

## Appendix A. SAR System Validation Data

ALSAS-10U VER 2.3.6 APREL Laboratories  
SAR Test Report

Report Date : 02-Apr-2008  
Measurement Date : 02-Apr-2008

### Product Data

Device Name : Dipole-835  
Type : Dipole  
Frequency : 835.00 MHz  
Max. Transmit Pwr : 1 W  
Drift Time : 0 min(s)  
Length : 161 mm  
Width : 3.6 mm  
Depth : 89.8 mm  
Power Drift-Start : 8.754 W/kg  
Power Drift-Finish: 9.058 W/kg  
Power Drift (%) : 3.472

### Phantom Data

Type : Uni-Phantom  
Size (mm) : 280 x 280 x 200  
Location : Center

### Tissue Data

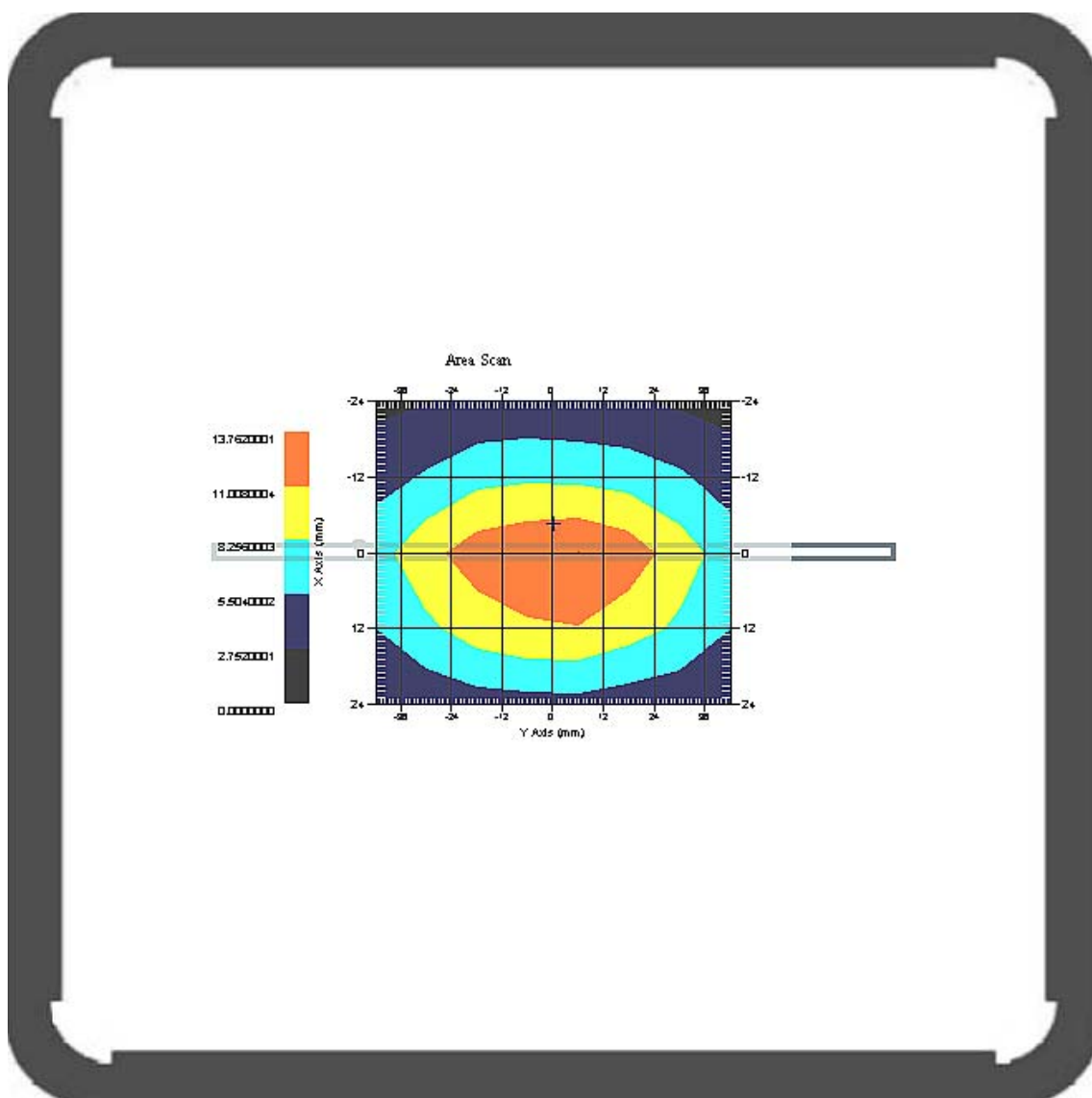
Type : HEAD  
Serial No. : 322-H  
Frequency : 835.00 MHz  
Last Calib. Date : 02-Apr-2008  
Temperature : 20.10 °C  
Ambient Temp. : 20.90 °C  
Humidity : 51.00 RH%  
Epsilon : 43.14 F/m  
Sigma : 0.96 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe 264  
Model : E020  
Type : E-Field Triangle  
Serial No. : 264  
Last Calib. Date : 20-Aug-2007  
Frequency : 835.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 6.3  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

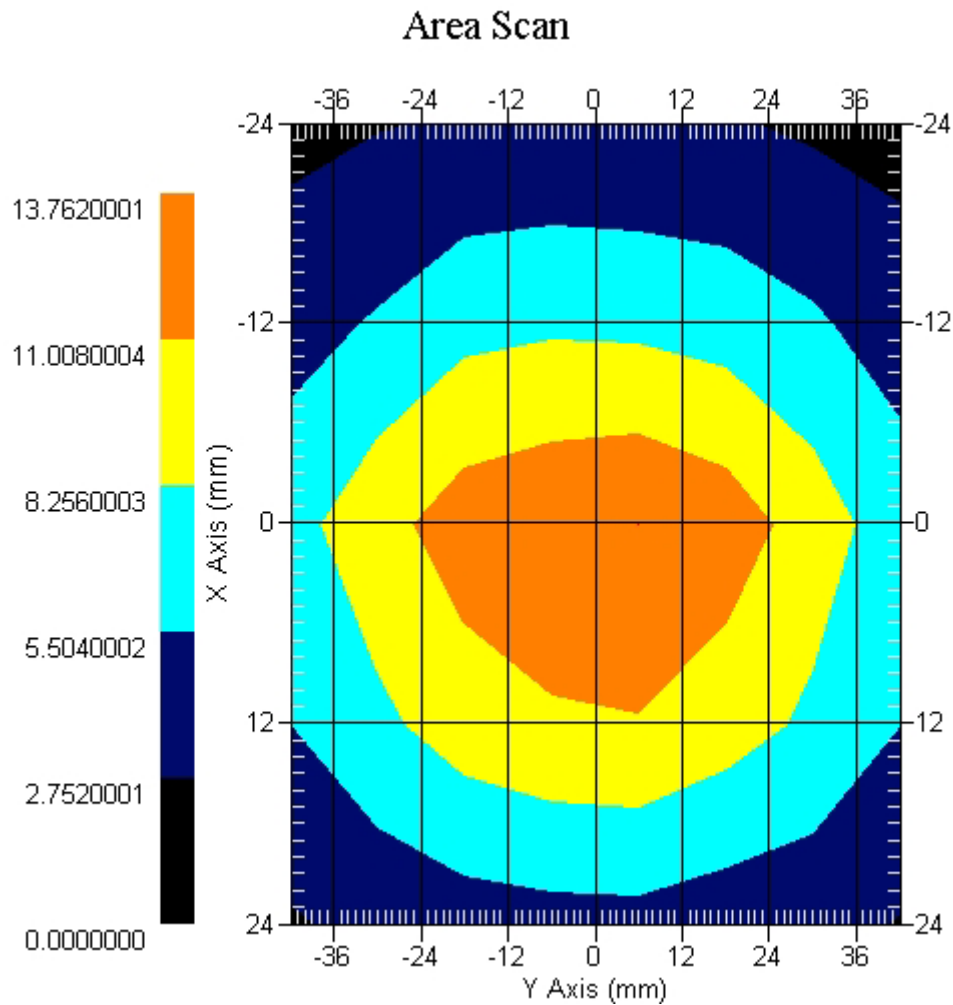
## Measurement Data

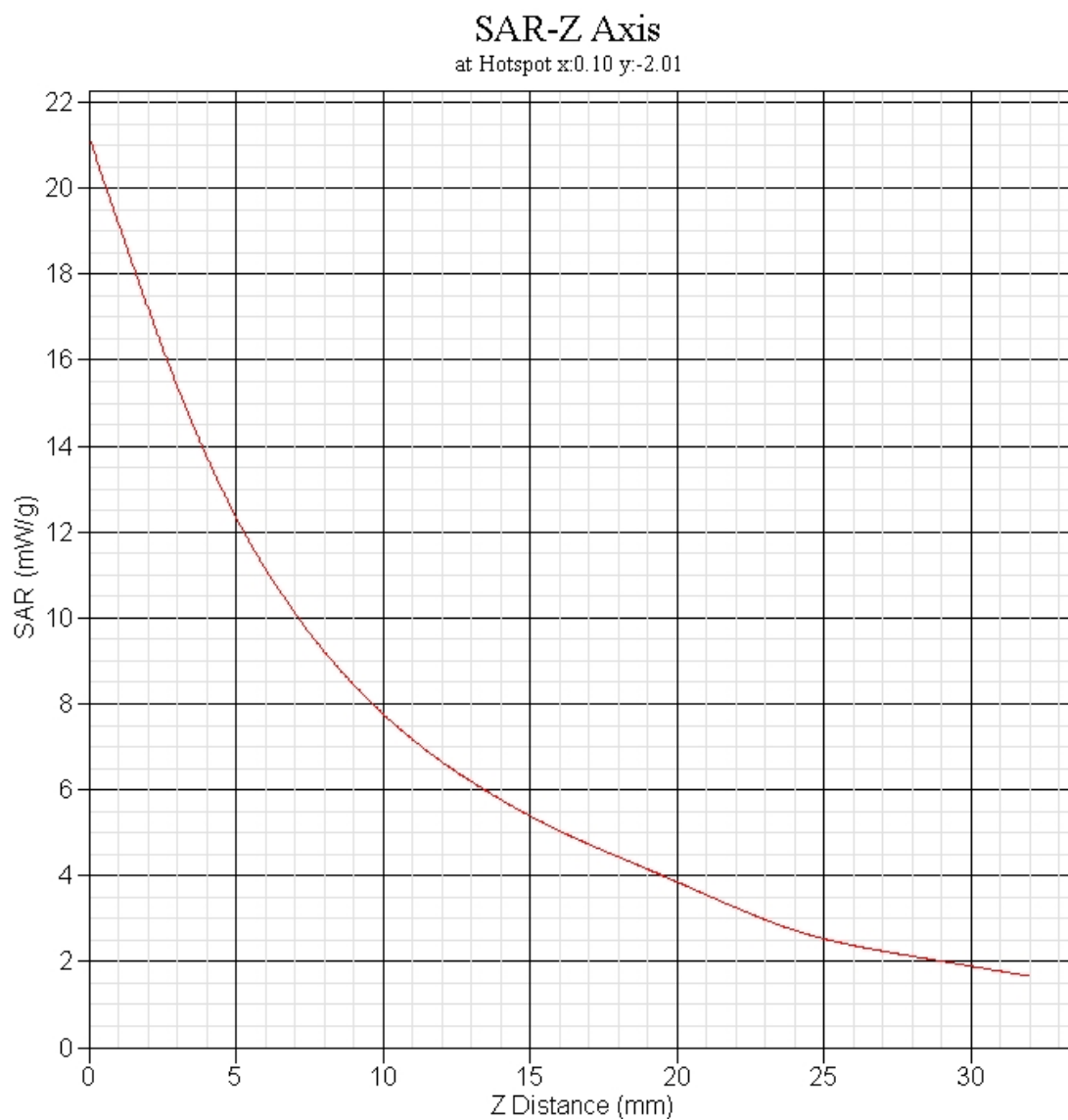
Crest Factor : 1  
 Tissue Temp. : 20.10 °C  
 Ambient Temp. : 20.90 °C  
 Area Scan : 5x8x1 : Measurement x=12mm, y=12mm, z=4mm  
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm  
 Frequency : 835 MHz



1 gram SAR value : 9.121 W/kg  
 10 gram SAR value : 6.572 W/kg  
 Area Scan Peak SAR : 13.854 W/kg  
 Zoom Scan Peak SAR : 21.331 W/kg

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## ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report

Report Date : 03-Apr-2008  
Measurement Date : 03-Apr-2008

### Product Data

Device Name : Dipole-1800  
Type : Dipole  
Frequency : 1900.00 MHz  
Max. Transmit Pwr : 1 W  
Drift Time : 0 min(s)  
Length : 72 mm  
Width : 3.6 mm  
Depth : 41.7 mm  
Power Drift-Start : 21.654 W/kg  
Power Drift-Finish: 21.356 W/kg  
Power Drift (%) : -1.654

### Phantom Data

Type : Uni-Phantom  
Size (mm) : 280 x 280 x 200  
Location : Center

### Tissue Data

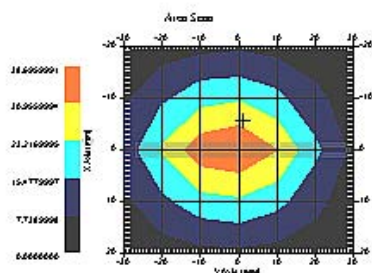
Type : HEAD  
Serial No. : 324-H  
Frequency : 1900.00 MHz  
Last Calib. Date : 03-Apr-2008  
Temperature : 20.40 °C  
Ambient Temp. : 21.30 °C  
Humidity : 50.00 RH%  
Epsilon : 40.33 F/m  
Sigma : 1.45 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe 264  
Model : E020  
Type : E-Field Triangle  
Serial No. : 264  
Last Calib. Date : 21-Aug-2007  
Frequency : 1900.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 5.6  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

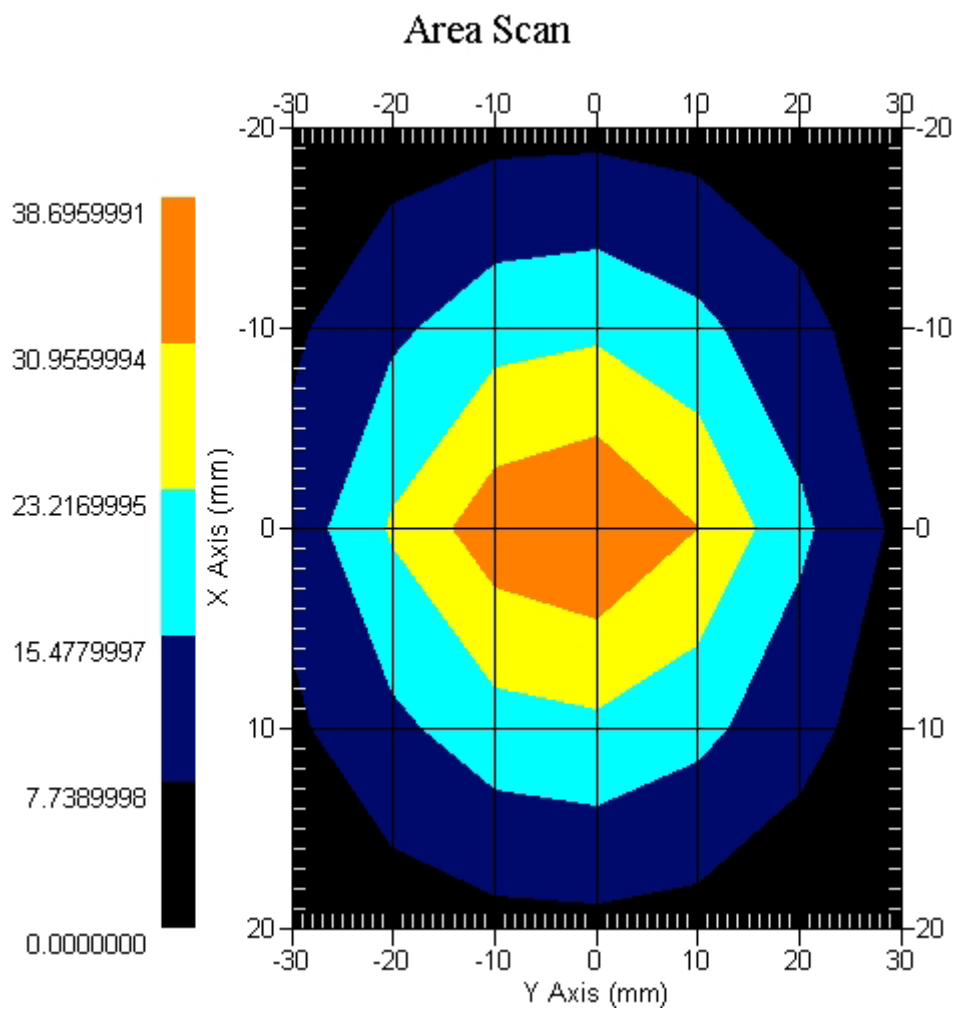
## Measurement Data

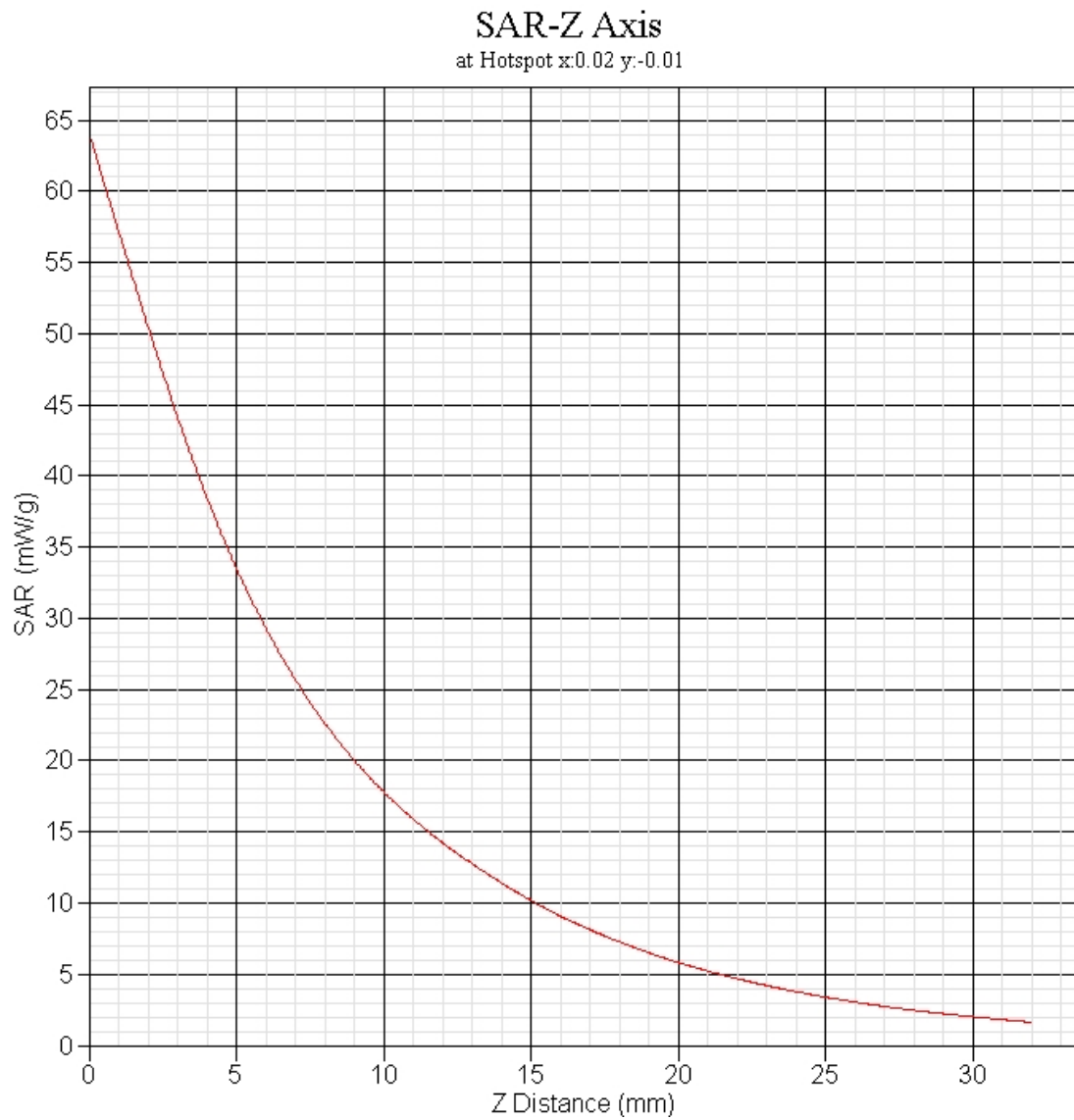
Crest Factor : 1  
 Tissue Temp. : 20.40 °C  
 Ambient Temp. : 21.30 °C  
 Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm  
 Zoom Scan : 7x7x7: Measurement x=5m, y=5mm, z=5m  
 Frequency : 1900 MHz



1 gram SAR value : 35.812 W/kg  
 10 gram SAR value : 20.147 W/kg  
 Area Scan Peak SAR : 38.587 W/kg  
 Zoom Scan Peak SAR : 63.654 W/kg

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## ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report

Report Date : 07-Apr-2008  
Measurement Date : 07-Apr-2008

### Product Data

Device Name : Dipole-2450  
Type : Dipole  
Frequency : 2450.00 MHz  
Max. Transmit Pwr : 1 W  
Drift Time : 0 min(s)  
Length : 51.5 mm  
Width : 3.6 mm  
Depth : 30.4 mm  
Power Drift-Start : 19.818 W/kg  
Power Drift-Finish: 19.625 W/kg  
Power Drift (%) : -0.974

### Phantom Data

Type : Uni-Phantom  
Size (mm) : 280 x 280 x 200  
Location : Center

### Tissue Data

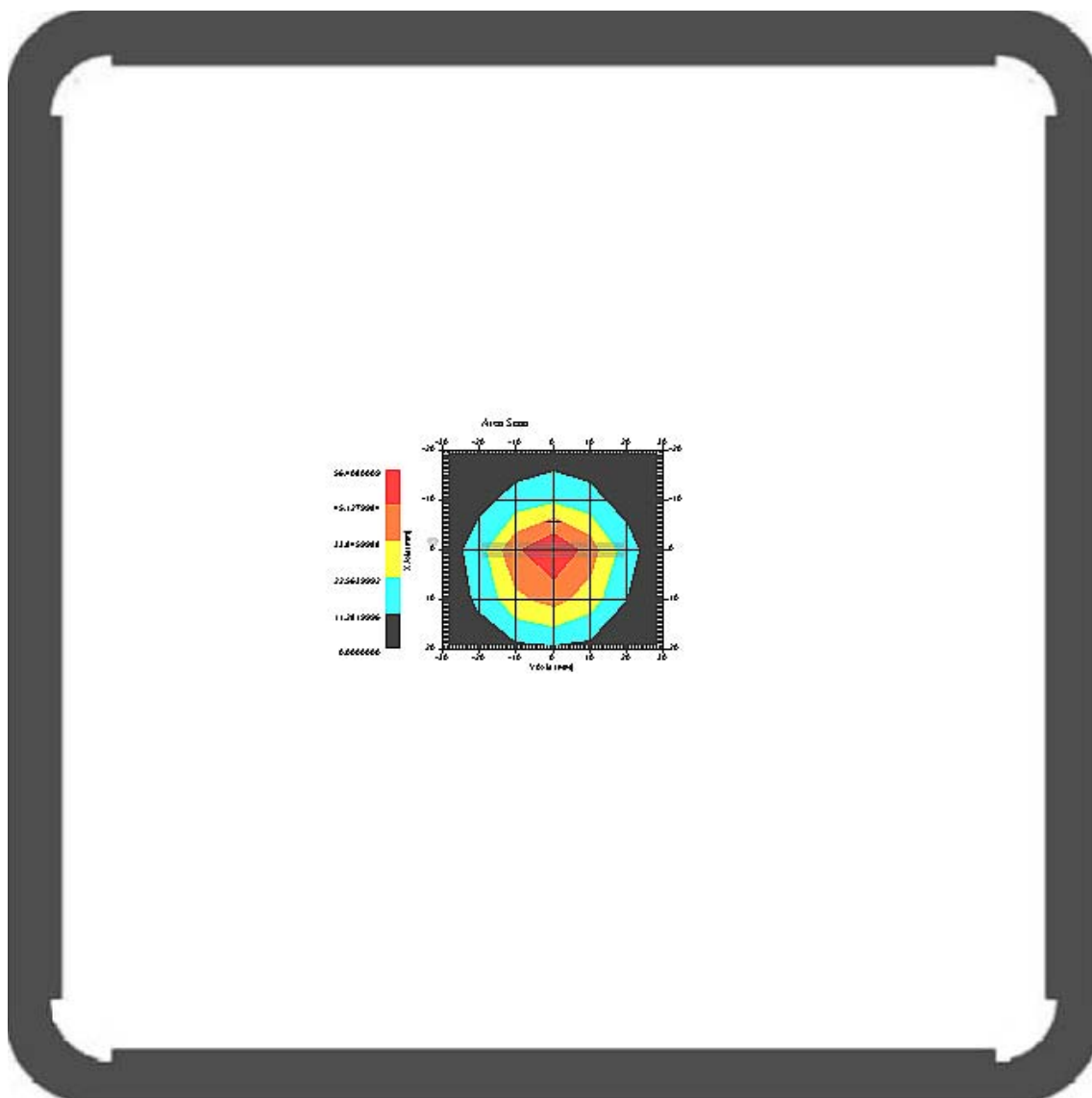
Type : BODY  
Serial No. : 325-B  
Frequency : 2450.00 MHz  
Last Calib. Date : 07-Apr-2008  
Temperature : 20.50 °C  
Ambient Temp. : 21.30 °C  
Humidity : 50.00 RH%  
Epsilon : 53.14 F/m  
Sigma : 1.77 S/m  
Density : 1000.00 kg/cu. m

### Probe Data

Name : Probe 264  
Model : E020  
Type : E-Field Triangle  
Serial No. : 264  
Last Calib. Date : 21-Aug-2007  
Frequency : 2450.00 MHz  
Duty Cycle Factor: 1  
Conversion Factor: 5.2  
Probe Sensitivity: 1.20 1.20 1.20  $\mu\text{V}/(\text{V}/\text{m})^2$   
Compression Point: 95.00 mV  
Offset : 1.56 mm

## Measurement Data

Crest Factor : 1  
 Tissue Temp. : 20.50 °C  
 Ambient Temp. : 21.30 °C  
 Area Scan : 5x7x1 : Measurement x=10mm, y=10mm, z=4mm  
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm  
 Frequency : 2450 MHz



1 gram SAR value : 47.824 W/kg  
 10 gram SAR value : 24.971 W/kg  
 Area Scan Peak SAR : 55.958 W/kg  
 Zoom Scan Peak SAR : 105.012 W/kg

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