



## I. 850MHz Band RESULTS

<u>TYPE</u>	<u>PARAMETERS</u>
<b><u>Phone</u></b>	<p><u>Measurement 1:</u> Right Head with Cheek device position on Low Channel in GSM850 mode</p> <p><u>Measurement 2:</u> Right Head with Cheek device position on Middle Channel in GSM850 mode</p> <p><u>Measurement 3:</u> Right Head with Cheek device position on High Channel in GSM850 mode</p> <p><u>Measurement 4:</u> Right Head with Tilt device position on Low Channel in GSM850 mode</p> <p><u>Measurement 5:</u> Right Head with Tilt device position on Middle Channel in GSM850 mode</p> <p><u>Measurement 6:</u> Right Head with Tilt device position on High Channel in GSM850 mode</p> <p><u>Measurement 7:</u> Left Head with Cheek device position on Low Channel in GSM850 mode</p> <p><u>Measurement 8:</u> Left Head with Cheek device position on Middle Channel in GSM850 mode</p> <p><u>Measurement 9:</u> Left Head with Cheek device position on High Channel in GSM850 mode</p> <p><u>Measurement 10:</u> Left Head with Tilt device position on Low Channel in GSM850 mode</p> <p><u>Measurement 11:</u> Left Head with Tilt device position on Middle Channel in GSM850 mode</p> <p><u>Measurement 12:</u> Left Head with Tilt device position on High Channel in GSM850 mode</p> <p><u>Measurement 13:</u> FrontSide toward phantom 15mm, Low Channel in GSM850 mode</p> <p><u>Measurement 14:</u> FrontSide toward phantom 15mm, Middle Channel in GSM850 mode</p> <p><u>Measurement 15:</u> FrontSide toward phantom 15mm, High Channel in GSM850 mode</p>



## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	GSM

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIP132,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A

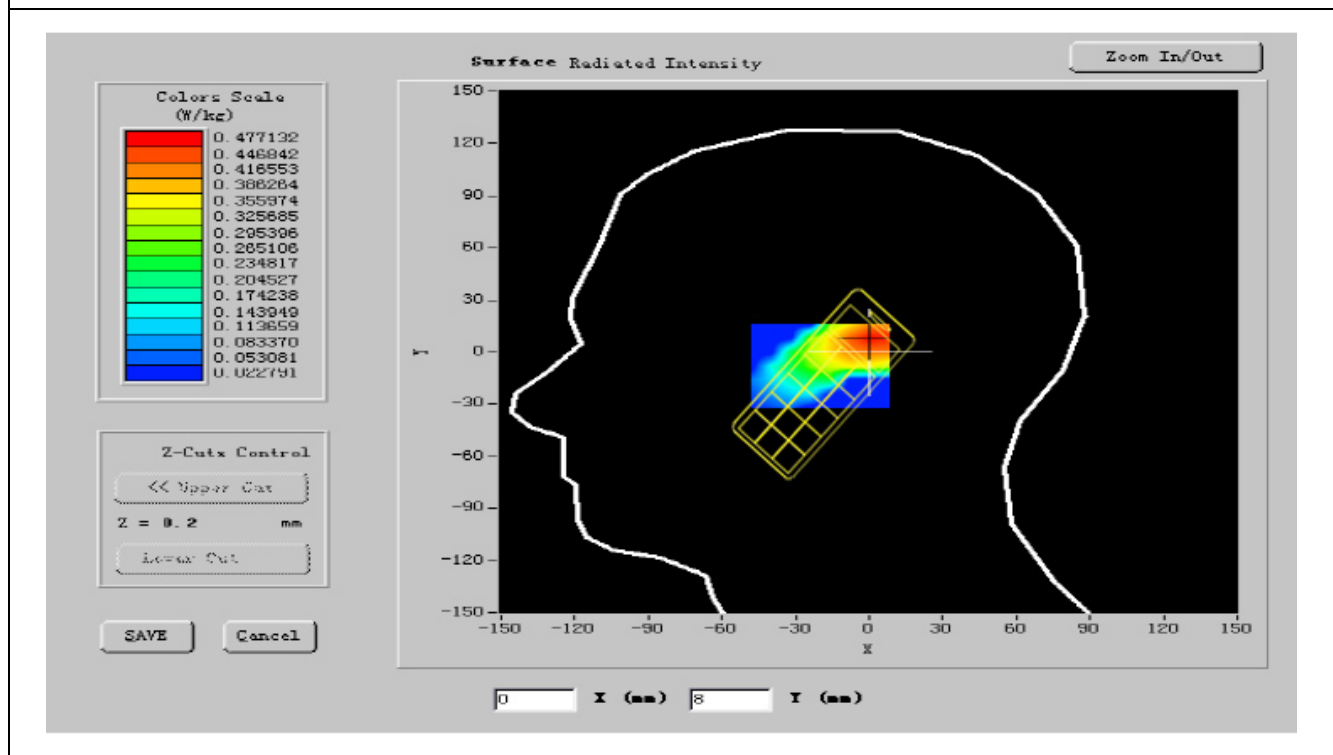


Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

### C. SAR Measurement Results

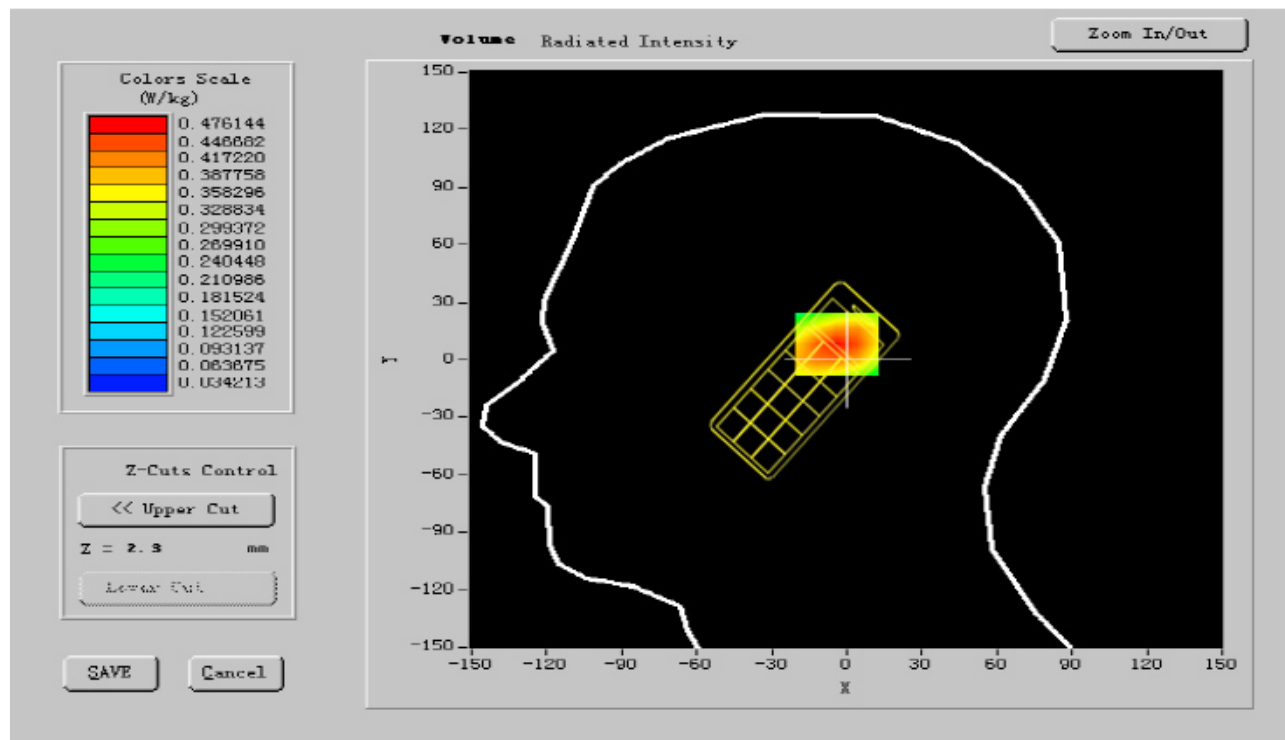
Frequency (MHz)	824.200012
Relative permittivity (real part)	41.236999
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.953392
Variation (%)	-1.260000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

#### SURFACE SAR





## VOLUME SAR



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

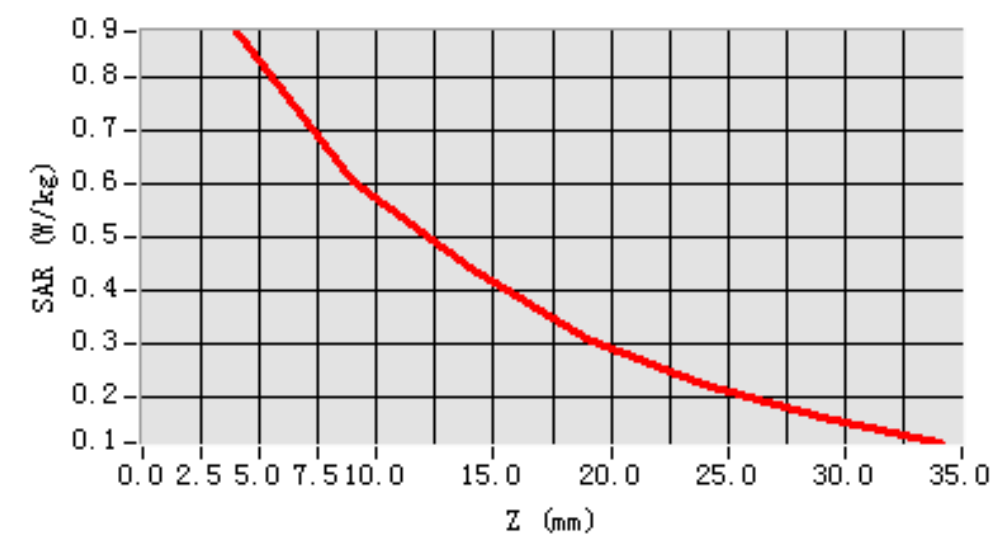
SAR 10g (W/Kg)	0.521416
SAR 1g (W/Kg)	0.801137

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.8491	0.5876	0.4532	0.2756	0.1985	0.1465



**SAR, Z Axis Scan (X = -13, Y = -3)**





## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	GSM

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIP132,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A

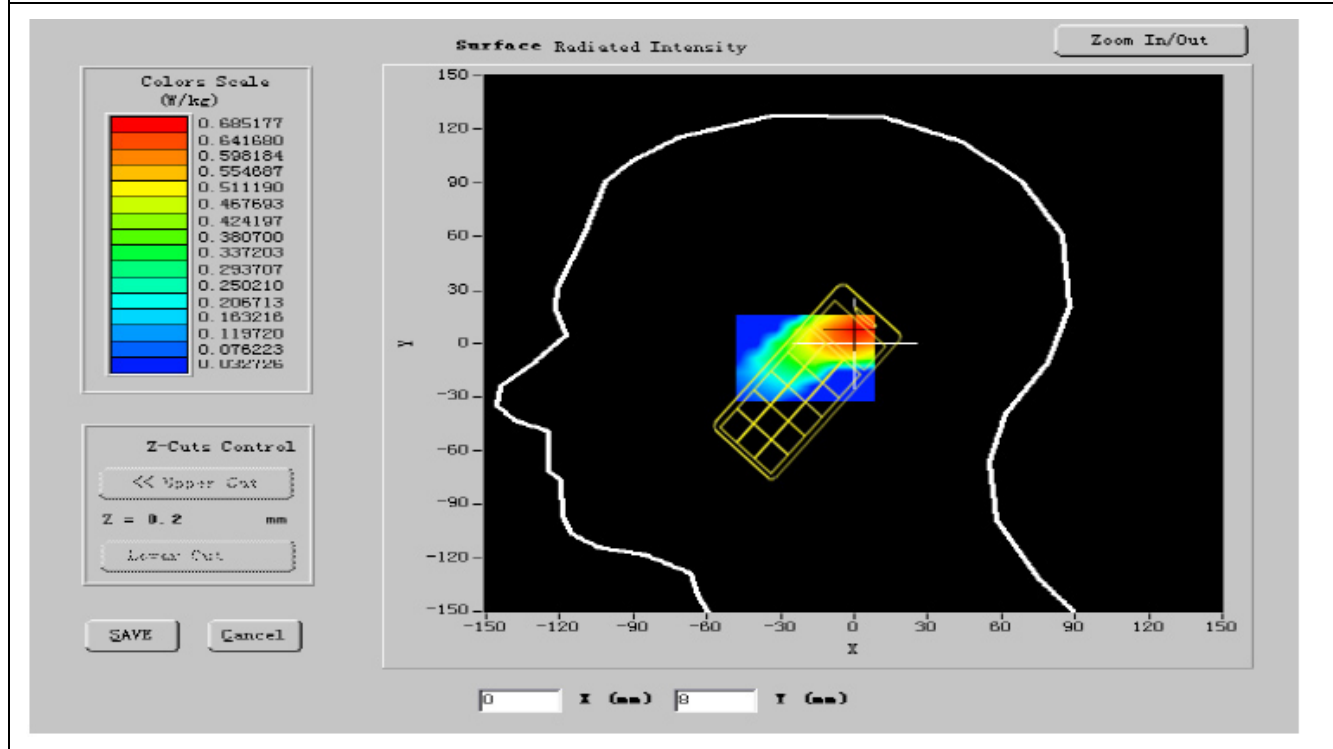


Liquid	Antenna	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

Frequency (MHz)	836.600024
Relative permittivity (real part)	41.156999
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.921616
Variation (%)	-0.125000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





**VOLUME SAR**

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

SAR 10g (W/Kg)	0.513214
SAR 1g (W/Kg)	0.825327

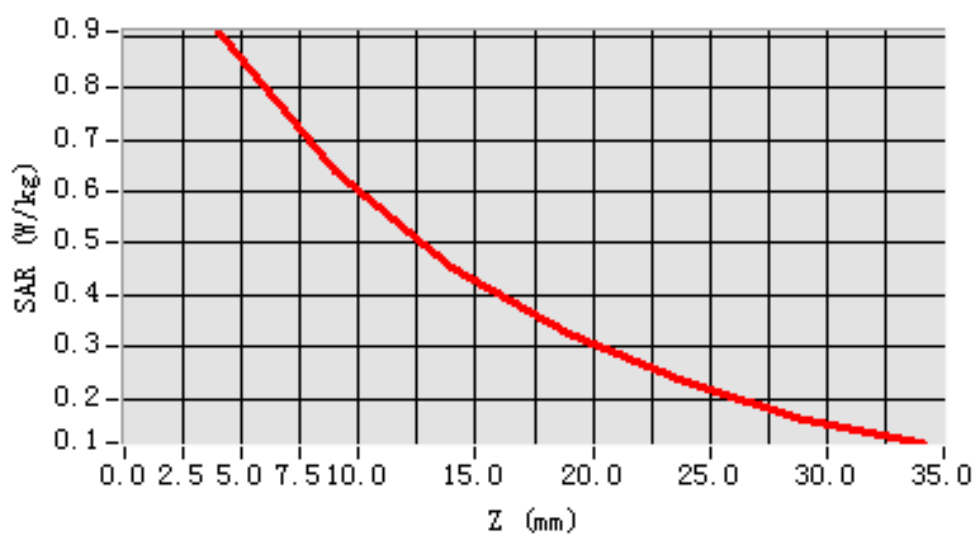
**Z Axis Scan**

<b>Z(mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>	<b>24.00</b>	<b>29.00</b>
<b>SAR (W/kg)</b>	<b>0.0000</b>	<b>0.8683</b>	<b>0.5987</b>	<b>0.4463</b>	<b>0.4073</b>	<b>0.2345</b>	<b>0.1673</b>





**SAR, Z Axis Scan (X = -13, Y = -3)**





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,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

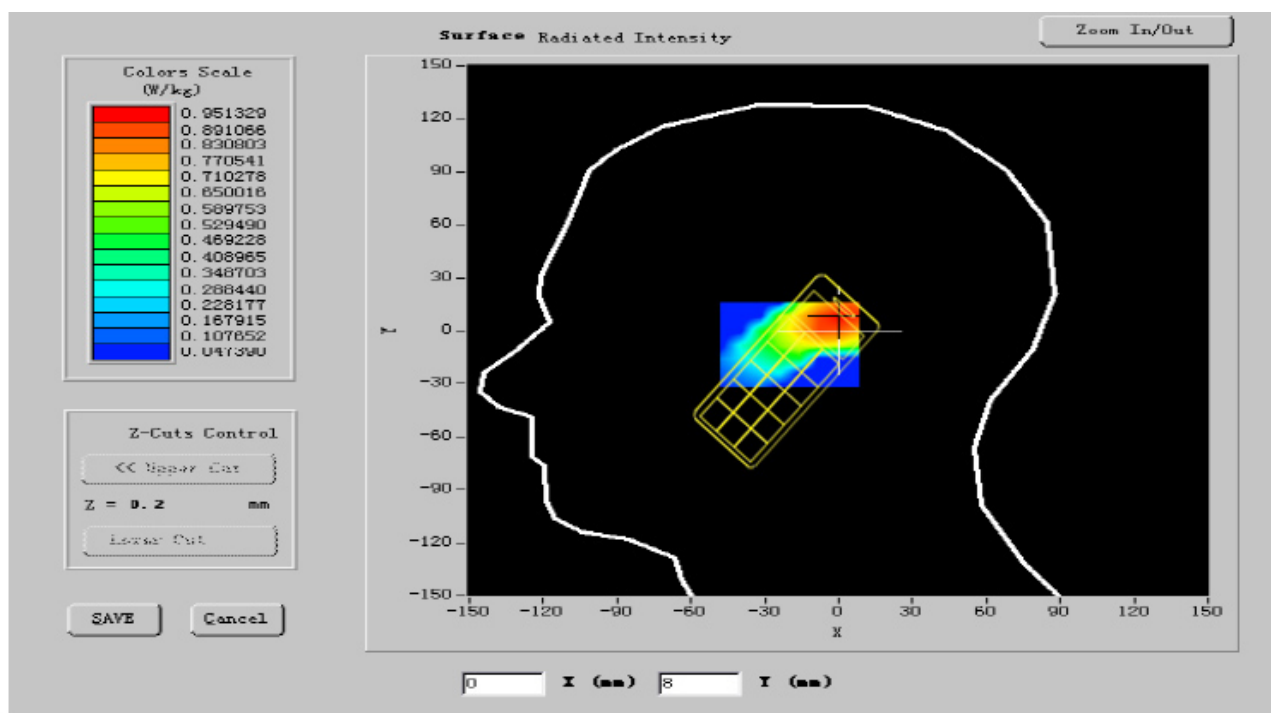


Measurement SW	OPEN SAR V2.1	Calibration Due: N/A
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## C. SAR Measurement Results

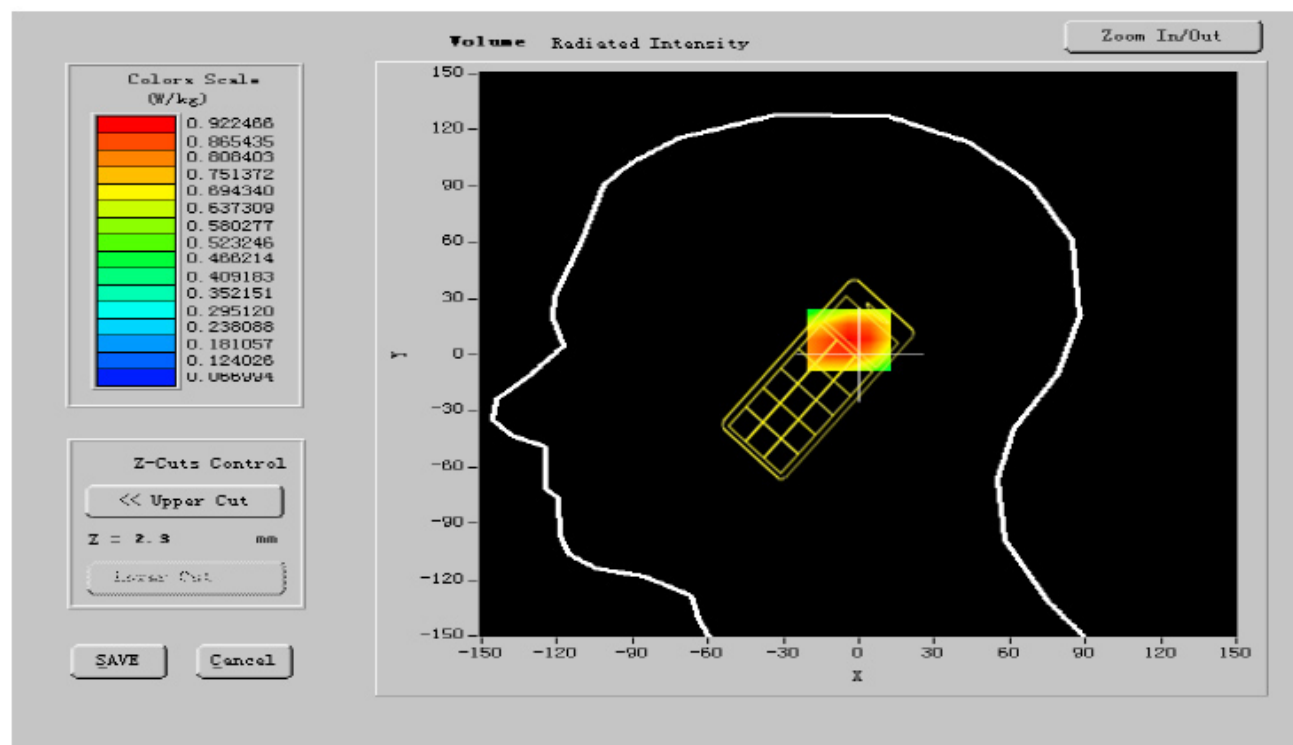
Frequency (MHz)	848.799976
Relative permittivity (real part)	41.352001
Relative permittivity (imaginary part)	19.598200
Conductivity (S/m)	0.943946
Variation (%)	-0.127000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

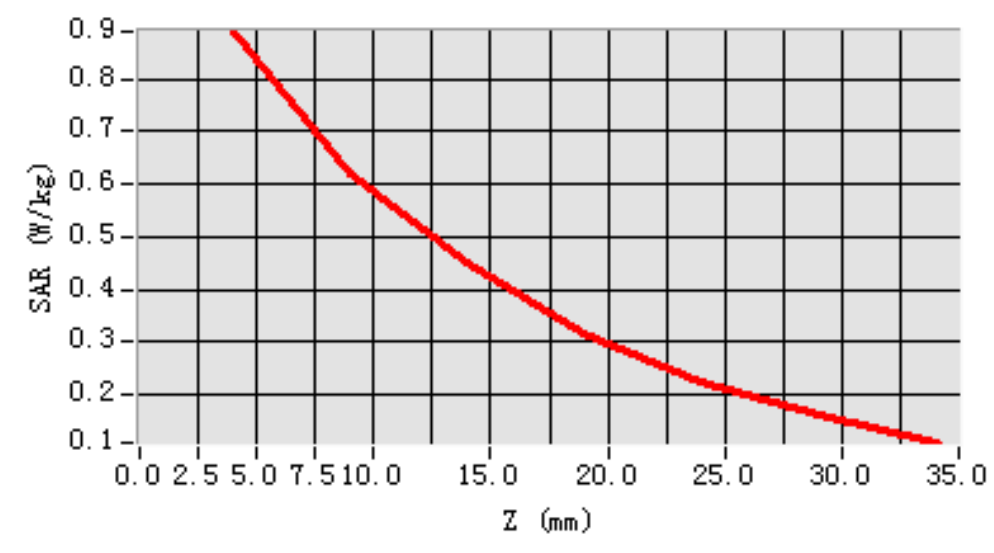
SAR 10g (W/Kg)	0.516241
SAR 1g (W/Kg)	0.887148

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.84446	0.58763	0.4127	0.2947	0.1987	0.1324



**SAR, Z Axis Scan (X = -13, Y = -3)**





## 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>	GSM850
<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 835</b>	Antennessa (DIP132,SN 48/05)	Calibration Due: 02/09/2012
<b>Phantom</b>	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A



Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

**C. SAR Measurement Results**

Frequency (MHz)	824.200012
Relative permittivity (real part)	41.576999
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.954392
Variation (%)	-3.360000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

**SURFACE SAR**

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

SAR 10g (W/Kg)	0.324310
SAR 1g (W/Kg)	0.517521

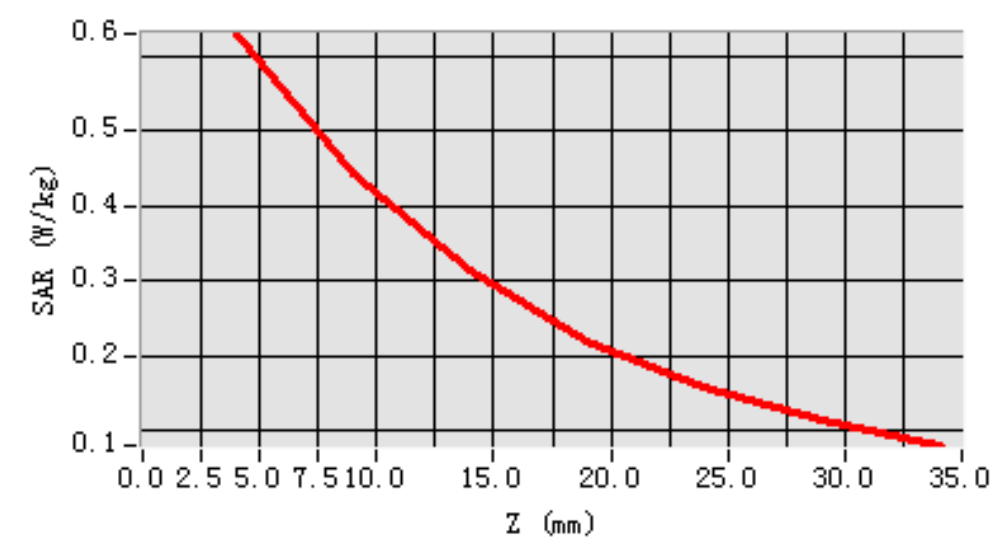
**Z Axis Scan**

<b>Z(mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>	<b>24.00</b>	<b>29.00</b>
<b>SAR (W/kg)</b>	<b>0.0000</b>	<b>0.5756</b>	<b>0.4854</b>	<b>0.3354</b>	<b>0.2154</b>	<b>0.1911</b>	<b>0.0111</b>





SAR, Z Axis Scan (X = -9, Y = -6)





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,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



Measurement SW	OPEN SAR V2.1	Calibration Due: N/A
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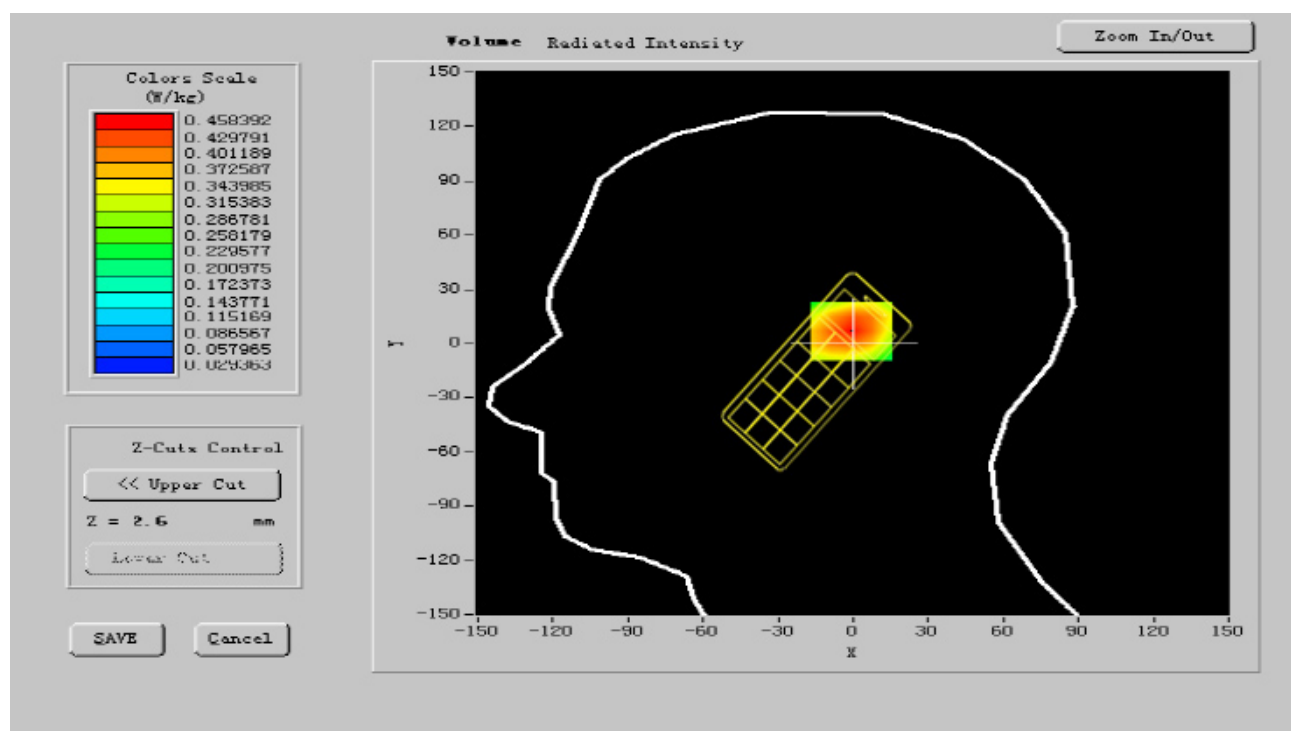
**C. SAR Measurement Results**

Frequency (MHz)	836.600024
Relative permittivity (real part)	41.753999
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.947625
Variation (%)	-0.657000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

**SURFACE SAR**



## VOLUME SAR



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

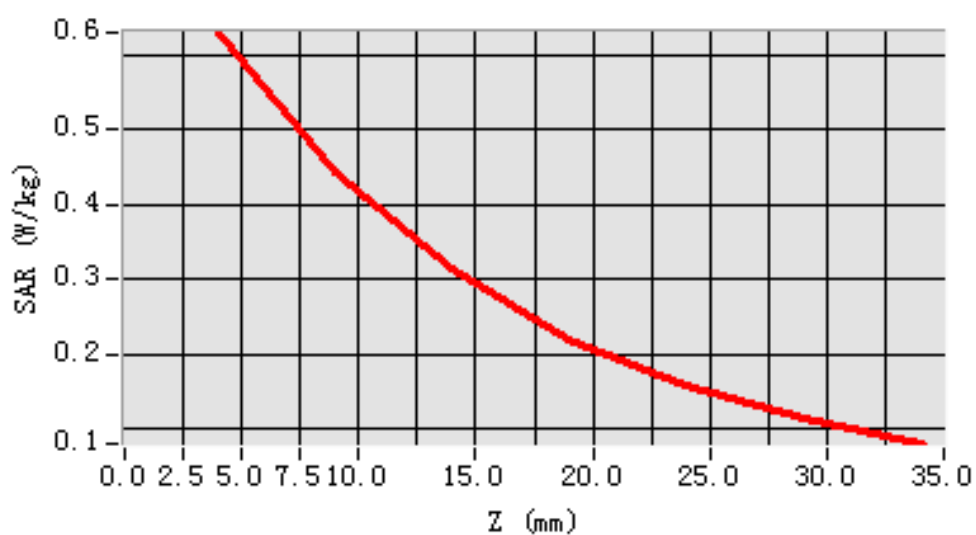
SAR 10g (W/Kg)	0.451604
SAR 1g (W/Kg)	0.600424

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5929	0.4354	0.3354	0.2154	0.1611	0.0123



SAR, Z Axis Scan (X = -9, Y = -6)





## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	GSM

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012

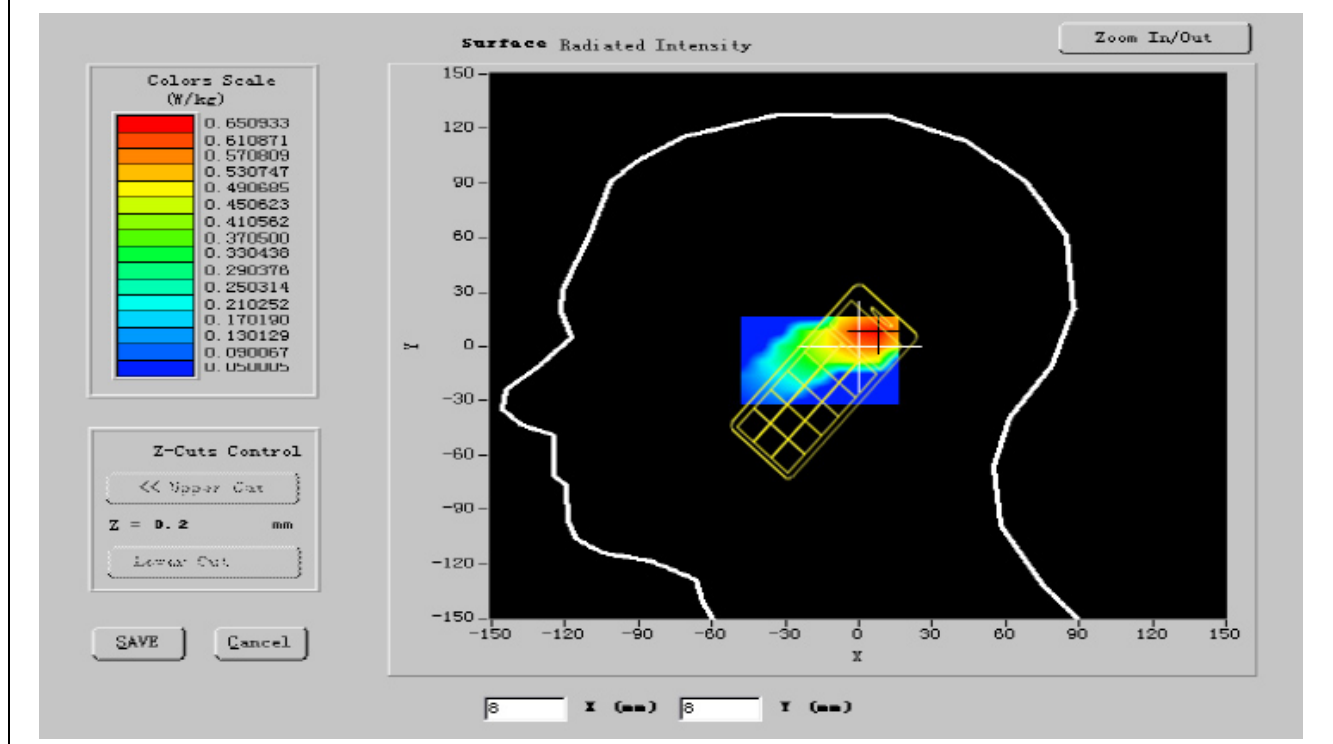


Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

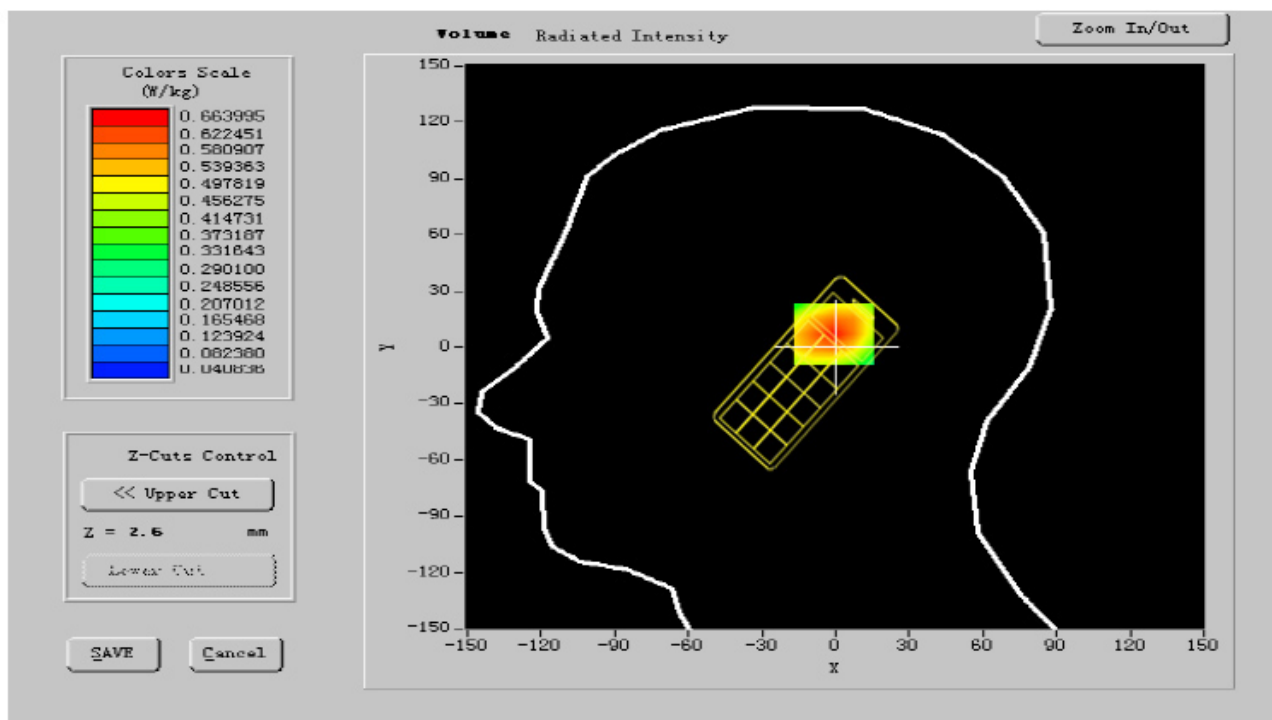
Frequency (MHz)	848.799976
Relative permittivity (real part)	41.546001
Relative permittivity (imaginary part)	19.598200
Conductivity (S/m)	0.975944
Variation (%)	-3.485000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.4156644
SAR 1g (W/Kg)	0.647540

### Z Axis Scan

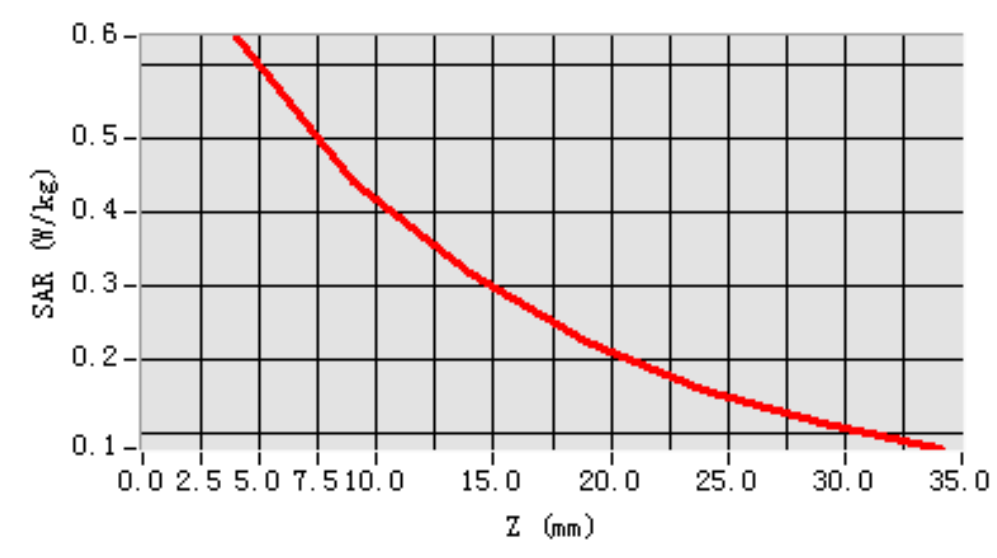
Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.5994	0.4354	0.3354	0.2154	0.1611	0.1234





(W/kg)							
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SAR, Z Axis Scan (X = -9, Y = -6)





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012

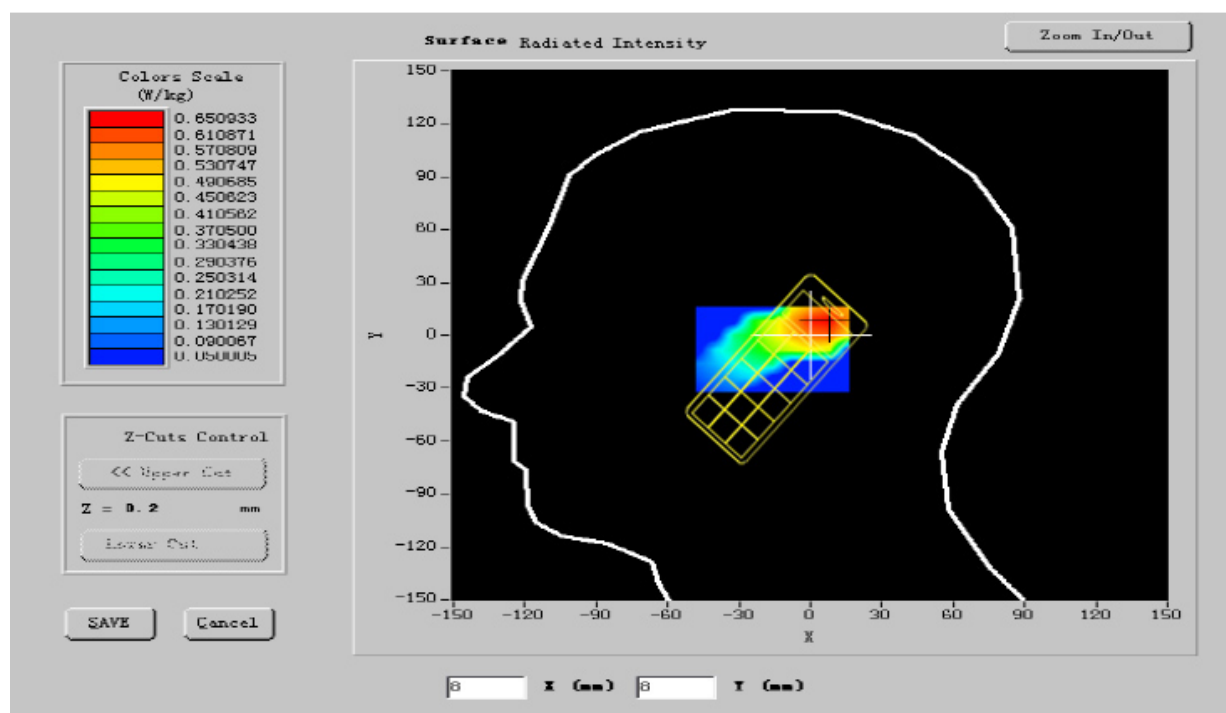


Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

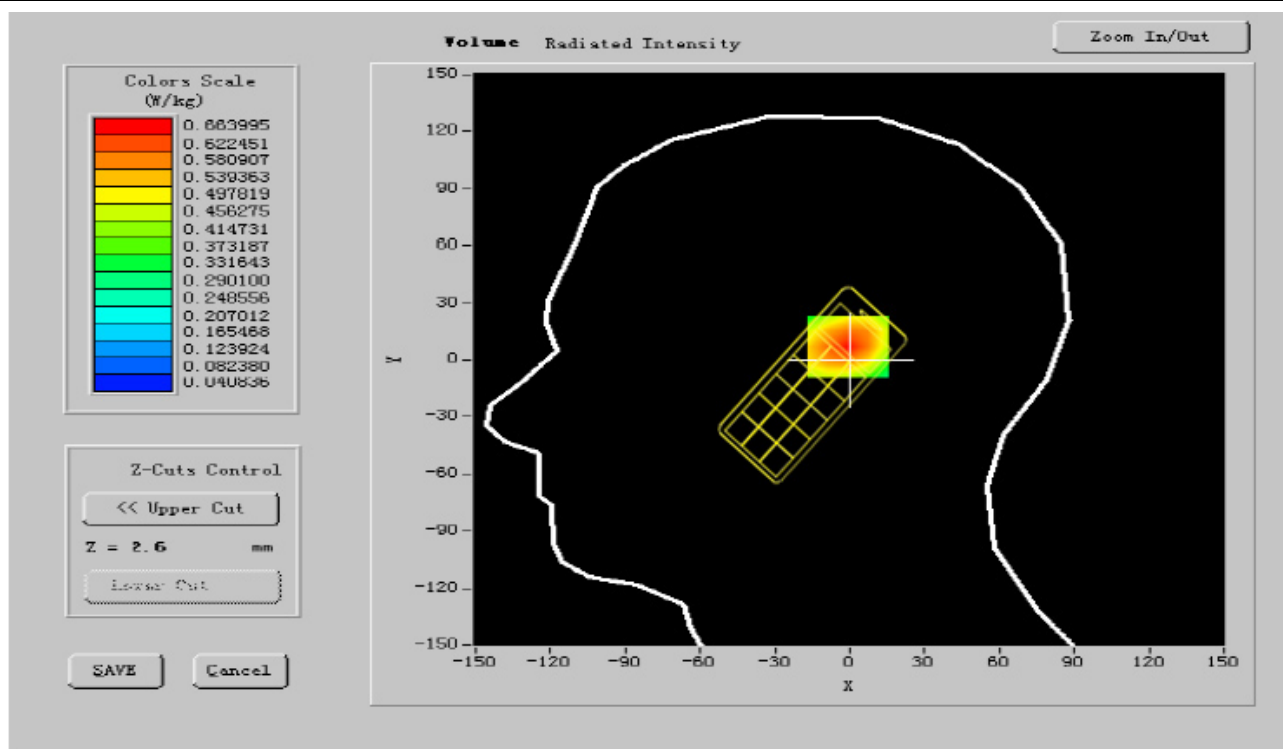
Frequency (MHz)	824.200012
Relative permittivity (real part)	41.754999
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.958637
Variation (%)	-1.450000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

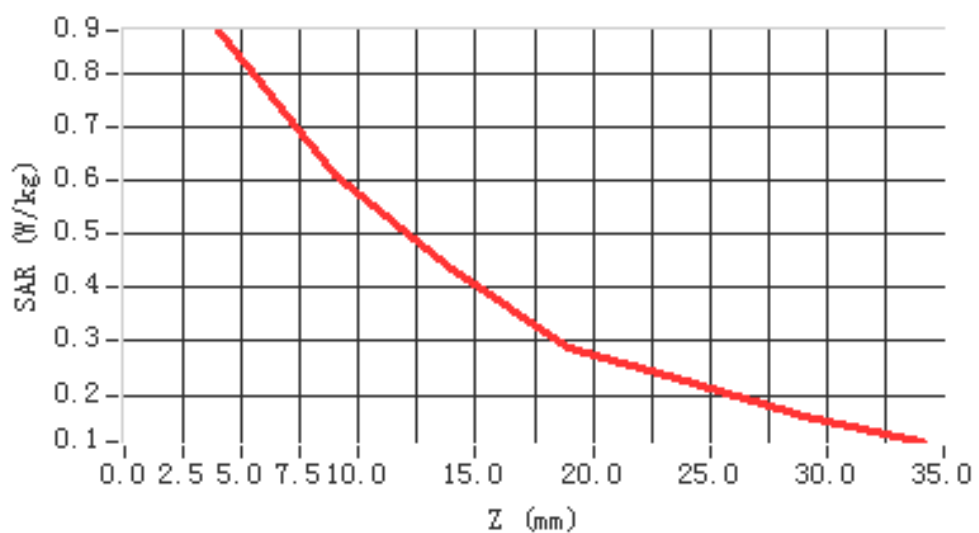
SAR 10g (W/Kg)	0.524614
SAR 1g (W/Kg)	0.875125

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.8390	0.5354	0.4154	0.2854	0.2111	0.1352



SAR, Z Axis Scan (X = -25, Y = -11)





## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	GSM

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012

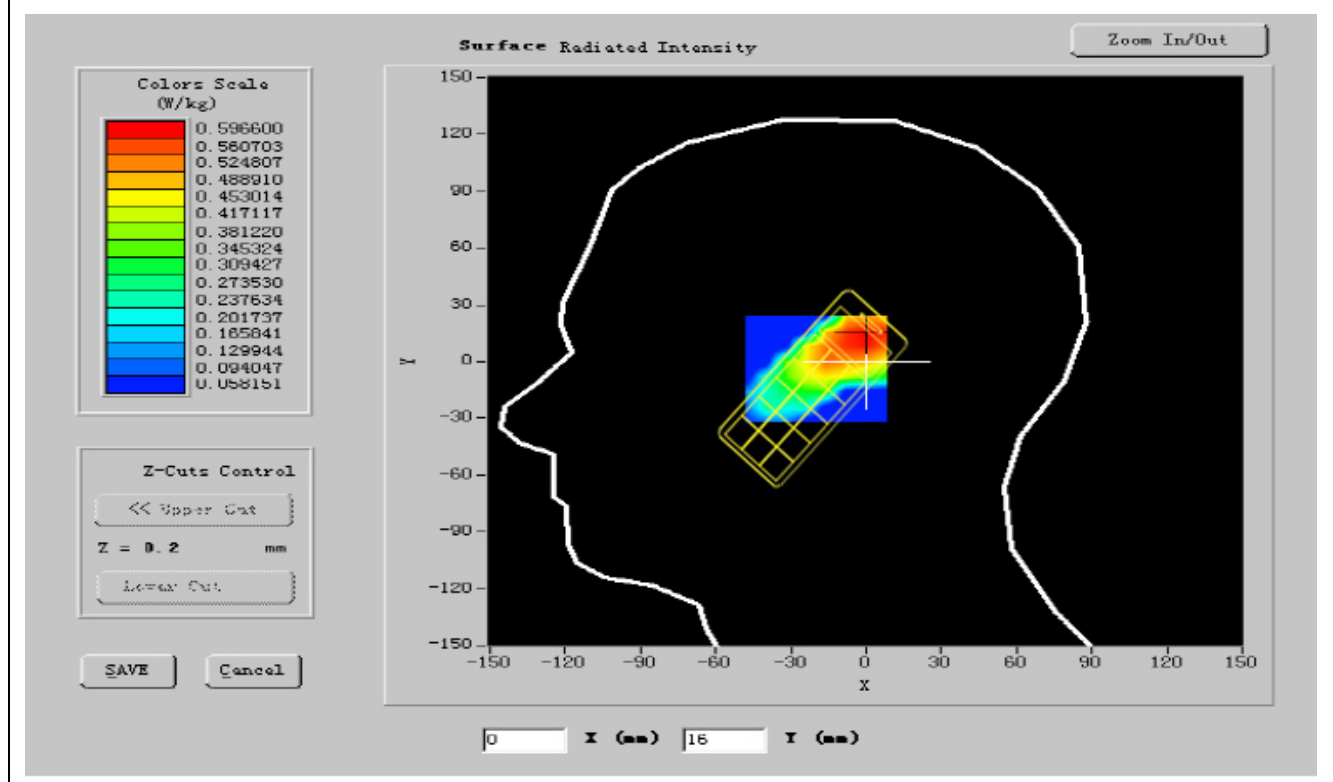


Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

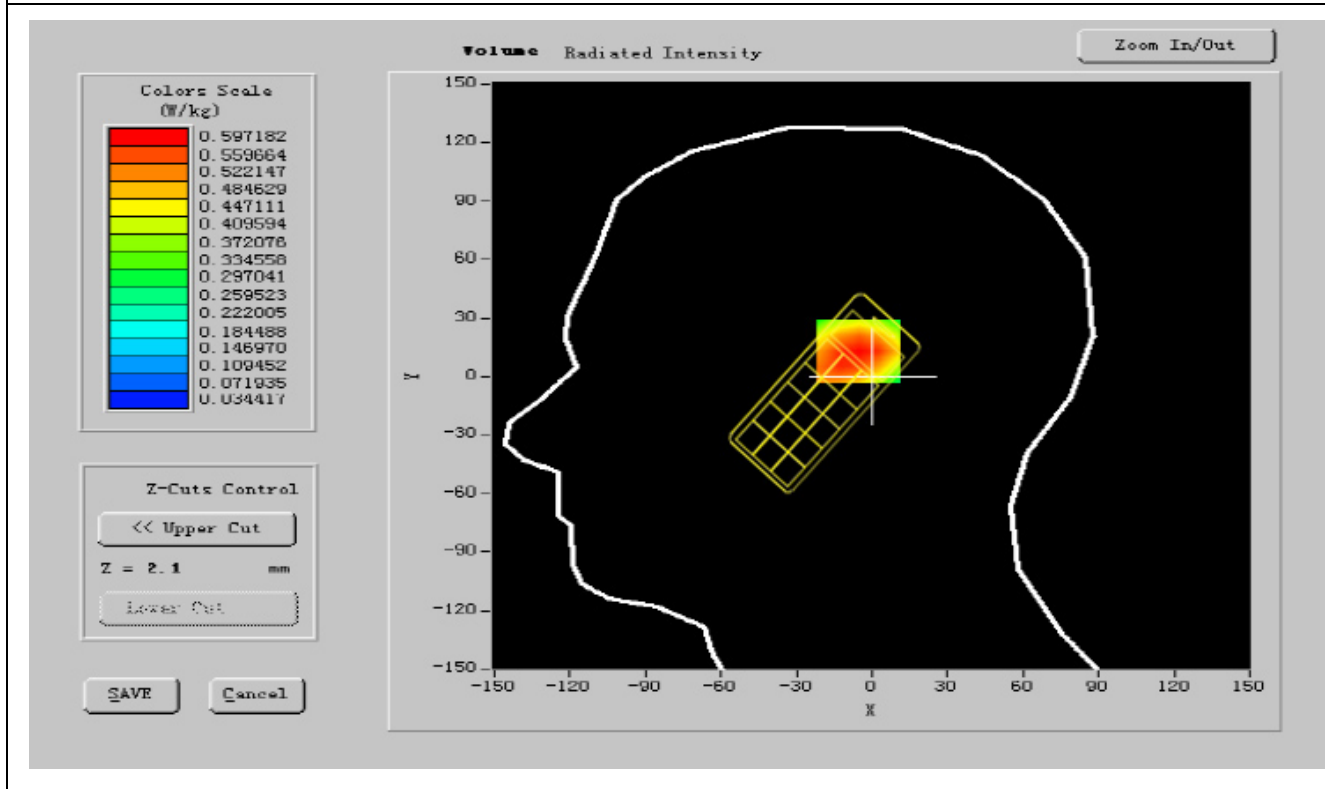
Frequency (MHz)	836.600024
Relative permittivity (real part)	41.248999
Relative permittivity (imaginary part)	19.435110
Conductivity (S/m)	0.9563247
Variation (%)	-1.580000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.542642
SAR 1g (W/Kg)	0.812157

### Z Axis Scan

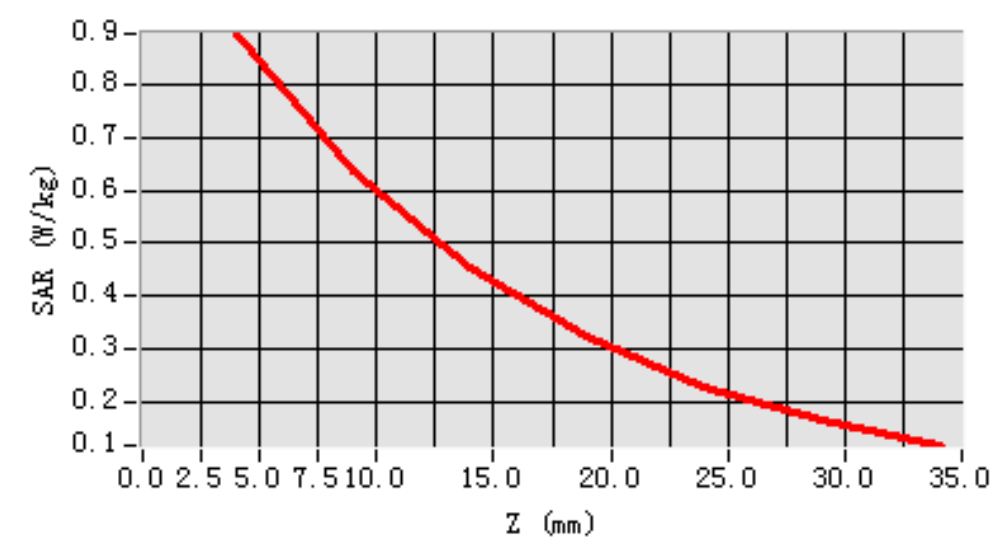
Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8507	0.5334	0.4132	0.2832	0.2132	0.1353





(W/kg)							
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SAR, Z Axis Scan (X = -25, Y = -11)





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012

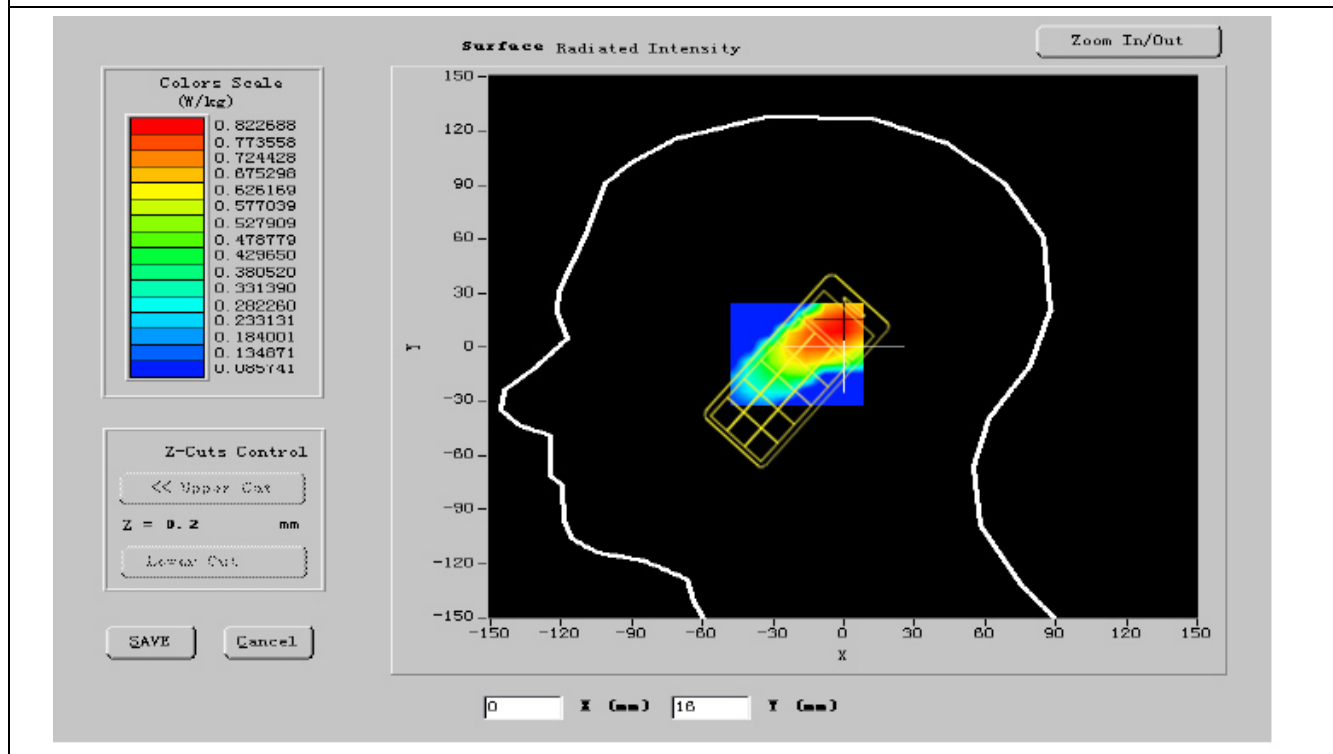


Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

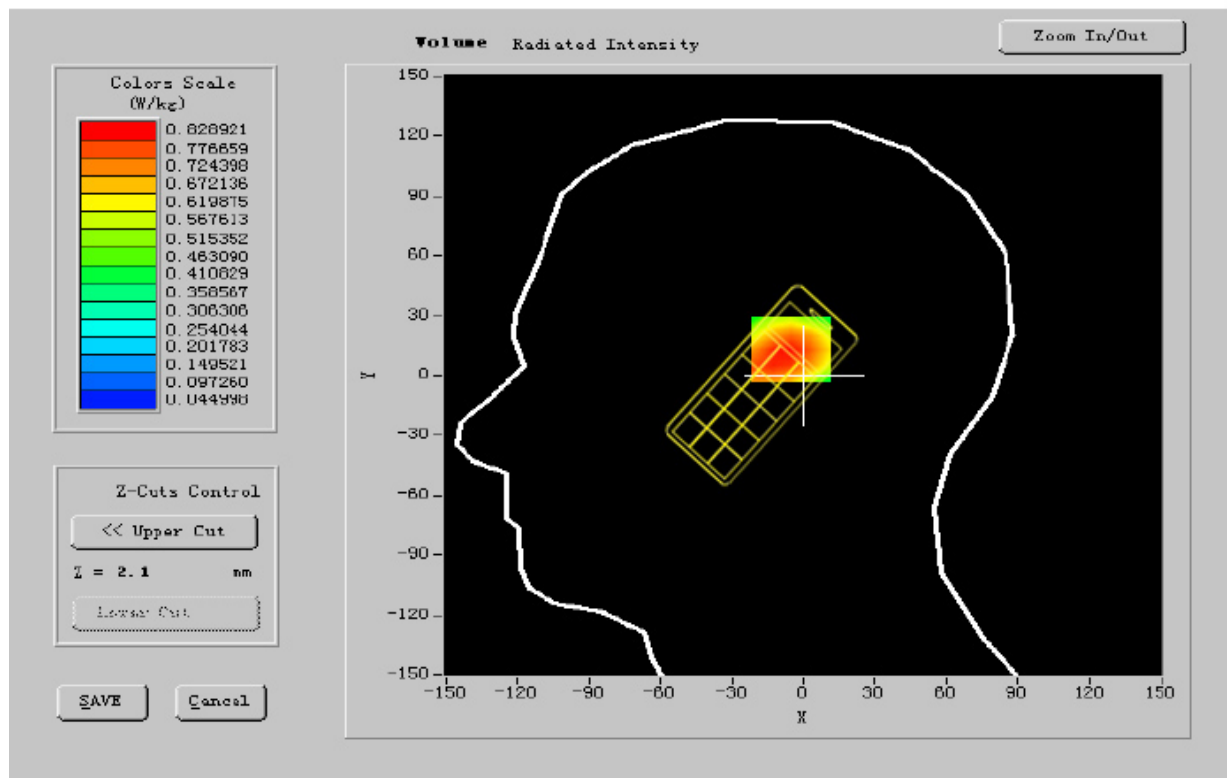
Frequency (MHz)	848.799976
Relative permittivity (real part)	41.578845
Relative permittivity (imaginary part)	19.598200
Conductivity (S/m)	0.975946
Variation (%)	-2.510000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.512435
SAR 1g (W/Kg)	0.864274

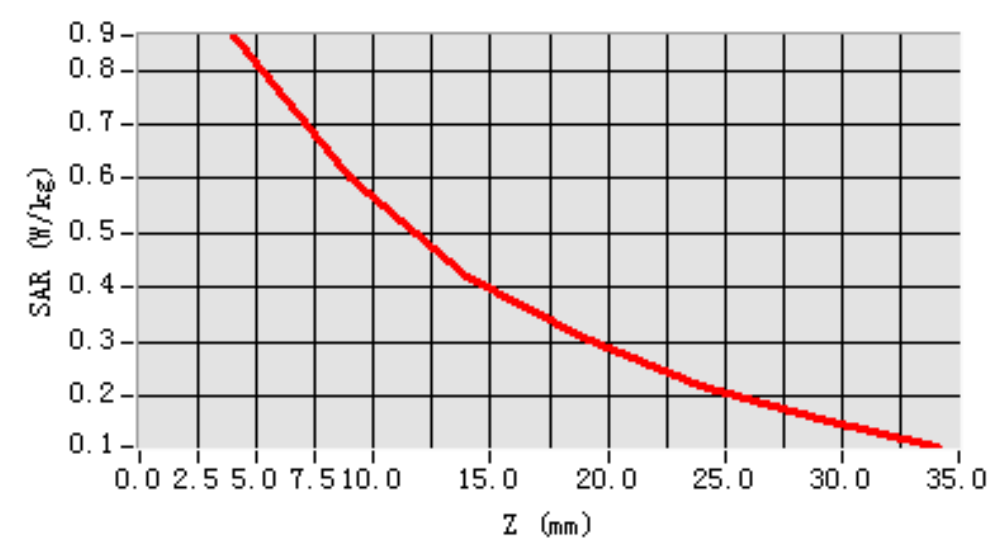
### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR	0.0000	0.8129	0.5323	0.4545	0.2834	0.2132	0.1323



(W/kg)							
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SAR, Z Axis Scan (X = -25, Y = -11)





## 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>	GSM850
<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	Calibration Due: 05/10/2011

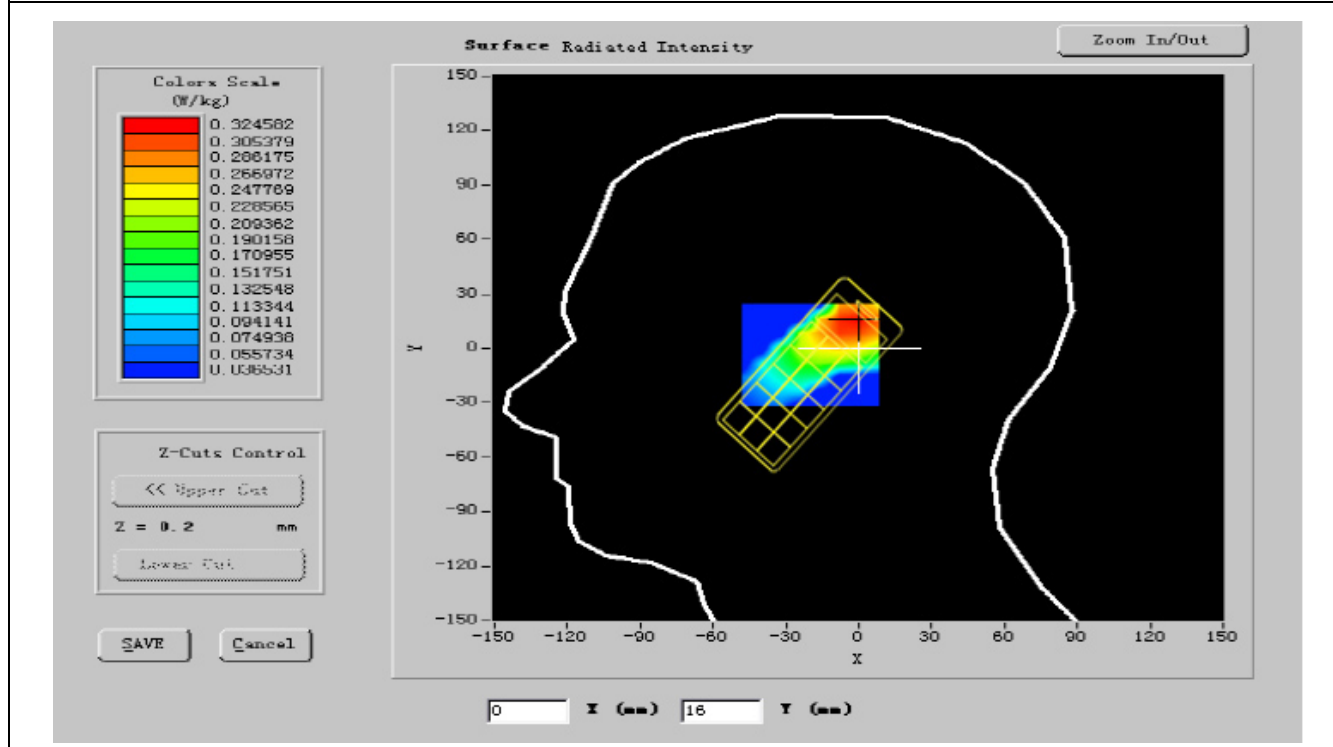


	(SN:SN_1109_EP_100)	
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

## C. SAR Measurement Results

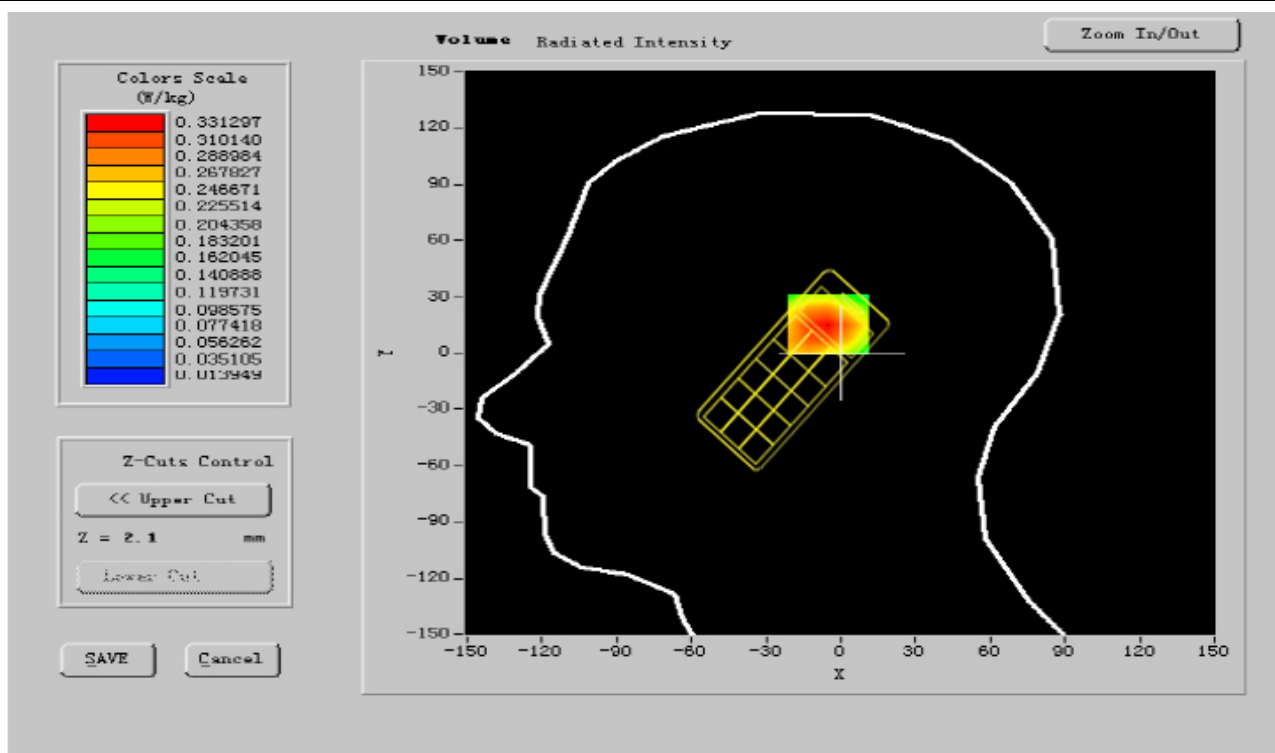
Frequency (MHz)	824.200012
Relative permittivity (real part)	42.132364
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.954351
Variation (%)	-1.240000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.353284
SAR 1g (W/Kg)	0.4026596

### Z Axis Scan

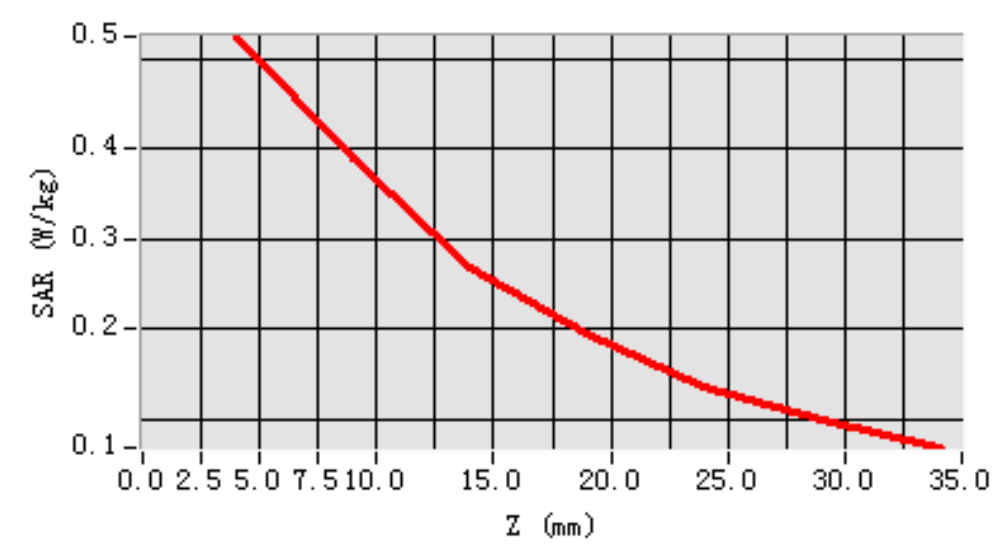
Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
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<b>SAR (W/kg)</b>	<b>0.0000</b>	<b>0.4918</b>	<b>0.5332</b>	<b>0.2564</b>	<b>0.1821</b>	<b>0.1443</b>	<b>0.1454</b>
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**SAR, Z Axis Scan (X = -22, Y = -6)**





## 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>	GSM850
<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

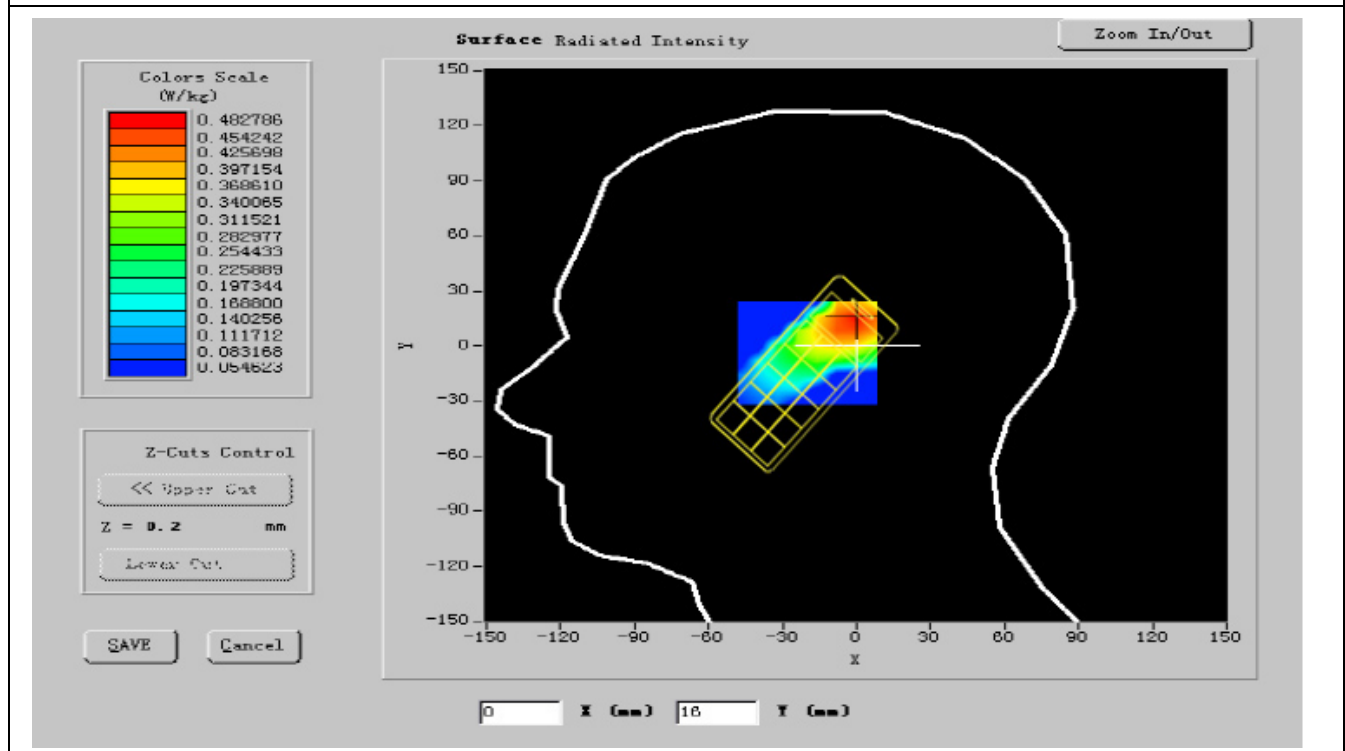


Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

### C. SAR Measurement Results

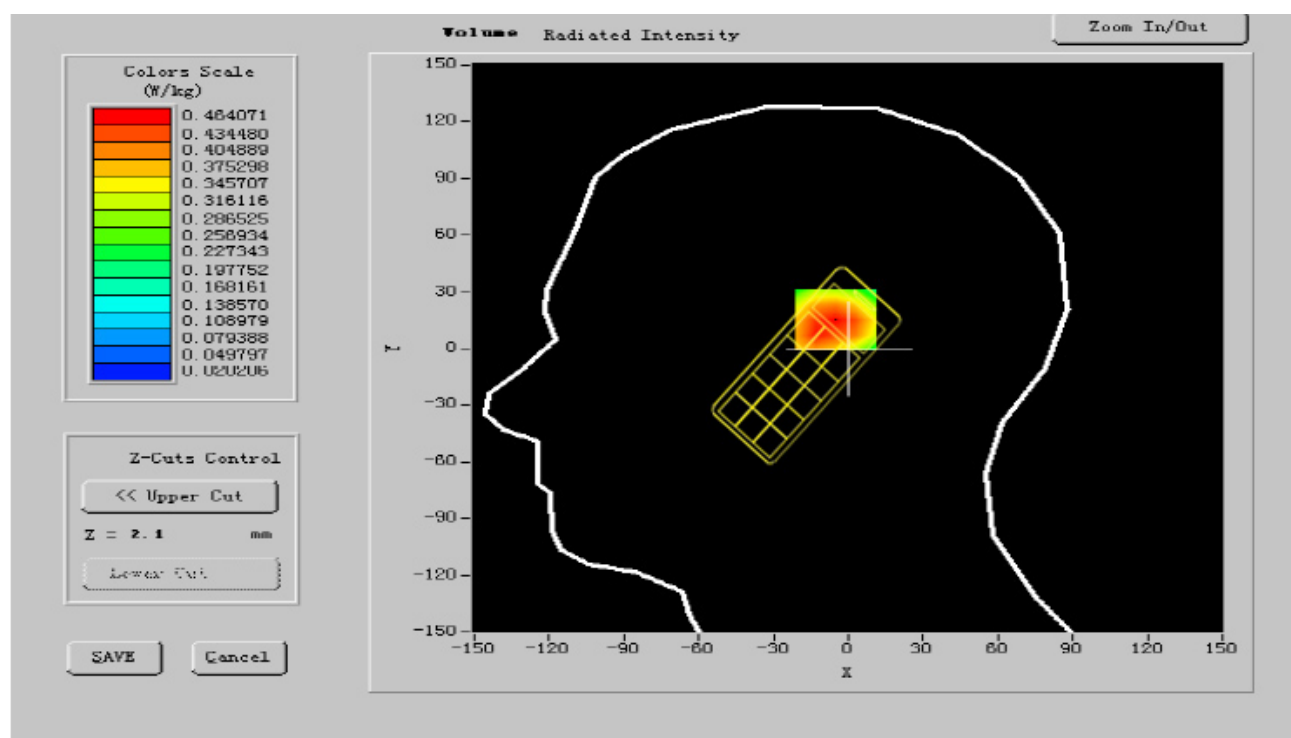
Frequency (MHz)	836.600024
Relative permittivity (real part)	42.154952
Relative permittivity (imaginary part)	19.511101
Conductivity (S/m)	0.9264140
Variation (%)	-2.250000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

#### SURFACE SAR





## VOLUME SAR



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

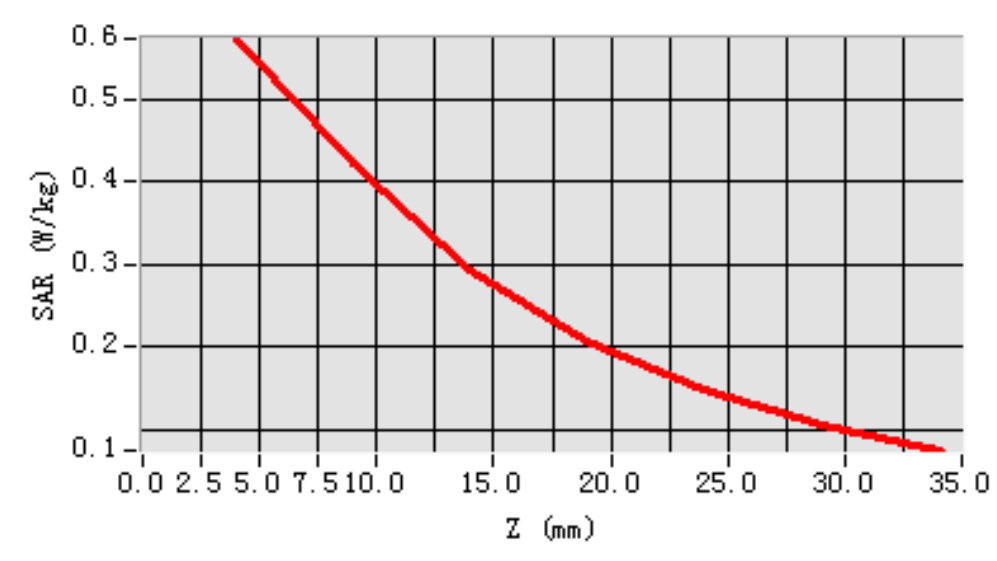
SAR 10g (W/Kg)	0.3257424
SAR 1g (W/Kg)	0.5137232

## Z Axis Scan



Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5533	0.4132	0.2964	0.2021	0.1643	0.1154

SAR, Z Axis Scan (X = -22, Y = -6)





## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	GSM

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42,	Calibration Due: 07/29/2011

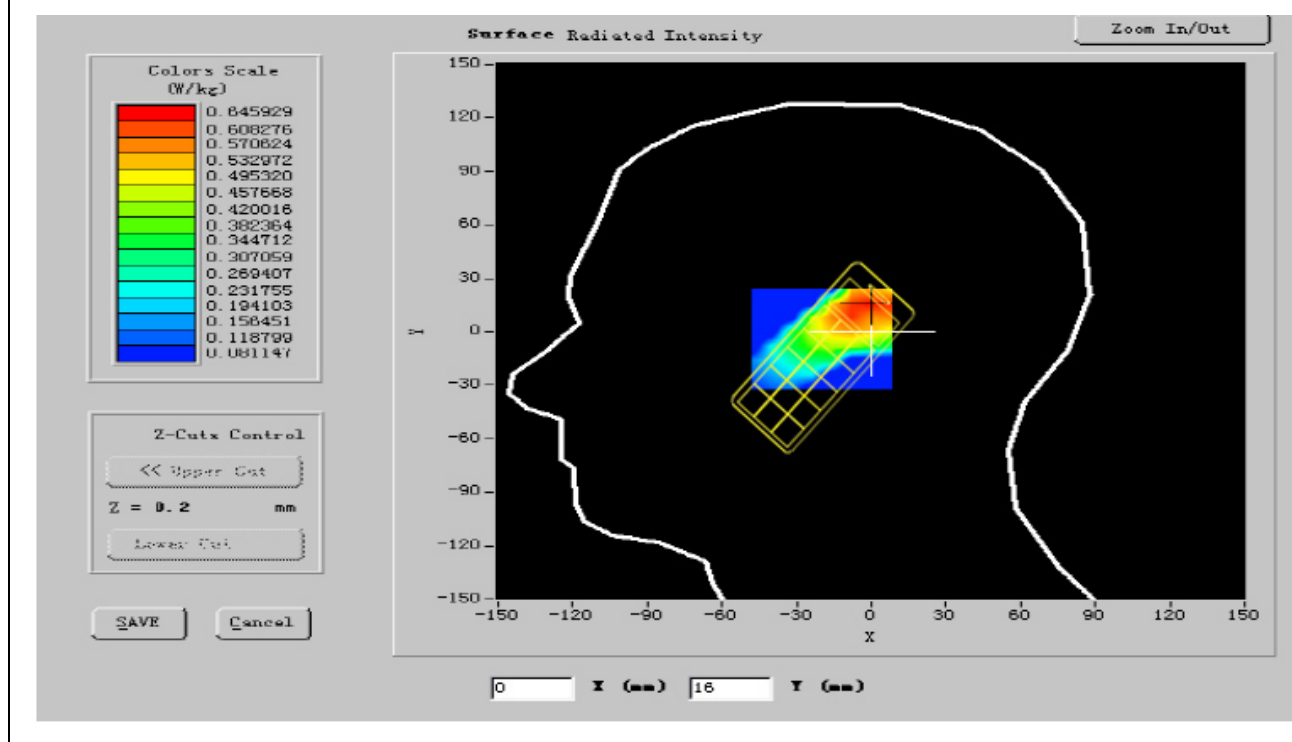


	SN:110405)	
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

### C. SAR Measurement Results

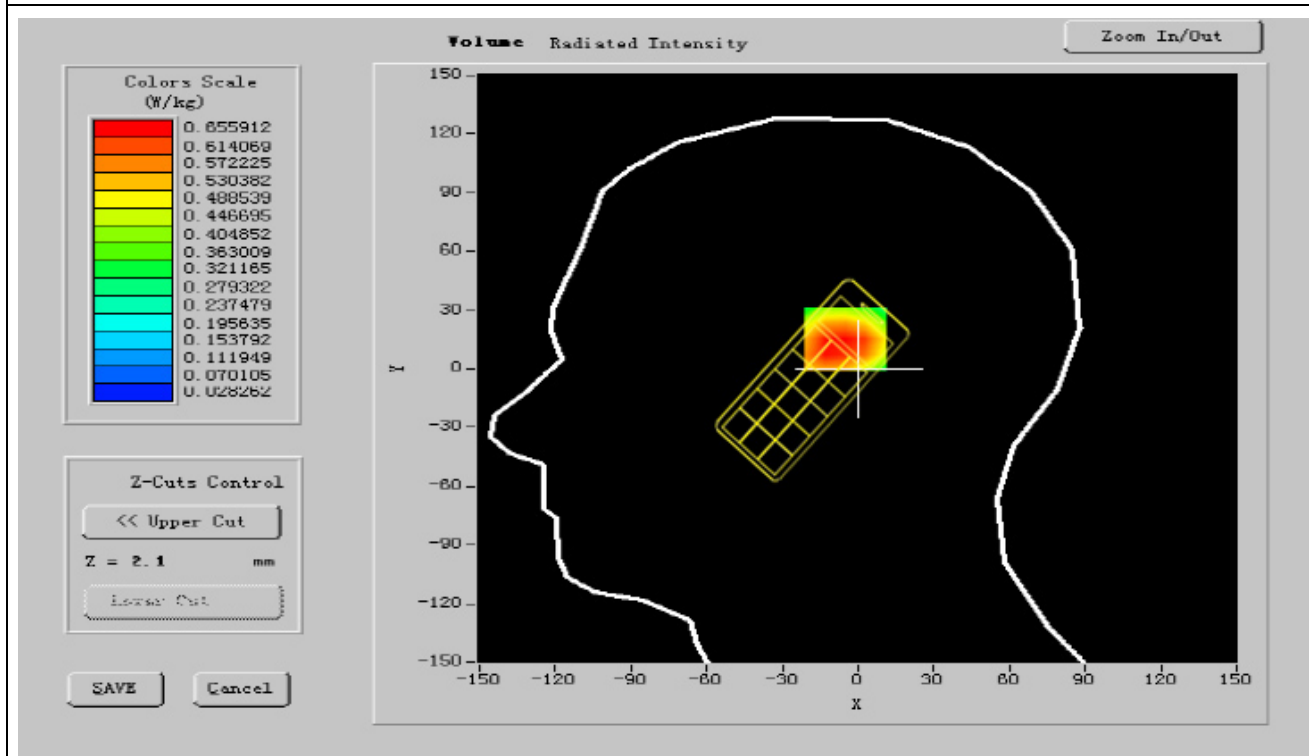
Frequency (MHz)	848.799976
Relative permittivity (real part)	42.262154
Relative permittivity (imaginary part)	19.598200
Conductivity (S/m)	0.9256947
Variation (%)	-1.2350000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:8

#### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.381348
SAR 1g (W/Kg)	0.531430

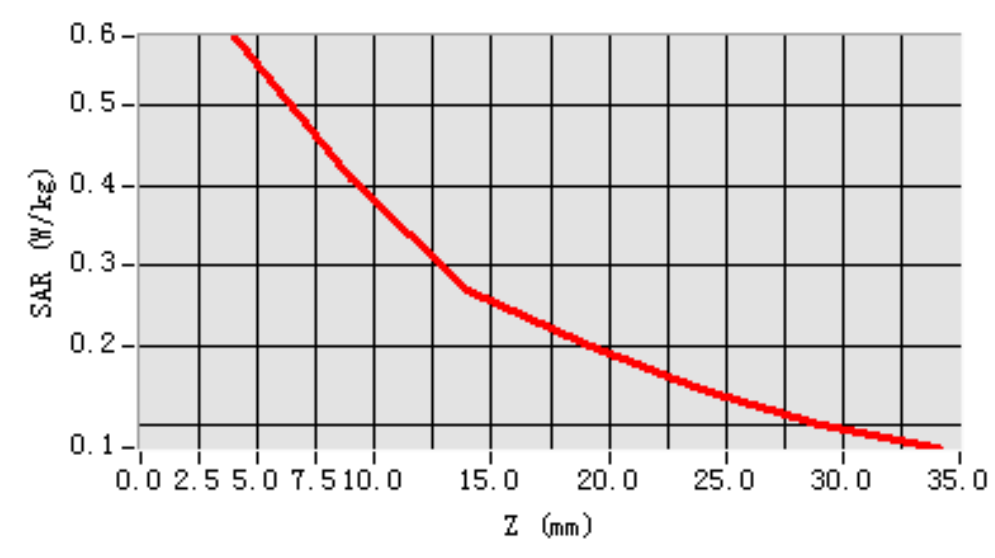




**Z Axis Scan**

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.5510	0.4142	0.2664	0.2020	0.1543	0.1054

**SAR, Z Axis Scan (X = -22, Y = -6)**





## 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.

Phantom File	zinf15.txt, Adaptive 2 max
Phantom	Body
Device Position	FrontSide toward phantom
Band	GSM850
Channels	Low
Signal	GSM

### B. Instrumentations.

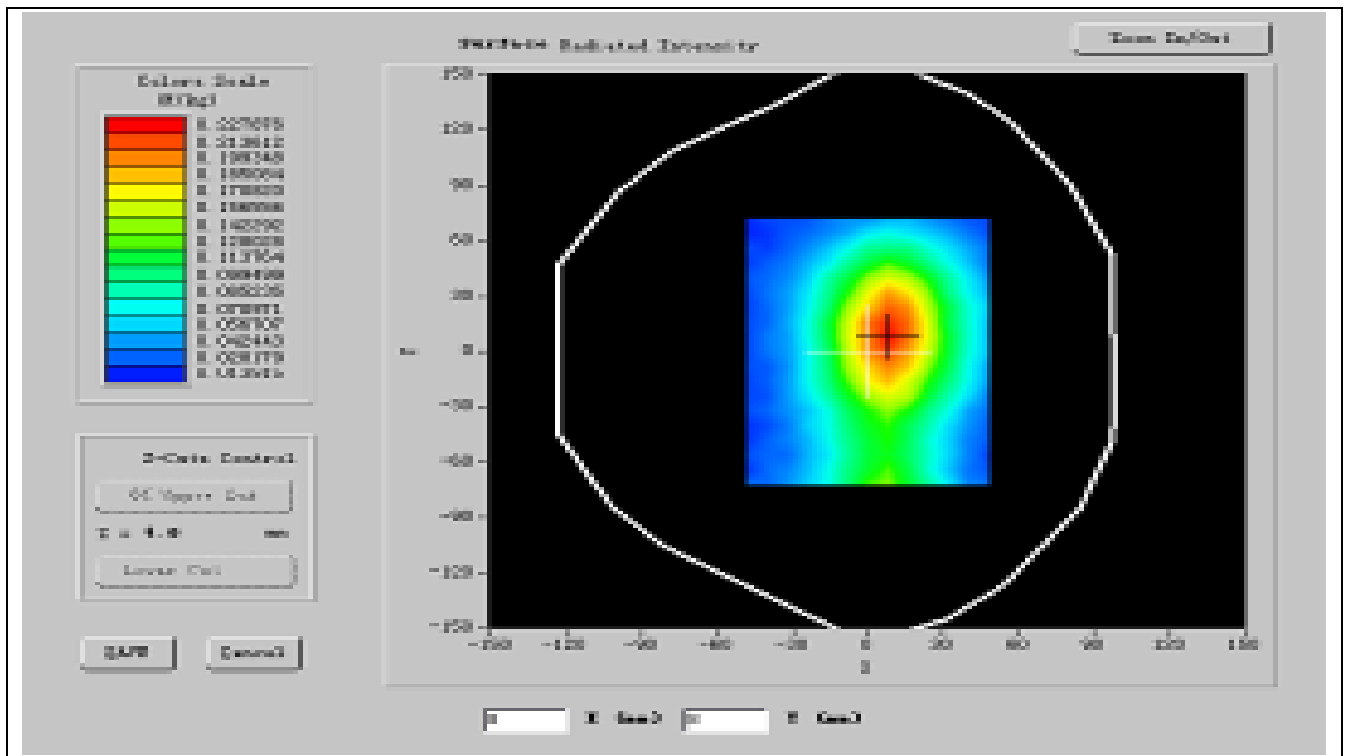
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibration Due: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011



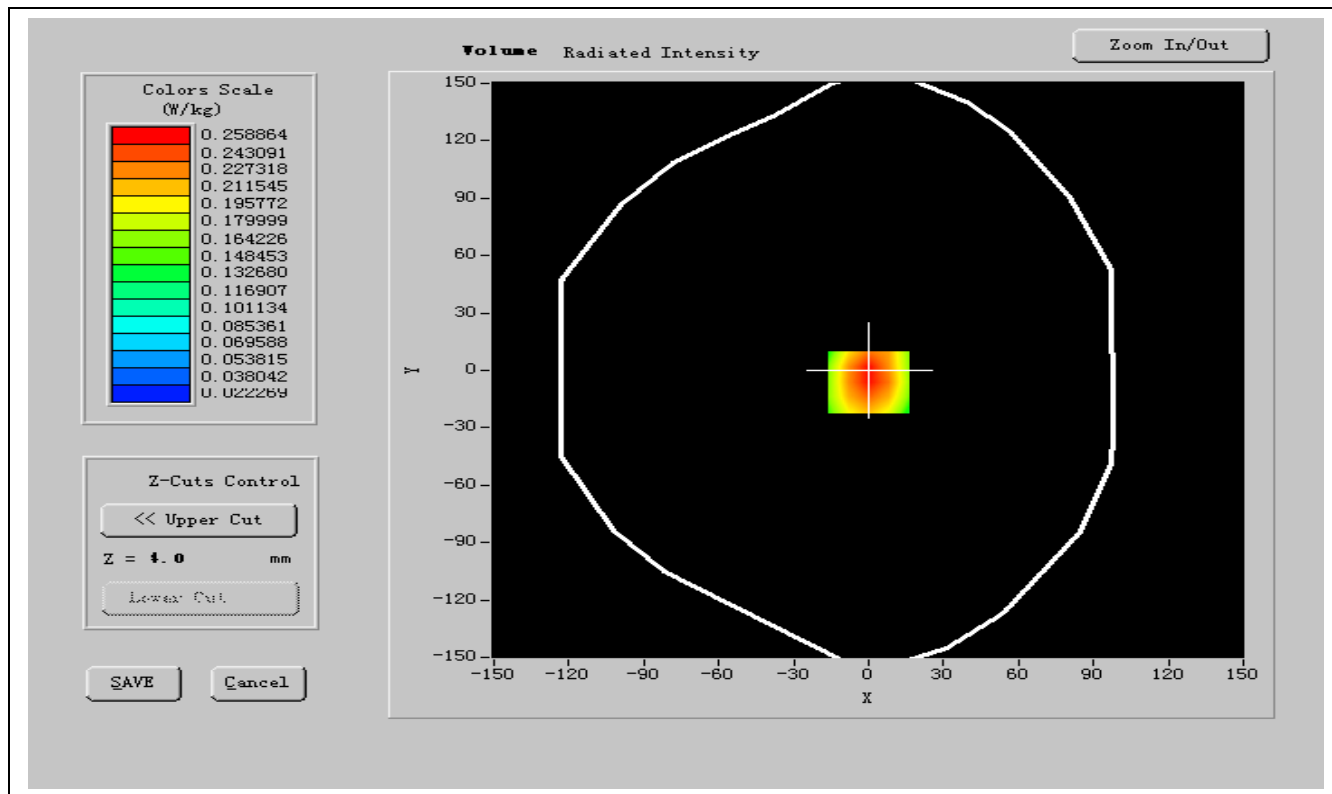
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/10/2011
DIPOLE 835	Antennessa (DIP132,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibration Due: N/A
Liquid	Antennessa	Calibration Due: N/A
Measurement SW	OPEN SAR V2.1	Calibration Due: N/A

### **C. SAR Measurement Results**

Frequency (MHz)	824.200012
Relative permittivity (real part)	57.245000
Relative permittivity (imaginary part)	21.654150
Conductivity (S/m)	0.964112
Variation (%)	-2.680000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:8
<b>SURFACE SAR</b>	



## VOLUME SAR



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

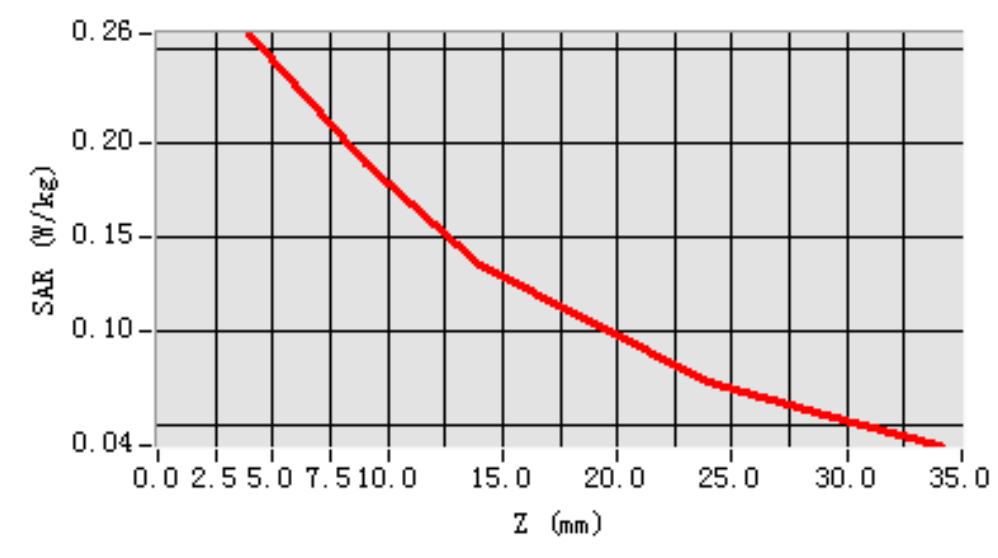
SAR 10g (W/Kg)	0.125436
SAR 1g (W/Kg)	0.216872

**Z Axis Scan**

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.2512	0.1242	0.1464	0.1020	0.0631	0.0454



SAR, Z Axis Scan (X = 0, Y = -6)





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,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

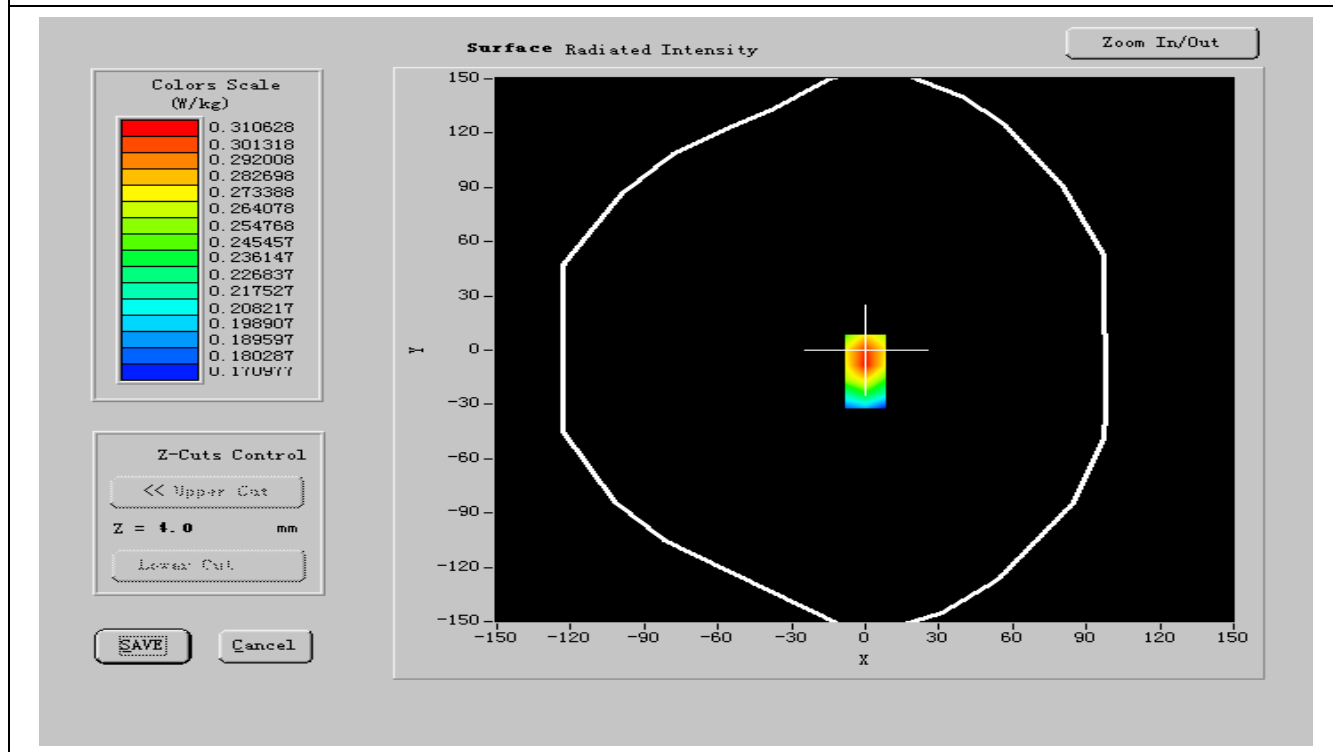


Measurement SW	OPEN SAR V2.1	Calibration Due: N/A
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## C. SAR Measurement Results

Frequency (MHz)	836.600024
Relative permittivity (real part)	56.1561935
Relative permittivity (imaginary part)	21.866249
Conductivity (S/m)	0.9256034
Variation (%)	-2.340000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:8

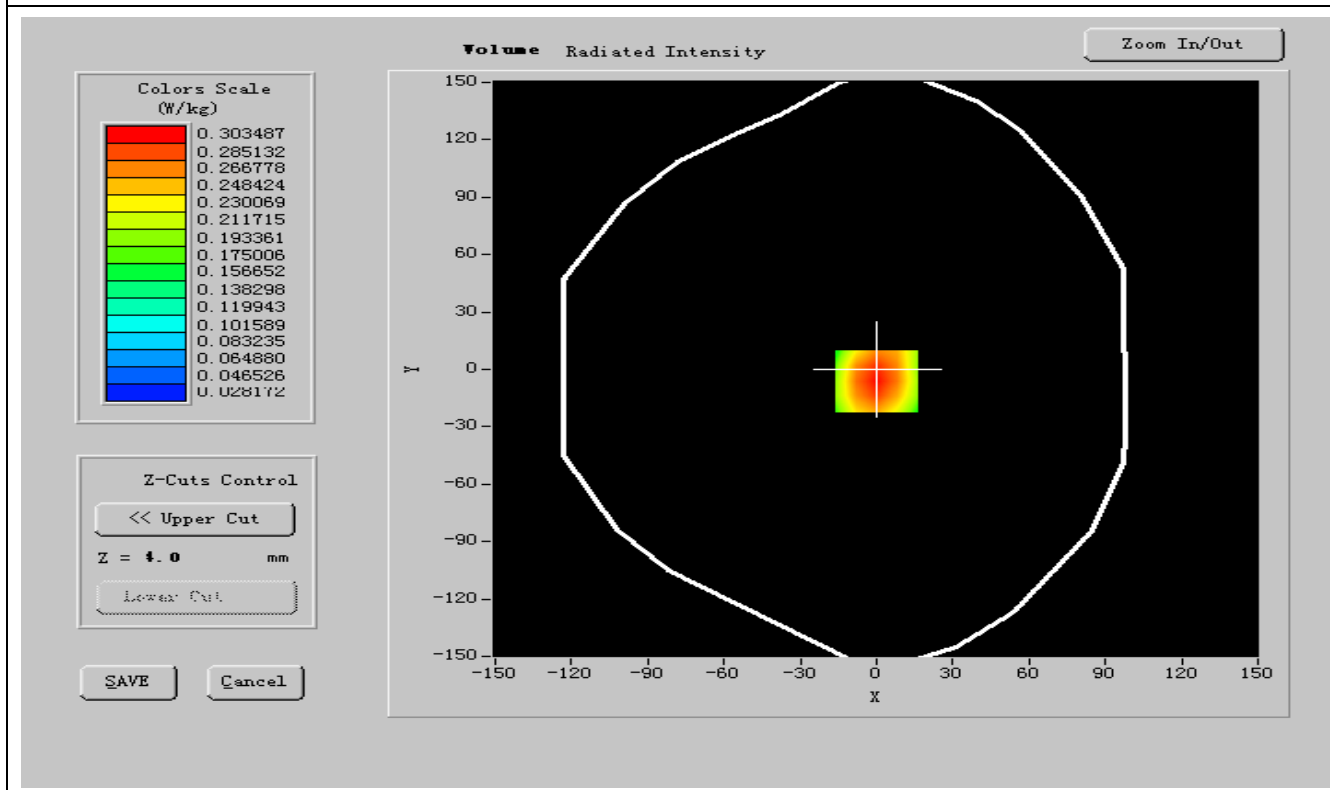
### SURFACE SAR







## VOLUME SAR



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

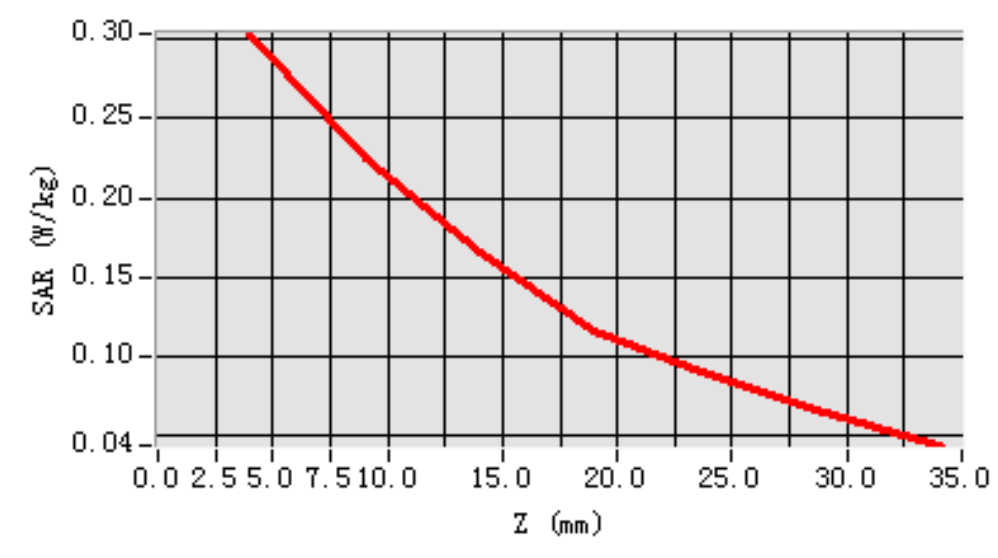
SAR 10g (W/Kg)	0.210480
SAR 1g (W/Kg)	0.308114

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.2890	0.2342	0.1664	0.1120	0.0887	0.0422



SAR, Z Axis Scan (X = 0, Y = -6)





## 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>	GSM850
<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 835</b>	Antennessa (DIPI32,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

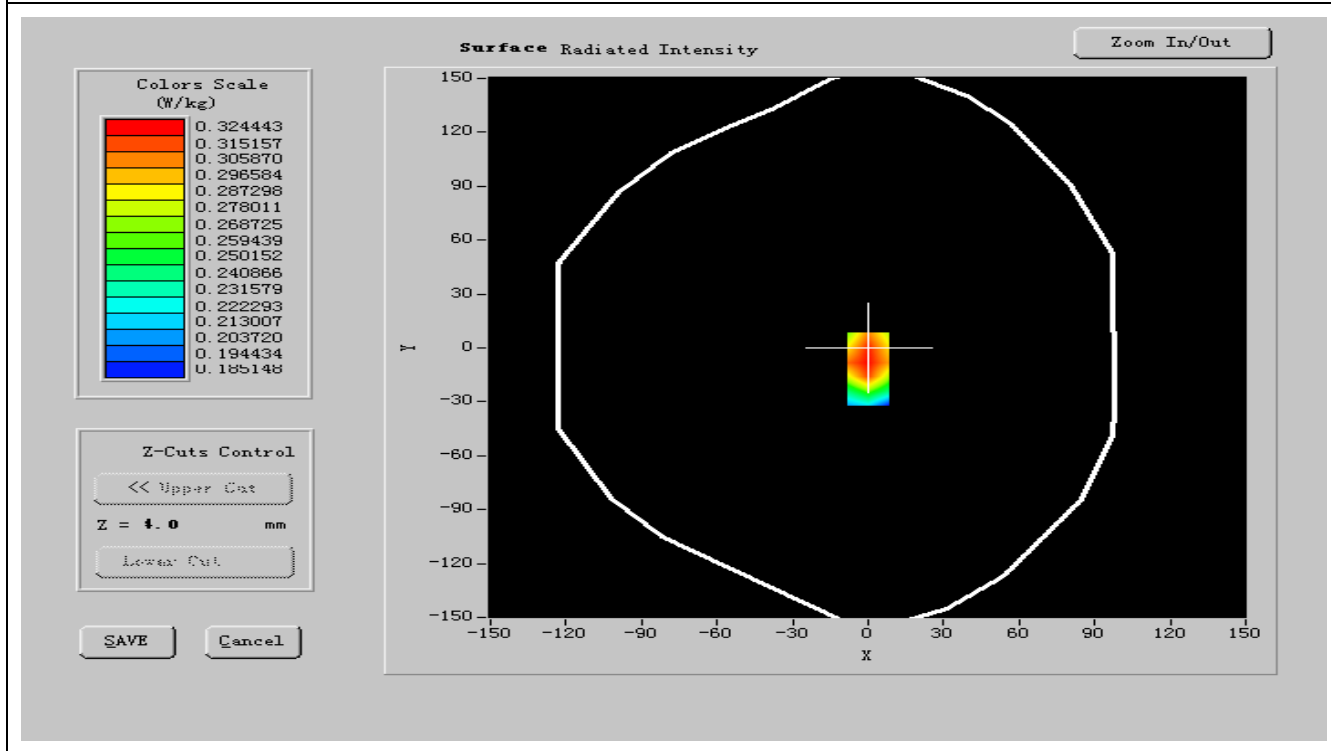


Measurement SW	OPEN SAR V2.1	Calibration Due: N/A
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## C. SAR Measurement Results

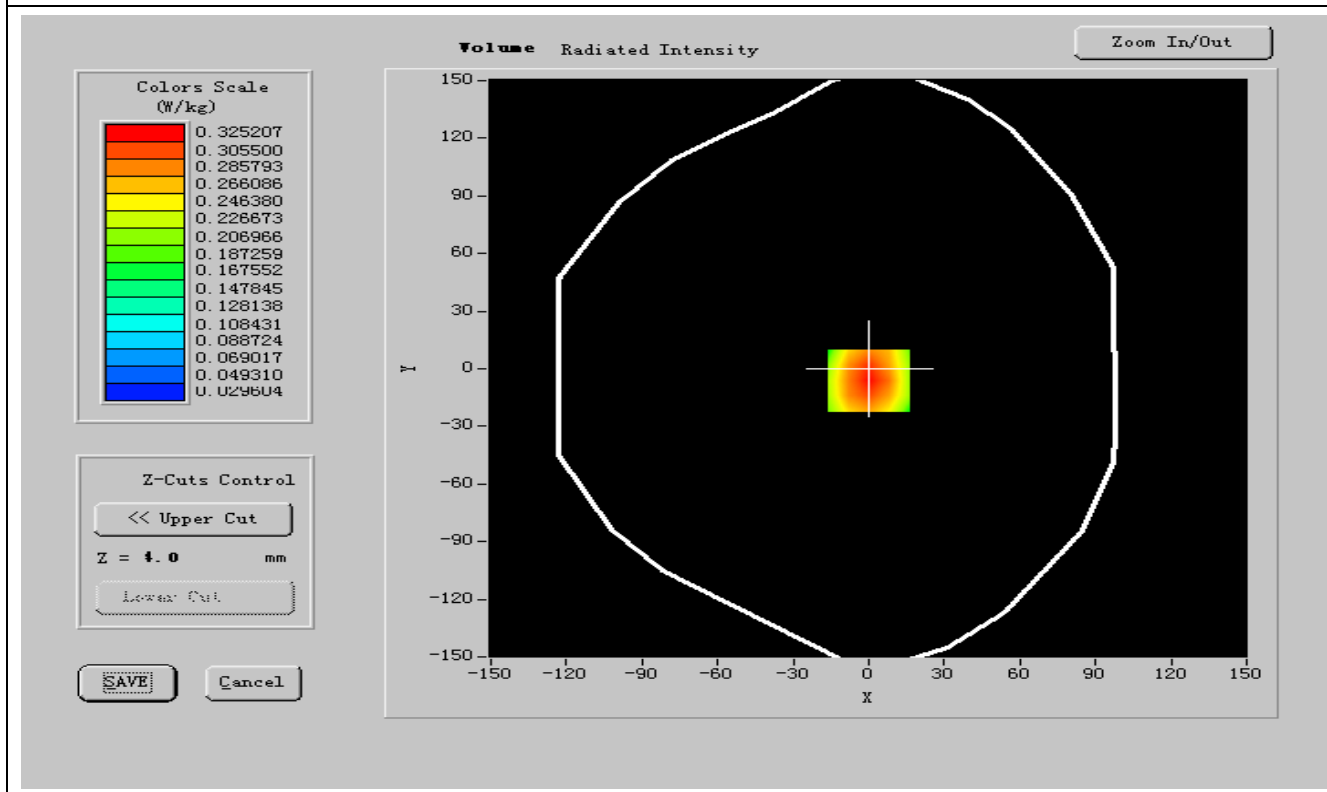
Frequency (MHz)	848.799976
Relative permittivity (real part)	55.978121
Relative permittivity (imaginary part)	21.726601
Conductivity (S/m)	0.963225
Variation (%)	-2.340000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:8

### SURFACE SAR





## VOLUME SAR



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

SAR 10g (W/Kg)	0.224468
SAR 1g (W/Kg)	0.342540

### Z Axis Scan

Z(mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/kg)	0.0000	0.3063	0.2322	0.1674	0.1420	0.1800	0.0573



**SAR, Z Axis Scan (X = 0, Y = -6)**

