

SAR System Validation Data

ALSAS-10U VER 2.3.1 APREL Laboratories

SAR Test Report

Report Date : 09-Jan-2007
Measurement Date : 09-Jan-2007

Product Data

Device Name : Dipole-2450
Type : Dipole
Model : Standard
Frequency : 2450.00 MHz
Max. Transmit Pwr : 0.25 W
Drift Time : 0 min(s)
Length : 51.5 mm
Width : 3.6 mm
Depth : 30.4 mm
Power Drift-Start : 6.529 W/kg
Power Drift-Finish: 6.506 W/kg
Power Drift (%) : -0.359

Phantom Data

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

Tissue Data

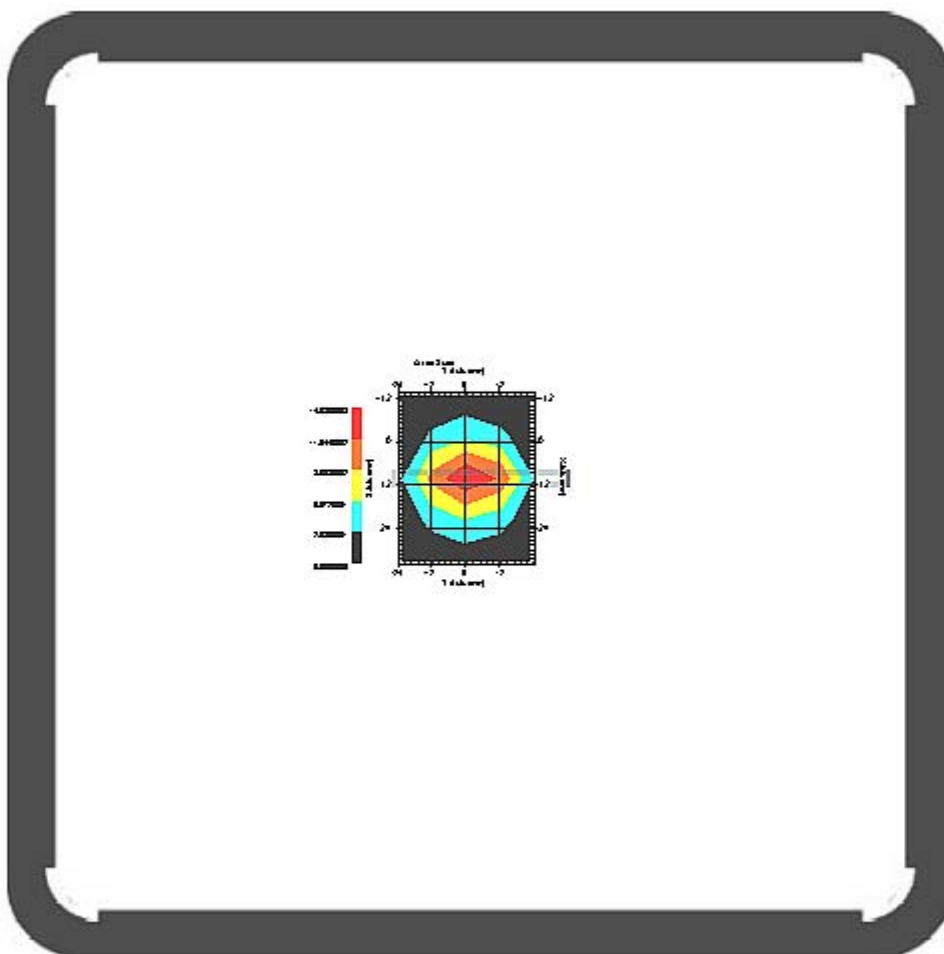
Type : HEAD
Serial No. : 325-H
Frequency : 2450.00 MHz
Last Calib. Date : 09-Jan-2007
Temperature : 21.40 °C
Ambient Temp. : 21.70 °C
Humidity : 53.00 RH%
Epsilon : 38.36 F/m
Sigma : 1.858 S/m
Density : 1000.00 kg/cu. m

Probe Data

Name : Probe 264
Model : E020
Type : E-Field Triangle
Serial No. : 264
Last Calib. Date : 29-Dec-2006
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5
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

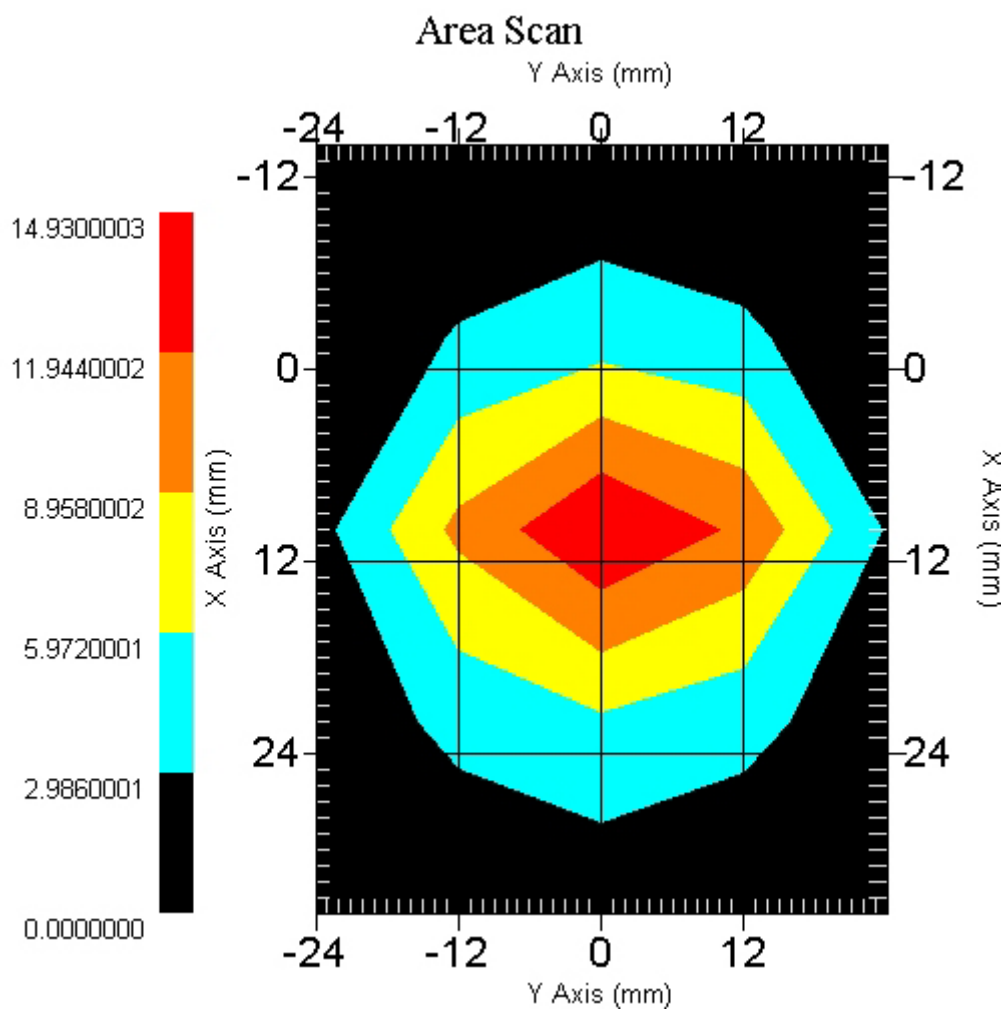
Measurement Data

Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 5x5x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Frequency : 2450



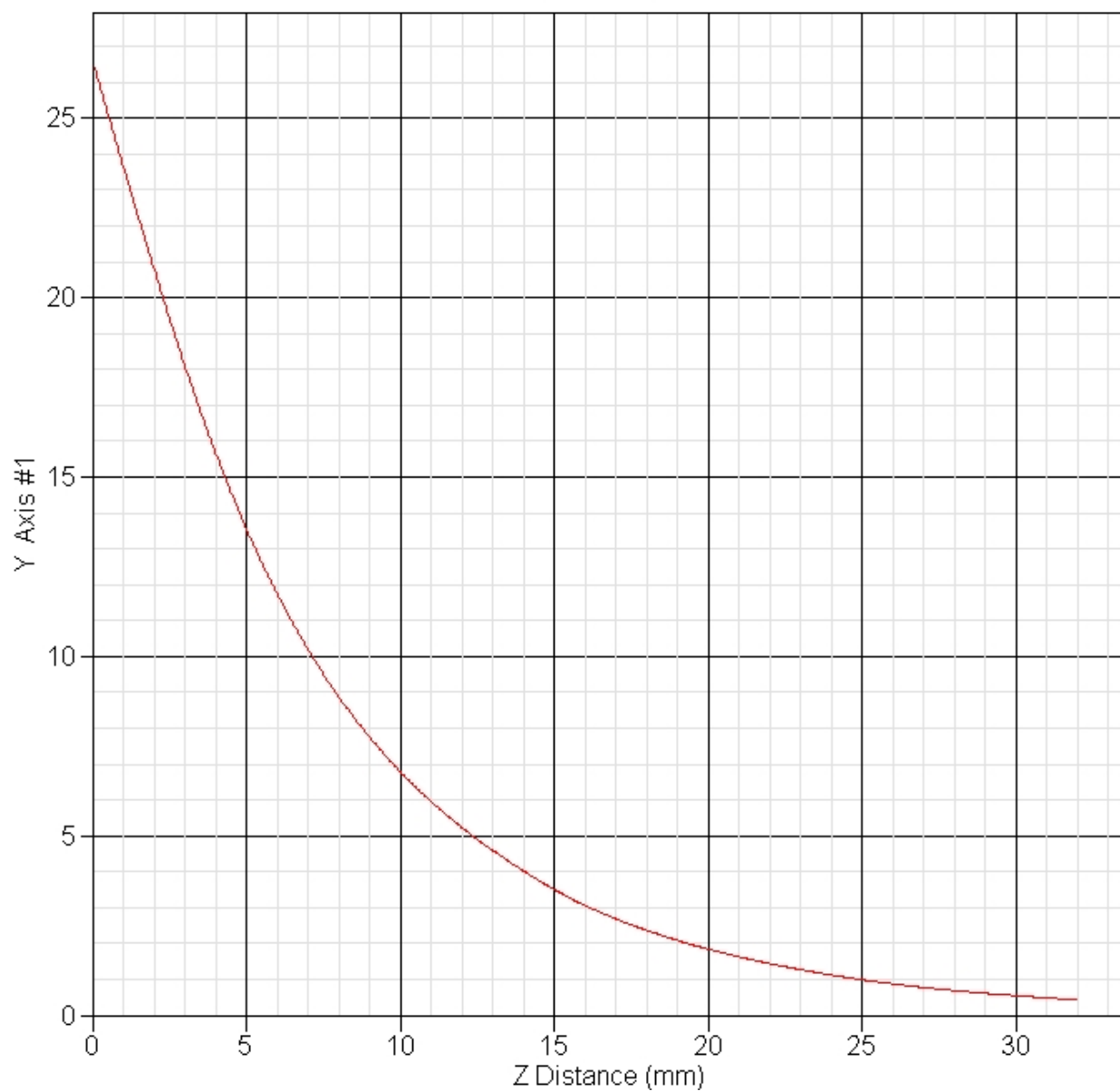
1 gram SAR value : 12.842 W/kg
 10 gram SAR value : 5.751 W/kg
 Area Scan Peak SAR : 14.929 W/kg
 Zoom Scan Peak SAR : 26.622 W/kg

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SAR-Z Axis

at Hotspot x:10.10 y:-2.00



SAR Measurement Data

ALSAS-10U VER 2.3.2APREL Laboratories

SAR Test Report (802.11b)

Report Date : 09-Jan-2007
Measurement Date : 09-Jan-2007

Product Data

Device Name : MAX LIGHT
Type : Other
Model : AWU-902T, NV-902T, WA-2110, HWGUSB2-54, Thrustmaster
FunAccess WiFi USB Key, TER/GUSB2
Frequency : 2450.00 MHz
Length : 75 mm
Width : 26 mm
Depth : 10.4 mm
Antenna Type : Internal

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 : 09-Jan-2007
Temperature : 21.40 °C
Ambient Temp. : 21.70 °C
Humidity : 53.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.981 S/m
Density : 1000.00 kg/cu. m

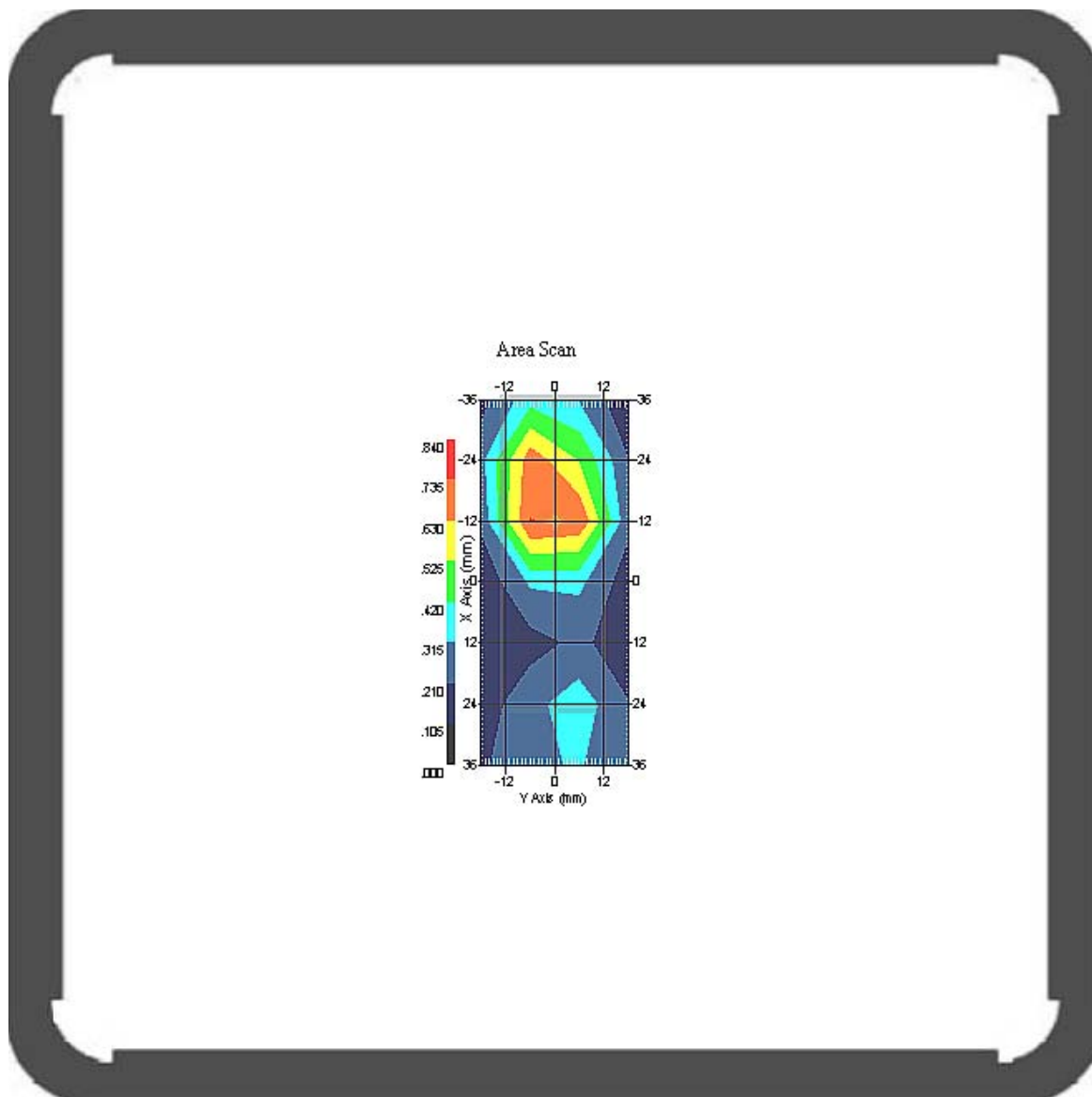
Probe Data

Name : Probe 264
Model : E020
Type : E-Field Triangle
Serial No. : 264
Last Calib. Date : 29-Dec-2006
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

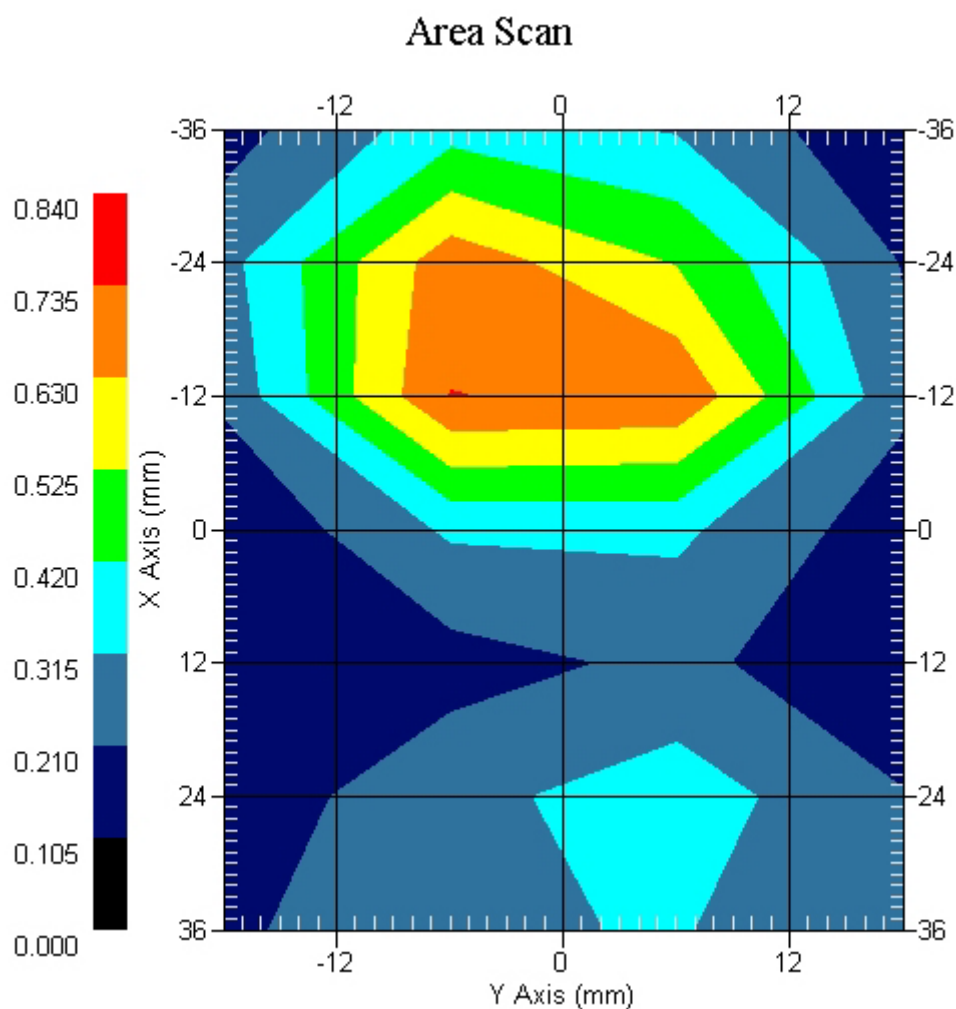
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x8 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.095 W/kg
 Power Drift-Finish: 0.098 W/kg
 Power Drift (%) : 3.111

DUT Position : Touch EUT BACK
 Channel : 1



1 gram SAR value : 0.731 W/kg
 10 gram SAR value : 0.370 W/kg
 Area Scan Peak SAR : 0.737 W/kg
 Zoom Scan Peak SAR : 1.551 W/kg

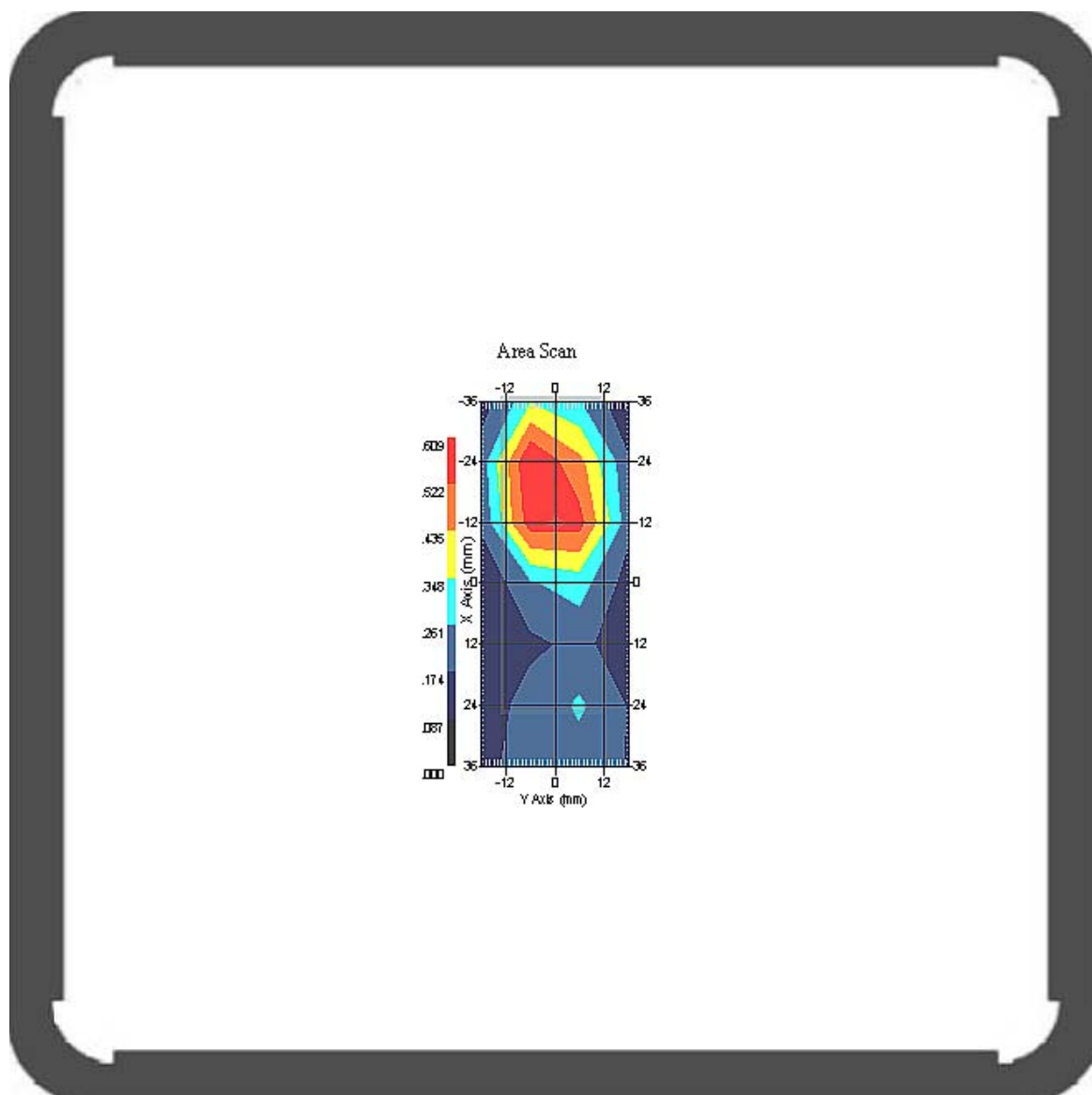
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Measurement Data

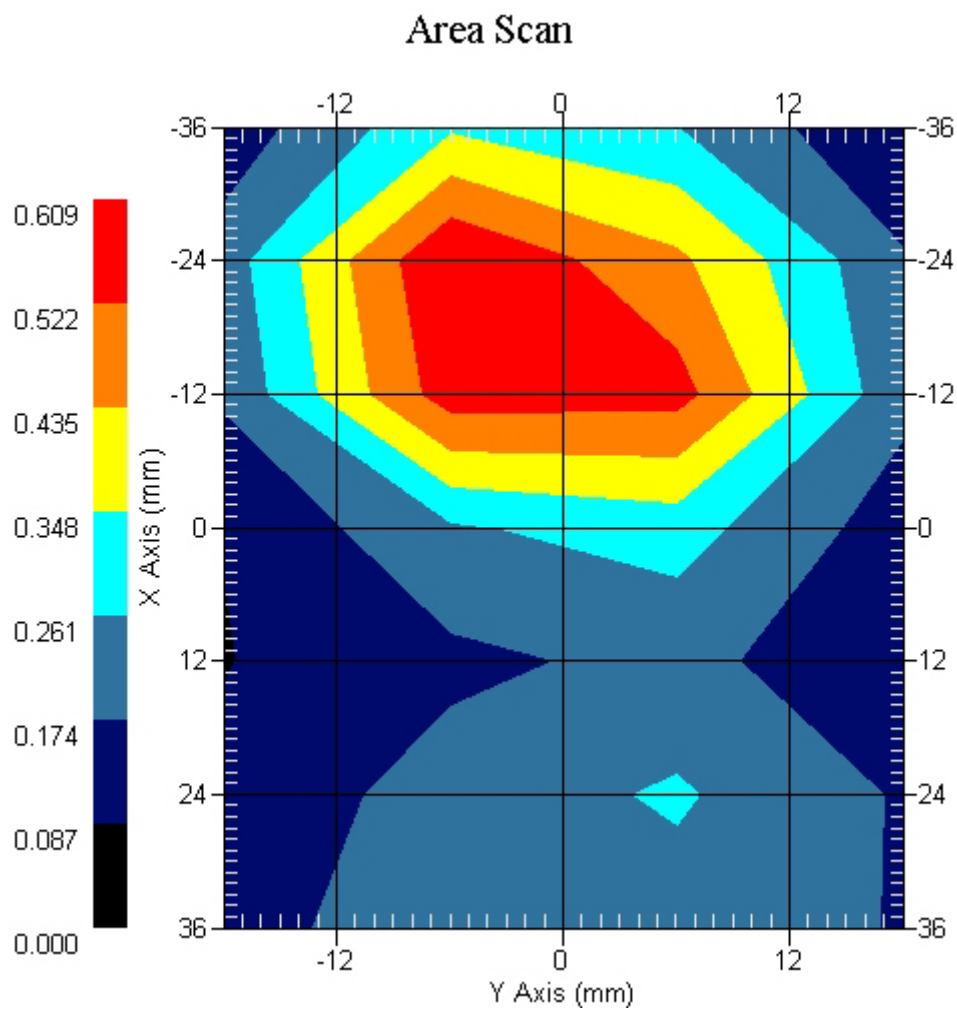
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.098 W/kg
 Power Drift-Finish: 0.096 W/kg
 Power Drift (%) : -2.094

DUT Position : Touch EUT BACK
 Channel : 6



1 gram SAR value : 0.564 W/kg
 10 gram SAR value : 0.273 W/kg
 Area Scan Peak SAR : 0.609 W/kg
 Zoom Scan Peak SAR : 1.161 W/kg

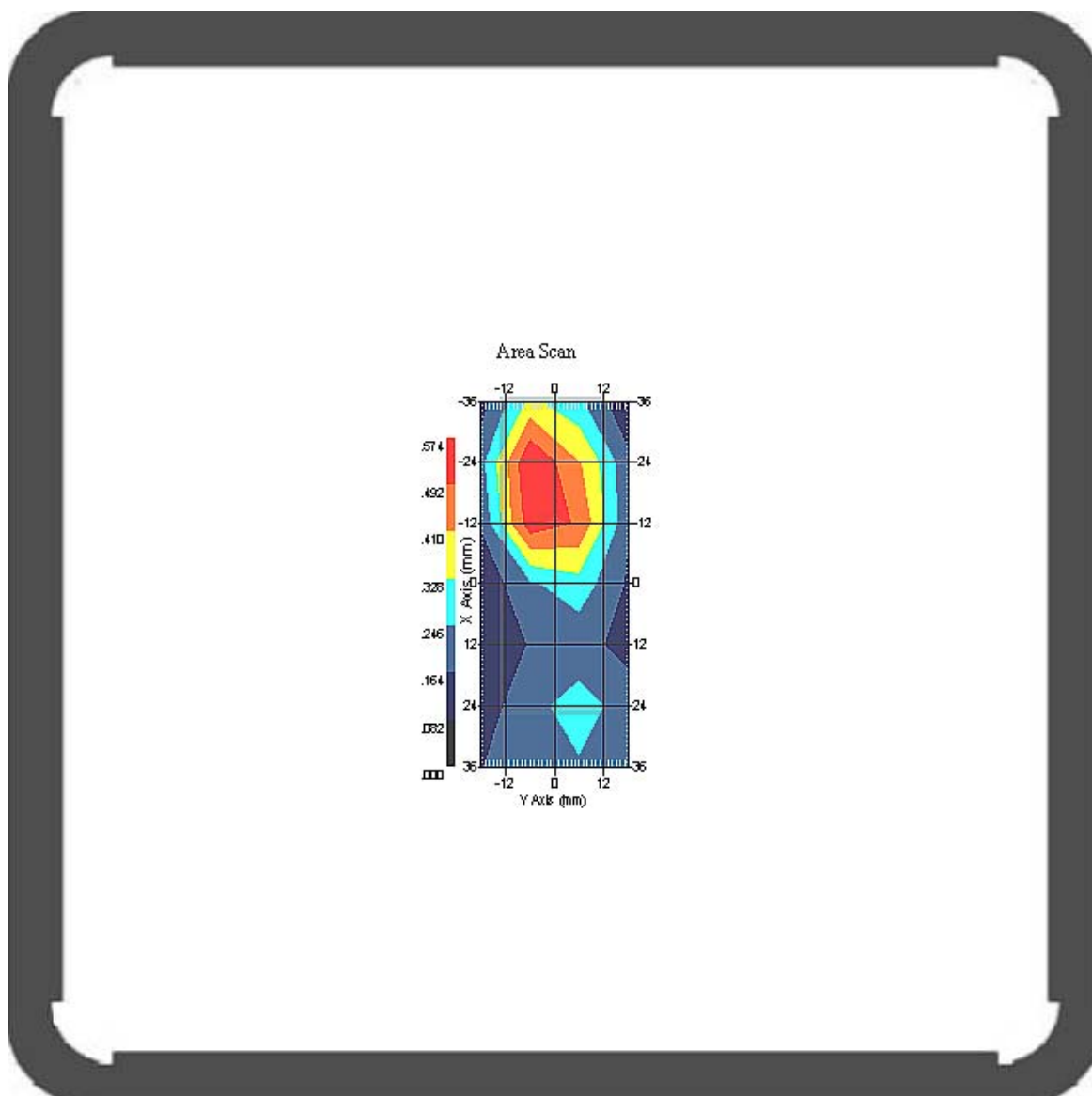
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Measurement Data

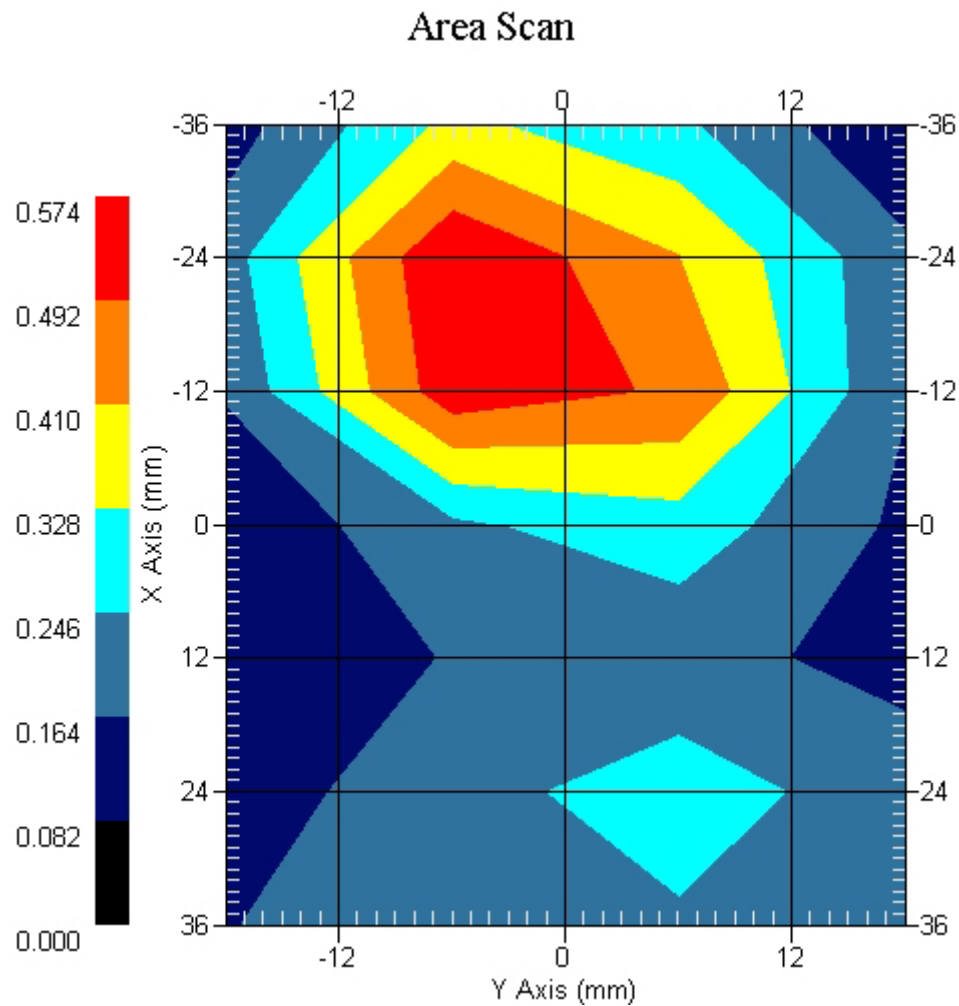
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.084 W/kg
 Power Drift-Finish: 0.088 W/kg
 Power Drift (%) : 4.632

DUT Position : Touch EUT BACK
 Channel : 11



1 gram SAR value : 0.457 W/kg
 10 gram SAR value : 0.283 W/kg
 Area Scan Peak SAR : 0.571 W/kg
 Zoom Scan Peak SAR : 0.980 W/kg

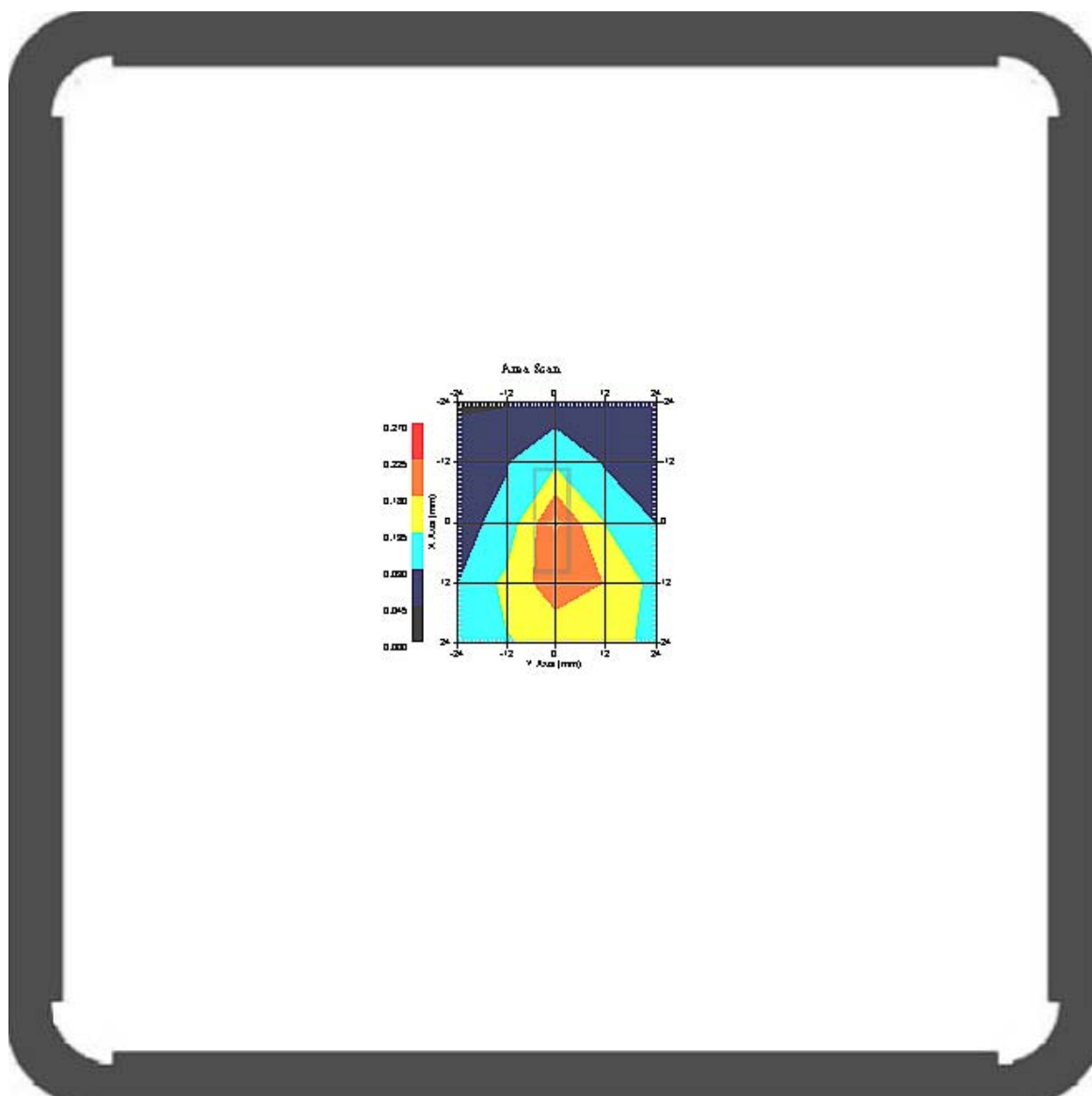
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Measurement Data

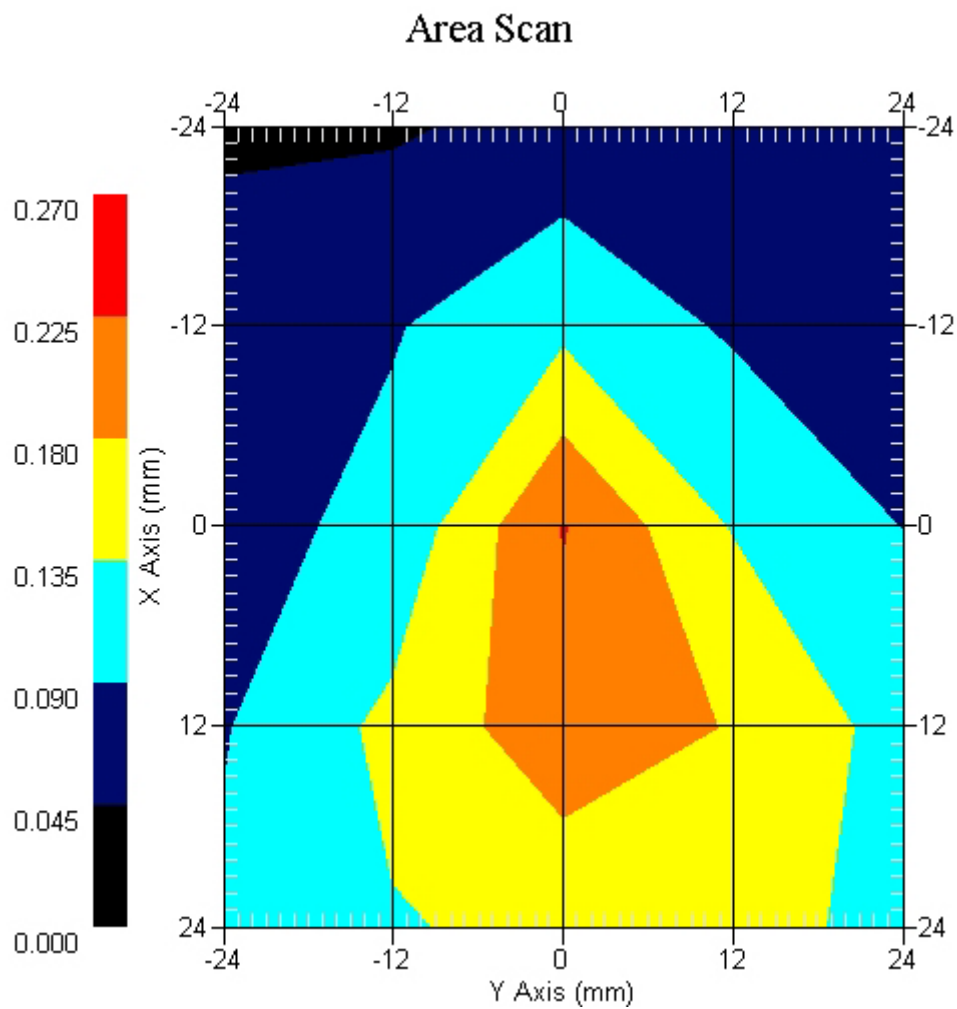
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 5x5x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.219 W/kg
 Power Drift-Finish: 0.226 W/kg
 Power Drift (%) : 3.310

DUT Position : Touch EUT TOP
 Channel : 6



1 gram SAR value : 0.224 W/kg
 10 gram SAR value : 0.128 W/kg
 Area Scan Peak SAR : 0.227 W/kg
 Zoom Scan Peak SAR : 0.480 W/kg

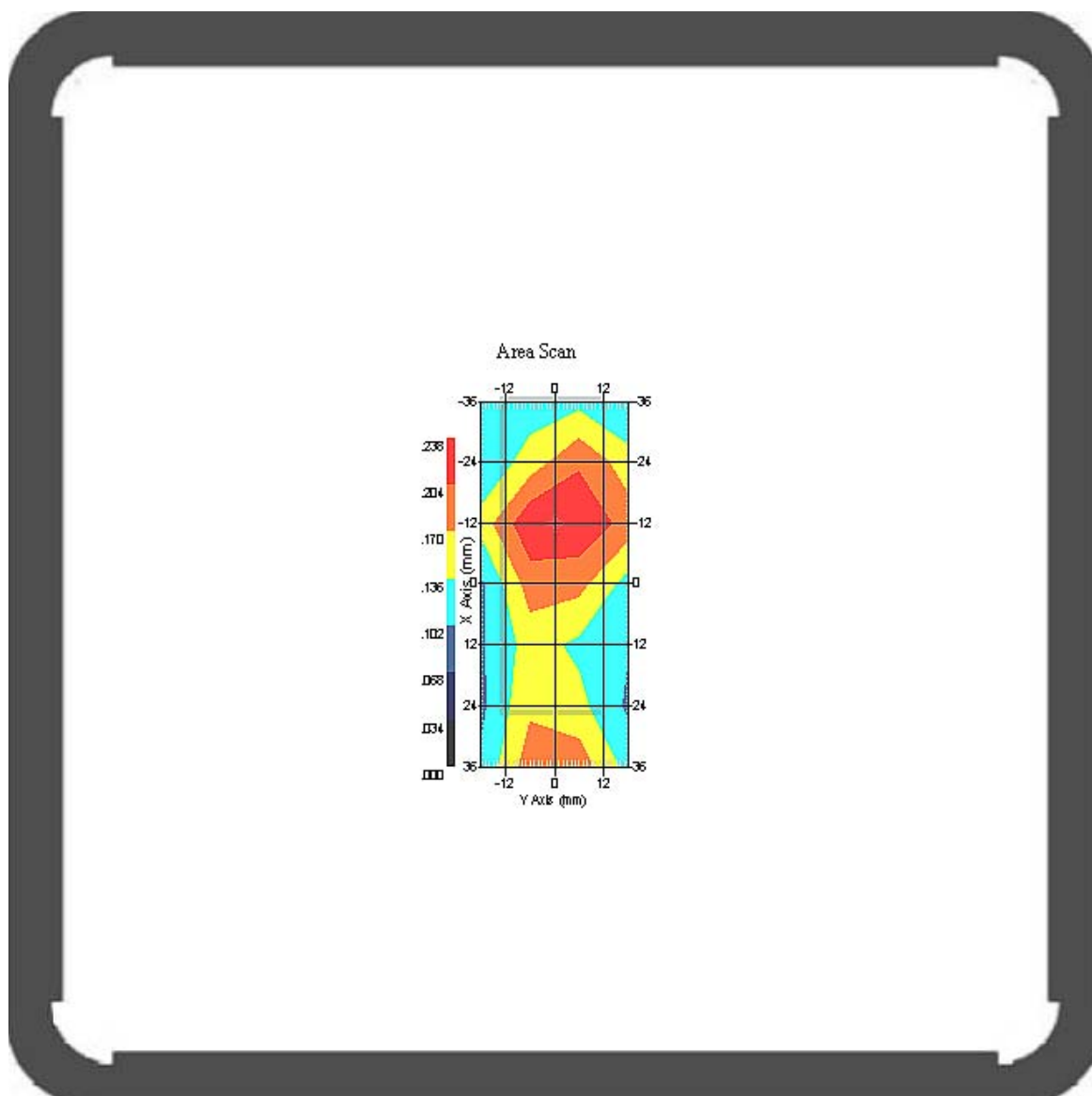
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Measurement Data

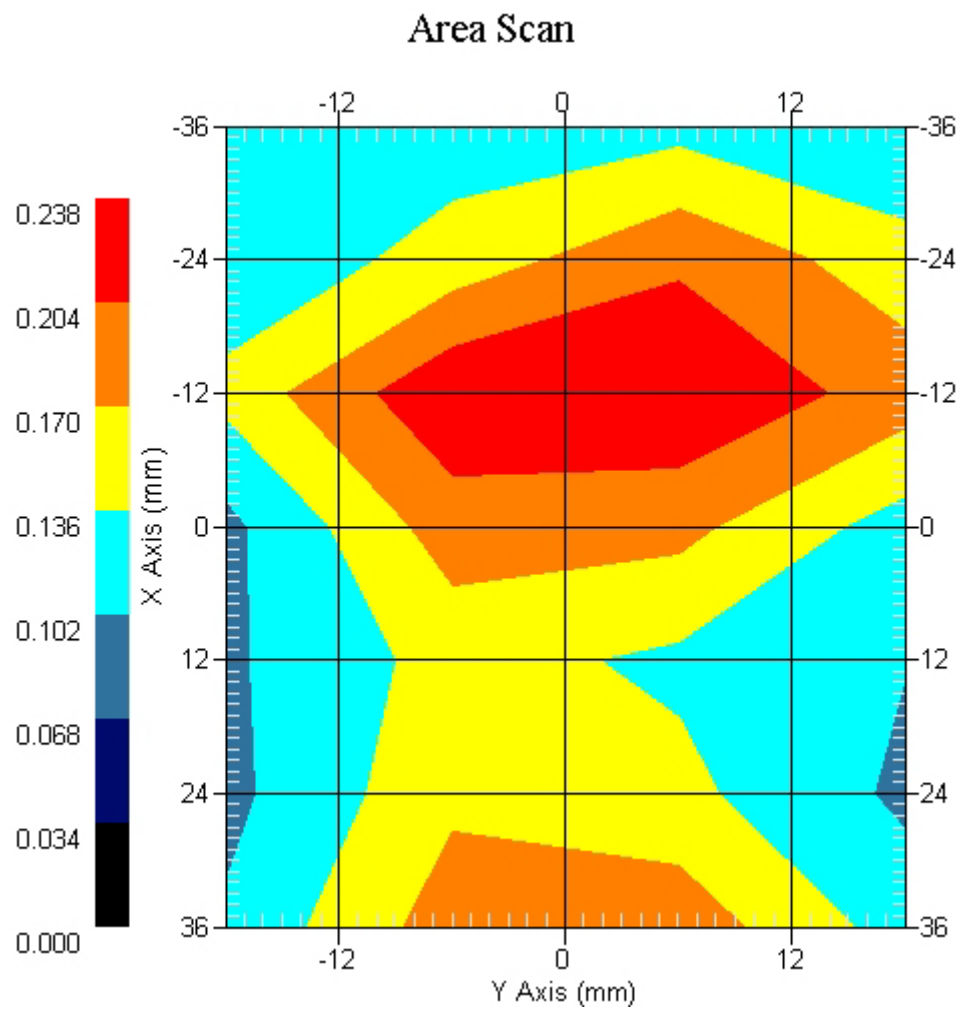
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.127 W/kg
 Power Drift-Finish: 0.127 W/kg
 Power Drift (%) : 0.781

DUT Position : Touch EUT FRONT
 Channel : 6



1 gram SAR value : 0.175 W/kg
 10 gram SAR value : 0.148 W/kg
 Area Scan Peak SAR : 0.235 W/kg
 Zoom Scan Peak SAR : 0.340 W/kg

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ALSAS-10U VER 2.3.2APREL Laboratories

SAR Test Report (802.11g)

Report Date : 09-Jan-2007
Measurement Date : 09-Jan-2007

Product Data

Device Name : MAX LIGHT
Type : Other
Model : AWU-902T, NV-902T, WA-2110, HWGUSB2-54, Thrustmaster
FunAccess WiFi USB Key, TER/GUSB2
Frequency : 2450.00 MHz
Length : 75 mm
Width : 26 mm
Depth : 10.4 mm
Antenna Type : Internal

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 : 09-Jan-2007
Temperature : 21.40 °C
Ambient Temp. : 21.70 °C
Humidity : 53.00 RH%
Epsilon : 51.35 F/m
Sigma : 1.981 S/m
Density : 1000.00 kg/cu. m

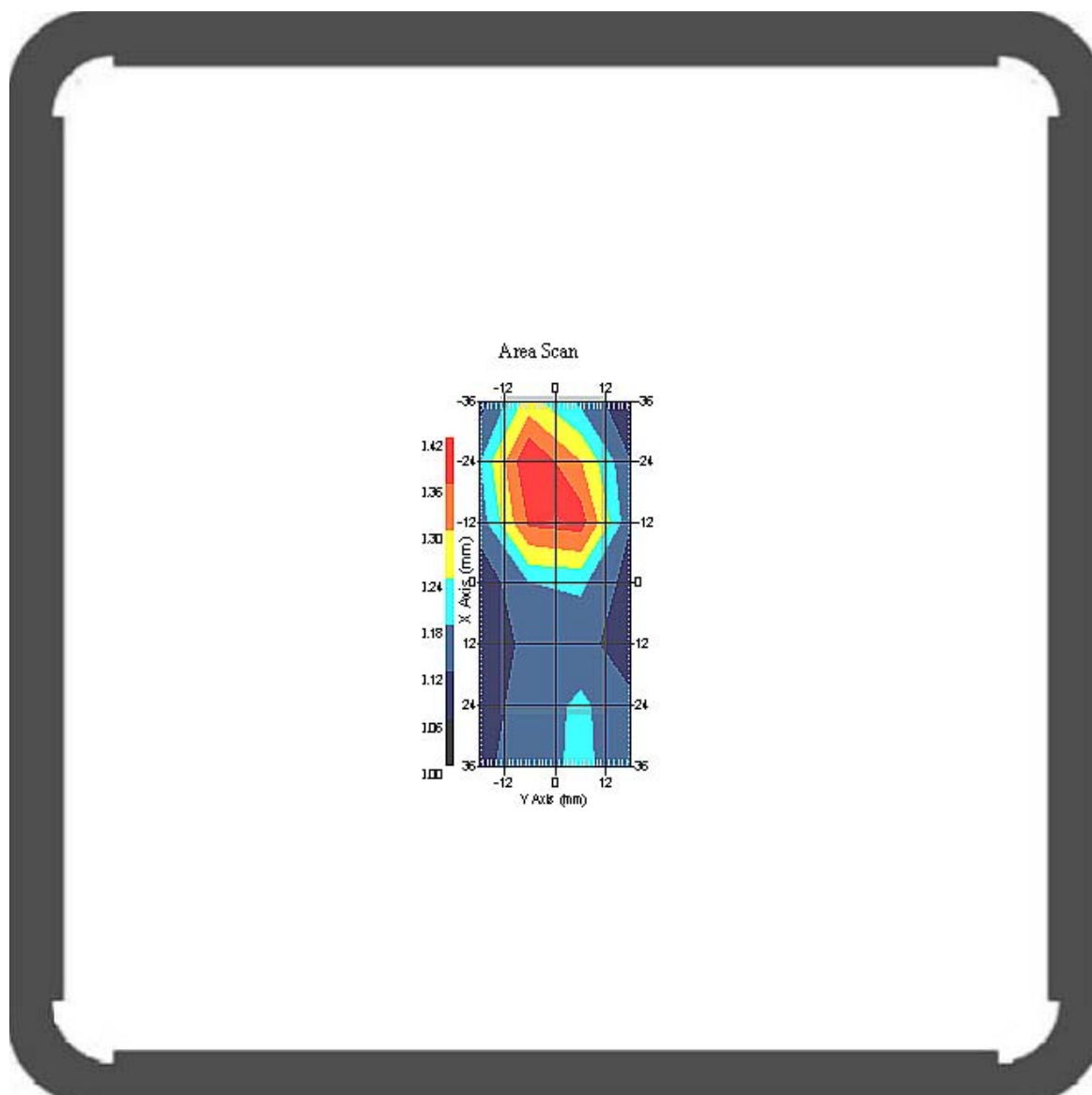
Probe Data

Name : Probe 264
Model : E020
Type : E-Field Triangle
Serial No. : 264
Last Calib. Date : 29-Dec-2006
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

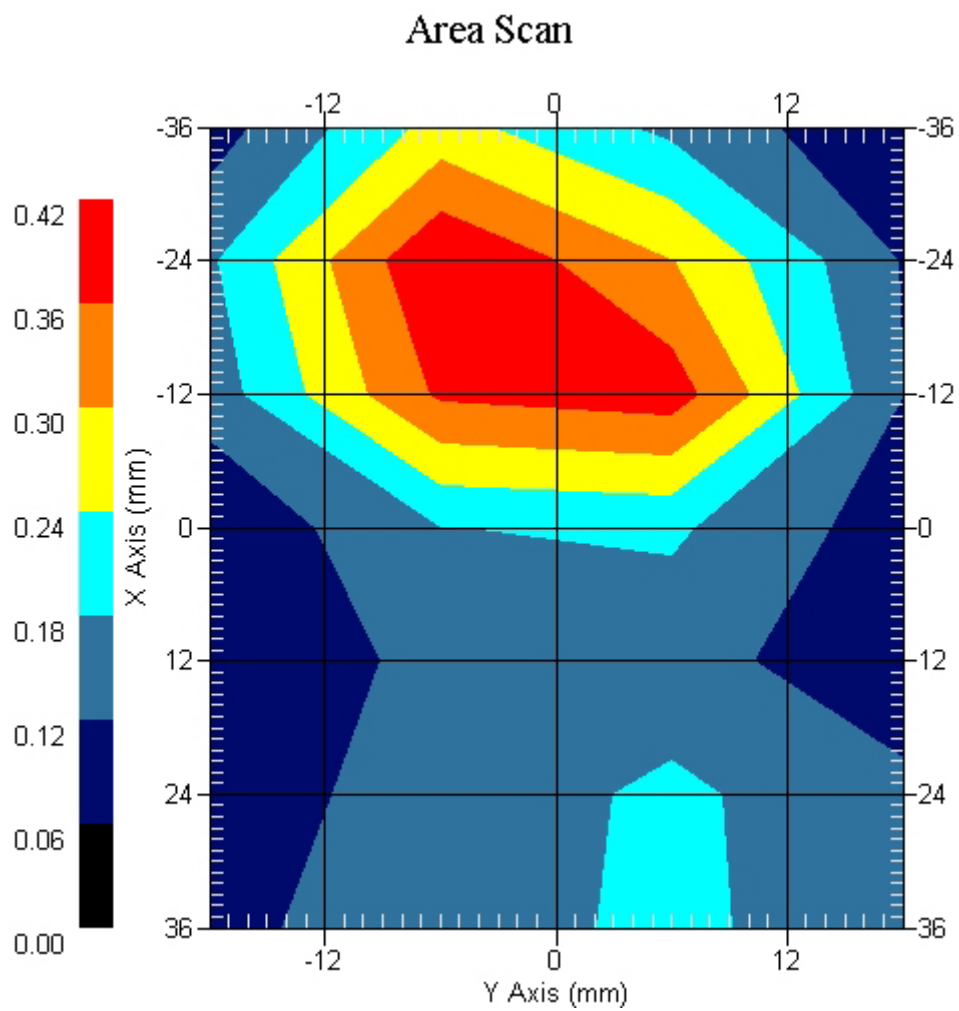
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.093 W/kg
 Power Drift-Finish: 0.094 W/kg
 Power Drift (%) : 1.073

DUT Position : Touch EUT BACK
 Channel : 1



1 gram SAR value : 0.398 W/kg
 10 gram SAR value : 0.216 W/kg
 Area Scan Peak SAR : 0.417 W/kg
 Zoom Scan Peak SAR : 0.790 W/kg

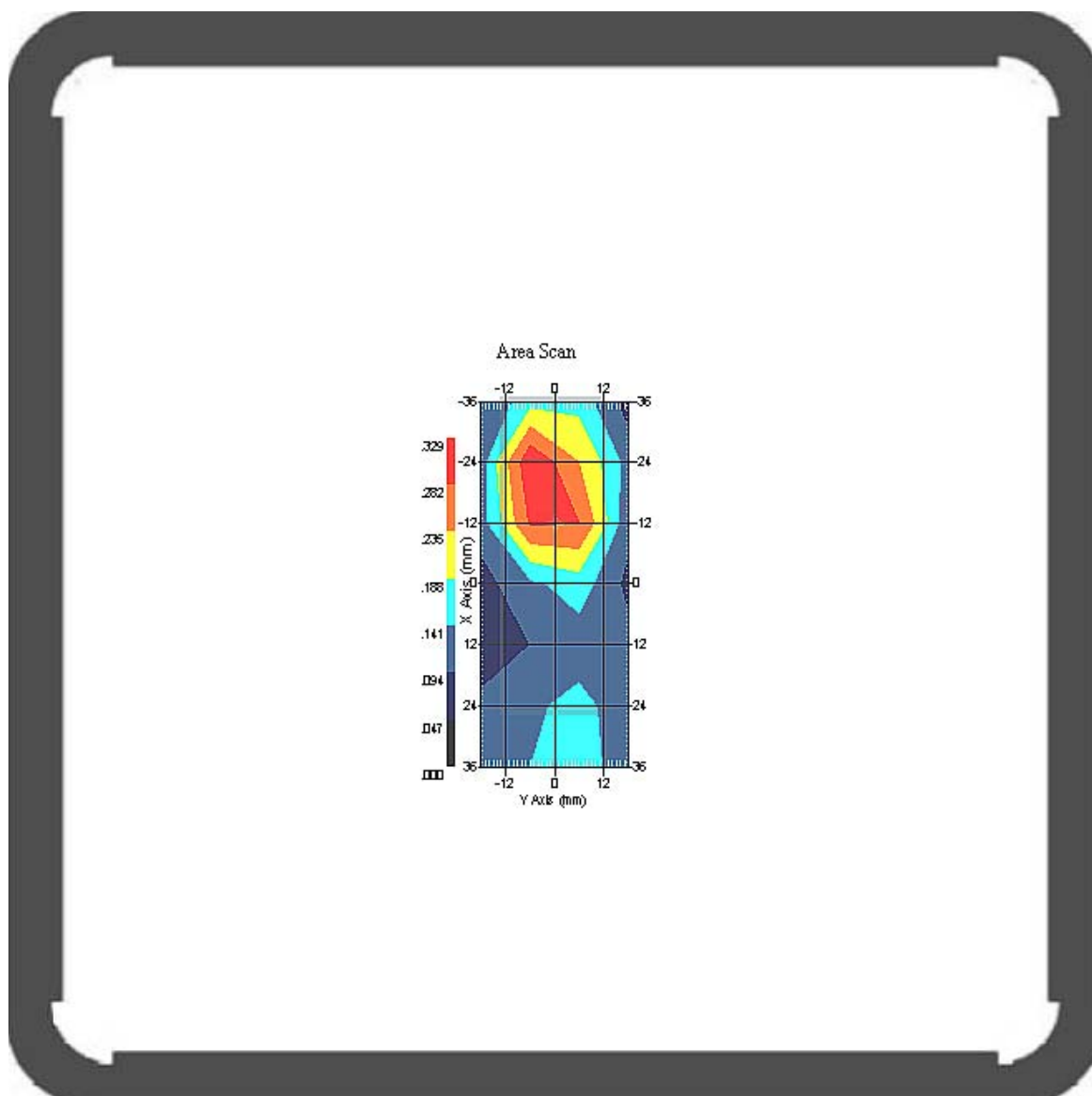
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Measurement Data

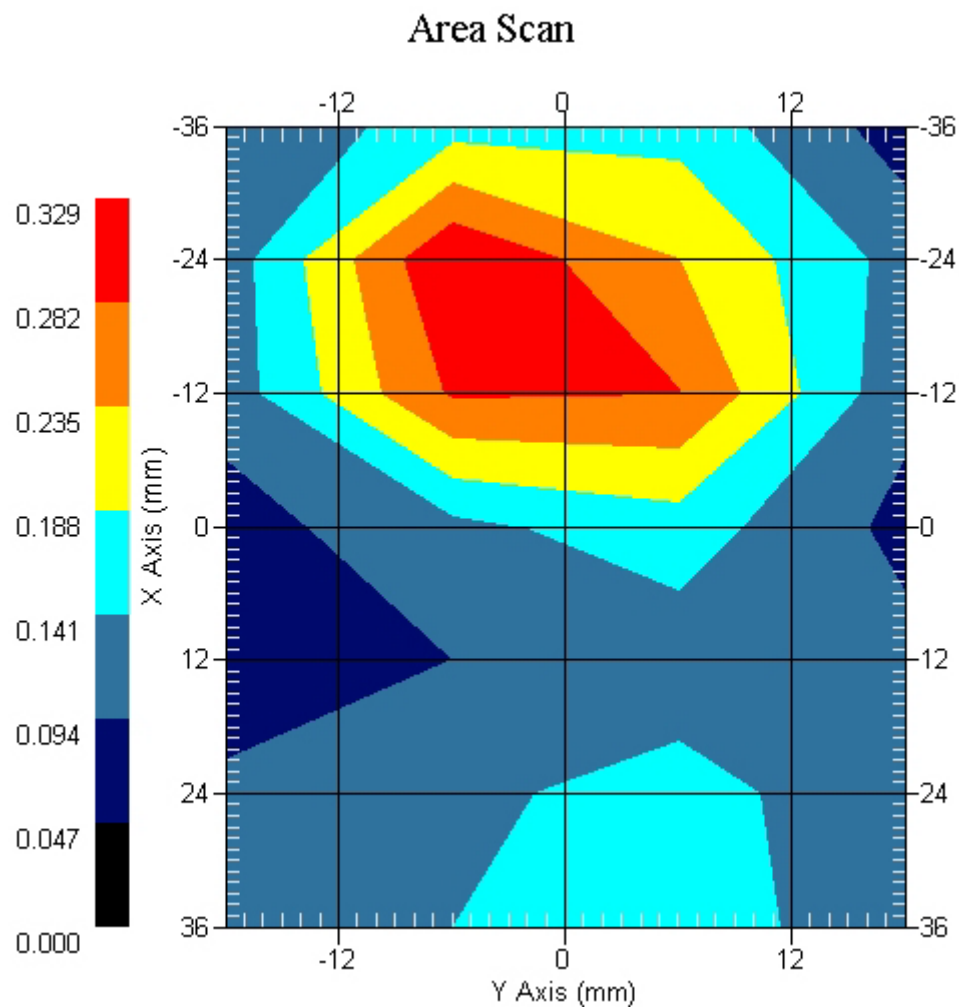
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.082 W/kg
 Power Drift-Finish: 0.082 W/kg
 Power Drift (%) : 1.183

DUT Position : Touch EUT BACK
 Channel : 6



1 gram SAR value : 0.260 W/kg
 10 gram SAR value : 0.155 W/kg
 Area Scan Peak SAR : 0.326 W/kg
 Zoom Scan Peak SAR : 0.740 W/kg

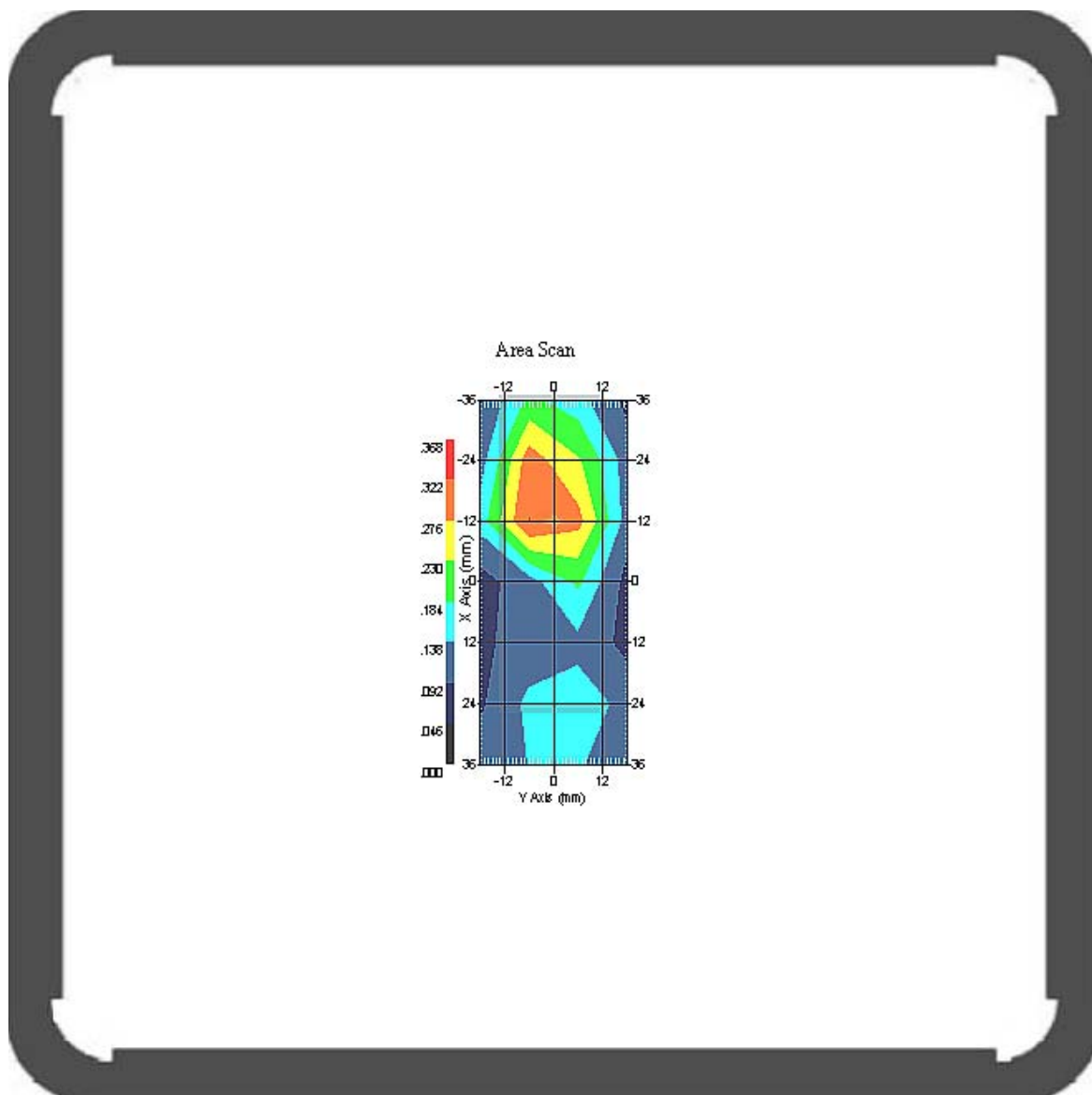
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Measurement Data

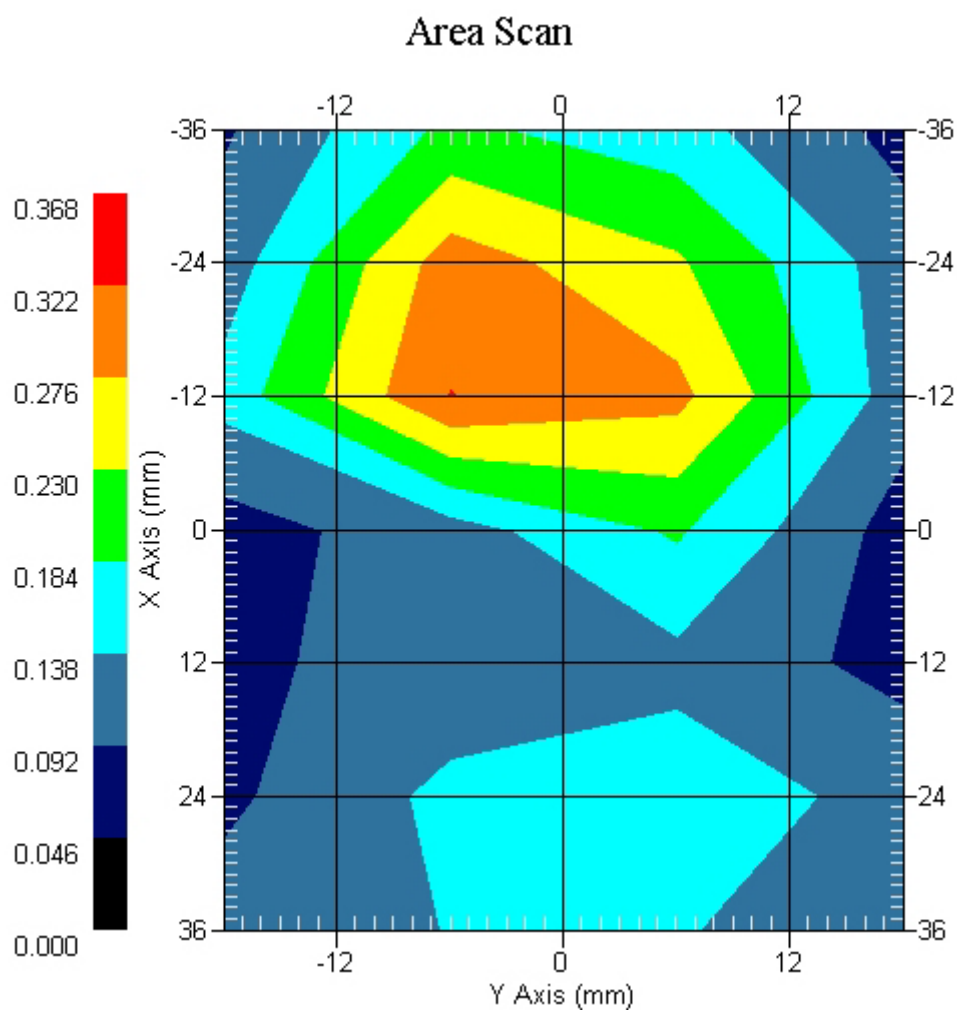
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.078 W/kg
 Power Drift-Finish: 0.079 W/kg
 Power Drift (%) : 1.274

DUT Position : Touch EUT BACK
 Channel : 11



1 gram SAR value : 0.321 W/kg
 10 gram SAR value : 0.181 W/kg
 Area Scan Peak SAR : 0.323 W/kg
 Zoom Scan Peak SAR : 0.640 W/kg

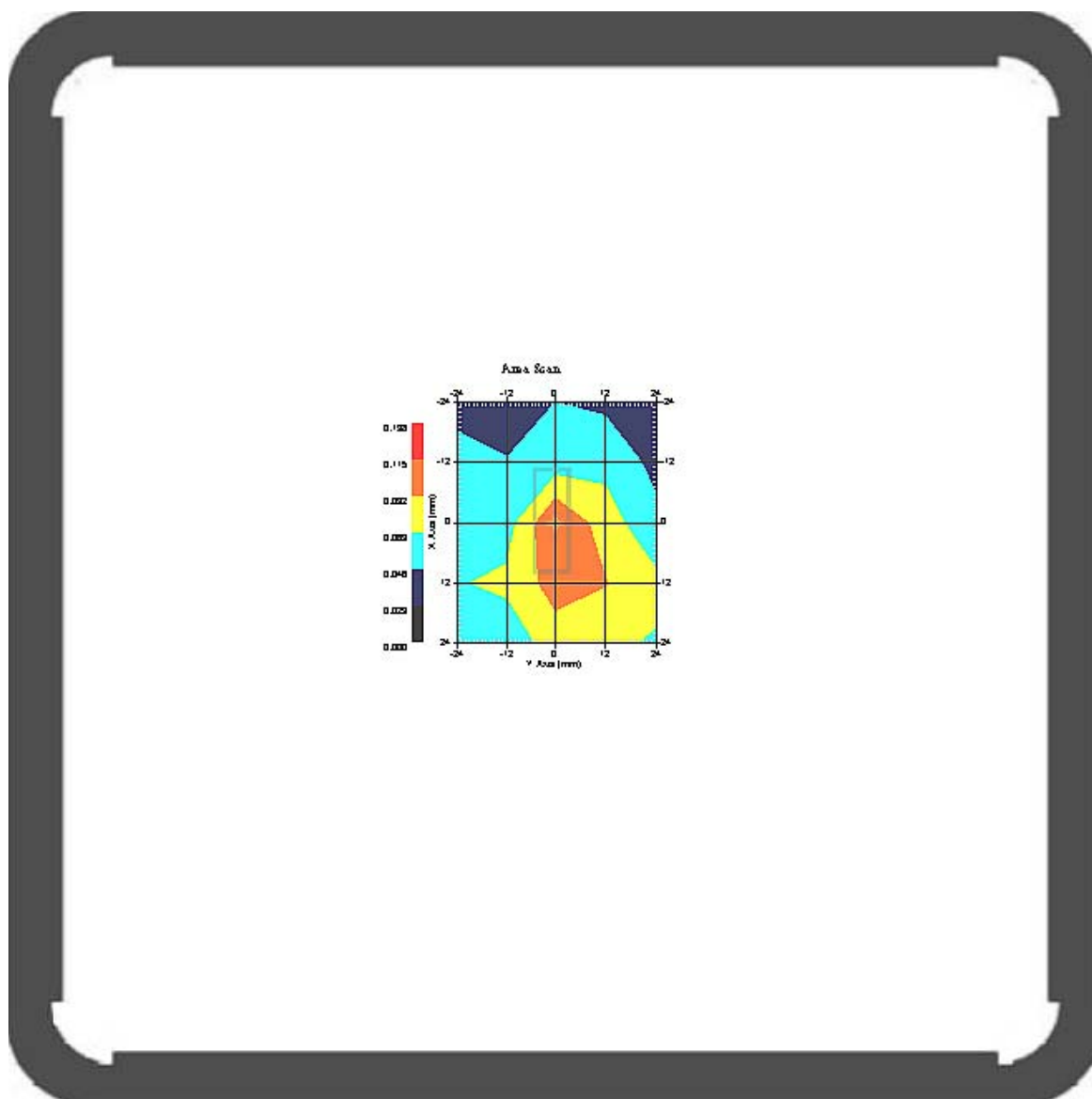
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Measurement Data

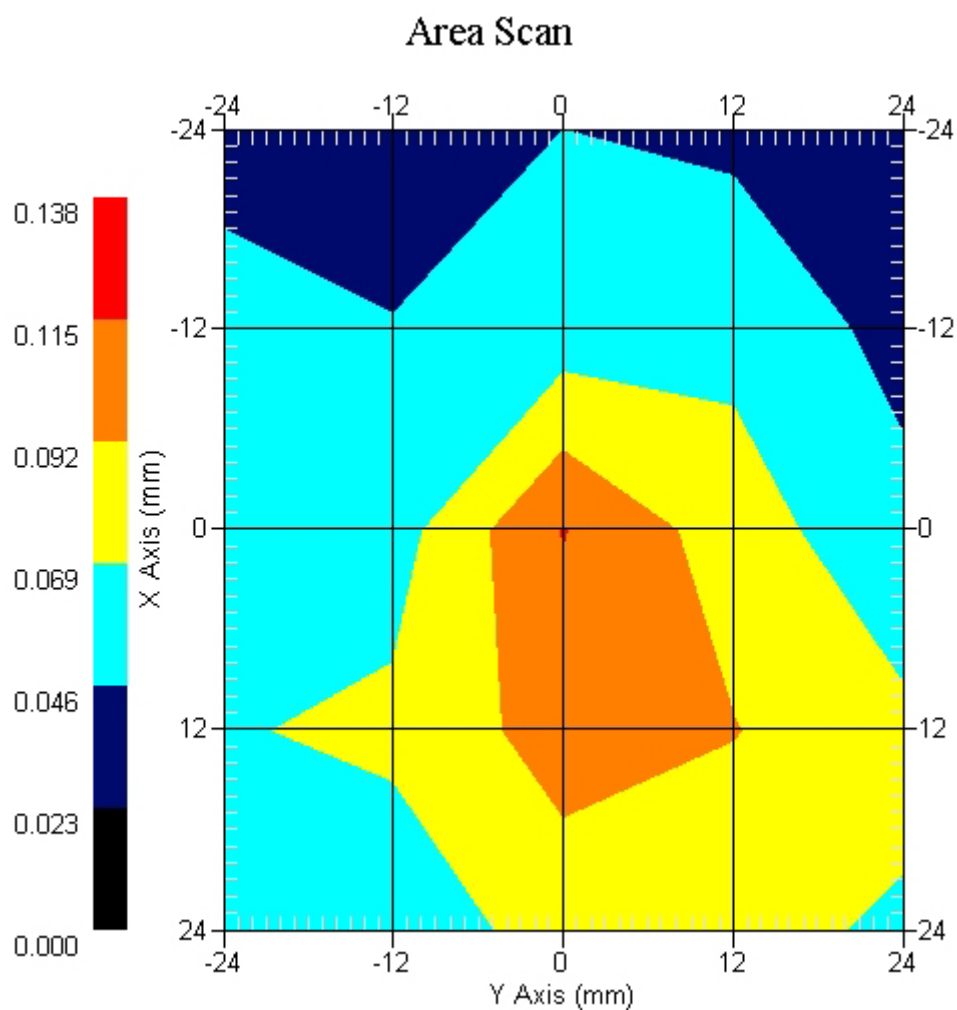
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 5x5x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.110 W/kg
 Power Drift-Finish: 0.108 W/kg
 Power Drift (%) : -1.764

DUT Position : Touch EUT TOP
 Channel : 6



1 gram SAR value : 0.106 W/kg
 10 gram SAR value : 0.075 W/kg
 Area Scan Peak SAR : 0.116 W/kg
 Zoom Scan Peak SAR : 0.126 W/kg

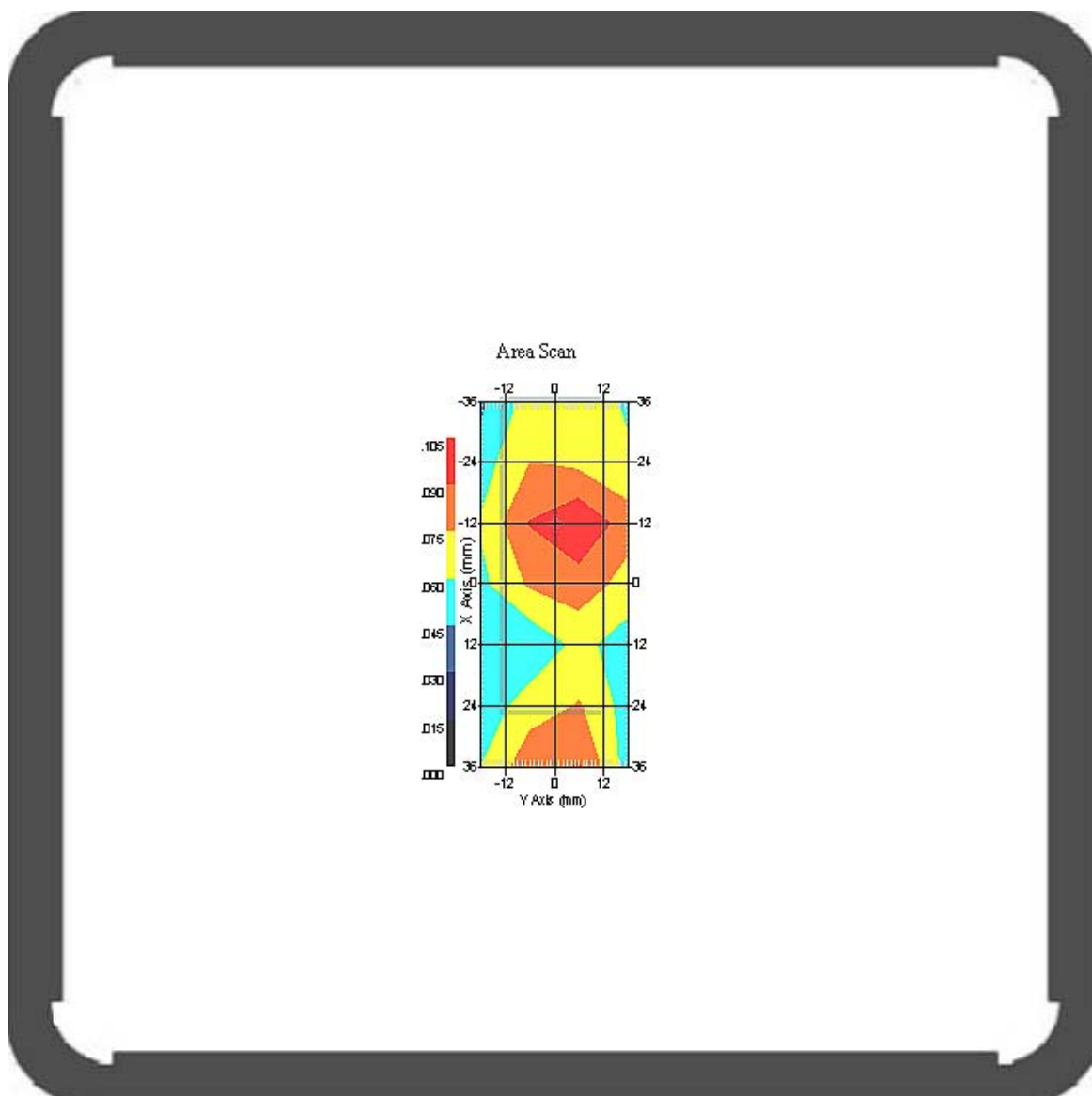
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Measurement Data

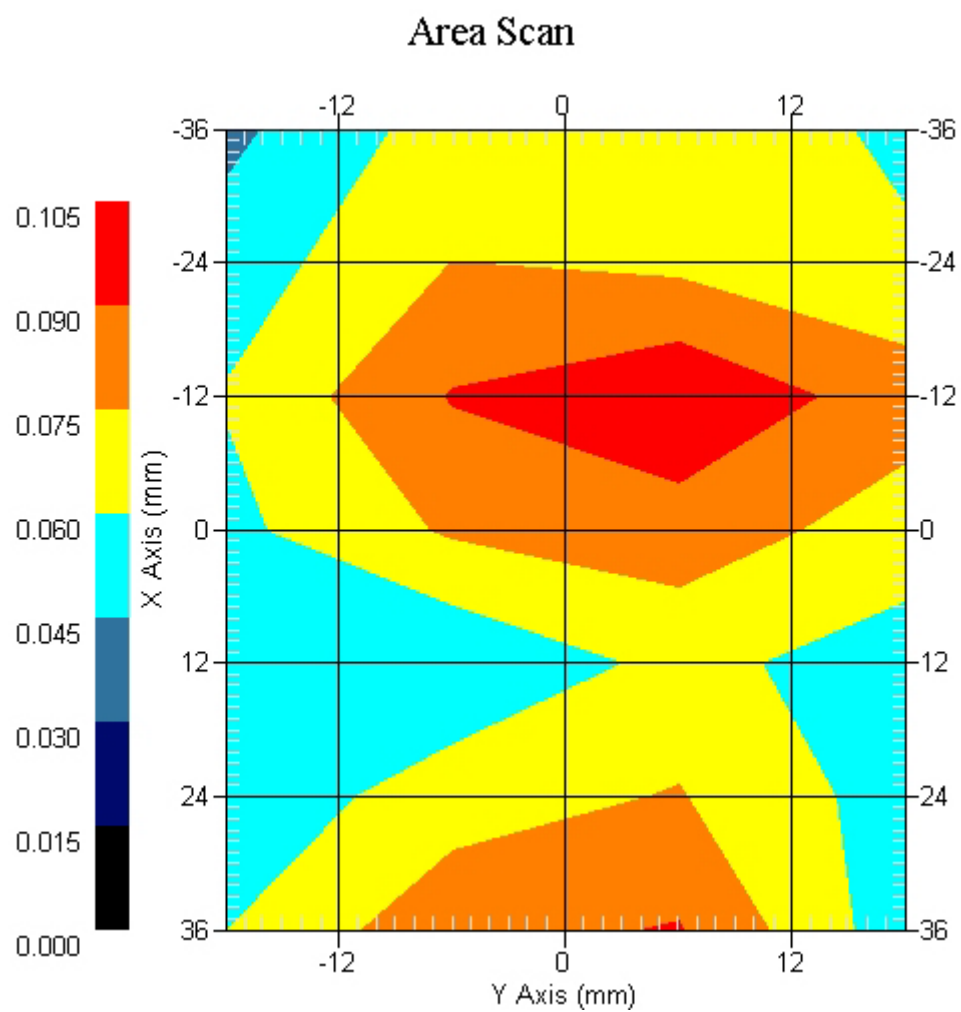
Crest Factor : 1
 Tissue Temp. : 21.40 °C
 Ambient Temp. : 21.70 °C
 Area Scan : 7x4x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.042 W/kg
 Power Drift-Finish: 0.042 W/kg
 Power Drift (%) : 0.885

DUT Position : Touch EUT FRONT
 Channel : 6



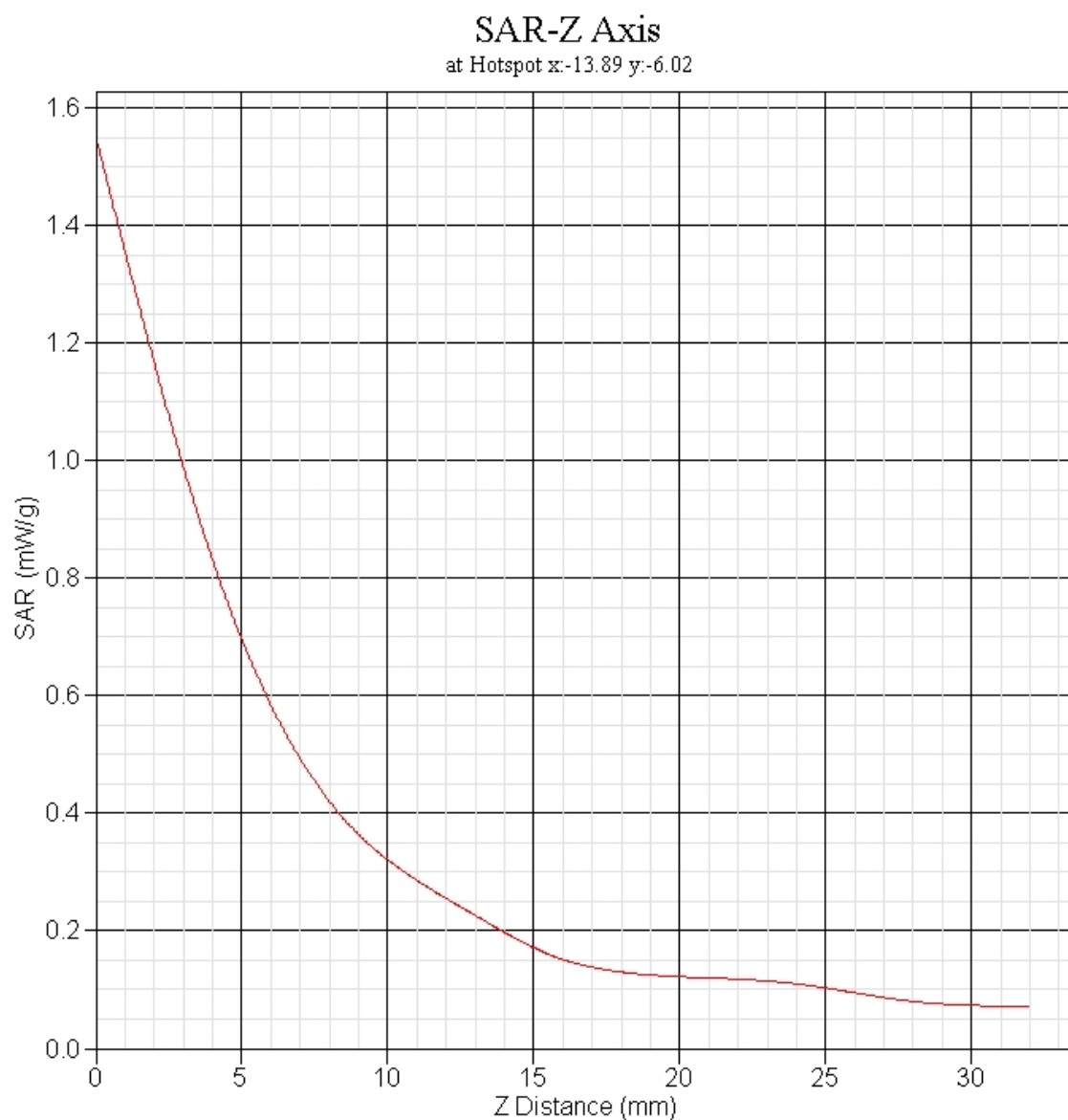
1 gram SAR value : 0.108 W/kg
 10 gram SAR value : 0.077 W/kg
 Area Scan Peak SAR : 0.103 W/kg
 Zoom Scan Peak SAR : 0.120 W/kg

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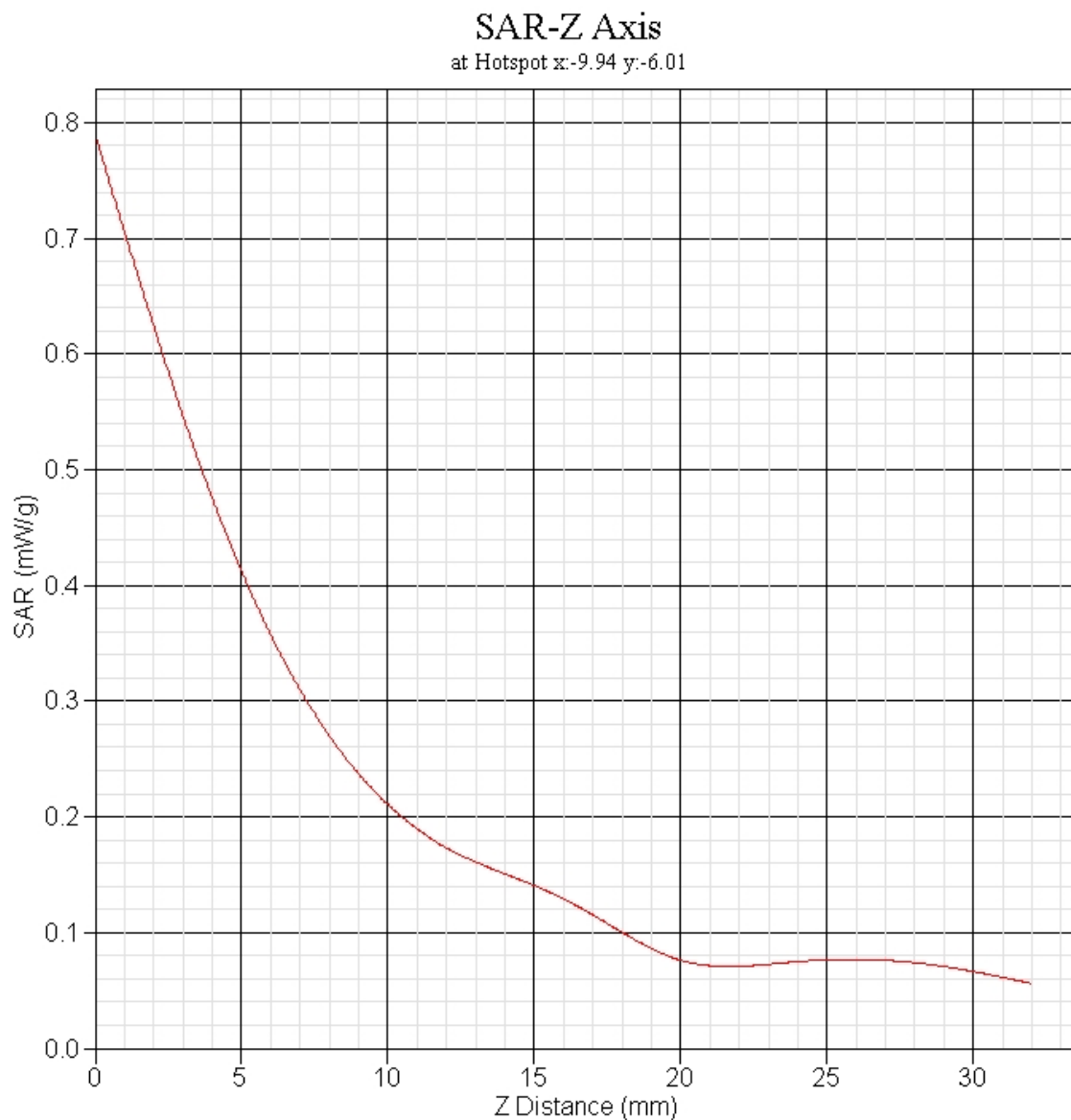
EUT 2450MHz SAR test Z-Axis plot

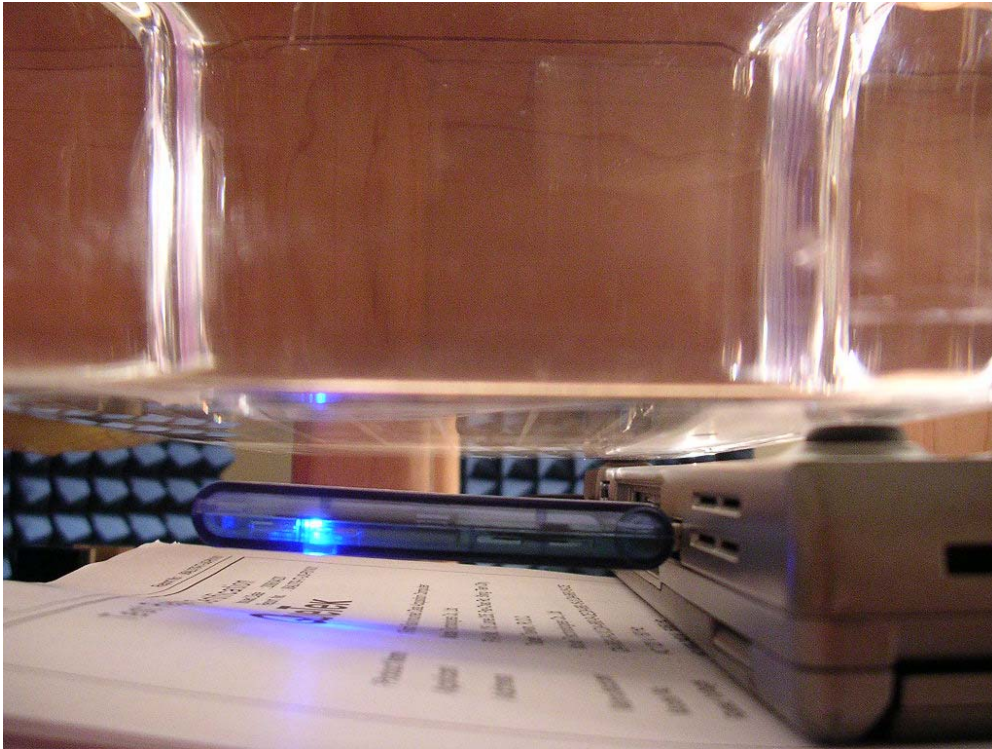
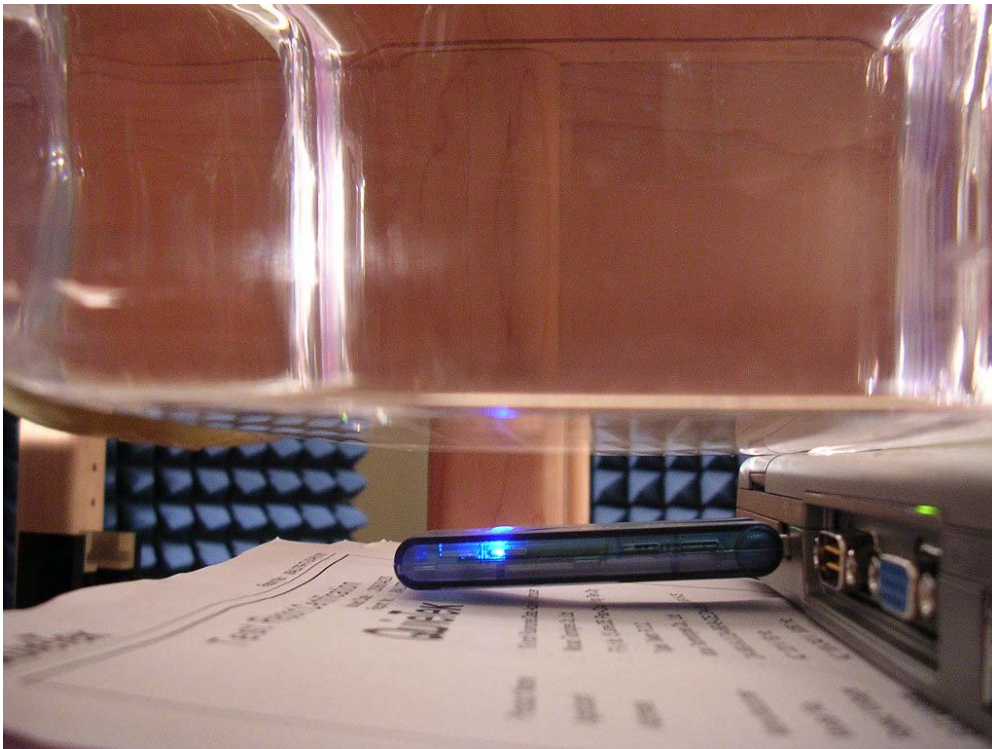
(802.11b, Back, Channel 1)



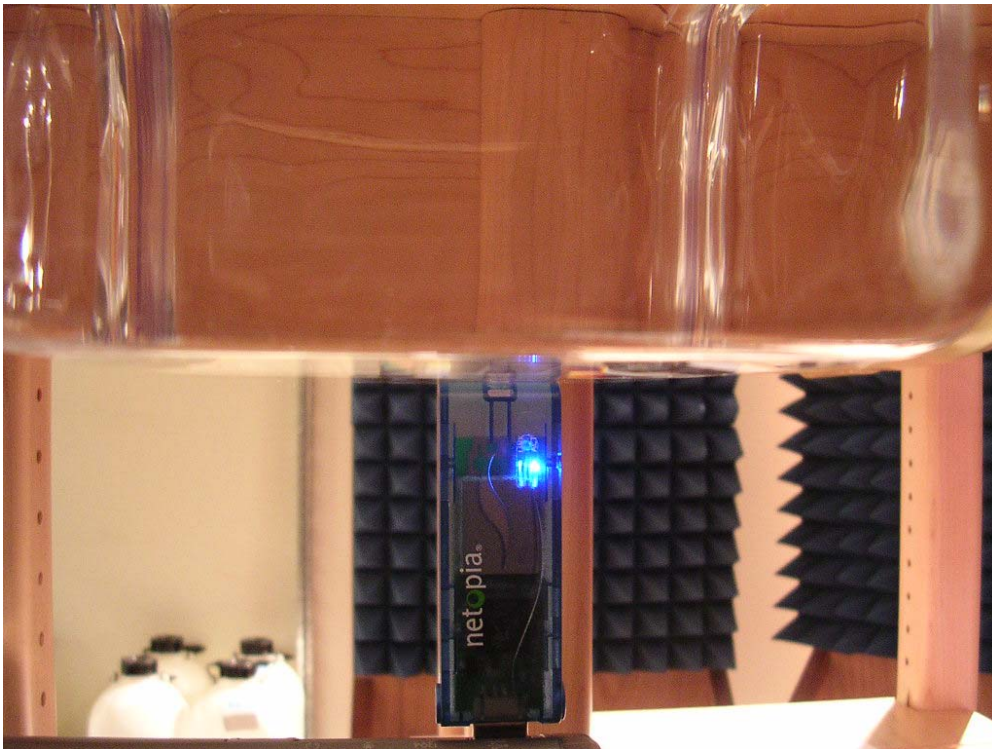
EUT 2450MHz SAR test Z-Axis plot

(802.11g, Back, Channel 1)



Test Setup Photographs**EUT Back****EUT Front**

EUT Top



EUT Photographs



