



## System Performance Check Data (850MHz Head)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Middle
Signal	CW

### B. Instrumentations.

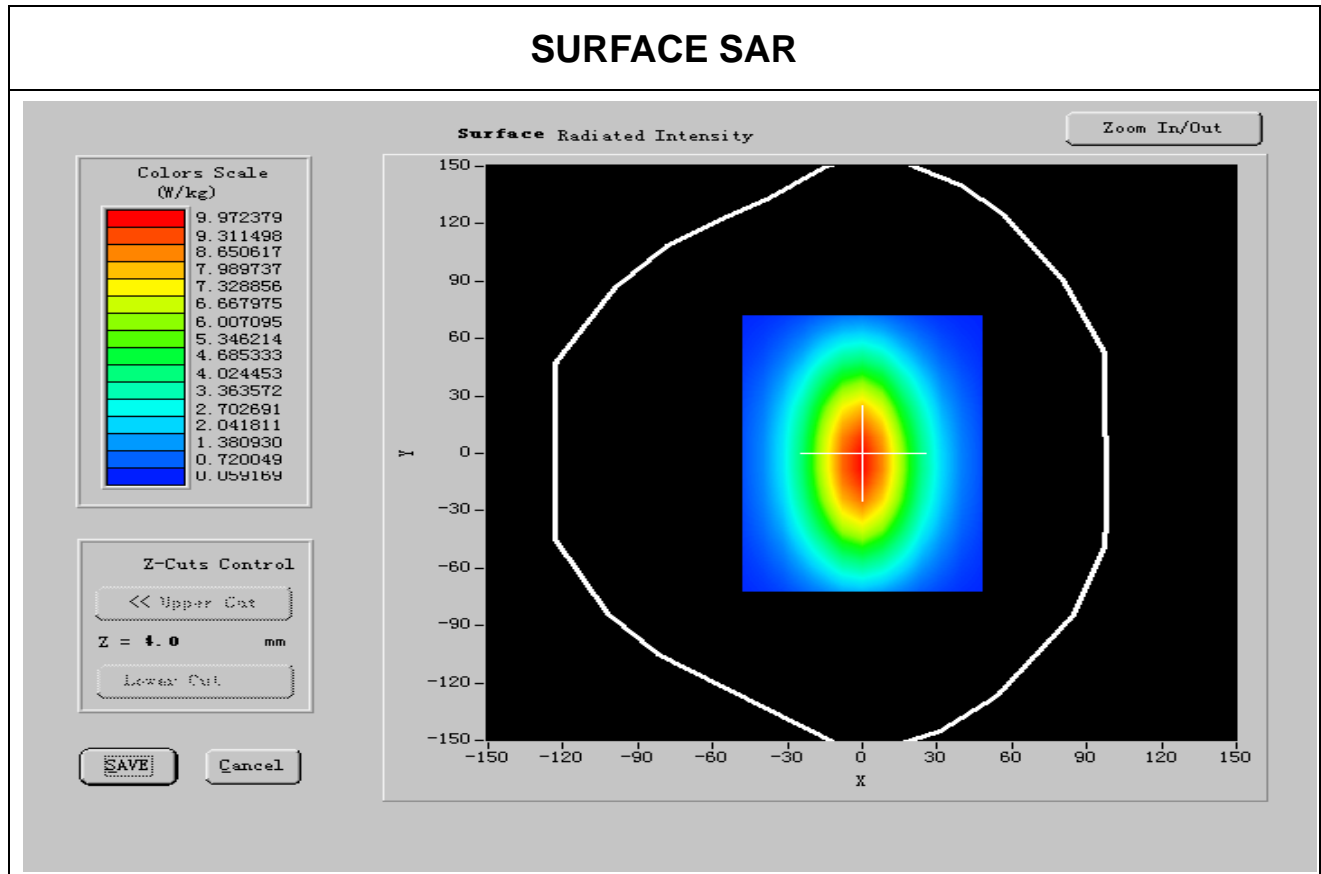
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A



### C. SAR Measurement Results

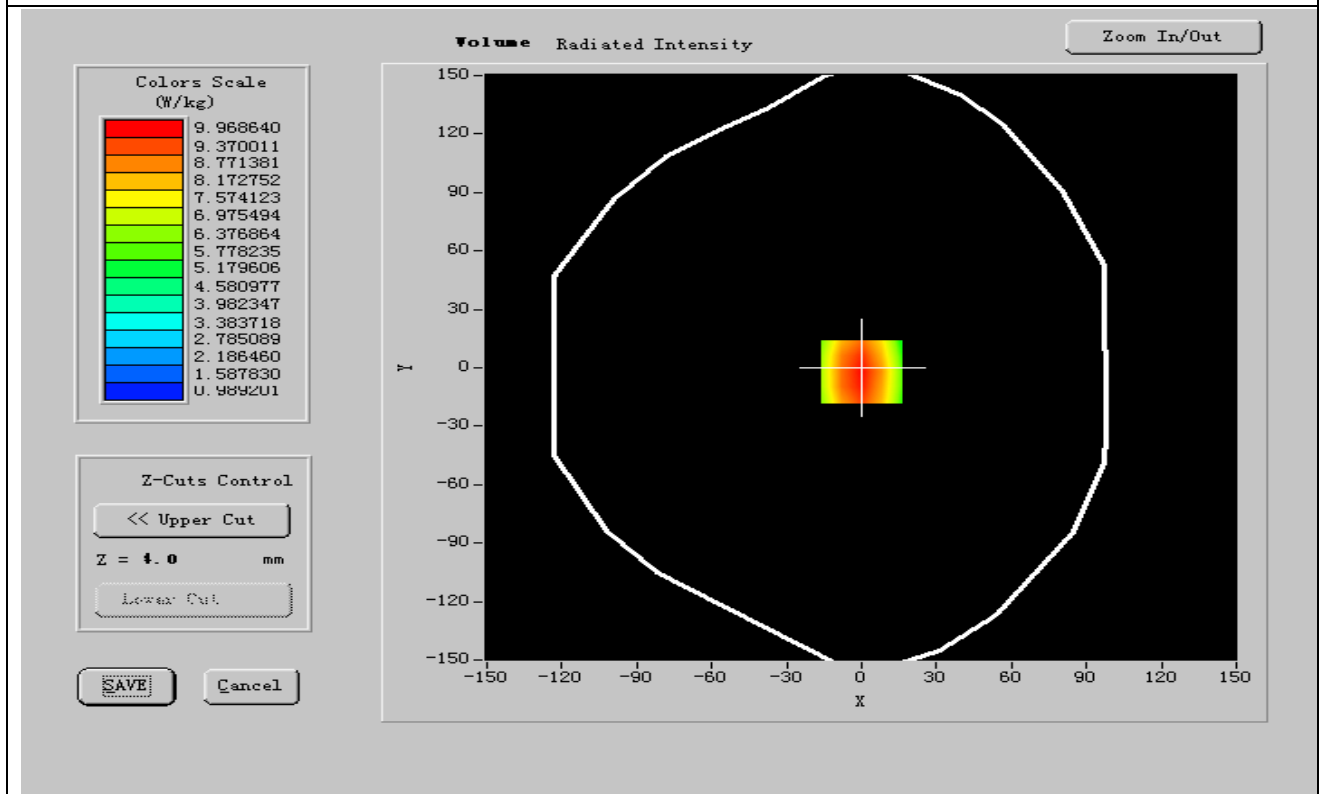
Frequency (MHz)	835.000024
Relative permittivity (real part)	41.417999
Relative permittivity (imaginary part)	20.020350
Conductivity (S/m)	0.930279
Variation (%)	-0.470000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:1

### SURFACE SAR





## VOLUME SAR

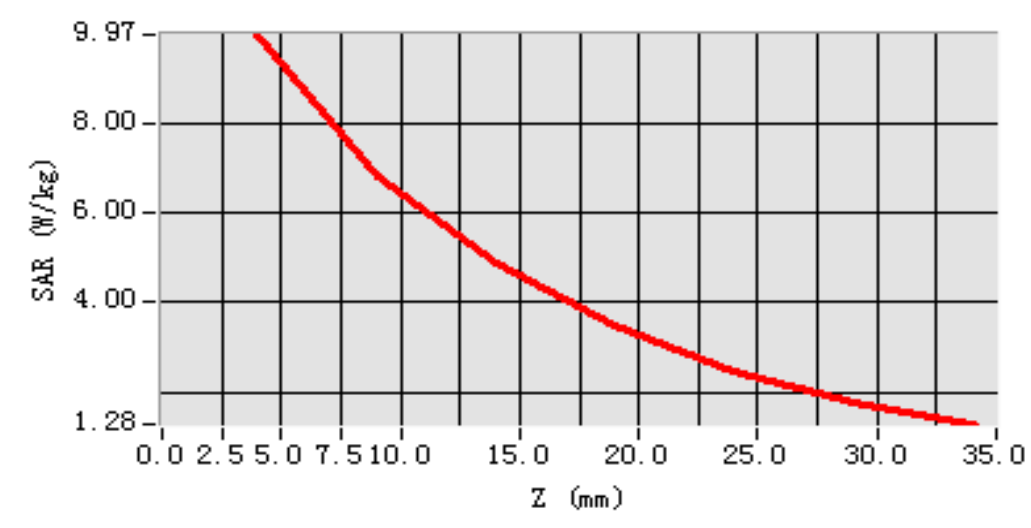


Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.334533
SAR 1g (W/Kg)	9.537344

## Z Axis Scan

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





## System Performance Check Data (850MHz Body)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Middle
Signal	CW

### B. Instrumentations.

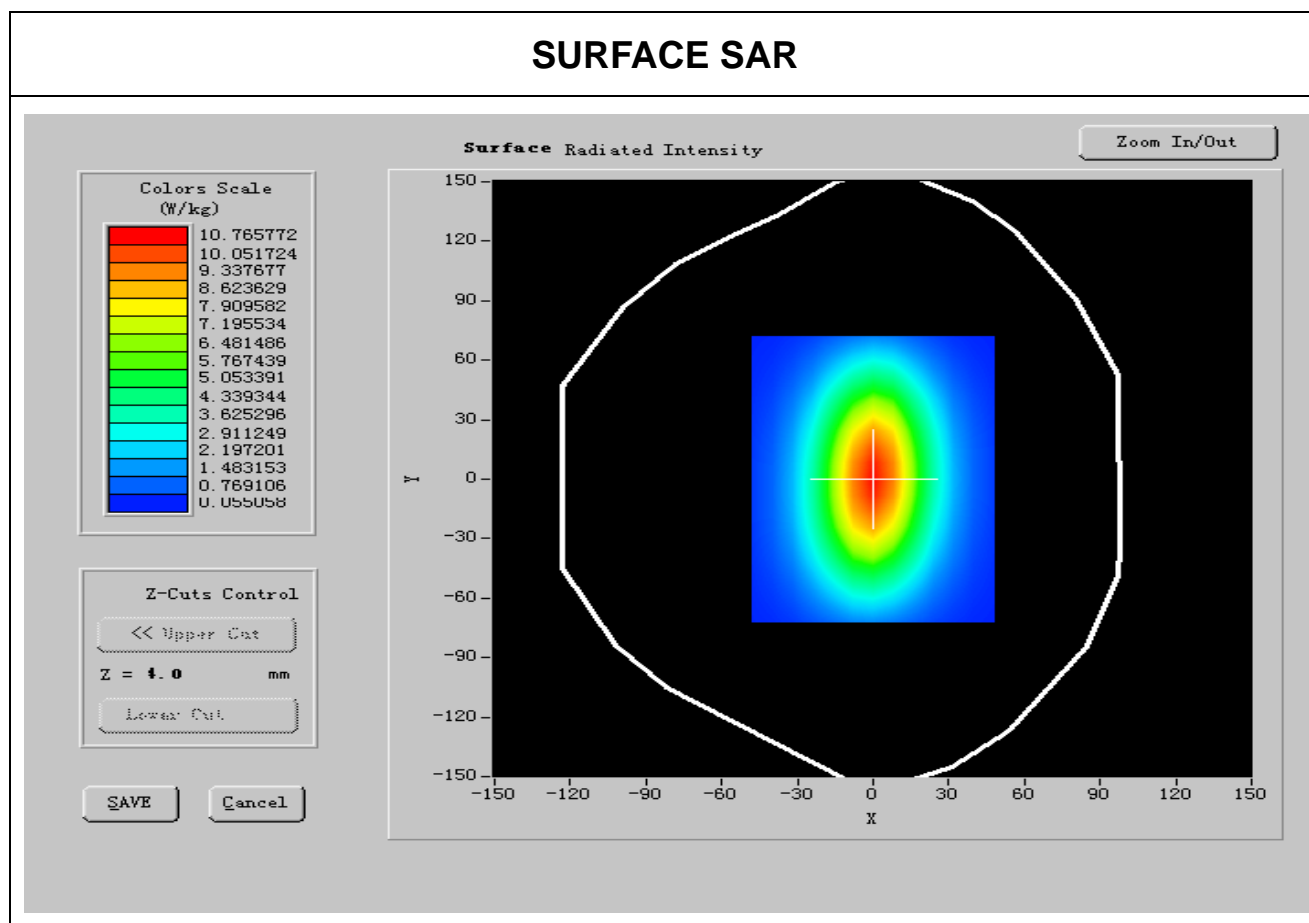
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	CalibrationDue: 09/10/2011
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A



## C. SAR Measurement Results

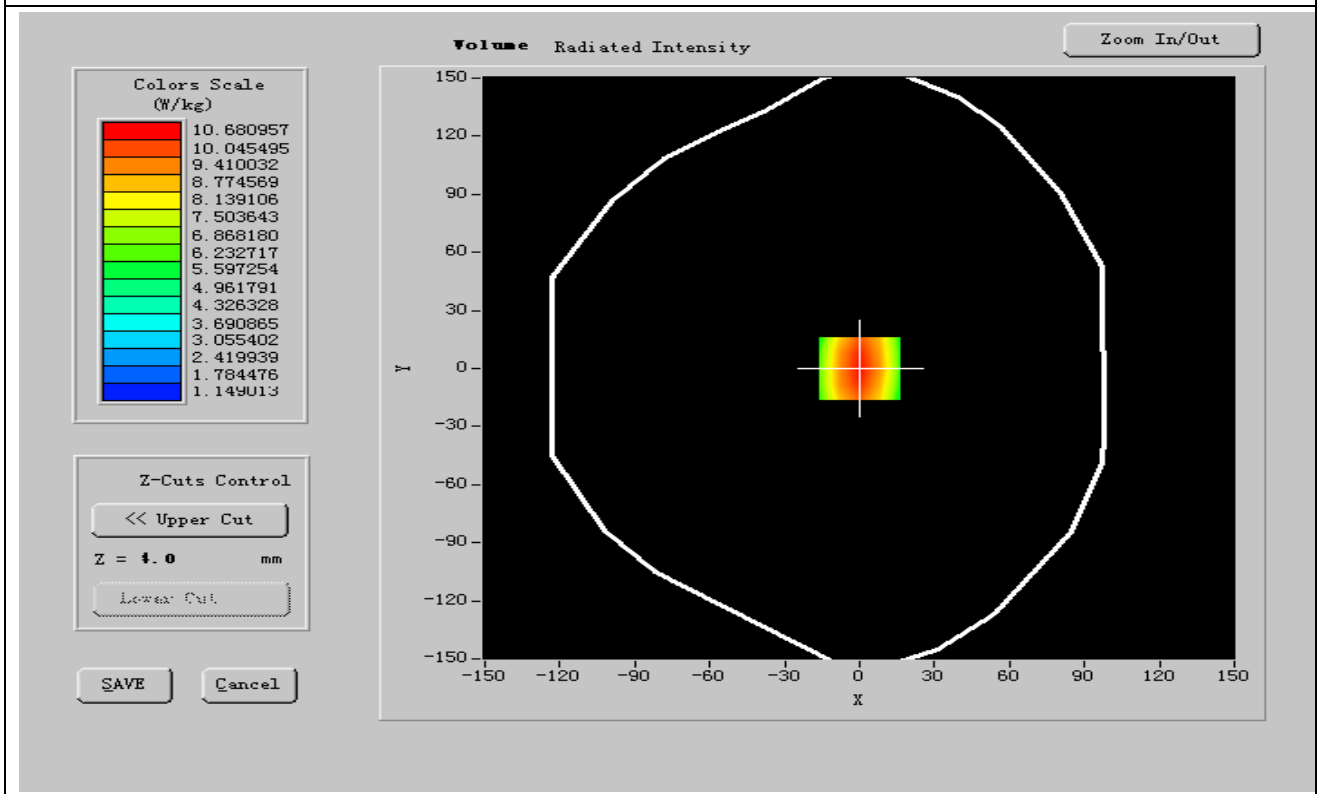
Frequency (MHz)	835.000024
Relative permittivity (real part)	57.501999
Relative permittivity (imaginary part)	21.866249
Conductivity (S/m)	1.016052
Variation (%)	-0.740000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:1

### SURFACE SAR





## VOLUME SAR

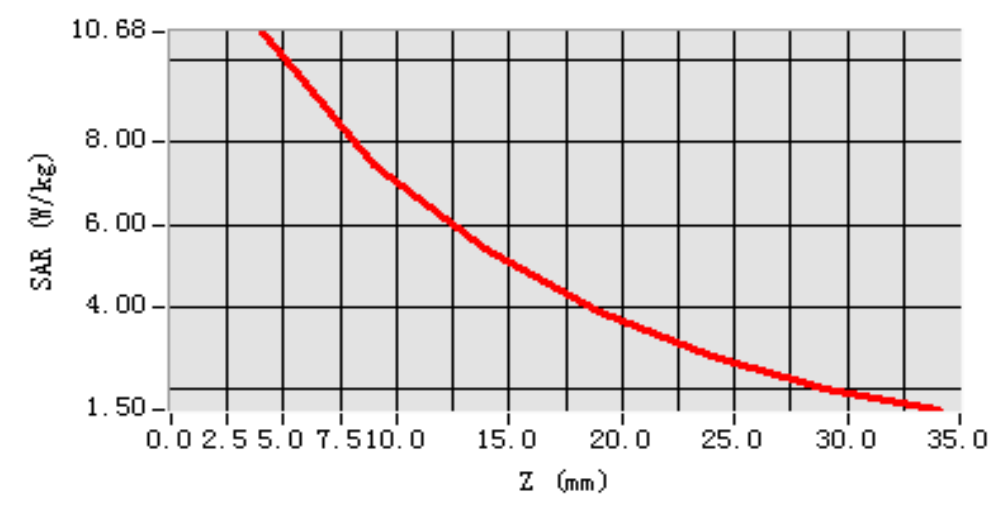


Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.854345
SAR 1g (W/Kg)	10.171448

## Z Axis Scan

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





## System Performance Check Data (1900MHz Head)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Head
Band	GSM1900
Channels	Middle
Signal	CW

### B. Instrumentations.

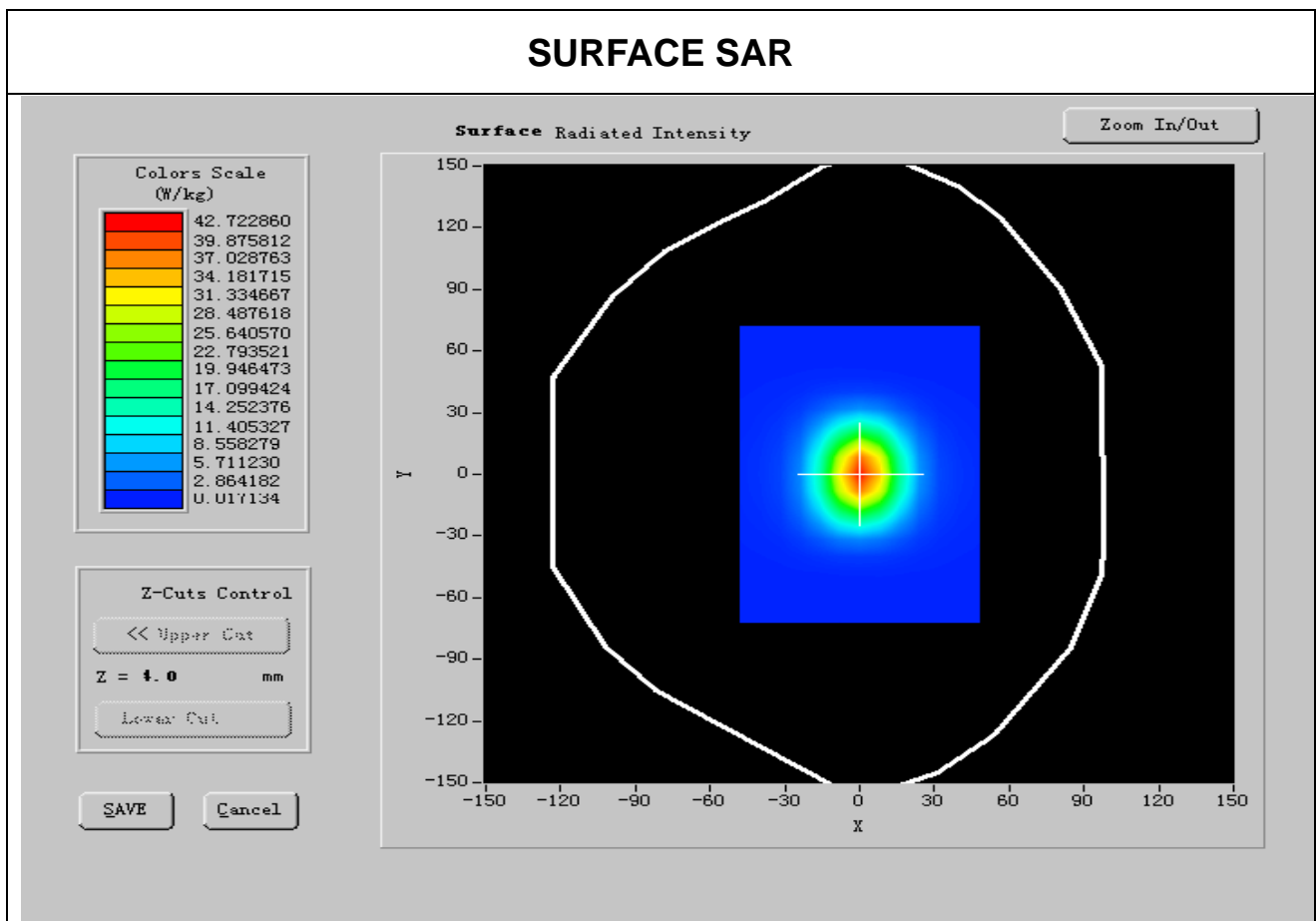
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 1900	Antennessa (DIPG35, SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A



### C. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative permittivity (real part)	40.326999
Relative permittivity (imaginary part)	13.506150
Conductivity (S/m)	1.390642
Variation (%)	-0.460000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.05, 42.35, 55.45
Crest factor	1:1

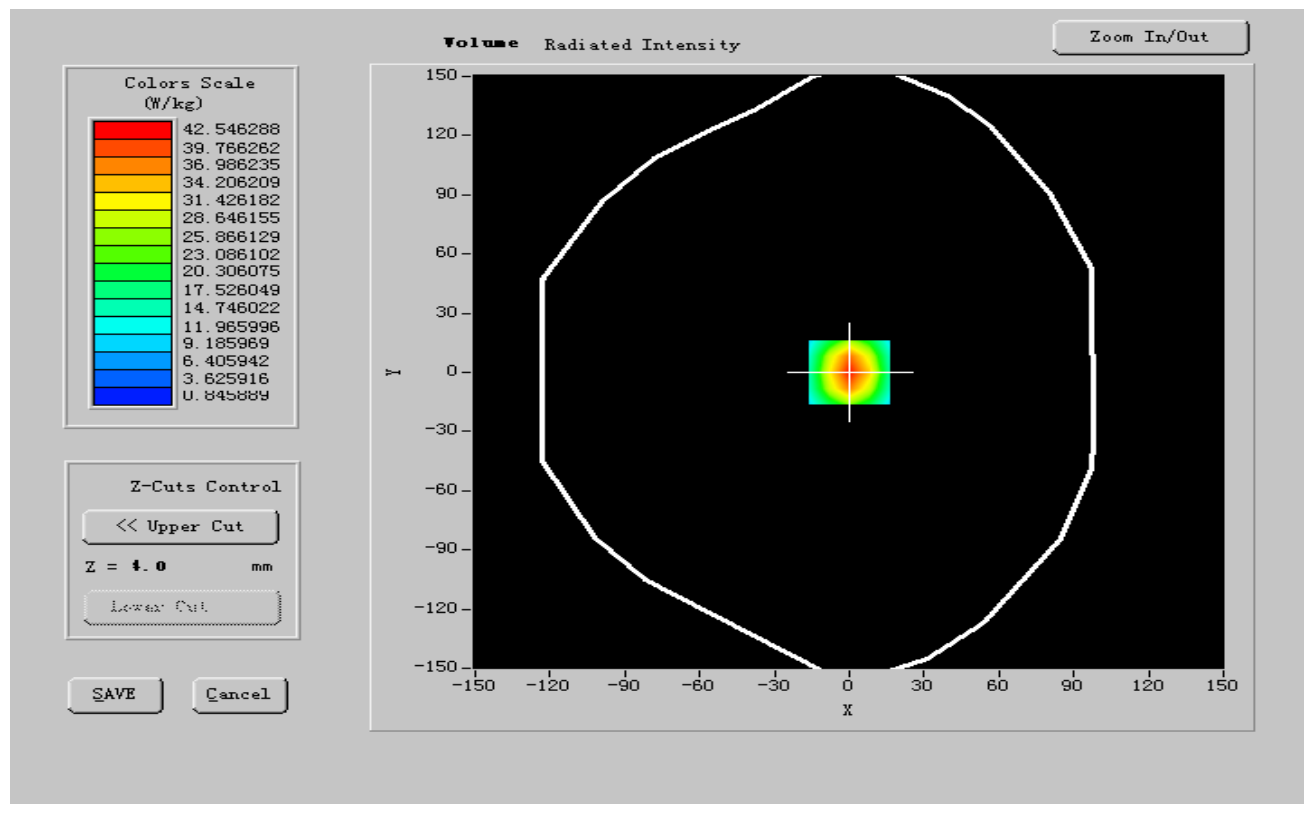
### SURFACE SAR







## VOLUME SAR

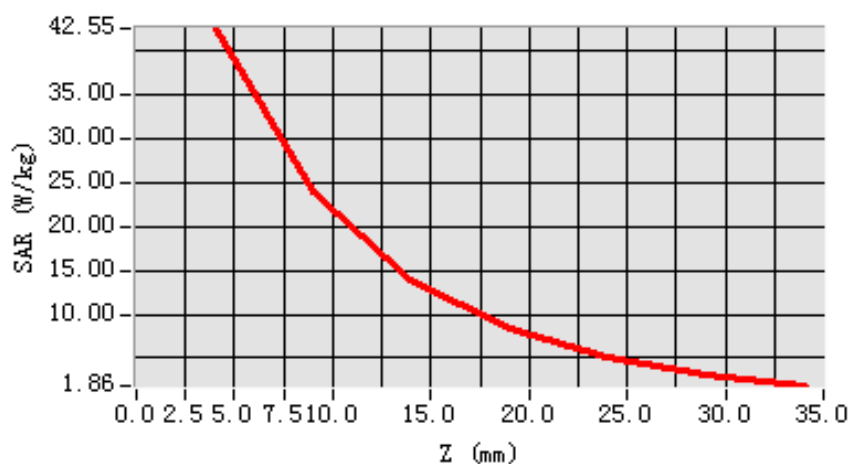


Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	21.242345
SAR 1g (W/Kg)	39.894234

## Z Axis Scan

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





## System Performance Check Data (1900MHz Body)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	CW

### B. Instrumentations.

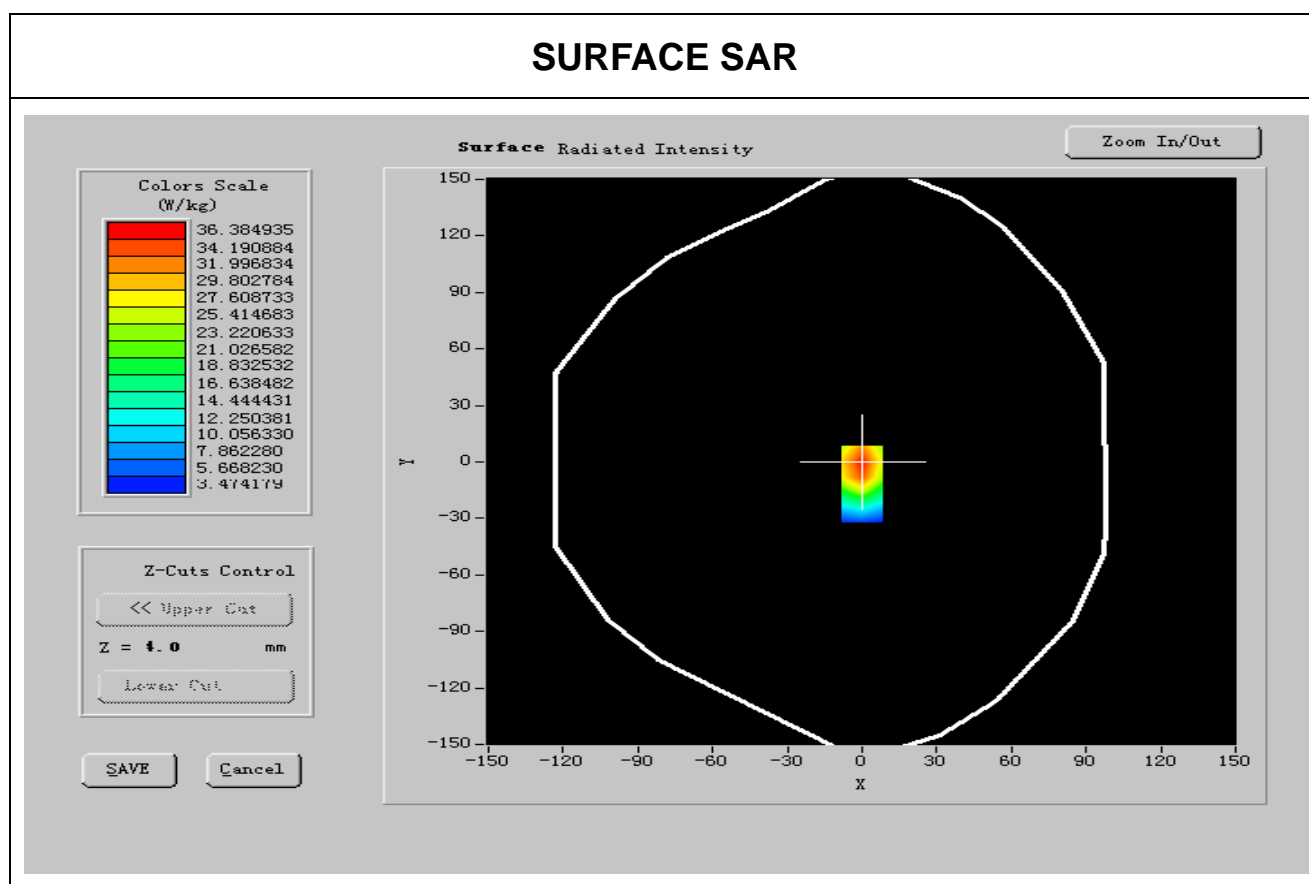
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 1900	Antennessa (DIPG35, SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A



## C. SAR Measurement Results

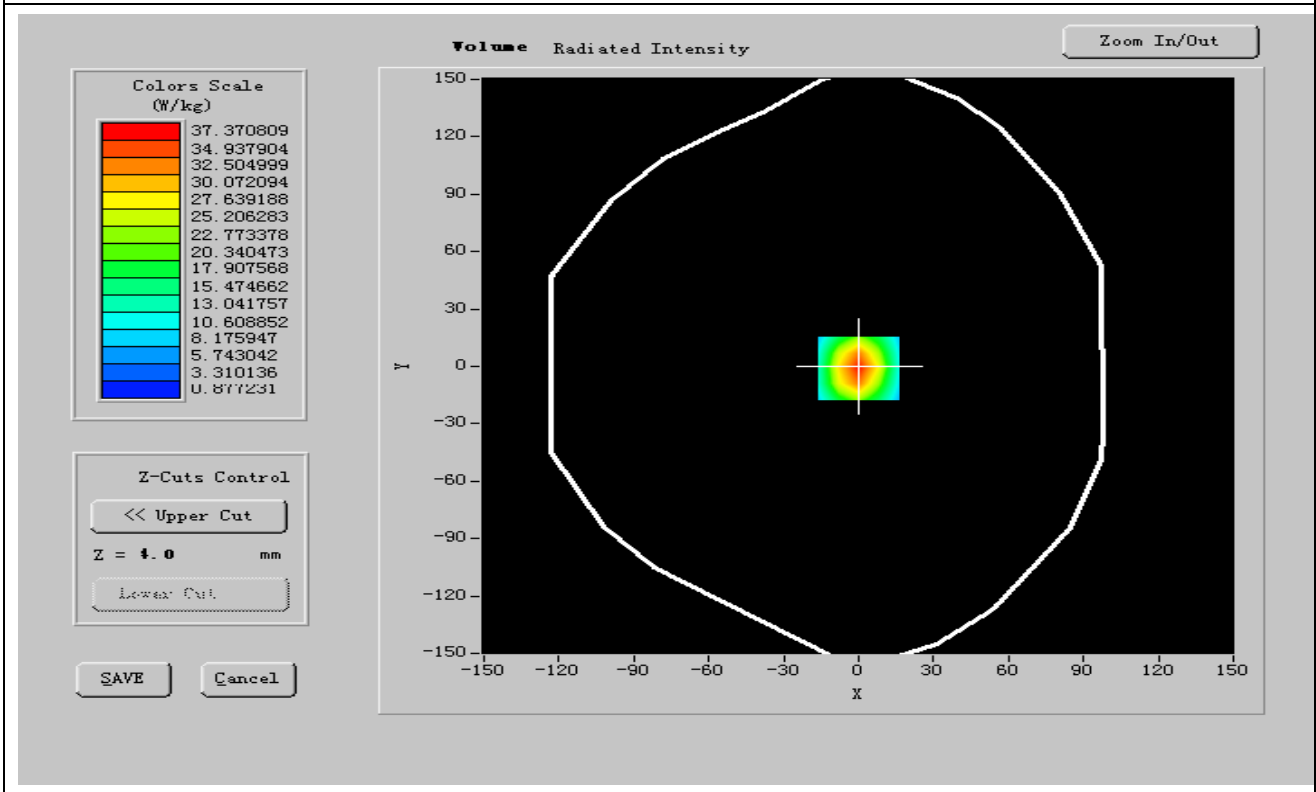
Frequency (MHz)	1950.000000
Relative permittivity (real part)	52.223660
Relative permittivity (imaginary part)	13.691050
Conductivity (S/m)	1.4731460
Variation (%)	-0.450000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	40.42, 41.12, 54.75
Crest factor	1:1

### SURFACE SAR





## VOLUME SAR

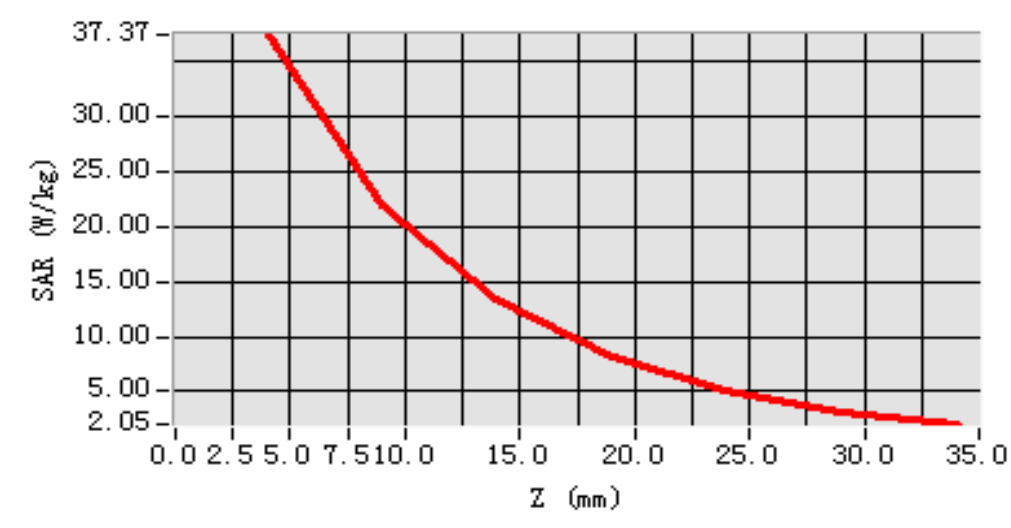


Maximum location: X=0.00, Y=-1.00

SAR 10g (W/Kg)	20.324145
SAR 1g (W/Kg)	38.564545

## Z Axis Scan

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





## System Performance Check Data (2450MHz Head)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Head
Band	band wireless
Channels	Middle
Signal	Duty Cycle: 1

### B. Instrumentations.

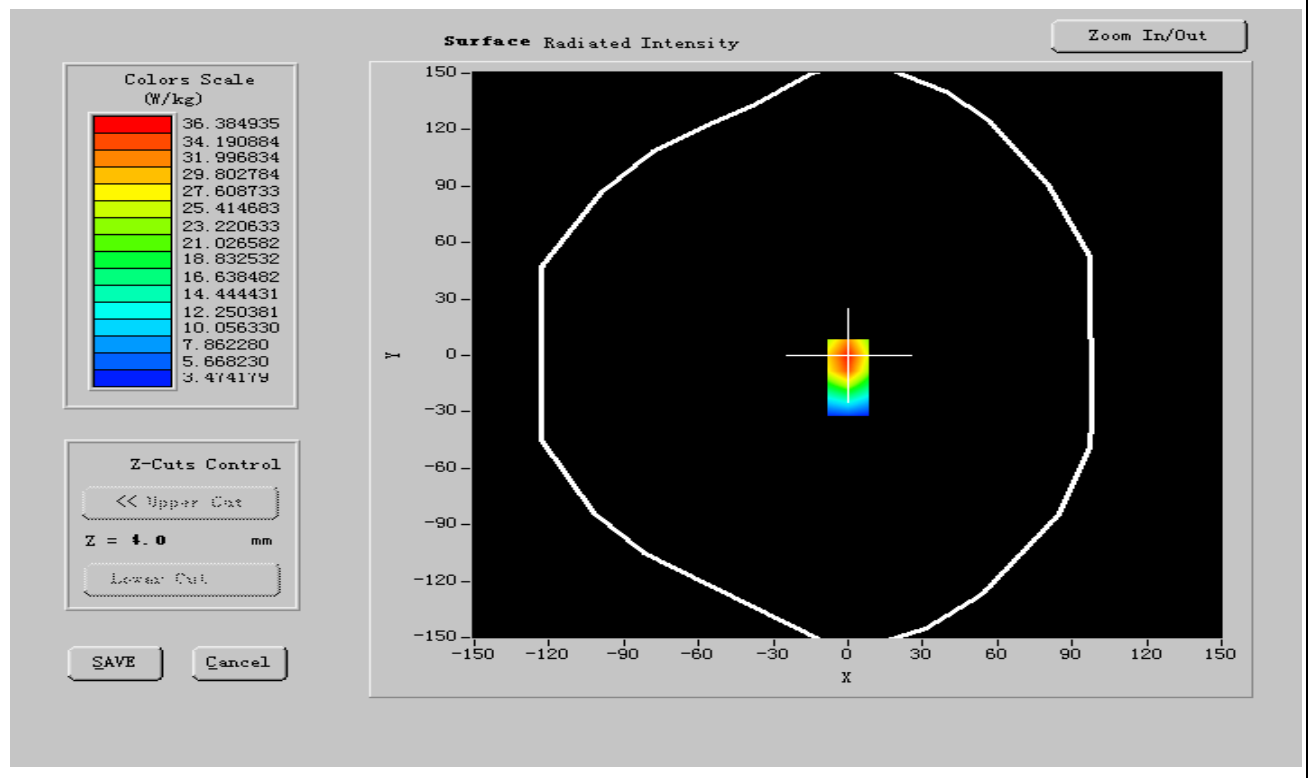
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 2450	Antennessa (DIPI37, SN 48/05)	CalibrationDue: 10/09/2011
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

### C. SAR Measurement Results



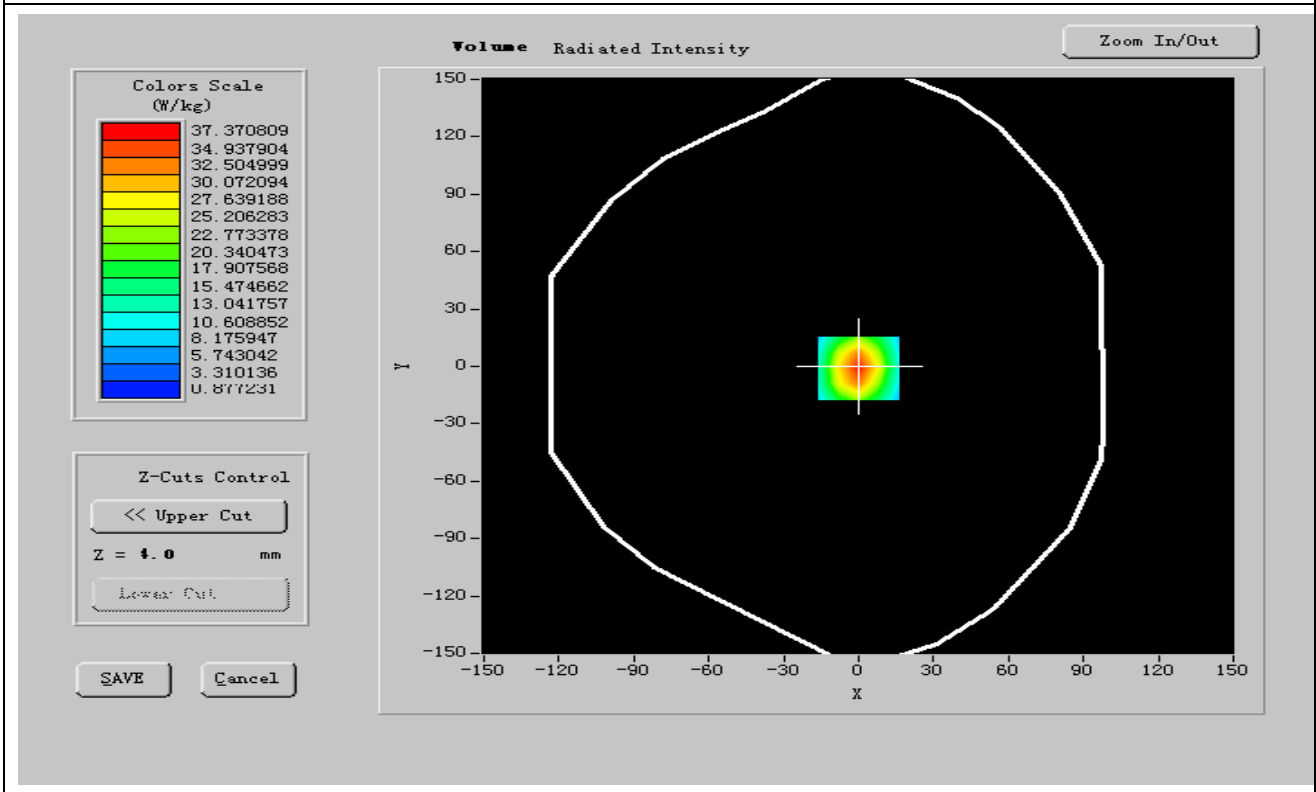
Frequency (MHz)	2450.000000
Relative permittivity (real part)	52.143660
Relative permittivity (imaginary part)	13.691050
Conductivity (S/m)	1.4431460
Variation (%)	-0.450000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.01, 42.41, 55.65
Crest factor	1:1

## SURFACE SAR





## VOLUME SAR

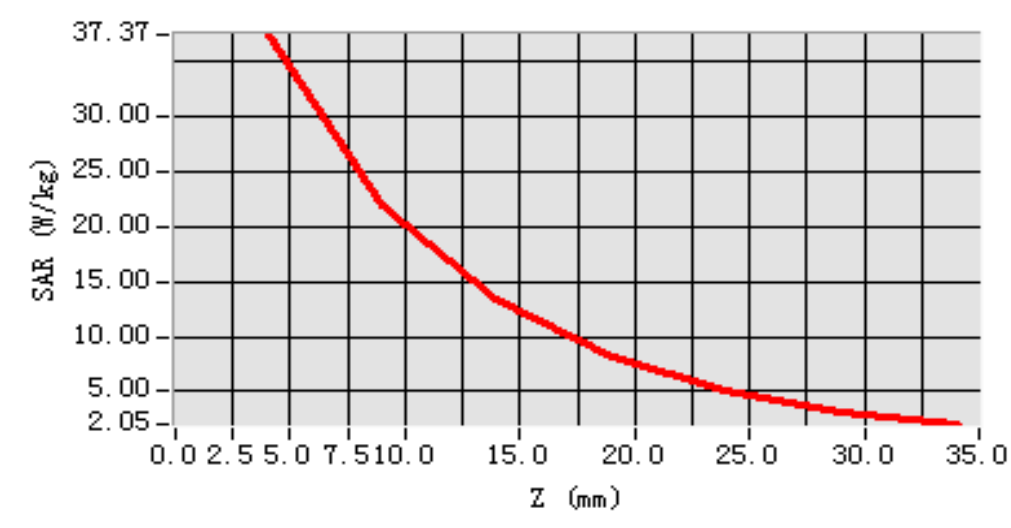


Maximum location: X=0.00, Y=-1.00

SAR 10g (W/Kg)	23.742127
SAR 1g (W/Kg)	51.751214

## Z Axis Scan

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





## System Performance Check Data (2450MHz Body)

Date of measurement: 3/14/2011

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	surf_sam_plan.txt, Adaptive 2 max
Phantom	Validation plane
Device Position	Body
Band	band wireless
Channels	Middle
Signal	Duty Cycle: 1

### B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication Test Set	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	CalibrationDue: 03/24/2012
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	CalibrationDue: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	CalibrationDue: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	CalibrationDue: 05/04/2011
DIPOLE 2450	Antennessa (DIPI37, SN 48/05)	CalibrationDue: 10/09/2011
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

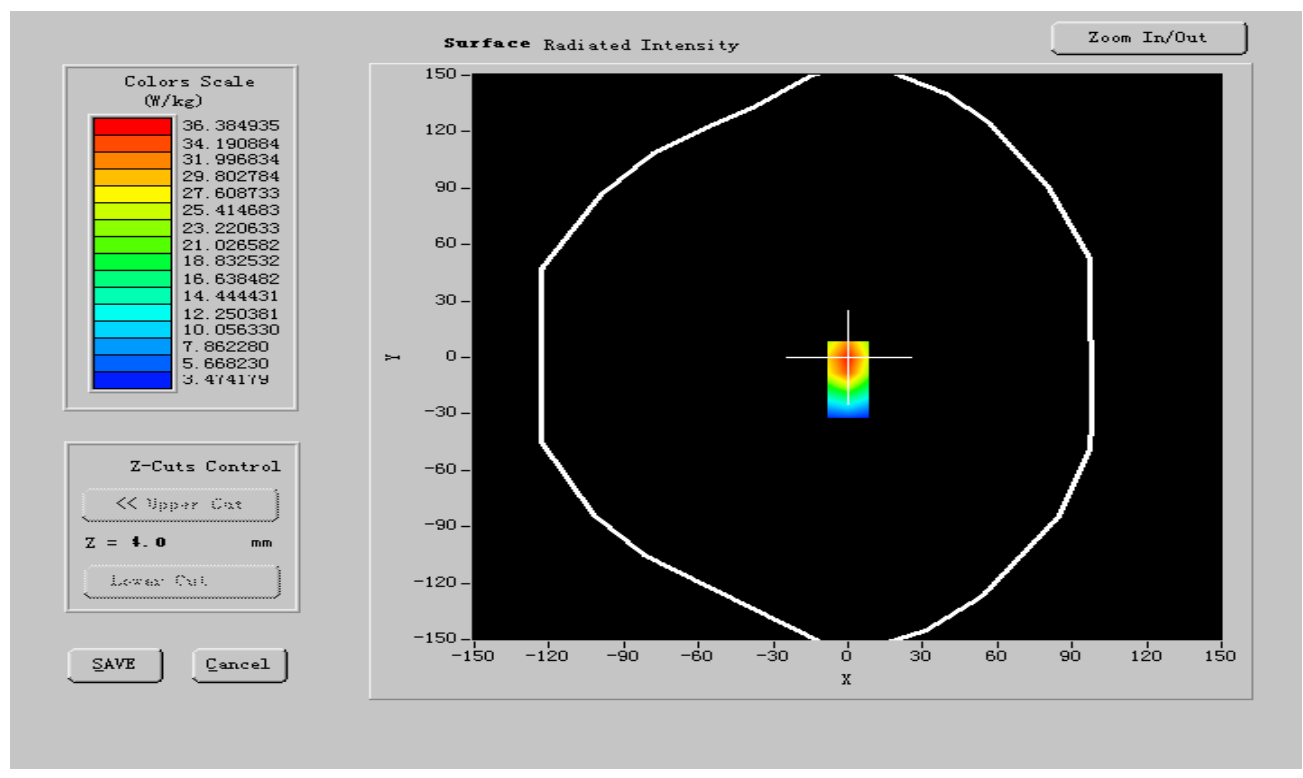
### C. SAR Measurement Results





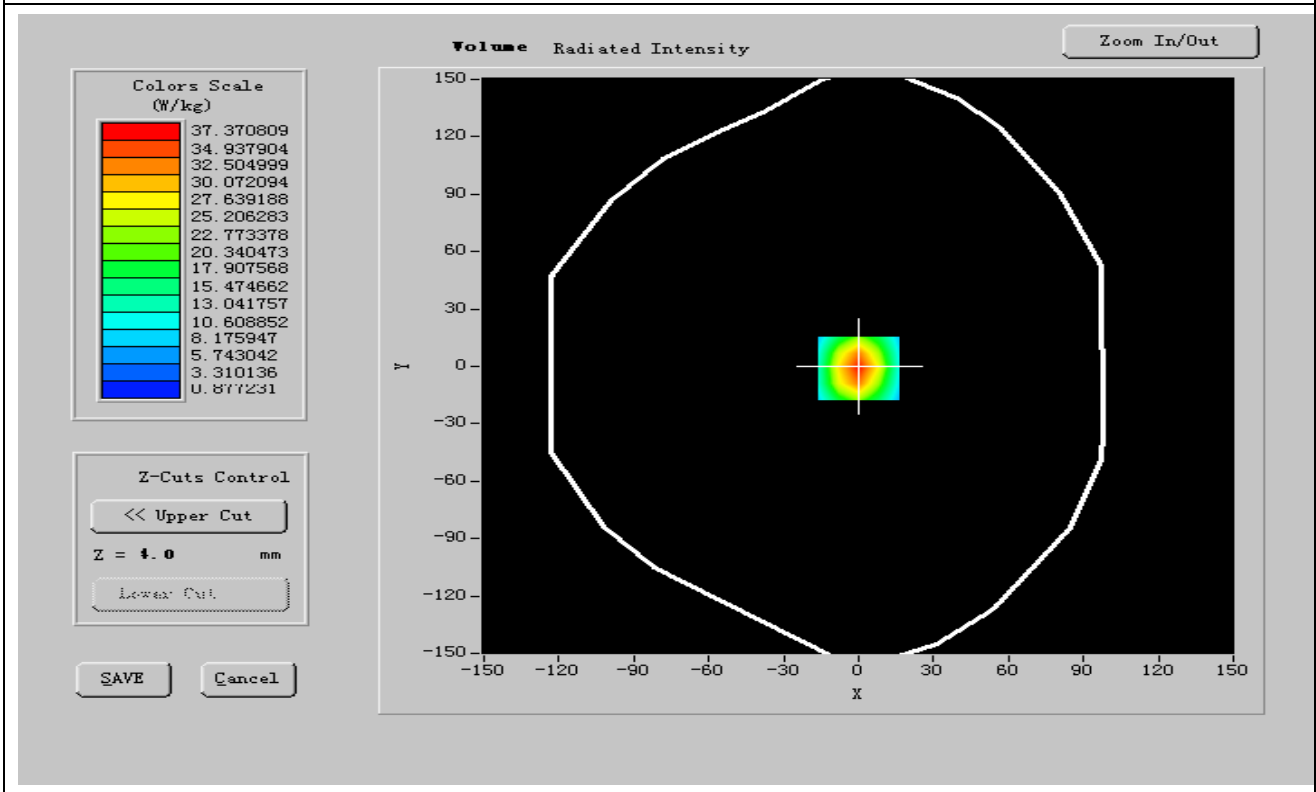
Frequency (MHz)	2450.000000
Relative permittivity (real part)	52.012547
Relative permittivity (imaginary part)	13.367488
Conductivity (S/m)	1.942156
Variation (%)	-0.450000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.01, 42.41, 55.65
Crest factor	1:1

## SURFACE SAR





## VOLUME SAR



Maximum location: X=0.00, Y=-1.00

SAR 10g (W/Kg)	22.562103
SAR 1g (W/Kg)	48.812148

## Z Axis Scan

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

