

**II. 1900MHz Band RESULTS**

<b><u>TYPE</u></b>	<b><u>PARAMETERS</u></b>
<b><u>Phone</u></b>	<u>Measurement 1:</u> Right Head with Cheek device position on Low Channel in GSM1900 mode <u>Measurement 2:</u> Right Head with Cheek device position on Middle Channel in GSM1900 mode <u>Measurement 3:</u> Right Head with Cheek device position on High Channel in GSM1900 mode <u>Measurement 4:</u> Right Head with Tilt device position on Low Channel in GSM1900 mode <u>Measurement 5:</u> Right Head with Tilt device position on Middle Channel in GSM1900 mode <u>Measurement 6:</u> Right Head with Tilt device position on High Channel in GSM1900 mode <u>Measurement 7:</u> Left Head with Cheek device position on Low Channel in GSM1900 mode <u>Measurement 8:</u> Left Head with Cheek device position on Middle Channel in GSM1900 mode <u>Measurement 9:</u> Left Head with Cheek device position on High Channel in GSM1900 mode <u>Measurement 10:</u> Left Head with Tilt device position on Low Channel in GSM1900 mode <u>Measurement 11:</u> Left Head with Tilt device position on Middle Channel in GSM1900 mode <u>Measurement 12:</u> Left Head with Tilt device position on High Channel in GSM1900 mode <u>Measurement 13:</u> FrontSide toward phantom 15mm, Low Channel in GSM1900 mode <u>Measurement 14:</u> FrontSide toward phantom 15mm, Middle Channel in GSM1900 mode <u>Measurement 15:</u> FrontSide toward phantom 15mm, High Channel in GSM1900 mode



## MEASUREMENT 1

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. Instrumentations.

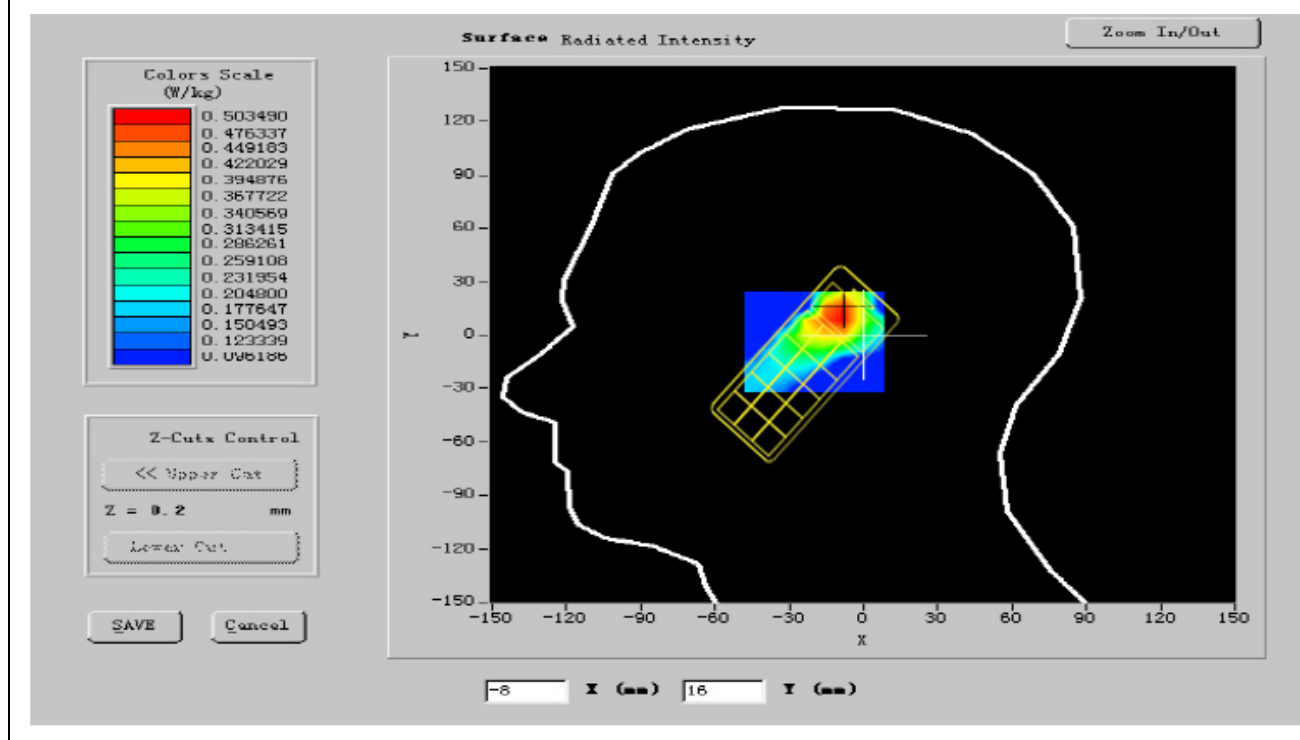
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIPI36, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

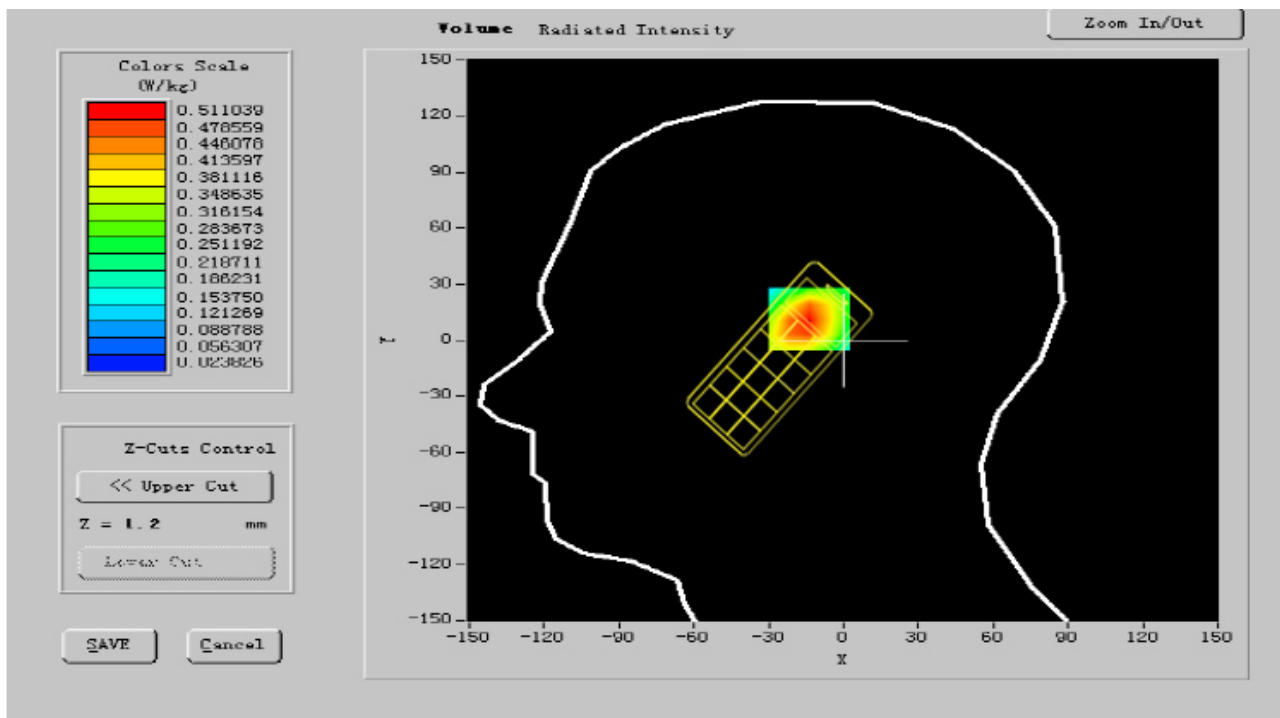
Frequency (MHz)	1850.400024
Relative permittivity (real part)	41.0133000
Relative permittivity (imaginary part)	13.584900
Conductivity (S/m)	1.560427
Variation (%)	-1.540000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

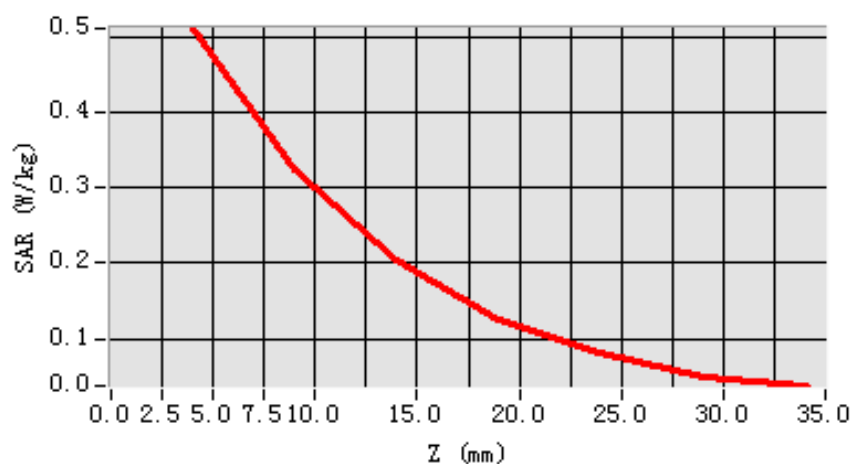
SAR 10g (W/Kg)	0.247612
SAR 1g (W/Kg)	0.416482

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4733	0.3122	0.1894	0.1224	0.0687	0.0081



SAR, Z Axis Scan (X = -10, Y = 12)





## MEASUREMENT 2

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. Instrumentations.

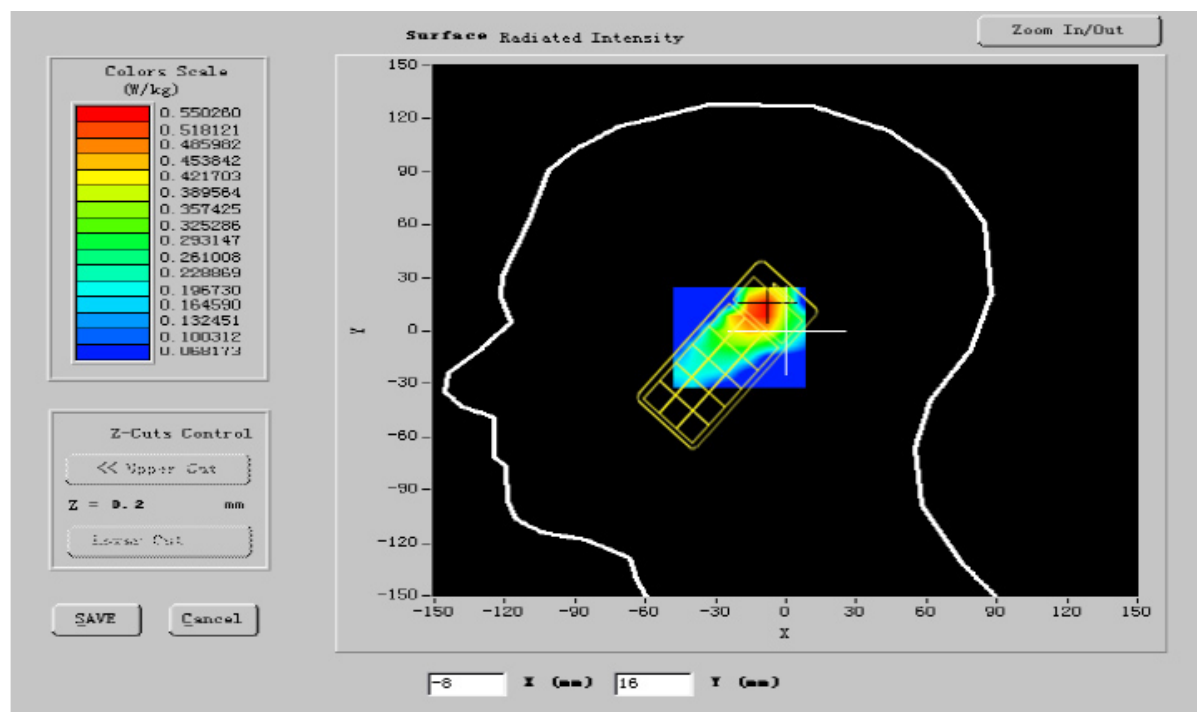
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

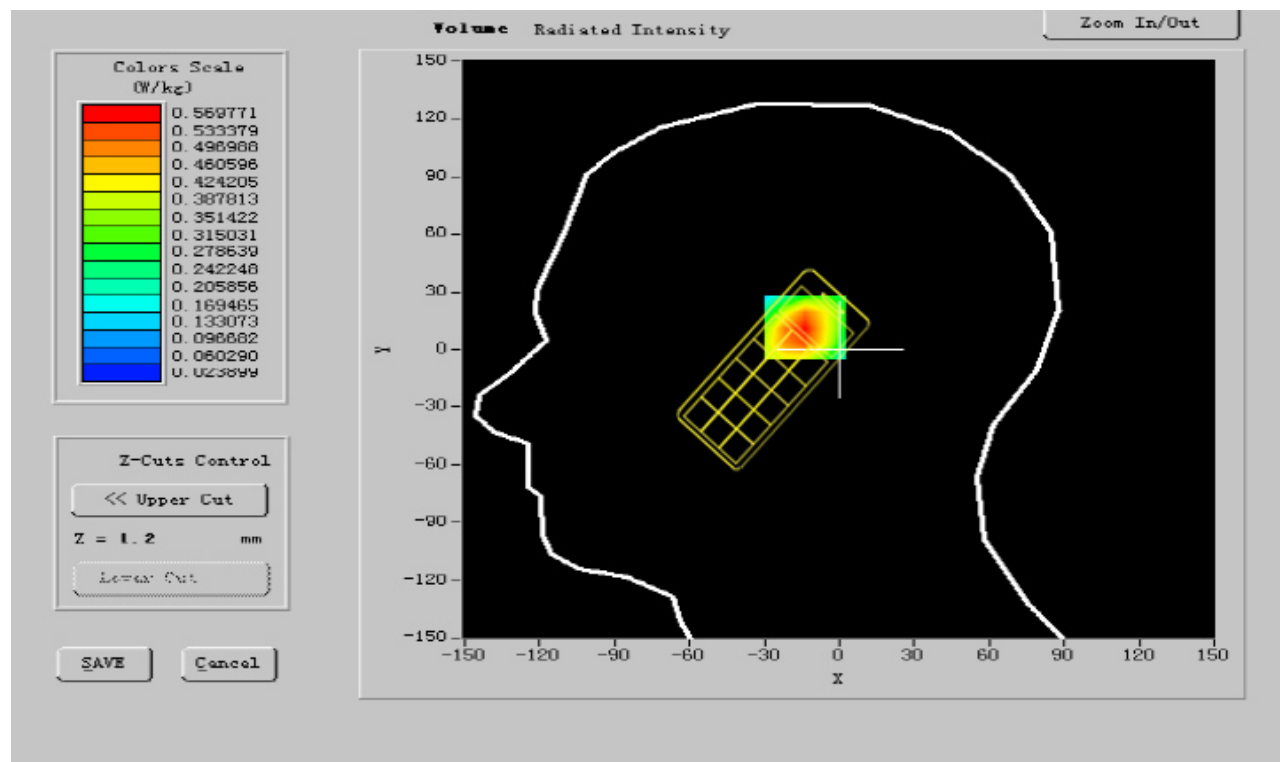
Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.025001
Relative permittivity (imaginary part)	13.813800
Conductivity (S/m)	1.3482768
Variation (%)	-0.150000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

SAR 10g (W/Kg)	0.354012
SAR 1g (W/Kg)	0.502476

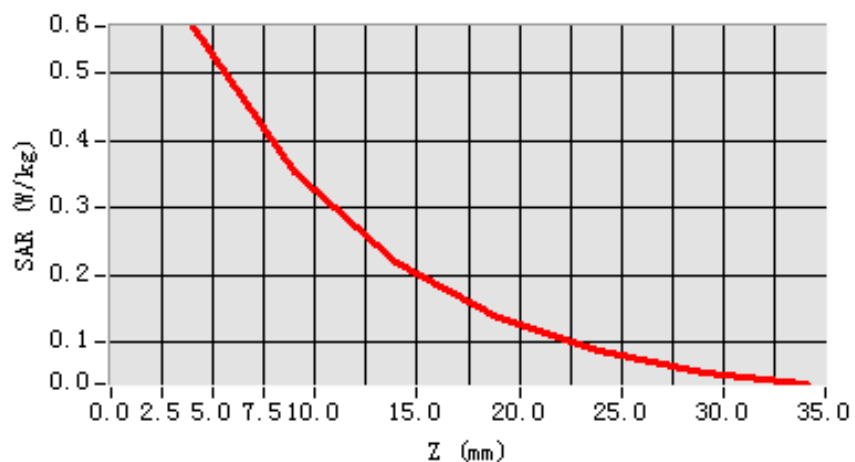
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5154	0.3322	0.2294	0.1424	0.0789	0.0031





SAR, Z Axis Scan (X = -10, Y = 12)





## MEASUREMENT 3

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. Instrumentations.

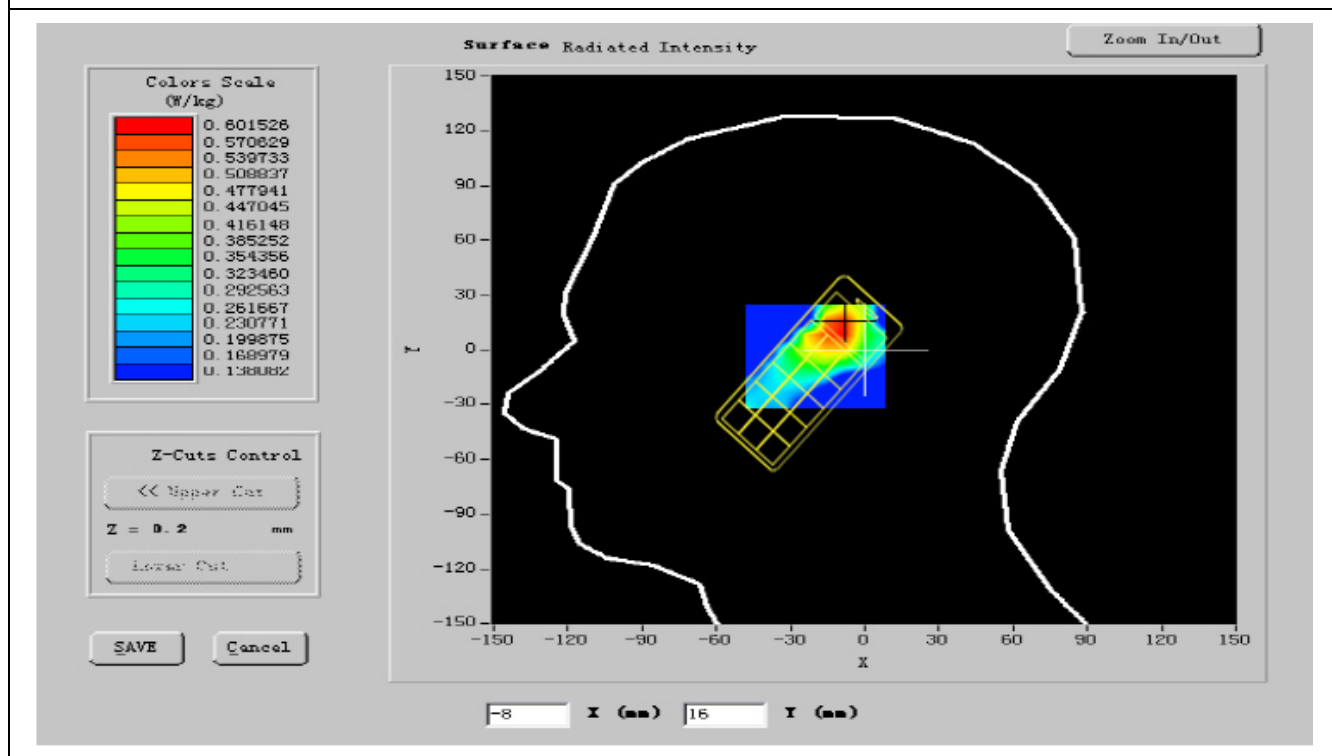
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

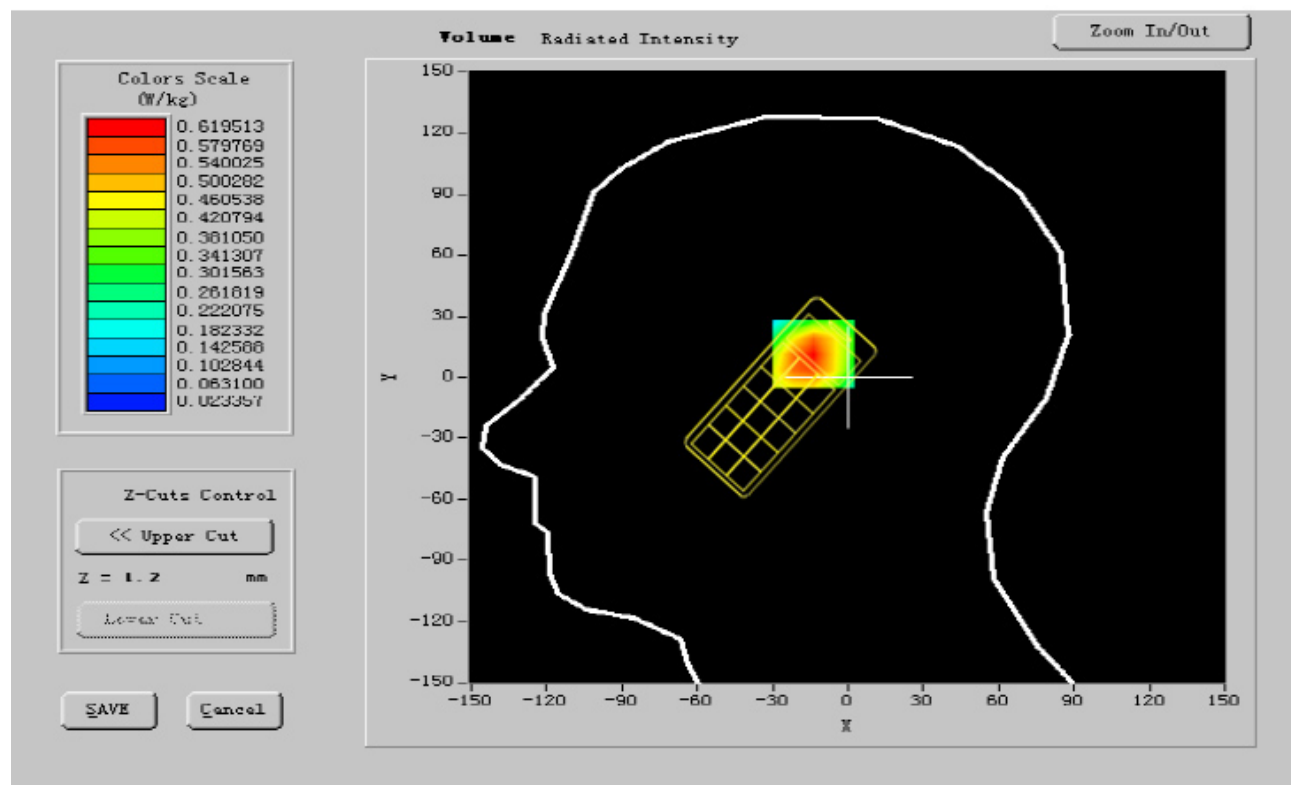
Frequency (MHz)	1909.599976
Relative permittivity (real part)	40.761999
Relative permittivity (imaginary part)	13.669900
Conductivity (S/m)	1.420413
Variation (%)	-0.187000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

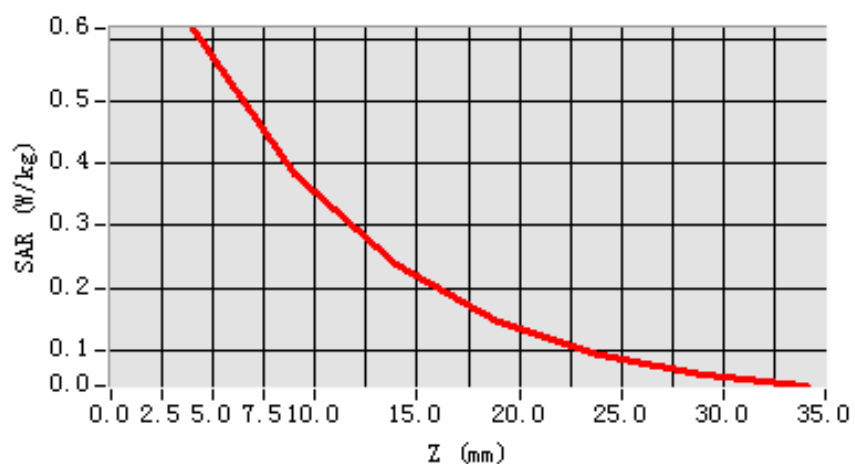
SAR 10g (W/Kg)	0.315497
SAR 1g (W/Kg)	0.527801

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5736	0.3422	0.2264	0.1724	0.0889	0.0021



SAR, Z Axis Scan (X = -10, Y = 12)





## MEASUREMENT 4

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. Instrumentations.

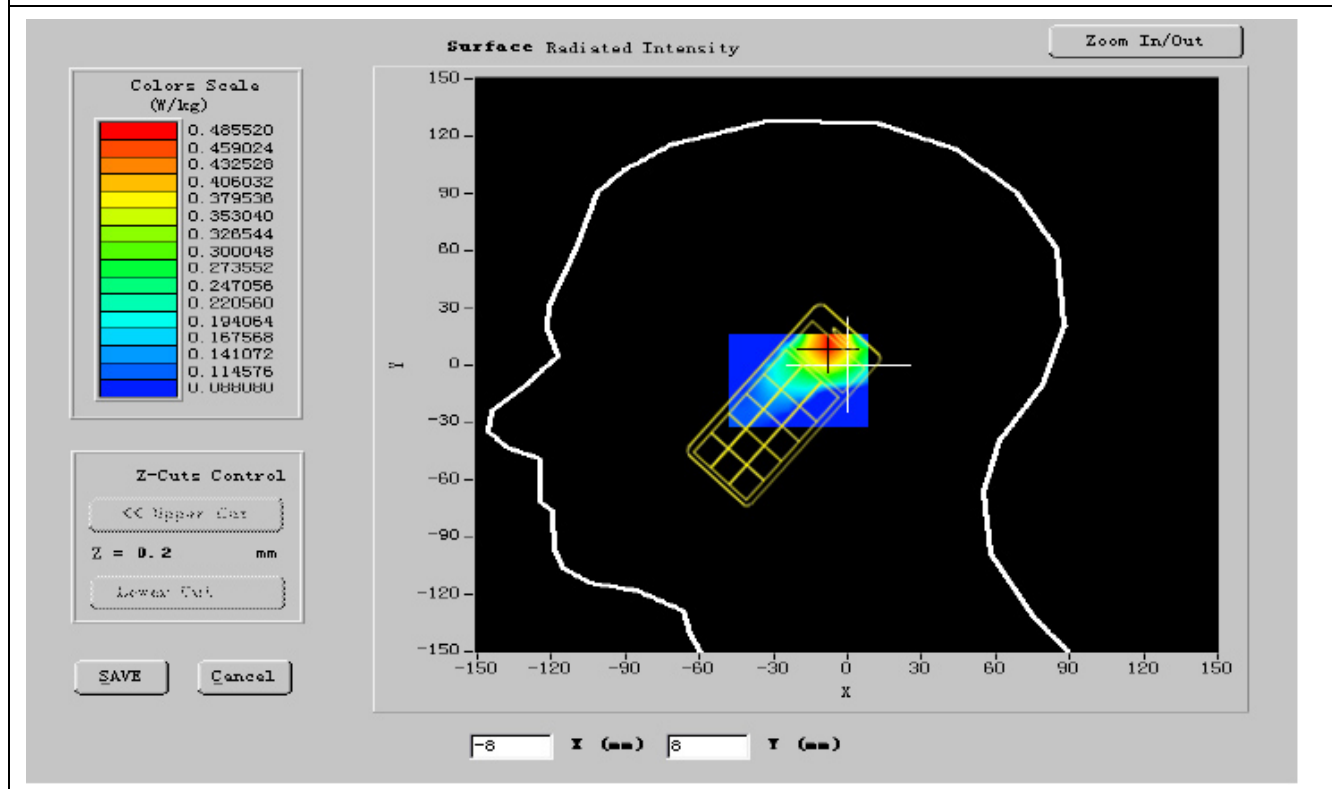
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

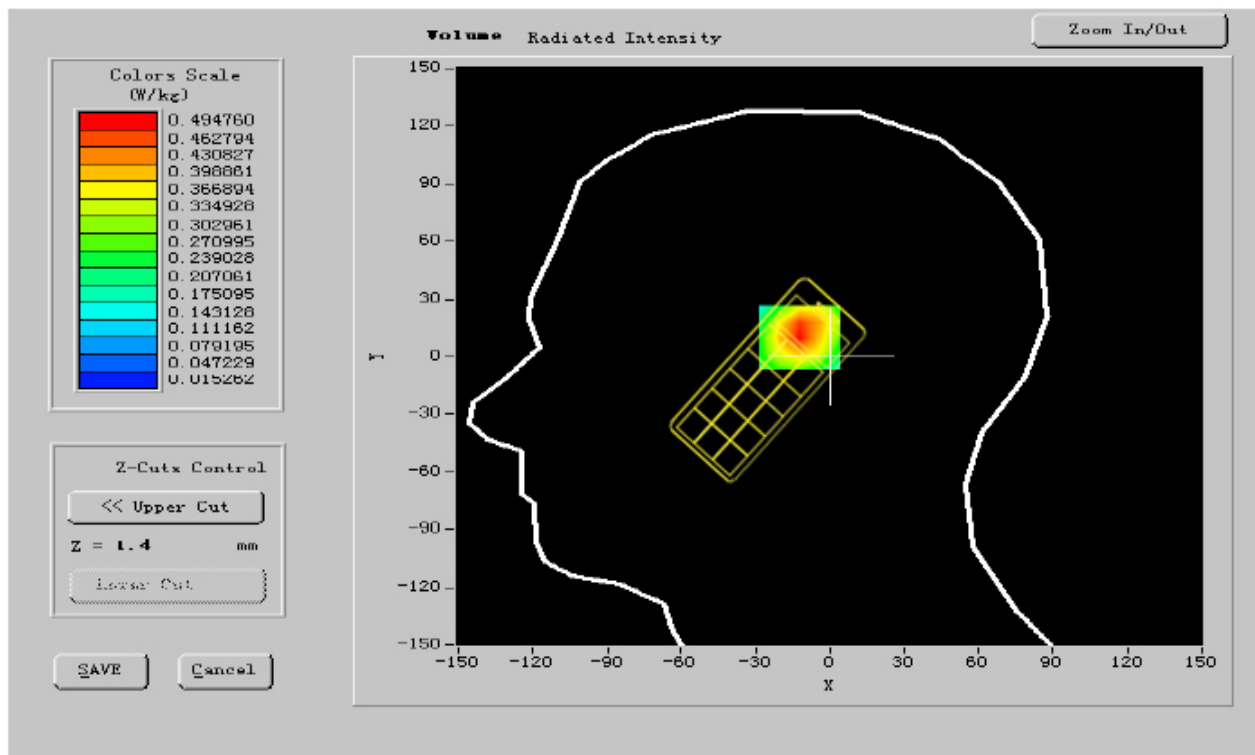
Frequency (MHz)	1850.400024
Relative permittivity (real part)	41.056000
Relative permittivity (imaginary part)	13.584900
Conductivity (S/m)	1.346657
Variation (%)	-1.560000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

SAR 10g (W/Kg)	0.26710
SAR 1g (W/Kg)	0.41351

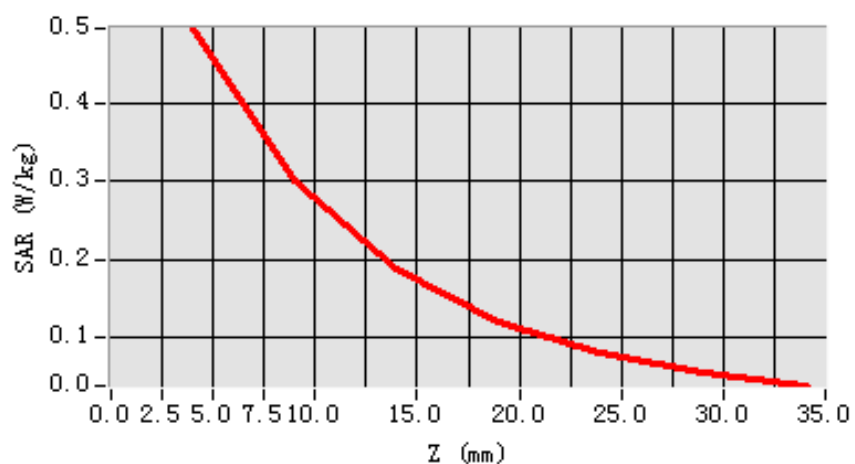
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4563	0.2922	0.1864	0.1124	0.0787	0.0011





SAR, Z Axis Scan (X = -8, Y = 10)





## MEASUREMENT 5

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. Instrumentations.

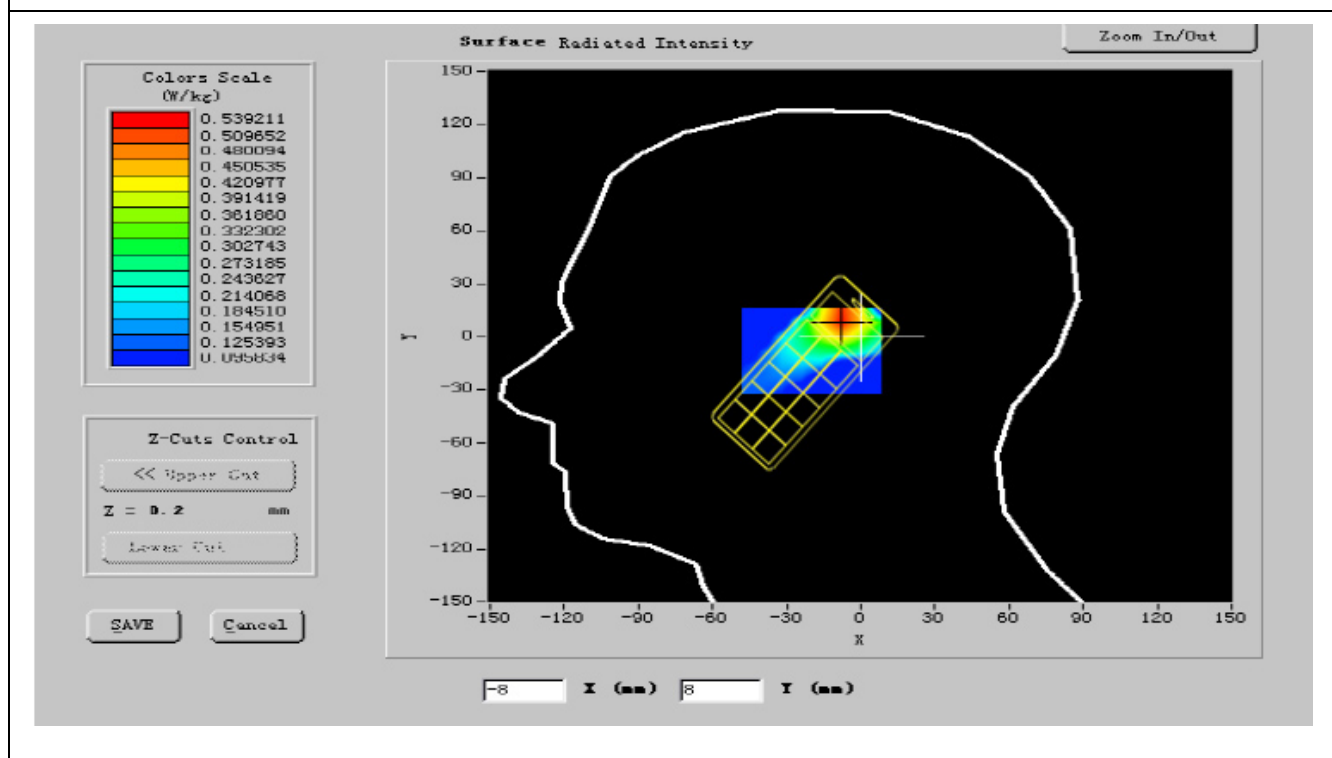
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

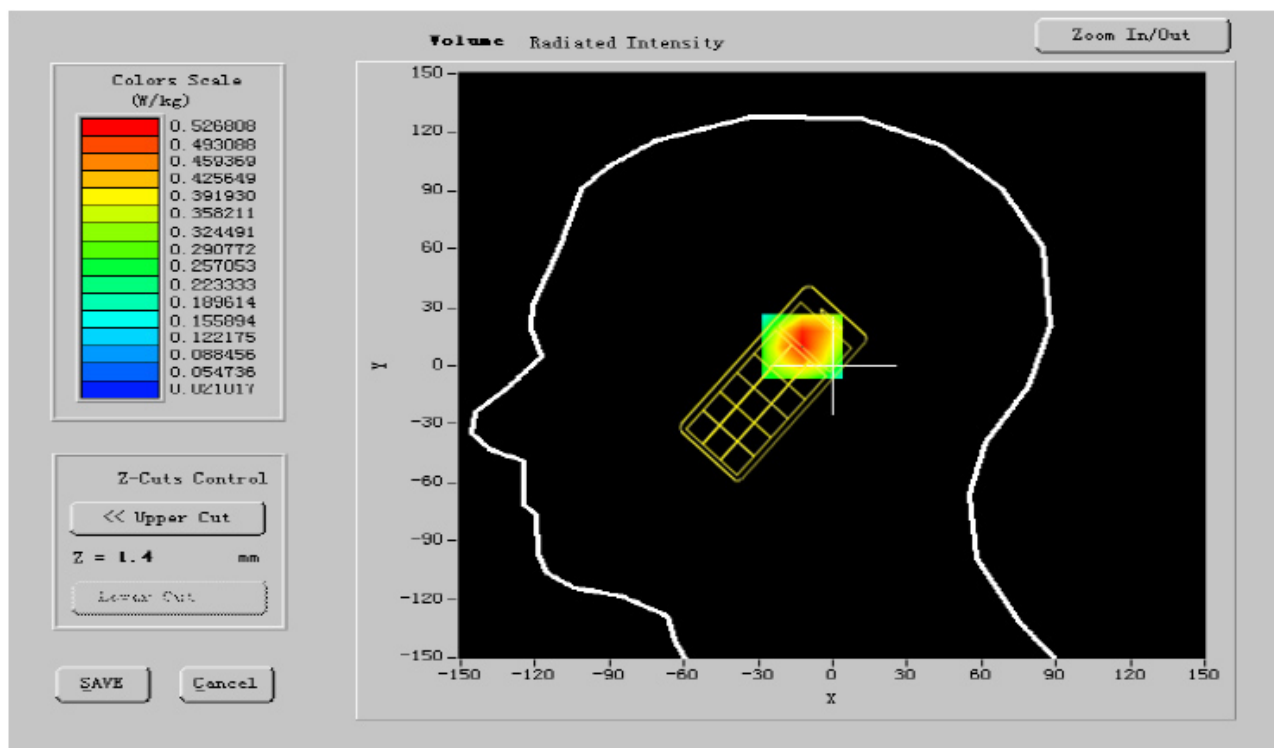
Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.264004
Relative permittivity (imaginary part)	13.813800
Conductivity (S/m)	1.546124
Variation (%)	-0.620047
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

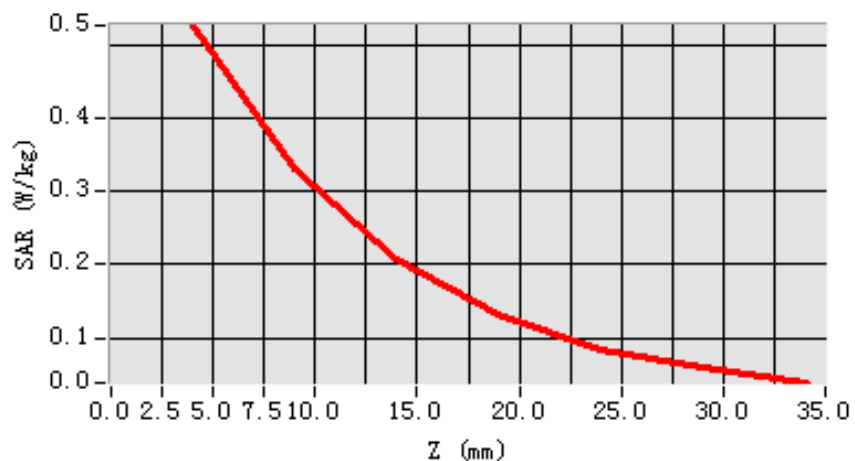
SAR 10g (W/Kg)	0.304524
SAR 1g (W/Kg)	0.452466

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4818	0.3622	0.2064	0.1324	0.0887	0.0411



SAR, Z Axis Scan (X = -8, Y = 10)





## MEASUREMENT 6

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Right head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. Instrumentations.

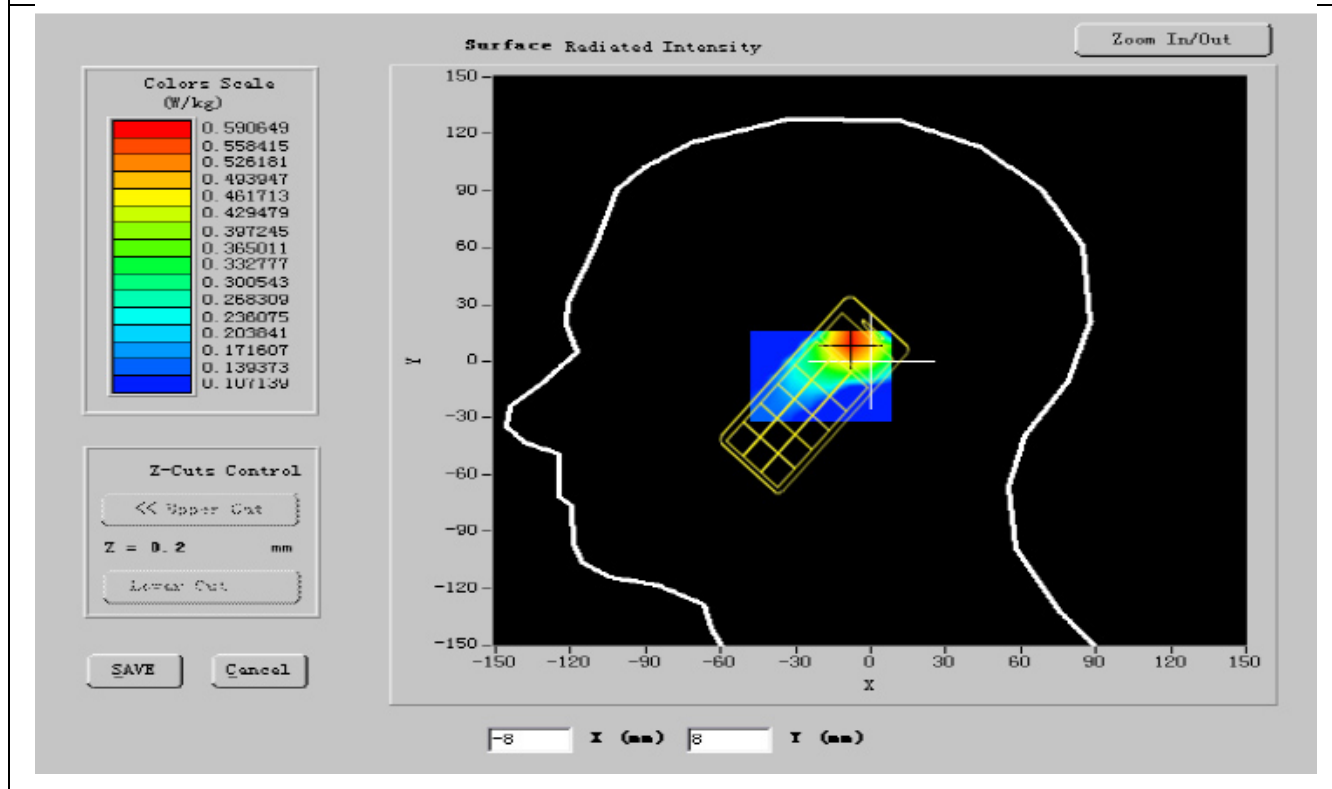
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

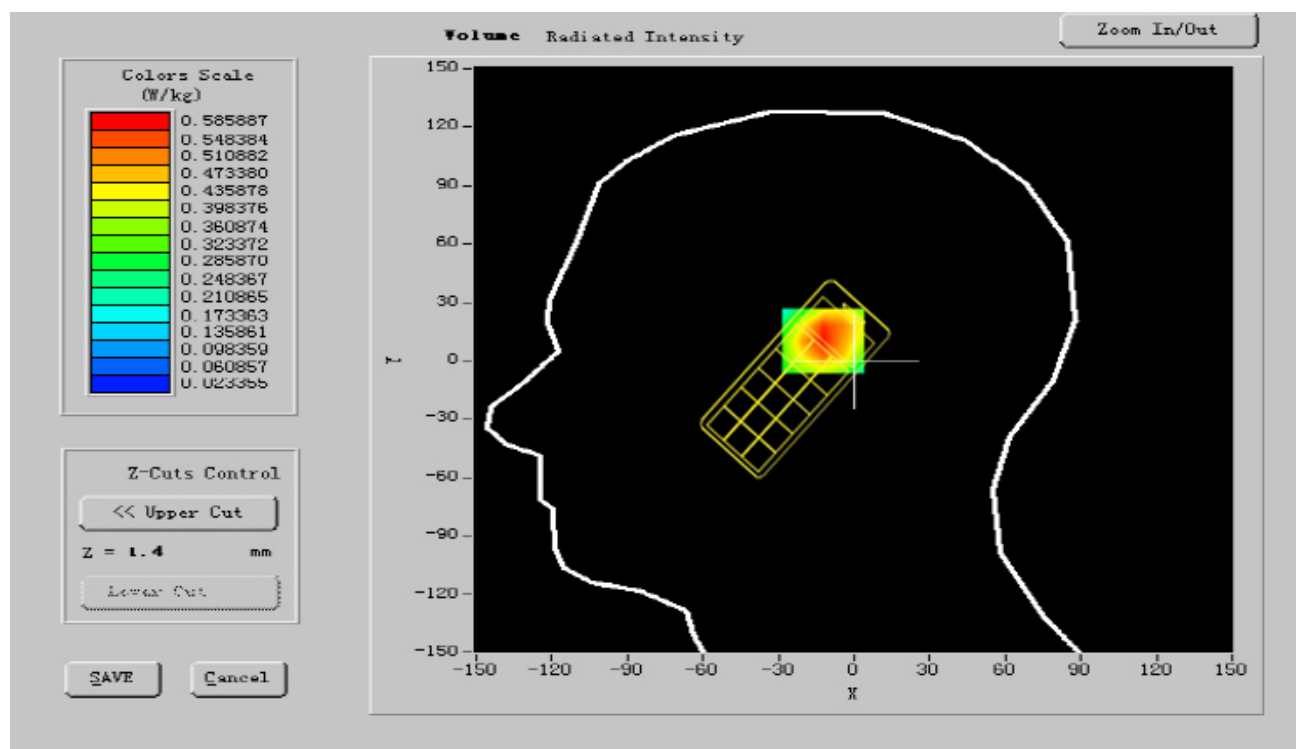
Frequency (MHz)	1909.599976
Relative permittivity (real part)	40.575995
Relative permittivity (imaginary part)	13.669900
Conductivity (S/m)	1.751224
Variation (%)	-1.412000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



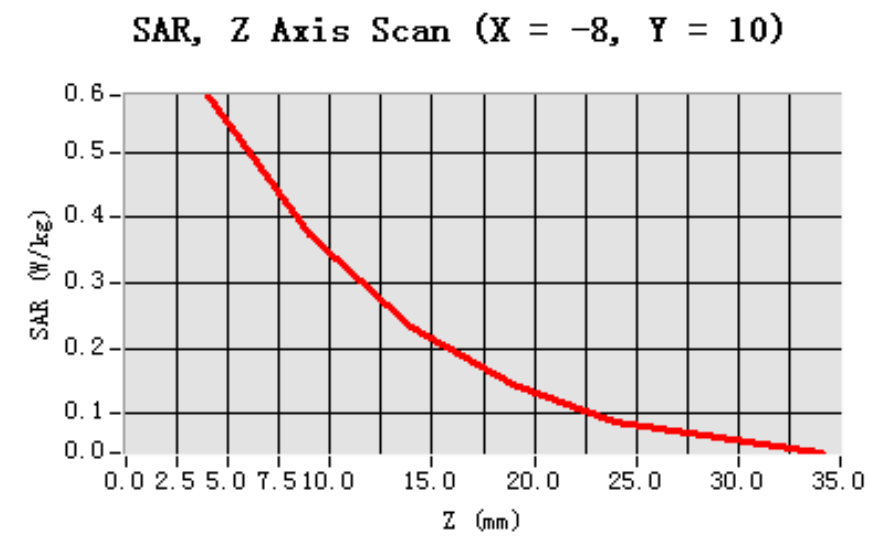
**Maximum location: X=-13.00, Y=-3.00**

SAR 10g (W/Kg)	0.324134
SAR 1g (W/Kg)	0.543714

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5359	0.3622	0.2064	0.1324	0.0864	0.0432







## MEASUREMENT 7

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. Instrumentations.

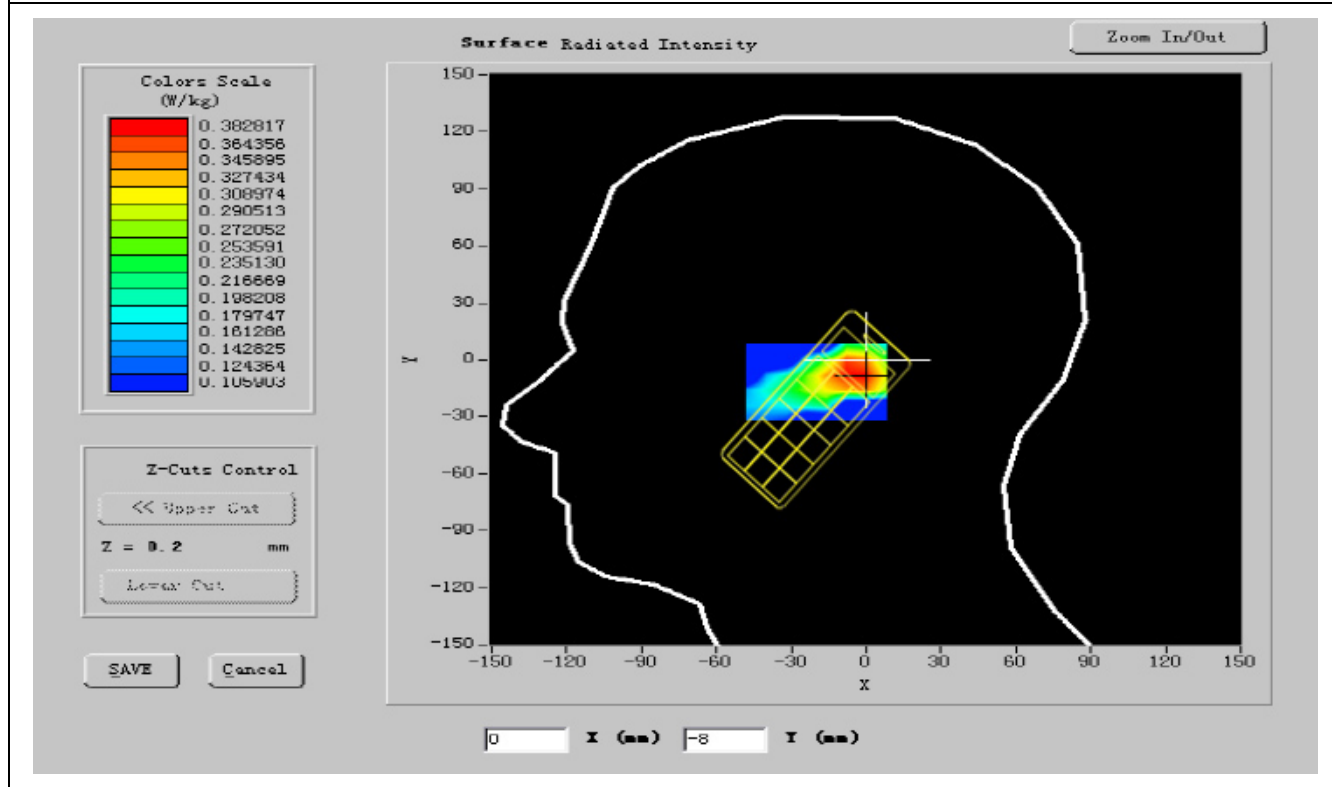
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

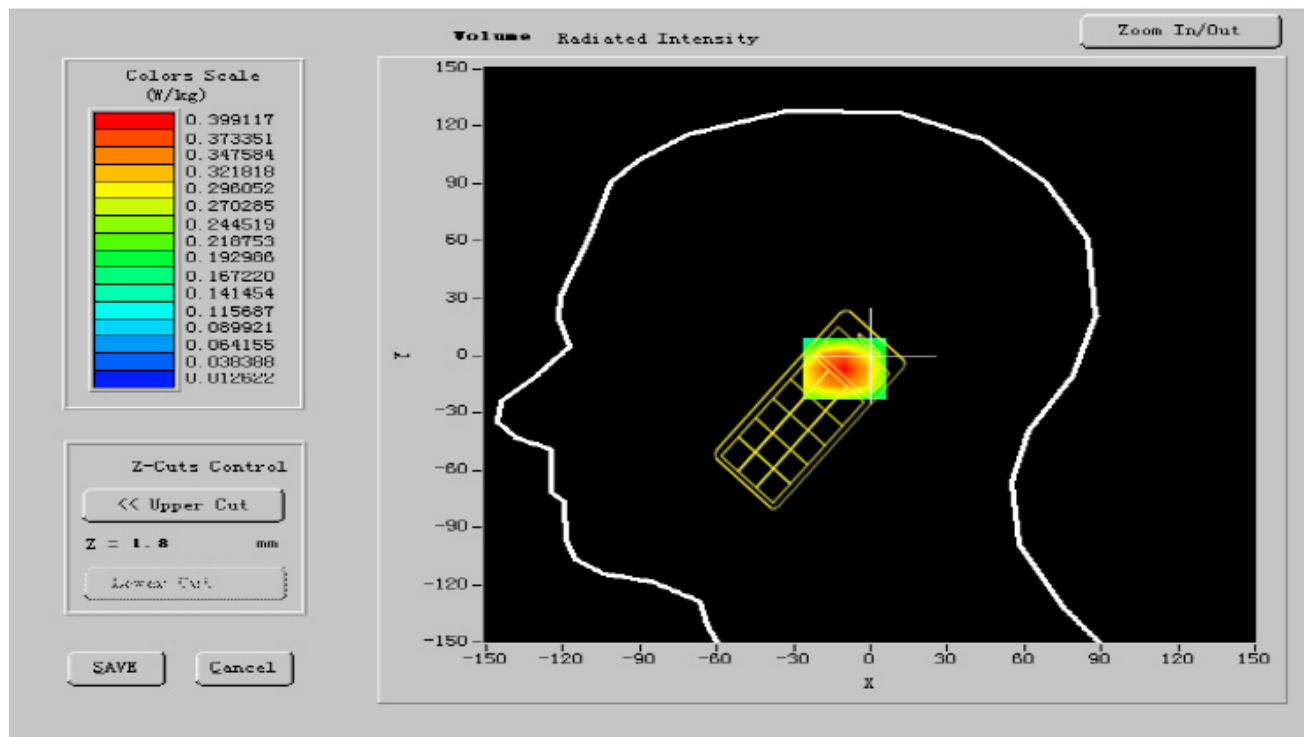
Frequency (MHz)	1850.400024
Relative permittivity (real part)	40.526004
Relative permittivity (imaginary part)	13.584900
Conductivity (S/m)	1.254531
Variation (%)	0.257000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

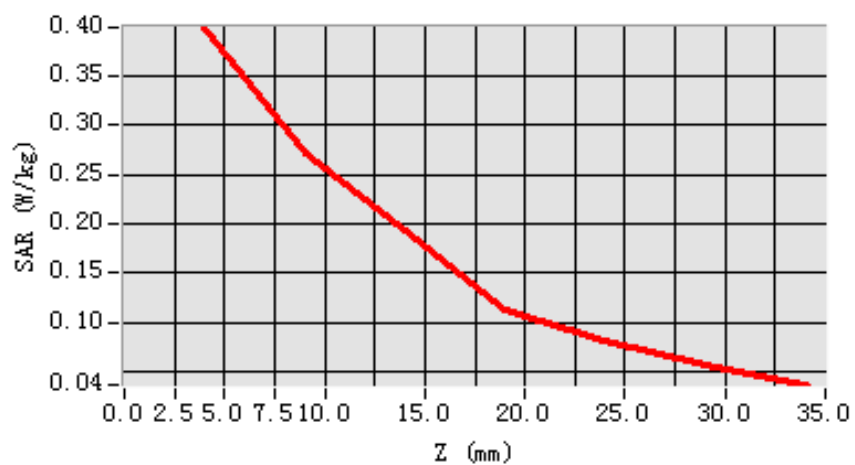
SAR 10g (W/Kg)	0.261624
SAR 1g (W/Kg)	0.343561

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.3610	0.2622	0.1764	0.1524	0.0764	0.0476



SAR, Z Axis Scan (X = -3, Y = -7)





## MEASUREMENT 8

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. Instrumentations.

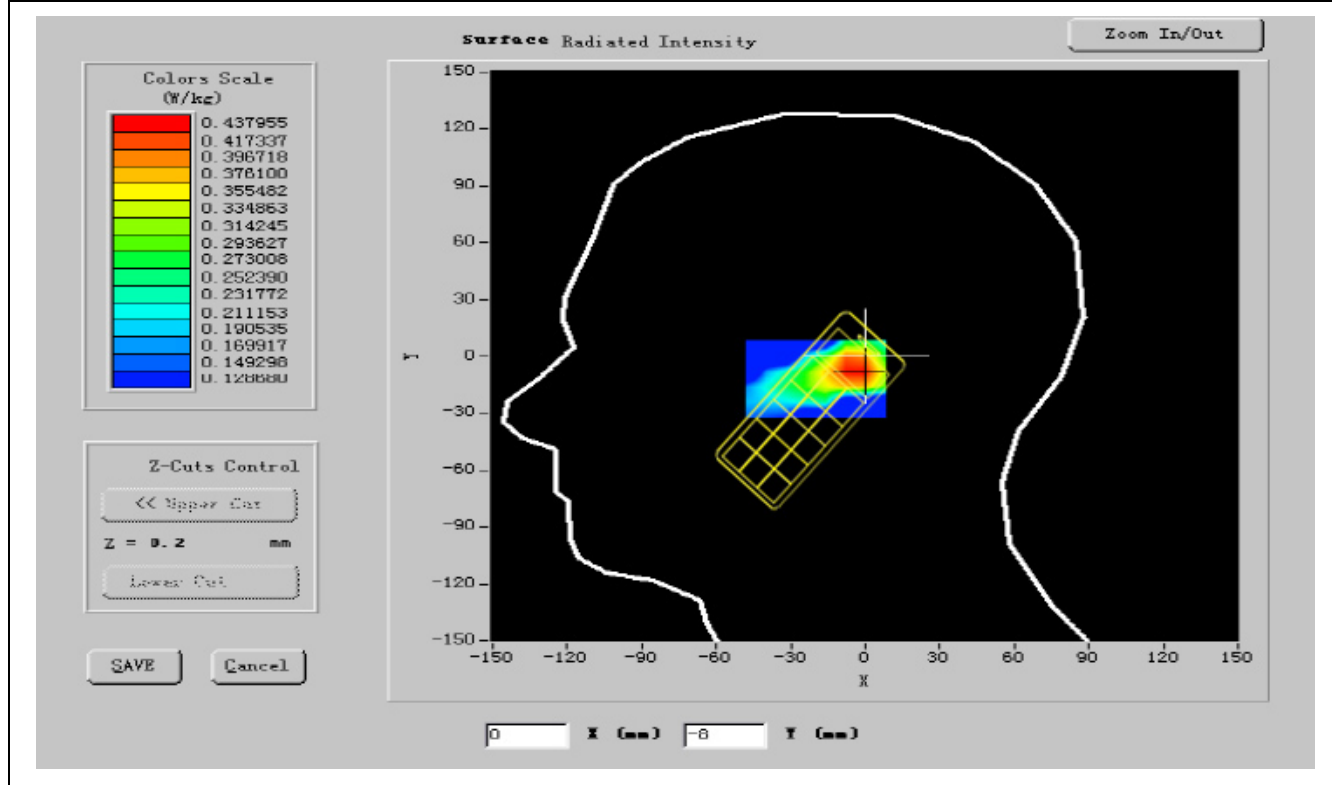
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

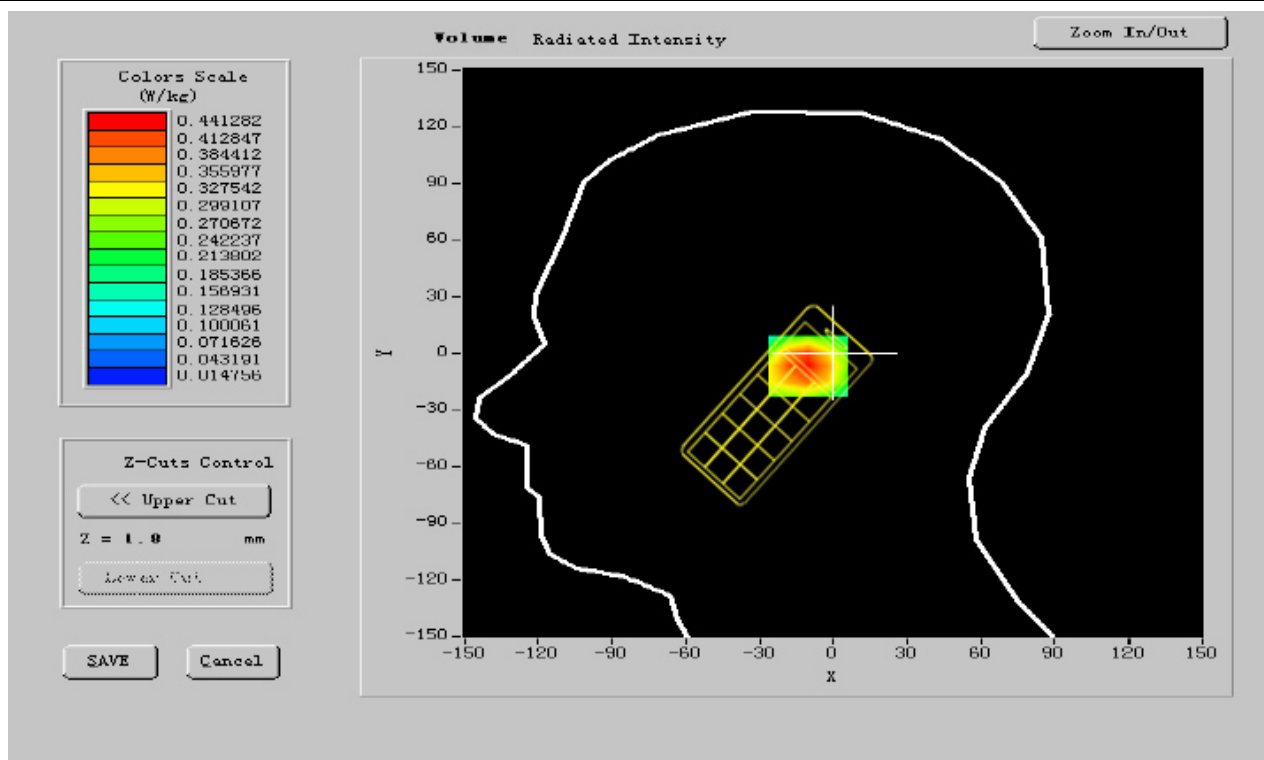
Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.256004
Relative permittivity (imaginary part)	13.813800
Conductivity (S/m)	1.272324
Variation (%)	1.160000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

SAR 10g (W/Kg)	0.224662
SAR 1g (W/Kg)	0.376846

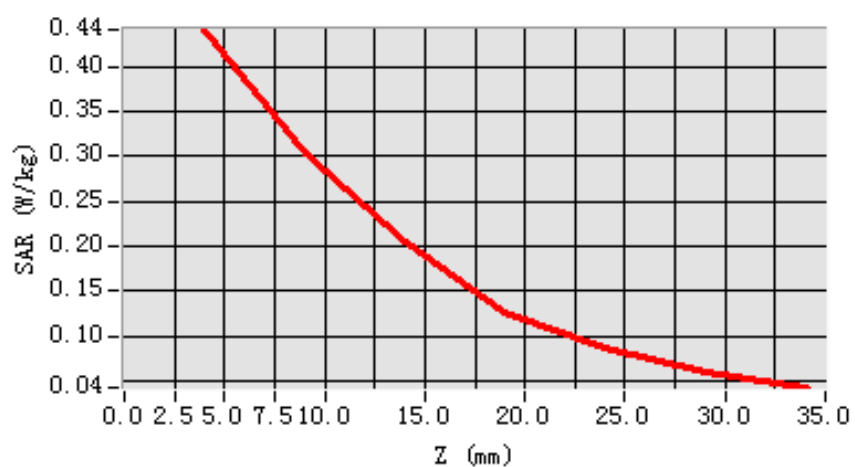
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4233	0.2622	0.1764	0.1324	0.0664	0.0444





SAR, Z Axis Scan (X = -3, Y = -7)





## MEASUREMENT 9

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Cheek
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. Instrumentations.

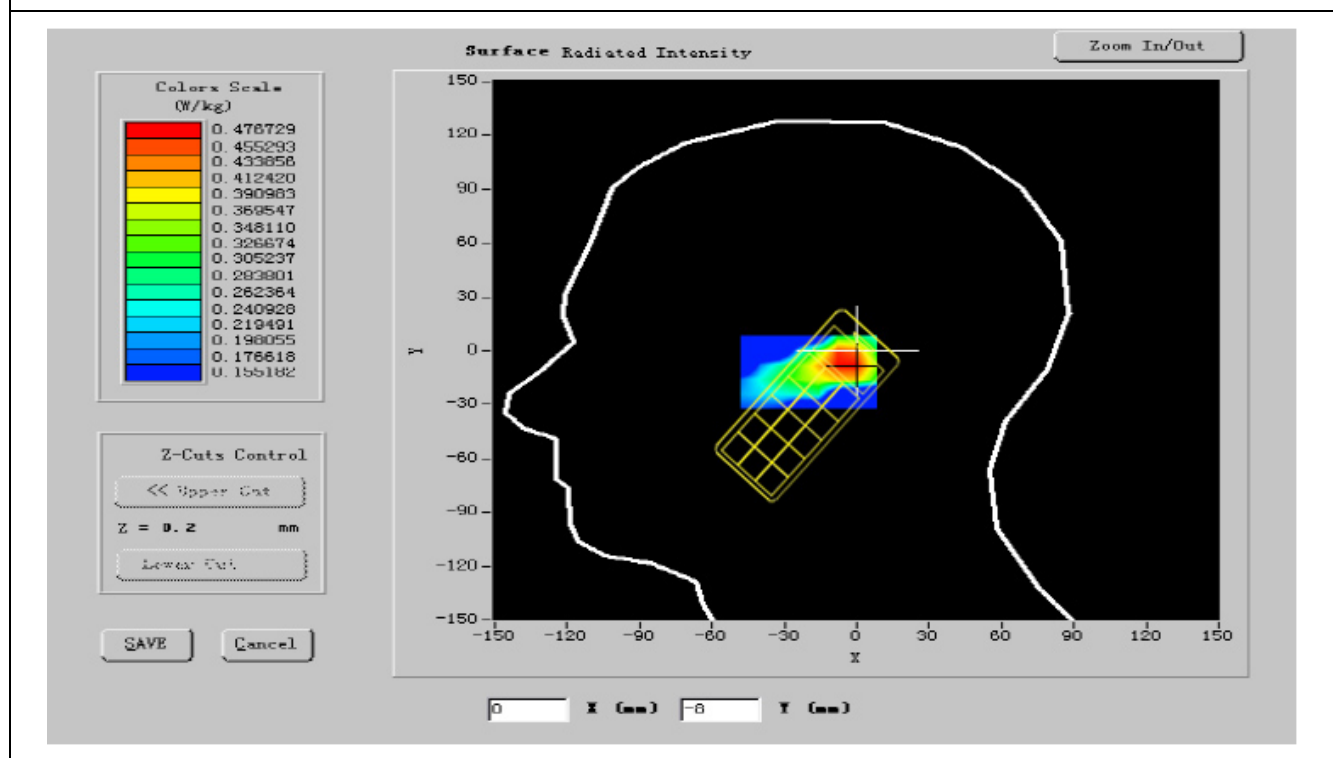
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

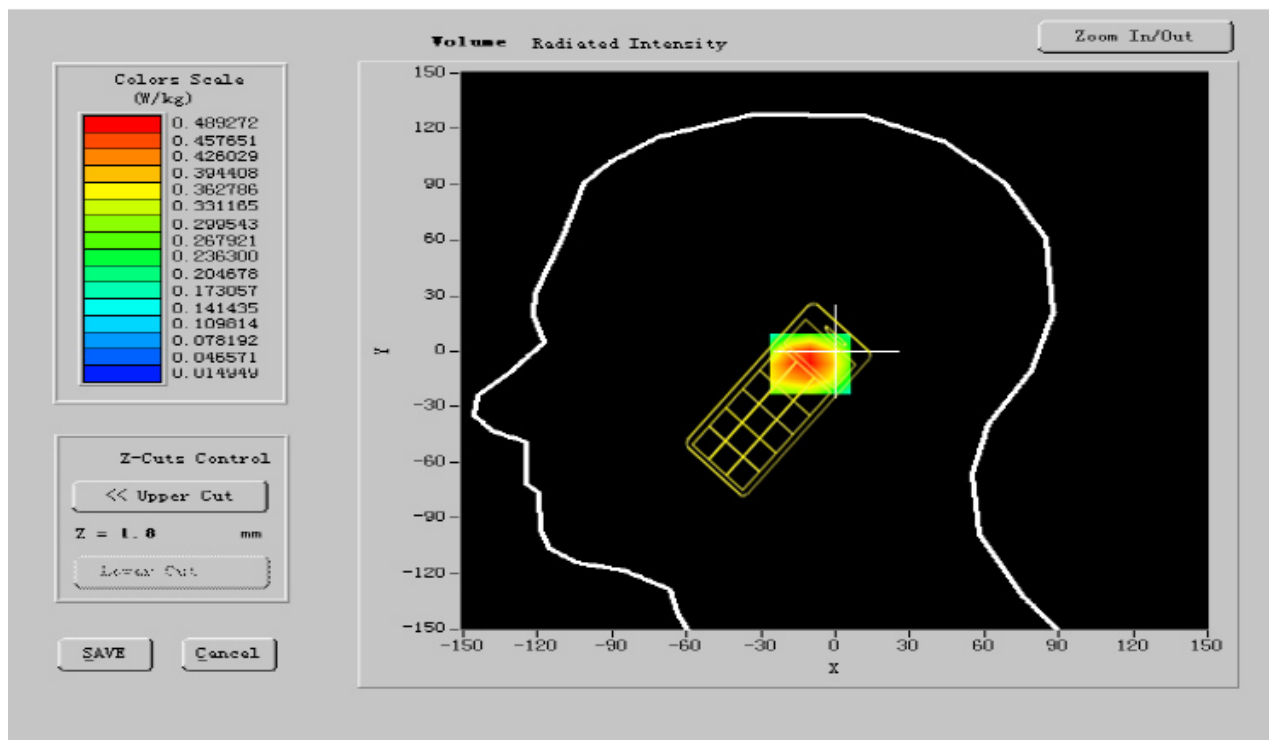
Frequency (MHz)	1909.599976
Relative permittivity (real part)	41.031924
Relative permittivity (imaginary part)	13.669900
Conductivity (S/m)	1.250143
Variation (%)	0.243400
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

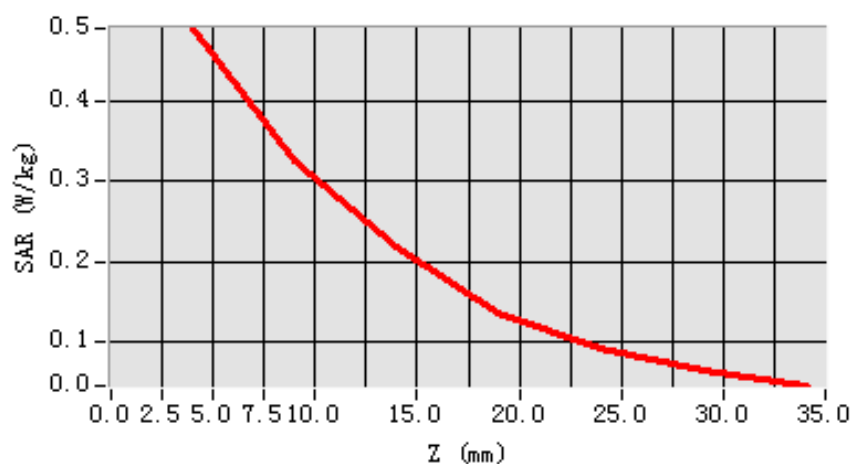
SAR 10g (W/Kg)	0.32134
SAR 1g (W/Kg)	0.42012

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4490	0.3222	0.2164	0.1824	0.0864	0.0354



SAR, Z Axis Scan (X = -3, Y = -7)





## MEASUREMENT 10

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. Instrumentations.

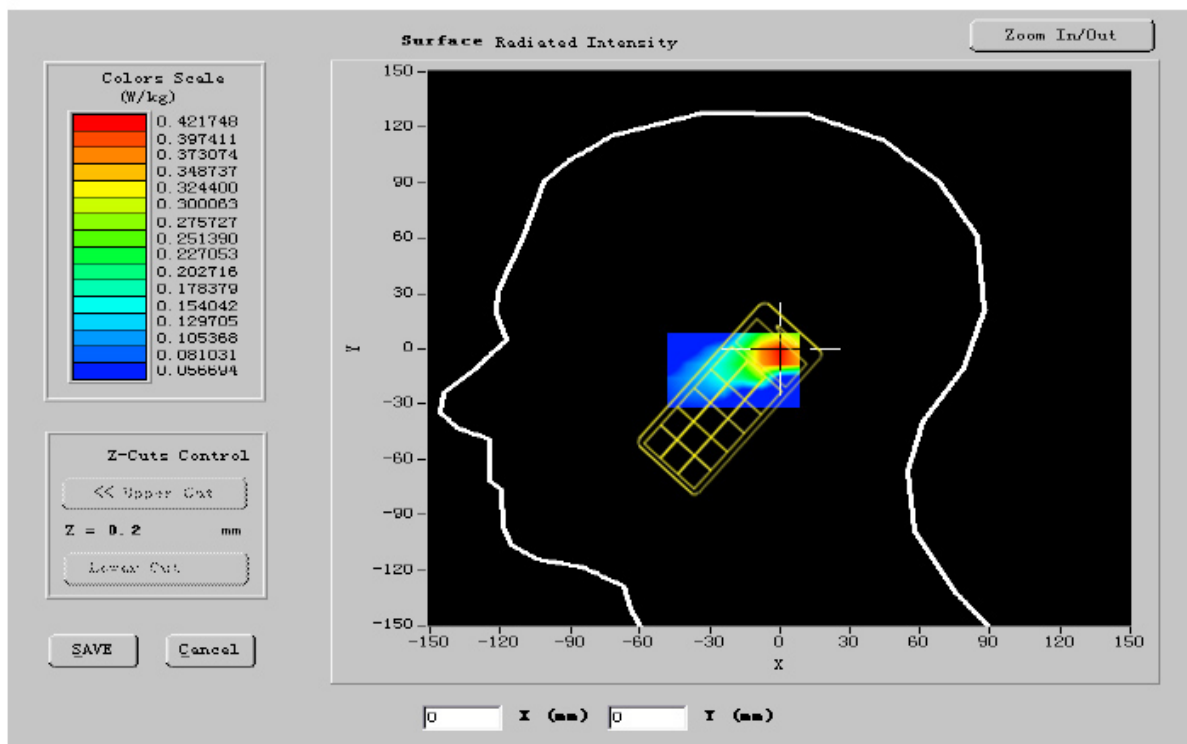
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

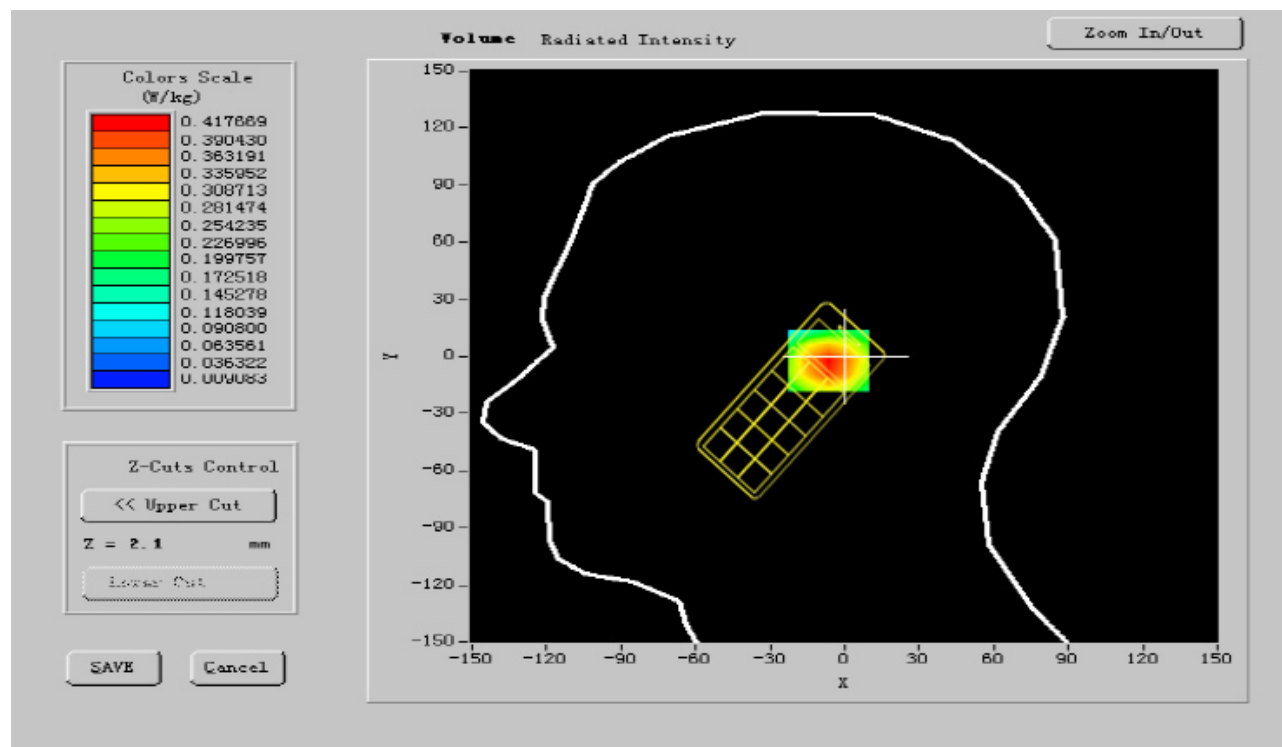
Frequency (MHz)	1850.400024
Relative permittivity (real part)	40.313134
Relative permittivity (imaginary part)	13.584900
Conductivity (S/m)	1.416243
Variation (%)	-0.700000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

SAR 10g (W/Kg)	0.264912
SAR 1g (W/Kg)	0.417950

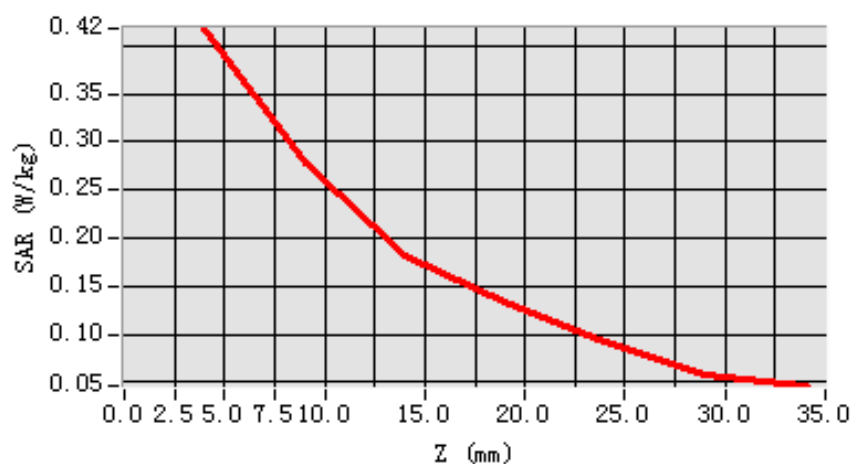
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4032	0.3224	0.2134	0.1864	0.0864	0.0554





SAR, Z Axis Scan (X = 0, Y = -2)





## MEASUREMENT 11

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. Instrumentations.

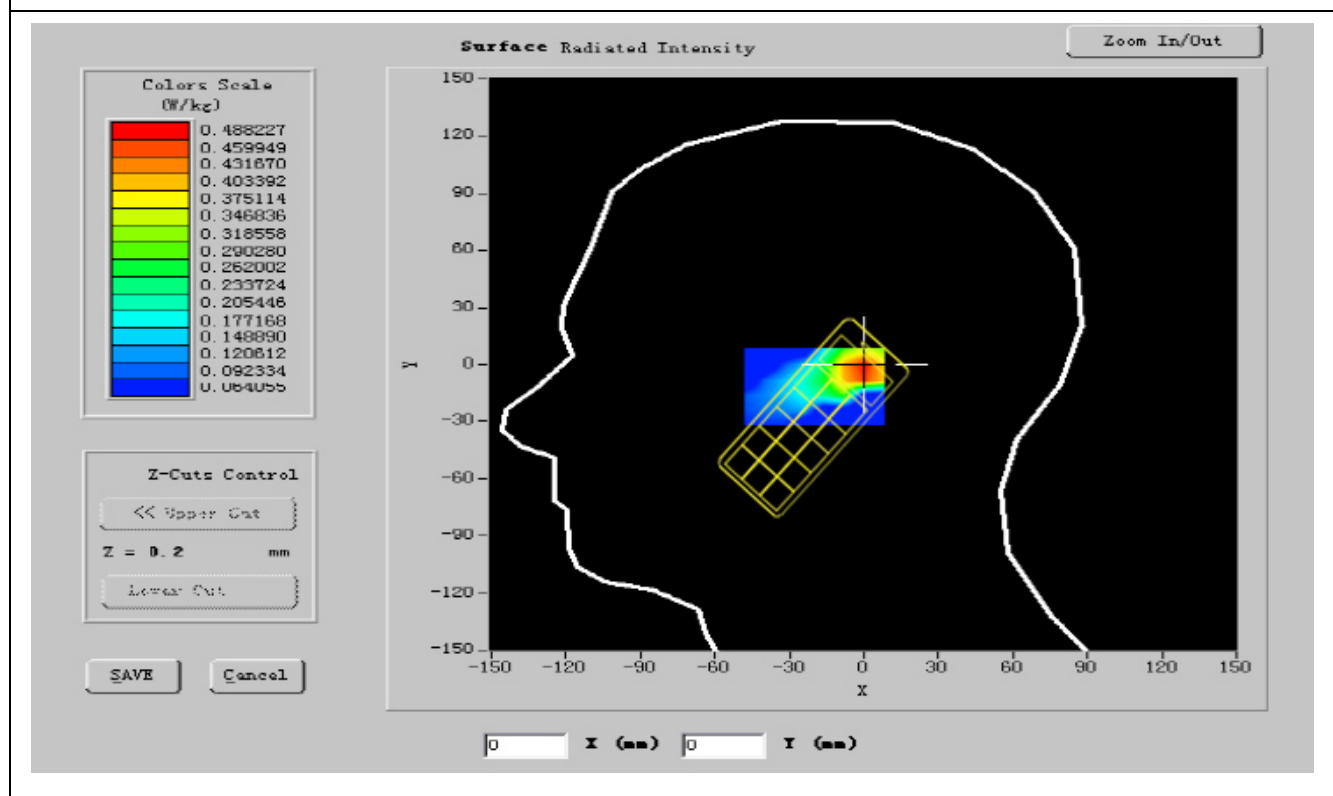
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

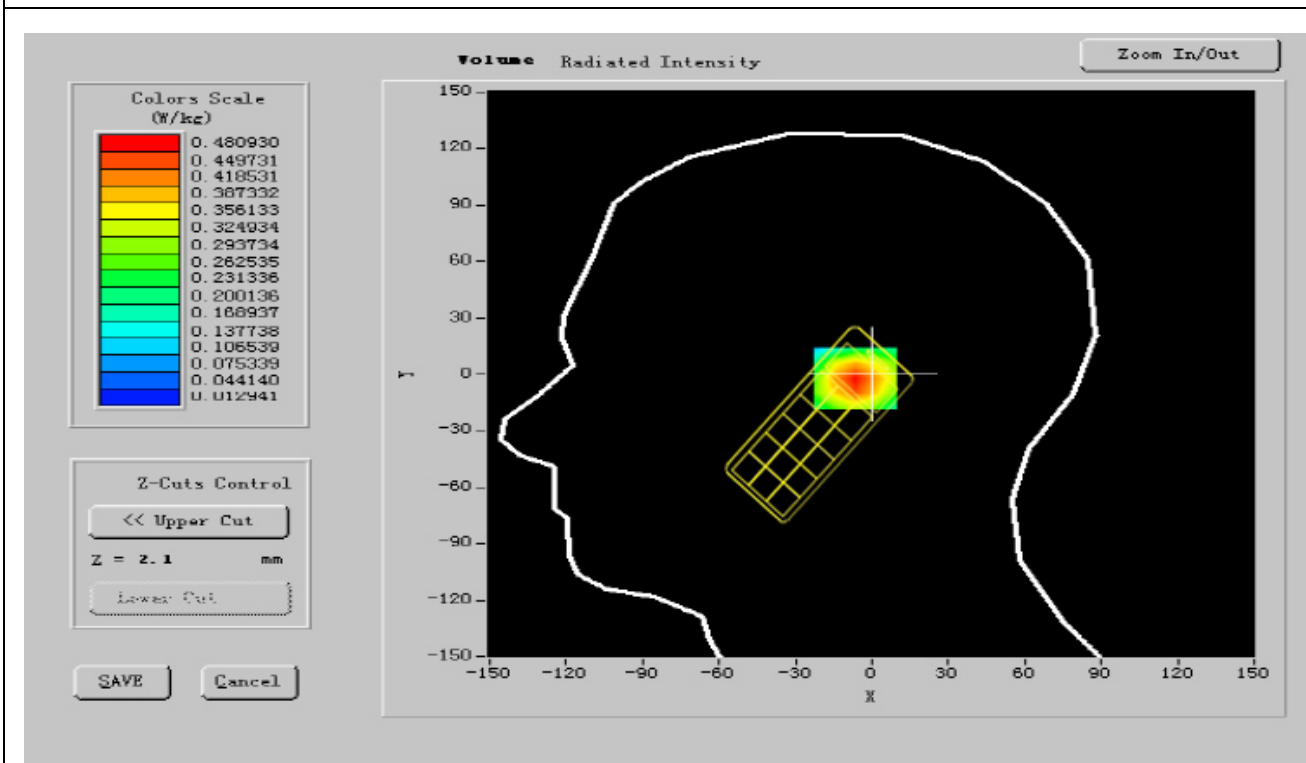
Frequency (MHz)	1880.000000
Relative permittivity (real part)	40.246024
Relative permittivity (imaginary part)	13.813800
Conductivity (S/m)	1.243761
Variation (%)	-1.371000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

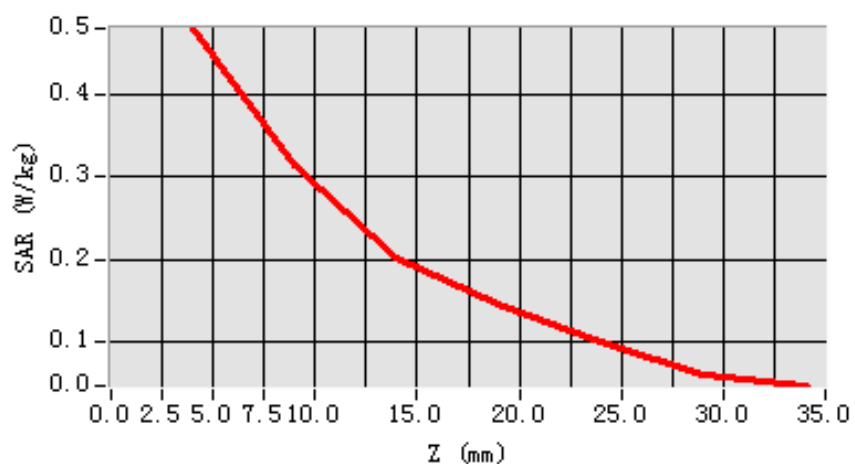
SAR 10g (W/Kg)	0.220125
SAR 1g (W/Kg)	0.402493

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4468	0.3024	0.1934	0.1564	0.0864	0.0084



SAR, Z Axis Scan (X = 0, Y = -2)





## MEASUREMENT 12

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Left head
<b>Device Position</b>	Tilt
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. Instrumentations.

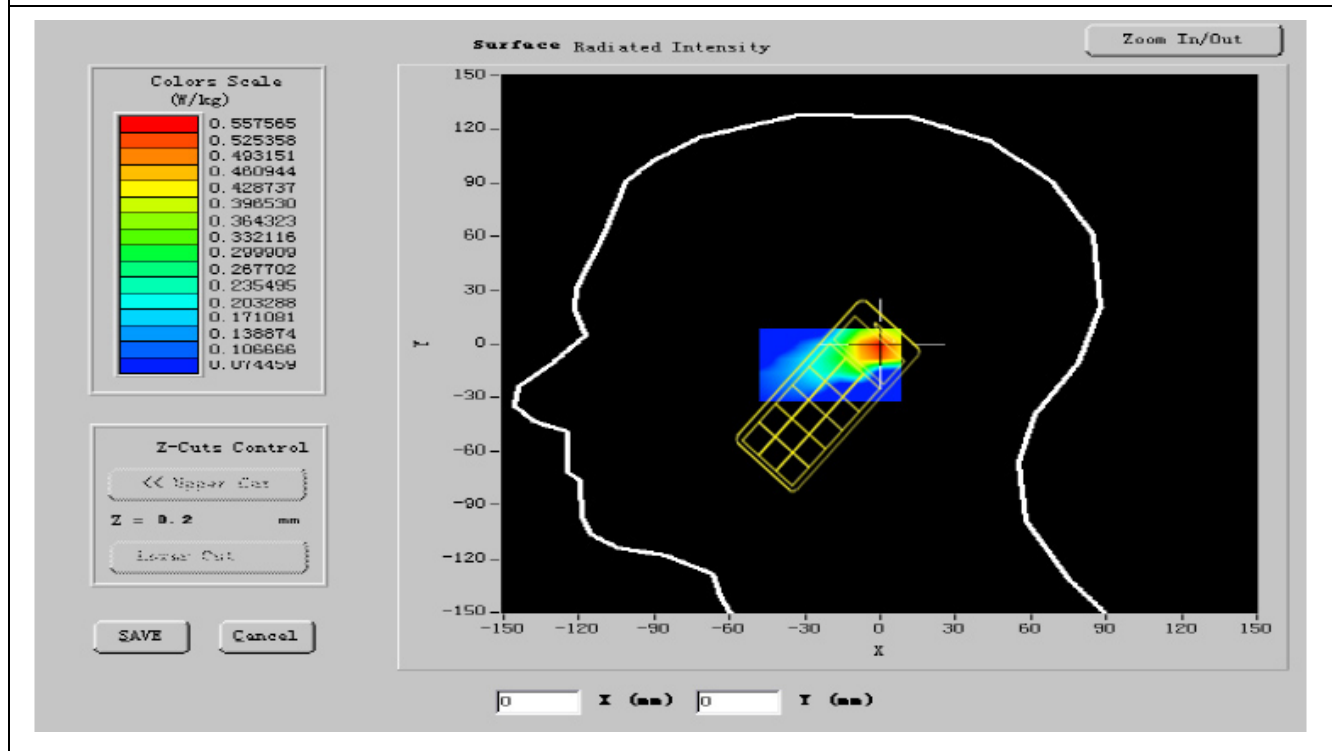
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

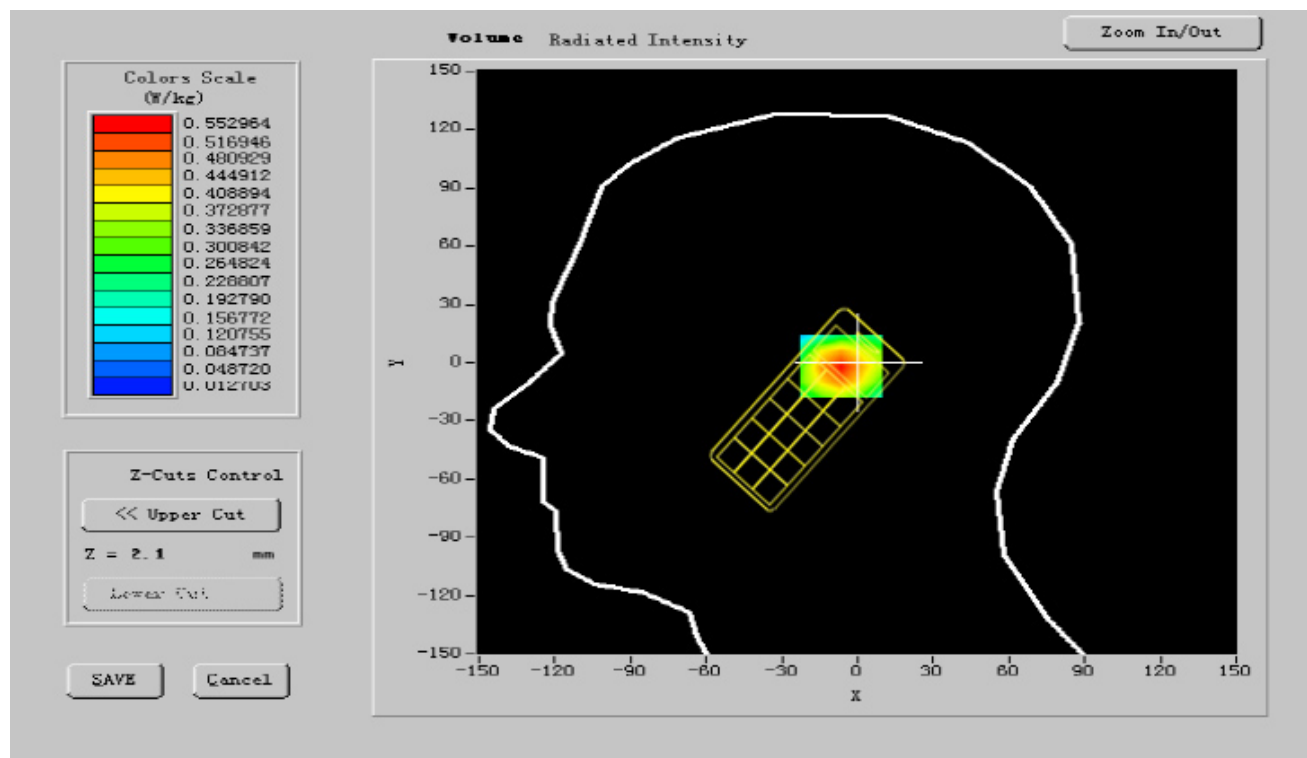
Frequency (MHz)	1909.599976
Relative permittivity (real part)	40.413999
Relative permittivity (imaginary part)	13.669900
Conductivity (S/m)	1.215203
Variation (%)	-1.420000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.91, 43.15, 56.44
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

SAR 10g (W/Kg)	0.302231
SAR 1g (W/Kg)	0.4709462

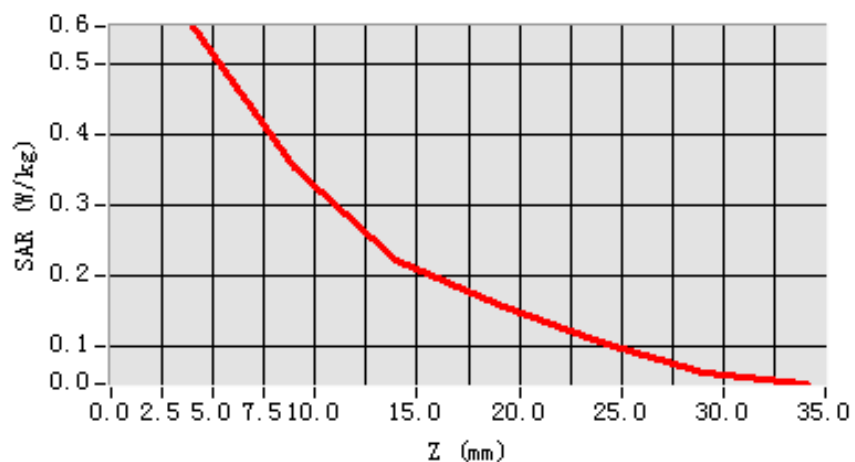
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.4877	0.3377	0.1934	0.1464	0.1264	0.0089





SAR, Z Axis Scan (X = 0, Y = -2)





## MEASUREMENT 13

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Body
<b>Device Position</b>	FrontSide toward phantom
<b>Band</b>	GSM1900
<b>Channels</b>	Low
<b>Signal</b>	GSM

### B. Instrumentations.

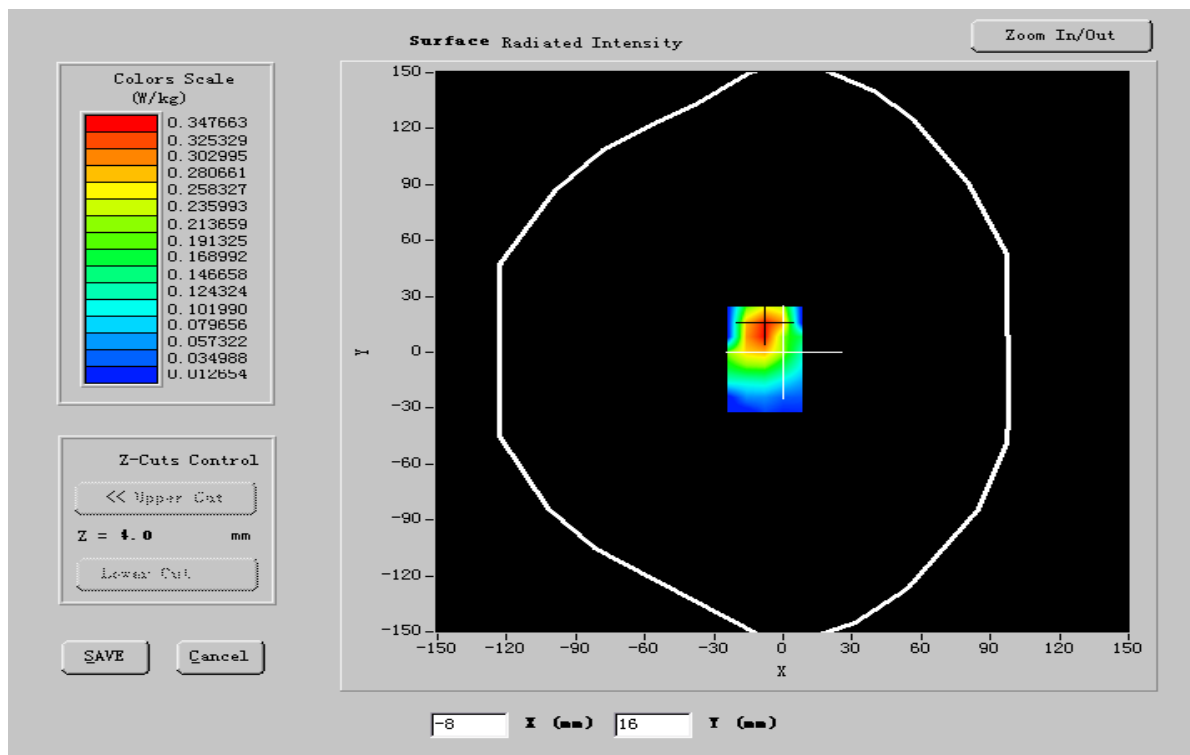
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

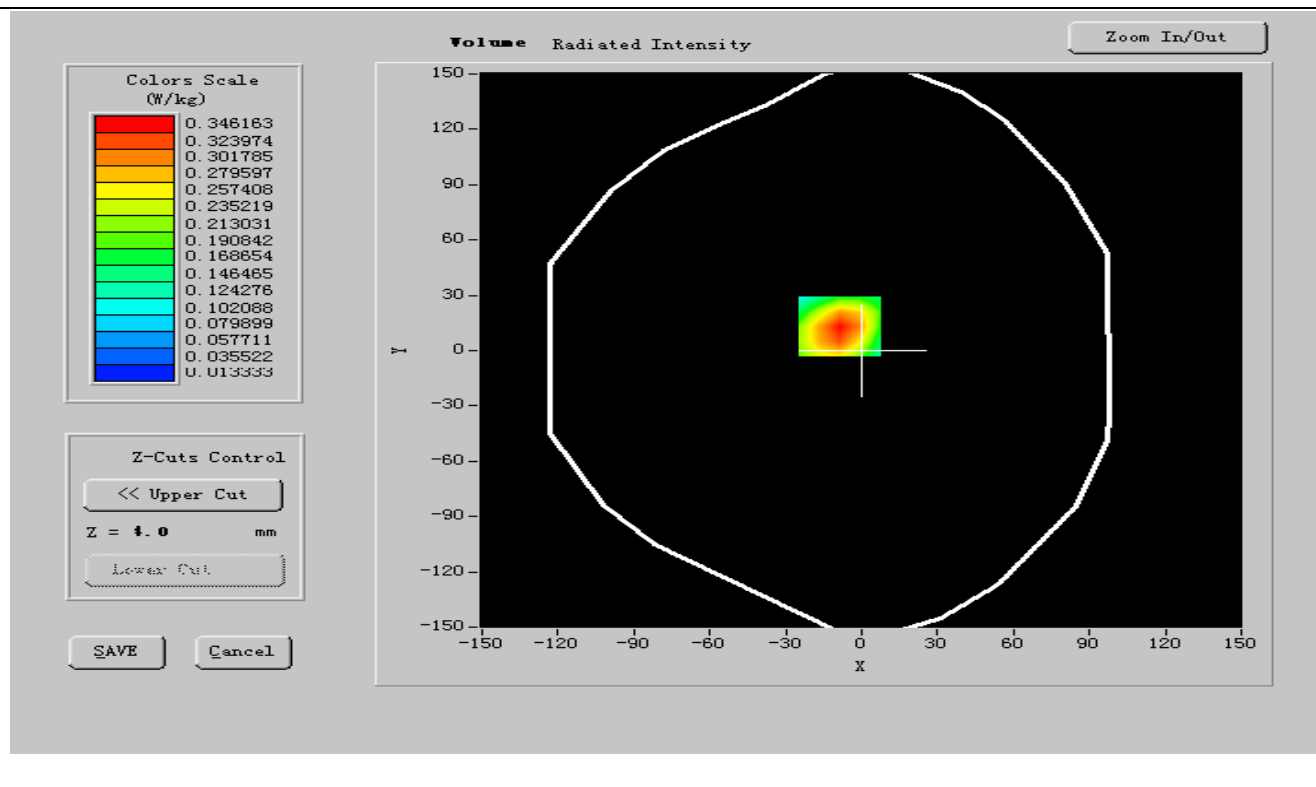
Frequency (MHz)	1850.400024
Relative permittivity (real part)	52.0214000
Relative permittivity (imaginary part)	13.584900
Conductivity (S/m)	1.376521
Variation (%)	-0.271000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.01, 42.41, 55.65
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

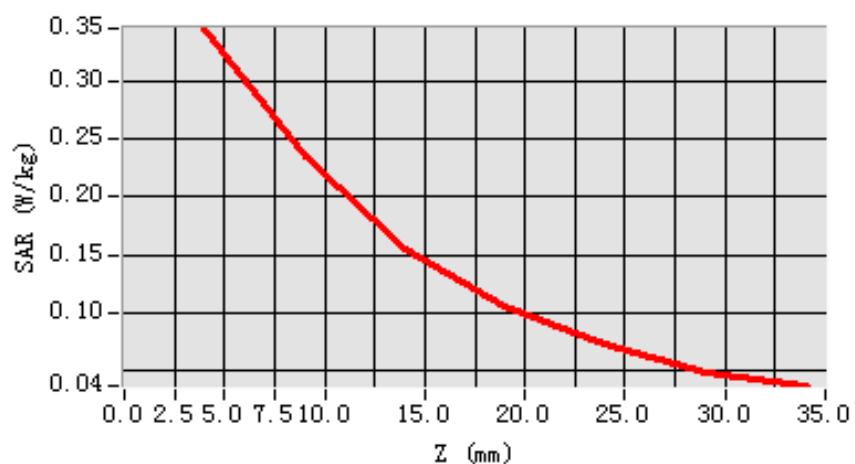
SAR 10g (W/Kg)	0.224795
SAR 1g (W/Kg)	0.3403672

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.3133	0.2873	0.1934	0.1464	0.1264	0.0089



SAR, Z Axis Scan (X = -9, Y = 13)





## MEASUREMENT 14

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Body
<b>Device Position</b>	FrontSide toward phantom
<b>Band</b>	GSM1900
<b>Channels</b>	Middle
<b>Signal</b>	GSM

### B. Instrumentations.

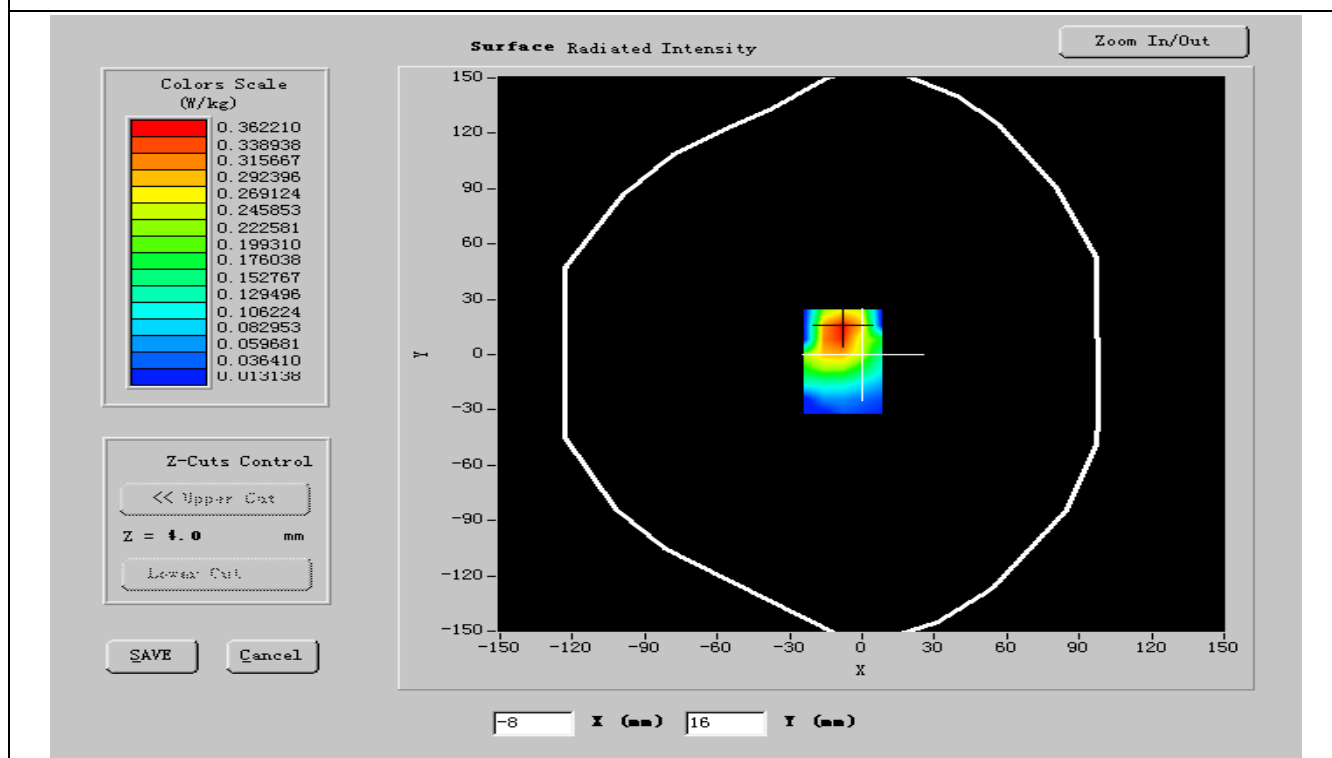
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

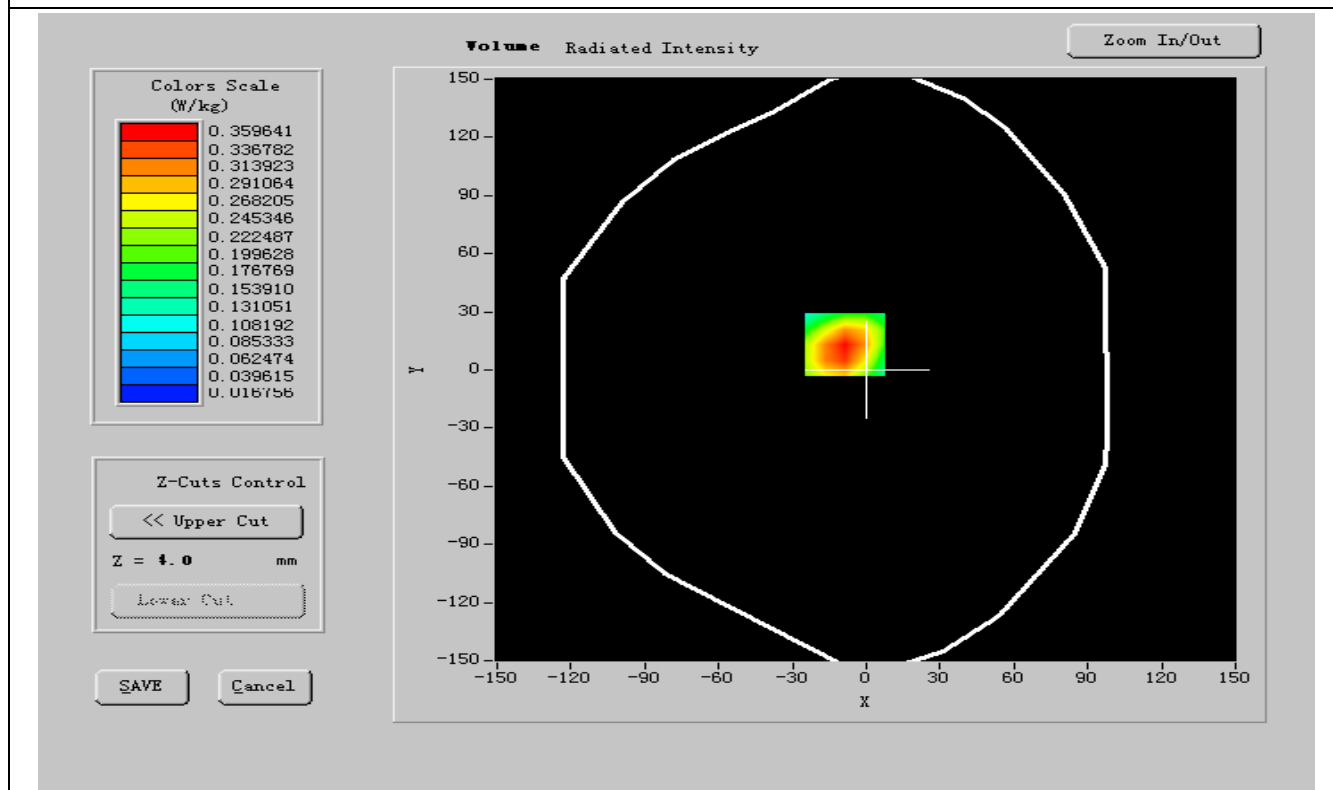
Frequency (MHz)	1880.000000
Relative permittivity (real part)	52.143003
Relative permittivity (imaginary part)	13.813800
Conductivity (S/m)	1.3402775
Variation (%)	-0.360000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.01, 42.41, 55.65
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



**Maximum location: X=-13.00, Y=-3.00**

SAR 10g (W/Kg)	0.304192
SAR 1g (W/Kg)	0.3014463

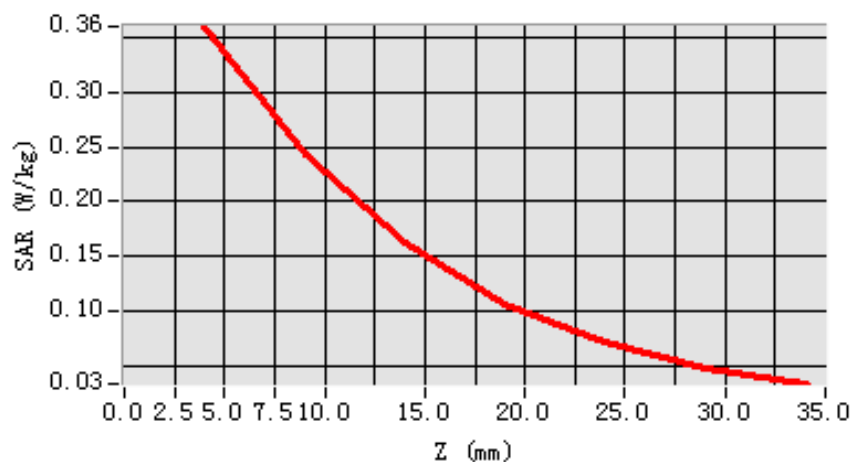
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.3152	0.2832	0.1923	0.1423	0.0932	0.0309





SAR, Z Axis Scan (X = -9, Y = 13)





## MEASUREMENT 15

**Date of measurement: 04/14/2011****Area Scan: 7 x 7 x 1****dx=15mm****dy=15mm****Zoom Scan: 5 x 5 x 7****dx=5mm****dy=5mm****dz=5mm****Z Axis Scan: 1 x 1 x 21****dx=20mm****dy=20mm****dz=5mm**

### A. Experimental conditions.

<b>Phantom File</b>	zinf15.txt, Adaptive 2 max
<b>Phantom</b>	Body
<b>Device Position</b>	FrontSide toward phantom
<b>Band</b>	GSM1900
<b>Channels</b>	High
<b>Signal</b>	GSM

### B. Instrumentations.

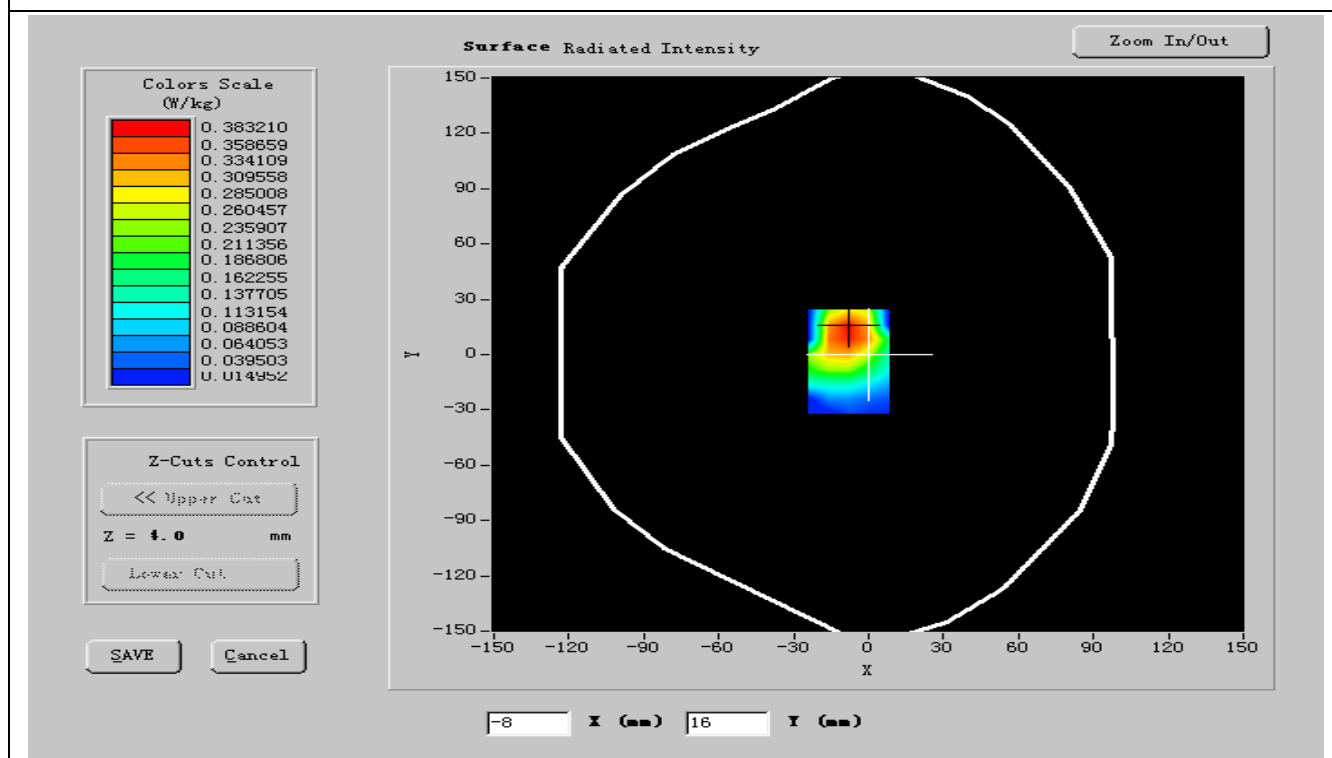
<b>PC</b>	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
<b>Wireless Communication Test Set</b>	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
<b>Network Analyzer</b>	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
<b>Voltmeter</b>	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
<b>Signal Generator</b>	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
<b>Amplifier</b>	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
<b>Power Meter</b>	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
<b>Probe</b>	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
<b>DIPOLE 1900</b>	Antennessa (DIP136, SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
<b>Liquid</b>	Antennessa	Calibration Due: N/A
<b>Measurement SW</b>	OPEN SAR V2.1	Calibration Due: N/A



## C. SAR Measurement Results

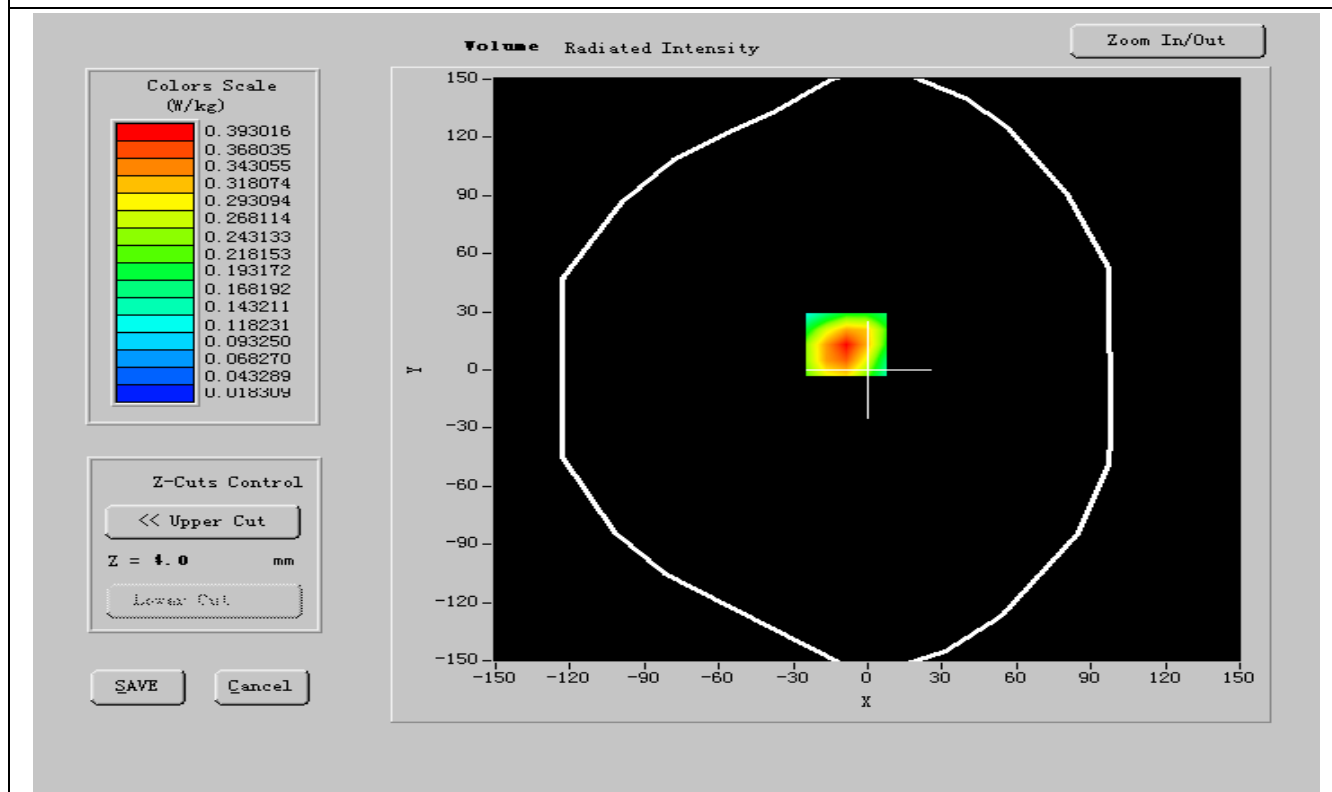
Frequency (MHz)	1909.599976
Relative permittivity (real part)	52.134999
Relative permittivity (imaginary part)	13.669900
Conductivity (S/m)	1.142022
Variation (%)	-0.260000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	41.01, 42.41, 55.65
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



Maximum location: X=-13.00, Y=-3.00

SAR 10g (W/Kg)	0.224497
SAR 1g (W/Kg)	0.342414

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.3571	0.2832	0.1823	0.1423	0.0923	0.0322



SAR, Z Axis Scan (X = -9, Y = 13)

