

Appendix D

SAR Measurement Data

of

Product Name

802.11b/g/n RTL8191SE miniCard

Model

RTL8191SE

1. 802.11b 2450MHz SAR measurement Data

SAR Test Report

Report Date : 03-May-2010
Measurement Date : 03-May-2010

Product Data

Device Name : RTL8191SE
Serial No. : Bottom
Type : Other
Model : 802.11b
Frequency : 2412.00 MHz
Max. Transmit Pwr : 18.23 dBm
Drift Time : 0 min(s)
Length : 259 mm
Width : 187 mm
Depth : 290 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.037 W/kg
Power Drift-Finish: 0.038 W/kg
Power Drift (%) : -2.631
Picture :

Phantom Data

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

Tissue Data

Type : BODY
Serial No. : 2450_Body
Frequency : 2450.00 MHz
Last Calib. Date : 03-Mar-2010
Temperature : 22.50 °C
Ambient Temp. : 23.00 °C
Humidity : 60.00 RH%
Epsilon : 52.19 F/m
Sigma : 2.01 S/m
Density : 1000.00 kg/cu. m

Probe Data

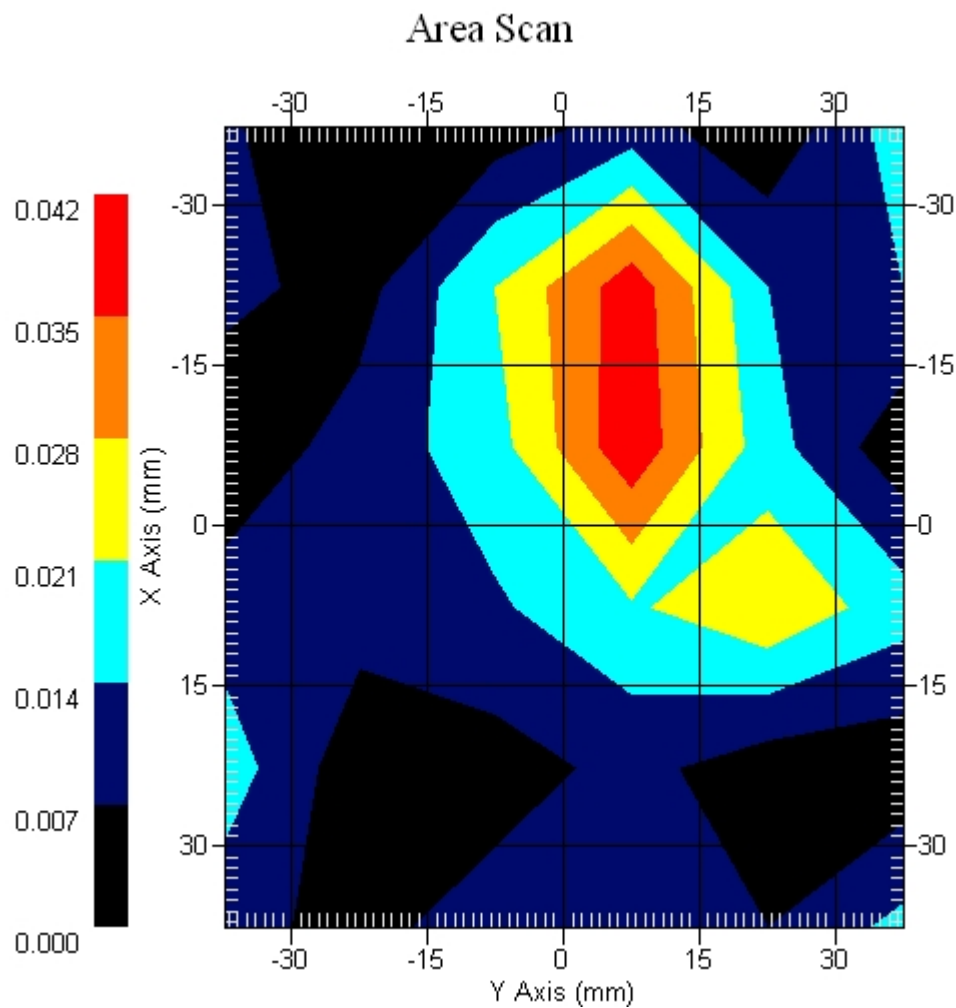
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 26-Apr-2010
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

1.1 802.11b 2450MHz, EUT Position:

Measurement Data

Crest Factor : 1
Scan Type : Complete
Set-up Date : 03-May-2010
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Separation : 0

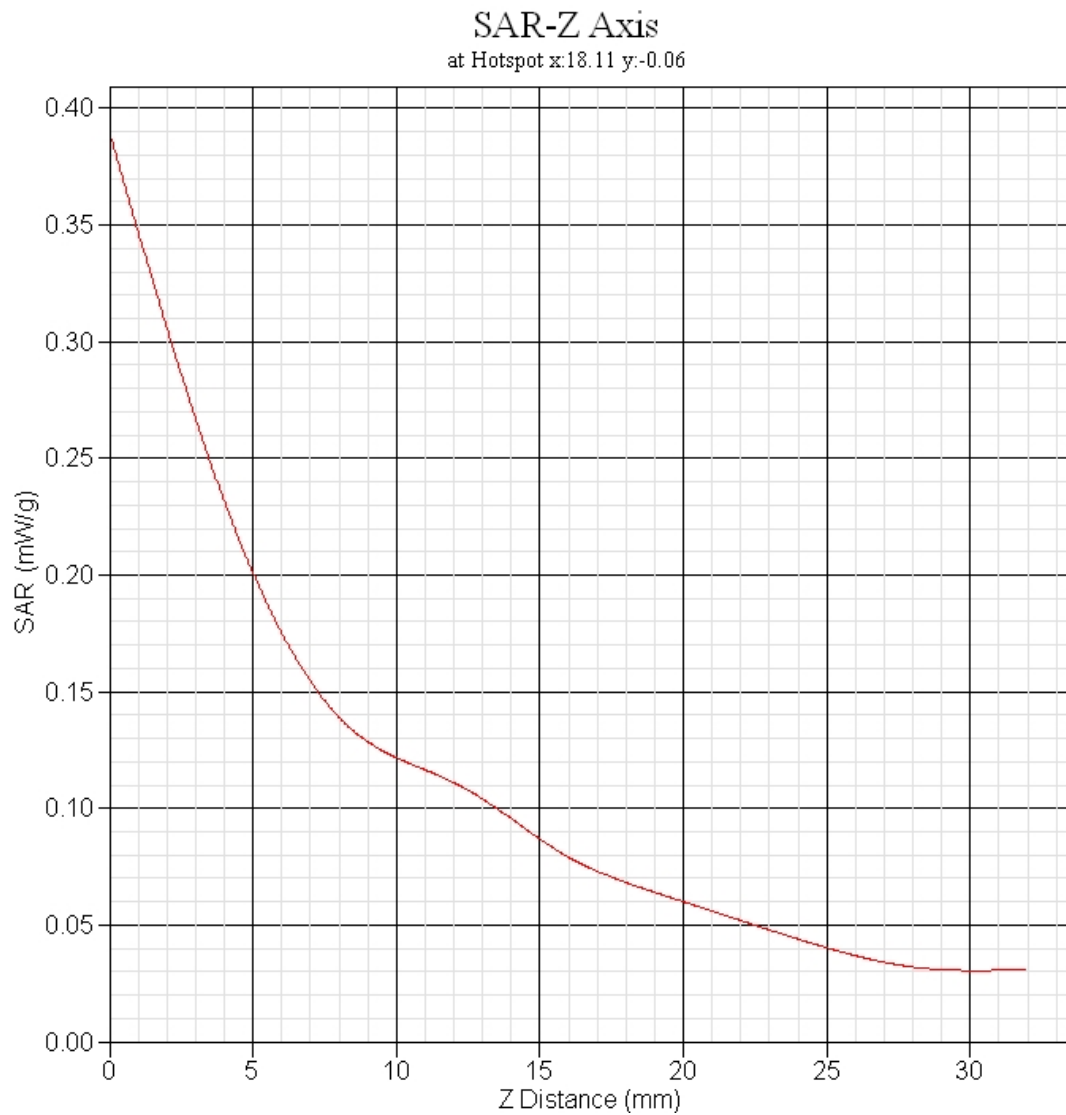
Area Scan Plot



1 gram SAR value : 0.042 W/kg
10 gram SAR value : 0.020 W/kg
Area Scan Peak SAR : 0.040 W/kg
Zoom Scan Peak SAR : 0.090 W/kg

1.2 802.11b 2450MHz Z-Axis plot

Frequency: 802.11b 2450MHz, EUT



2. 802.11g 2450MHz SAR measurement Data

SAR Test Report

Report Date : 03-May-2010
Measurement Date : 03-May-2010

Product Data

Device Name : RTL8191SE
Serial No. : Bottom
Type : Other
Model : 802.11g
Frequency : 2412.00 MHz
Max. Transmit Pwr : 16.61 dBm
Drift Time : 0 min(s)
Length : 259 mm
Width : 187 mm
Depth : 290 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.091 W/kg
Power Drift-Finish : 0.018 W/kg
Power Drift (%) : 4.051
Picture :

Phantom Data

Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : uni_1

Tissue Data

Type : BODY
Serial No. : 2450_Body
Frequency : 2450.00 MHz
Last Calib. Date : 03-May-2010
Temperature : 22.50 °C
Ambient Temp. : 23.00 °C
Humidity : 60.00 RH%
Epsilon : 52.19 F/m
Sigma : 2.01 S/m
Density : 1000.00 kg/cu. m

Probe Data

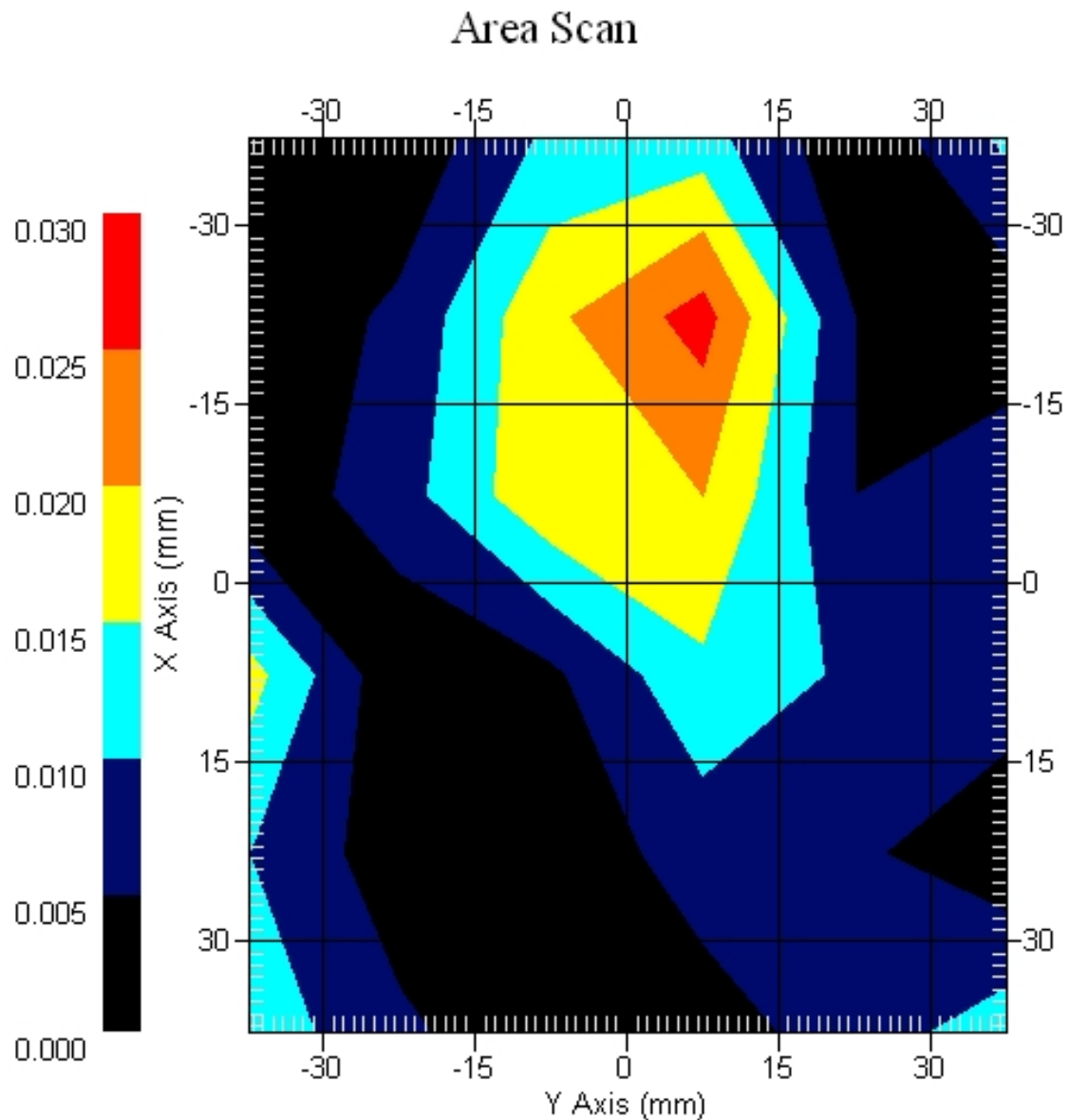
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 26-Apr-2010
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

2.1 802.11g 2450MHz, EUT Position:

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.50 °C
Ambient Temp. : 23.00 °C
Set-up Date : 03-May-2010
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Separation : 0

Area Scan Plot



1 gram SAR value : 0.038 W/kg
10 gram SAR value : 0.013 W/kg
Area Scan Peak SAR : 0.027 W/kg
Zoom Scan Peak SAR : 0.120 W/kg

3. 802.11n HT20 2450MHz SAR measurement Data

Report Date : 03-May-2010
Measurement Date : 03-May-2010

Product Data

Device Name : RTL8191SE
Serial No. : Bottom
Type : Other
Model : 802.11n HT20
Frequency : 2437.00 MHz
Max. Transmit Pwr : 16.53 dBm
Drift Time : 0 min(s)
Length : 259 mm
Width : 187 mm
Depth : 290 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.076 W/kg
Power Drift-Finish: 0.015 W/kg
Power Drift (%) : 4.068
Picture :

Phantom Data

Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : uni_1

Tissue Data

Type : BODY
Serial No. : 2450_Body
Frequency : 2450.00 MHz
Last Calib. Date : 03-May-2010
Temperature : 22.50 °C
Ambient Temp. : 23.00 °C
Humidity : 60.00 RH%
Epsilon : 52.19 F/m
Sigma : 2.01 S/m
Density : 1000.00 kg/cu. m

Probe Data

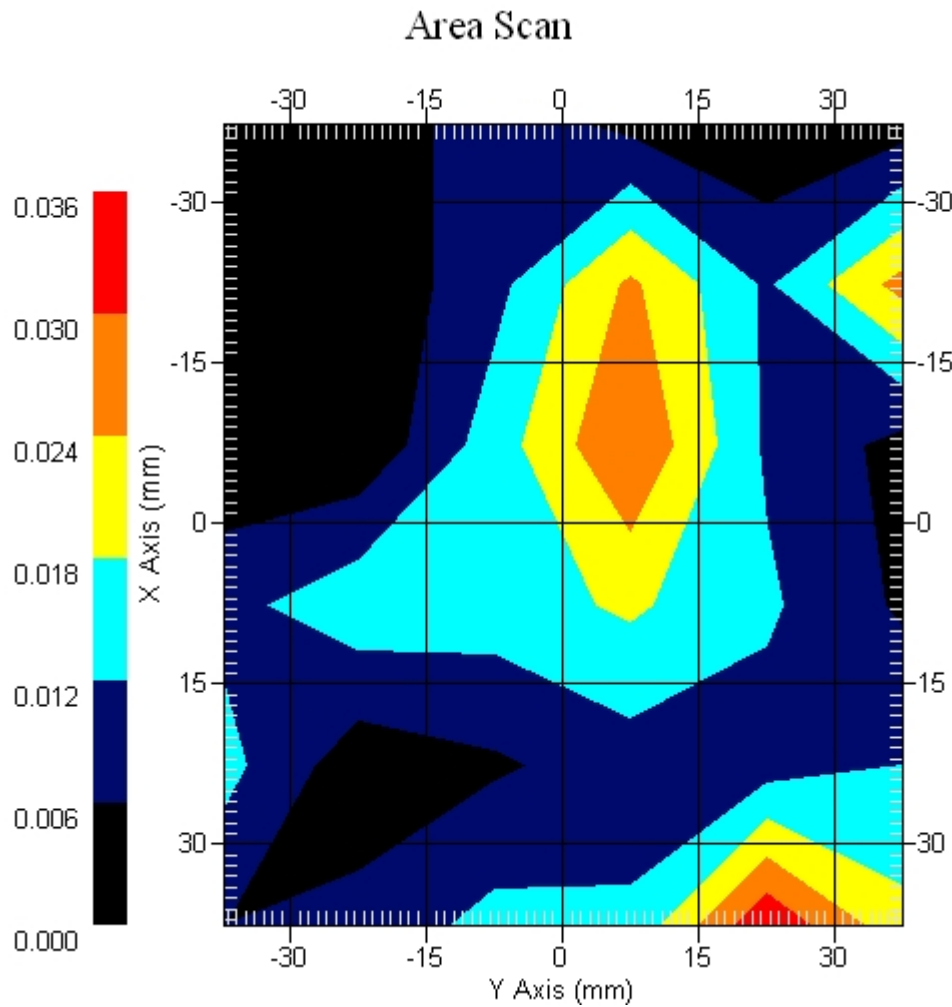
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 26-Apr-2010
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

3.1 802.11n HT20 2450MHz, EUT Position:

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.50 °C
Ambient Temp. : 23.00 °C
Set-up Date : 03-May-2010
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Separation : 0

Area Scan Plot



1 gram SAR value : 0.032 W/kg
10 gram SAR value : 0.014 W/kg
Area Scan Peak SAR : 0.035 W/kg
Zoom Scan Peak SAR : 0.080 W/kg

4. 802.11n HT40 2450MHz SAR measurement Data

SAR Test Report

Report Date : 03-May-2010
Measurement Date : 03-May-2010

Product Data

Device Name : RTL8191SE
Serial No. : Bottom
Type : Other
Model : 802.11n HT40
Frequency : 2422.00 MHz
Max. Transmit Pwr : 16.57 dBm
Drift Time : 0 min(s)
Length : 259 mm
Width : 187 mm
Depth : 290 mm
Antenna Type : Internal
Orientation : Touch
Power Drift-Start : 0.025 W/kg
Power Drift-Finish : 0.024 W/kg
Power Drift (%) : 4.167
Picture :

Phantom Data

Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : uni_1

Tissue Data

Type : BODY
Serial No. : 2450_Body
Frequency : 2450.00 MHz
Last Calib. Date : 03-May-2010
Temperature : 22.50 °C
Ambient Temp. : 23.00 °C
Humidity : 60.00 RH%
Epsilon : 52.19 F/m
Sigma : 2.01 S/m
Density : 1000.00 kg/cu. m

Probe Data

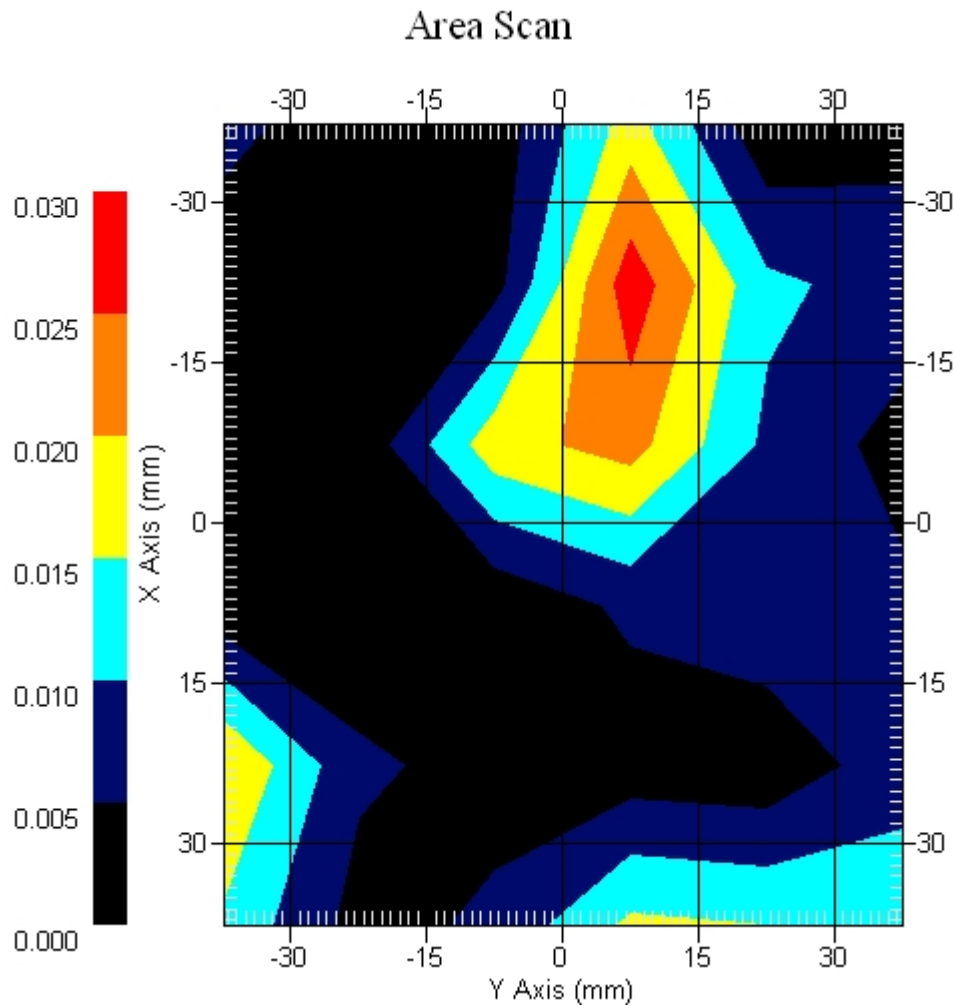
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 26-Apr-2010
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

4.1 802.11n HT40 2450MHz, EUT Position:

Measurement Data

Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.50 °C
Ambient Temp. : 23.00 °C
Set-up Date : 03-May-2010
Area Scan : 7x7x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Separation : 0

Area Scan Plot



1 gram SAR value : 0.036 W/kg
10 gram SAR value : 0.014 W/kg
Area Scan Peak SAR : 0.028 W/kg
Zoom Scan Peak SAR : 0.110 W/kg