

SAR System Validation Data

ALSAS-10U VER 2.3.1 APREL Laboratories

SAR Test Report

Report Date : 15-Dec-2006
Measurement Date : 15-Dec-2006

Product Data

Device Name : Dipole-2450
Type : Dipole
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 : 11.233 W/kg
Power Drift-Finish: 11.265 W/kg
Power Drift (%) : 0.293

Phantom Data

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

Tissue Data

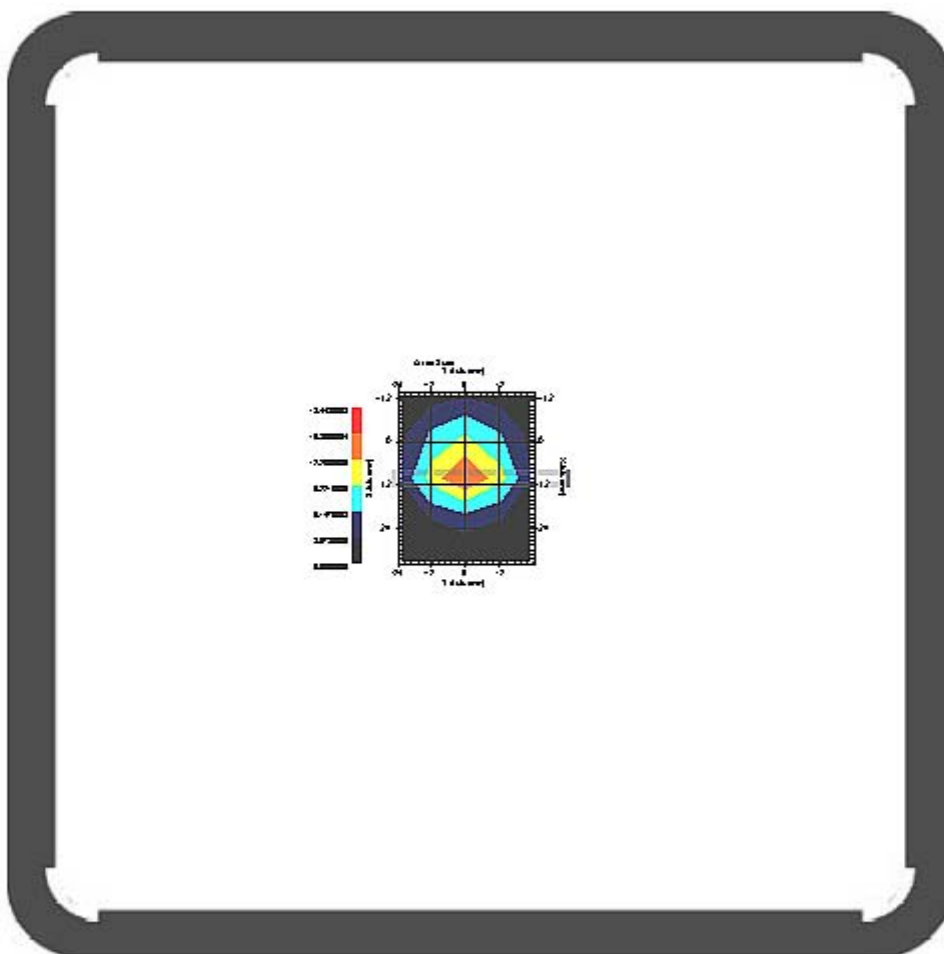
Type : HEAD
Serial No. : 325-H
Frequency : 2450.00 MHz
Last Calib. Date : 15-Dec-2006
Temperature : 21.50 °C
Ambient Temp. : 21.90 °C
Humidity : 57.00 RH%
Epsilon : 38.18 F/m
Sigma : 1.844 S/m
Density : 1000.00 kg/cu. m

Probe Data

Name : Probe 264
Model : E020
Type : E-Field Triangle
Serial No. : 264
Last Calib. Date : 21-Mar-2006
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 5.0
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

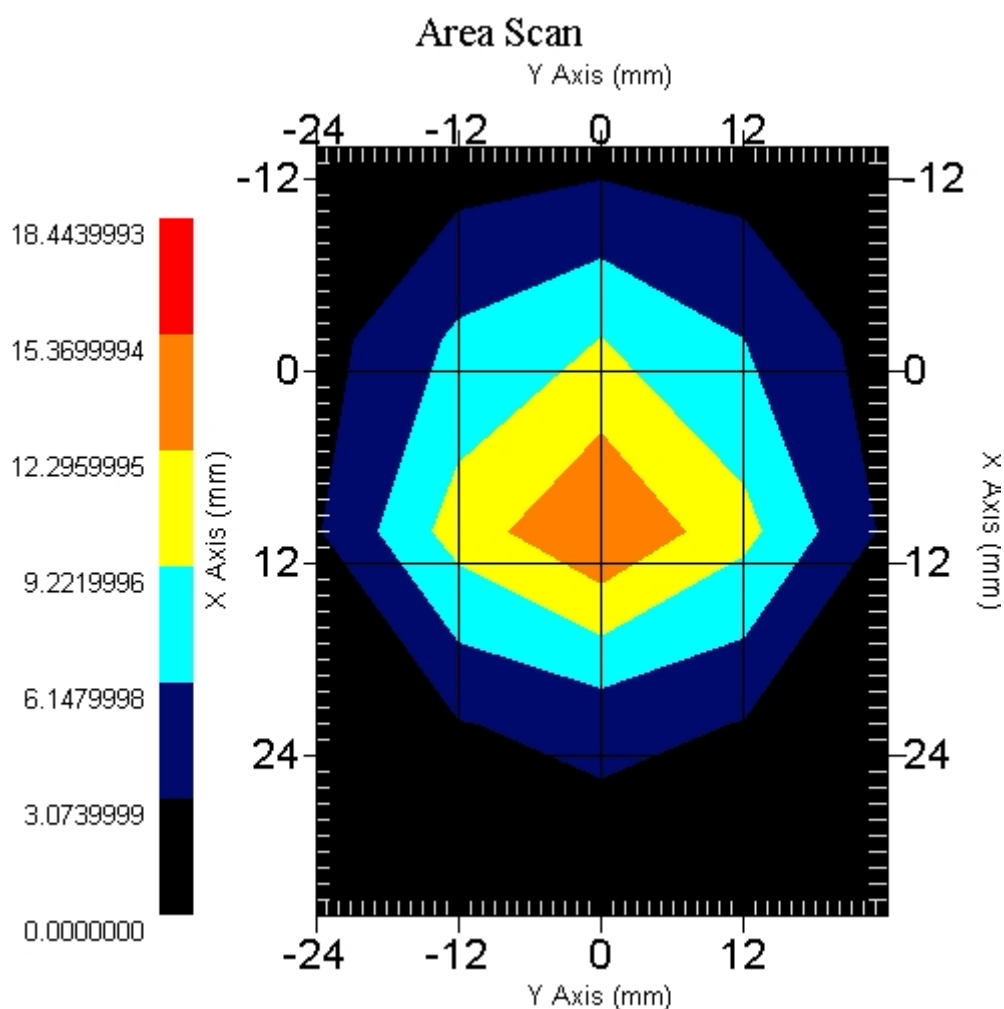
Measurement Data

Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x5x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Frequency : 2450



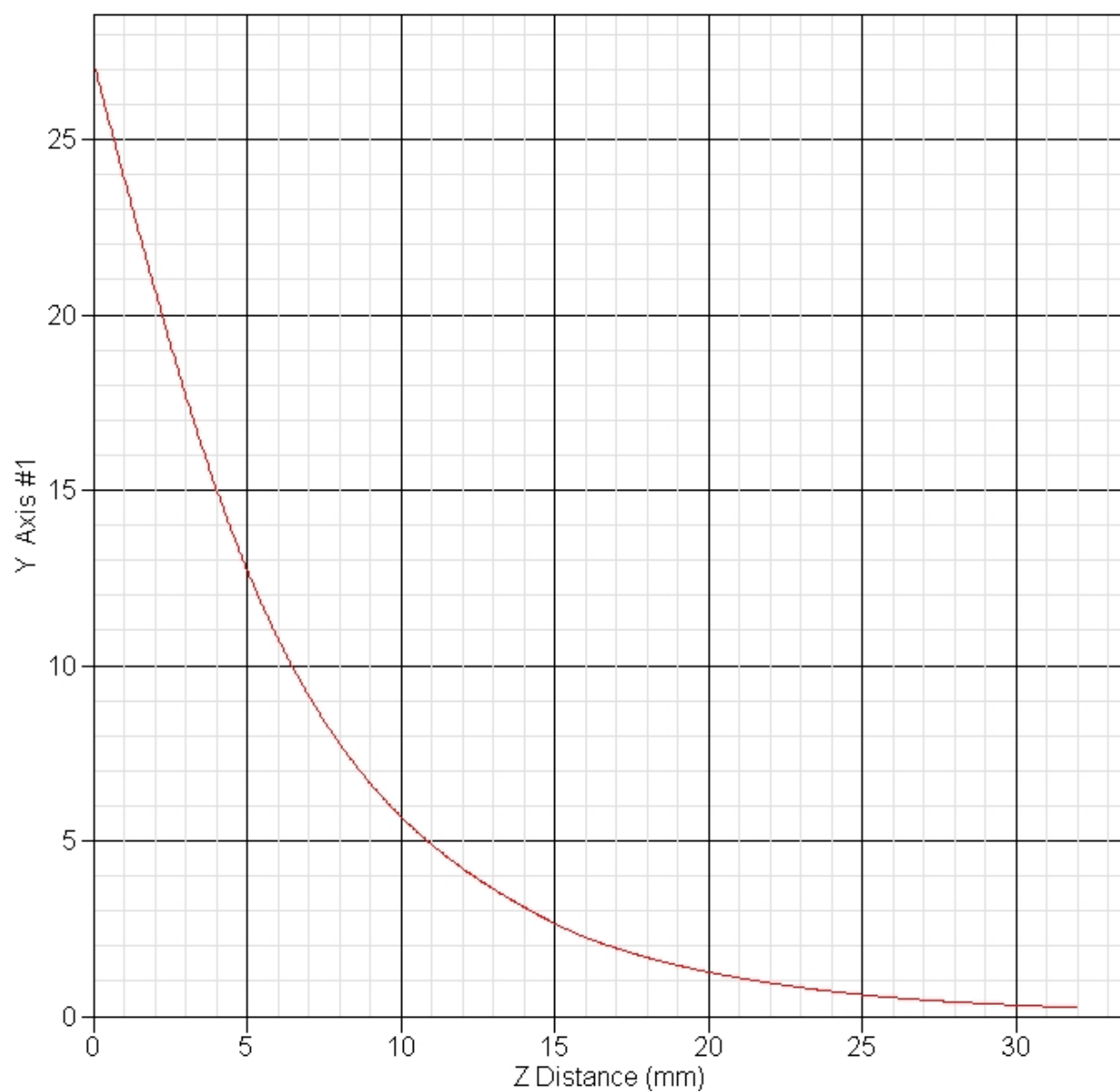
1 gram SAR value : 12.954 W/kg
 10 gram SAR value : 5.864 W/kg
 Area Scan Peak SAR : 15.370 W/kg
 Zoom Scan Peak SAR : 27.223 W/kg

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SAR-Z Axis

at Hotspot x:10.20 y:-2.00



SAR Measurement Data

ALSAS-10U VER 2.3.1APREL Laboratories

SAR Test Report (802.11b)

Report Date : 15-Dec-2006
Measurement Date : 15-Dec-2006

Product Data

Device Name : MAX LIGHT
Type : Other
Model : AWP-914T, NV-914T, WA-2510, HWGPCMCIA-54, TER/GCBA2
Frequency : 2450.00 MHz
Length : 118.4 mm
Width : 54.4 mm
Depth : 6 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 : 15-Dec-2006
Temperature : 21.50 °C
Ambient Temp. : 21.90 °C
Humidity : 57.00 RH%
Epsilon : 51.21 F/m
Sigma : 1.983 S/m
Density : 1000.00 kg/cu. M

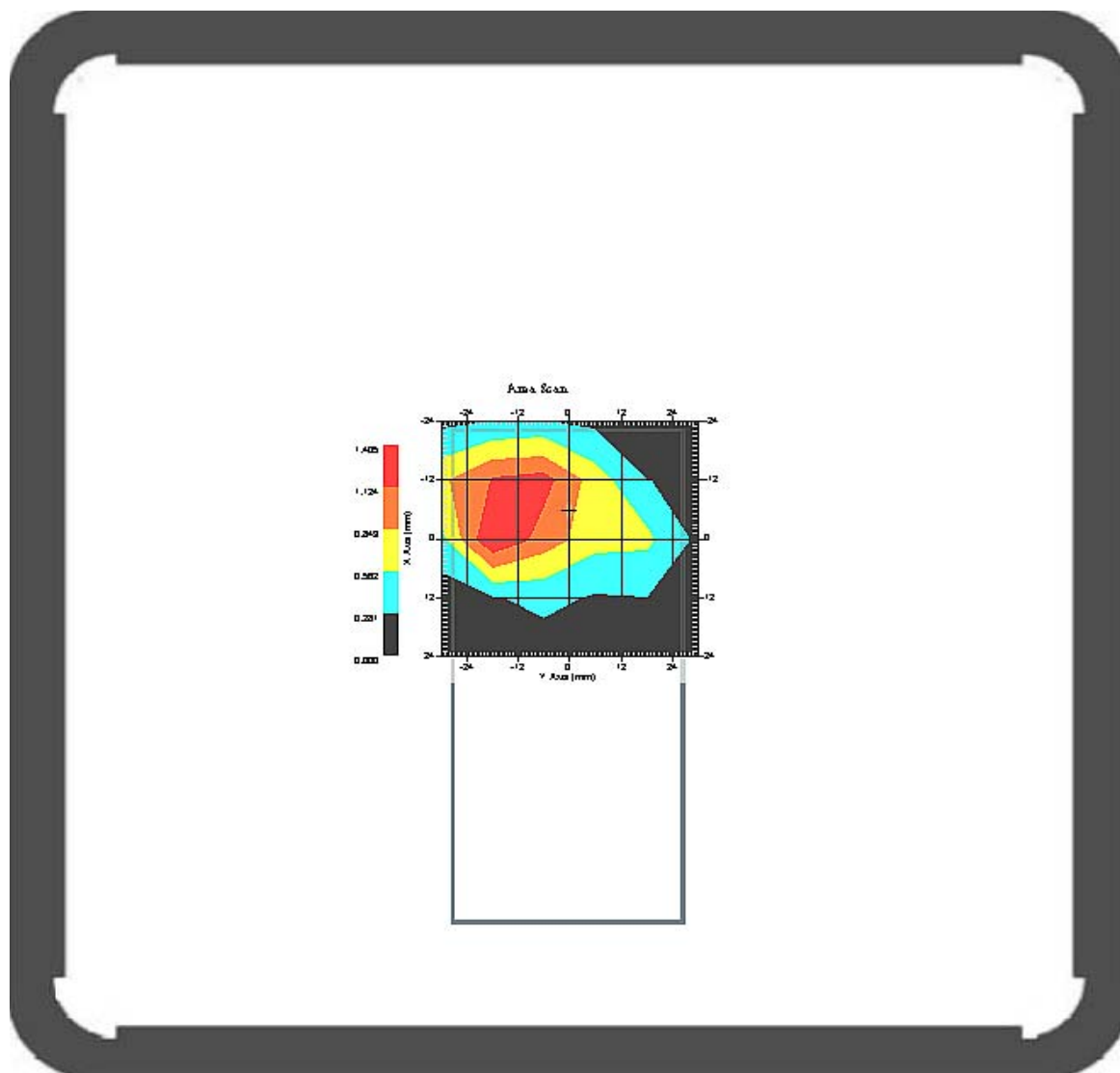
Probe Data

Name : Probe 264
Model : E020
Type : E-Field Triangle
Serial No. : 264
Last Calib. Date : 21-Mar-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

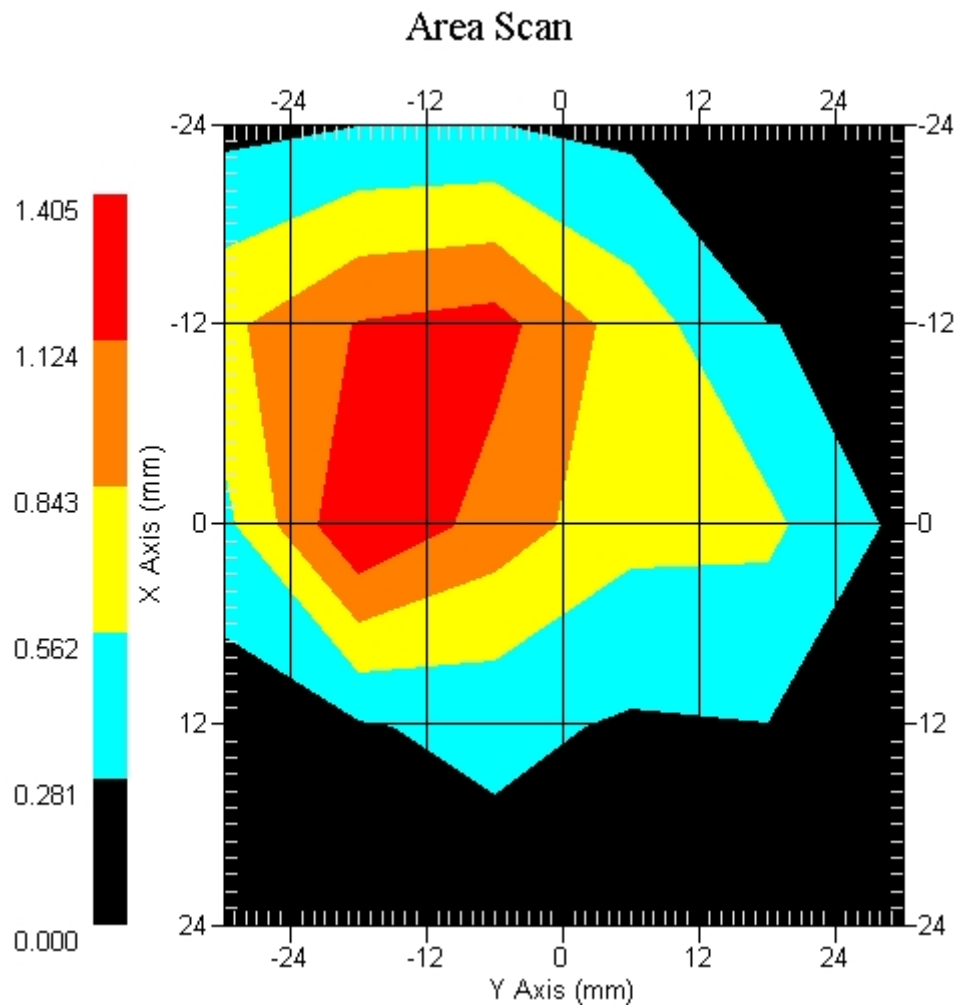
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm
 Power Drift-Start : 0.717 W/kg
 Power Drift-Finish: 0.739 W/kg
 Power Drift (%) : 3.167

DUT Position : Touch EUT BACK
 Channel : 1



1 gram SAR value : 1.381 W/kg
 10 gram SAR value : 0.646 W/kg
 Area Scan Peak SAR : 1.403 W/kg
 Zoom Scan Peak SAR : 2.712 W/kg

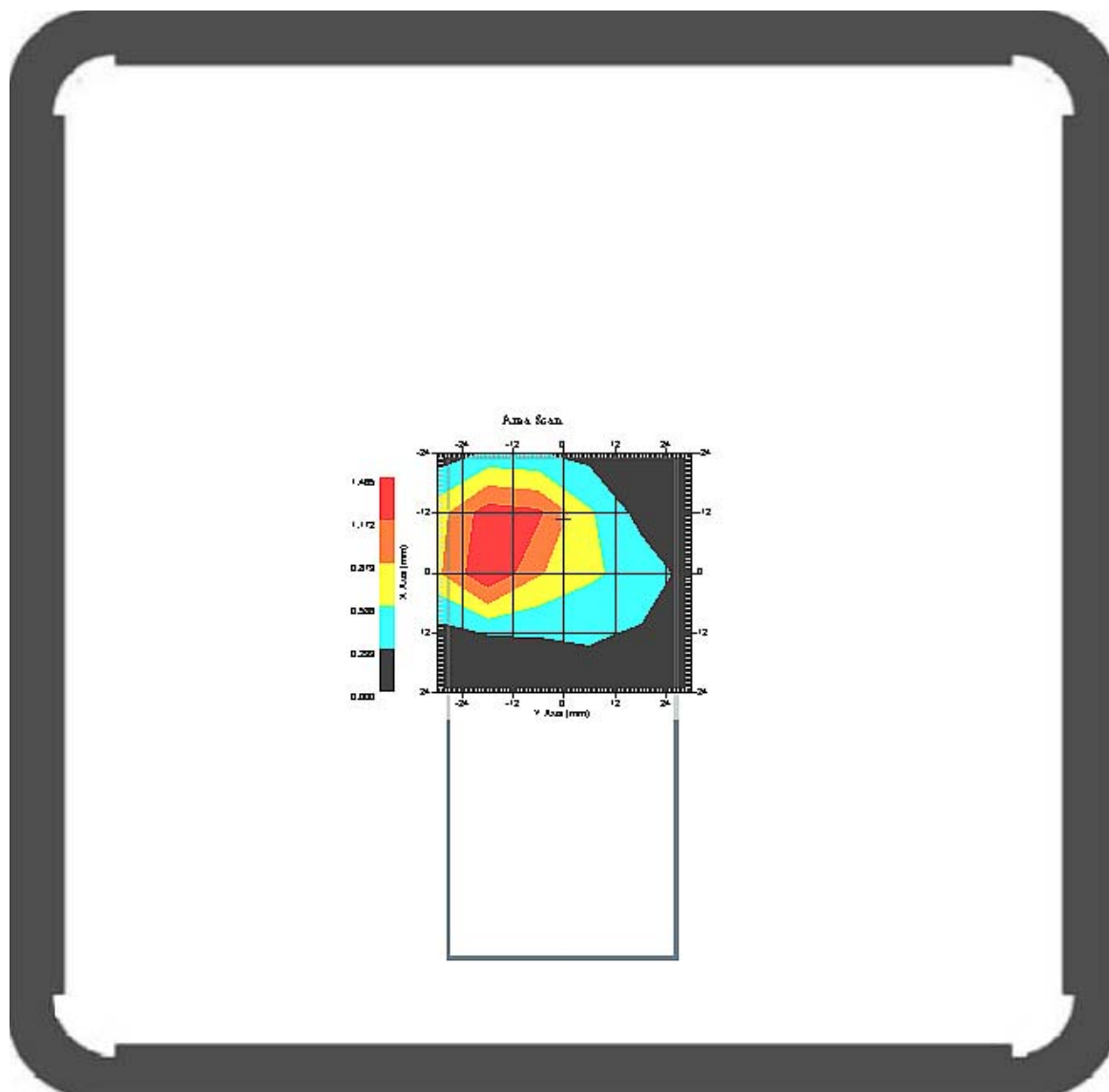
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Measurement Data

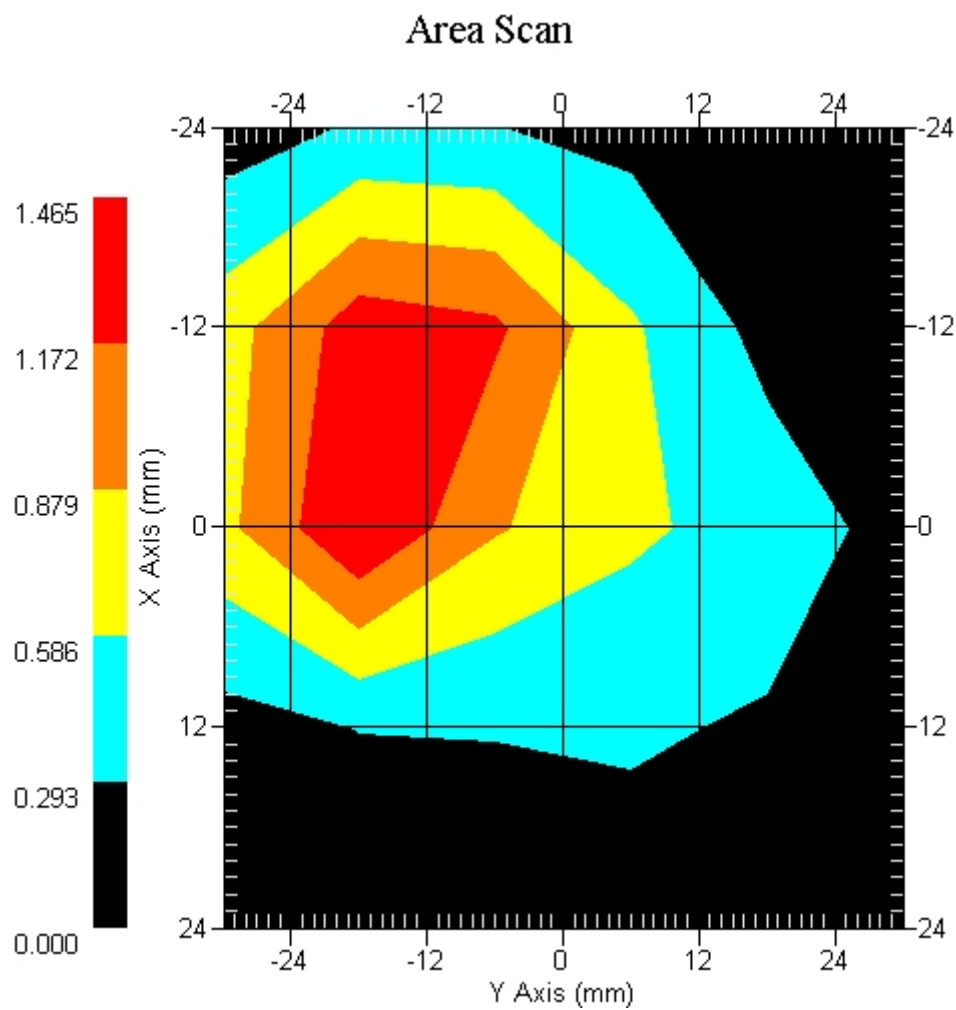
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.638 W/kg
 Power Drift-Finish: 0.662 W/kg
 Power Drift (%) : 3.871

DUT Position : Touch EUT BACK
 Channel : 6



1 gram SAR value : 1.240 W/kg
 10 gram SAR value : 0.569 W/kg
 Area Scan Peak SAR : 1.464 W/kg
 Zoom Scan Peak SAR : 2.532 W/kg

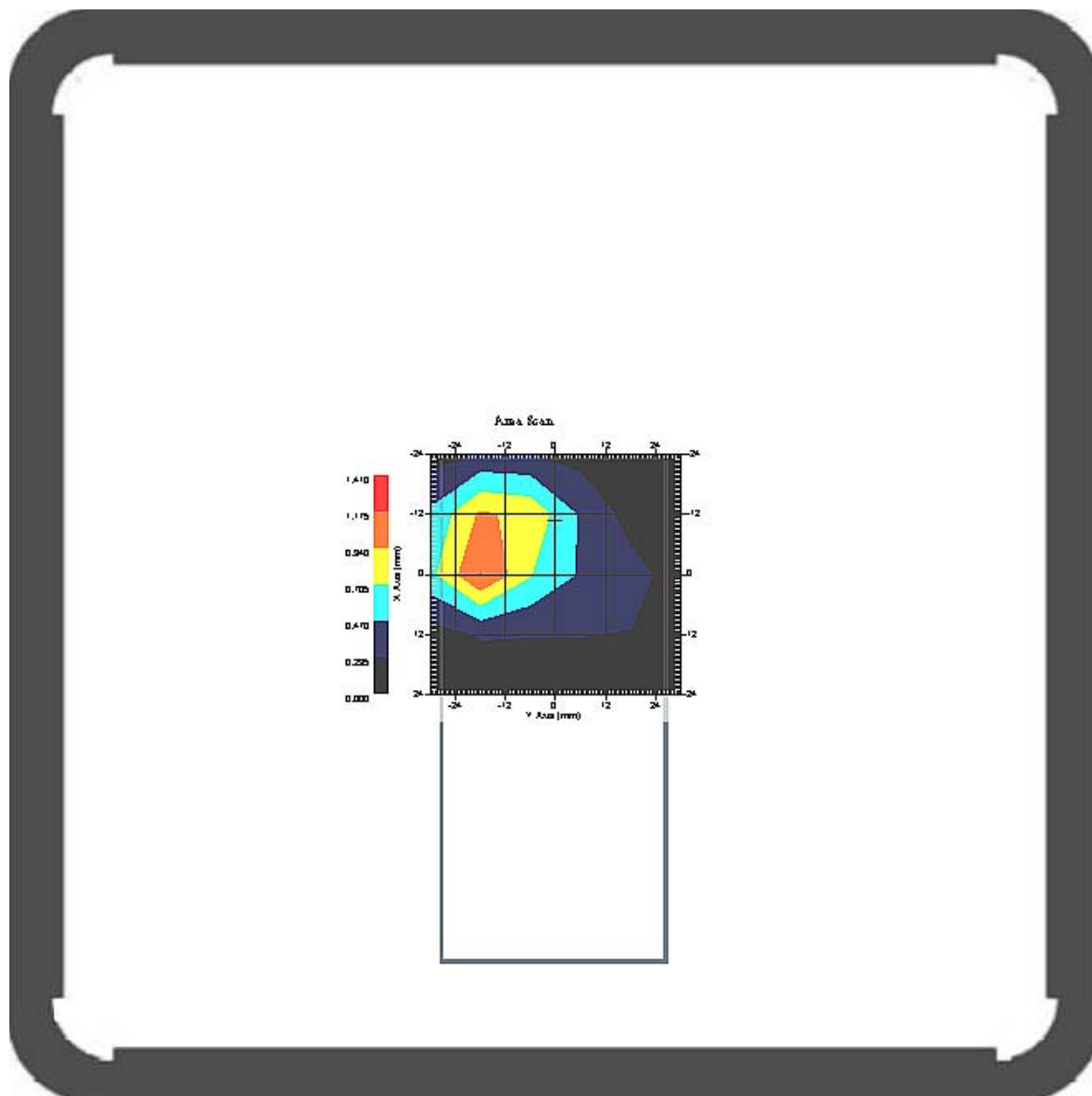
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Measurement Data

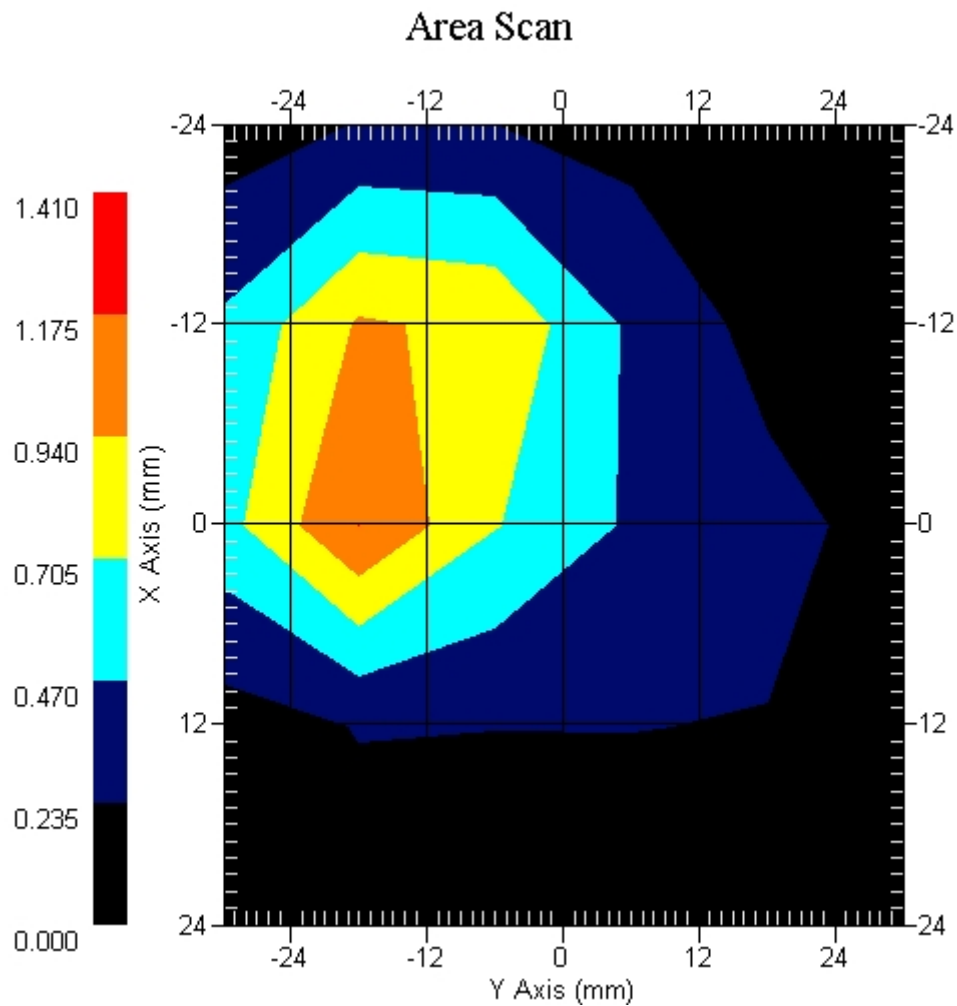
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.444 W/kg
 Power Drift-Finish: 0.483 W/kg
 Power Drift (%) : 0.087

DUT Position : Touch EUT BACK
 Channel : 11



1 gram SAR value : 1.143 W/kg
 10 gram SAR value : 0.566 W/kg
 Area Scan Peak SAR : 1.176 W/kg
 Zoom Scan Peak SAR : 2.141 W/kg

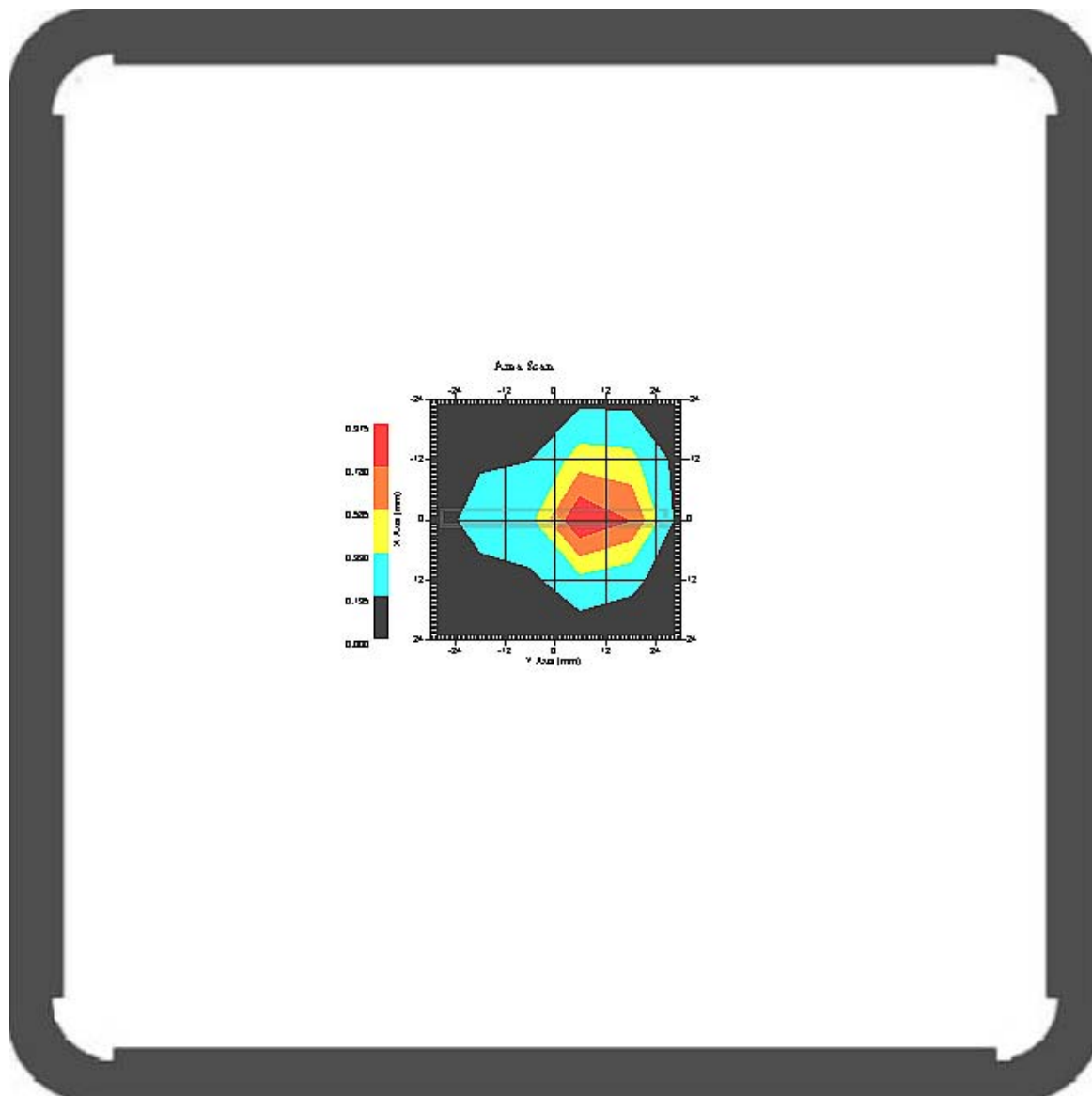
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Measurement Data

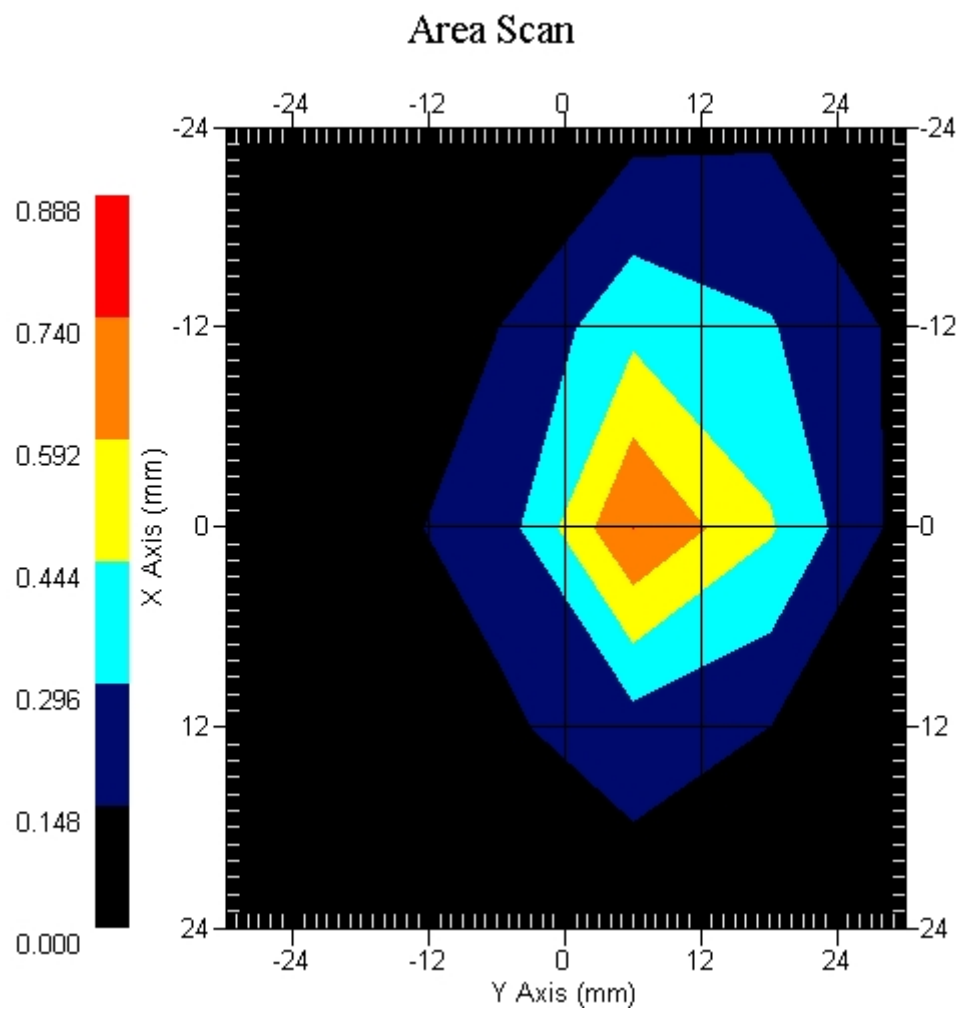
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.598 W/kg
 Power Drift-Finish: 0.601 W/kg
 Power Drift (%) : 0.552

DUT Position : Touch EUT TOP
 Channel : 1



1 gram SAR value : 0.802 W/kg
 10 gram SAR value : 0.370 W/kg
 Area Scan Peak SAR : 0.974 W/kg
 Zoom Scan Peak SAR : 1.831 W/kg

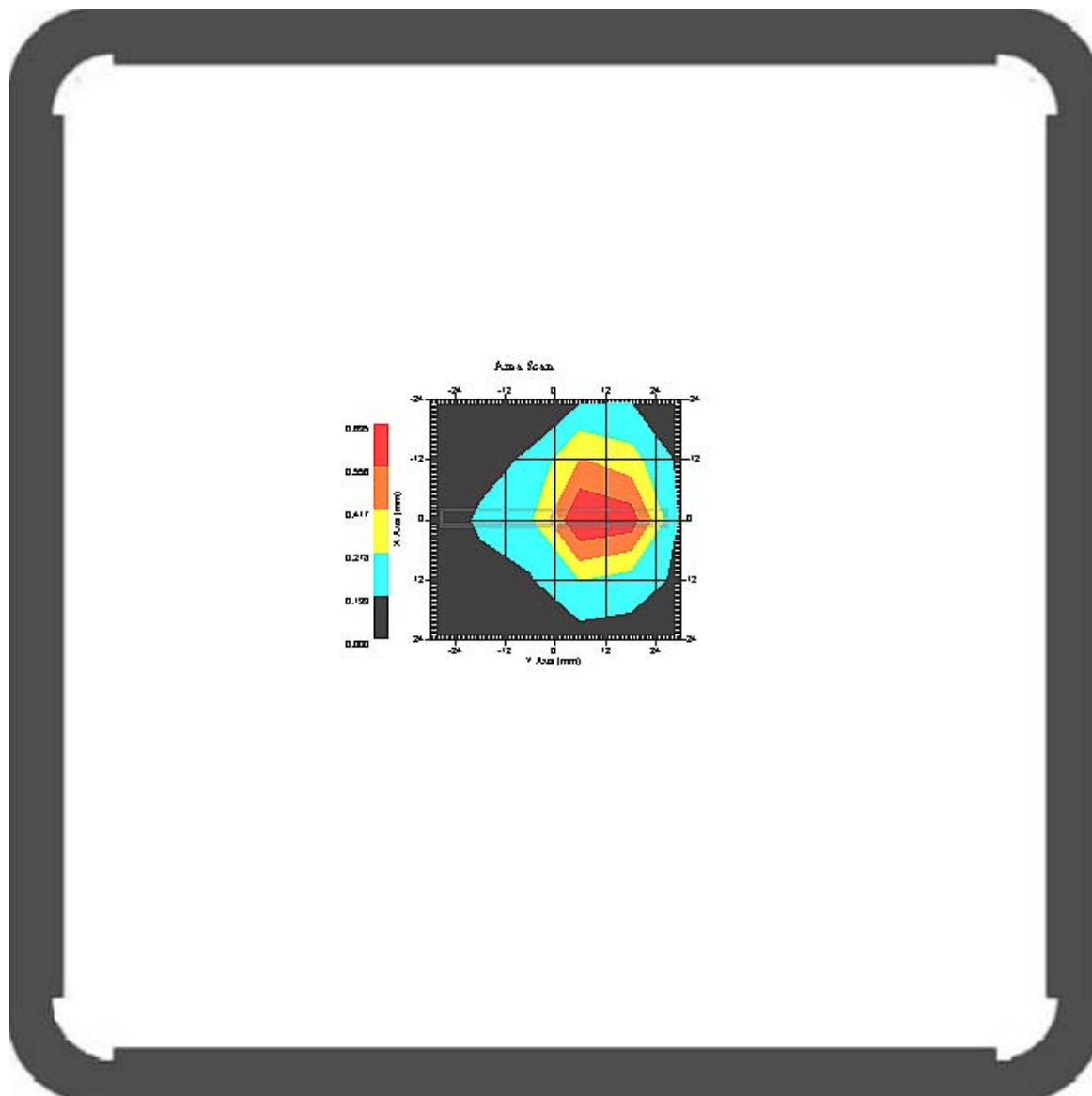
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Measurement Data

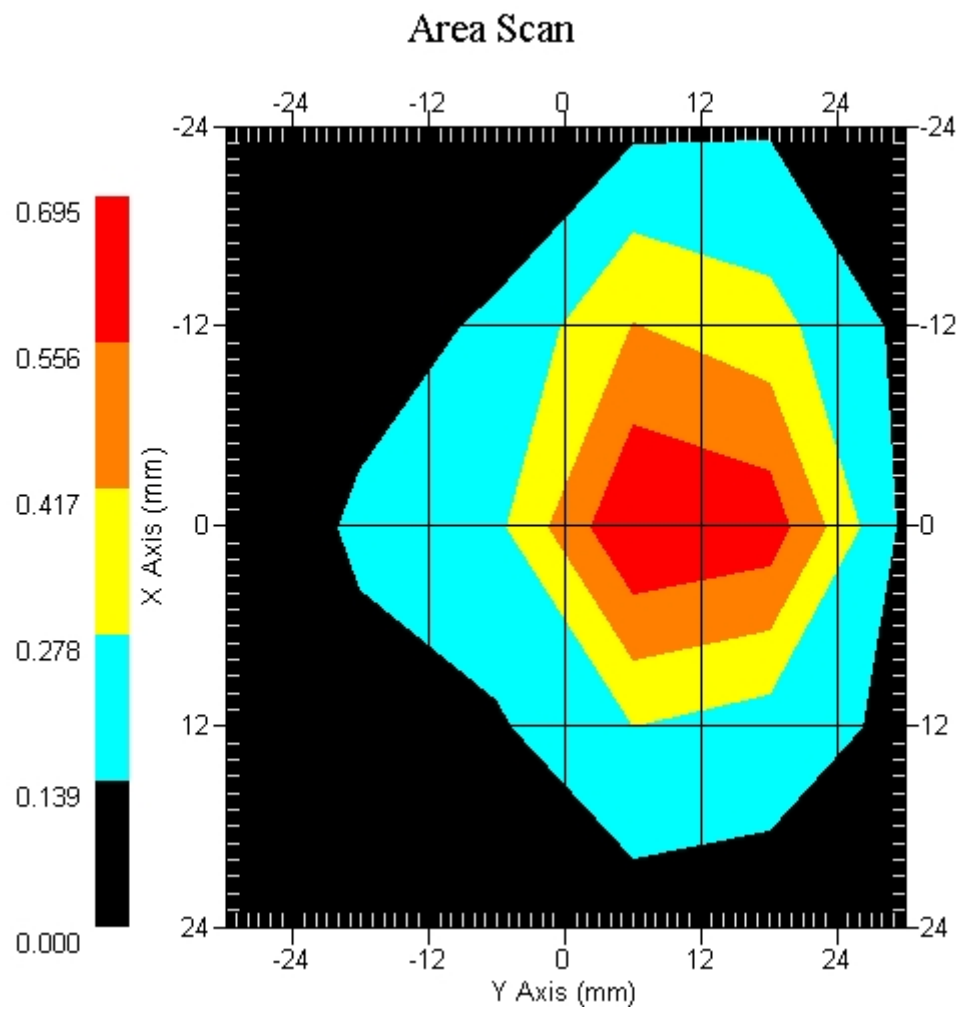
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.565 W/kg
 Power Drift-Finish: 0.572 W/kg
 Power Drift (%) : 1.164

DUT Position : Touch EUT TOP
 Channel : 6



1 gram SAR value : 0.704 W/kg
 10 gram SAR value : 0.338 W/kg
 Area Scan Peak SAR : 0.695 W/kg
 Zoom Scan Peak SAR : 1.421 W/kg

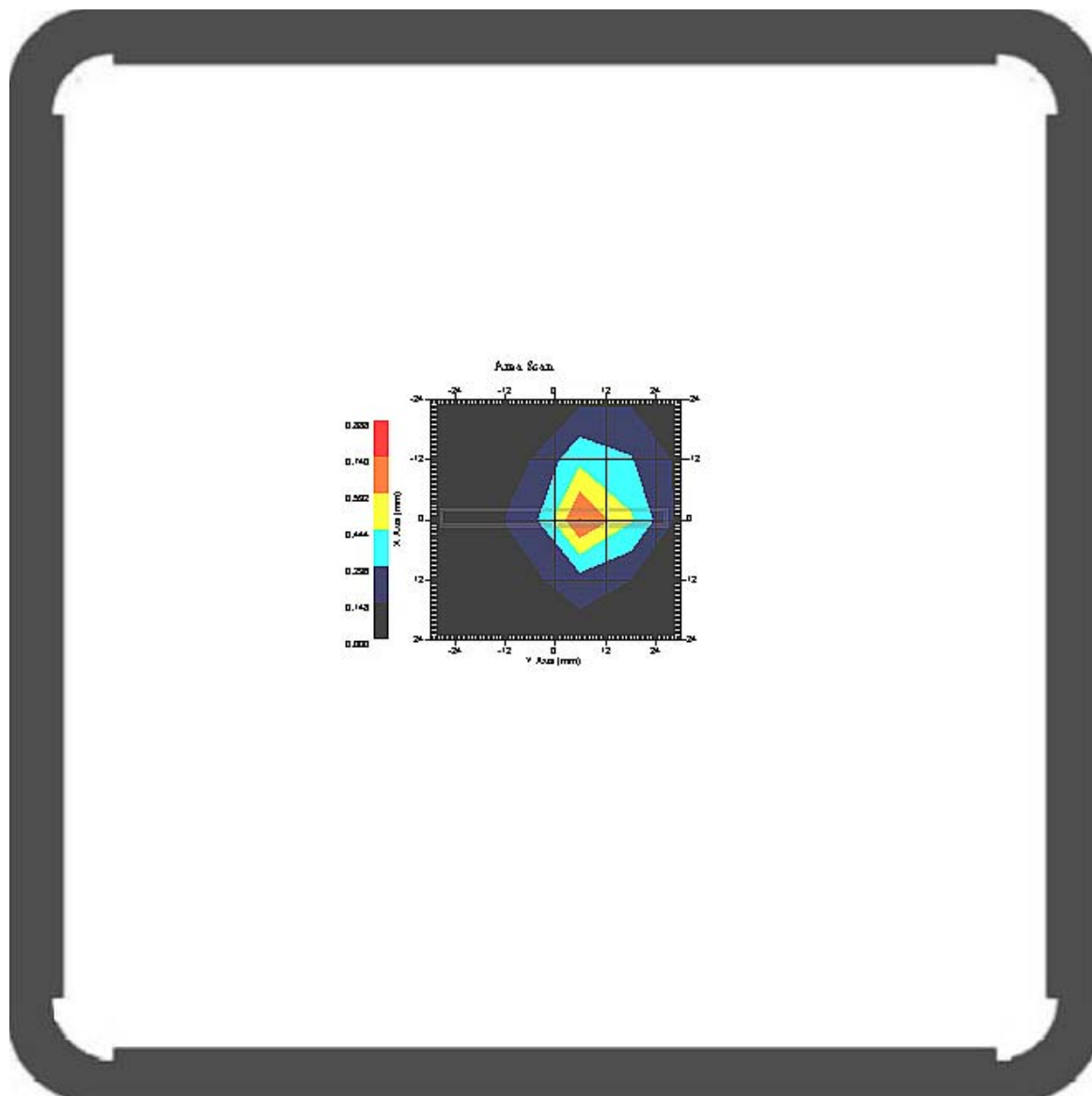
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Measurement Data

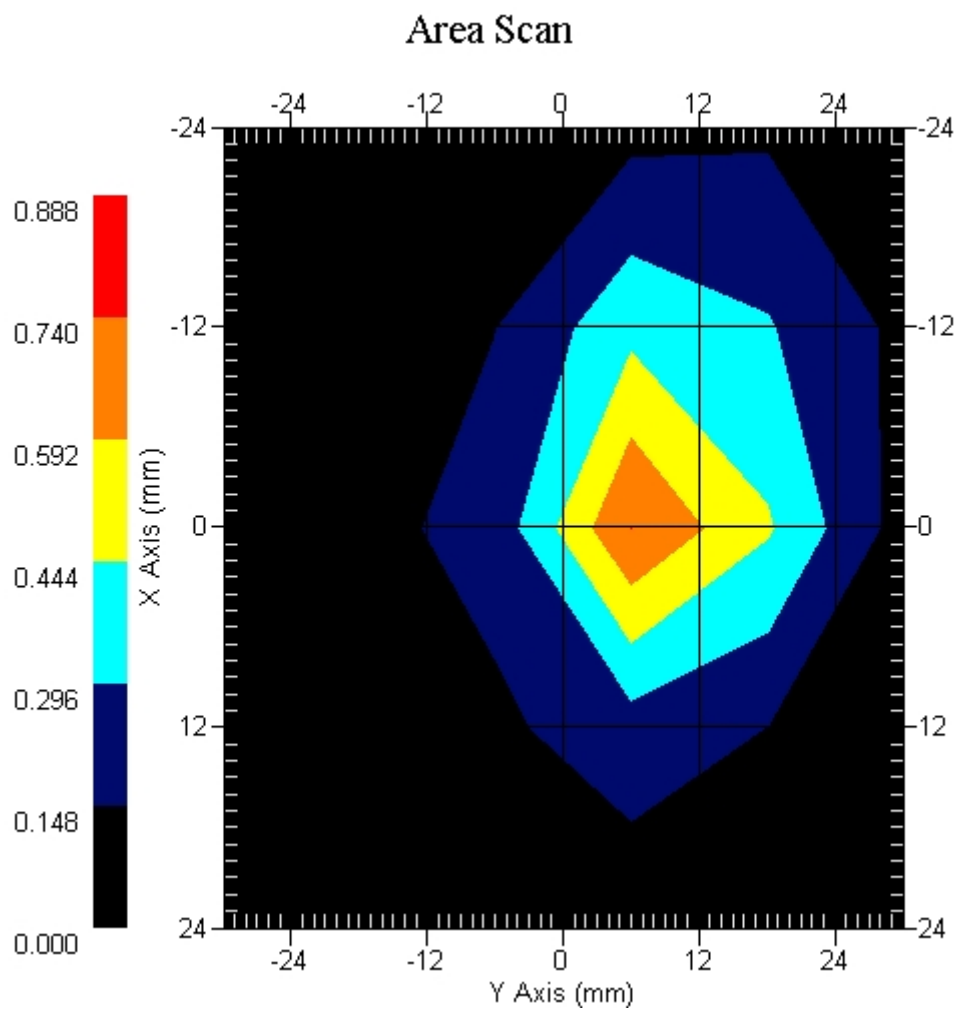
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.468 W/kg
 Power Drift-Finish: 0.476 W/kg
 Power Drift (%) : 2.028

DUT Position : Touch EUT TOP
 Channel : 11



1 gram SAR value : 0.531 W/kg
 10 gram SAR value : 0.243 W/kg
 Area Scan Peak SAR : 0.742 W/kg
 Zoom Scan Peak SAR : 1.130 W/kg

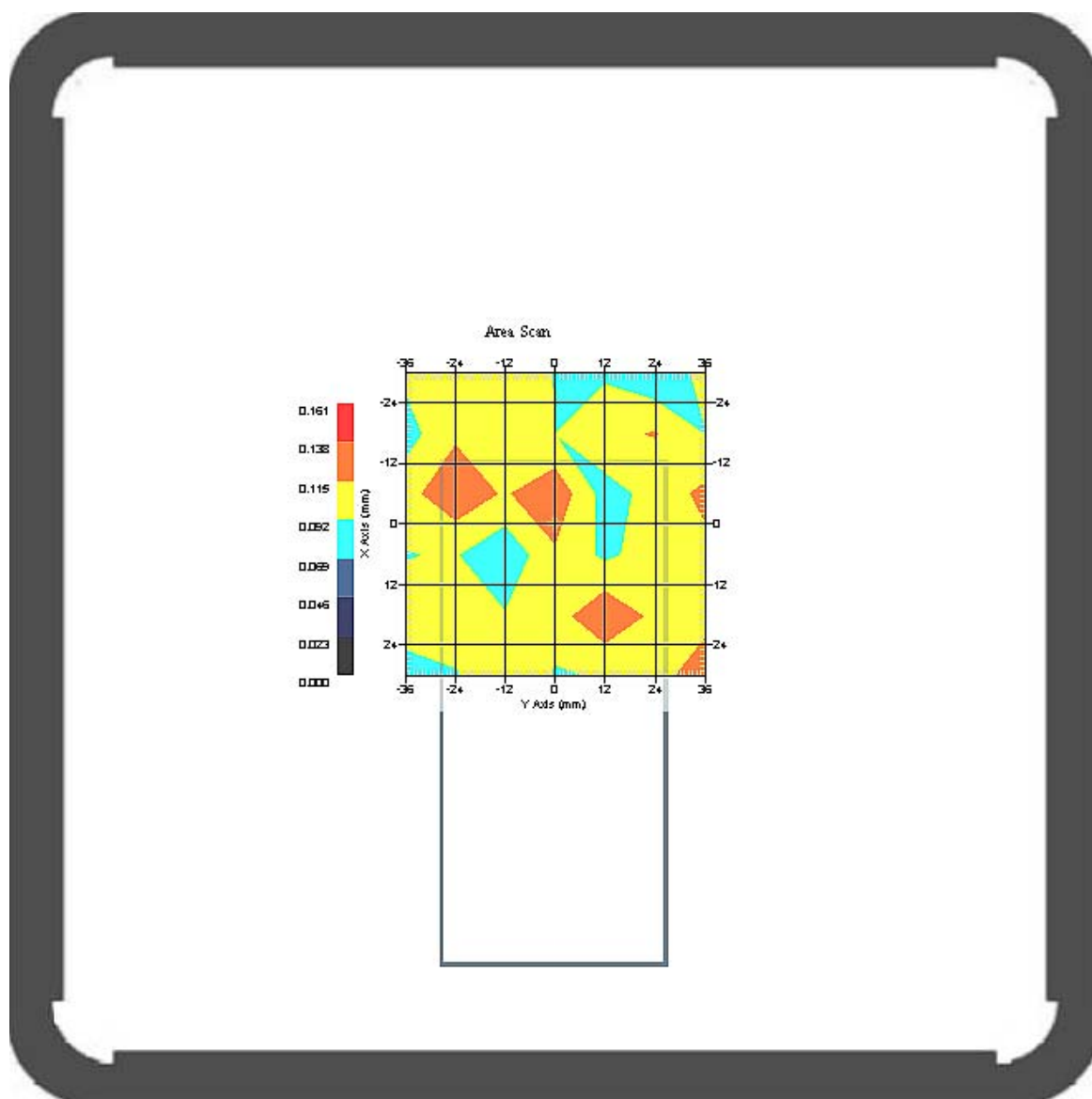
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Measurement Data

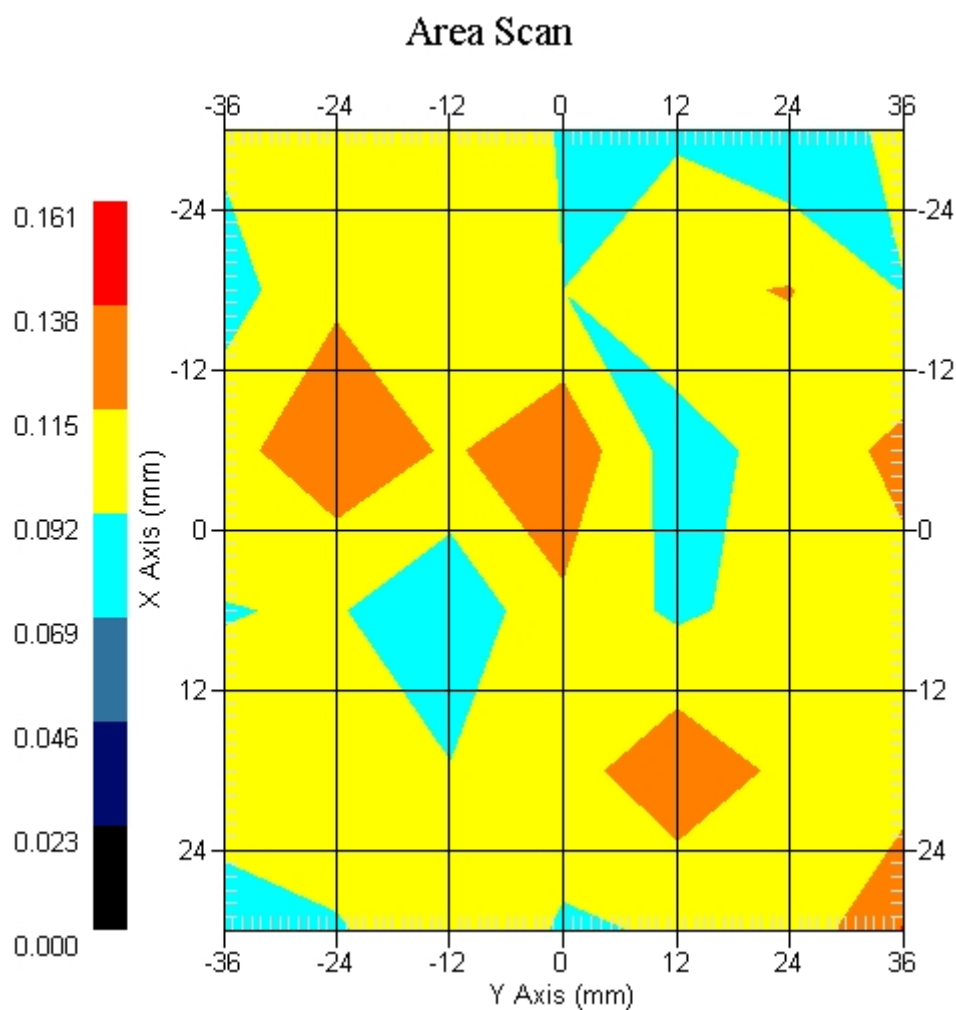
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 6x7x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.104 W/kg
 Power Drift-Finish: 0.106 W/kg
 Power Drift (%) : 1.932

DUT Position : Touch EUT FRONT
 Channel : 6



1 gram SAR value : 0.133 W/kg
 10 gram SAR value : 0.121 W/kg
 Area Scan Peak SAR : 0.139 W/kg
 Zoom Scan Peak SAR : 0.149 W/kg

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ALSAS-10U VER 2.3.1APREL Laboratories

SAR Test Report (802.11g)

Report Date : 15-Dec-2006

Measurement Date : 15-Dec-2006

Product Data

Device Name : MAX LIGHT

Type : Other

Model : AWP-914T, NV-914T, WA-2510, HWGPCMCIA-54, TER/GCBA2

Frequency : 2450.00 MHz

Length : 118.4 mm

Width : 54.4 mm

Depth : 6 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 : 15-Dec-2006

Temperature : 21.50 °C

Ambient Temp. : 21.90 °C

Humidity : 57 RH%

Epsilon : 51.21 F/m

Sigma : 1.983 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-Mar-2006

Frequency : 2450.00 MHz

Duty Cycle Factor: 1

Conversion Factor: 5.2

Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$

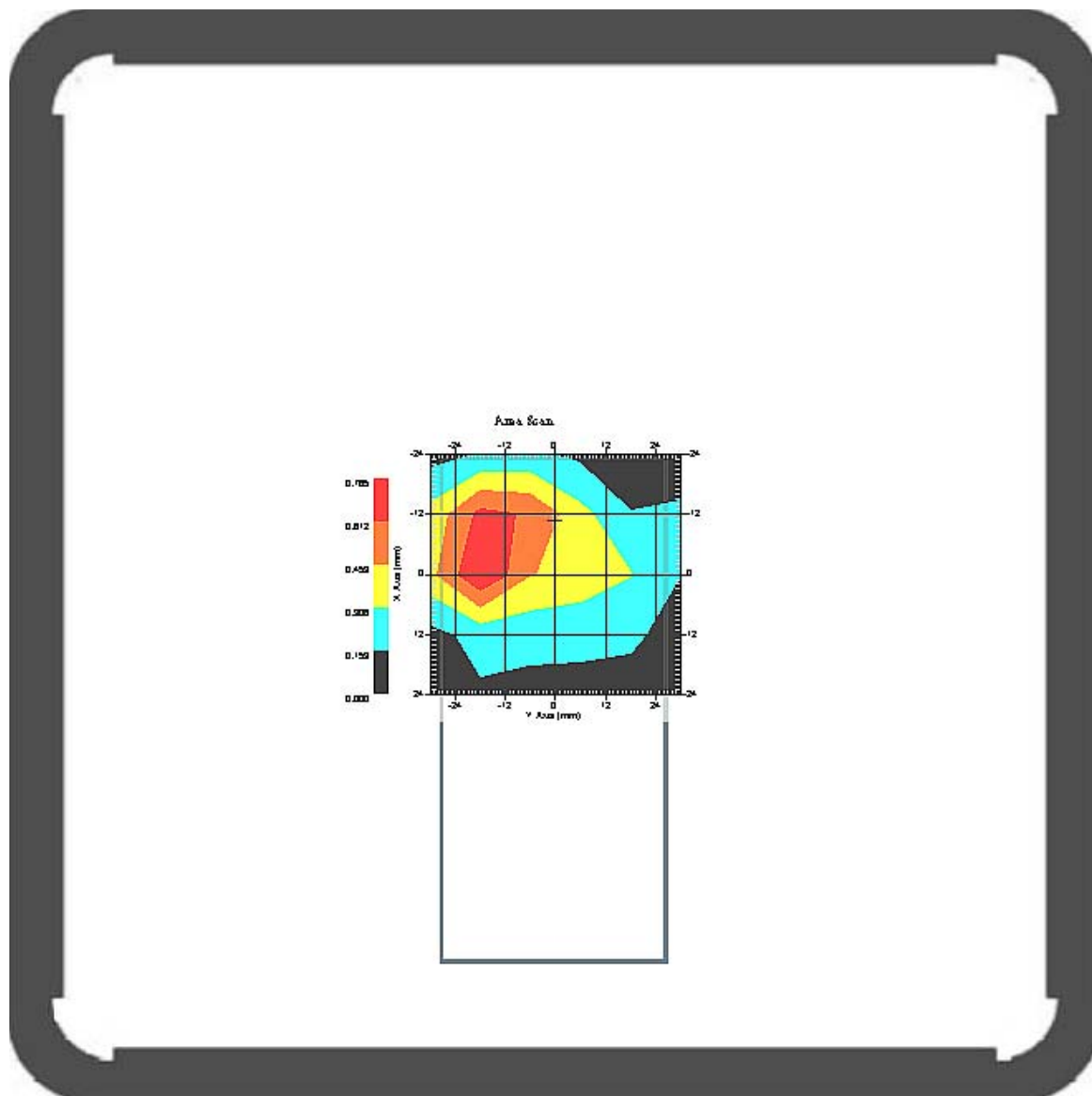
Compression Point: 95.00 mV

Offset : 1.56 mm

Measurement Data

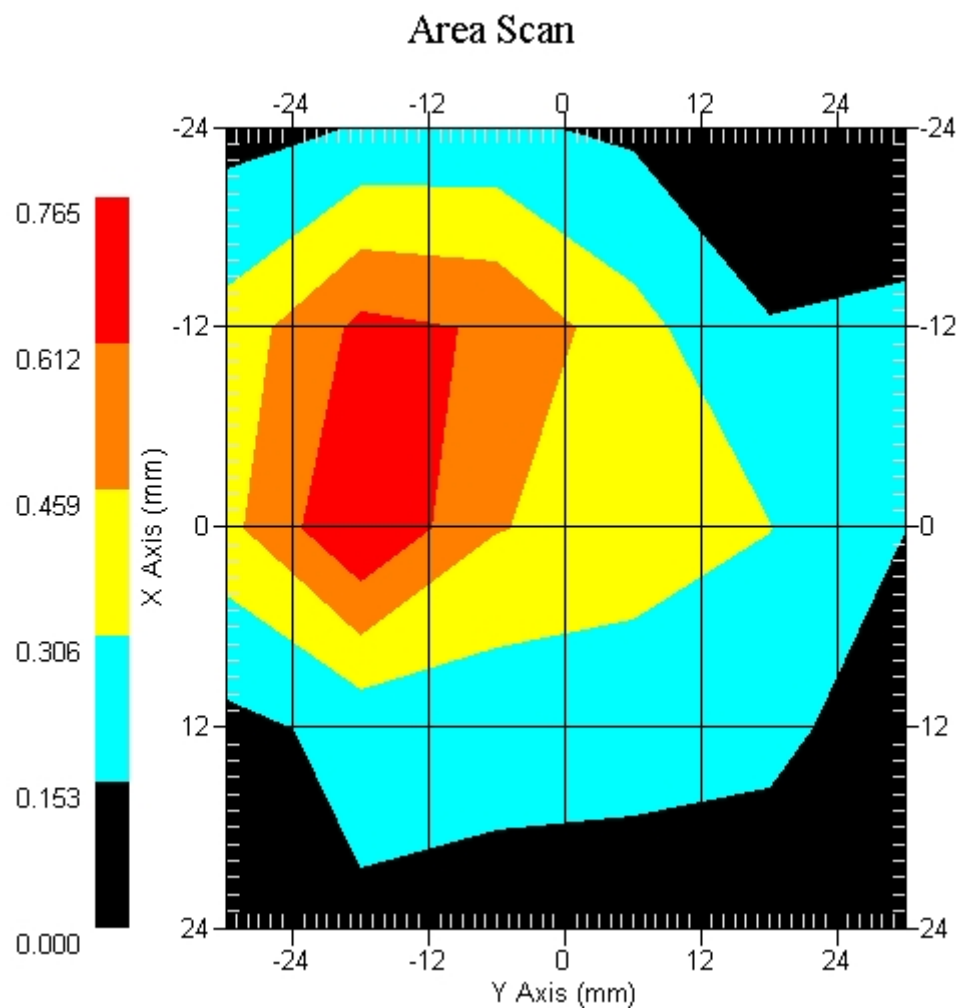
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.348 W/kg
 Power Drift-Finish: 0.350 W/kg
 Power Drift (%) : 0.577

DUT Position : Touch EUT BACK
 Channel : 1



1 gram SAR value : 0.683 W/kg
 10 gram SAR value : 0.354 W/kg
 Area Scan Peak SAR : 0.765 W/kg
 Zoom Scan Peak SAR : 1.411 W/kg

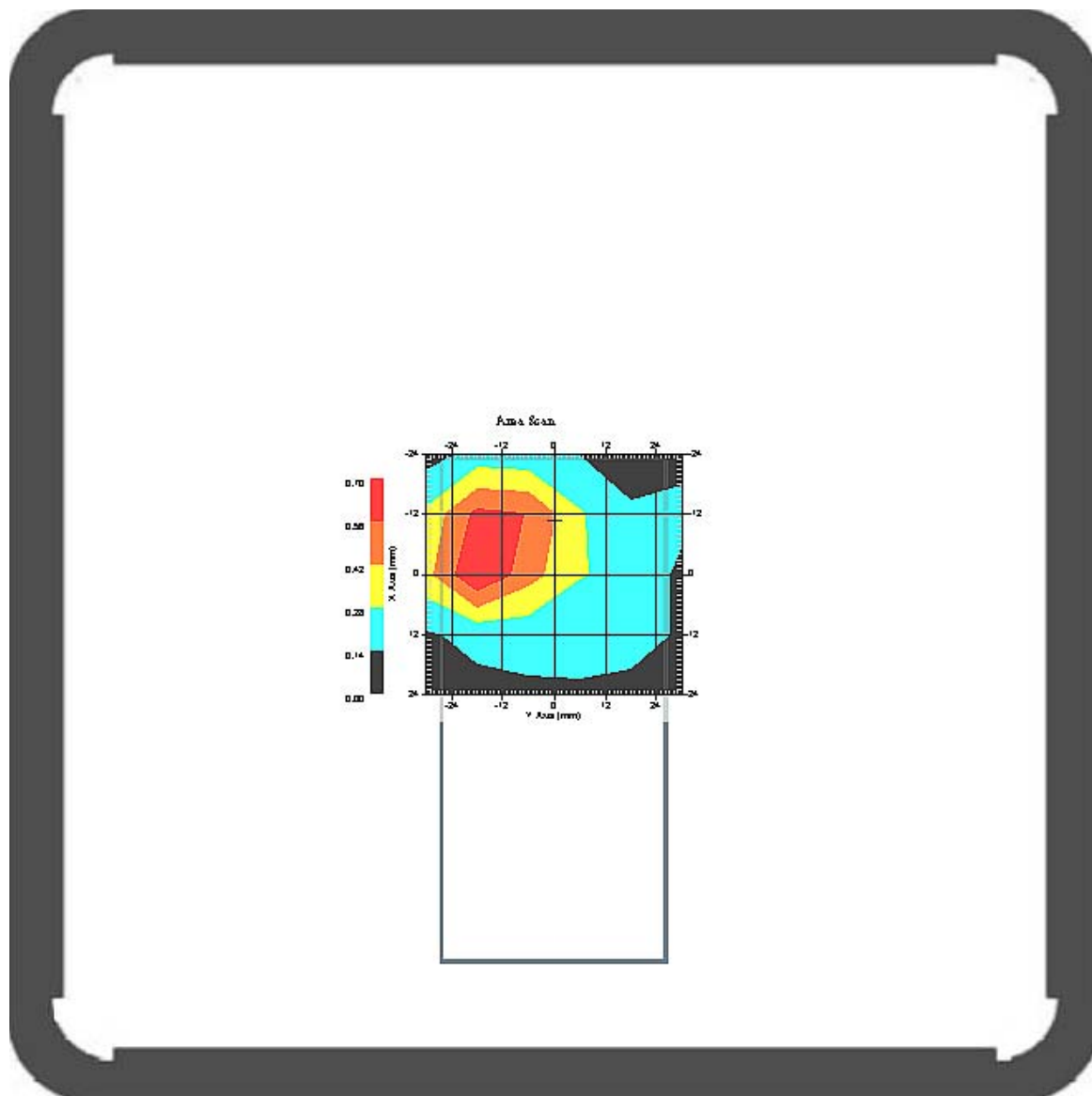
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Measurement Data

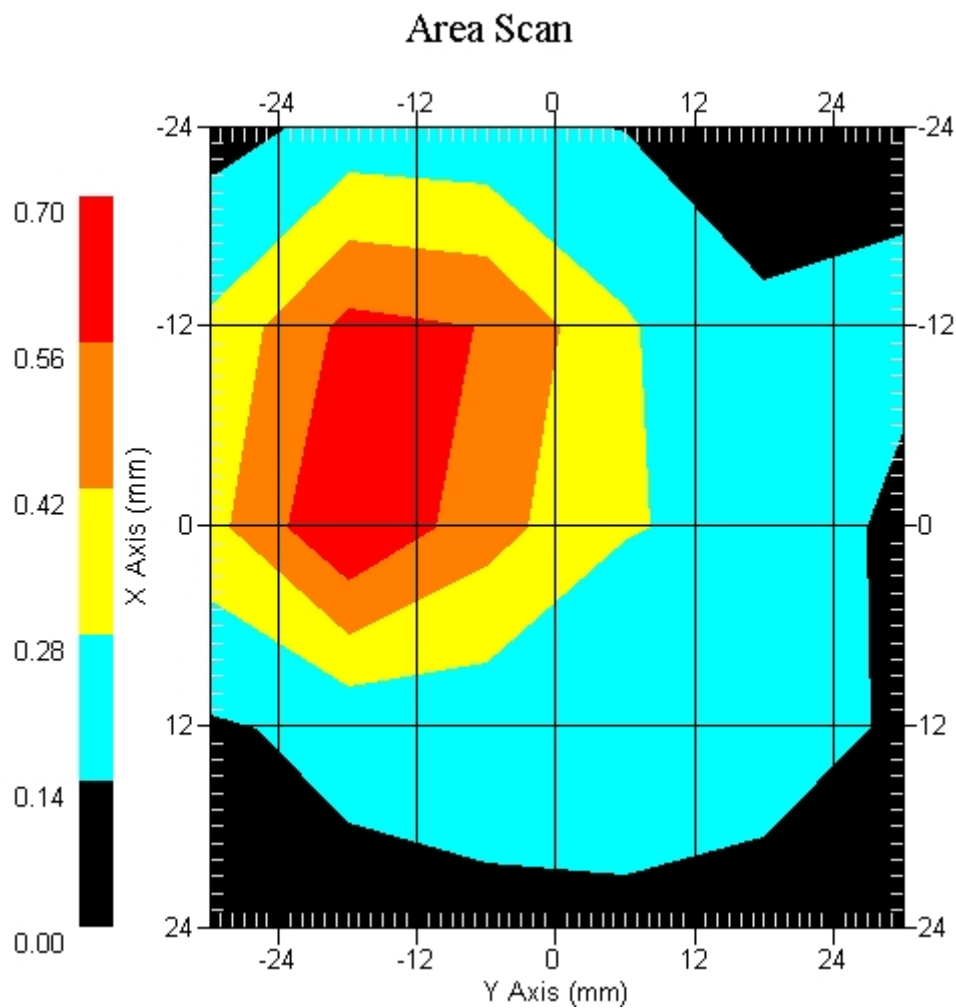
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.326 W/kg
 Power Drift-Finish: 0.336 W/kg
 Power Drift (%) : 3.345

DUT Position : Touch EUT BACK
 Channel : 6



1 gram SAR value : 0.630 W/kg
 10 gram SAR value : 0.328 W/kg
 Area Scan Peak SAR : 0.698 W/kg
 Zoom Scan Peak SAR : 1.201 W/kg

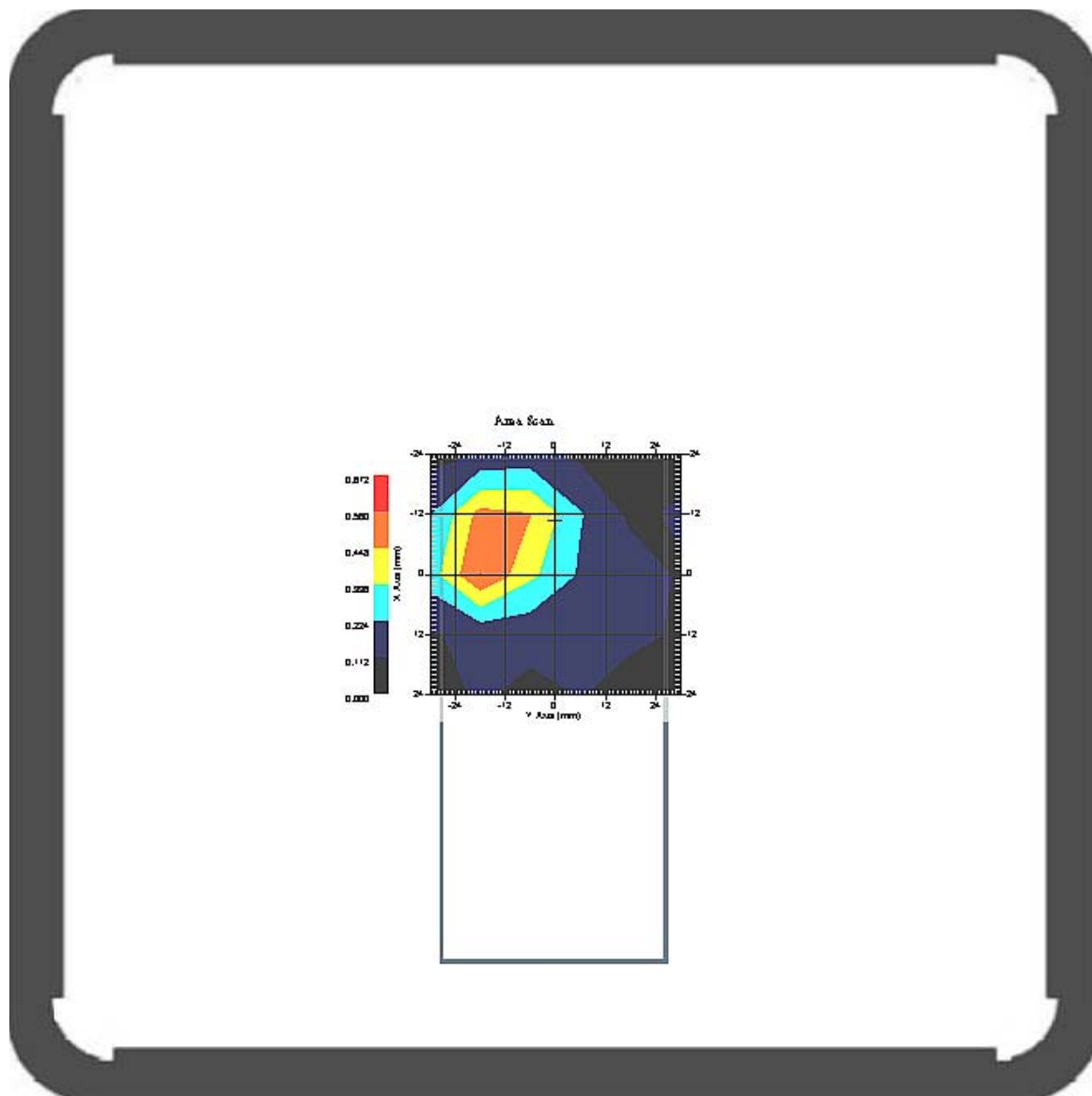
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Measurement Data

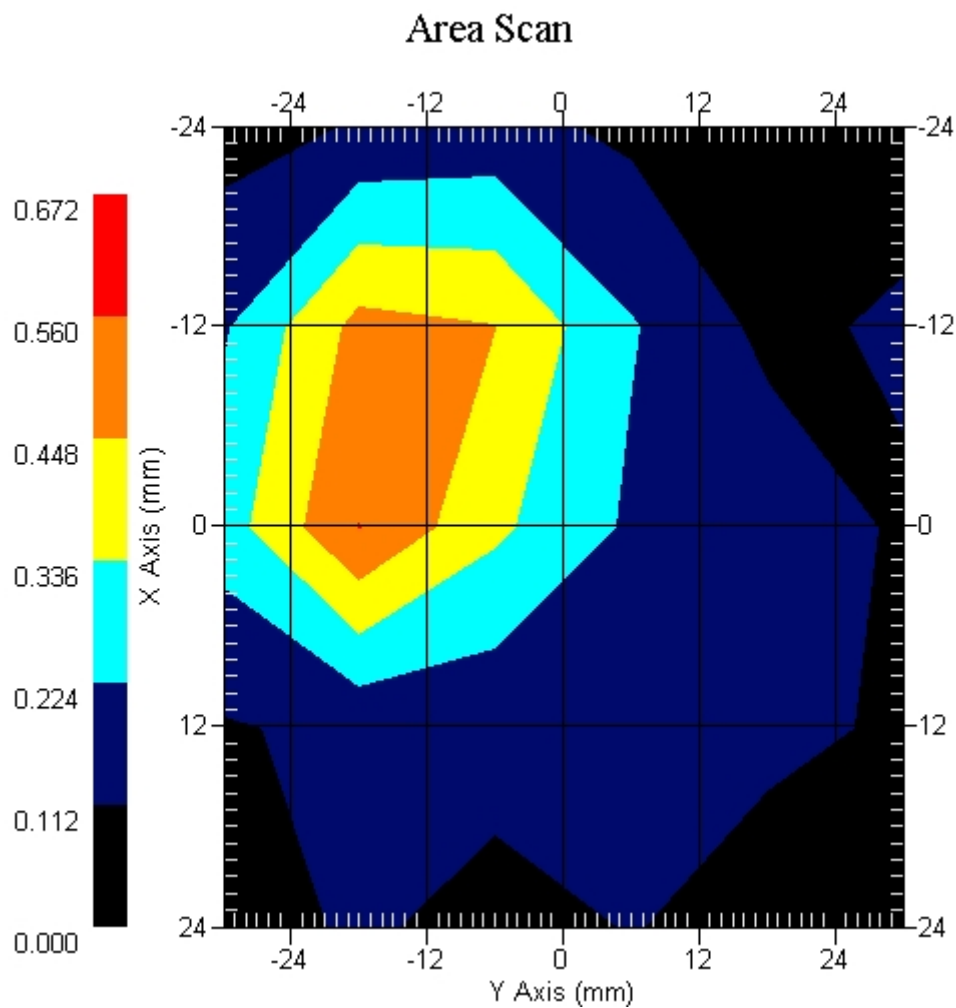
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.246 W/kg
 Power Drift-Finish: 0.247 W/kg
 Power Drift (%) : 0.317

DUT Position : Touch EUT BACK
 Channel : 11



1 gram SAR value : 0.501 W/kg
 10 gram SAR value : 0.270 W/kg
 Area Scan Peak SAR : 0.561 W/kg
 Zoom Scan Peak SAR : 0.990 W/kg

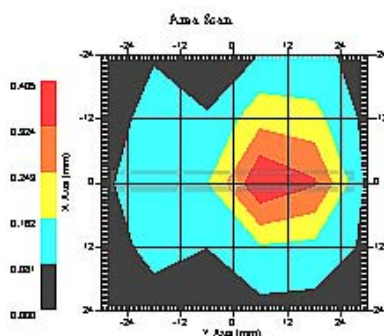
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Measurement Data

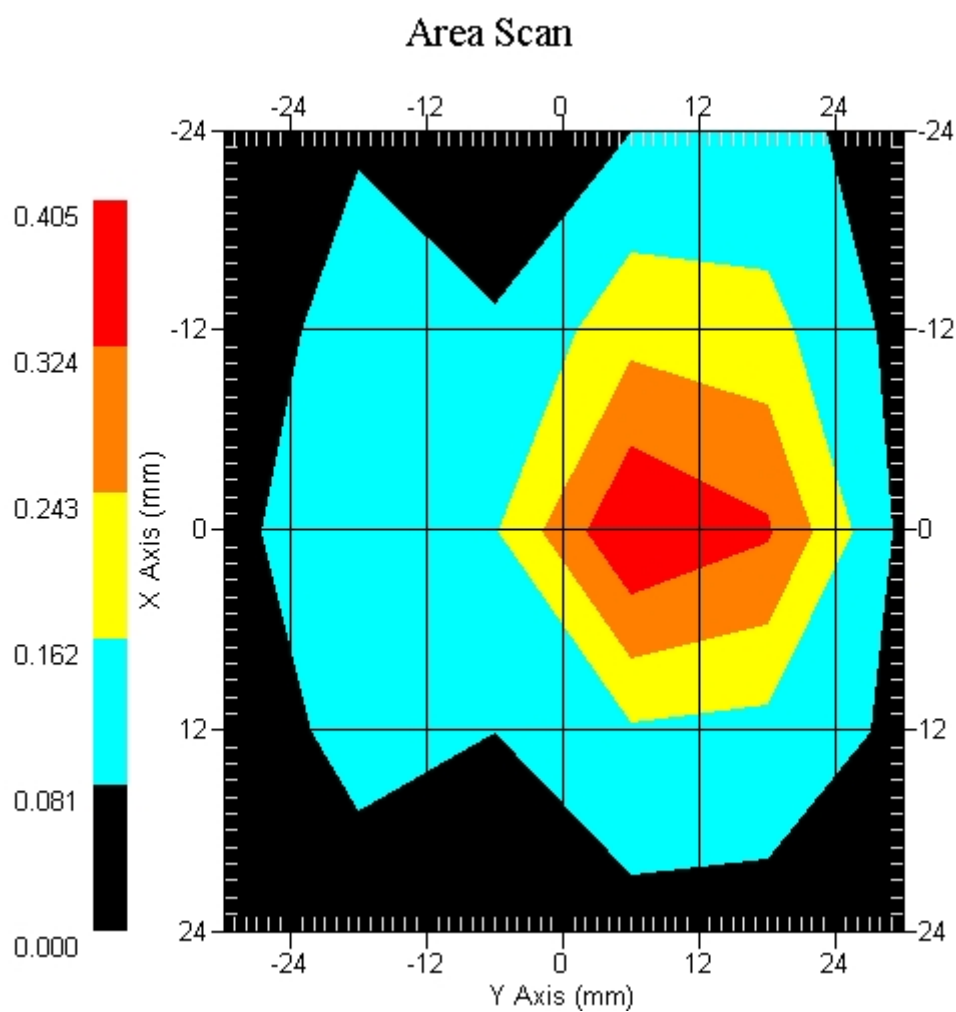
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.268 W/kg
 Power Drift-Finish: 0.260 W/kg
 Power Drift (%) : -2.915

DUT Position : Touch EUT TOP
 Channel : 1



1 gram SAR value : 0.346 W/kg
 10 gram SAR value : 0.171 W/kg
 Area Scan Peak SAR : 0.403 W/kg
 Zoom Scan Peak SAR : 0.650 W/kg

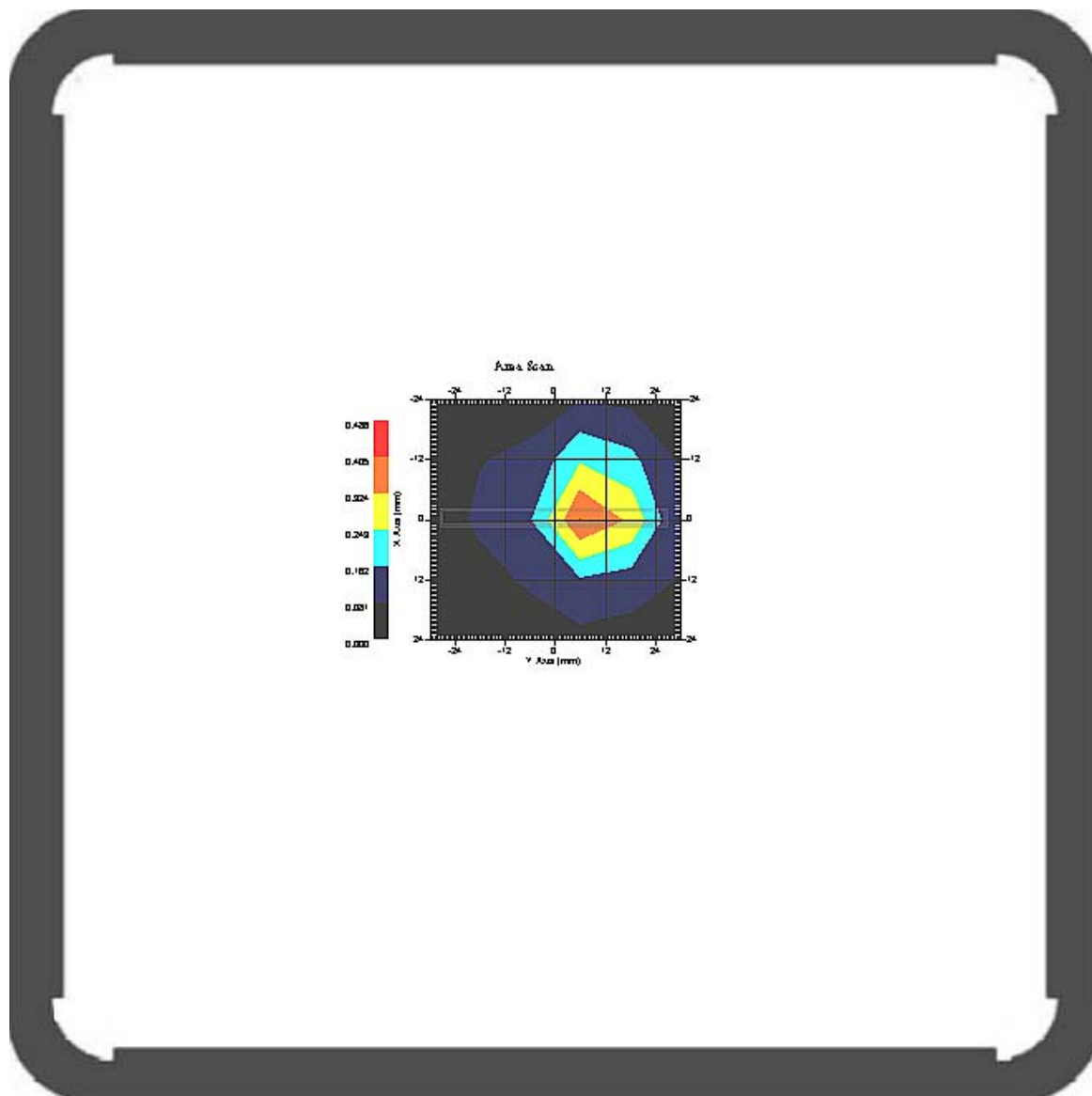
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Measurement Data

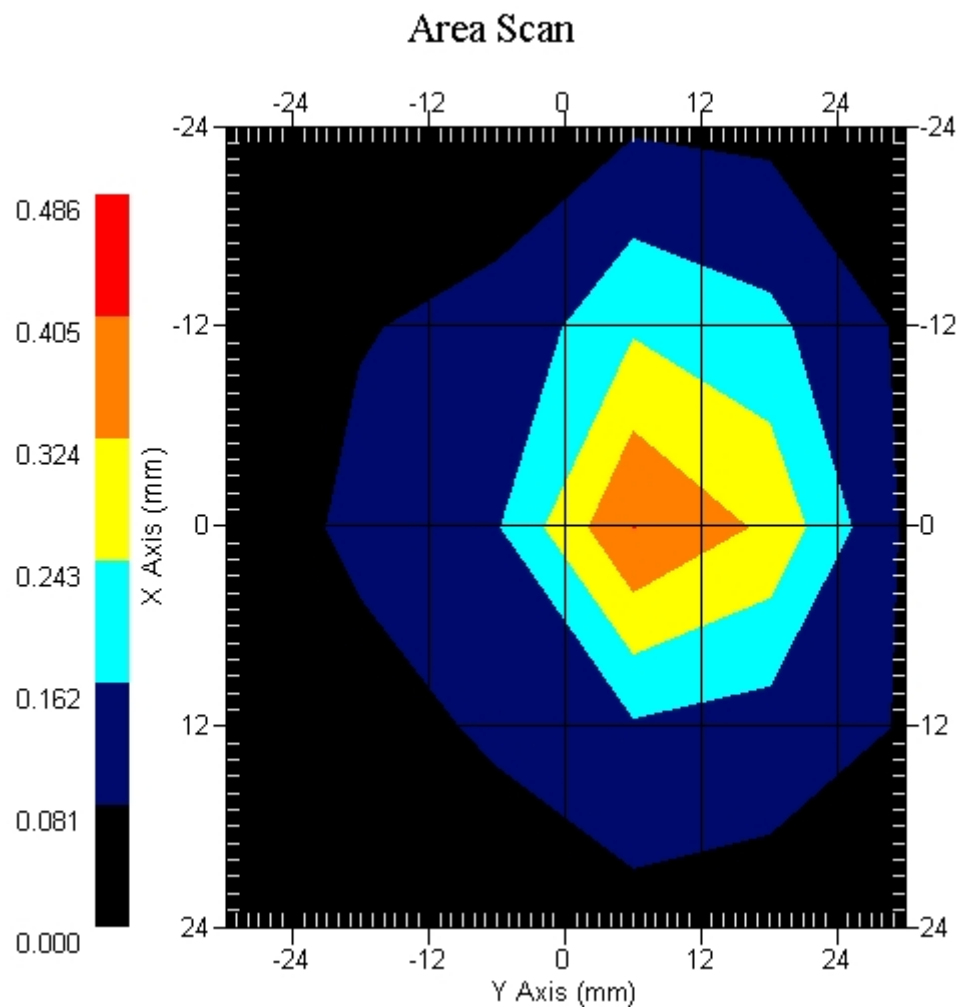
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.260 W/kg
 Power Drift-Finish: 0.265 W/kg
 Power Drift (%) : 1.965

DUT Position : Touch EUT TOP
 Channel : 6



1 gram SAR value : 0.334 W/kg
 10 gram SAR value : 0.172 W/kg
 Area Scan Peak SAR : 0.406 W/kg
 Zoom Scan Peak SAR : 0.680 W/kg

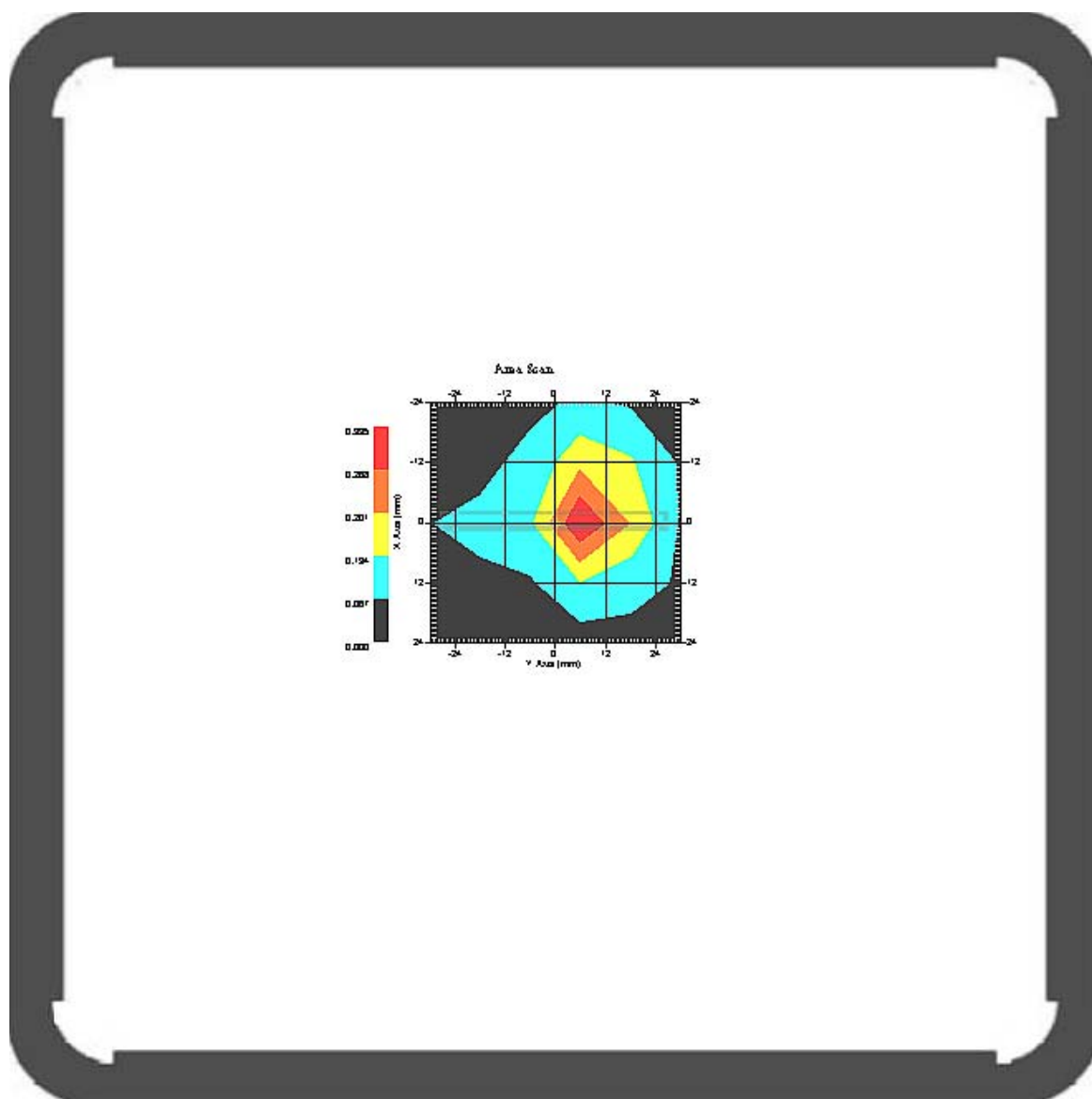
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Measurement Data

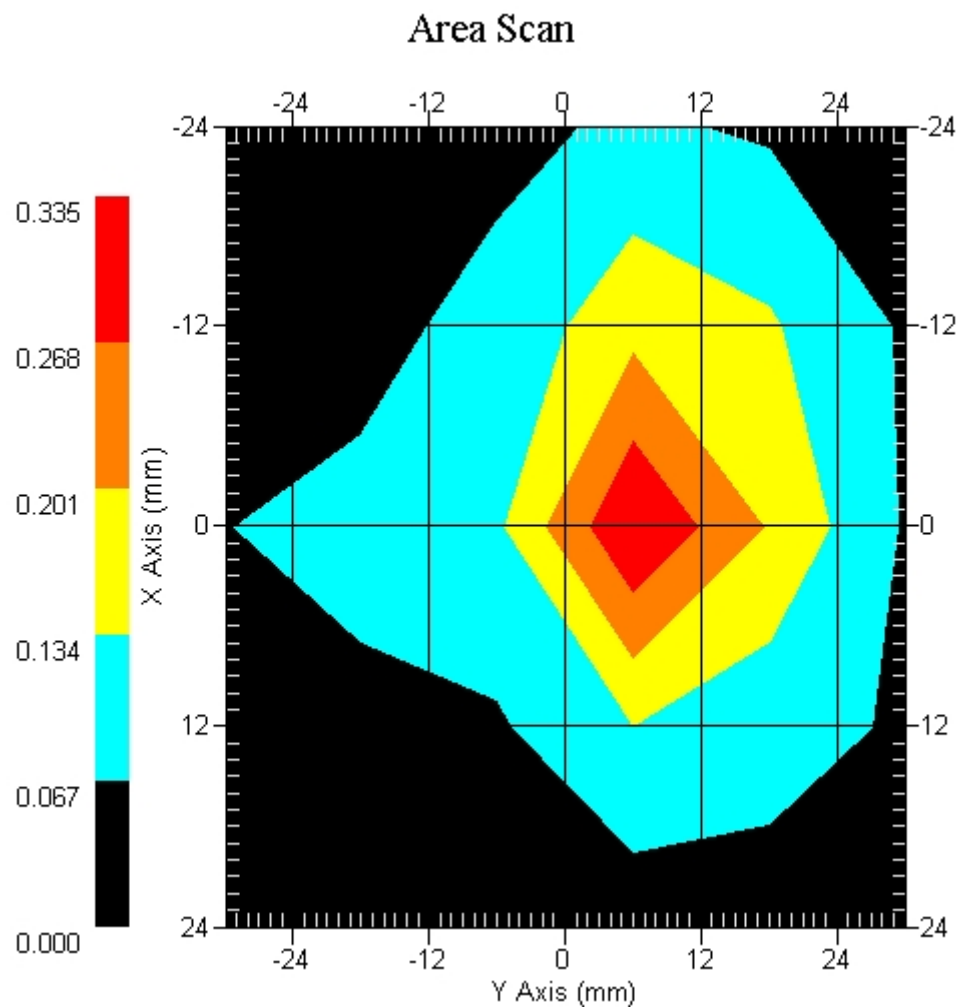
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 5x6x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.231 W/kg
 Power Drift-Finish: 0.228 W/kg
 Power Drift (%) : -1.431

DUT Position : Touch EUT TOP
 Channel : 11



1 gram SAR value : 0.276 W/kg
 10 gram SAR value : 0.147 W/kg
 Area Scan Peak SAR : 0.333 W/kg
 Zoom Scan Peak SAR : 0.570 W/kg

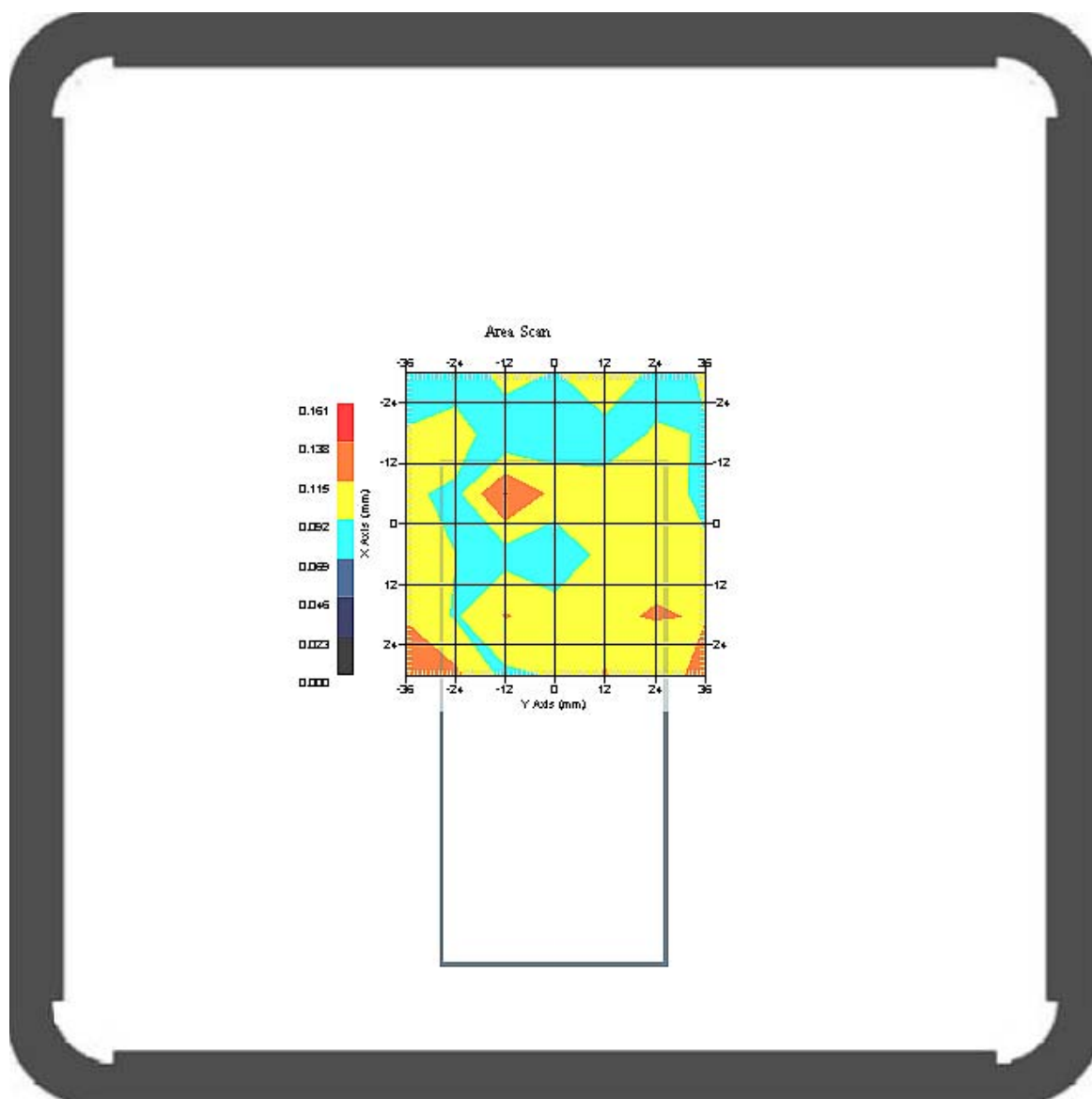
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Measurement Data

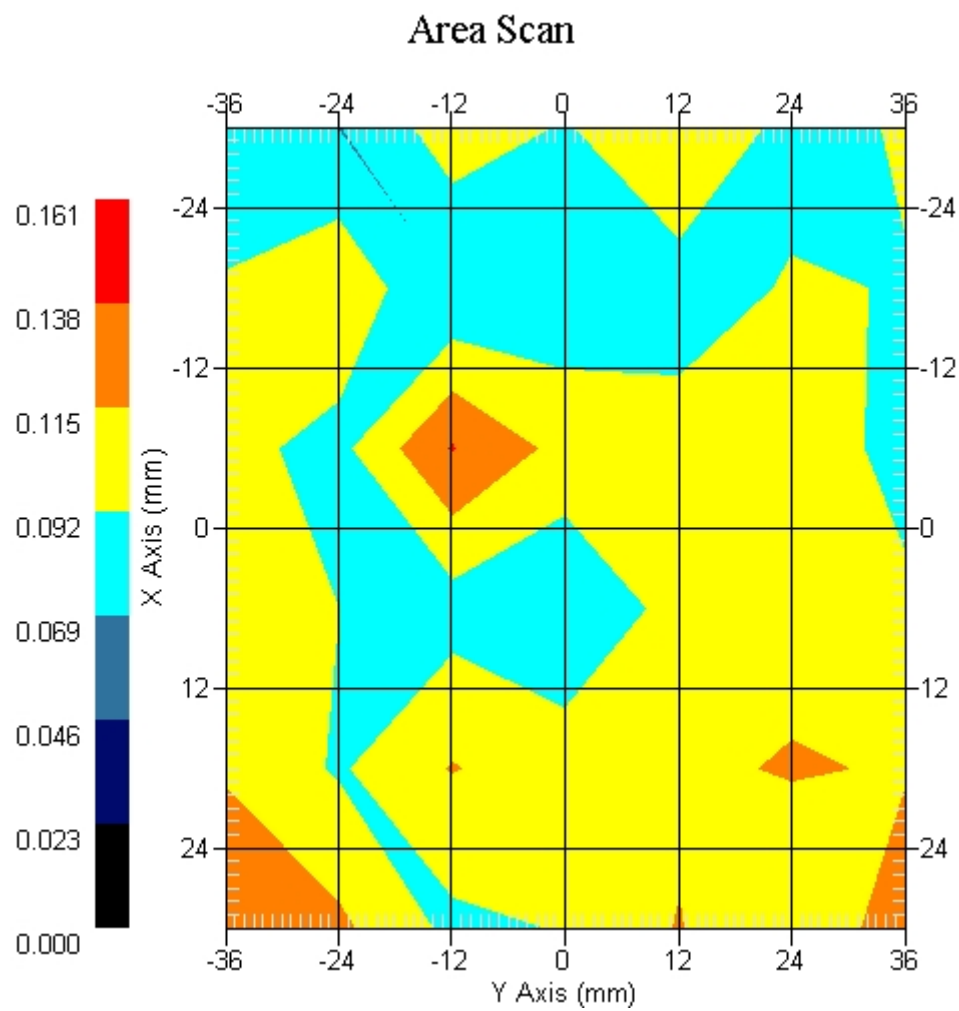
Crest Factor : 1
 Tissue Temp. : 21.50 °C
 Ambient Temp. : 21.90 °C
 Area Scan : 6x7x1 : Measurement x=12mm, y=12mm, z=4mm
 Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
 Power Drift-Start : 0.102 W/kg
 Power Drift-Finish: 0.099 W/kg
 Power Drift (%) : -2.903

DUT Position : Touch EUT FRONT
 Channel : 6



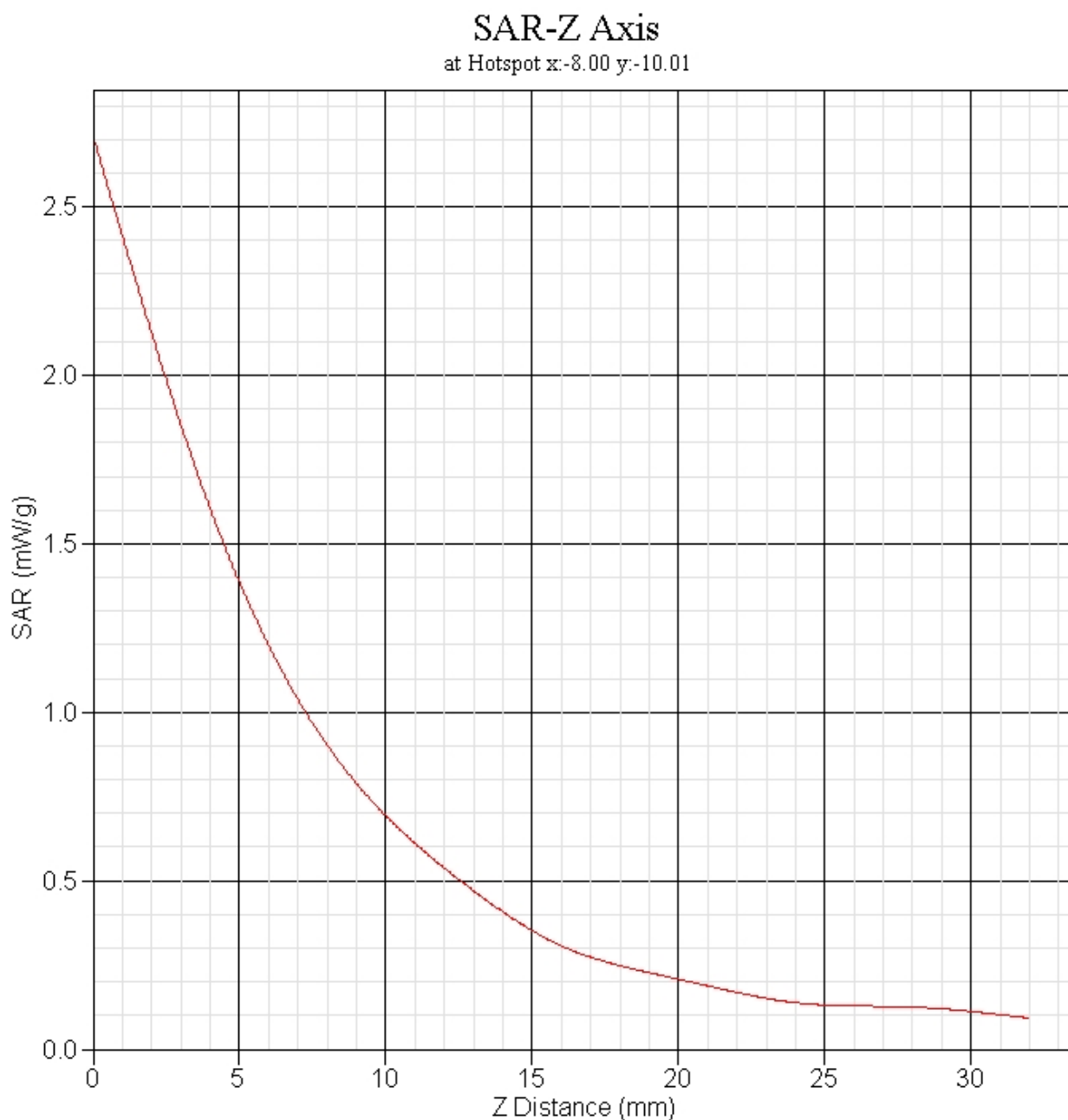
1 gram SAR value : 0.114 W/kg
 10 gram SAR value : 0.100 W/kg
 Area Scan Peak SAR : 0.139 W/kg
 Zoom Scan Peak SAR : 0.147 W/kg

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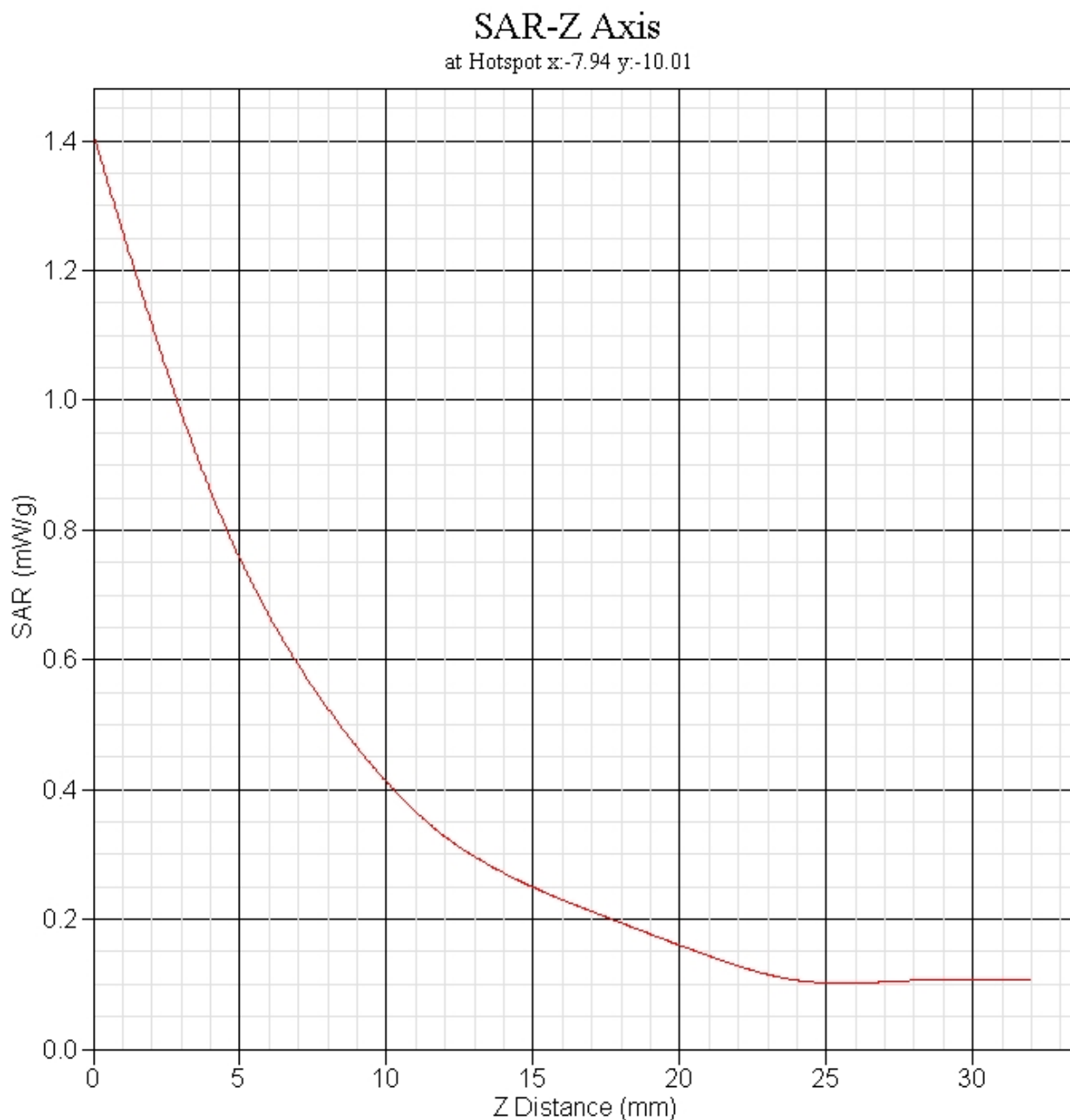
EUT 2450MHz SAR test Z-Axis plot

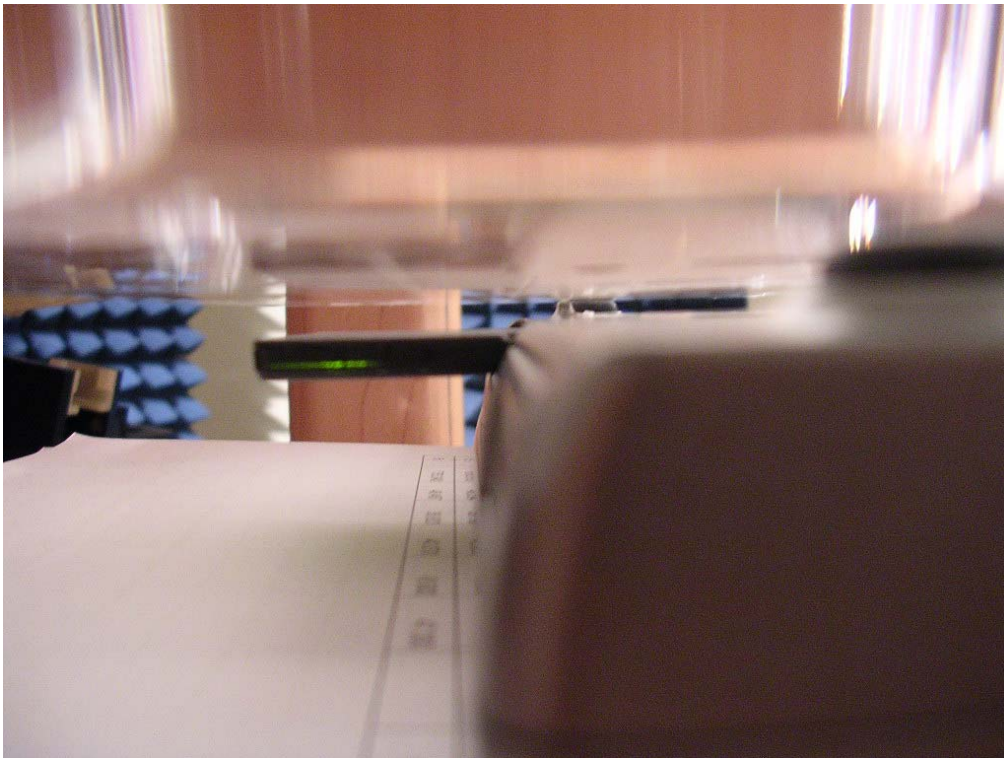
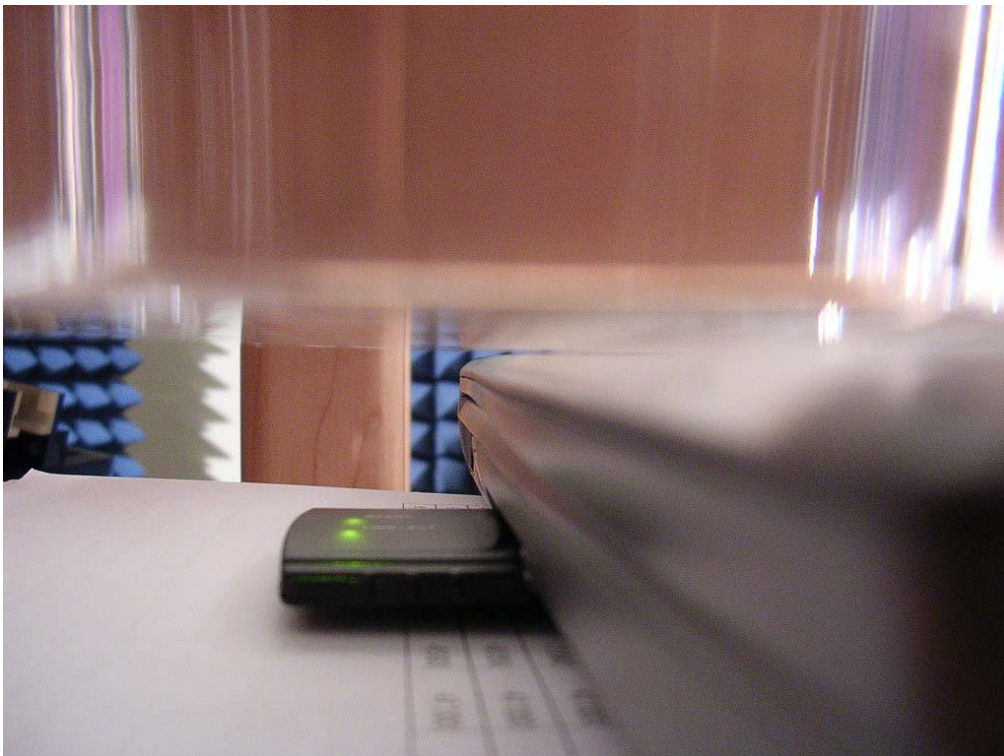
(802.11b, Back, Channel 1)

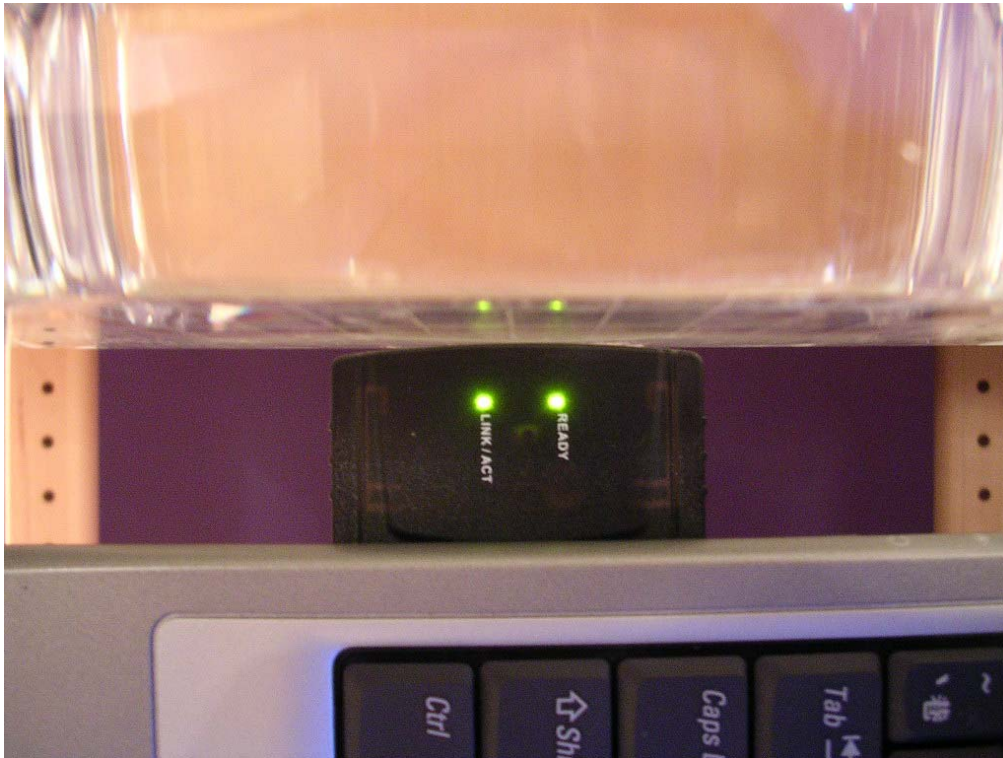


EUT 2450MHz SAR test Z-Axis plot

(802.11g, Back, Channel 1)



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

EUT Top

EUT Photographs

