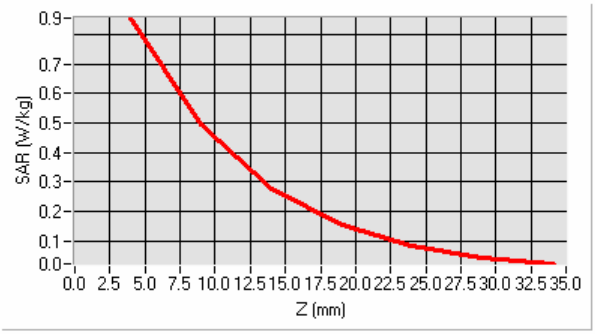


SAR Test PCS 1900 RH_Tilt15 (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.89dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	39.61
Phantom name:	Right Head		**Conductivity:**	1.44
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-6.00 mm
Device Position:	1900_RH_Tilt15		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.152 W/kg
Test Frequency:	1909.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	1.78 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

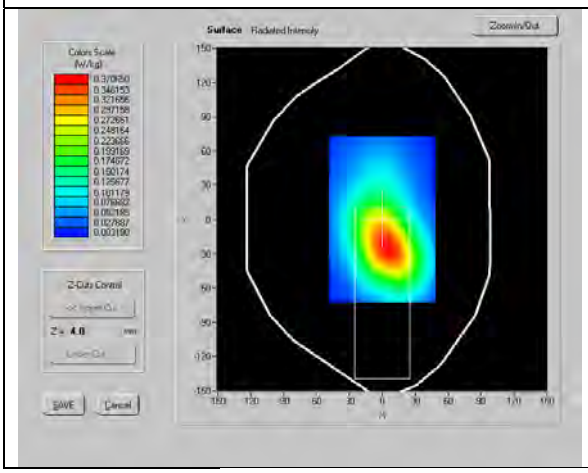
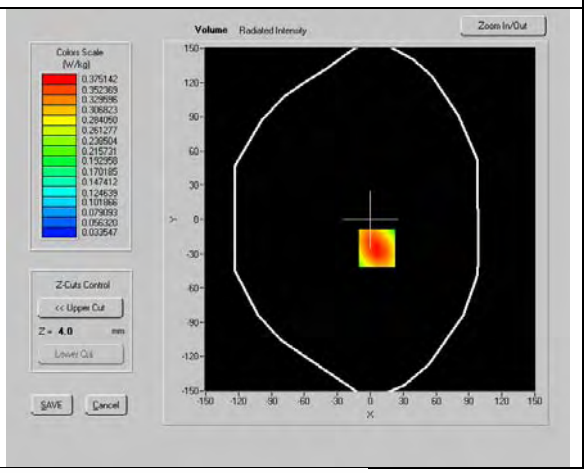
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = -6, Y = -8)

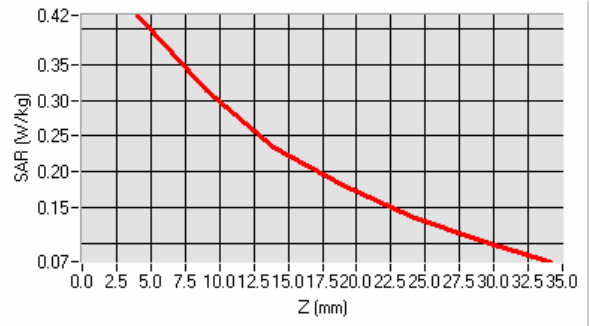


SAR Test Cellular 850 Body (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	55.18
Phantom name:	Flat		**Conductivity:**	0.96
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	3.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	-15.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.388 W/kg
Test Frequency:	824.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.18 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

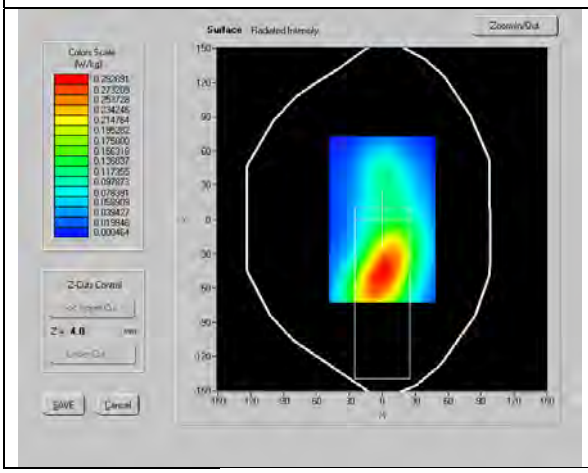
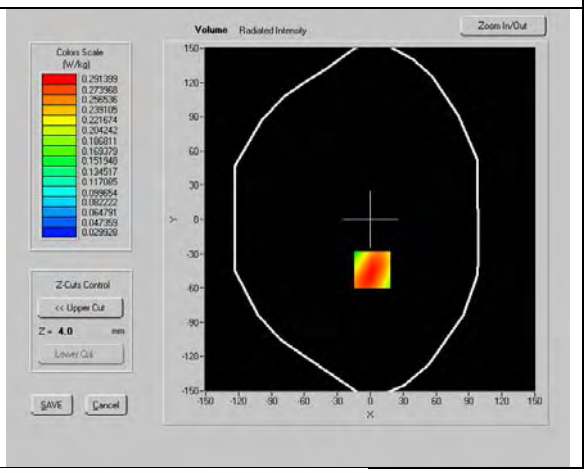
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 3, Y = -15)

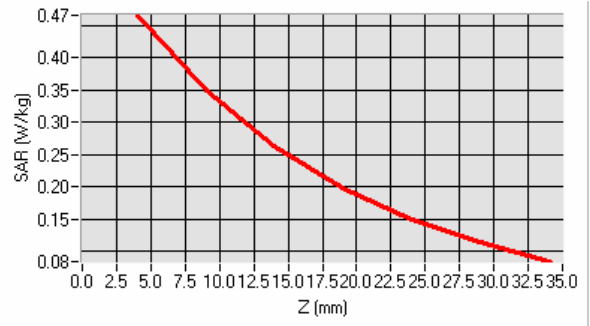


SAR Test Cellular 850 Body (Middle Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.18dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	55.09
Phantom name:	Flat		**Conductivity:**	0.97
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	5.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	-16.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.298 W/kg
Test Frequency:	836.40 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-1.09 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

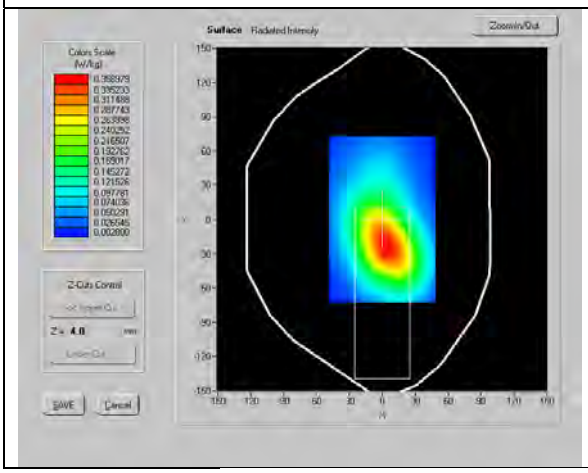
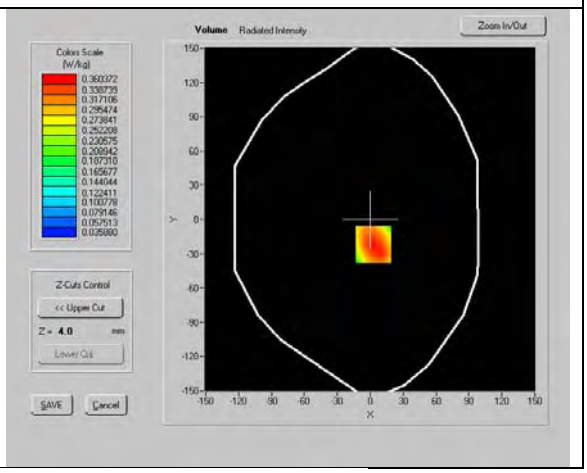
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 5, Y = -16)

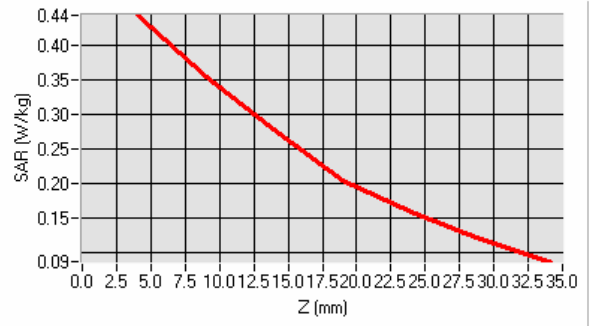


SAR Test Cellular 850 Body (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.15dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	55.05
Phantom name:	Flat		**Conductivity:**	0.99
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-3.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	16.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.370 W/kg
Test Frequency:	848.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-3.40 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

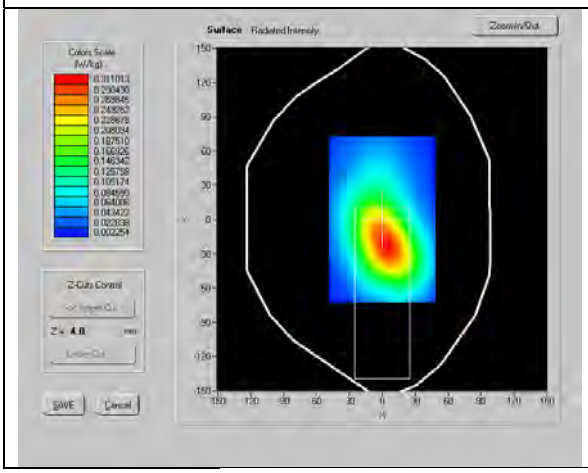
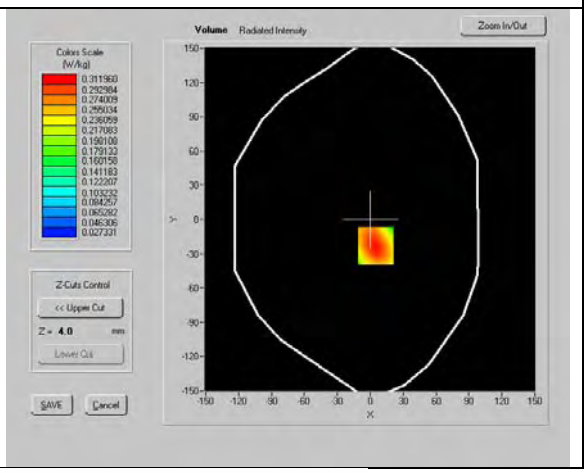
SURFACE SAR	VOLUME SAR
	

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

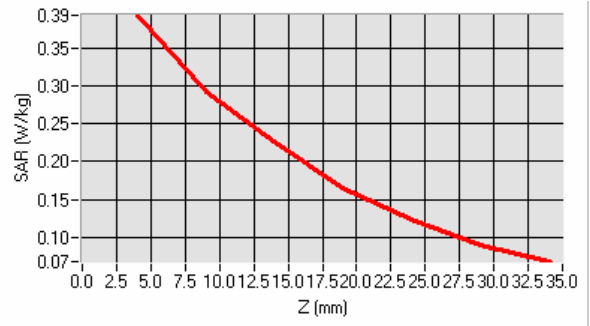


SAR Test Cellular 850 Body (Low Channel, Face to Bottom)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.60dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	850 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	55.18
Phantom name:	Flat		**Conductivity:**	0.96
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-6.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.298 W/kg
Test Frequency:	824.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-2.77 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

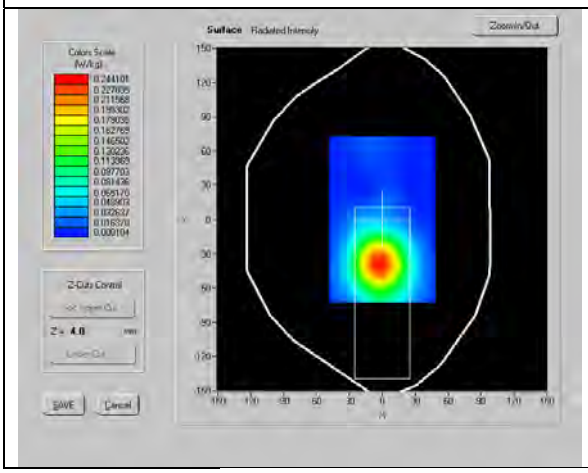
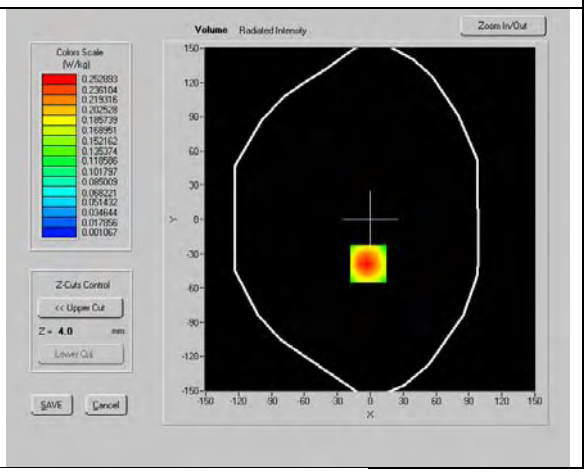
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 2, Y = 16)

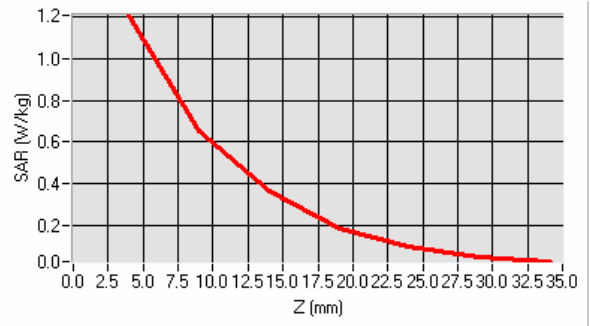


SAR Test PCS 1900 Body (Low Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	53.88
Phantom name:	Flat		**Conductivity:**	1.51
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	1.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	38.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.290 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	0.20 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

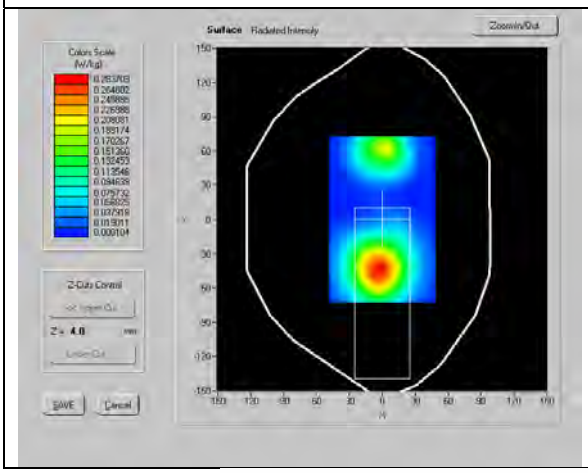
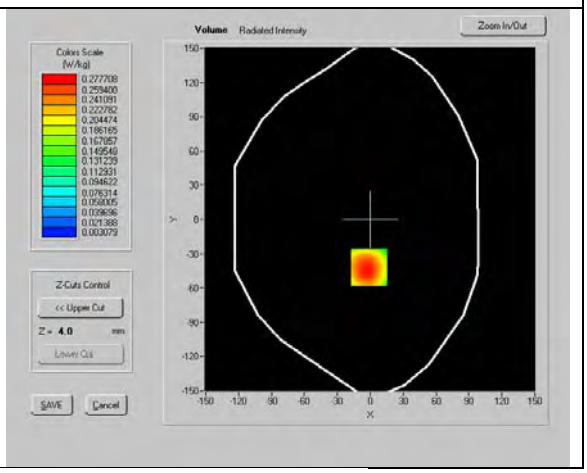
SURFACE SAR	VOLUME SAR
	

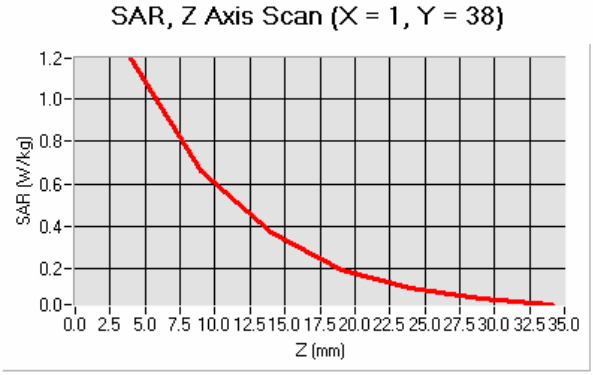
SAR, Z Axis Scan (X = 1, Y = 38)



SAR Test PCS 1900 Body (Middle Channel)

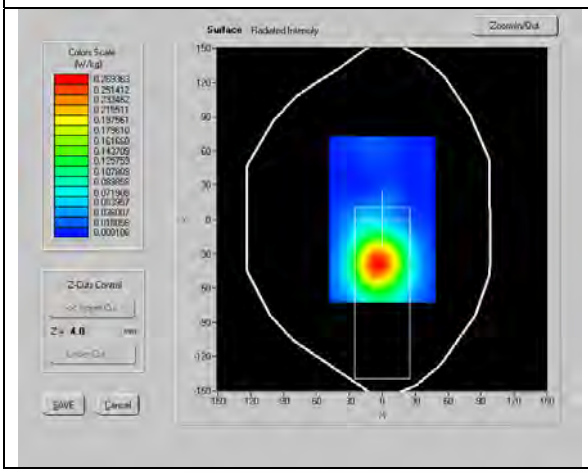
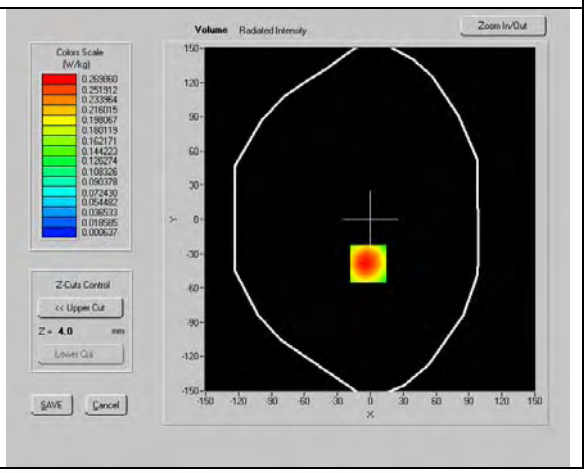
System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.47dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	53.87
Phantom name:	Flat		**Conductivity:**	1.54
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	-6.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	-8.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.284 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.81 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

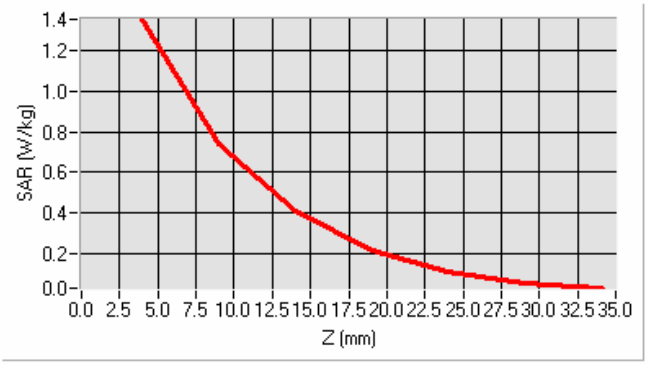


SAR Test PCS 1900 Body (High Channel)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.89dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	53.79
Phantom name:	Flat		**Conductivity:**	1.57
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	1.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	37.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.279 W/kg
Test Frequency:	1909.80 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.80 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

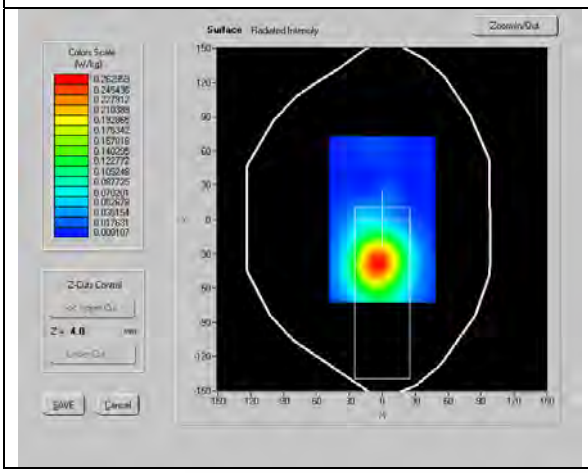
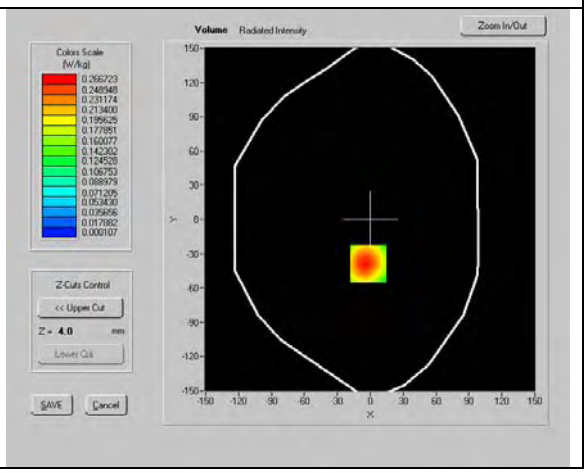
SURFACE SAR	VOLUME SAR
	

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

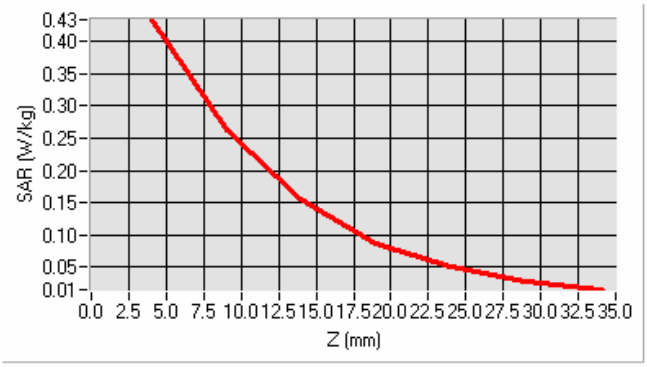


SAR Test PCS 1900 Body (Low Channel, Face to Buttom)

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	8
Date:	2007-11-17		**Input Power Level:**	30.26dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	ZTE A139
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	ZTE A139		**Simulating Liquid:**	1900 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	53.88
Phantom name:	Flat		**Conductivity:**	1.51
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	17.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	32.00 mm
Antenna Configuration:	Integrated		**SAR 1g:**	0.262 W/kg
Test Frequency:	1850.20 MHz		**SAR 10g:**	
Comment:	/		**SAR Drift during Scan:**	-0.88 %
Type of Modulation:	GMSK		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 17, Y = 32)



ANNEX E

of

Shenzhen Morlab Communications Technology Co.,Ltd.

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

REPORT NO: SH07110011S01

ZTE CORPORATION

GSM Dual-band Digital Mobile Phone

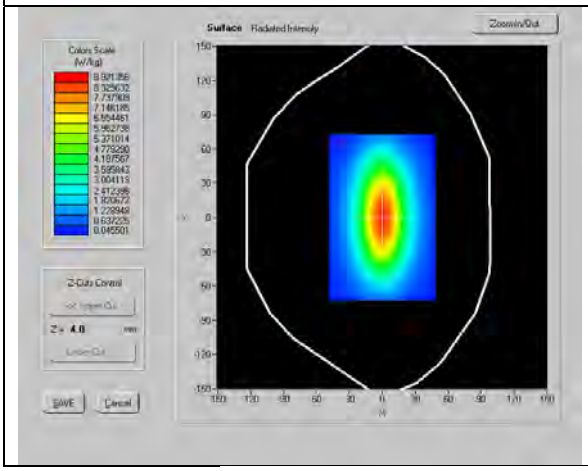
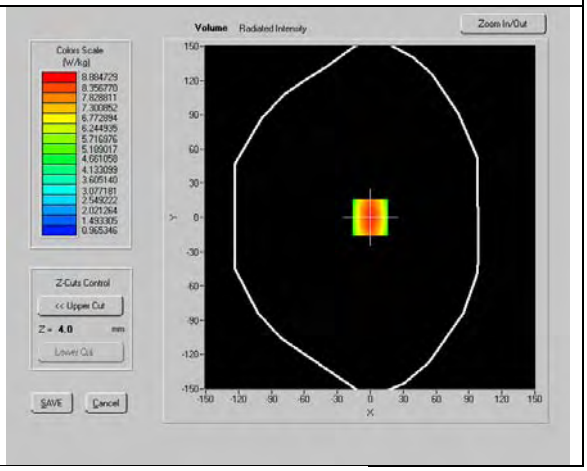
Type Name: ZTE A139

Hardware Version: **G4rA**
Software Version: **SE-VE-MOVISTAR-P103C2V1.0.0B01**

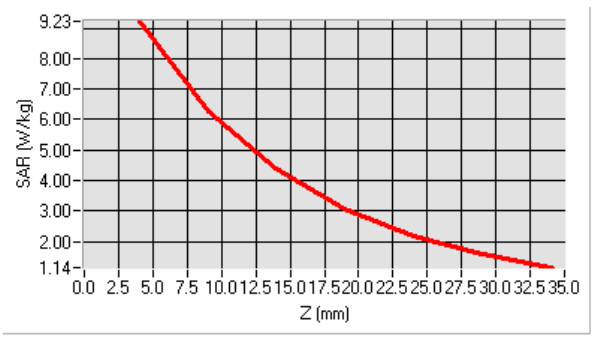
System Performance Check Data

System Check 850 MHz Head

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	1
Date:	2007-11-17		**Input Power Level:**	33dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	/
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	Dipole Antenna (100W)		**Simulating Liquid:**	850 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	41.22
Phantom name:	Validation plane		**Conductivity:**	.92
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	0.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	-1.00 mm
Antenna Configuration:	/		**SAR 1g:**	9.08 W/kg
Test Frequency:	836.40 MHz		**SAR 10g:**	6.08 W/kg
Comment:	/		**SAR Drift during Scan:**	-0.03 %
Type of Modulation:	CW		**Extrapolation:**	poly4

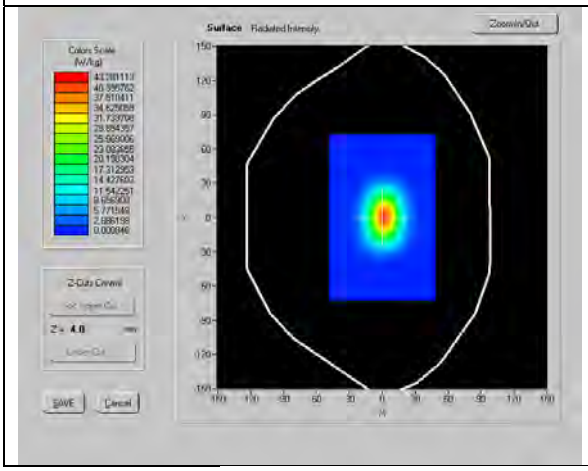
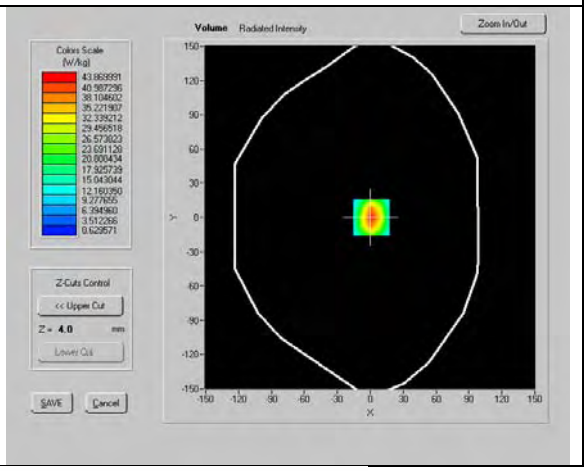
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 0, Y = -1)

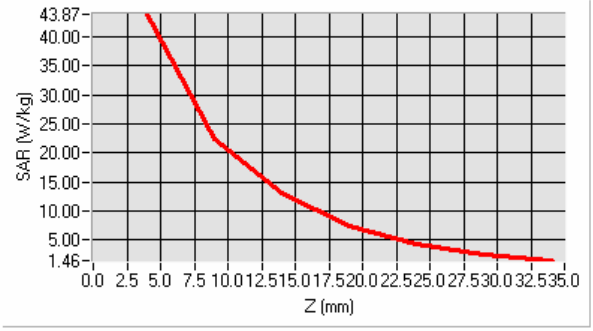


System Check 1900 MHz Head

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	1
Date:	2007-11-17		**Input Power Level:**	30dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	/
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	Dipole Antenna (100W)		**Simulating Liquid:**	1900 MHz HEAD tissue
Relative Humidity:	60%		**Relative Permittivity:**	40.04
Phantom name:	Validation plane		**Conductivity:**	1.42
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	1.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	0.00 mm
Antenna Configuration:	/		**SAR 1g:**	40.48 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	20.67 W/kg
Comment:	/		**SAR Drift during Scan:**	-0.04 %
Type of Modulation:	CW		**Extrapolation:**	poly4

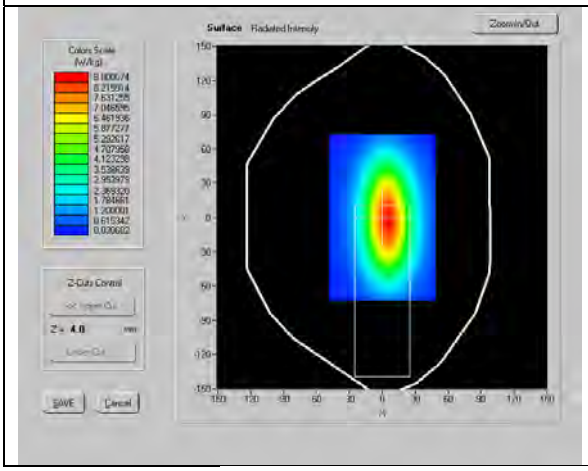
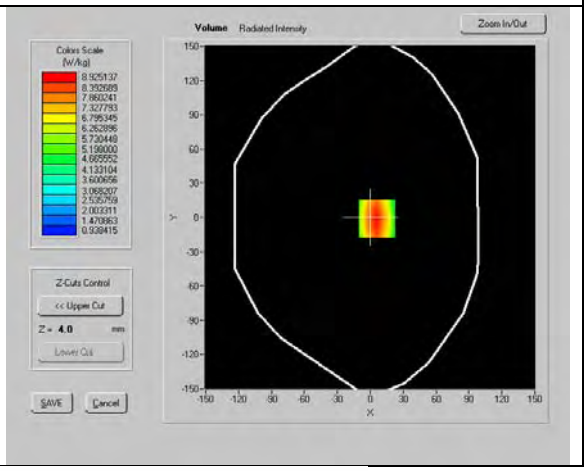
SURFACE SAR	VOLUME SAR
	

SAR, Z Axis Scan (X = 1, Y = 0)

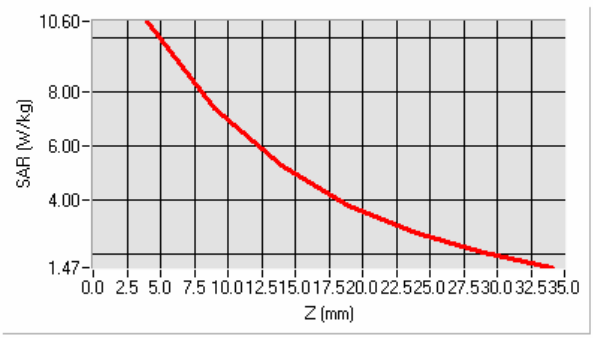


System Check 850 MHz Body

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	1
Date:	2007-11-17		**Input Power Level:**	33dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	/
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	Dipole Antenna (100W)		**Simulating Liquid:**	850 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	55.09
Phantom name:	Validation plane		**Conductivity:**	0.97
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	0.00 mm
Device Position:	850_Body		**Max SAR Y-axis Location:**	0.00 mm
Antenna Configuration:	/		**SAR 1g:**	9.01 W/kg
Test Frequency:	836.40 MHz		**SAR 10g:**	6.01 W/kg
Comment:	/		**SAR Drift during Scan:**	-0.35 %
Type of Modulation:	CW		**Extrapolation:**	poly4

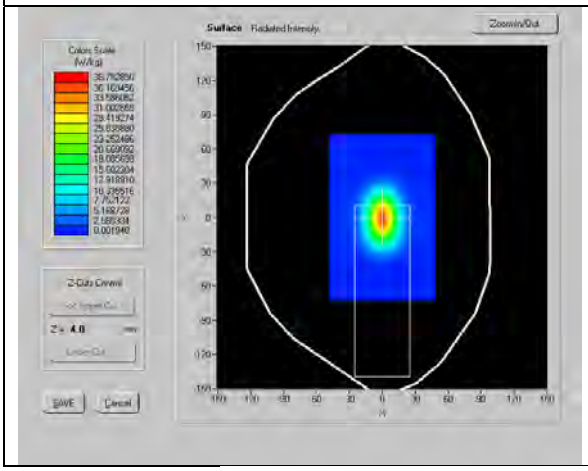
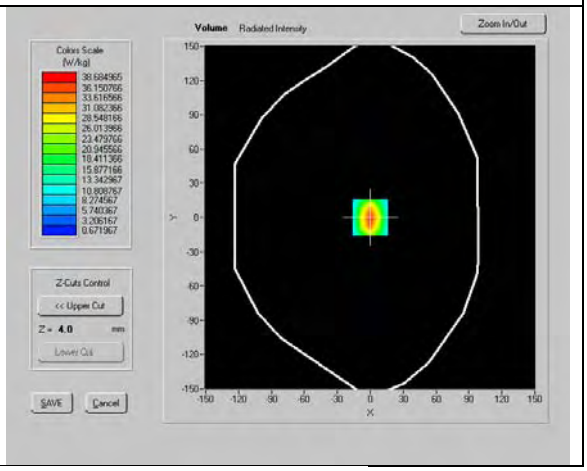
SURFACE SAR	VOLUME SAR
	

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



System Check 1900 MHz Body

System / software:	COMOSAR / OpenSAR v2.0.1e		**Modn. Duty Cycle:**	1
Date:	2007-11-17		**Input Power Level:**	30dBm
Project Name:	20071117Morlab		**DUT Battery Model/No:**	/
Ambient Temperature:	21.5°C		**Probe Serial Number:**	SN 12/05 EP 42
Device Under Test:	Dipole Antenna (100W)		**Simulating Liquid:**	1900 MHz BODY tissue
Relative Humidity:	60%		**Relative Permittivity:**	53.87
Phantom name:	Validation plane		**Conductivity:**	1.54
Phantom S/No:	SN 36/05 SAM 25		**Liquid Temperature:**	21.6°C
Phantom File:	sam_direct_droit2_surf 8mm.txt		**Max SAR X-axis Location:**	6.00 mm
Device Position:	1900_Body		**Max SAR Y-axis Location:**	1.00 mm
Antenna Configuration:	/		**SAR 1g:**	38.66 W/kg
Test Frequency:	1880.00 MHz		**SAR 10g:**	20.20 W/kg
Comment:	/		**SAR Drift during Scan:**	-1.08 %
Type of Modulation:	CW		**Extrapolation:**	poly4

SURFACE SAR	VOLUME SAR
	

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