

SAR TEST REPORT

Report No.: SET2013-05214
Product: Carbonado smart PTT case for iPhone
Model No.: RTKI4C0
Brand Name: CARBONADO
FCC ID: RTKI4C0
IC ID: 11048A-I4C0
Applicant: Kodiak Networks
Address: 1501 10th Street, Suite 130 Plano, Texas 75074
Issued by: CCIC-SET
Lab Location: Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055, P. R. China
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Test Report

Product..... : Kodiak Networks
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Brand Name.....: CARBONADO
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Applicant.....: Kodiak Networks
Applicant Address.....: 1501 10th Street, Suite 130 Plano, Texas 75074
Manufacturer.....: Kodiak Networks
Manufacturer Address.....: 1501 10th Street, Suite 130 Plano, Texas 75074
Rating 3.7V 1500mAh
Test Standards.....: IEEE Std. 1528-2003, 47CFR § 2.1093
RSS-102 Issue 4 March 2010
Test Result.....: Pass

Tested by

Lei Lu Sep. 6. 2013

Signature: lei Lu

Reviewed by.....:

Shuangwen Zhang Sep. 6. 2013

Signature: Shuangwen Zhang

Approved by.....:

Lian Wu

Signature: Lian Wu

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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 CCIC-SET

1.4 This report cannot be used partially or in full for publicity and/or promotional purposes without previous written approval of CCIC-SET and the Accreditation Bodies, if it applies.

2. ADMINISTRATIVE DATA

2.1. Identification of the Responsible Testing Laboratory

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Department: EMC & RF Department

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ShenZhen, P. R. China

Telephone: +86-755-26629676

Fax: +86-755-26627238

Responsible Test Lab Managers: Mr. Wu Li'an

2.2. Identification of the Responsible Testing Location(s)

Company Name: CCIC-SET

Address: Electronic Testing Building, Shahe Road, Nanshan District,
Shenzhen, P. R. China

2.3. Organization Item

CCIC-SET Report No.: SET2013-05214

CCIC-SET Project Leader: Mr. Li Sixiong

CCIC-SET Responsible for accreditation scope: Mr. Wu Li'an

Start of Testing: 2013-08-28

End of Testing: 2013-08-29

2.4. Identification of Applicant

Company Name: Kodiak Networks

Address: 1501 10th Street, Suite 130 Plano, Texas 75074

2.5. Identification of Manufacture

Company Name: Kodiak Networks

Address: 1501 10th Street, Suite 130 Plano, Texas 75074

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

3. General Information

3.1. Description Of Equipment Under Test (EUT)

Sample Name:	CARBONADO	
Type Name:	Carbonado smart PTT case for iPhone	
Brand Name:	CARBONADO	
FCC ID:	RTKI4C0	
HW Version	V2.0	
SW Version	V2.0	
General description:	Frequency Range	Bluetooth: 2402MHz-2480MHz
	Development Stage	Identical Prototype
	Accessories	Power Supply
	Battery type	/
	Battery specification	1500mAh, 3.7V
	Antenna type	Chip Antenna
	Modulation mode	GFSK , $\pi/4$ -DQPSK, 8-DPSK

NOTE:

- The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
- It is indicated that this BT case only supports PTT operations for the Model A1332 and Model A1387 on AT&T networks . It can only works with Model A1332 and Model A1387.
- The BT iPhone case cannot operate standalone by itself without the iPhone: therefore, standalone SAR evaluation is not required for the BT iPhone case. SAR is only considered with the BT iPhone case attached to the iPhone (Model A1332 FCC ID:BCG-E2380B ; Model A1387 FCC ID:BCG-E2430A)
- The iPhone model A1332 supports GSM/GPRS/EDGE 850/1900, WCDMA HSPA 850/1900, 2.4GHz WLAN, Bluetooth function. The iPhone model A1387 supports GSM/GPRS/EDGE 850/1900, CDMA 1x/1xRTT/EV-DO 850/1900, WCDMA HSPA 850/1900.

4 SAR SUMMARY

Highest Measured Standalone SAR Summary For iphone Without BT iphone Case

The result of testing for Model A1332

Exposure Position	Frequency Band	Measured 1g-SAR(W/kg)	Equipment Class	Highest Measured 1g-SAR(W/kg)
Head	GSM850	0.930	PCE	1.124
	GSM1900	0.766	PCE	
	WCDMA Band V	0.937	PCE	
	WCDMA Band II	1.124	PCE	
	WIFI	0.853	DTS	
Body-Worn (1.5cm Gap)	GSM850	1.079	PCE	1.079
	GSM1900	0.326	PCE	
	WCDMA Band V	0.770	PCE	
	WCDMA Band II	0.432	PCE	
	WIFI	0.073	DTS	

The result of testing for Model A1387

Exposure Position	Frequency Band	Antenna	Measured 1g-SAR (W/kg)	Equipment Class	Highest Measured 1g-SAR (W/kg)
Head	CDMA2000 PCS	Primary	1.140	PCE	1.191
	GSM850	Primary	1.005		
	GSM1900	Primary	1.040		
	WCDMA Band V	Secondary	1.150		
	WCDMA Band II	Secondary	1.191		
	WIFI	Wi-Fi/BT	0.402	DTS	
Body-Worn (1cm Gap)	GSM850	Primary	1.130	PCE	1.310
	GSM1900	Primary	0.980		
	WCDMA Band V	Secondary	1.021		
	CDMA2000 Cell	Primary	1.310		
	WCDMA Band II	Secondary	0.608		
	WIFI	Wi-Fi/BT	0.183	DTS	
Hotspot (1cm Gap)	CDMA2000 Cell	Primary	1.170	PCE	1.170
	GPRS850	Primary	1.120		
	GPRS1900	Primary	0.980		
	WCDMA Band V	Primary	0.994		
	WCDMA Band II	Primary	0.628		
	WIFI	Wi-Fi/BT	0.175	DTS	

Highest Measured Standalone SAR Summary For iphone With BT iphone case

The result of testing with Model A1332

Exposure Position	Frequency Band	Measured 1g-SAR(W/kg)	Equipment Class	Highest Measured 1g-SAR(W/kg)
Head	GSM850	0.574	PCE	1.256
	GSM1900	0.262	PCE	
	WCDMA Band V	0.396	PCE	
	WCDMA Band II	1.256	PCE	
	WIFI	0.078	DTS	
Body-Worn (1cm Gap)	GSM850	1.319	PCE	1.319
	GSM1900	0.490	PCE	
	WCDMA Band V	0.800	PCE	
	WCDMA Band II	0.704	PCE	
	WIFI	0.071	DTS	

The result of testing with Model A1387

Exposure Position	Frequency Band	Antenna	Measured 1g-SAR(W/kg)	Equipment Class	Highest Measured 1g-SAR(W/kg)
Head	CDMA2000 PCS	Primary	0.721	PCE	0.769
	GSM850	Primary	0.769		
	GSM1900	Primary	0.553		
	WCDMA Band V	Secondary	0.702		
	WCDMA Band II	Secondary	0.591		
	WIFI	Wi-Fi/BT	0.364	DTS	
Body-Worn (1cm Gap)	CDMA2000 Cell	Primary	0.918	PCE	1.235
	GSM850	Primary	1.235		
	GSM1900	Primary	0.636		
	WCDMA Band V	Secondary	0.660		
	WCDMA Band II	Secondary	0.281		
	WIFI	Wi-Fi/BT	0.186	DTS	
Hotspot (1cm Gap)	CDMA2000 Cell	Primary	0.774	PCE	0.904
	CDMA2000 PCS	Primary	0.462		
	GPRS850	Primary	0.742		
	GPRS1900	Primary	0.881		
	WCDMA Band V	Primary	0.904		
	WCDMA Band II	Primary	0.502		
	WIFI	Wi-Fi/BT	0.078	DTS	

5 SPECIFIC ABSORPTION RATE (SAR)

5.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

5.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

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

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

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

where C is the specific heat capacity, δT is the temperature rise and δt the exposure duration, or related to the electrical field in the tissue by

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

where σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the rms electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

5.3 Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SATIMO. The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region, where shell thickness increases to 6mm).

System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.

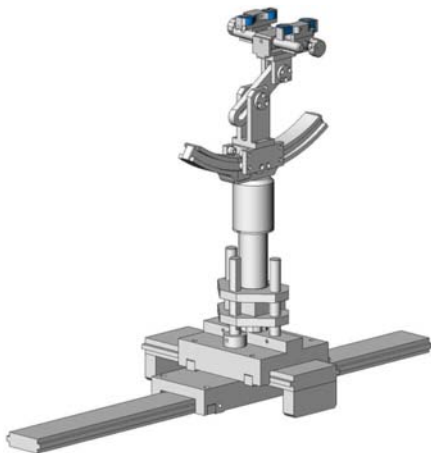


SAM Twin Phantom

5.4 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SATIMO as an integral part of the COMOSAR test system.

The device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.



Device holder

5.5 Probe Specification

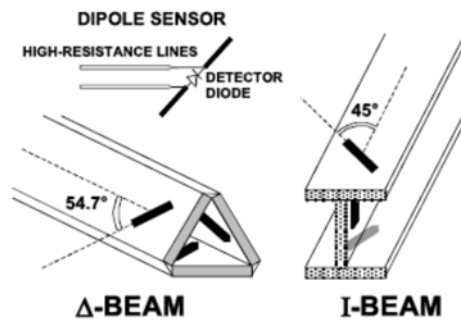


Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	700 MHz to 3 GHz; Linearity: ± 0.5 dB (700 MHz to 3 GHz)
Directivity	± 0.25 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	1.5 μ W/g to 100 mW/g; Linearity: ± 0.5 dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 5 mm (Body: 8 mm) Distance from probe tip to dipole centers: <2.7 mm
Application	General dosimetry up to 3 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones
Compatibility	COMOSAR

Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



6 OPERATIONAL CONDITIONS DURING TEST

6.1 Schematic Test Configuration

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

The Absolute Radio Frequency Channel Number (ARFCN) was allocated to 128, 189 and 251 respectively in the case of GSM 850MHz, or to 512, 661 and 809 respectively in the case of PCS 1900MHz, or to 4357, 4400 and 4458 respectively in the case of WCDMA 850MHz or to 9662, 9800 and 9938 respectively in the case of WCDMA 1900 MHz. The EUT was commanded to operate at maximum transmitting power with Model A1332 and Model A1387.

The EUT should 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 was 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 should be lower than the output power level of the handset by at least 35 dB

6.2 SAR Measurement System

The SAR measurement system being used is the DASY4 system, the system is controlled remotely from a PC, which contains the software to control the robot and data acquisition equipment. The software also displays the data obtained from test scans.

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 centred at that point to determine volume averaged SAR level.

6.2.1 Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness Power drifts in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Table 1: Recommended Dielectric Performance of Tissue

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (Nacl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton x-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (s/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

Table 2 Recommended Tissue Dielectric Parameters

Frequency (MHz)	Head Tissue		Body Tissue	
	ϵ_r	$\sigma(S/m)$	ϵ_r	$\sigma(S/m)$
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52

2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

6.2.2 Simulant liquids

For measurements against the phantom head, the “cheek” and “tilt” position on both the left hand and the right hand sides of the phantom. For body-worn measurements, the EUT was tested against flat phantom representing the user body. The EUT was put on in the belt holder. Simulant liquids that are used for testing at frequencies of GSM 850MHz, GSM 1900MHz, WCDMA 850MHz, WCDMA 1900MHz, which are made mainly of sugar, salt and water solutions may be left in the phantoms.

Table 3: Dielectric Performance of Head Tissue Simulating Liquid

Temperature: 23.2°C; Humidity: 64%;					
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)	Deviation (%)	
Target value	835MHz	41.5	0.90	ϵ	σ
Validation value (August 28th, 2013)	835MHz	41.28	0.94	-0.5	4.4
Target value	1750 MHz	40.2	1.40	--	--
Validation value (August 28th, 2013)	1750 MHz	40.08	1.39	-0.3	-0.7
Target value	1900MHz	40.0	1.40	--	--
Validation value (August 28th, 2013)	1900MHz	39.88	1.42	-0.3	1.4

Table 4: Dielectric Performance of Body Tissue Simulating Liquid

Temperature: 23.2°C; Humidity: 64%;					
/	Frequency	Permittivity ϵ	Conductivity σ (S/m)	Deviation (%)	
Target value	835MHz	55.2	0.97	ϵ	σ
Validation value (August 29th, 2013)	835MHz	55.38	0.99	0.3	2.1
Target value	1750 MHz	53.4	1.53	--	--
Validation value (August 29th, 2013)	1750 MHz	53.76	1.51	0.7	-0.3

Target value	1900MHz	53.3	1.52	--	--
Validation value (August 29th, 2013)	1900MHz	53.67	1.51	0.7	-0.7

Table 5: Dielectric Performance of Tissue Simulating Liquid at test channel

Band	Channel	Frequency (MHz)	Permittivity ϵ		Conductivity σ (S/m)	
			Head	Body	Head	Body
GSM 850	128	824.2	41.94	0.92	55.96	0.97
	189	836.4	41.28	0.94	55.38	0.99
	251	848.8	40.92	0.95	55.12	1.01
GSM 1900	512	1850.2	41.25	1.36	54.25	1.46
	661	1880.0	40.84	1.39	53.98	1.49
	810	1909.8	39.72	1.42	53.43	1.51
WCDMA 850	4132	826.4	41.94	0.92	55.96	0.97
	4182	836.4	41.28	0.94	55.38	0.99
	4182	846.6	40.92	0.95	55.12	1.01
WCDMA 1900	9262	1852.4	41.25	1.36	54.25	1.46
	9400	1880.0	40.84	1.39	53.98	1.49
	9538	1907.6	39.72	1.42	53.43	1.51

According to Annex F (IEC62209-2), the delta SAR refers to the percent change in SAR relative to the percent change in dielectric properties versus the target values. A negative delta SAR would translate to a lower measured SAR value than what would be measured if using dielectric properties equal to the target values. A positive delta SAR would translate to a higher measured SAR value than what would be measured if using dielectric properties equal to the target values. SAR correction shall not be made when the delta SAR has a positive sign to provide a conservative SAR value. The SAR is only corrected when delta SAR has a negative sign. The Δ SAR were given as follow:

Table 6: Δ SAR of each band

Frequency	SAR correction formula	Δ SAR	
		Head	Body
835MHz	$0.7521 * \Delta \sigma(\%) - 0.2194 * \Delta \epsilon(\%)$	>0	>0

1900MHz	$0.594 * \Delta \sigma(\%) - 0.1556 * \Delta \epsilon(\%)$	>0	>0
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Since each band has a positive Δ SAR, the SAR correction is not required.



Fig. 1 Configuration of body tissue

6.2.3 Equipments and results of validation testing

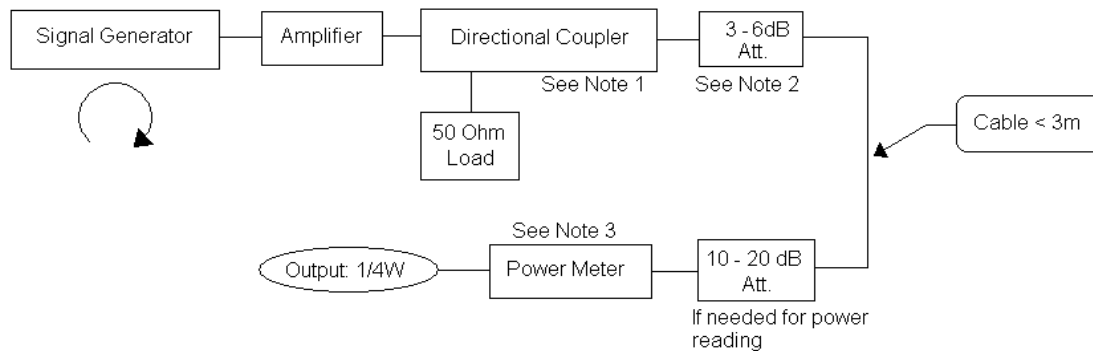
Important equipments :

Equipment description	Manufacturer/Model	Identification No.
SAR Probe	SATIMO	SN_0913_EP169
Phantom	SATIMO	SN_0913_SAM97
Dipole	SATIMO-SID835	SN_0913_DIP0G835-217
Dipole	SATIMO-SID1900	SN_0913_DIP1G900-218
Vector Network Analyzer	ZVB8	A0802530
Signal Generator	SMR27	A0304219
Amplifier	Nucletudes	143060
Power Meter	NRVS	A0802531
Power Sensor	NRV-Z4	100069
Multimeter	Keithley-2000	4014020
Device Holder	MSH80	SN 09/13 MSH80
SAM Phantom	SAM97	SN 09/13 SAM97

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of $\pm 10\%$. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

The following procedure, recommended for performing validation tests using box

phantoms is based on the procedures described in the draft IEEE standard P1528. Setup according to the setup diagram below :



With the SG and Amp and with directional coupler in place, set up the source signal at the relevant frequency and use a power meter to measure the power at the end of the SMA cable that you intend to connect to the balanced dipole. Adjust the SG to make this, say, 0.25W (24 dBm). If this level is too high to read directly with the power meter sensor, insert a calibrated attenuator (e.g. 10 or 20 dB) and make a suitable correction to the power meter reading.

Note 1: In this method, the directional coupler is used for monitoring rather than setting the exact feed power level. If, however, the directional coupler is used for power measurement, you should check the frequency range and power rating of the coupler and measure the coupling factor (referred to output) at the test frequency using a VNA.

Note 2: Remember that the use of a 3dB attenuator (as shown in Figure 8.1 of P1528) means that you need an RF amplifier of 2 times greater power for the same feed power. The other issue is the cable length. You might get up to 1dB of loss per meter of cable, so the cable length after the coupler needs to be quite short.

Note 3: For the validation testing done using CW signals, most power meters are suitable. However, if you are measuring the output of a modulated signal from either a signal generator or a handset, you must ensure that the power meter correctly reads the modulated signals.

The measured 1-gram averaged SAR values of the device against the phantom are provided in Tables 5 and Table 6. The humidity and ambient temperature of test facility were 64% and 23.2°C respectively. The body phantom were full of the body tissue simulating liquid. The EUT was supplied with full-charged battery for each measurement.

The distance between the back of the EUT and the bottom of the flat phantom is 10 mm (taking into account of the IEEE 1528 and the place of the antenna).

Table 7: Head Liquid Verification Results (1g)

Frequency	Duty cycle	Target value (W/kg)	Test value (W/kg)		Deviation (%)
			250 mW	1W	
835MHz (August 28th, 2013)	1:1	9.56	2.47	9.88	3.3
1750MHz (August 28th, 2013)	1:1	36.4	9.28	37.12	2.0
1900MHz (August 28th, 2013)	1:1	39.7	9.79	39.16	-1.4

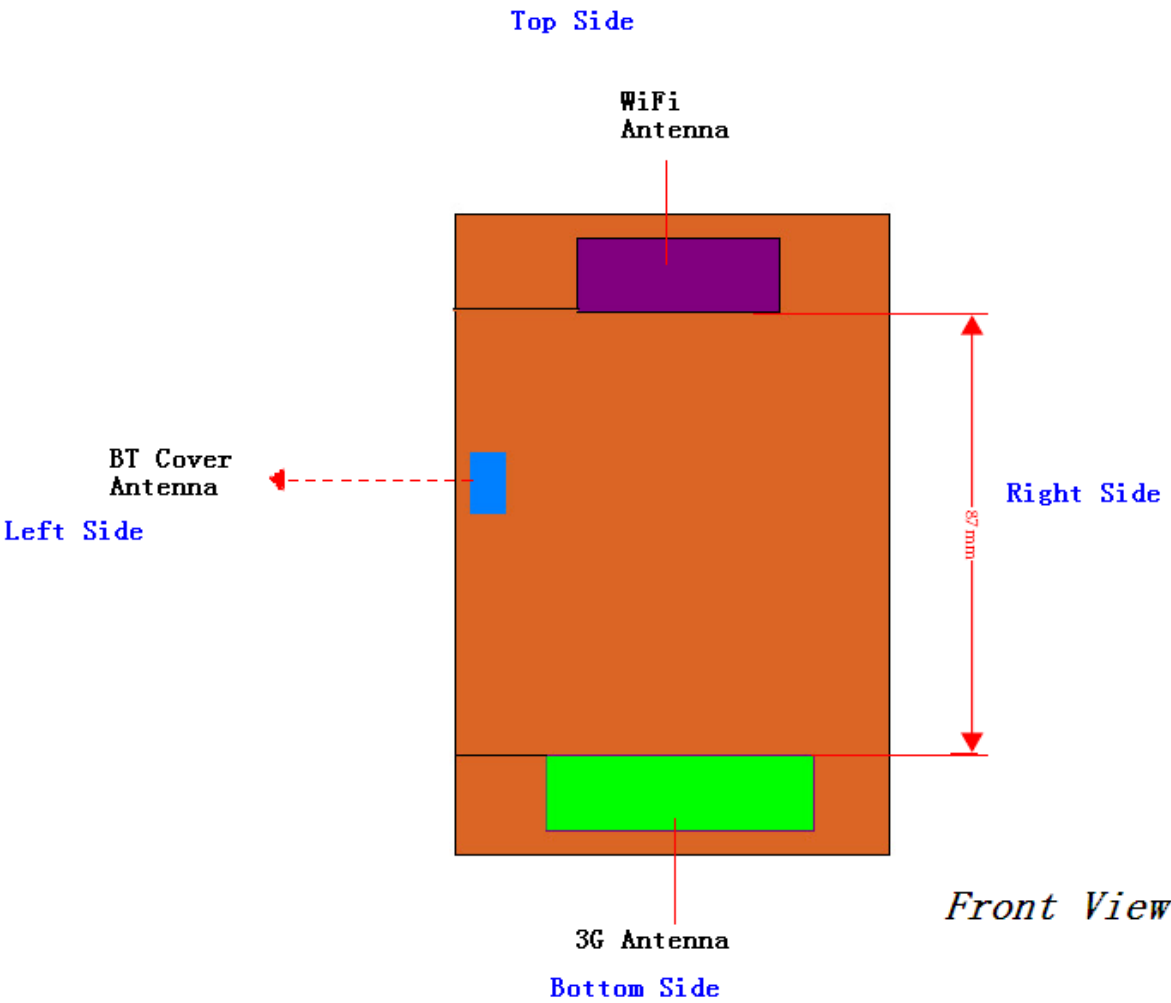
Note: Target value was referring to the required value in the calibration certificate of reference dipole.

Note: All SAR values are normalized to 1W forward power.

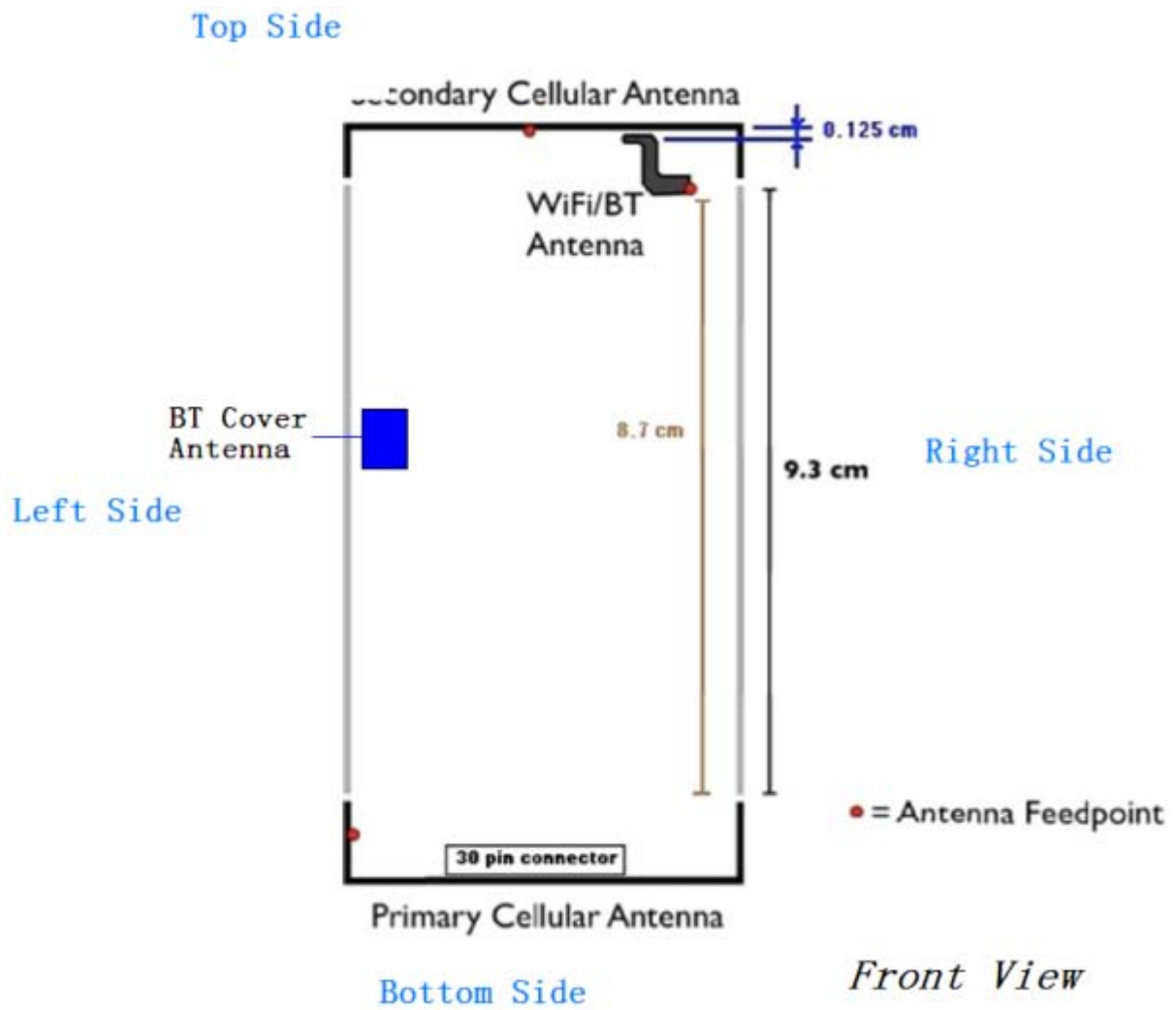
Table 8: Body Liquid Verification Results (1g)

Frequency	Duty cycle	Target value (W/kg)	Test value (W/kg)		Deviation (%)
			250 mW	1W	
835MHz (August 29th, 2013)	1:1	9.92	2.43	9.76	-0.6
1750MHz (August 29th, 2013)	1:1	39.19	9.28	38.92	-0.7
1900MHz (August 29th, 2013)	1:1	40.29	9.99	39.96	-0.8

7 ANTENNA LOCATION



Antenna location for model A1332



Antenna location for model A1387

8 CHARACTERISTICS OF THE TEST

8.1 Applicable Limit Regulations

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

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

RSS-102–2010: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

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.

8.2 Applicable Measurement Standards

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this is in accordance with the following standards:

FCC 47 CFR Part2 (2.1093)

ANSI/IEEE C95.1-1992

IEEE 1528-2003

IC RSS 102 Issue 4

FCC KDB 447498 D01 v05r01

FCC KDB 648474 D04 v01r01

FCC KDB 941225 D01 v02

9 LABORATORY ENVIRONMENT

9.1 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.	

10. EUT TESTING POSITION

This EUT was tested in three different positions. They are left cheek for Head, Front/Back of the EUT with phantom 1cm gap, as illustrated below, please refer to Appendix A for the test setup photos.

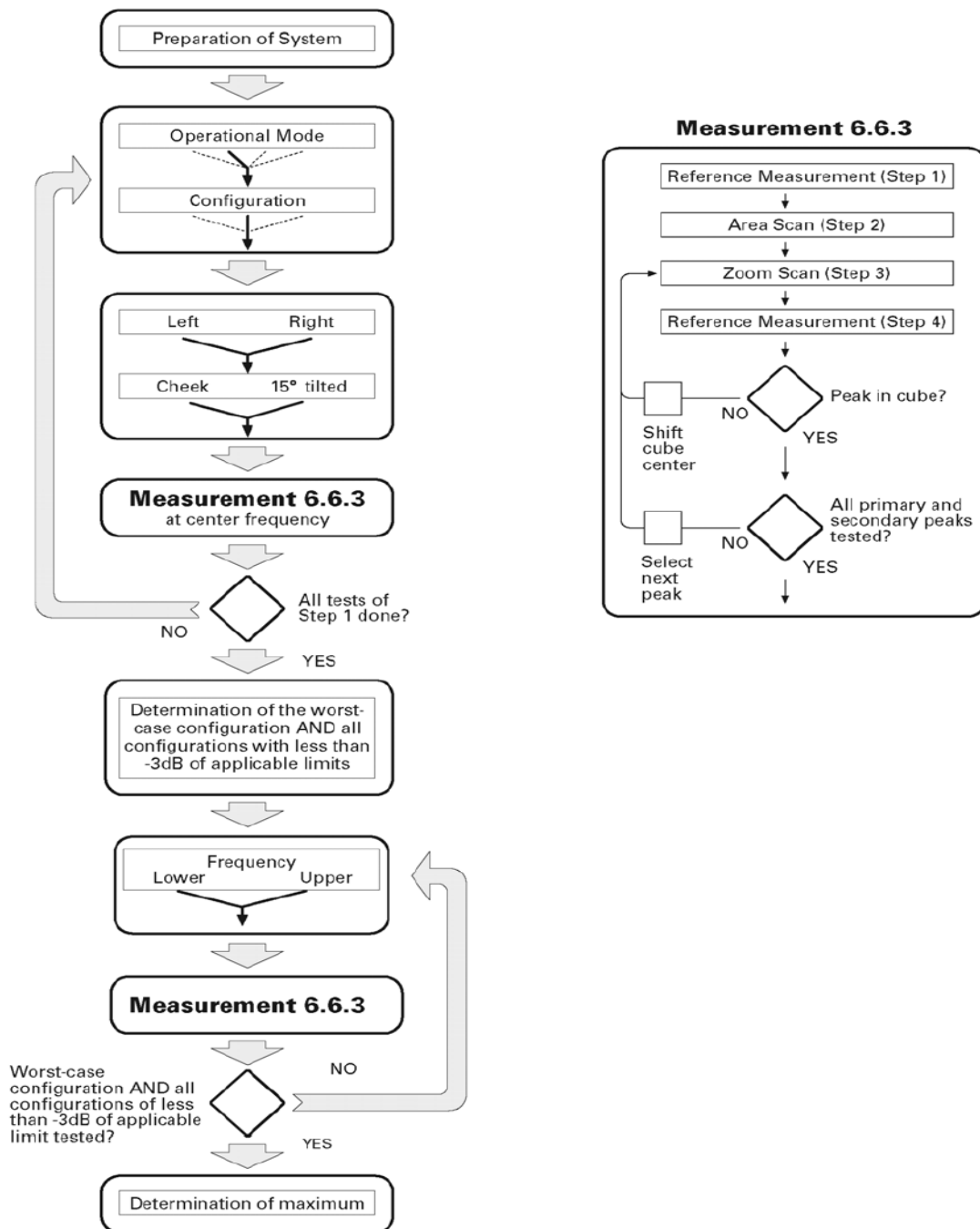
11. MEASUREMENT PROCEDURES

11.1 Conducted power measurement

- (1) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (2) Read the WWAN RF power level from the base station simulator.
- (3) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (4) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

11.2 SAR measurement

- (1) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- (2) Place the EUT in the positions as Appendix A demonstrates.
- (3) The SAR test against the head phantom was carried out as follow:



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 behaviour are tested. For body-worn measurement, the EUT was tested under two position: face upward and back upward.

- (4) Measure SAR results for the highest power channel on each testing position.
- (5) Find out the largest SAR result on these testing positions of each band.
- (6) Measure SAR results for other channels in worst SAR testing position if the reported SAR testing position if the reported SAR of highest power channel is larger than 1.2 W/Kg

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12. CONDUCTED RF OUTPUTPOWER

12.1 Conducted RF Output Power for Model A1332

GSM/(E)GPRS

Band		Burst Average Power (dBm)			Frame-Average Power (dBm)		
GSM850	TX Channel	128	190	251	128	190	251
	Frequency(MHz)	824.2	836.6	848.8	824.2	836.6	848.8
	GSM (GMSK, 1 Tx slot) CS1	32.36	32.36	32.34	13.70	13.70	13.68
	GPRS (GMSK, 1 Tx slot) CS1	32.32	32.34	32.33	13.41	13.42	13.53
	GPRS (GMSK, 2 Tx slot) CS1	29.63	29.63	29.63	17.75	17.73	17.73
	EGPRS (GMSK, 1 Tx slot) CS1	27.10	27.10	27.10	11.11	11.25	11.16
	EGPRS (GMSK, 2 Tx slot) CS1	26.80	26.75	26.75	14.65	14.66	14.61
GSM1900	TX Channel	512	661	810	512	661	810
	Frequency(MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8
	GSM (GMSK, 1 Tx slot) CS1	30.10	30.10	30.10	11.04	11.35	11.33
	GPRS (GMSK, 1 Tx slot) CS1	30.15	30.15	30.15	9.97	10.04	9.82
	GPRS (GMSK, 2 Tx slot) CS1	28.45	28.45	28.45	14.65	14.51	14.60
	EGPRS (GMSK, 1 Tx slot) CS1	26.13	26.13	26.10	10.28	10.27	10.00
	EGPRS (GMSK, 2 Tx slot) CS1	25.98	26.10	25.98	12.78	13.21	12.85

WCDMA

3GPP 34.121 Release Version	Band	Channel	Frequency (MHz)	Average Power (dBm)	
				12.2 kbps AMR	12.2 kbps RMC
99	WCDMA Band V	4132	826.4	23.12	23.23
		4175	835	23.01	23.03
		4233	846.6	23.11	23.06
	WCDMA Band II	9262	1852.4	22.68	22.56
		9400	1880	22.53	22.45
		9538	1907.6	22.55	22.33

HSDPA

3GPP 34.121 Release Version	Band	Channel	Frequency (MHz)	Average Power (dBm)			
				Sub-test 1	Sub-test 2	Sub-test 3	Sub-test 4
5	WCDMA Band V	4132	826.4	23.02	22.01	21.53	21.16
		4175	835	23.01	22.02	21.36	21.16
		4233	846.6	22.98	21.97	21.45	21.34
	WCDMA Band II	9262	1852.4	22.43	21.46	21.01	20.56
		9400	1880	22.22	21.13	20.81	20.45
		9538	1907.6	22.31	21.32	20.89	20.43

HSUPA

3GPP 34.121 Release Version	Band	Channel	Frequency (MHZ)	Average Power (dBm)				
				Sub-test 1	Sub-test 2	Sub-test 3	Sub-test 4	Sub-test 5
5	WCDMA Band V	4132	826.4	22.95	21.89	21.50	21.37	21.16
		4175	835	22.81	22.01	21.38	21.13	21.18
		4233	846.6	22.92	21.95	21.43	21.32	21.23
	WCDMA Band II	9262	1852.4	22.33	21.23	21.02	20.87	20.66
		9400	1880	22.21	21.10	20.78	20.62	20.47
		9538	1907.6	22.03	21.24	20.87	20.45	20.53

12.2 Conducted RF Output Power for Model A1387

CDMA

1. CDMA2000 1xRTT:

Band	Radio Configuration (RC)	Service Option (SO)	Channel	Frequency(MHZ)	Avg Tx Power(dBm)	
					Primary Antenna	Secondary Antenna
Cellular	RC1	55(Loopback)	1013	824.7	24.3	24.0
			384	836.52	24.4	24.4
			777	848.31	24.4	23.5
	RC3	55(Loopback)	1013	824.7	24.0	24.1
			384	836.52	24.3	23.8
			777	848.31	24.4	24.2
		32(+F-SCH)	1013	824.7	24.1	24.2
			384	836.52	23.8	23.3
			777	848.31	24.3	23.0
		32(+SCH)	1013	824.7	24.3	24.3
			384	836.52	24.0	23.78
			777	848.31	24.2	23.76
US PCS	RC1	55(Loopback)	25	1851.25	23.1	20.3
			600	1880	23.0	20.9
			1175	1908.75	23.1	20.6
	RC3	55(Loopback)	25	1851.25	23.3	20.7
			600	1880	23.4	21.3
			1175	1908.75	23.2	20.6
		32(+F-SCH)	25	1851.25	23.3	20.9
			600	1880	23.0	20.7
			1175	1908.75	23.1	20.5
		32(+SCH)	25	1851.25	23.0	20.8

			600	1880	23.4	21.1
			1175	1908.75	23.5	20.9

2. CDMA2000 1xEv-DO Rev.0:

Band	FTAP Rate	RTAP Rate	Channel	Frequency(MHZ)	Avg Tx Power(dBm)	
					Primary Antenna	Secondary Antenna
Cellular	307.2 kbps (2 slot,QPSK)	153.6 kbps	1013	824.7	24.1	23.9
			384	836.52	24.2	23.6
			777	848.31	24.4	23.8
US PCS	307.2 kbps (2 slot,QPSK)	153.6 kbps	25	1851.25	23.2	20.8
			600	1880	23.0	20.2
			1175	1908.75	23.0	20.63

3. CDMA2000 1xEv-DO Rev.A:

Band	PETAP Traffic Format	PETAP Data Payload Size	Channel	Frequency(MHZ)	Avg Tx Power(dBm)	
					Primary Antenna	Secondary Antenna
Cellular	307.2 kbps,QPSK/ ACK Channel is transmitted at all the slots	4096	1013	824.7	24.3	24.1
			384	836.52	24.3	24.0
			777	848.31	24.2	23.75
US PCS	307.2 kbps,QPSK/ ACK Channel is transmitted at all the slots	4096	25	1851.25	23.1	20.85
			600	1880	23.2	20.9
			1175	1908.75	23.0	20.63

GSM**1. (GMSK)**

Band	Channel	Frequency(MHz)	Avg Tx Power(dBm)	
			Primary Antenna	Secondary Antenna
GSM850	128	824.2	33.2	32.1
	190	836.6	33.1	32.2
	251	848.8	31.1	32.1
GSM1900	512	1850.2	31.2	29.1
	661	1880	31.2	29.1
	810	1909.8	31.1	29.0

2. GSM(GMSK)-Coding Scheme:CS1

Band	Channel	Frequency(MHz)	Avg Tx Power(dBm)							
			Primary Antenna				Secondary Antenna			
			1 Slot	Frame Avg Power	2 Slot	Frame Avg Power	1 Slot	Frame Avg Power	2 Slot	Frame Avg Power
GPRS 850	128	824.2	33.1	24.1	31.1	25.1	32.0	23.0	29.1	23.1
	190	836.6	33.0	24.0	31.0	25.0	32.0	23.0	29.7	23.7
	251	848.8	32.8	23.8	30.9	24.9	31.9	22.9	29.6	23.6
GPRS 1900	512	1850.2	31.0	22.0	30.9	24.9	28.7	22.7	28.7	22.7
	661	1880	31.2	22.2	31.1	25.1	28.5	19.5	28.5	22.5
	810	1909.8	31.0	22.0	31.0	25.0	28.8	19.8	28.7	22.7

3、EGPRS(8PSK)-Coding Scheme:MCS5

Band	channel	Frequency (MHz)	Avg Tx Power(dBm)							
			Primary Antenna				Secondary Antenna			
			1 Slot	Frame Avg Power	2 Slot	Frame Avg Power	1 Slot	Frame Avg Power	2 Slot	Frame Avg Power
EGPRS 850	128	824.2	26.7	17.7	26.5	20.5	25.9	16.9	25.7	19.7
	190	836.6	26.6	17.6	26.4	20.4	25.9	16.9	25.7	19.7
	251	848.8	26.6	17.7	26.6	20.6	25.9	16.9	25.7	19.7
EGPRS 1900	512	1850.2	25.1	16.1	25.1	19.1	22.8	13.8	22.7	16.7
	661	1880	24.4	15.4	24.5	18.5	22.8	13.8	22.7	16.7
	810	1909.8	24.4	15.4	24.4	18.4	22.8	13.8	22.7	16.7

WCDMA

1. Release 99

Band	Mode	Channel	Frequency(MHZ)	Avg Tx Power(dBm)	
				Primary Antenna	Secondary Antenna
UMTS850 (Band V)	Rel 99 12.2kbps RMC	4132	826.4	24.1	24.0
		4183	836.6	24.1	24.1
		4233	846.6	24.1	24.1
UMTS1900 (Band II)	Rel 99 12.2kbps RMC	9262	1852.4	23.7	21.1
		9400	1880	23.6	21.1
		9538	1907.6	23.6	21.1

2. HSDPA

Band	Mode	Channel	Frequency(MHz)	Avg Tx Power(dBm)	
				Primary Antenna	Secondary Antenna
UMTS850 (Band V)	Subtest1	4132	826.4	23.38	23.12
		4183	836.6	23.27	23.07
		4233	846.6	23.36	23.18
	Subtest2	4132	826.4	23.41	23.21
		4183	836.6	23.35	23.19
		4233	846.4	23.33	23.14
	Subtest3	4132	826.4	23.15	22.79
		4183	836.6	23.13	22.65
		4233	846.6	23.11	22.81
	Subtest4	4132	826.4	23.01	22.76
		4183	836.6	22.99	22.8
		4233	846.6	22.77	22.55
UMTS1900 (Band II)	Subtest1	9262	1852.4	22.53	20.38
		9400	1880	22.30	20.33
		9538	1907.6	22.34	20.35
	Subtest2	9262	1852.4	22.60	20.41
		9400	1880	22.25	20.34
		9538	1907.6	22.45	20.50
	Subtest3	9262	1852.4	22.50	20.11
		9400	1880	21.85	19.78
		9538	1907.6	22.0	20.52
	Subtest4	9262	1852.4	22.3	19.98
		9400	1880	22.11	20.16
		9538	1907.6	21.96	20.23

3. HSPA(Rel 6 HSDPA&HSUPA)

Band	Mode	Channel	Frequency(MHz)	Avg Tx Power(dBm)	
				Primary Antenna	Secondary Antenna
UMTS850 (Band V)	Subtest1	4132	826.4	23.0	22.52
		4183	836.6	23.2	22.73
		4233	846.6	23.05	22.87
	Subtest2	4132	826.4	23.17	22.03
		4183	836.6	22.27	21.87
		4233	846.4	21.95	21.82
	Subtest3	4132	826.4	22.16	21.90
		4183	836.6	21.90	21.71
		4233	846.6	22.14	22.3
	Subtest4	4132	826.4	22.41	22.33
		4183	836.6	22.40	22.32
		4233	846.6	22.48	22.08
	Subtest5	4132	826.4	23.46	23.22
		4183	836.6	23.37	23.16
		4233	846.6	23.56	23.26
UMTS1900 (Band II)	Subtest1	9262	1852.4	22.73	19.70
		9400	1880	21.91	19.98
		9538	1907.6	22.56	20.09
	Subtest2	9262	1852.4	21.47	19.01
		9400	1880	20.94	18.82
		9538	1907.6	21.30	19.12
	Subtest3	9262	1852.4	21.57	18.53
		9400	1880	21.31	19.23
		9538	1907.6	21.84	20.02
	Subtest4	9262	1852.4	21.44	19.43
		9400	1880	21.44	19.43
		9538	1907.6	21.51	19.40
	Subtest5	9262	1852.4	22.56	20.43
		9400	1880	22.25	20.36
		9538	1907.6	22.58	20.40

12.3 Bluetooth Conducted Power for BT iphone Case

Bluetooth Average Power (dBm)										
Channel	Frequency (MHz)	Data Rate								
		DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3 DH5
CH 0	2402	3.28	3.12	3.36	3.23	3.02	3.16	3.32	3.41	3.74
CH 39	2441	3.26	3.32	3.18	3.26	2.98	3.01	3.21	3.16	2.84
CH 78	2480	3.31	3.23	3.35	3.53	2.49	3.21	3.50	3.49	3.30

13. SAR TEST RESULTS

General Note:

1. The Model A1332 and Model A1387 must be tested according to all required SAR test procedures, without the BT iPhone case, to demonstrate compliance. The SAR results you can get from the chapter 13.1, and all SAR results are within 15% of those reported in the original SAR report for BCG-E2380B and BCG-E2430A.

2. When the BT iPhone case is not transmitting, with BT iPhone case attached Model A1332 and Model A1387 separately, test SAR according to the highest SAR reported for each combination of wireless mode, frequency band and exposure configuration (head, body-worn accessory and hotspot mode etc. where all positions in each exposure configuration are considered as one exposure configuration). In addition, for test cases where the measured SAR for a handset without the accessory is greater than 1.2 W/Kg, these tests should be repeated with the BT iPhone case.

13.1 SAR data For iphone without BT iPhone case

13.1.1 The results for Model A1332

Standalone head SAR data

GSM850

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	GMSK 1 Tx slot	Right Cheek	128	824.2	0.757
			190	836.6	0.919
			251	848.8	0.930
GSM850	GMSK 1 Tx slot	Right Tilted	190	836.6	0.345
GSM850	GMSK 1 Tx slot	Left Cheek	190	836.6	0.679
GSM850	GMSK 1 Tx slot	Left Tilted	190	836.6	0.394

GSM1900

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	GMSK 1 Tx slot	Right Cheek	661	1880.0	0.743
GSM1900	GMSK 1 Tx slot	Right Tilted	661	1880.0	0.373
GSM1900	GMSK 1 Tx slot	Left Cheek	661	1880.0	0.766
GSM1900	GMSK 1 Tx slot	Left Tilted	661	1880.0	0.275

UMTS BAND V

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	R99 12.2kbps RMC	Right Cheek	4132	826.4	0.624
			4183	836.6	0.883
			4233	846.6	0.810
	R99 12.2kbps RMC	Right Tilted	4183	836.6	0.430
	R99 12.2kbps RMC	Left Cheek	4132	826.4	0.861
			4183	836.6	0.923
			4233	846.6	0.937
	R99 12.2kbps RMC	Left Tilted	4183	836.6	0.430

UMTS BAND II

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	R99 12.2kbps RMC	Right Cheek	9262	1850.2	1.110
			9400	1880.0	1.060
			9538	1907.6	1.110
	R99 12.2kbps RMC	Right Tilted	9400	1880.0	0.458
	R99 12.2kbps RMC	Left Cheek	9262	1850.2	1.140
			9400	1880.0	1.124
			9538	1907.6	1.114
	R99 12.2kbps RMC	Left Tilted	9400	1880.0	0.388

WIFI

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	802.11b	Right Cheek	6	2437.0	0.524
	802.11b	Right Tilted	6	2437.0	0.701
	802.11b	Left Cheek	6	2437.0	0.665
	802.11b	Left Tilted	1	2412.0	0.653
			6	2437.0	0.801
			11	2462.0	0.853

Standalone Body Worn SAR data

GSM850

Band	Gap (cm)	Mode	Test position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	1.5	GSM	Face up	190	836.6	0.703
			Face down	128	824.2	0.725
				190	836.6	0.803
				251	848.8	0.816
			w/ headset	251	848.8	0.643
		GPRS 1 slots	Face up	190	836.6	0.703
			Face down	190	836.6	0.648
		GPRS 2 slots	Face up	128	824.2	0.971
				190	836.6	1.064
				251	848.8	1.056
			Face down	128	824.2	1.023
				190	836.6	1.079
				251	848.8	1.054
			w/headset	190	836.6	1.028
		EGPRS 1 slots	Face up	190	836.6	0.187
			Face down	190	836.6	0.231
		EGPRS 2 slots	Face up	190	836.6	0.366
			Face down	190	836.6	0.393
			w/headset	190	836.6	0.326

GSM1900

Band	Gap (cm)	Mode	Test position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	1.5	GSM	Face up	661	1880.0	0.243
			Face down	661	1880.0	0.255
			w/ headset	661	1880.0	0.210
		GPRS 1 slots	Face up	661	1880.0	0.228
			Face down	661	1880.0	0.238
		GPRS 2 slots	Face up	661	1880.0	0.317
			Face down	661	1880.0	0.326
			w/headset	661	1880.0	0.247
		EGPRS 1 slots	Face up	661	1880.0	0.086
			Face down	661	1880.0	0.089
		EGPRS 2 slots	Face up	661	1880.0	0.171
			Face down	661	1880.0	0.177
			w/headset	661	1880.0	0.133

UMTS BAND V

Band	Gap (cm)	Mode	Test position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	1.5	R99 12.2kbps RMC	Face up	4183	836.6	0.770
			Face down	4183	836.6	0.767
			w/ headset	4183	836.6	0.628

UMTS BAND II

Band	Gap (cm)	Mode	Test position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	1.5	R99 12.2kbps RMC	Face up	9400	1880.0	0.398
			Face down	9400	1880.0	0.432
			w/ headset	9400	1880.0	0.349

WIFI

Band	Gap (cm)	Mode	Test position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	1.5	802.11b	Face up	6	2437.0	0.045
			Face down	6	2437.0	0.073
			w/ headset	6	2437.0	0.059

13.1.2 The results for Model A1387

Standalone head SAR data

CDMA2000 1xRTT – CDMA Cell Band:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Right Cheek	1013	824.70	1.090
				384	836.52	1.103
				777	848.31	1.070
			Right Tilted	384	836.52	0.402
			Left Cheek	1013	824.70	0.846
				384	836.52	0.874
				777	848.31	0.935
			Left Tilted	384	836.52	0.473
	Secondary	1xRTT (RC3, SO55)	Left Cheek	1013	824.70	1.010
				384	836.52	1.070
				777	848.31	1.040
			Left Tilted	1013	824.70	0.699
				384	836.52	0.810
				777	848.31	0.671
			Right Cheek	384	836.52	0.703
			Right Tilted	384	836.52	0.551

CDMA2000 1xRTT – PCS 1900 Band:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 PCS	Primary	1xRTT (RC3, SO55)	Right Cheek	25	1851.25	1.080
				600	1880.00	0.971
				1175	1908.75	1.020
			Right Tilted	600	1880.00	0.518
			Left Cheek	25	1851.25	1.110
				600	1880.00	1.110
				1175	1908.75	1.140
			Left Tilted	600	1880.00	0.490
	Secondary	1xRTT (RC3, SO55)	Right Cheek	25	1851.25	1.010
				600	1880.00	1.060
				1175	1908.75	1.110
			Right Tilted	25	1851.25	0.930
				600	1880.00	0.972
				1175	1908.75	1.040
			Left Cheek	600	1880.00	0.601
			Left Tilted	600	1880.00	0.603

GSM850:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	Primary	GMSK	Right Cheek	128	824.20	0.641
				190	836.6	0.779
				251	848.8	0.841
			Right Tilted	190	836.6	0.247
			Left Cheek	128	824.20	0.886
				190	836.6	1.005
				251	848.8	0.995
			Left Tilted	190	836.6	0.194
	Secondary	GMSK	Left Cheek	128	824.20	0.726
				190	836.6	0.785
				251	848.8	0.834
			Left Tilted	190	836.6	0.460
			Right Cheek	190	836.6	0.534
			Right Tilted	190	836.6	0.426

GSM1900:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	Primary	GMSK	Right Cheek	512	1850.2	0.887
				661	1880.0	0.799
				810	1909.8	0.834
			Right Tilted	661	1880.0	0.406
			Left Cheek	512	1850.20	0.970
				661	1880.0	0.970
				810	1909.8	1.040
			Left Tilted	661	1880.0	0.398
	Secondary	GMSK	Right Cheek	128	824.20	0.708
				190	836.6	0.799
				251	848.8	0.876
			Right Tilted	512	1850.2	0.670
				661	1880.0	0.796
				810	1909.8	0.928
			Left Cheek	661	1880.0	0.796
			Left Tilted	661	1880.0	0.928

UMTS Band V:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	Primary	R99 12.2kbps RMC	Right Cheek	4132	826.4	0.832
				4183	836.6	0.815
				4233	846.6	0.886
			Right Tilted	4183	836.6	0.296
			Left Cheek	4132	826.4	1.060
				4183	836.6	1.040
				4233	846.6	1.060
			Left Tilted	4183	836.6	0.268
	Secondary	R99 12.2kbps RMC	Right Cheek	4132	826.4	0.805
				4183	836.6	0.844
				4233	846.6	0.717
			Right Tilted	4183	836.6	0.634
			Left Cheek	4132	826.4	1.060
				4183	836.6	1.150
				4233	846.6	0.986
			Left Tilted	4132	826.4	0.773
				4183	836.6	0.881
				4233	846.6	0.691

UMTS Band II:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	Primary	R99 12.2kbps RMC	Right Cheek	9262	1852.4	1.101
				9400	1880.0	1.100
				9538	1907.6	1.051
			Right Tilted	9400	1880.0	0.622
				9262	1852.4	1.101
			Left Cheek	9400	1880.0	1.141
				9538	1907.6	1.092
			Left Tilted	9400	1880.0	0.558
	Secondary	R99 12.2kbps RMC	Left Cheek	9400	1880.0	0.796
			Right Tilted	9262	1852.4	0.773
				9400	1880.0	0.851
				9538	1907.6	0.834
			Right Cheek	9262	1852.4	1.092
				9400	1880.0	1.173
				9538	1907.6	1.191
			Right Tilted	9262	1852.4	1.134
				9400	1880.0	1.150
				9538	1907.6	1.134

WIFI

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	802.11b	Right Cheek	6	2437.0	0.162
	802.11b	Right Tilted	6	2437.0	0.136
	802.11b	Left Cheek	6	2437.0	0.402
	802.11b	Left Tilted	6	2437.0	0.301

Standalone body-worn SAR data

CDMA2000 1xRTT – Cell Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
CDMA2000 Cell	1	Primary	1xRTT (RC3, SO32)	Front side	1013	824.70	1.090
					384	836.52	1.060
					777	848.31	1.070
				Back Side	1013	824.70	1.310
					384	836.52	1.060
					777	848.31	1.050
		Secondary	1xRTT (RC3, SO32)	Back Side w/Headset	1013	824.70	0.941
				Front side	384	836.52	0.487
				Back Side	384	836.52	0.417
				Front Side w/Headset	384	836.52	0.388

CDMA2000 1xRTT – PCS Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
CDMA2000 PCS	1	Primary	1xRTT (RC3, SO32)	Front side	600	1880.00	0.571
				Back Side	600	1880.00	0.505
				Front Side w/Headset	600	1880.00	0.569
		Secondary	1xRTT (RC3, SO32)	Front side	600	1880.00	0.264
				Back Side	600	1880.00	0.380
				Back Side w/Headset	600	1880.00	0.343

GSM850/GPRS850

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
GSM850	1	Primary	GMSK	Front side	128	824.2	0.854
					190	836.6	0.901
					251	848.8	0.905
				Back Side	190	836.6	0.736
		Secondary	GMSK	Front Side w/Headset	190	836.6	0.863
				Front side	190	836.6	0.290
				Back Side	190	836.6	0.301
				Back Side w/Headset	190	836.6	0.225

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
GPRS850	1	Primary	GPRS 2 Slots (GMSK, CS1)	Front side	128	824.2	0.896
					190	836.6	0.864
					251	848.8	1.130
				Back Side	128	824.20	1.034
					190	836.6	0.864
					251	848.8	0.980
		Secondary	GPRS 2 Slots (GMSK, CS1)	Front Side w/Headset	251	848.8	1.031
				Front Side	251	848.8	0.679
				Front Side	190	836.6	0.295
				Back Side	190	836.6	0.267
		Secondary	GPRS 1 Slot (GMSK, CS1)	Front Side w/Headset	190	836.6	0.275
				Front Side	190	836.6	0.284

GSM1900/GPRS1900

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
GSM1900	1	Primary	GMSK	Front side	661	1880.00	0.481
				Back Side	661	1880.00	0.431
				Front Side w/Headset	661	1880.00	0.478
		Secondary	GMSK	Front side	661	1880.00	0.319
				Back Side	661	1880.00	0.415
				Back Side w/Headset	661	1880.00	0.321

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
GPRS1900	1	Primary	GPRS 2 Slots(GMSK,CS1)	Front side	512	1850.2	0.980
					661	1880.0	0.846
					810	1909.8	0.806
				Back Side	661	1880.0	0.660
				Front side w/Headset	512	1850.2	0.903
		Secondary	GPRS 1 Slot (GMSK, CS1)	Front side	512	1850.2	0.355
				Front side	661	1880.0	0.623
				Back Side	661	1880.0	0.499
				Front side w/Headset	661	1880.0	0.496
				Front side	661	1880.0	0.307

UMTS Band V

Band	Gap (cm)	Antenna	Mode	Test Position	Ch;	Freq. (MHz)	SAR (W/Kg) 1-g
WCDMA Band V	1	Primary	R99, 12.2kbps, RMC	Front side	4132	826.40	1.021
					4183	836.6	1.014
					4233	848.6	0.992
				Front side w/Headset	4132	824.40	0.802
				Back Side	4183	836.6	0.800
		Secondary	R99, 12.2kbps, RMC	Front side	4183	836.6	0.408
				Back Side	4183	836.6	0.503
				Back Side w/Headset	4183	836.6	0.205

UMTS Band II

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
WCDMA Band II	1	Primary	R99, 12.2kbps, RMC	Front side	9400	1880.00	0.608
				Back Side	9400	1880.00	0.552
				Front Side w/Headset	9400	1880.00	0.606
		Secondary	R99, 12.2kbps, RMC	Front side	9400	1880.00	0.415
				Back Side	9400	1880.00	0.534
				Back Side w/Headset	9400	1880.00	0.428

Wi-Fi

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
2.4GHz	1	Wi-Fi/BT	802.11b	Front side	6	2437	0.069
				Back side	6	2437	0.183
				Back side w/headset	6	2437	0.039

Bluetooth

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
2.4GHz	1	Wi-Fi/BT	Bluetooth	Front side	39	2441	0.031
				Back side	39	2441	0.061

Standalone Hotspot SAR data

1xEVDO – Cell Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	1	Primary	1xEVDO Rev.0	Front side	1013	824.70	1.160
					384	836.52	1.170
					777	848.31	1.140
				Back side	1013	824.70	0.906
					384	836.52	0.944
					777	848.31	1.025
				Right edge	384	836.52	0.563
				Left edge	1013	824.70	0.845
					384	836.52	0.811
					777	848.31	0.756
				Bottom edge	384	836.52	0.359
		Secondary	1xEVDO Rev.0	Front side	384	824.70	0.491
				Back side	384	836.52	0.444
				Right edge	384	848.31	0.442
				Left edge	384	836.52	0.250
				Top edge	384	836.52	0.199

1xEVDO – PCS Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 PCS	1	Primary	1xEVDO Rev.0	Front side	600	1880.00	0.699
				Back side	600	1880.00	0.677
				Right edge	600	1880.00	0.225
				Left edge	600	1880.00	0.537
				Bottom edge	600	1880.00	0.372
		Secondary	1xEVDO Rev.0	Front side	600	1880.00	0.308
				Back side	600	1880.00	0.415
				Right edge	600	1880.00	0.168
				Left edge	600	1880.00	0.354
				Top edge	600	1880.00	0.266

GPRS850

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GPRS850	1	Primary	GPRS 2 Slots (GMSK, CS1)	Front side	128	824.2	0.886
					190	836.6	0.844
					251	848.8	1.120
				Back side	128	824.2	1.020
					190	836.6	0.857
					251	848.8	0.980
				Right edge	190	836.6	0.325
				Left edge	128	824.2	1.050
					190	836.6	1.030
					251	848.8	0.958
				Bottom edge	190	836.6	0.309
		Secondary	GPRS 2 Slots (GMSK, CS1)	Front side	190	836.6	0.295
				Back side	190	836.6	0.257
				Right edge	190	836.6	0.360
				Left edge	190	836.6	0.046
				Top edge	190	836.6	0.131

GPRS1900

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GPRS1900	1	Primary	GPRS 2 Slots (GMSK, CS1)	Front side	512	1850.2	0.980
					661	1880.0	0.845
					810	1909.8	0.801
				Back side	661	1880.00	0.666
				Right edge	661	1880.00	0.243
				Left edge	661	1880.00	0.624
				Bottom edge	661	1880.00	0.415
		Secondary	GPRS 2 Slots (GMSK, CS1)	Front side	661	1880.00	0.623
				Back side	661	1880.00	0.499
				Right edge	661	1880.00	0.140
				Left edge	661	1880.00	0.435
				Top edge	661	1880.00	0.509

UMTS Band V

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	1	Primary	R99, 12.2kbps, RMC	Front side	4132	824.2	0.936
					4183	836.6	0.994
					4233	848.8	0.972
				Back side	4183	836.6	0.780
				Right edge	4183	836.6	0.308
				Left edge	4183	836.6	0.781
				Bottom edge	4183	836.6	0.318
		Secondary	R99, 12.2kbps, RMC	Front side	4183	836.6	0.388
				Back side	4183	836.6	0.473
				Right edge	4183	836.6	0.514
				Left edge	4183	836.6	0.231
				Top edge	4183	836.6	0.257

UMTS Band II

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	1	Primary	R99, 12.2kbps, RMC	Front side	9400	1880.0	0.628
				Back side	9400	1880.0	0.572
				Right edge	9400	1880.0	0.223
				Left edge	9400	1880.0	0.508
				Bottom edge	9400	1880.0	0.321
		Secondary	R99, 12.2kbps, RMC	Front side	9400	1880.0	0.435
				Back side	9400	1880.0	0.554
				Right edge	9400	1880.0	0.178
				Left edge	9400	1880.0	0.384
				Top edge	9400	1880.0	0.340

WIFI

Band	Gap (cm)	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	1	802.11b	Front side	6	2437.0	0.078
		802.11b	Back side	6	2437.0	0.175
		802.11b	Right edge	6	2437.0	0.018
		802.11b	Left edge	6	2437.0	0.150
		802.11b	Top edge	6	2437.0	0.067

13.2 Standalone Head SAR data with BT iPhone case

The result of testing with Model A1332**GSM SAR DATA:**

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	GMSK 1 Tx slot	Right Cheek	189	836.4	0.480
GSM850	GMSK 1 Tx slot	Right Tilted	189	836.4	0.345
GSM850	GMSK 1 Tx slot	Left Cheek	189	836.4	0.574
GSM850	GMSK 1 Tx slot	Left Tilted	189	836.4	0.242

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	GMSK 1 Tx slot	Right Cheek	661	1880	0.169
GSM1900	GMSK 1 Tx slot	Right Tilted	661	1880	0.075
GSM1900	GMSK 1 Tx slot	Left Cheek	661	1880	0.194
GSM1900	GMSK 1 Tx slot	Left Tilted	661	1880	0.262

WCDMA SAR DATA:

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	12.2 kbps RMC	Right Cheek	4183	836.4	0.361
WCDMA Band V	12.2 kbps RMC	Right Tilted	4183	836.4	0.313
WCDMA Band V	12.2 kbps RMC	Left Cheek	4183	836.4	0.396
WCDMA Band V	12.2 kbps RMC	Left Tilted	4183	836.4	0.206

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	12.2 kbps RMC	Right Cheek	9400	1880	0.982
WCDMA Band II	12.2 kbps RMC	Right Tilted	9400	1880	0.443
WCDMA Band II	12.2 kbps RMC	Left Cheek	9400	1880	1.256
WCDMA Band II	12.2 kbps RMC	Left Tilted	9400	1880	0.319

WIFI

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	802.11b	Right Cheek	6	2437.0	0.053
	802.11b	Right Tilted	6	2437.0	0.069
	802.11b	Left Cheek	6	2437.0	0.061
	802.11b	Left Tilted	11	2462.0	0.078

The result of testing with Model A1387**CDMA2000 1x – CDMA835:**

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Right Cheek	384	836.52	0.233
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Right Tilted	384	836.52	0.056
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Left Cheek	384	836.52	0.191
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Left Tilted	384	836.52	0.086

CDMA2000 1x – CDMA1900:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Right Cheek	1175	1908.75	0.721
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Right Tilted	1175	1908.75	0.137
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	Left Cheek	1175	1908.75	0.549
CDMA2000 Cell	Primary	1xRTT (RC3, SO55)	LeftTilted	1175	1908.75	0.194

GSM:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	Primary	GMSK 1 Tx slot	Right Cheek	189	836.4	0.392
GSM850	Primary	GMSK 1 Tx slot	Right Tilted	189	836.4	0.224
GSM850	Primary	GMSK 1 Tx slot	Left Cheek	189	836.4	0.769
GSM850	Primary	GMSK 1 Tx slot	Left Tilted	189	836.4	0.136

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	Primary	GMSK 1 Tx slot	Right Cheek	661	1880	0.485
GSM1900	Primary	GMSK 1 Tx slot	Right Tilted	661	1880	0.273
GSM1900	Primary	GMSK 1 Tx slot	Left Cheek	661	1880	0.553
GSM1900	Primary	GMSK 1 Tx slot	Left Tilted	661	1880	0.262

WCDMA:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	Secondary	12.2 kbps RMC	Right Cheek	4183	836.4	0.372
WCDMA Band V	Secondary	12.2 kbps RMC	Right Tilted	4183	836.4	0.261
WCDMA Band V	Secondary	12.2 kbps RMC	Left Cheek	4183	836.4	0.702
WCDMA Band V	Secondary	12.2 kbps RMC	Left Tilted	4183	836.4	0.216

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	Secondary	12.2 kbps RMC	Right Cheek	9400	1880	0.591
WCDMA Band II	Secondary	12.2 kbps RMC	Right Tilted	9400	1880	0.130
WCDMA Band II	Secondary	12.2 kbps RMC	Left Cheek	9400	1880	0.370
WCDMA Band II	Secondary	12.2 kbps RMC	Left Tilted	9400	1880	0.137

WIFI

Band	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	802.11b	Right Cheek	6	2437.0	0.125
	802.11b	Right Tilted	6	2437.0	0.097
	802.11b	Left Cheek	6	2437.0	0.364
	802.11b	Left Tilted	6	2437.0	0.245

13.3 Standalone Body Worn SAR data with BT iPhone case

The result of testing with Model A1332**GSM:**

Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	GMSK 1Tx slot	Back	1	189	824.2	0.390
GSM850	GMSK 1Tx slot	Front	1	189	824.2	1.319
GPRS850	GMSK 2Tx slot	Back	1	189	824.2	0.270
GPRS850	GMSK 2Tx slot	Front	1	189	824.2	0.615

Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	GMSK 1Tx slot	Back	1	661	1880	0.462
GSM1900	GMSK 1Tx slot	Front	1	661	1880	0.490
GPRS1900	GMSK 2Tx slot	Back	1	661	1880	0.396
GPRS1900	GMSK 2Tx slot	Front	1	661	1880	0.249

WCDMA:

Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	12.2 kbps RMC	Back	1	4183	836.4	0.263
WCDMA Band V	12.2 kbps RMC	Front	1	4183	836.4	0.579
WCDMA Band V	12.2 kbps RMC	Left Side	1	4183	836.4	0.800

Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	12.2 kbps RMC	Back	1	9400	1880	0.294
WCDMA Band II	12.2 kbps RMC	Front	1	9400	1880	0.704

WIFI

Band	Mode	Test position	Gap	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	802.11b	Face up	1.5cm	6	2437.0	0.046
		Face down	1.5cm	6	2437.0	0.071
		w/ headset	1.5cm	6	2437.0	0.041

The result of testing with Model A1387**CDMA2000 1xRTT – CDMA Cell Band:**

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	Primary	1xRTT (RC3, SO32)	Right Cheek	1013	824.70	0.431

CDMA2000 1xRTT – CDMA1900 PCS Band:

Band	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 PCS	Primary	1xRTT (RC3, SO32)	Front Side	600	1880.00	0.918

GSM:

Band	Antenna	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM850	Primary	GMSK 1Tx slot	Back	1	189	824.2	0.473
GSM850	Primary	GMSK 1Tx slot	Front	1	189	824.2	1.235
GPRS850	Primary	GMSK 2Tx slot	Back	1	189	824.2	0.631
GPRS850	Primary	GMSK 2Tx slot	Front	1	189	824.2	0.665

Band	Antenna	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GSM1900	Primary	GMSK 1Tx slot	Back	1	661	1880	0.124
GSM1900	Primary	GMSK 1Tx slot	Front	1	661	1880	0.342
GPRS1900	Primary	GMSK 2Tx slot	Back	1	661	1880	0.636
GPRS1900	Primary	GMSK 2Tx slot	Front	1	661	1880	0.200

WCDMA:

Band	Antenna	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	Secondary	12.2 kbps RMC	Back	1	4183	836.4	0.269
WCDMA Band V	Secondary	12.2 kbps RMC	Front	1	4183	836.4	0.660

Band	Antenna	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	Secondary	12.2 kbps RMC	Back	1	9400	1880	0.273
WCDMA Band II	Secondary	12.2 kbps RMC	Front	1	9400	1880	0.281

Wi-Fi

Band	Antenna	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	SAR (W/Kg) 1-g
2.4GHz	Wi-Fi/BT	802.11b	Front side	1	6	2437	0.065
			Back side	1	6	2437	0.186
			Back side w/headset	1	6	2437	0.036

13.4 Standalone Hotspot SAR data with BT iPhone case

The result of testing with Model A1387

1xEVDO – Cell Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 Cell	1	Primary	1xEVDO Rev.0	Front side	384	836.52	0.774
				Back side	777	848.31	0.563
				Right edge	384	836.52	0.311
				Left edge	1013	824.70	0.436
				Bottom edge	384	836.52	0.231

1xEVDO – PCS Band

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
CDMA2000 PCS	1	Primary	1xEVDO Rev.0	Front side	600	1880.00	0.462
				Back side	600	1880.00	0.387
				Left edge	600	1880.00	0.236

GPRS850

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GPRS850	1	Primary	GPRS 2 Slots (GMSK, CS1)	Front side	251	848.8	0.742
				Back side	128	824.2	0.521
				Left edge	128	824.2	0.650

GPRS1900

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
GPRS1900	1	Primary	GPRS 2 Slots (GMSK, CS1)	Front side	512	1850.20	0.881
				Back side	661	1880.00	0.542
				Left edge	661	1880.00	0.443
				Bottom edge	661	1880.00	0.321

UMTS Band V

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band V	1	Primary	R99, 12.2kbps, RMC	Front side	4132	824.2	0.812
					4183	836.6	0.904
					4233	848.8	0.803
				Back side	4183	836.6	0.678
				Right edge	4183	836.6	0.213
				Left edge	4183	836.6	0.745
				Bottom edge	4183	836.6	0.326

UMTS Band II

Band	Gap (cm)	Antenna	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
WCDMA Band II	1	Primary	R99, 12.2kbps, RMC	Front side	9400	1880.0	0.502
				Back side	9400	1880.0	0.421
				Left edge	9400	1880.0	0.439

WIFI

Band	Gap (cm)	Mode	Test Position	Ch.	Freq. (MHz)	Measured 1g SAR (W/kg)
2.4GHz	1	802.11b	Front side	6	2437.0	0.065
		802.11b	Back side	6	2437.0	0.078
		802.11b	Left edge	6	2437.0	0.050

13.5 Highest SAR Plots

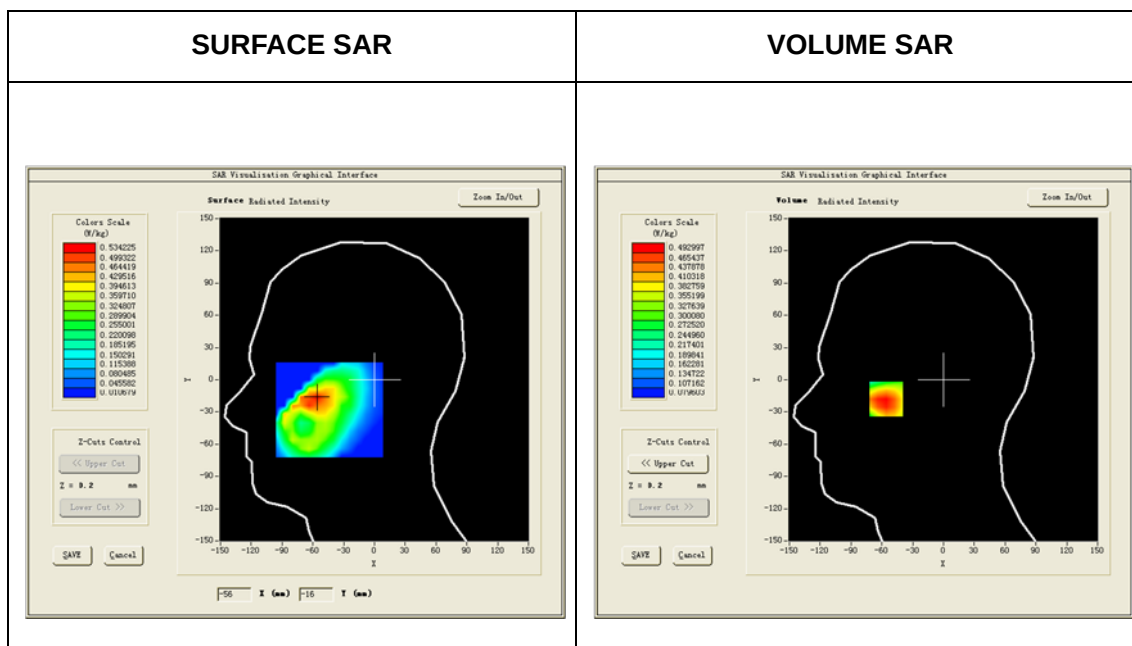
13.5.1 The plots for iphone without BT iphone case

The result of testing for Model A1332

<Standalone Head>

GSM850 GMSK(1 Tx slot) Right Cheek Channel251:

Frequency (MHz)	848.800024
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901453
Variation (%)	-2.160000



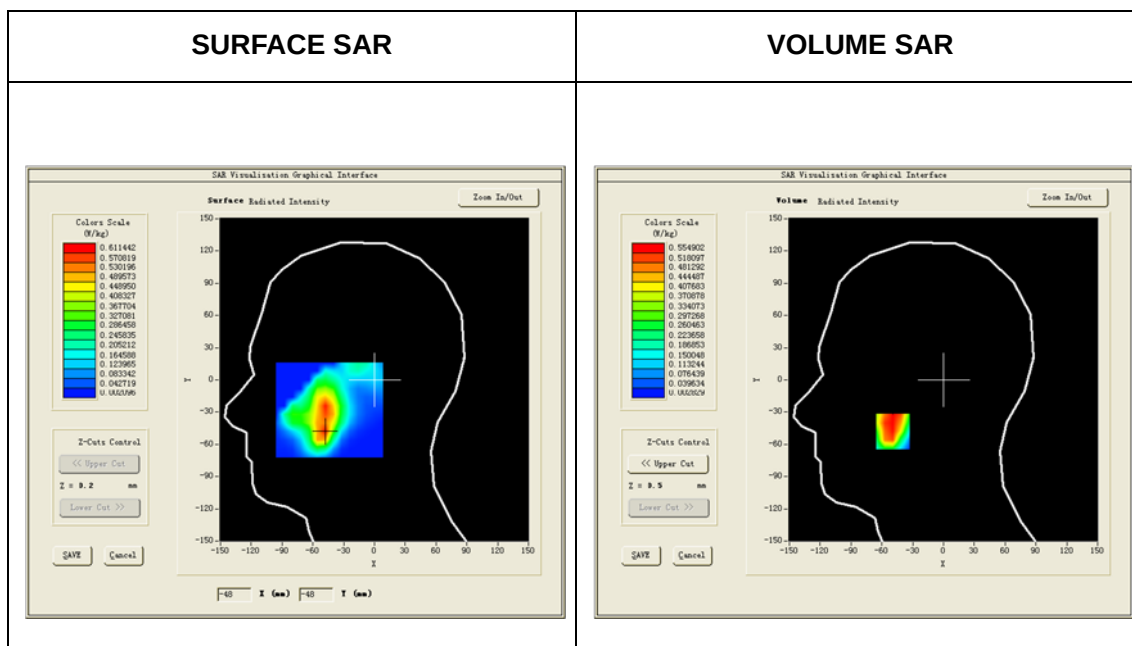
Maximum location: X=-49.00, Y=-35.00

SAR Peak:1.09 W/kg

SAR 10g (W/Kg)	0.50394
SAR 1g (W/Kg)	0.93158

GSM1900 GMSK(1 Tx slot) Left Cheek Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.408000
Conductivity (S/m)	1.400391
Variation (%)	0.260000



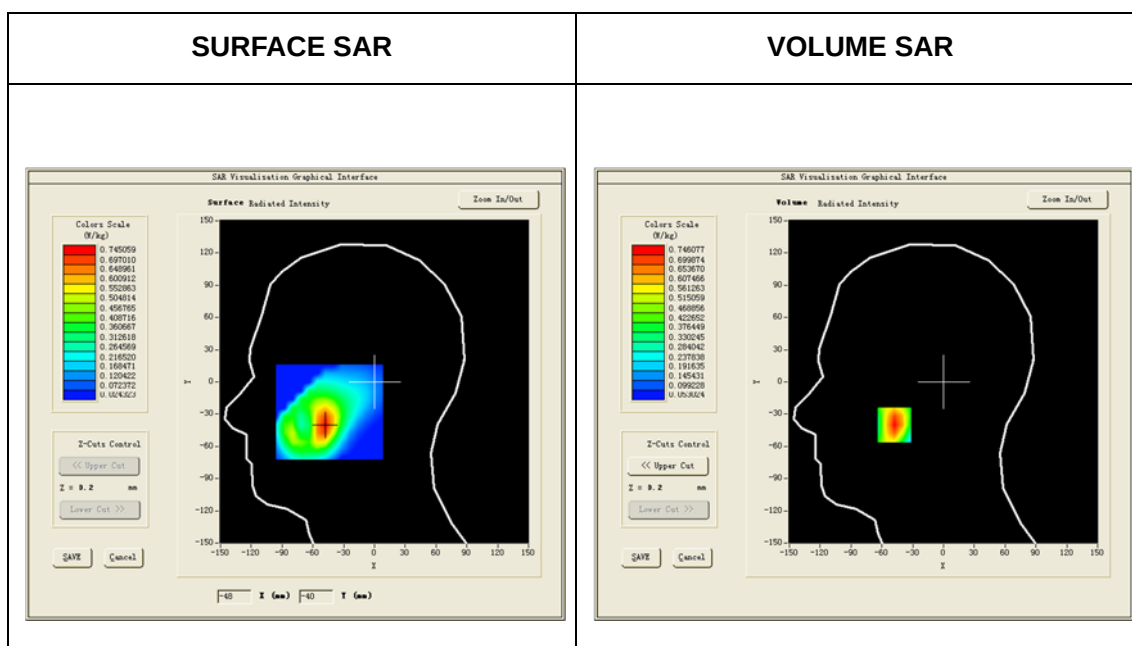
Maximum location: X=-49.00, Y=-48.00

SAR Peak: 0.766 W/kg

SAR 10g (W/Kg)	0.532488
SAR 1g (W/Kg)	0.766395

WCDMA Band V 12.2 kbps RMC Left Cheek Channel4233:

Frequency (MHz)	846.600000
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901022
Variation (%)	-0.130000



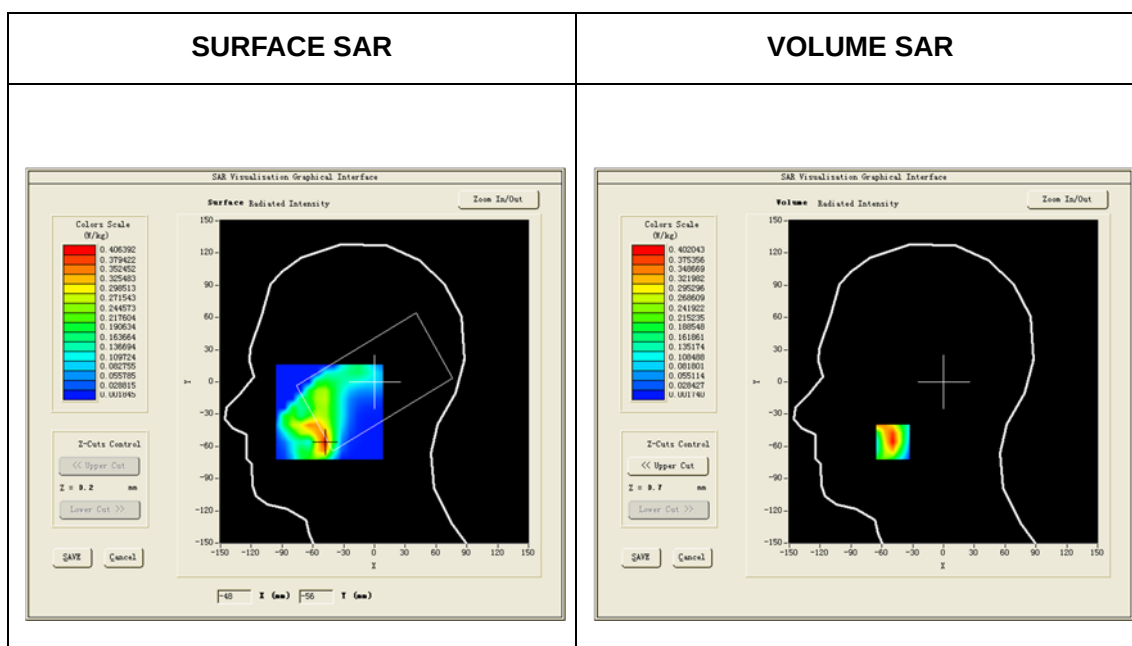
Maximum location: X=-48.00, Y=-40.00

SAR Peak: 1.13 W/kg

SAR 10g (W/Kg)	0.664610
SAR 1g (W/Kg)	0.937018

WCDMA Band II 12.2 kbps RMC Right Cheek Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-1.910000



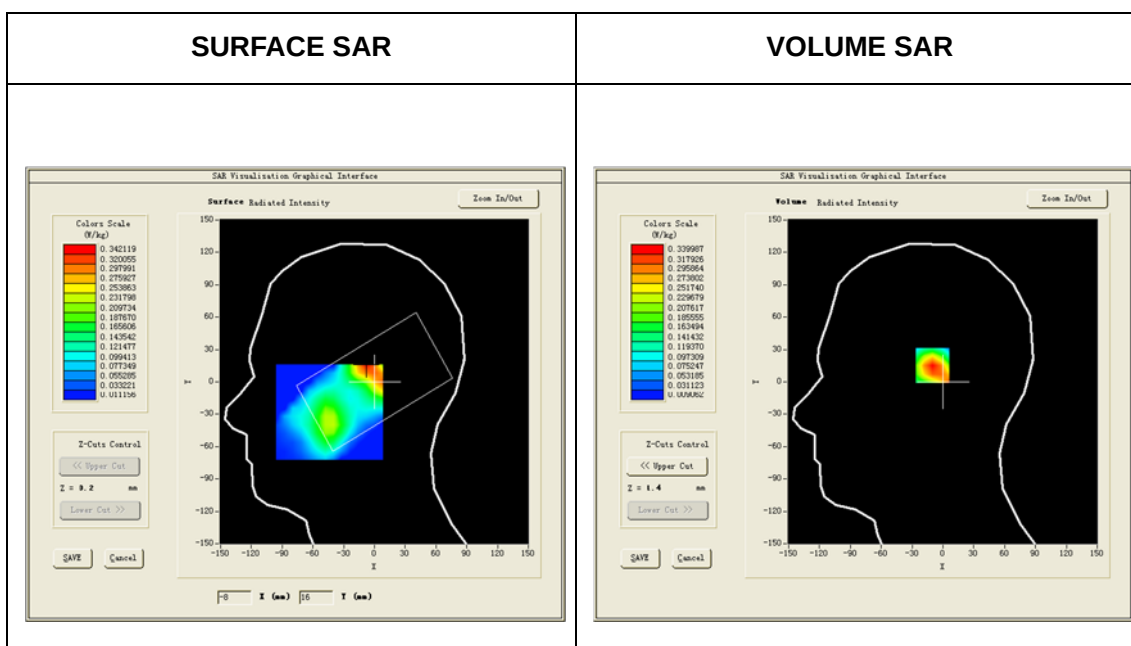
Maximum location: X=-49.00, Y=-56.00

SAR Peak: 1.50 W/kg

SAR 10g (W/Kg)	1.095982
SAR 1g (W/Kg)	1.124223

WLAN 2.4GHz 802.11b Left Tilted Channel11:

Frequency (MHz)	2462.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-8.00, Y=16.00

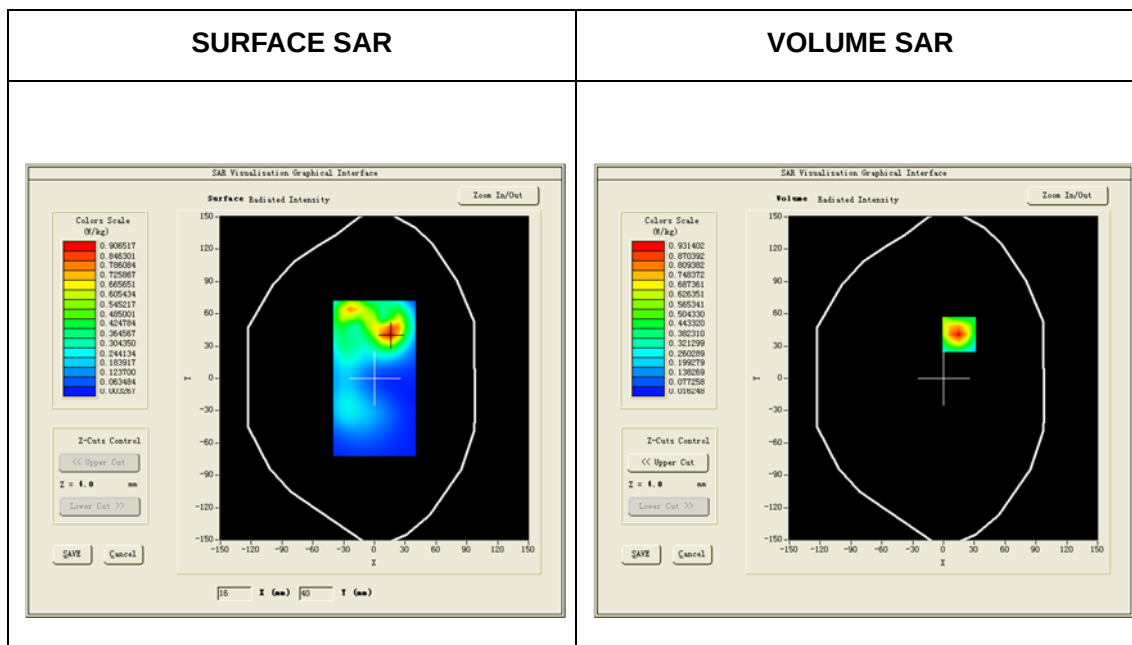
SAR Peak: 1.055 W/kg

SAR 10g (W/Kg)	0.609878
SAR 1g (W/Kg)	0.853151

<Standalone Body Worn>

GSM850 GMSK(1 Tx slot) Face down 1.5cm Channel190:

Frequency (MHz)	836.400024
Relative permittivity (real part)	55.195690
Relative permittivity (imaginary part)	20.911938
Conductivity (S/m)	0.971708
Variation (%)	1.560000



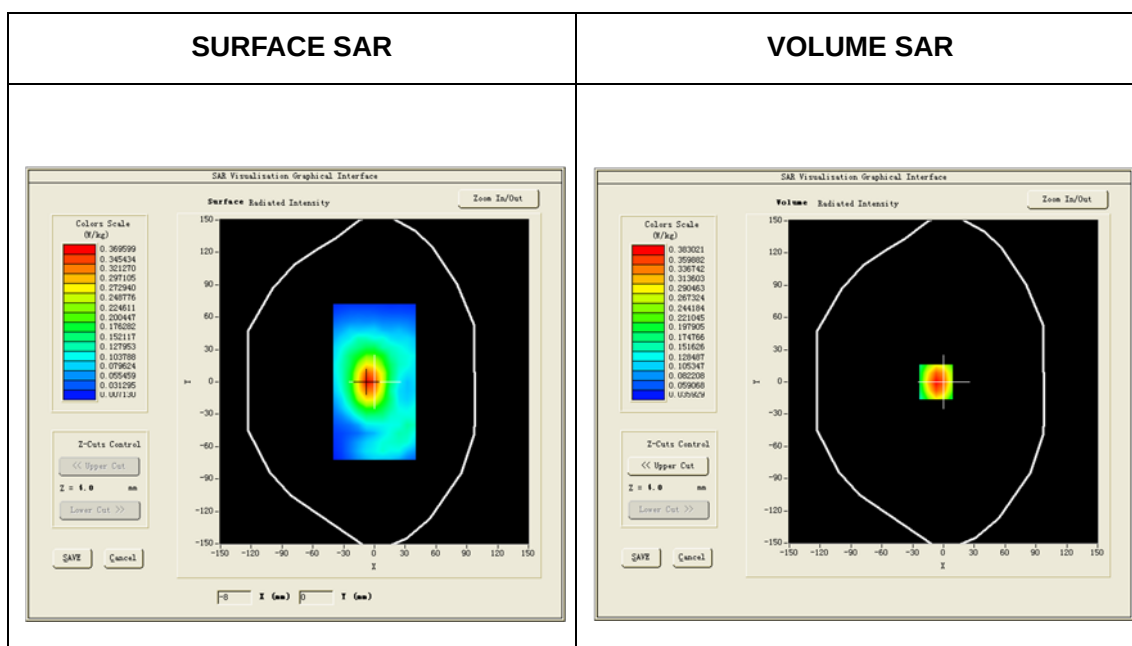
Maximum location: X=15.00, Y=41.00

SAR Peak: 1.54 W/kg

SAR 10g (W/Kg)	0.689475
SAR 1g (W/Kg)	1.079047

GSM1900 GMSK(1 Tx slot) Face down 1.5cm Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-2.210000



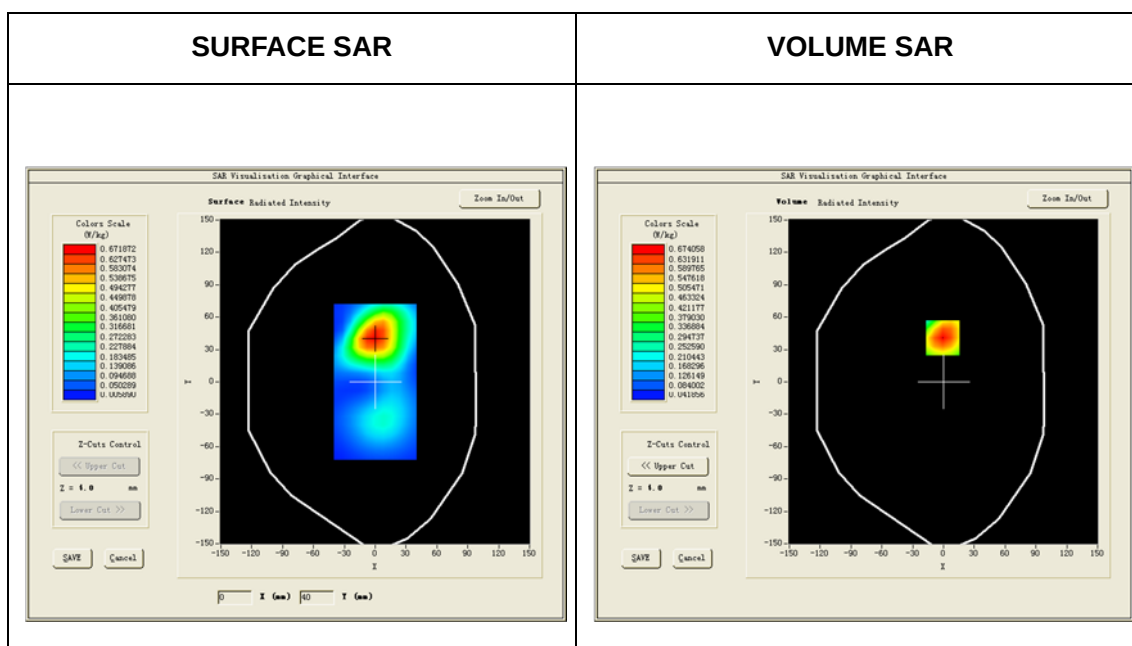
Maximum location: X=-7.00, Y=0.00

SAR Peak: 0.57 W/kg

SAR 10g (W/Kg)	0.238582
SAR 1g (W/Kg)	0.326167

WCDMA Band V 12.2 kbps RMC Face up 1.5cm Channel4183:

Frequency (MHz)	836.600000
Relative permittivity (real part)	55.196922
Relative permittivity (imaginary part)	20.911385
Conductivity (S/m)	0.971218
Variation (%)	-0.140000



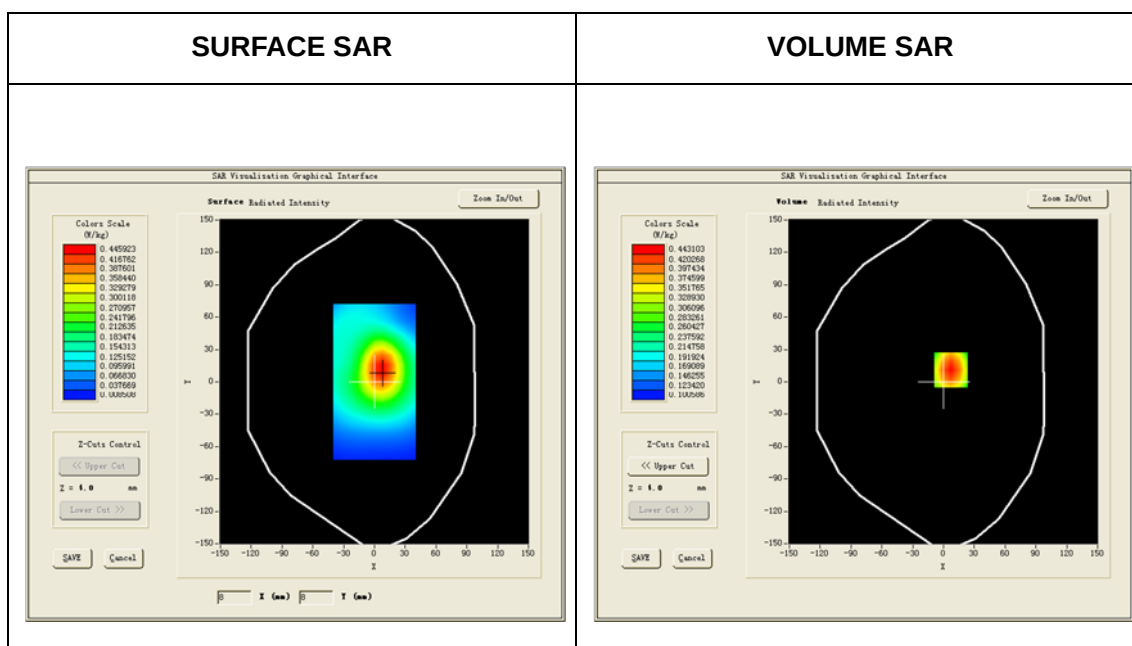
Maximum location: X=-1.00, Y=41.00

SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)	0.499710
SAR 1g (W/Kg)	0.770241

WCDMA Band II 12.2 kbps RMC Face down 1.5cm Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	4.730000



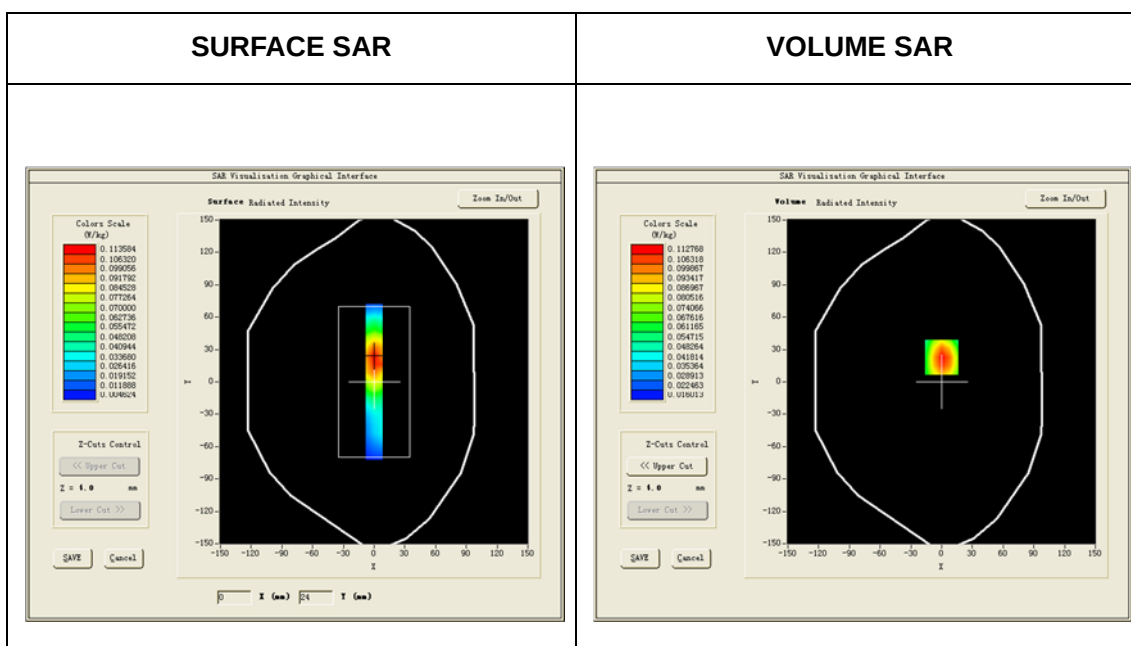
Maximum location: X=7.00, Y=11.00

SAR Peak: 0.53 W/kg

SAR 10g (W/Kg)	0.309315
SAR 1g (W/Kg)	0.432137

WLAN 2.4GHz 802.11b Face Down 1.5cm Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	52.717335
Relative permittivity (imaginary part)	14.311222
Conductivity (S/m)	1.937580
Variation (%)	-0.220000



Maximum location: X=0.00, Y=24.00

SAR Peak: 0.13 W/kg

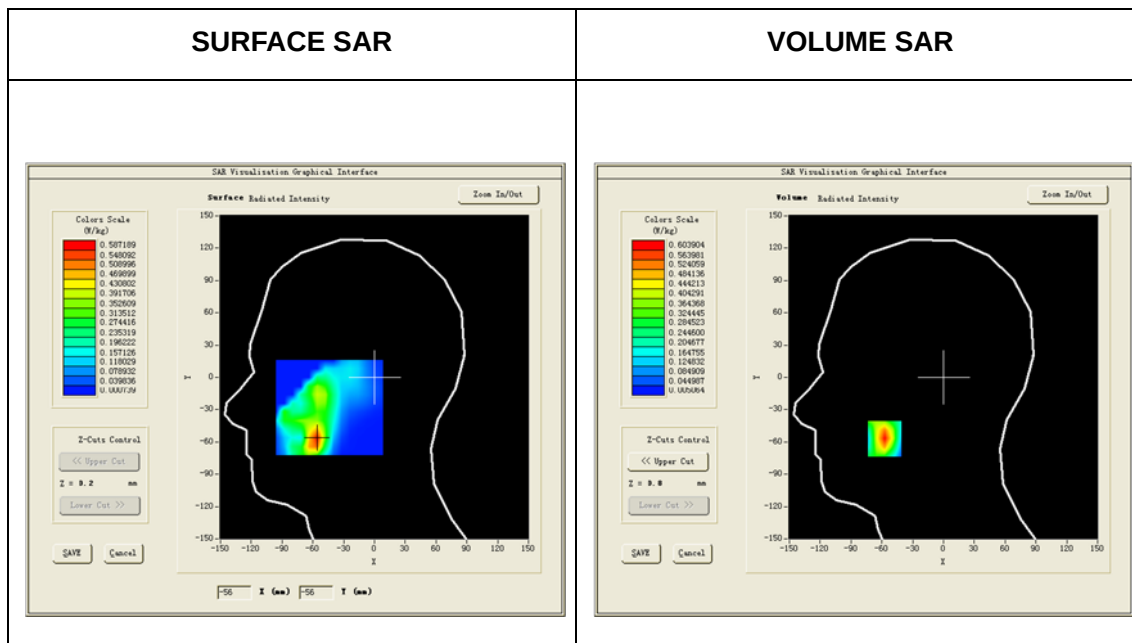
SAR 10g (W/Kg)	0.045433
SAR 1g (W/Kg)	0.073117

The result of testing for Model A1387

<Standalone Head>

CDMA2000 1xRTT – CDMA1900 PCS Band Left Cheek (Channel 1175):

Frequency (MHz)	1908.75000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.389870
Conductivity (S/m)	1.400320
Variation (%)	-0.830000



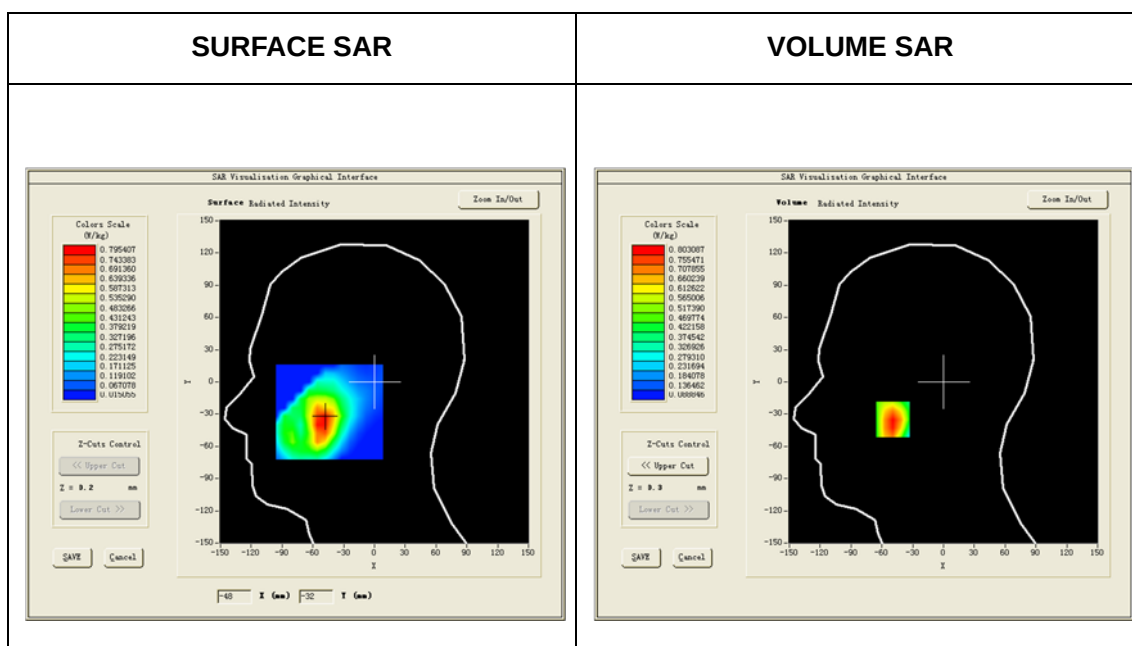
Maximum location: X=-57.00, Y=-57.00

SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.683313
SAR 1g (W/Kg)	1.143075

GSM850 GMSK(1 Tx slot) Left Cheek Channel190:

Frequency (MHz)	836.600024
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901453
Variation (%)	-1.630000



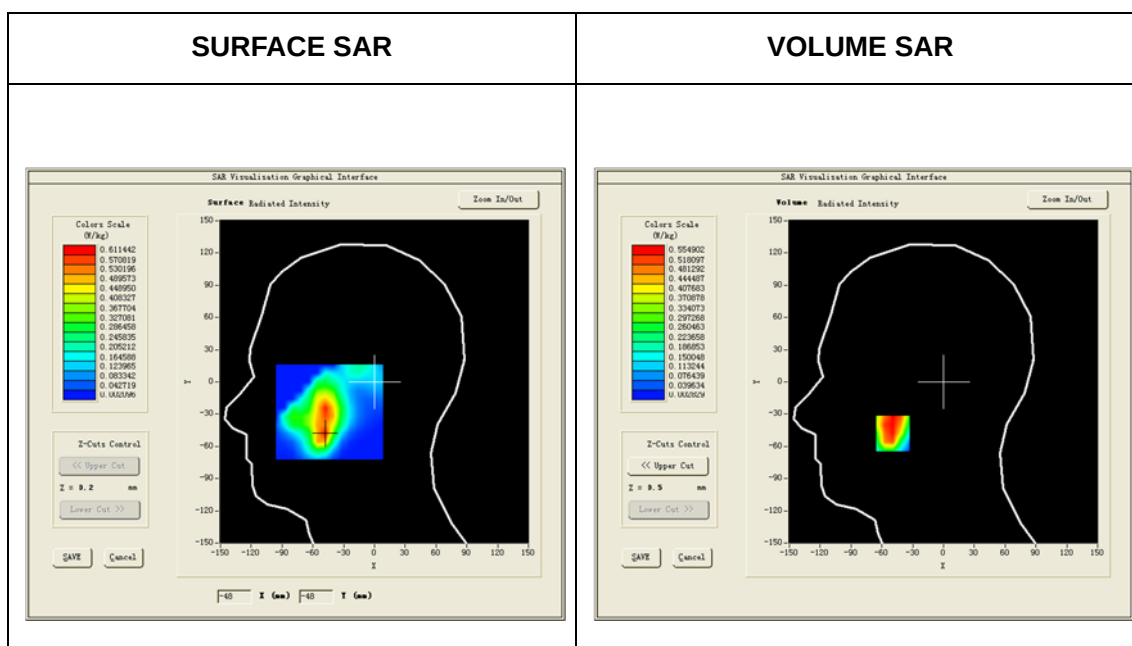
Maximum location: X=-49.00, Y=-35.00

SAR Peak: 1.14 W/kg

SAR 10g (W/Kg)	0.771200
SAR 1g (W/Kg)	1.005090

GSM1900 GMSK(1 Tx slot) Left Cheek Channel810:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.408000
Conductivity (S/m)	1.400391
Variation (%)	0.260000



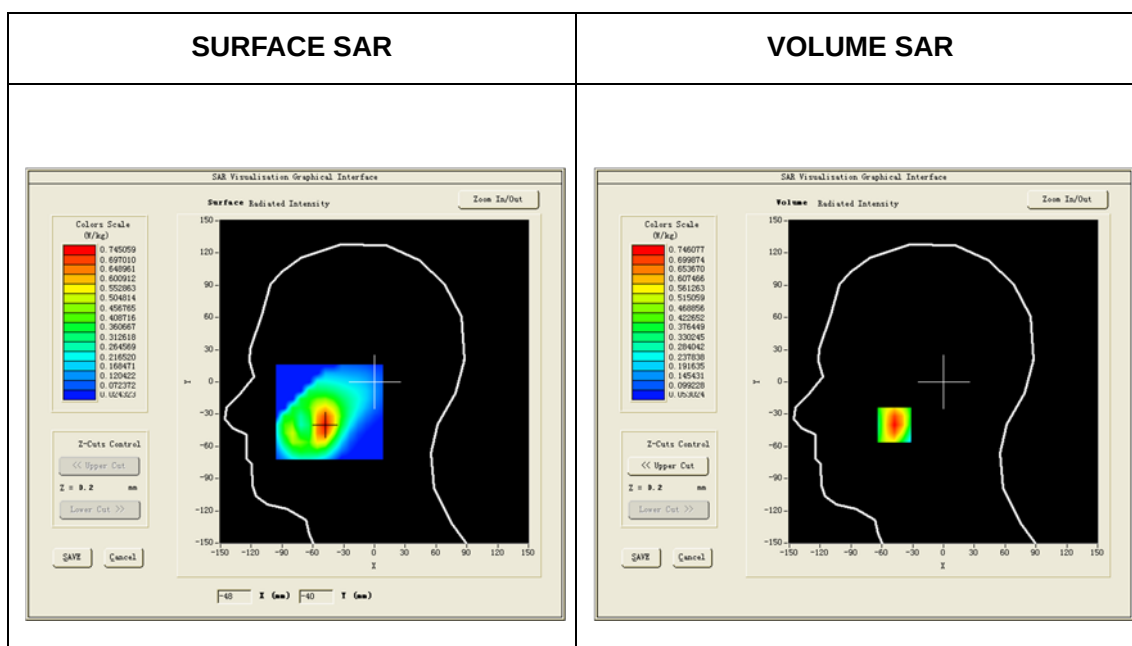
Maximum location: X=-49.00, Y=-48.00

SAR Peak: 1.3 W/kg

SAR 10g (W/Kg)	0.812488
SAR 1g (W/Kg)	1.040395

WCDMA Band V 12.2 kbps RMC Left Cheek Channel4183:

Frequency (MHz)	836.600000
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901022
Variation (%)	-0.130000



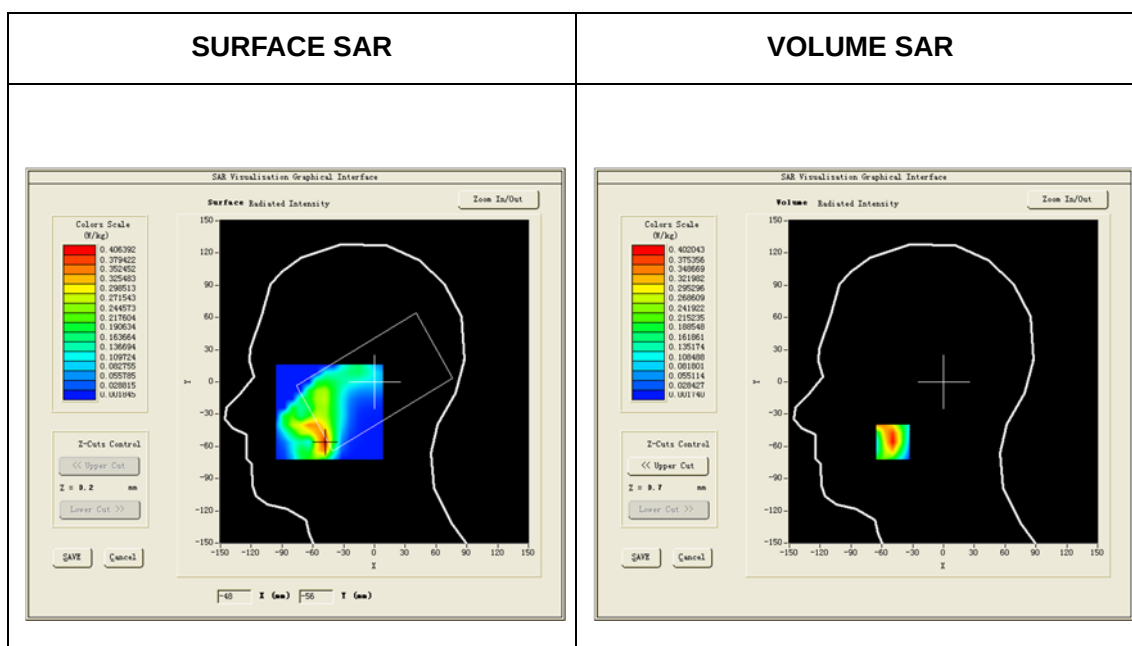
Maximum location: X=-48.00, Y=-40.00

SAR Peak: 1.38 W/kg

SAR 10g (W/Kg)	0.934610
SAR 1g (W/Kg)	1.150418

WCDMA Band II 12.2 kbps RMC Right Cheek Channel9538:

Frequency (MHz)	1907.600000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-1.910000



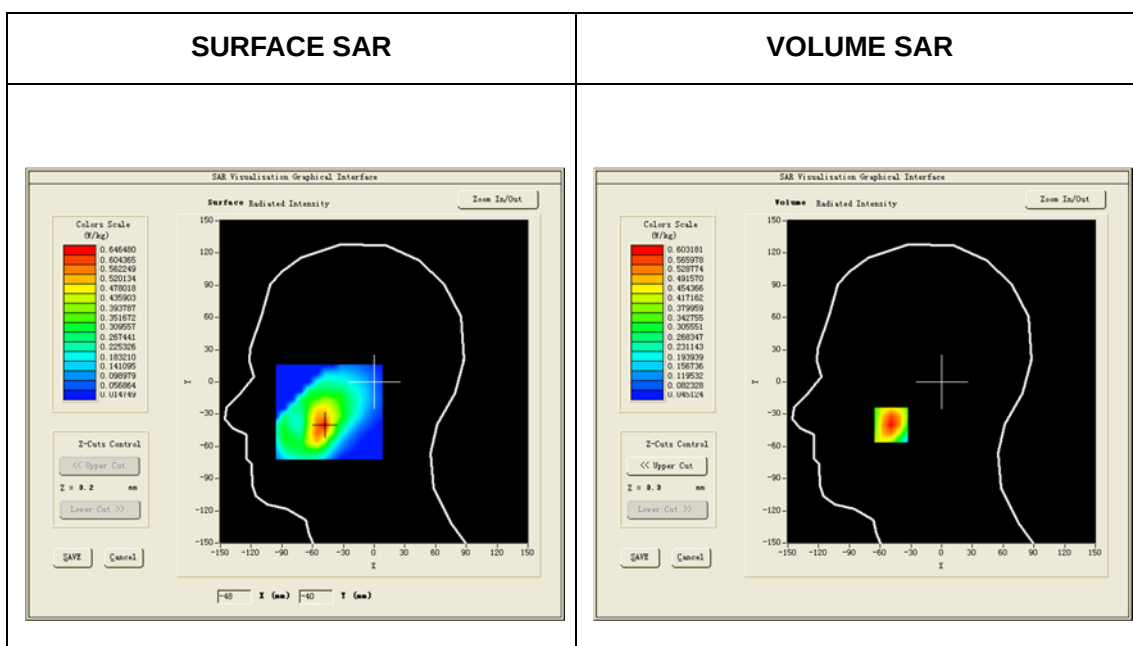
Maximum location: X=-49.00, Y=-56.00

SAR Peak: 1.40W/kg

SAR 10g (W/Kg)	1.015982
SAR 1g (W/Kg)	1.191323

WLAN 2.4GHz 802.11b Left Cheek Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	52.717335
Relative permittivity (imaginary part)	14.311222
Conductivity (S/m)	1.937580
Variation (%)	-0.220000



Maximum location: X=-49.00, Y=-40.00

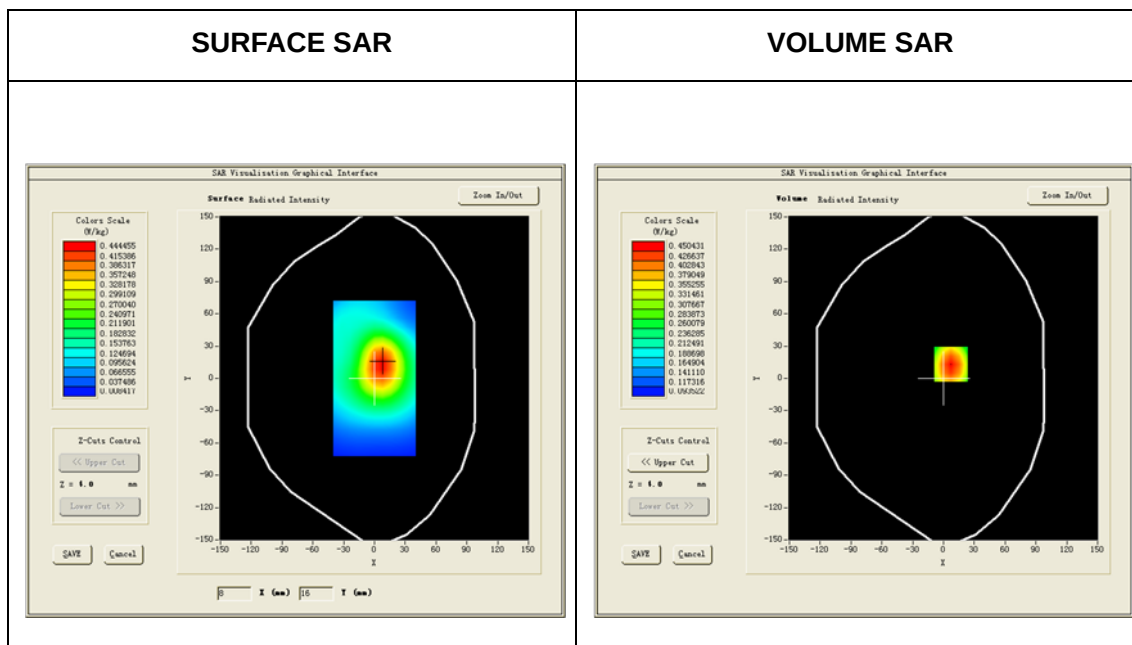
SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.246245
SAR 1g (W/Kg)	0.402347

<Standalone Body Worn>

CDMA2000 1xRTT – CDMA Cell Band Back Side 1cm Channel 1013:

Frequency (MHz)	824.470022
Relative permittivity (real part)	41.507248
Relative permittivity (imaginary part)	19.435511
Conductivity (S/m)	0.899929
Variation (%)	-0.690000



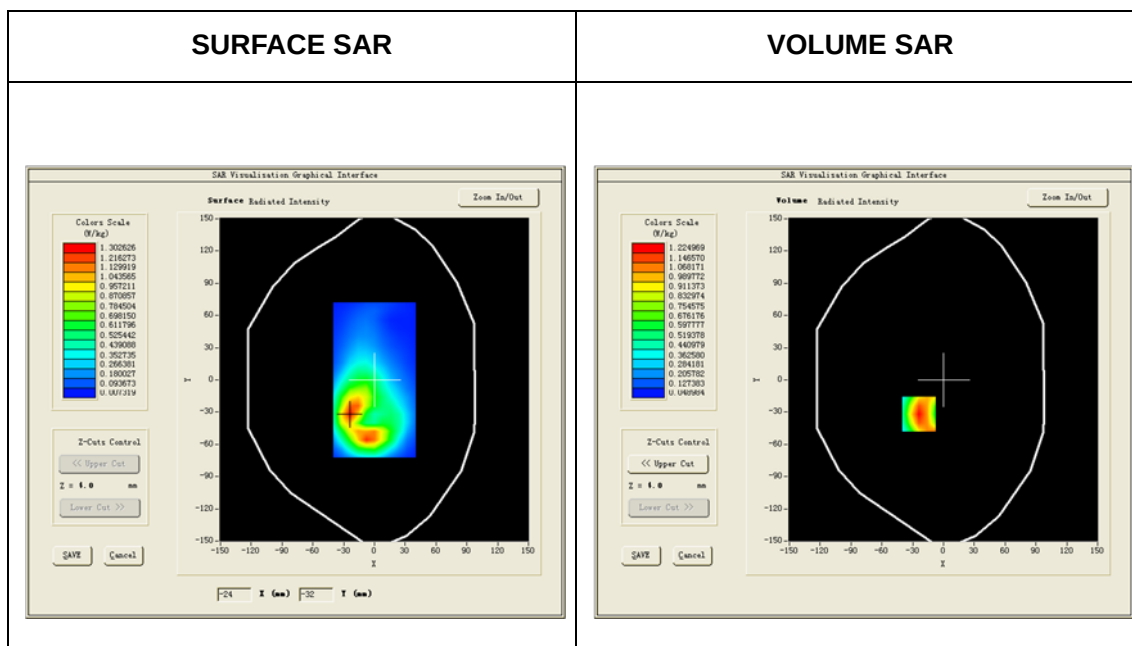
Maximum location: X=7.00, Y=13.00

SAR Peak: 1.45 W/kg

SAR 10g (W/Kg)	1.110550
SAR 1g (W/Kg)	1.311085

GPRS850 GMSK(2 Tx slots) Front Side 1cm Channel251:

Frequency (MHz)	848.80000
Relative permittivity (real part)	55.195690
Relative permittivity (imaginary part)	20.911938
Conductivity (S/m)	0.971708
Variation (%)	0.090000



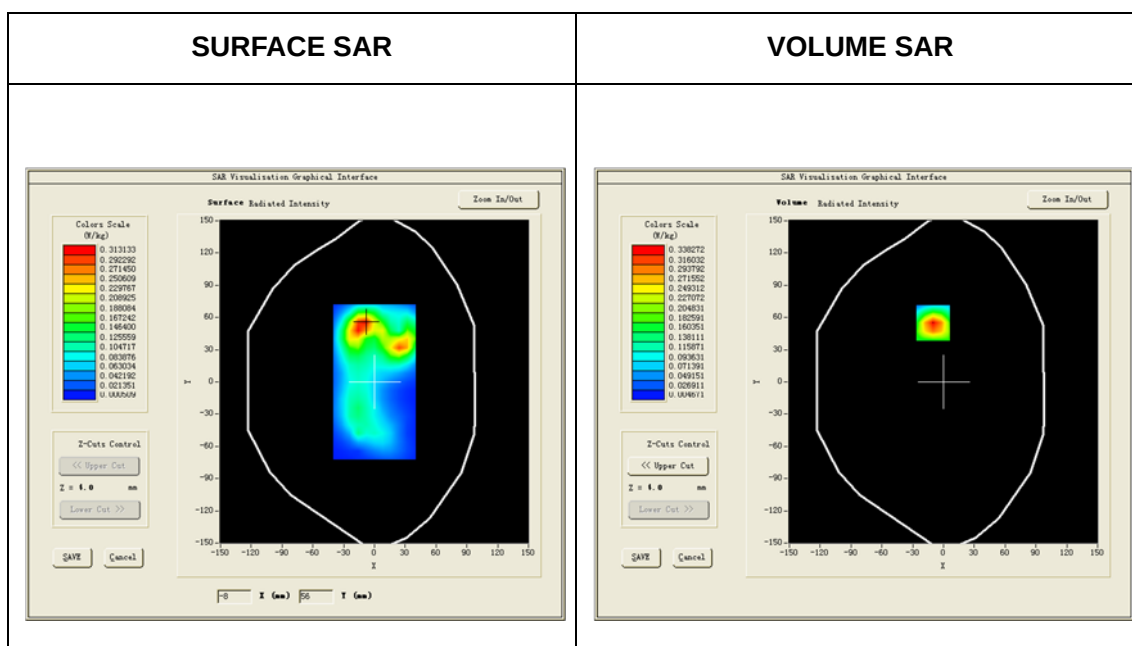
Maximum location: X=-24.00, Y=-32.00

SAR Peak: 1.78 W/kg

SAR 10g (W/Kg)	0.622768
SAR 1g (W/Kg)	1.130250

GPRS1900 GMSK(2 Tx slots) Front Side 1cm Channel512:

Frequency (MHz)	1850.200000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	0.770000



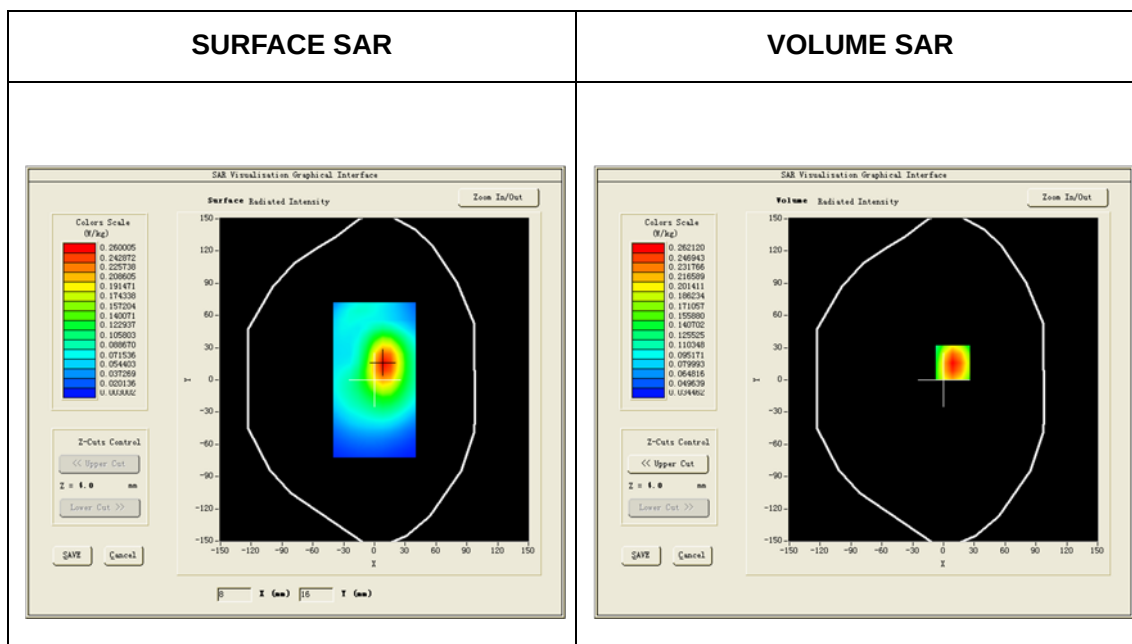
Maximum location: X=-10.00, Y=55.00

SAR Peak:1.07 W/kg

SAR 10g (W/Kg)	0.680957
SAR 1g (W/Kg)	0.982430

WCDMA Band V 12.2 kbps RMC Front Side Channel4132:

Frequency (MHz)	826.400000
Relative permittivity (real part)	55.196922
Relative permittivity (imaginary part)	20.911385
Conductivity (S/m)	0.971218
Variation (%)	-0.490000



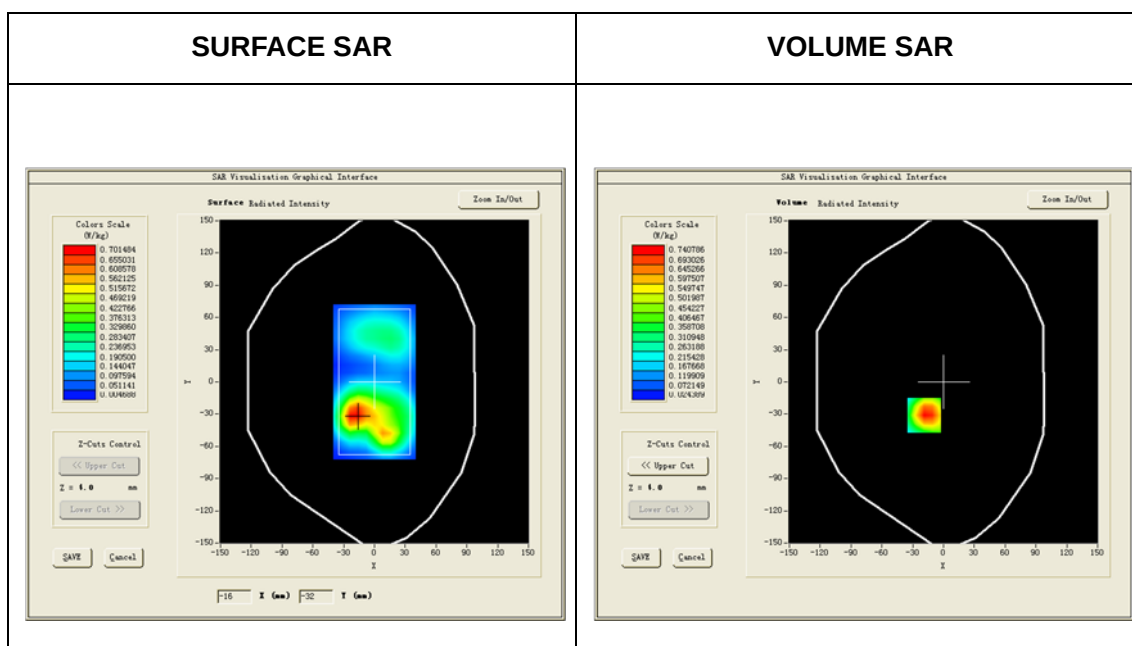
Maximum location: X=9.00, Y=16.00

SAR Peak: 1.26 W/kg

SAR 10g (W/Kg)	0.980496
SAR 1g (W/Kg)	1.021301

WCDMA Band II 12.2 kbps RMC Front Side Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	0.480000



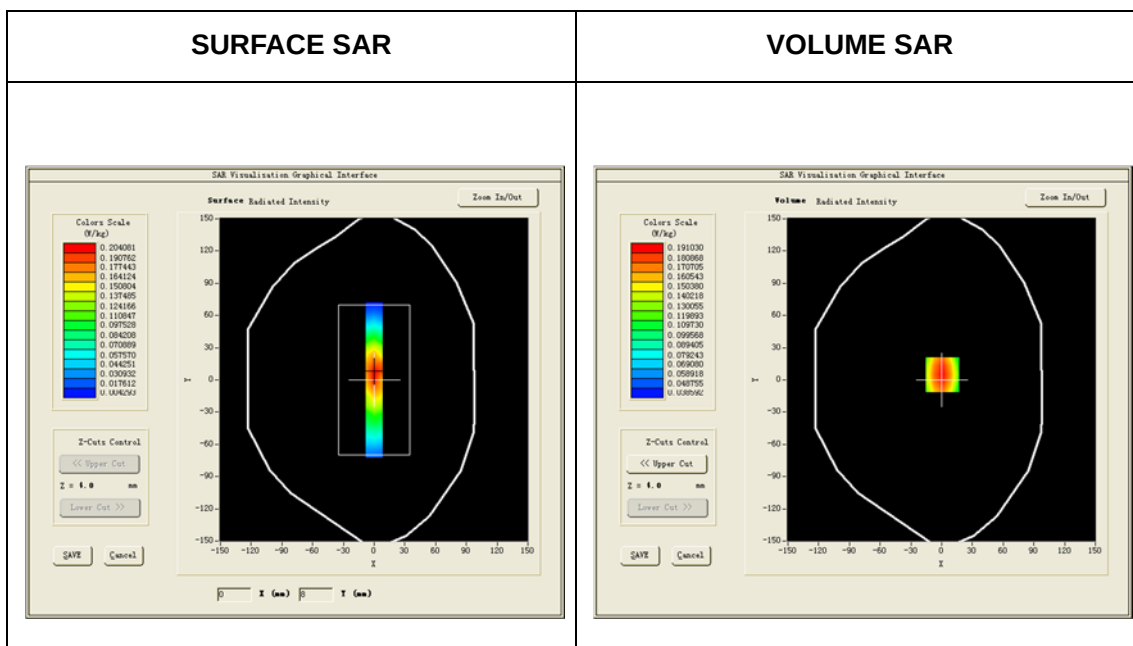
Maximum location: X=-19.00, Y=-31.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.385043
SAR 1g (W/Kg)	0.608009

WLAN 2.4GHz 802.11b Back Side Channel6:

Frequency (MHz)	2437.600000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=1.00, Y=5.00

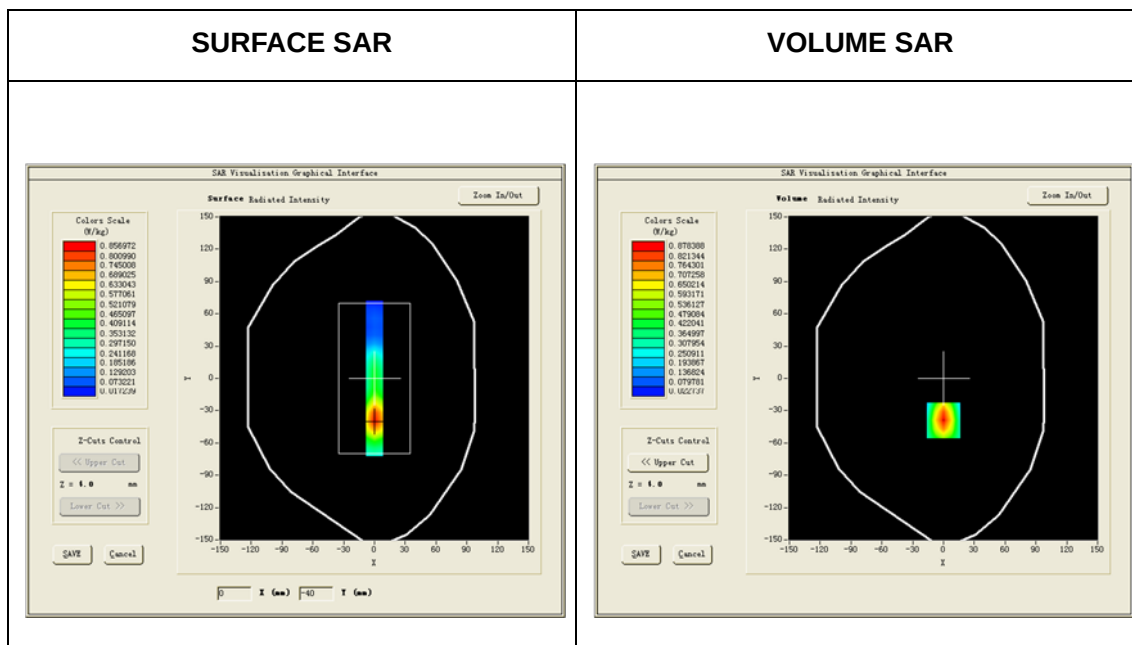
SAR Peak: 0.33 W/kg

SAR 10g (W/Kg)	0.134978
SAR 1g (W/Kg)	0.183445

<Standalone Hotspot>

CDMA2000 1xEVDO-Cell Band Front Side 1cm Channel384

Frequency (MHz)	836.520000
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901022
Variation (%)	-0.130000



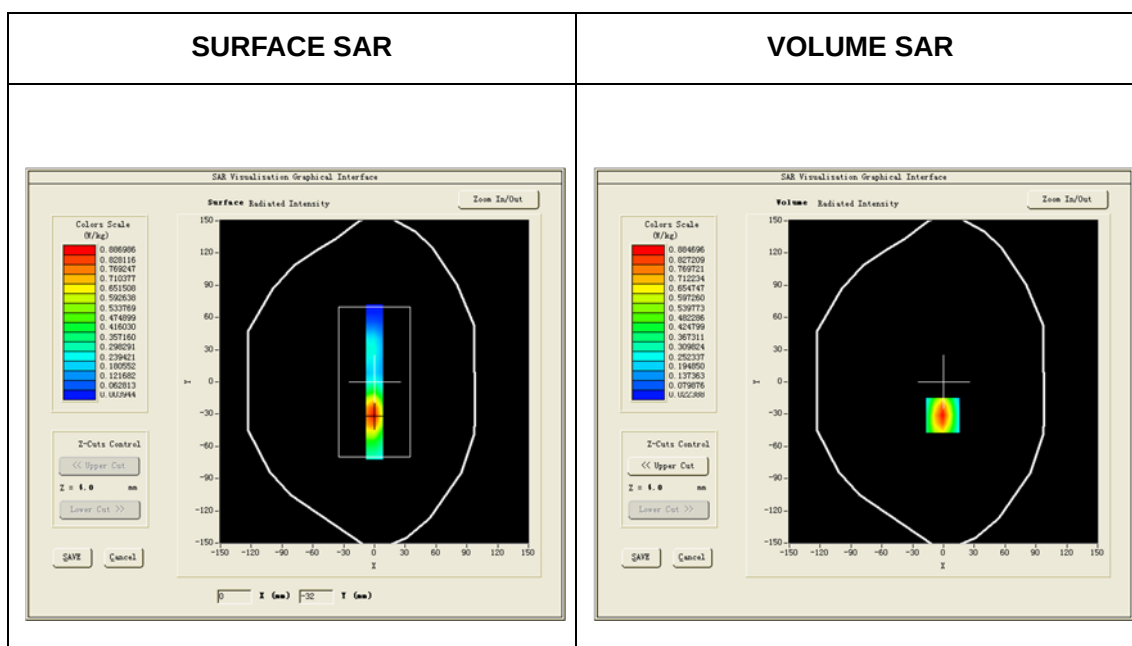
Maximum location: X=0.00, Y=-40.00

SAR Peak: 1.46 W/kg

SAR 10g (W/Kg)	0.631584
SAR 1g (W/Kg)	1.170084

GPRS850 GMSK(2 Tx slots) Front Side 1cm Channel251:

Frequency (MHz)	848.799976
Relative permittivity (real part)	54.177731
Relative permittivity (imaginary part)	21.468678
Conductivity (S/m)	0.997816
Variation (%)	0.070000



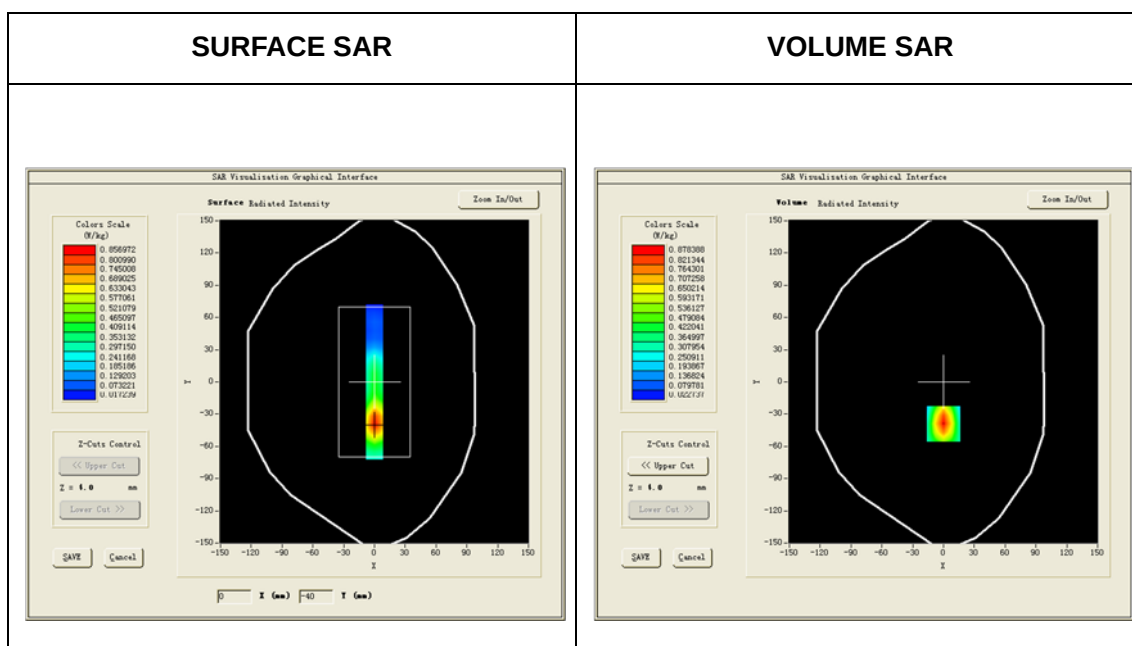
Maximum location: X=-1.00, Y=-29.00

SAR Peak: 1.61 W/kg

SAR 10g (W/Kg)	0.643234
SAR 1g (W/Kg)	1.122338

GPRS1900 GMSK(2 Tx slots) Front Side 1cm Channel512:

Frequency (MHz)	1850.200000
Relative permittivity (real part)	53.300000
Relative permittivity (imaginary part)	14.169600
Conductivity (S/m)	1.520870
Variation (%)	-1.960000



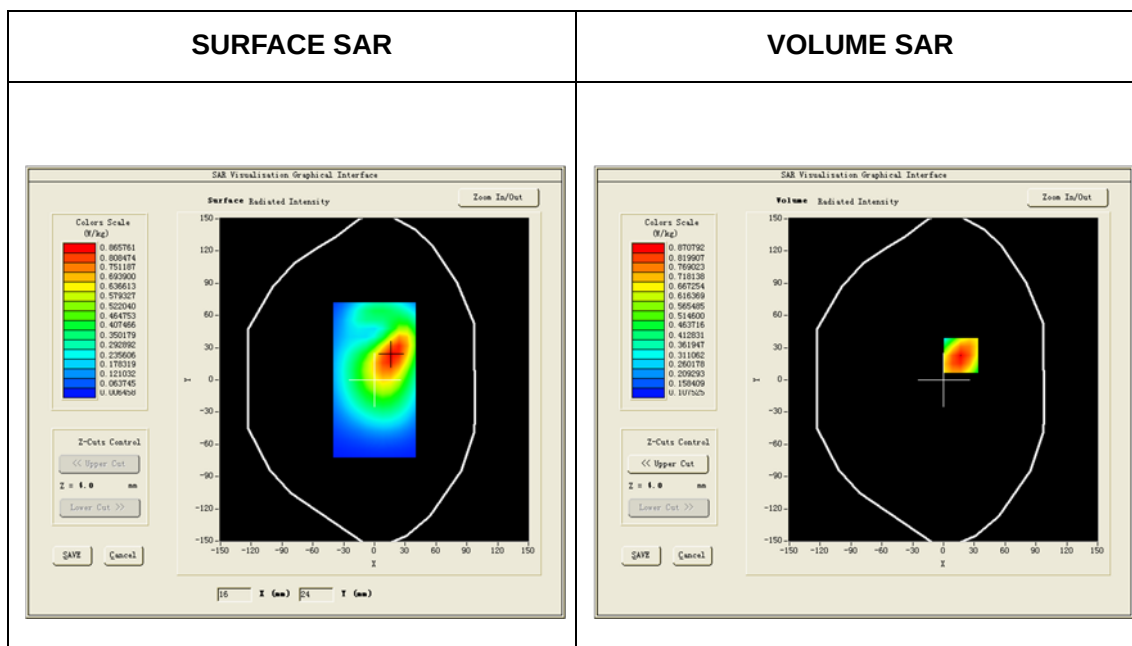
Maximum location: X=0.00, Y=-40.00

SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.451584
SAR 1g (W/Kg)	0.980084

WCDMA Band V 12.2 kbps RMC Front Side 1cm Channel4183:

Frequency (MHz)	836.600022
Relative permittivity (real part)	41.507248
Relative permittivity (imaginary part)	19.435511
Conductivity (S/m)	0.899929
Variation (%)	-0.490000



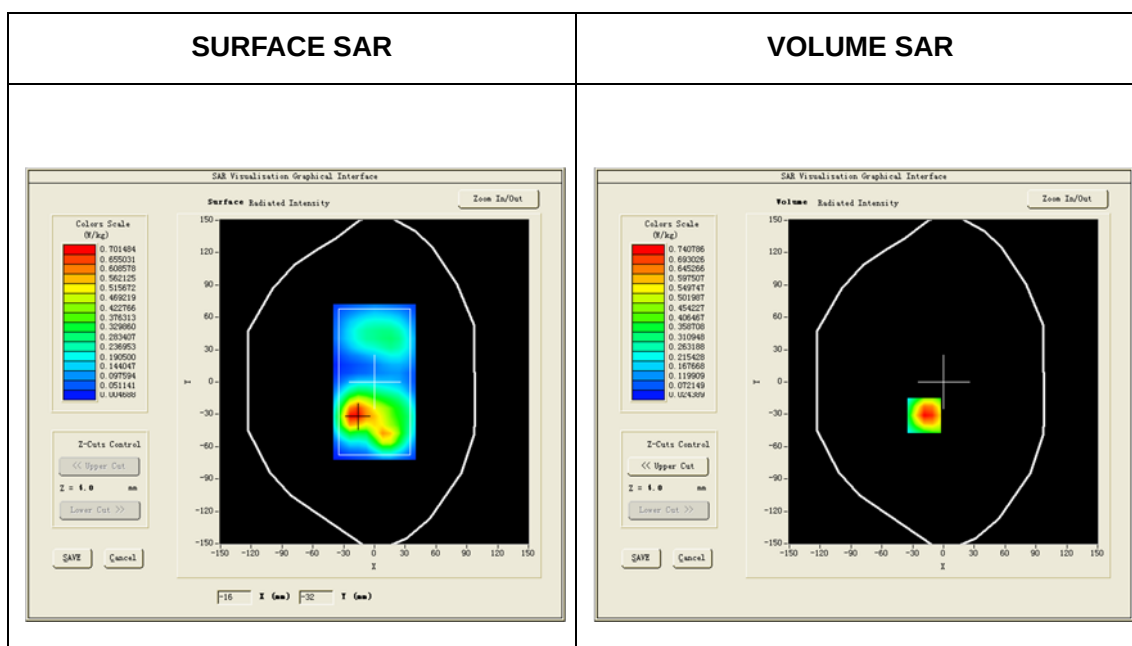
Maximum location: X=17.00, Y=23.00

SAR Peak: 1.08W/kg

SAR 10g (W/Kg)	0.623569
SAR 1g (W/Kg)	0.994151

WCDMA Band II 12.2 kbps RMC Front Side 1cm Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	4.730000



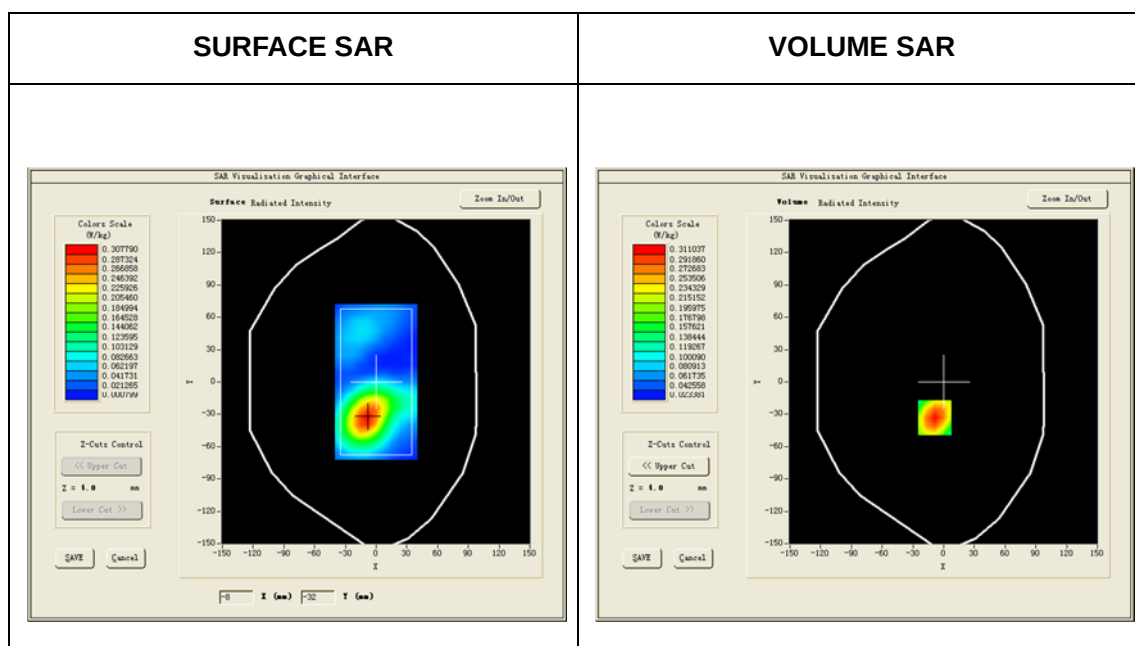
Maximum location: X=-19.00, Y=-31.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.451615
SAR 1g (W/Kg)	0.628121

WLAN 2.4GHz 802.11b Back Side Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-9.00, Y=-33.00

SAR Peak: 0.33 W/kg

SAR 10g (W/Kg)	0.121615
SAR 1g (W/Kg)	0.175216

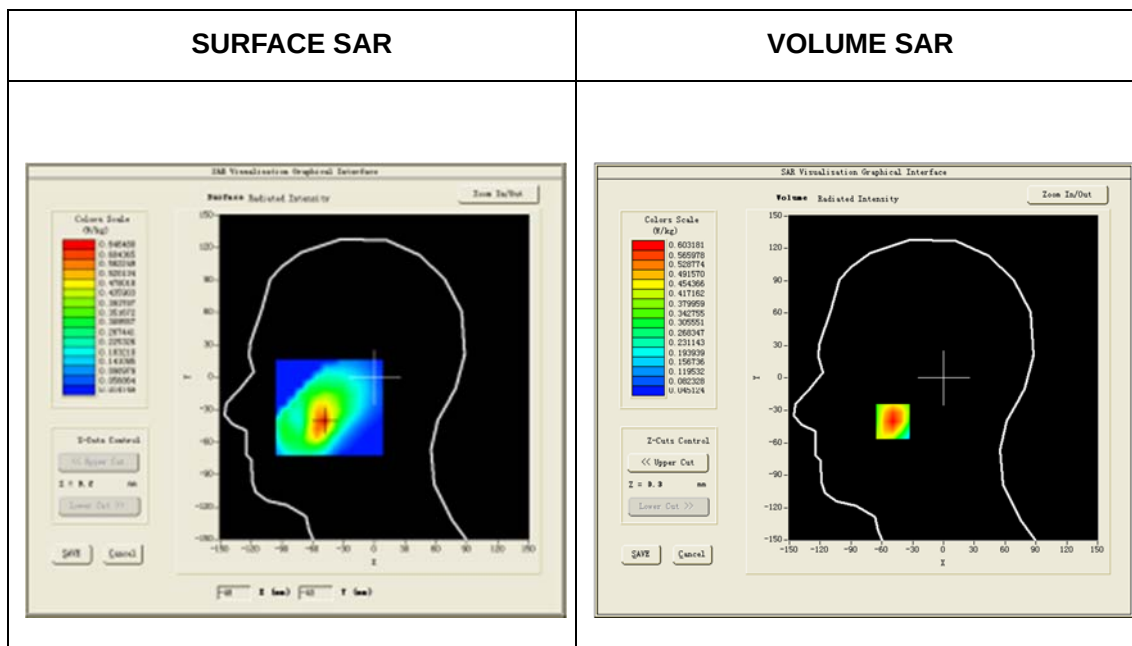
13.5.2 The plots for iphone with BT iphone case

The result of testing with Model A1332

<Standalone Head>

GSM850 GMSK(1 Tx slot) Left Cheek Channel189:

Frequency (MHz)	836.400024
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901453
Variation (%)	2.810000



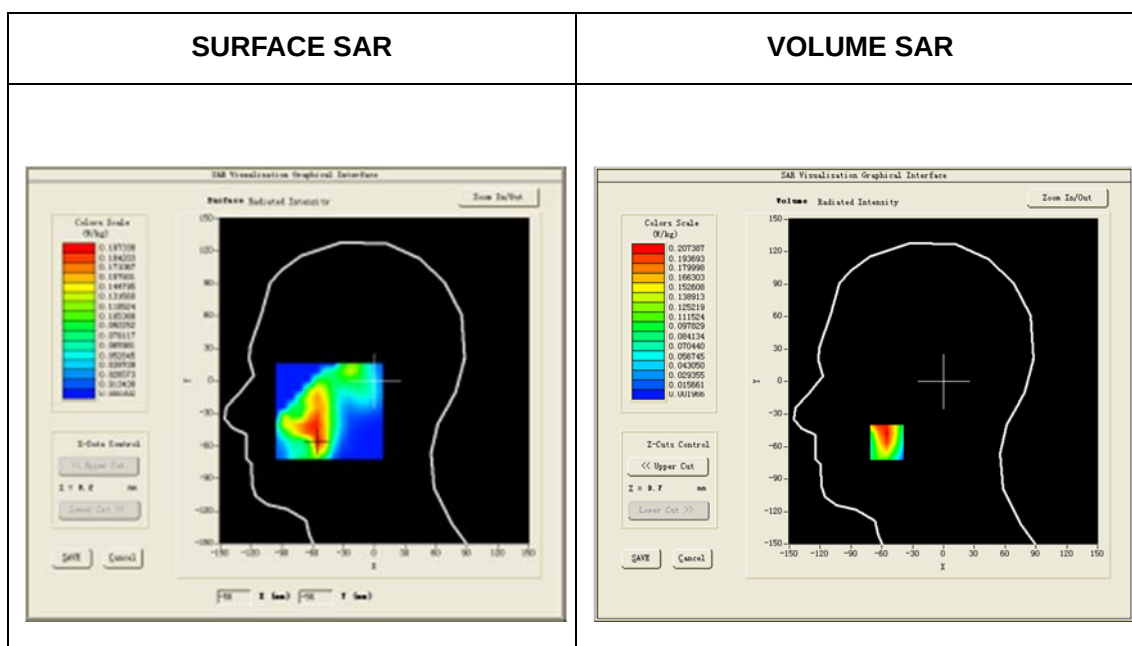
Maximum location: X=-49.00, Y=-40.00

SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)	0.390173
SAR 1g (W/Kg)	0.574162

GSM1900 GMSK(1 Tx slot) Left Cheek Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.408000
Conductivity (S/m)	1.400391
Variation (%)	-2.210000



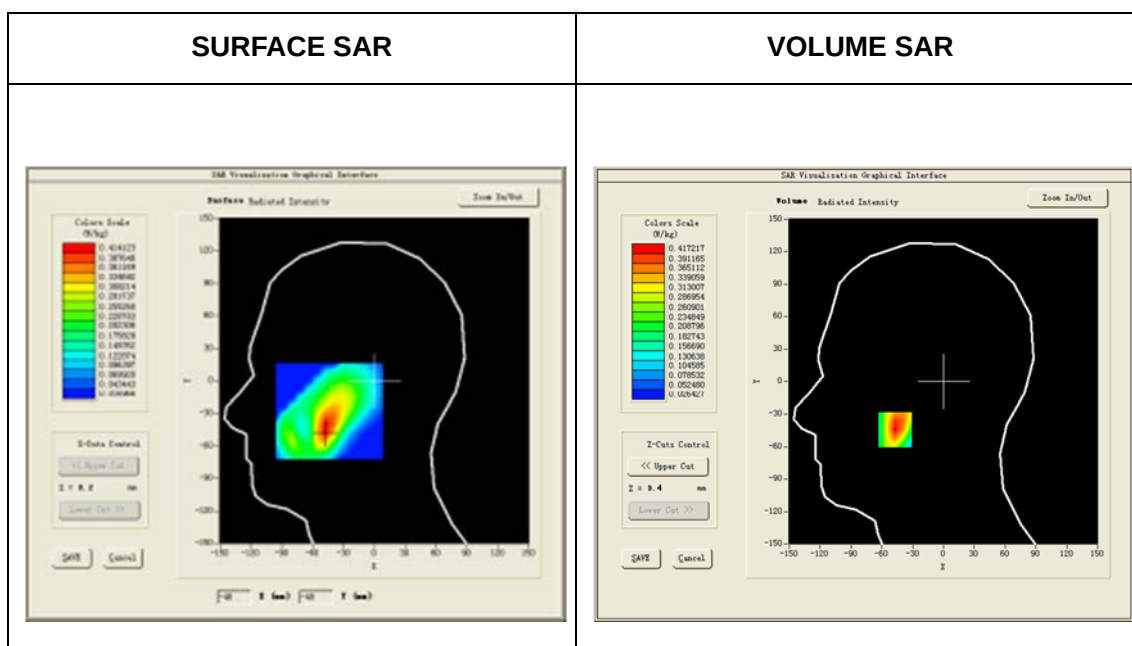
Maximum location: X=-55.00, Y=-56.00

SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.112809
SAR 1g (W/Kg)	0.194075

WCDMA Band V 12.2 kbps RMC Left Cheek Channel4183:

Frequency (MHz)	836.000000
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901022
Variation (%)	-0.660000



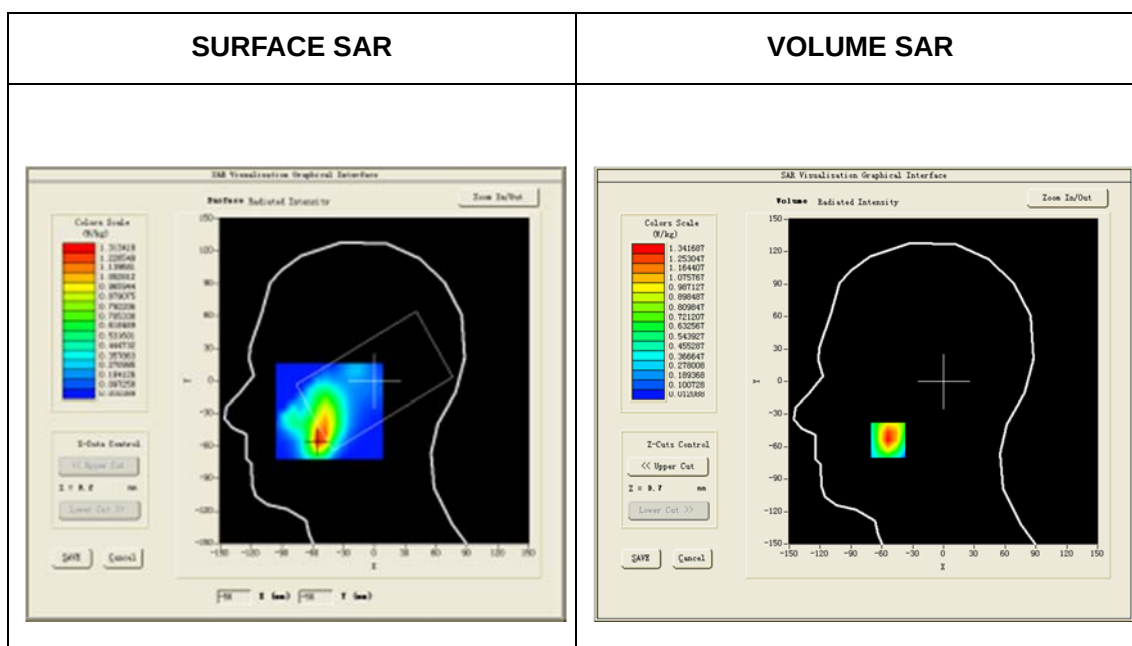
Maximum location: X=-47.00, Y=-44.00

SAR Peak: 0.52 W/kg

SAR 10g (W/Kg)	0.267333
SAR 1g (W/Kg)	0.396106

WCDMA Band II 12.2 kbps RMC Right Cheek Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-0.250000



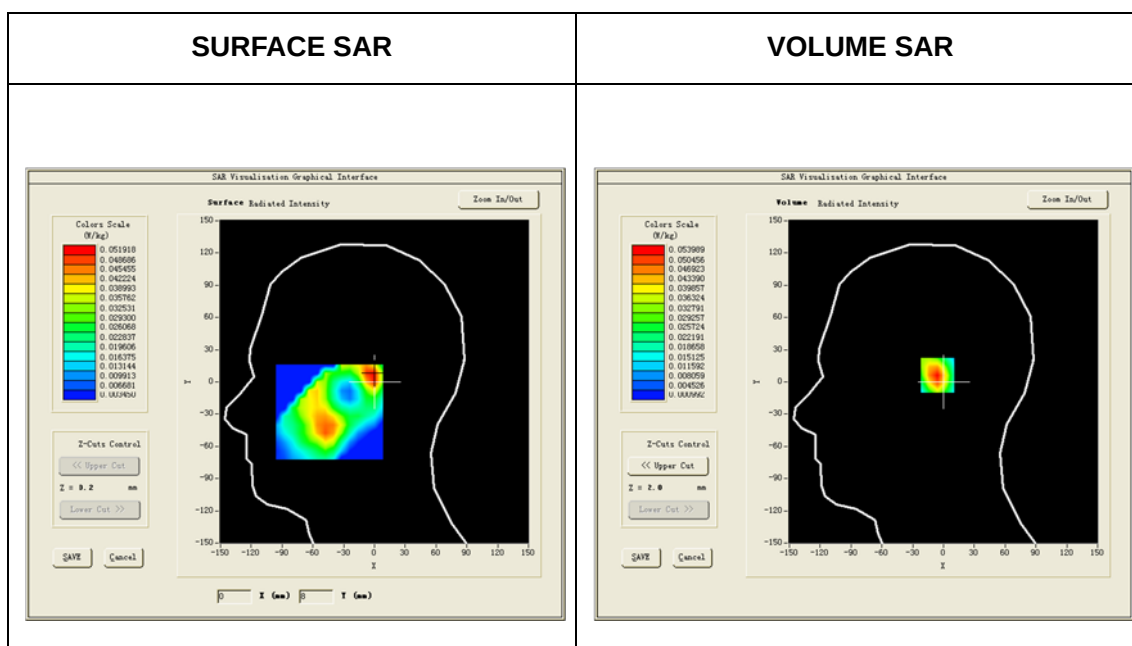
Maximum location: X=-54.00, Y=-54.00

SAR Peak: 2.14 W/kg

SAR 10g (W/Kg)	0.645744
SAR 1g (W/Kg)	1.255820

WLAN 2.4GHz 802.11b Left Tilted Channel11:

Frequency (MHz)	2462.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-2.00, Y=6.00

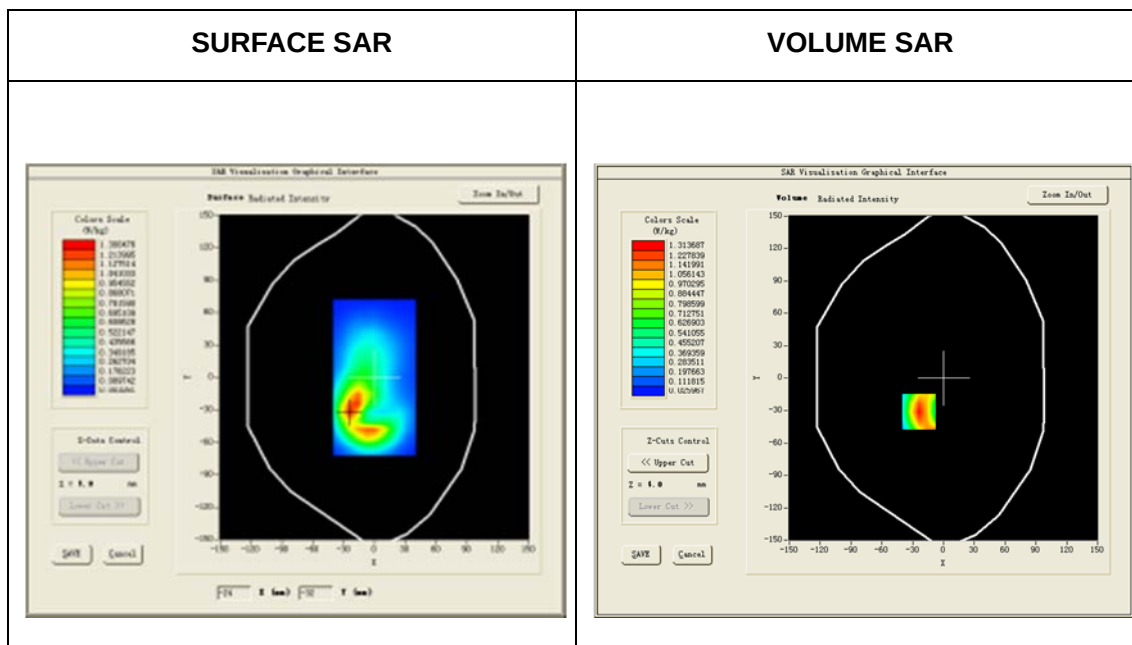
SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.028447
SAR 1g (W/Kg)	0.078227

<Standalone Body Worn>

GSM850 GMSK(1 Tx slot) Front 1cm Channel189:

Frequency (MHz)	836.400024
Relative permittivity (real part)	55.195690
Relative permittivity (imaginary part)	20.911938
Conductivity (S/m)	0.971708
Variation (%)	1.560000



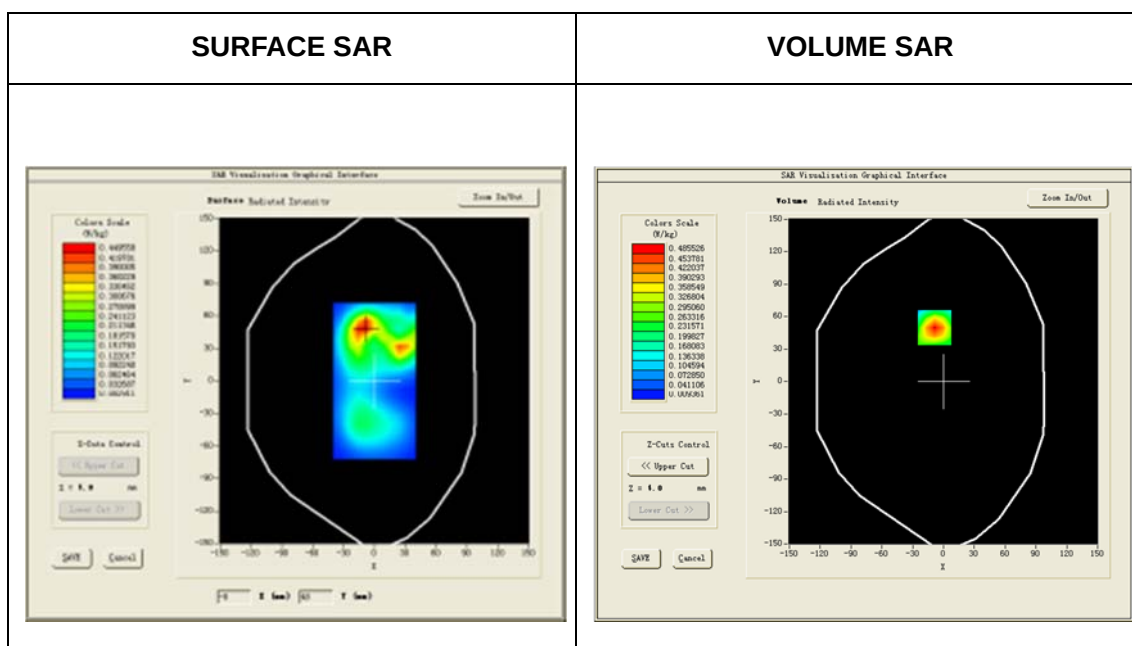
Maximum location: X=-24.00, Y=-31.00

SAR Peak: 2.27 W/kg

SAR 10g (W/Kg)	0.705538
SAR 1g (W/Kg)	1.318639

GSM1900 GMSK(1 Tx slot) FACE 1cm Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-2.210000



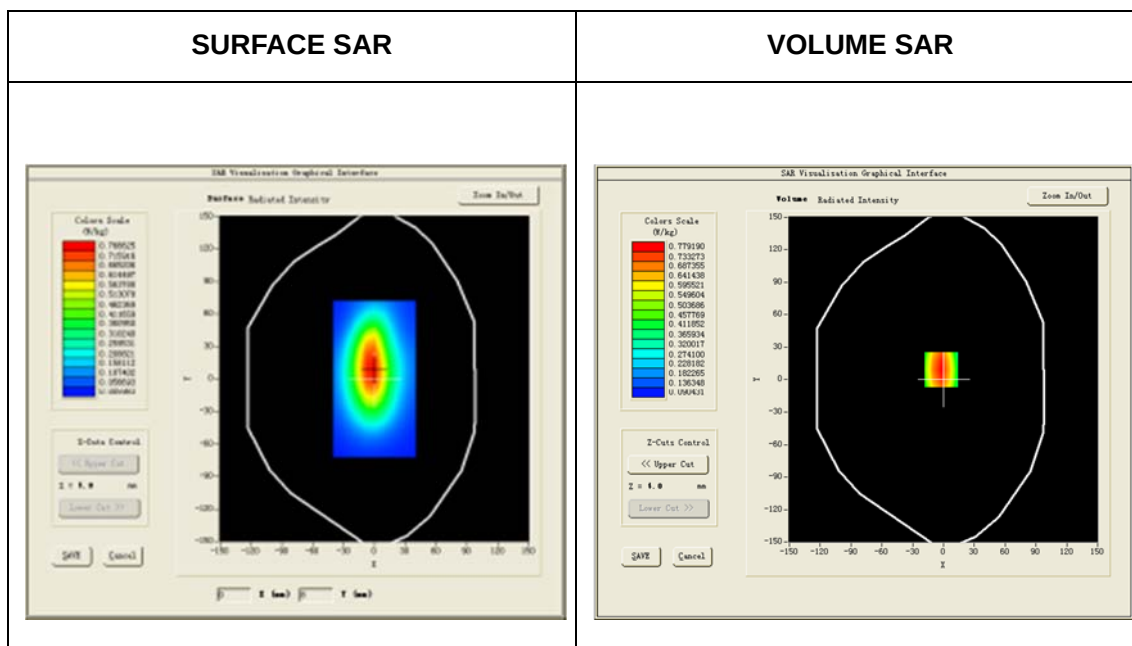
Maximum location: X=-9.00, Y=50.00

SAR Peak: 0.83 W/kg

SAR 10g (W/Kg)	0.258599
SAR 1g (W/Kg)	0.489608

WCDMA Band V 12.2 kbps RMC Left Side 1cm Channel4183:

Frequency (MHz)	880.000000
Relative permittivity (real part)	55.061539
Relative permittivity (imaginary part)	20.972307
Conductivity (S/m)	1.025313
Variation (%)	-0.490000



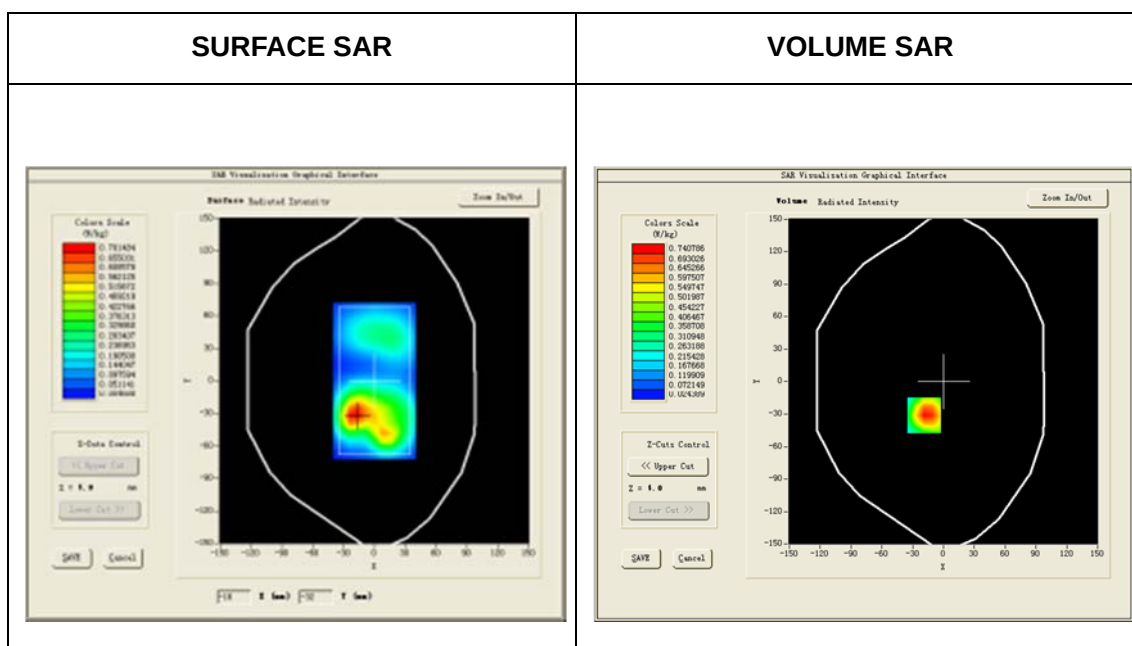
Maximum location: X=-2.00, Y=9.00

SAR Peak: 1.13 W/kg

SAR 10g (W/Kg)	0.522965
SAR 1g (W/Kg)	0.800006

WCDMA Band II 12.2 kbps RMC Front 1cm Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	0.480000



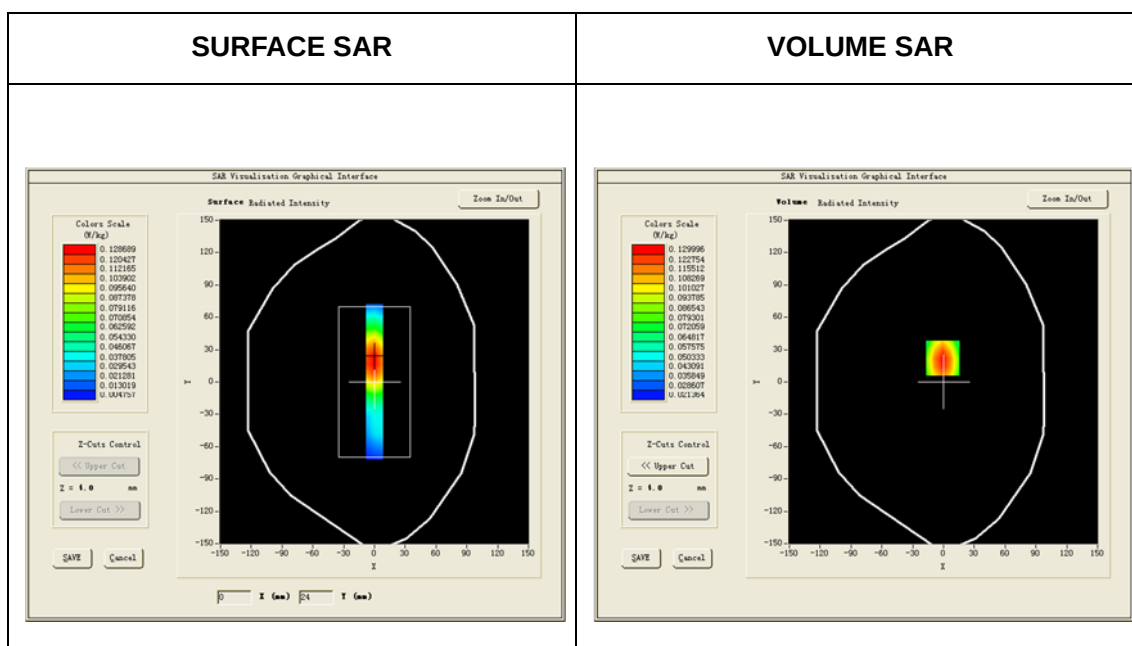
Maximum location: X=-19.00, Y=-31.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.395043
SAR 1g (W/Kg)	0.703709

WLAN 2.4GHz 802.11b Back Side Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-1.00, Y=22.00

SAR Peak: 0.08 W/kg

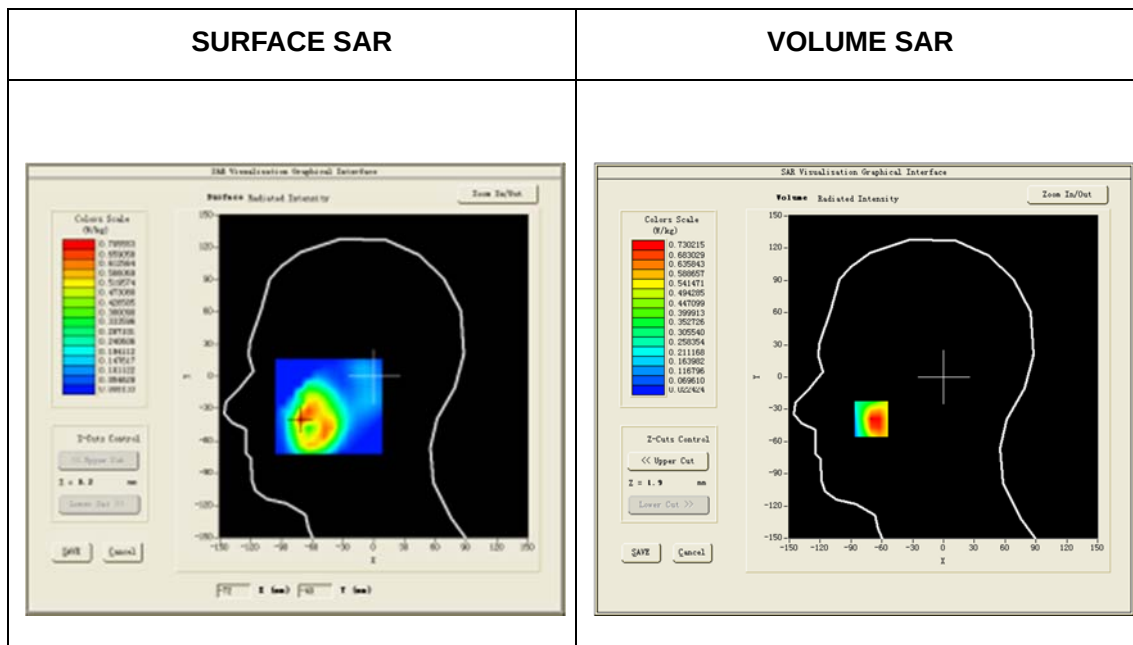
SAR 10g (W/Kg)	0.023861
SAR 1g (W/Kg)	0.071416

The result of testing with Model A1387

<Standalone Head>

CDMA2000 1xRTT – CDMA Cell Band Right Cheek Channel 1175:

Frequency (MHz)	1908.750013
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.389870
Conductivity (S/m)	1.400320
Variation (%)	-0.290000



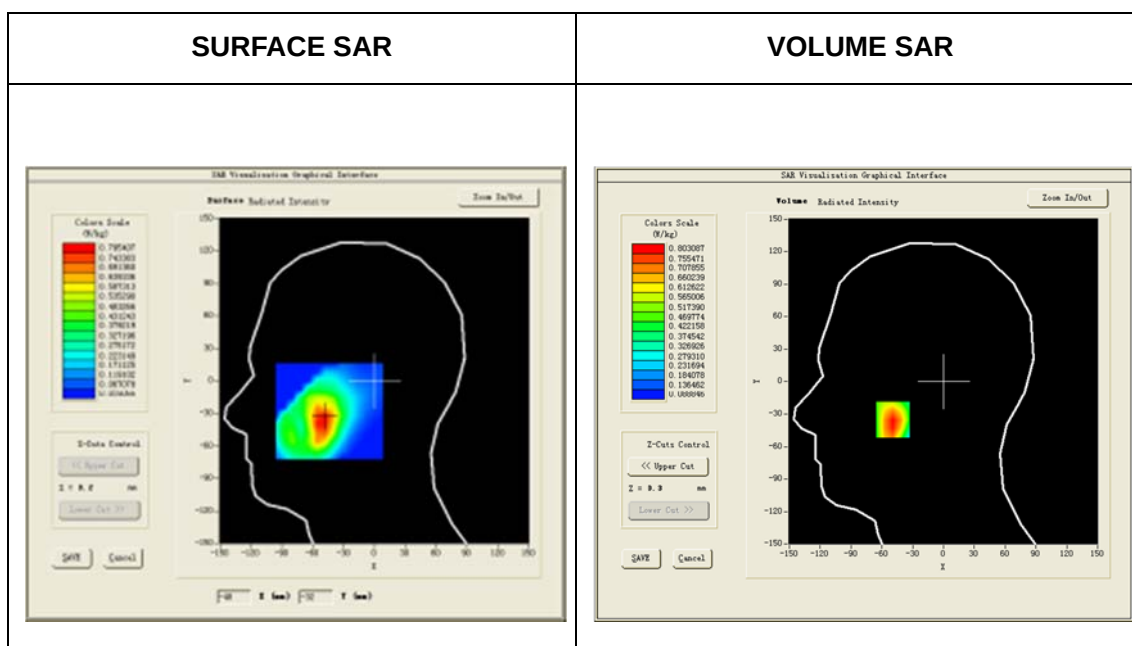
Maximum location: X=-70.00, Y=-39.00

SAR Peak: 1.07 W/kg

SAR 10g (W/Kg)	0.437326
SAR 1g (W/Kg)	0.720847

GSM850 GMSK(1 Tx slot) Left Cheek Channel189:

Frequency (MHz)	836.400024
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901453
Variation (%)	-1.630000



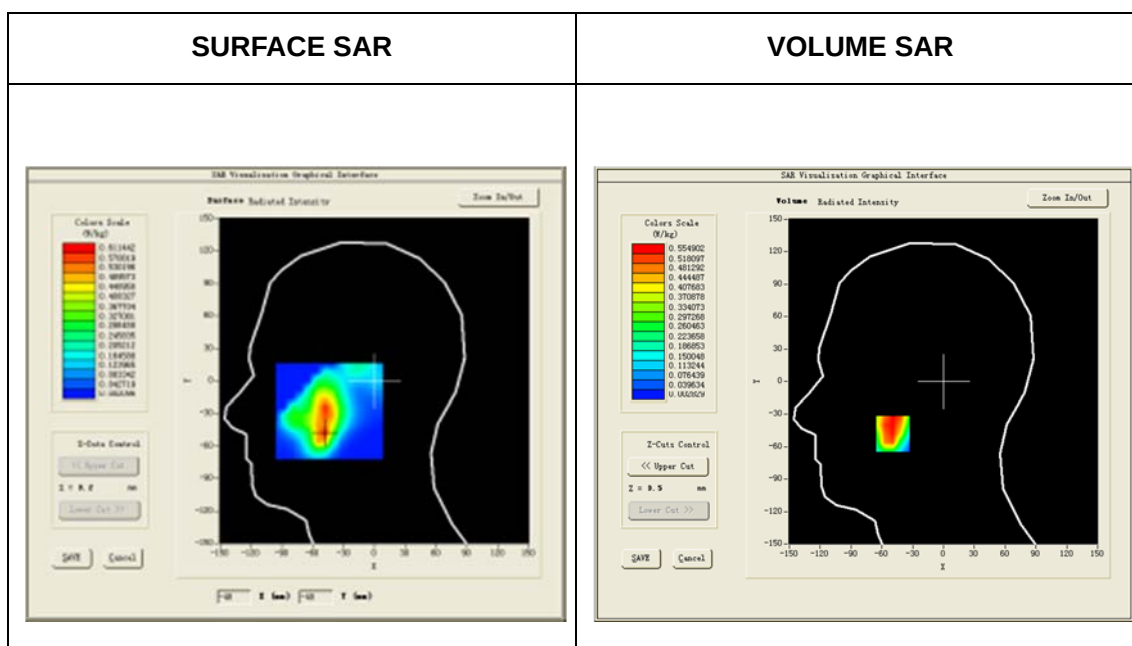
Maximum location: X=-49.00, Y=-35.00

SAR Peak: 0.94 W/kg

SAR 10g (W/Kg)	0.541200
SAR 1g (W/Kg)	0.769090

GSM1900 GMSK(1 Tx slot) Left Cheek Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.408000
Conductivity (S/m)	1.400391
Variation (%)	0.260000



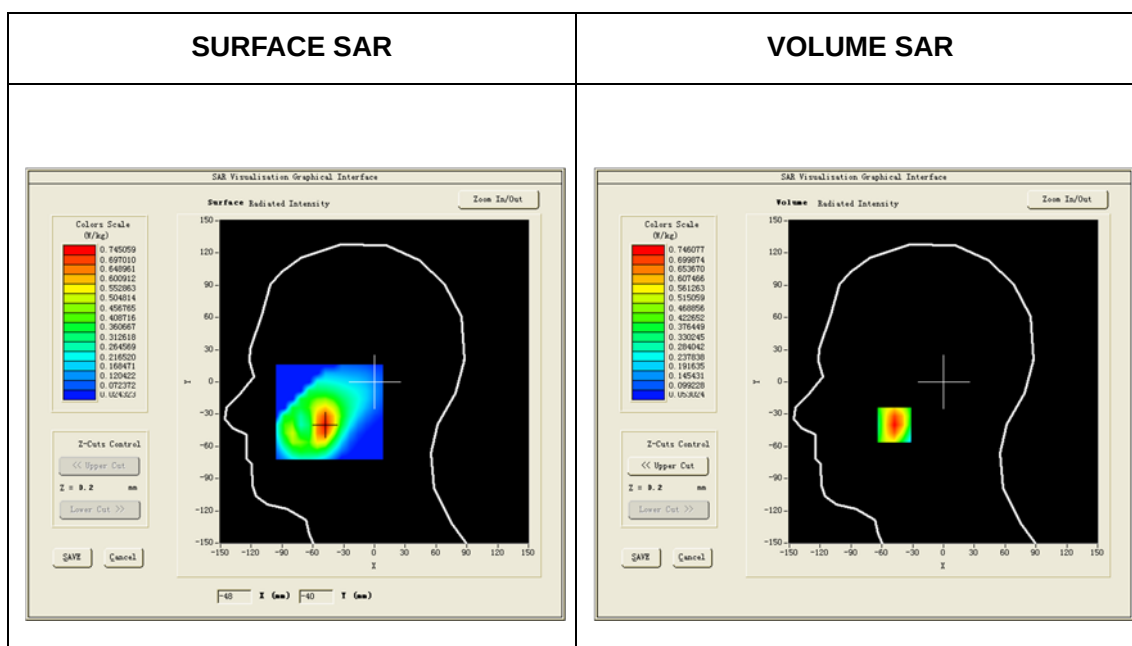
Maximum location: X=-49.00, Y=-48.00

SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.312488
SAR 1g (W/Kg)	0.552595

WCDMA Band V 12.2 kbps RMC Right Cheek Channel4183:

Frequency (MHz)	836.000000
Relative permittivity (real part)	41.500000
Relative permittivity (imaginary part)	19.400000
Conductivity (S/m)	0.901022
Variation (%)	-0.130000



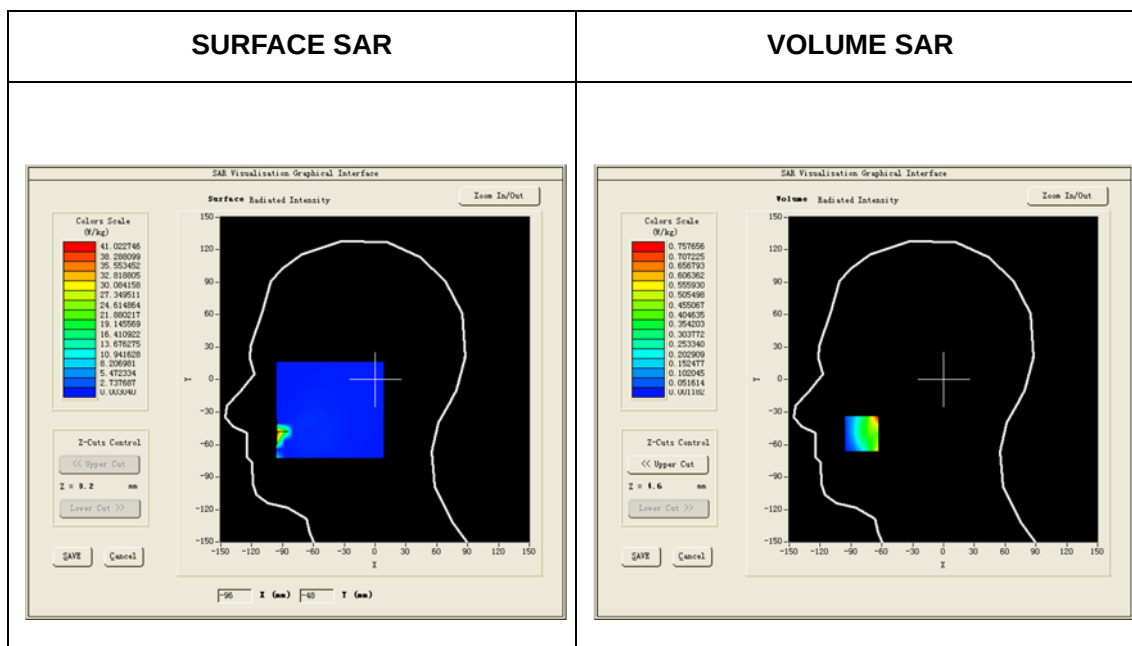
Maximum location: X=-48.00, Y=-40.00

SAR Peak: 0.93 W/kg

SAR 10g (W/Kg)	0.464610
SAR 1g (W/Kg)	0.701818

WCDMA Band II 12.2 kbps RMC Right Cheek Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	9.860000



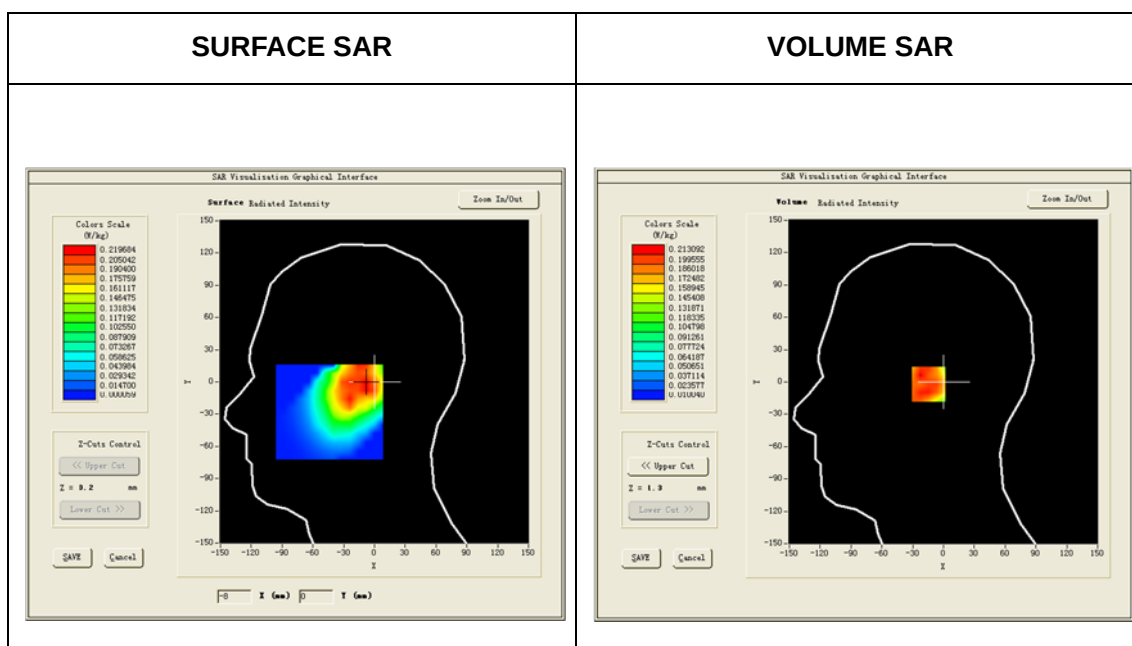
Maximum location: X=-80.00, Y=-50.00

SAR Peak: 0.97 W/kg

SAR 10g (W/Kg)	0.327000
SAR 1g (W/Kg)	0.591222

WLAN 2.4GHz 802.11b Left Cheek Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-9.00, Y=-2.00

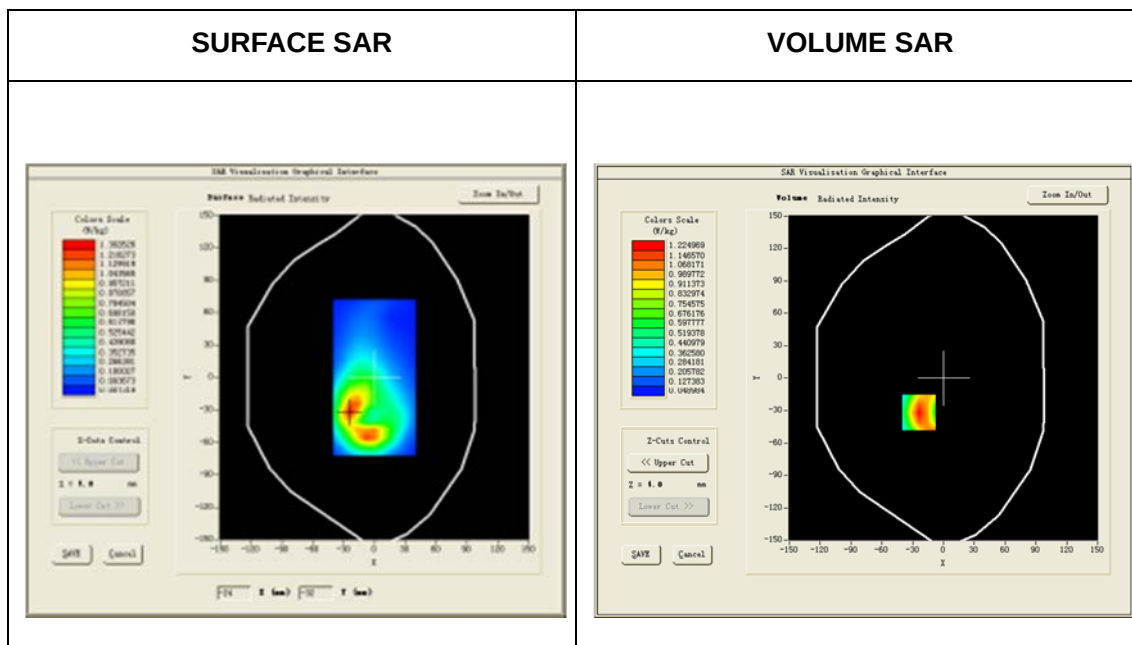
SAR Peak: 0.42 W/kg

SAR 10g (W/Kg)	0.260387
SAR 1g (W/Kg)	0.364107

<Standalone Body Worn>

GSM850 GMSK(1 Tx slot) Front Side 1cm Channel189:

Frequency (MHz)	836.400024
Relative permittivity (real part)	55.195690
Relative permittivity (imaginary part)	20.911938
Conductivity (S/m)	0.971708
Variation (%)	0.090000



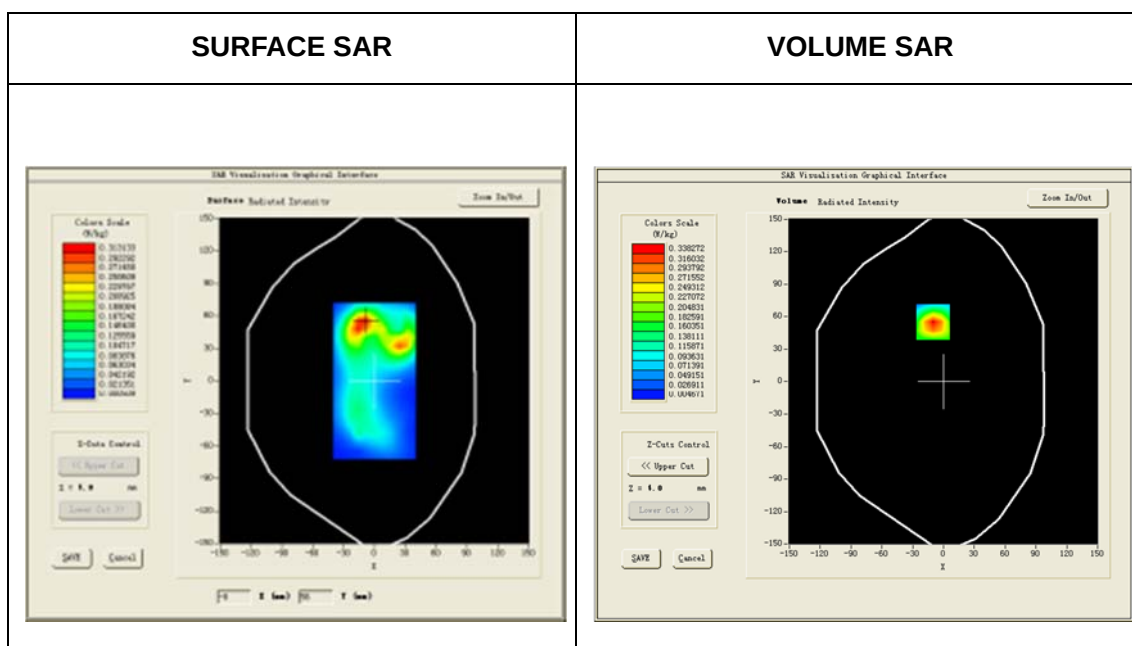
Maximum location: X=-24.00, Y=-32.00

SAR Peak: 1.88 W/kg

SAR 10g (W/Kg)	0.722768
SAR 1g (W/Kg)	1.234950

GSM1900 GMSK(1 Tx slot) Front Side 1cm Channel661:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	0.770000



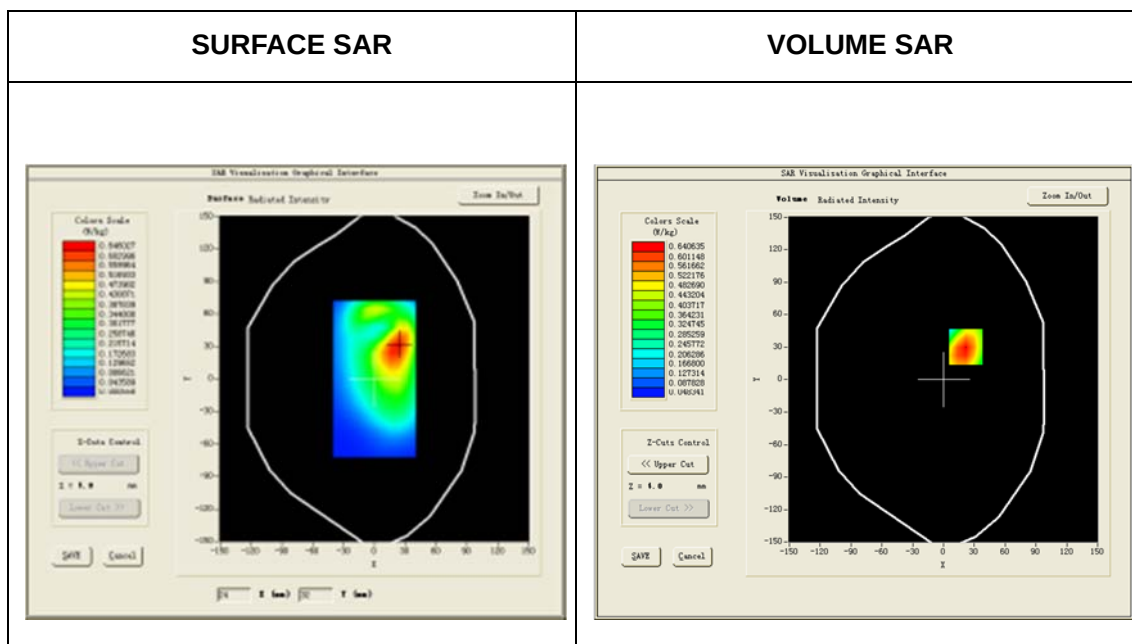
Maximum location: X=-10.00, Y=55.00

SAR Peak: 0.57 W/kg

SAR 10g (W/Kg)	0.180957
SAR 1g (W/Kg)	0.342430

WCDMA Band V 12.2 kbps RMC Front Side 1cm Channel4183:

Frequency (MHz)	836.000000
Relative permittivity (real part)	55.196922
Relative permittivity (imaginary part)	20.911385
Conductivity (S/m)	0.971218
Variation (%)	-1.590000



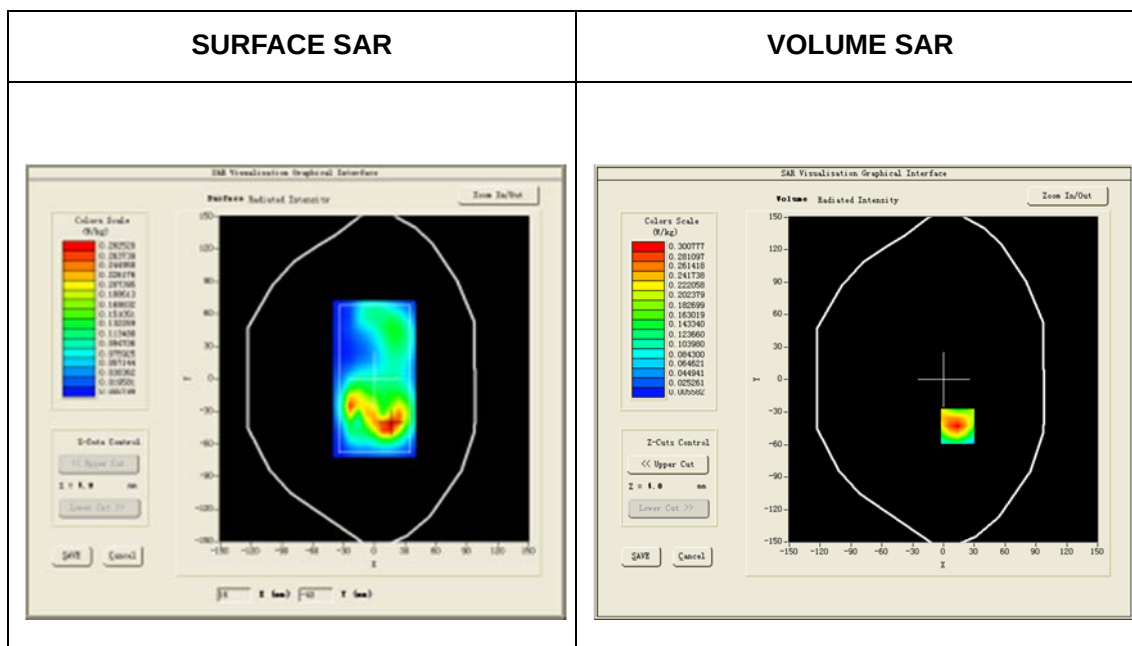
Maximum location: X=22.00, Y=30.00

SAR Peak: 0.88 W/kg

SAR 10g (W/Kg)	0.445605
SAR 1g (W/Kg)	0.660437

WCDMA Band II 12.2 kbps RMC Front Side 1cm Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-0.980000



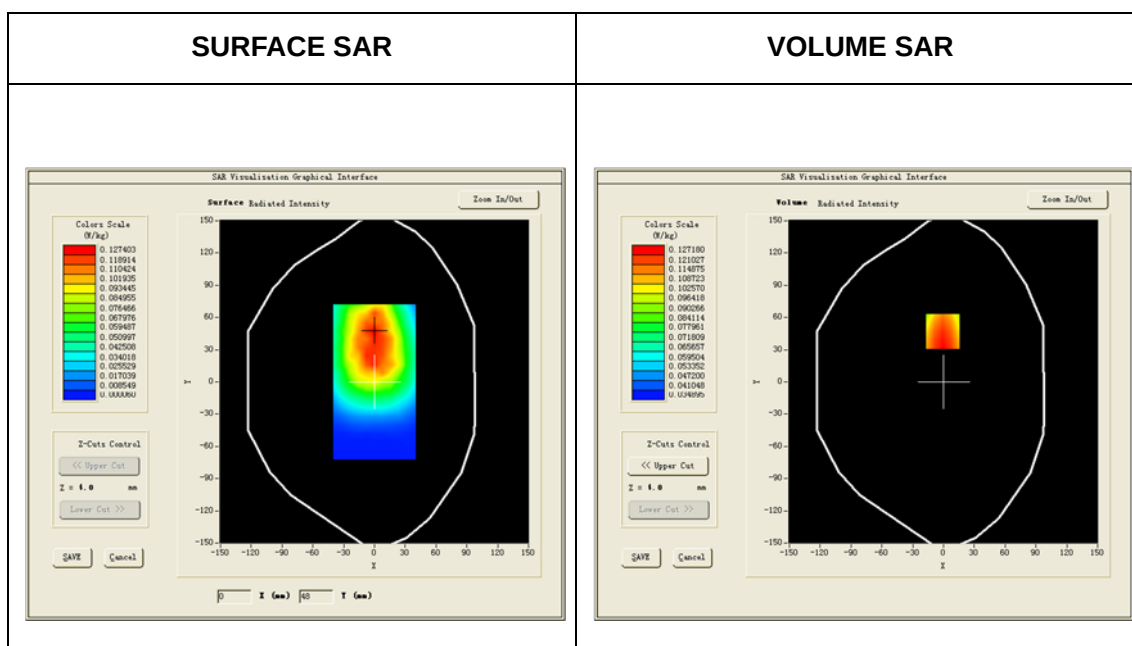
Maximum location: X=14.00, Y=-43.00

SAR Peak: 0.46 W/kg

SAR 10g (W/Kg)	0.153366
SAR 1g (W/Kg)	0.281485

WLAN 2.4GHz 802.11b Back Side Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=-1.00, Y=47.00

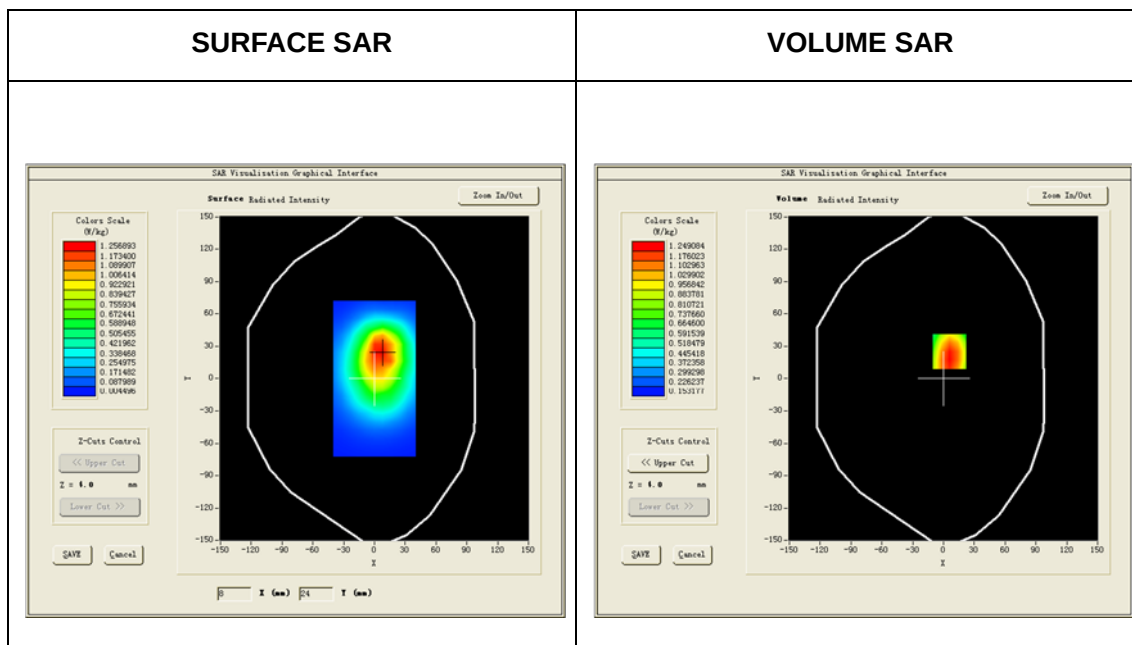
SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.138732
SAR 1g (W/Kg)	0.185972

<Standalone Hotspot>

CDMA2000 1xEVDO-Cell Band Front Side 1cm Channel348:

Frequency (MHz)	836.520000
Relative permittivity (real part)	55.195076
Relative permittivity (imaginary part)	20.912214
Conductivity (S/m)	0.971953
Variation (%)	-5.660000



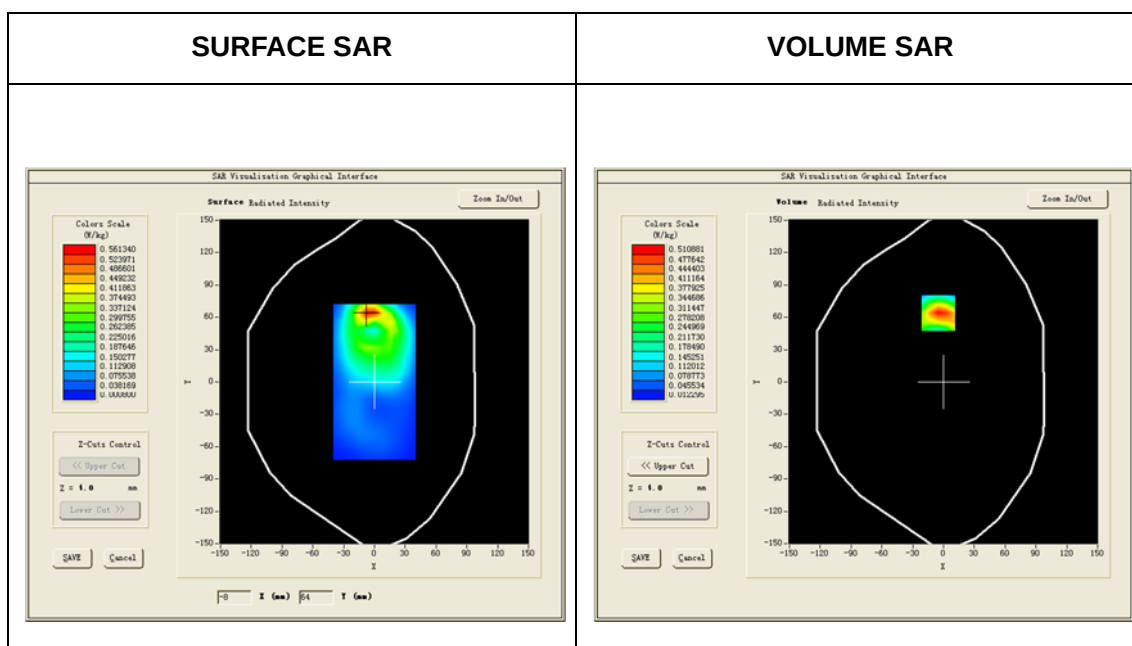
Maximum location: X=6.00, Y=25.00

SAR Peak: 1.26 W/kg

SAR 10g (W/Kg)	0.504517
SAR 1g (W/Kg)	0.774227

CDMA2000 1xEVDO-PCS Band Front Side 1cm Channel600:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	13.968000
Conductivity (S/m)	1.520960
Variation (%)	-5.610000



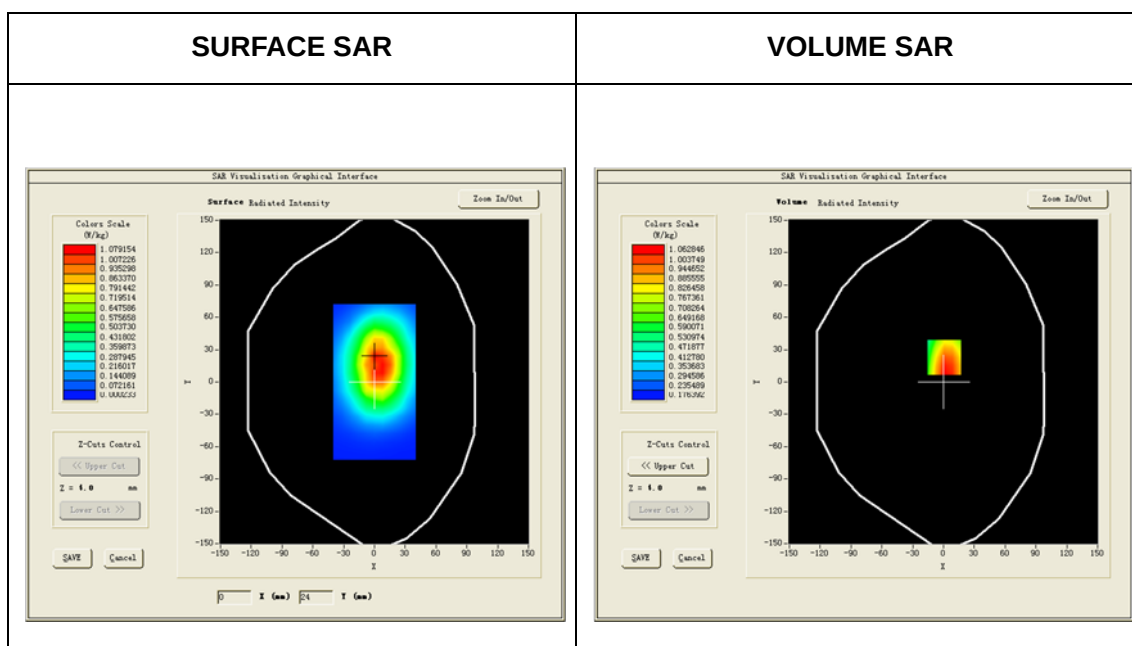
Maximum location: X=-5.00, Y=64.00

SAR Peak: 0.69 W/kg

SAR 10g (W/Kg)	0.207135
SAR 1g (W/Kg)	0.462381

GPRS850 GMSK(2 Tx slot CS1) Front 1cm Channel251:

Frequency (MHz)	848.800000
Relative permittivity (real part)	53.854966
Relative permittivity (imaginary part)	21.452658
Conductivity (S/m)	1.011374
Variation (%)	0.660000



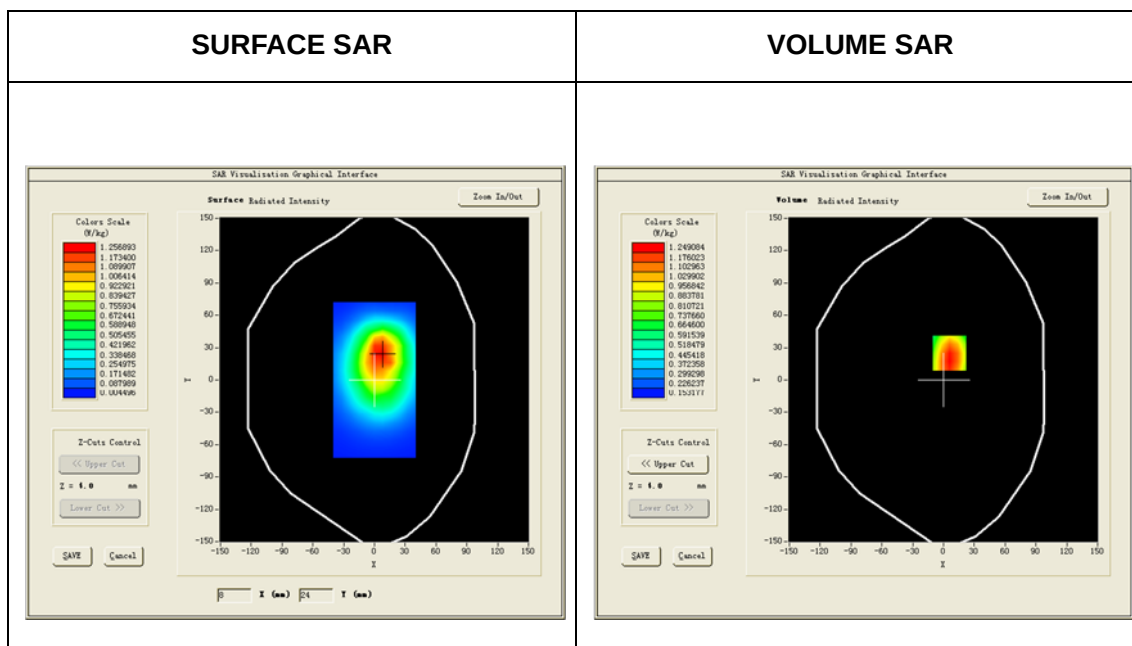
Maximum location: X=1.00, Y=23.00

SAR Peak: 1.21 W/kg

SAR 10g (W/Kg)	0.465657
SAR 1g (W/Kg)	0.742162

GPRS1900 GMSK(2 Tx slot CS1) Front Side 1cm Channel512:

Frequency (MHz)	1850.200000
Relative permittivity (real part)	40.000000
Relative permittivity (imaginary part)	13.408000
Conductivity (S/m)	1.400391
Variation (%)	0.260000



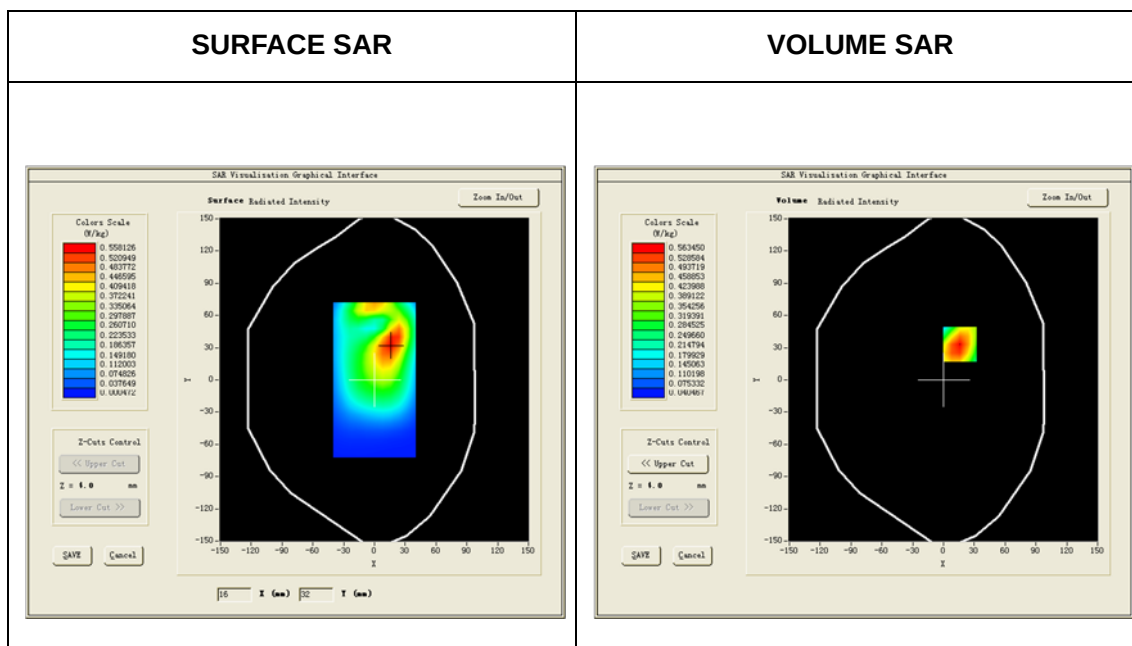
Maximum location: X=7.00, Y=26.00

SAR Peak: 1.26 W/kg

SAR 10g (W/Kg)	0.594789
SAR 1g (W/Kg)	0.881335

WCDMA Band V 12.2 kbps RMC Front Side 1cm Channel4183:

Frequency (MHz)	836.600000
Relative permittivity (real part)	55.196922
Relative permittivity (imaginary part)	20.911385
Conductivity (S/m)	0.971218
Variation (%)	-0.140000



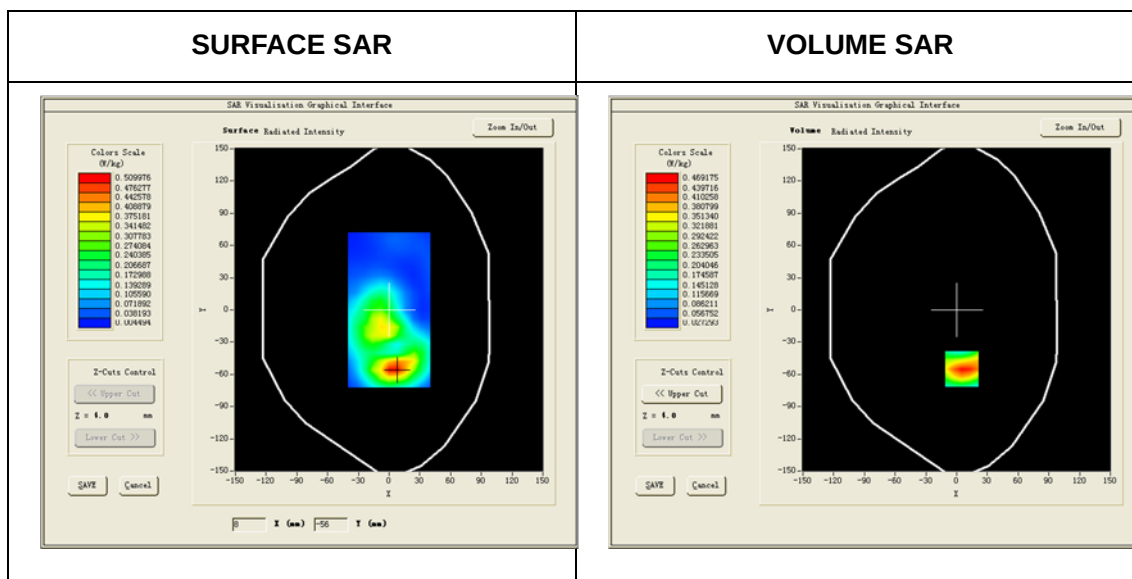
Maximum location: X=16.00, Y=33.00

SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.581588
SAR 1g (W/Kg)	0.904163

WCDMA BandII 12.2 kbps RMC Front Side 1cm Channel9400:

Frequency (MHz)	1880.000000
Relative permittivity (real part)	53.299999
Relative permittivity (imaginary part)	14.560000
Conductivity (S/m)	1.520711
Variation (%)	-0.680000



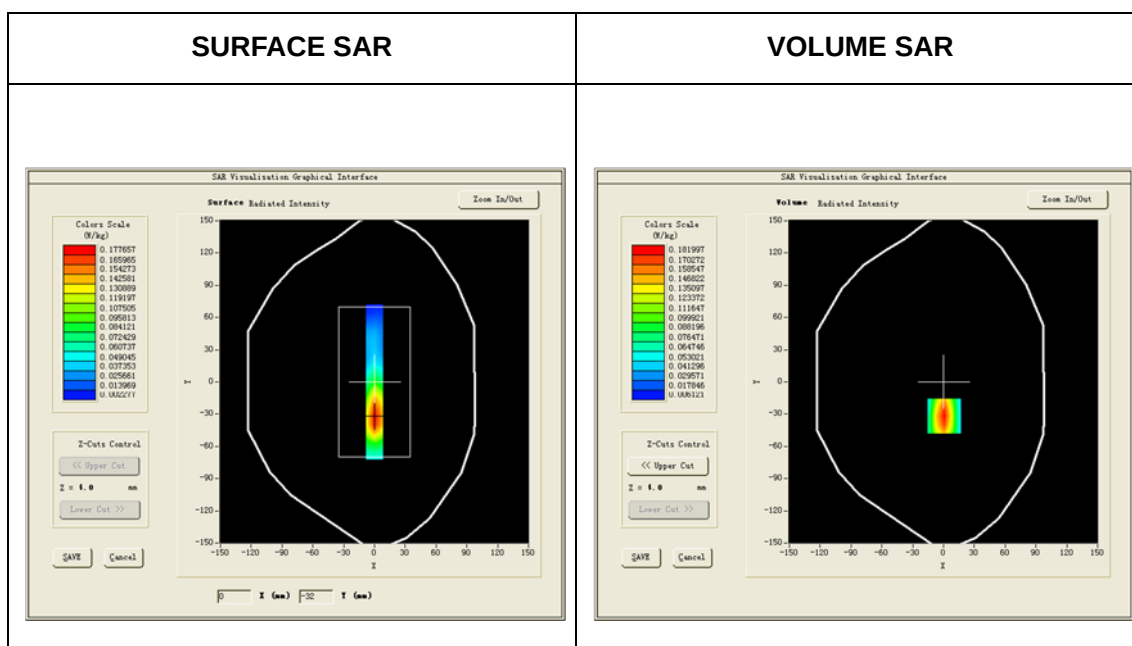
Maximum location: X=5.00, Y=-55.00

SAR Peak: 0.66 W/kg

SAR 10g (W/Kg)	0.259795
SAR 1g (W/Kg)	0.502123

WLAN 2.4GHz 802.11b Back Side 1cm Channel6:

Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.276001
Relative permittivity (imaginary part)	13.182000
Conductivity (S/m)	1.766388
Variation (%)	0.720000



Maximum location: X=1.00, Y=32.00

SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.060978
SAR 1g (W/Kg)	0.078443