

APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION

Left Antenna Position



The Bottom of the EUT to the flat phantom distance 0 mm

Right Antenna Position



The Bottom of the EUT to the flat phantom distance 0 mm

EUT Photo





Liquid Level Photo

MSL 2450MHz D=150mm



Date/Time: 2005/6/2 06:38:52

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 1 11b

DUT: Notebook ; Type: 558L ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Low Channel 1/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

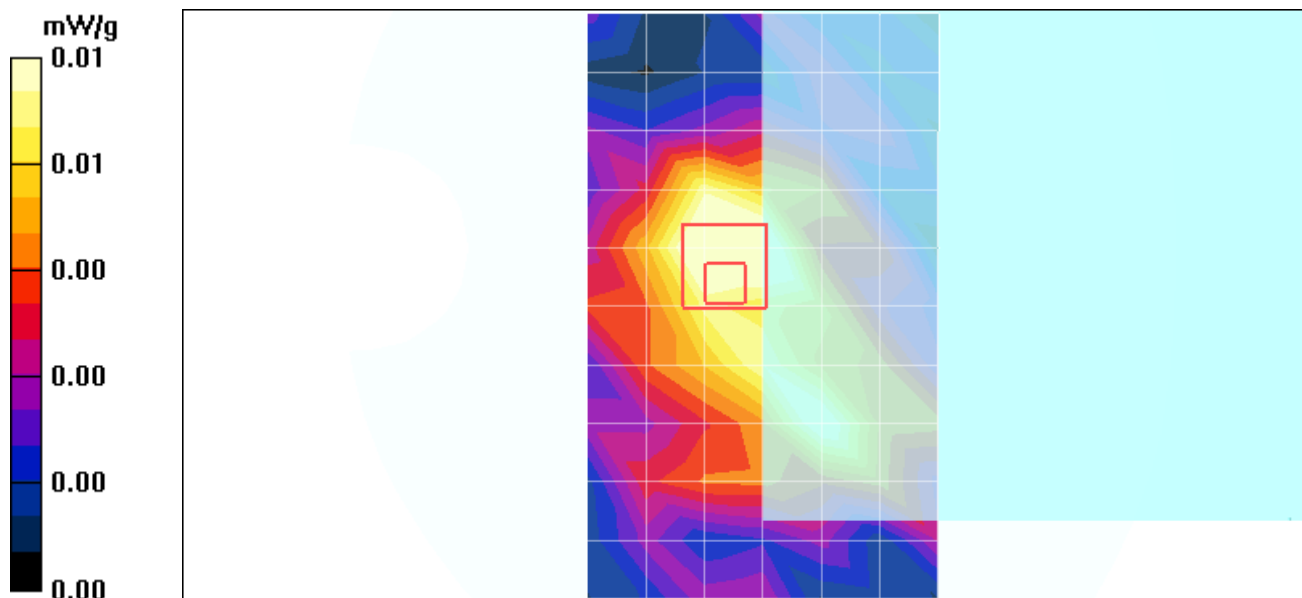
Maximum value of SAR (measured) = 0.01 mW/g

Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.67 V/m

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.0067 mW/g; SAR(10 g) = 0.00334 mW/g



Date/Time: 2005/6/2 06:59:36

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 1 11b

DUT: Notebook ; Type: 558L ; Test Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

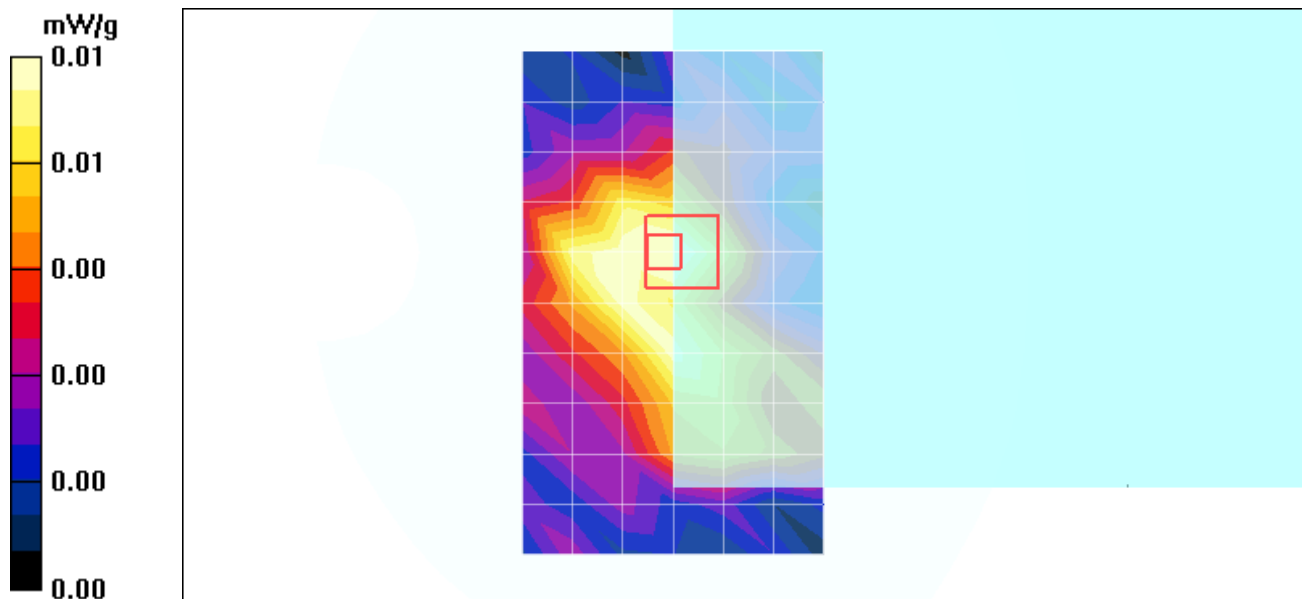
Maximum value of SAR (measured) = 0.01 mW/g

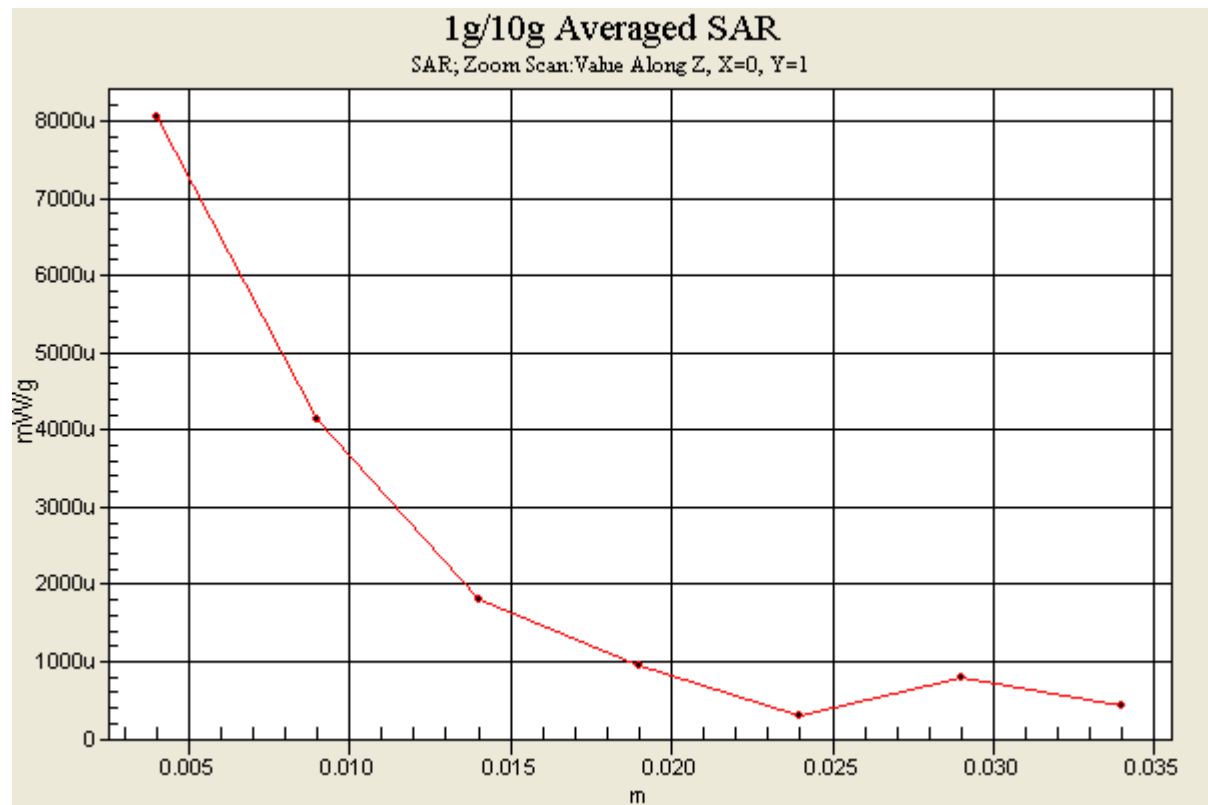
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.96 V/m

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = 0.00709 mW/g; SAR(10 g) = 0.00334 mW/g





Date/Time: 2005/6/2 07:22:29

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 1 11b

DUT: Notebook ; Type: 558L ; Test Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.04$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

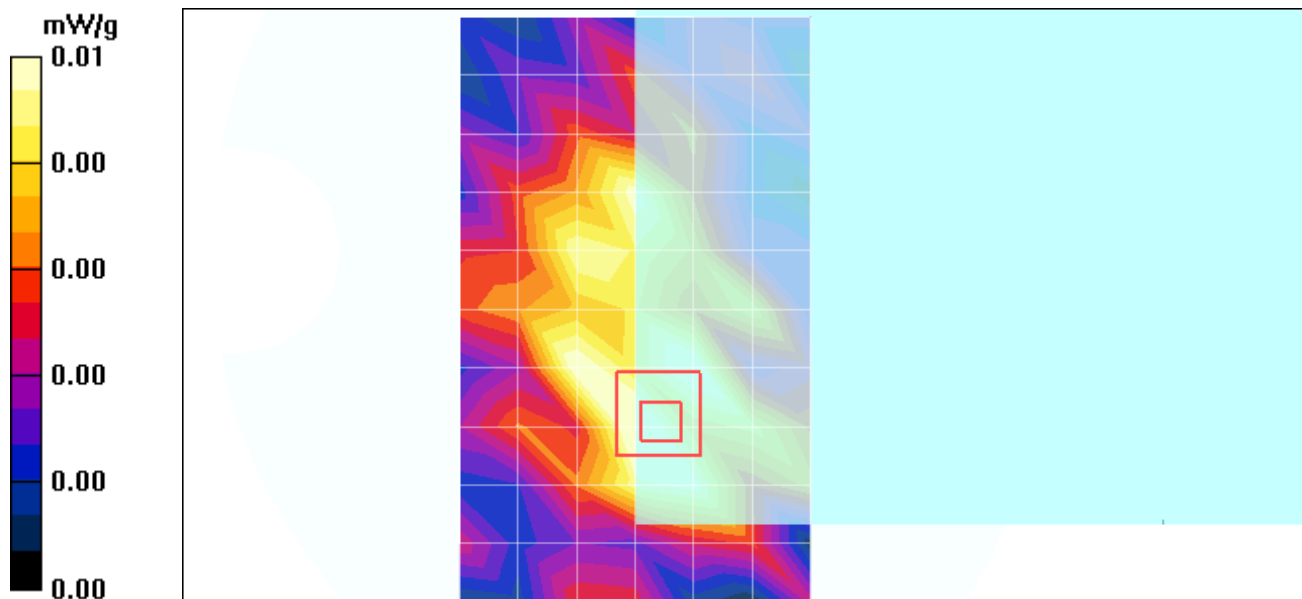
Maximum value of SAR (measured) = 0.01 mW/g

High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.59 V/m

Peak SAR (extrapolated) = 0.024 W/kg

SAR(1 g) = **0.00565** mW/g; SAR(10 g) = 0.00236 mW/g



Date/Time: 2005/6/2 07:44:07

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 2 11g

DUT: Notebook ; Type: 558L ; Test Frequency: 2412 MHz

Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 54$; $\rho = 1000$

kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Low Channel 1/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

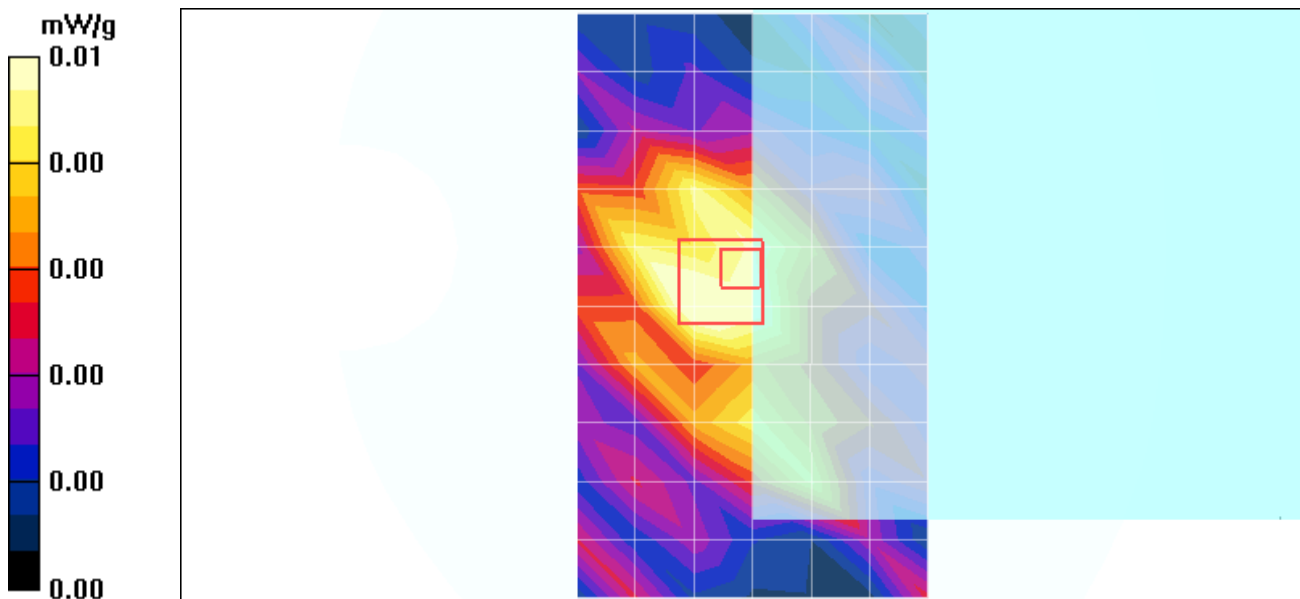
Maximum value of SAR (measured) = 0.01 mW/g

Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.61 V/m

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = **0.00554 mW/g**; SAR(10 g) = 0.00242 mW/g



Date/Time: 2005/6/2 08:04:02

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 2 11g

DUT: Notebook ; Type: 558L ; Test Frequency: 2437 MHz

Communication System: 802.11g ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

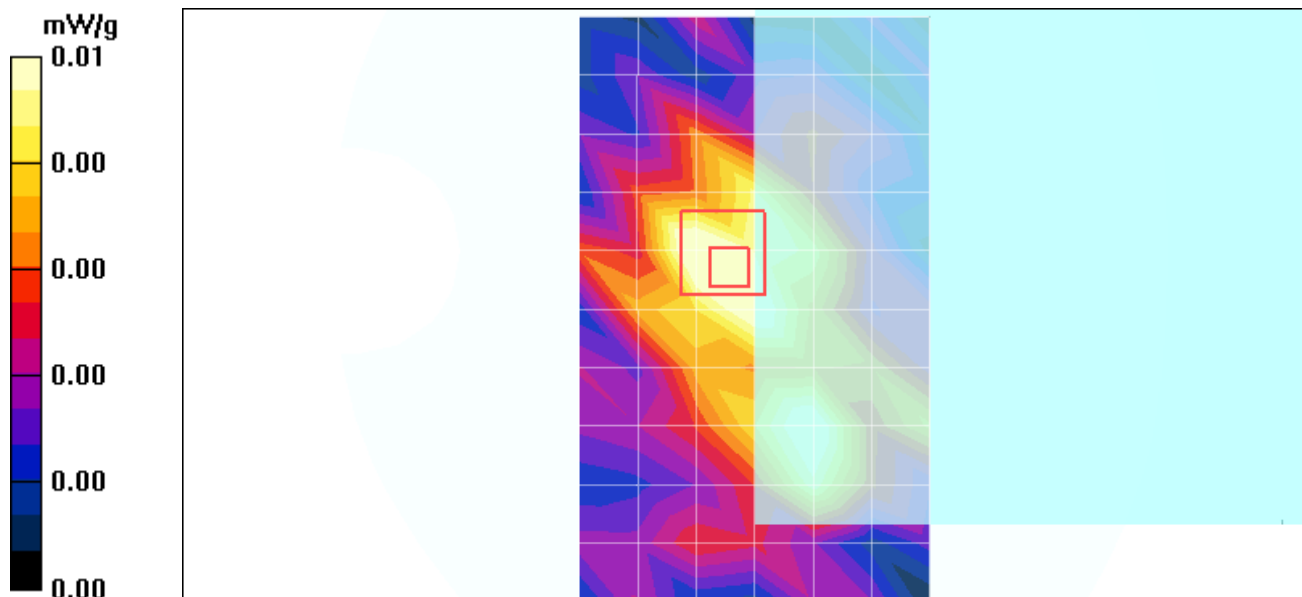
Maximum value of SAR (measured) = 0.01 mW/g

Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.62 V/m

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = **0.00524 mW/g**; SAR(10 g) = 0.00233 mW/g



Date/Time: 2005/6/2 08:24:23

Test Laboratory: Advance Data Technology

558L-Left Antenna Mode 2 11g

DUT: Notebook ; Type: 558L ; Test Frequency: 2462 MHz

Communication System: 802.11g ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type:OFDM
Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.04 \text{ mho/m}$; $\epsilon_r = 53.8$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance :0 mm (Thebottom sideoftheEUTto the Phantom)

Antenna type :InternalAntenna; Air temp. :22.0 degrees ; Liquid temp. :21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

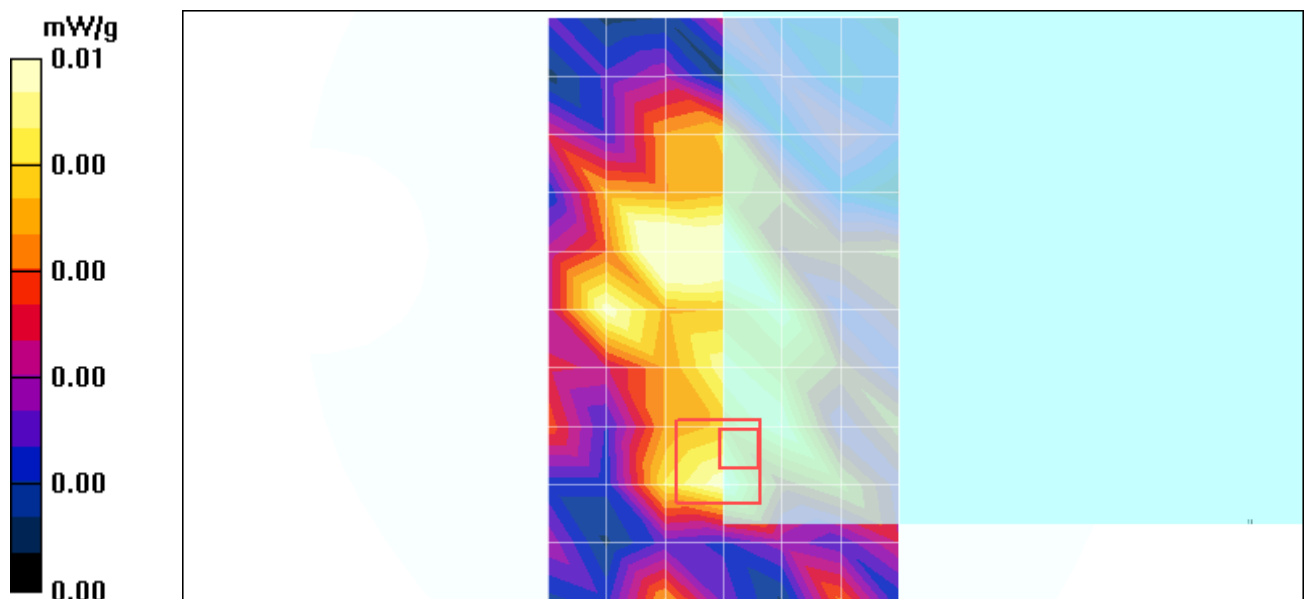
Maximum value of SAR (measured) = 0.01 mW/g

High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.34 V/m

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.00449 mW/g; SAR(10 g) = 0.00168 mW/g



Date/Time: 2005/6/2 09:06:22

Test Laboratory: Advance Data Technology

558L-Right Antenna Mode 3 11b

DUT: Notebook ; Type: 558L ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Low Channel 1/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

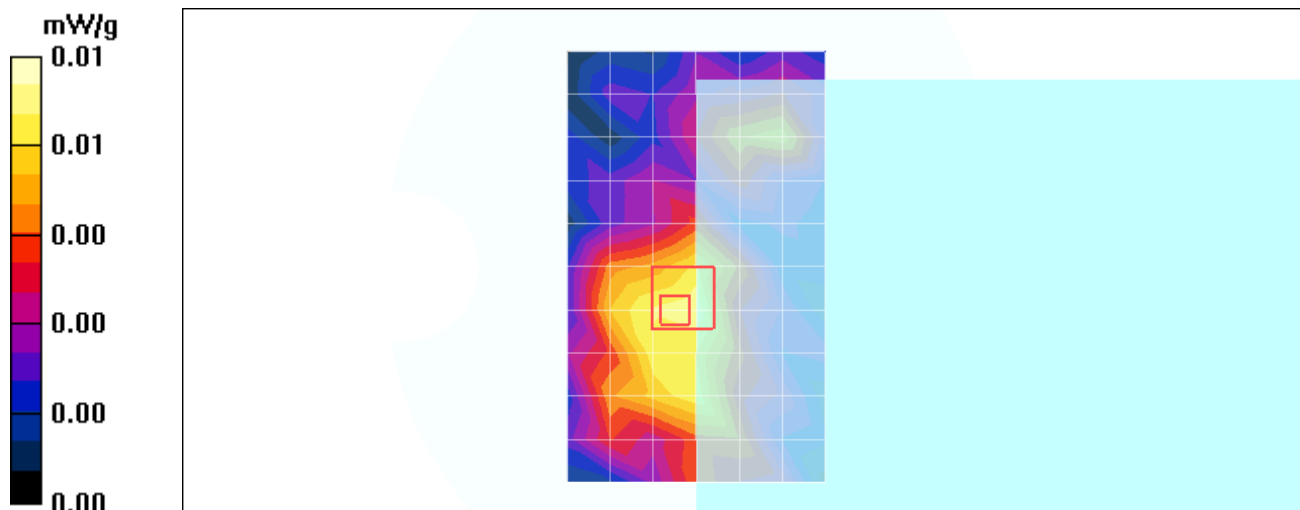
Maximum value of SAR (measured) = 0.01 mW/g

Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.70 V/m

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = **0.00681 mW/g**; SAR(10 g) = 0.00324 mW/g



Date/Time: 2005/6/2 09:30:56

Test Laboratory: Advance Data Technology

558L-Right Antenna Mode 3 11b

DUT: Notebook ; Type: 558L ; Test Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

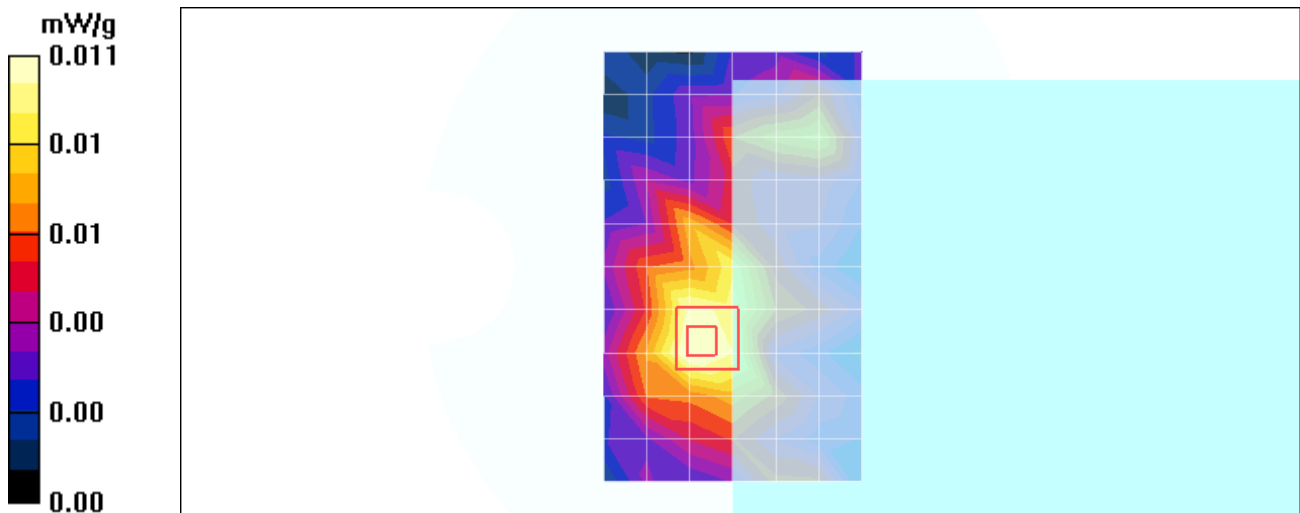
Maximum value of SAR (measured) = 0.011 mW/g

Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.22 V/m

Peak SAR (extrapolated) = 0.018 W/kg

SAR(1 g) = **0.00956** mW/g; SAR(10 g) = 0.00483 mW/g



Date/Time: 2005/6/2 09:51:02

Test Laboratory: Advance Data Technology

558L Mode 3 11b Right Antenna

DUT: Notebook ; Type: 558L ; Test Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.04 \text{ mho/m}$; $\epsilon_r = 53.8$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

High Channel 11/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.018 mW/g

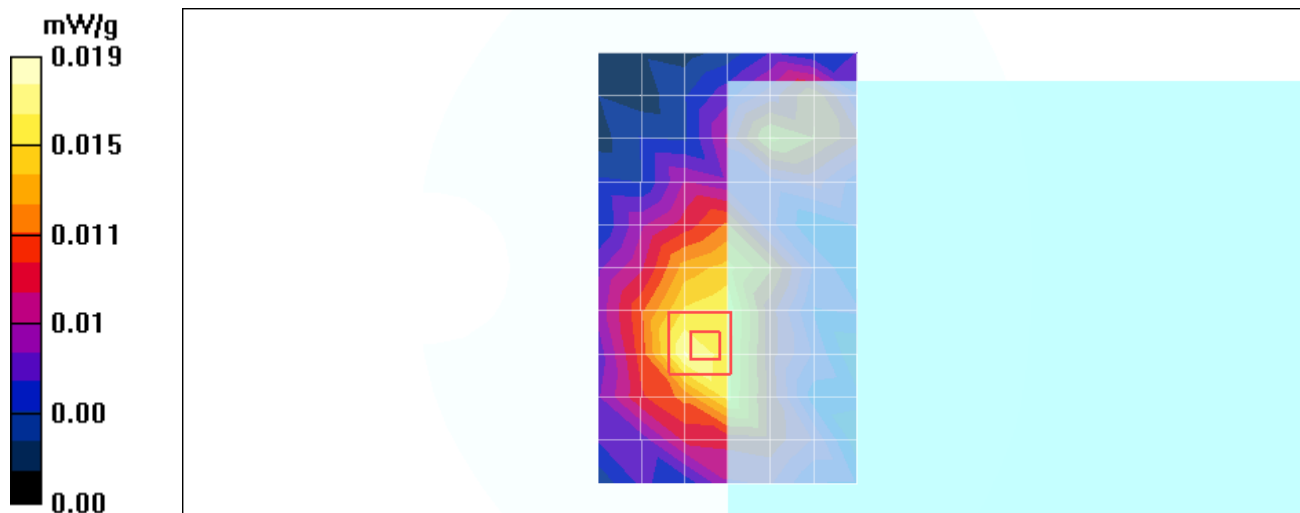
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

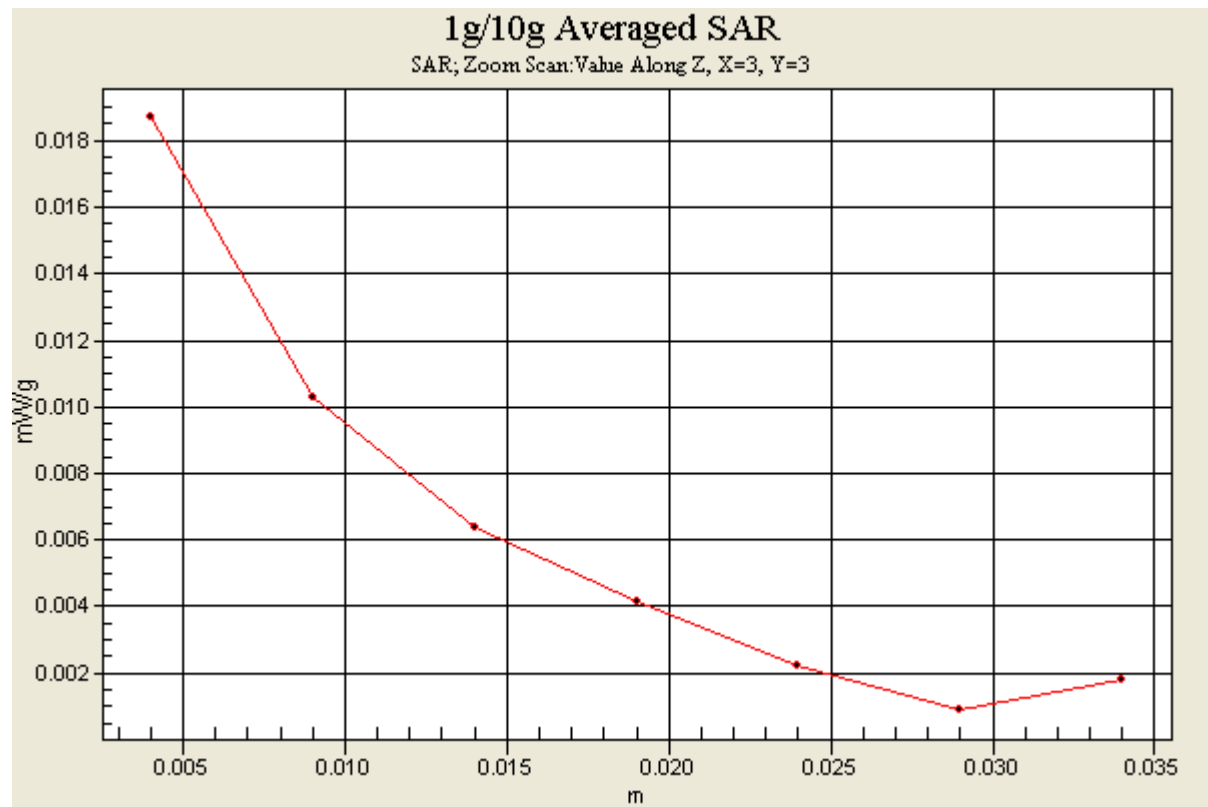
Reference Value = 2.87 V/m

Peak SAR (extrapolated) = 0.036 W/kg

SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00968 mW/g

Maximum value of SAR (measured) = 0.019 mW/g





Date/Time: 2005/6/2 10:14:08

Test Laboratory: Advance Data Technology

558L Mode 4 11g Right Antenna

DUT: Notebook ; Type: 558L ; Test Frequency: 2412 MHz

Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 54$; $\rho = 1000$

kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23

- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202

- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Low Channel 1/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

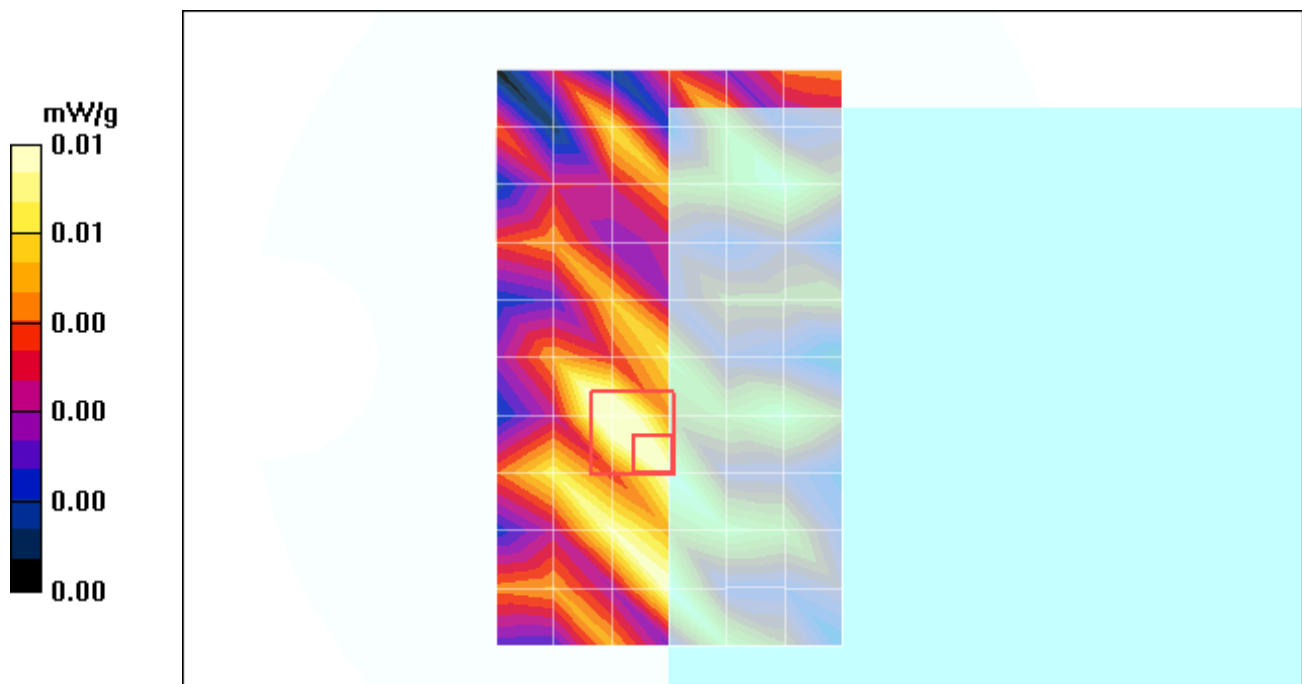
Maximum value of SAR (measured) = 0.01 mW/g

Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.10 V/m

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = **0.00374 mW/g**; SAR(10 g) = **0.00158 mW/g**



Date/Time: 2005/6/2 10:40:50

Test Laboratory: Advance Data Technology

558L-Right Antenna Mode 4 11g

DUT: Notebook ; Type: 558L ; Test Frequency: 2437 MHz

Communication System: 802.11g ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$

kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

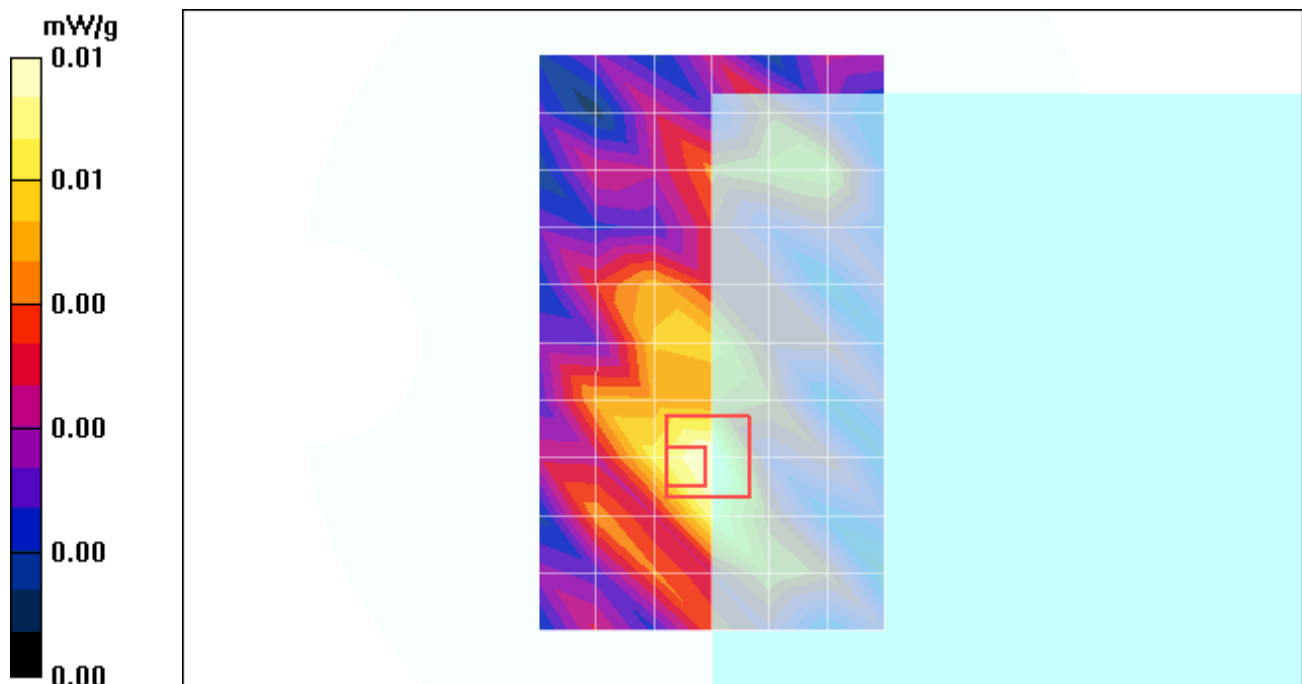
Maximum value of SAR (measured) = 0.01 mW/g

Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.56 V/m

Peak SAR (extrapolated) = 0.021 W/kg

SAR(1 g) = **0.00517** mW/g; SAR(10 g) = 0.00218 mW/g



Date/Time: 2005/6/2 11:02:23

Test Laboratory: Advance Data Technology

558L-Right Antenna Mode 4 11g

DUT: Notebook ; Type: 558L ; Test Frequency: 2462 MHz

Communication System: 802.11g ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.04$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$

kg/m³ ; Liquid level : 150mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

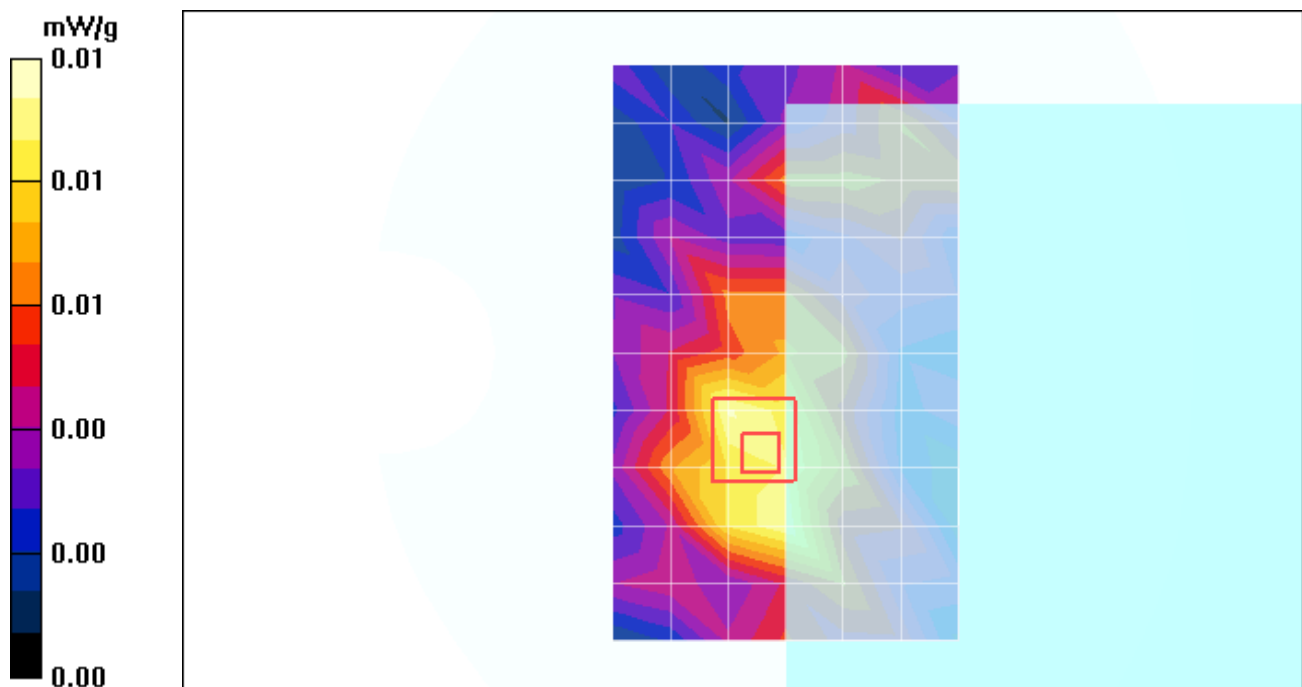
Maximum value of SAR (measured) = 0.01 mW/g

High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.93 V/m

Peak SAR (extrapolated) = 0.019 W/kg

SAR(1 g) = **0.0078 mW/g**; SAR(10 g) = 0.00364 mW/g



Date/Time: 2005/6/02 06:03:19

Test Laboratory: Advance Data Technology

System Validation Check-MSL 2450MHz

DUT: Dipole 2450 MHz ; Type: D2450V2 ; Serial: 737 ; Test Frequency: 2450 MHz

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2450; Medium parameters used: $f = 2450$ MHz; $\sigma = 2.04$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm

Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.35, 4.35, 4.35) ; Calibrated: 2004/12/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.6 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.6 V/m; Power Drift = -0.220 dB

Peak SAR (extrapolated) = 27.9 W/kg

SAR(1 g) = 12.8 mW/g; SAR(10 g) = 5.93 mW/g

Maximum value of SAR (measured) = 14.5 mW/g

