

APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION



The bottom of the EUT to the flat phantom distance 12 mm

EUT Photo





Liquid Level Photo

MSL 2450MHz D=150mm



Date/Time: 2005/11/8 10:45:19

Test Laboratory: Advance Data Technology

N800C-11b-Ch1-Mode 1

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³ ; Liquid Level : 150mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: CCK

Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)

Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

Low Channel 1/Area Scan (5x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.241 mW/g

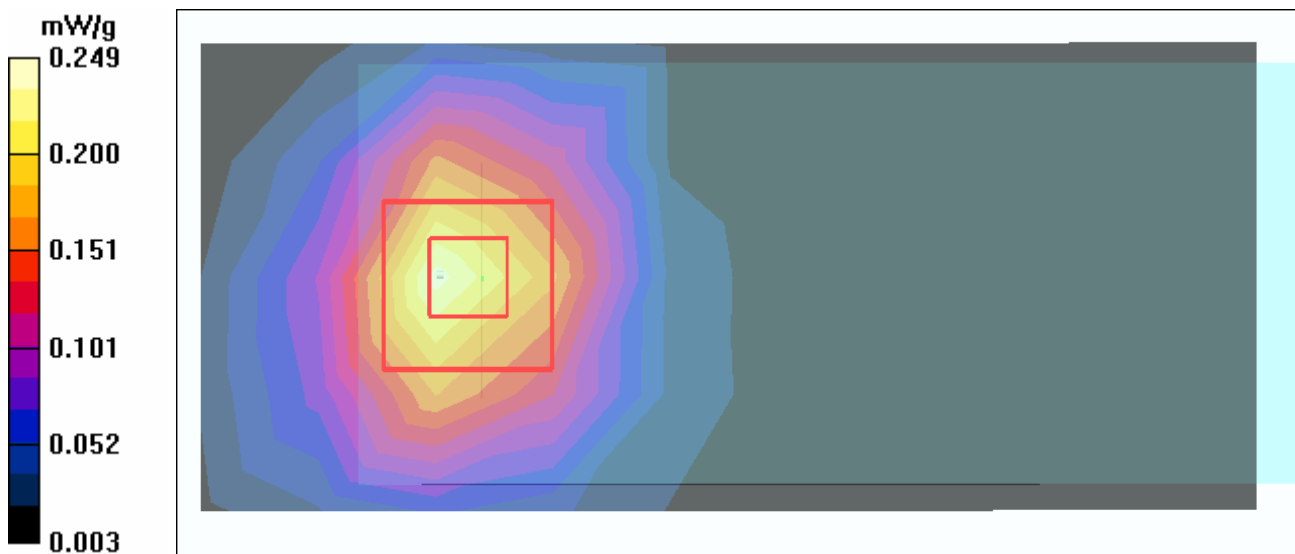
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.8 V/m

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.127 mW/g

Maximum value of SAR (measured) = 0.249 mW/g



Date/Time: 2005/11/8 11:03:21

Test Laboratory: Advance Data Technology

N800C-11b-Ch6-Mode 1

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³ ; Liquid Level : 150mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: CCK

Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)

Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

Mid Channel 6/Area Scan (5x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.319 mW/g

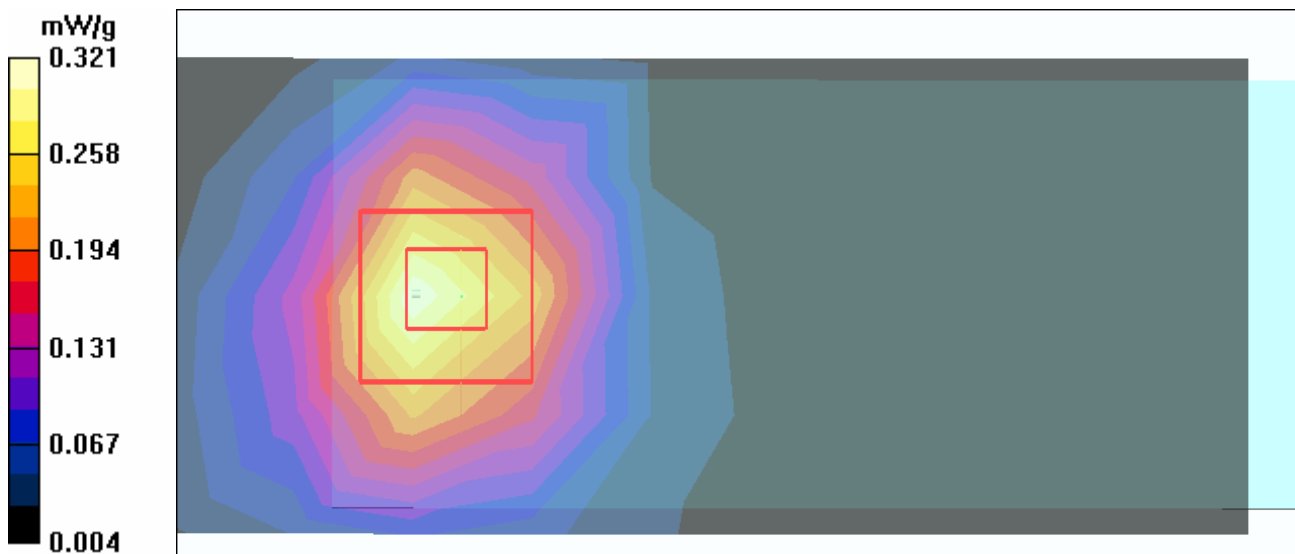
Mid Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

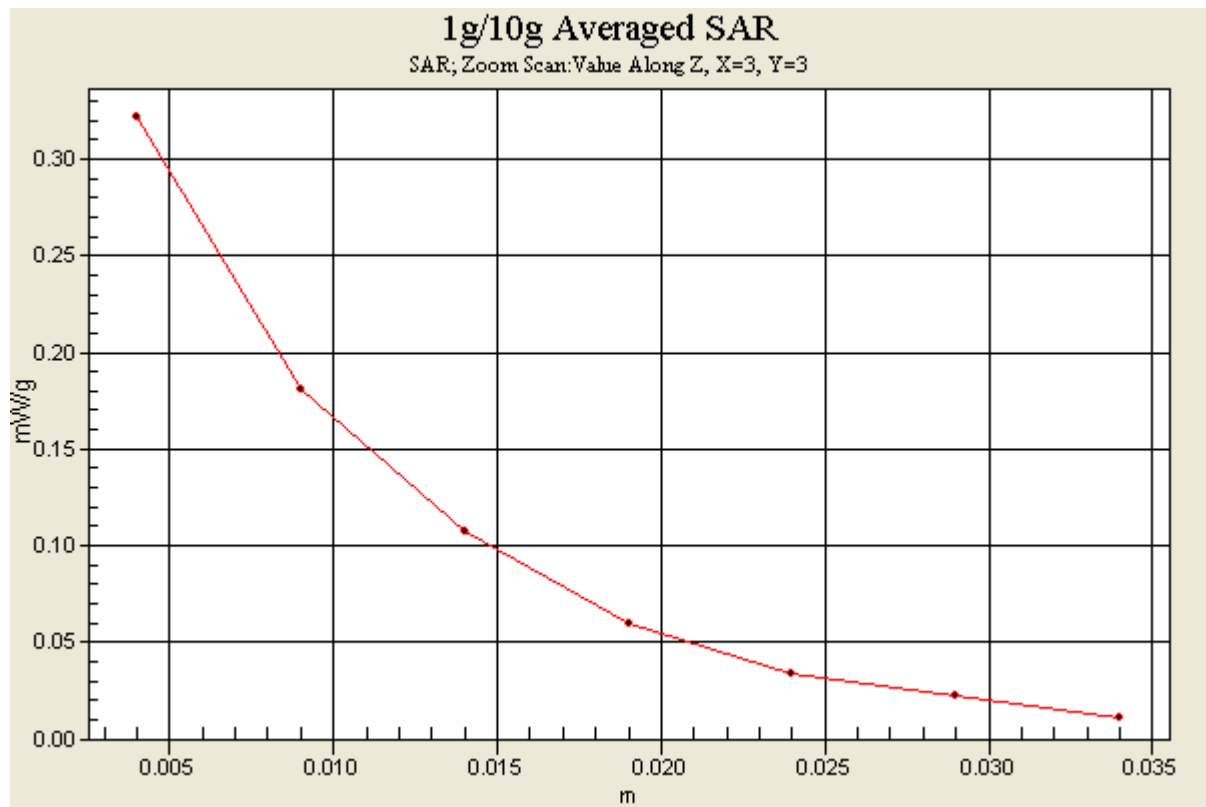
Reference Value = 13.6 V/m

Peak SAR (extrapolated) = 0.580 W/kg

SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.164 mW/g

Maximum value of SAR (measured) = 0.321 mW/g





Date/Time: 2005/11/8 11:19:48

Test Laboratory: Advance Data Technology

N800C-11b-Ch11-Mode 1

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2462 MHz

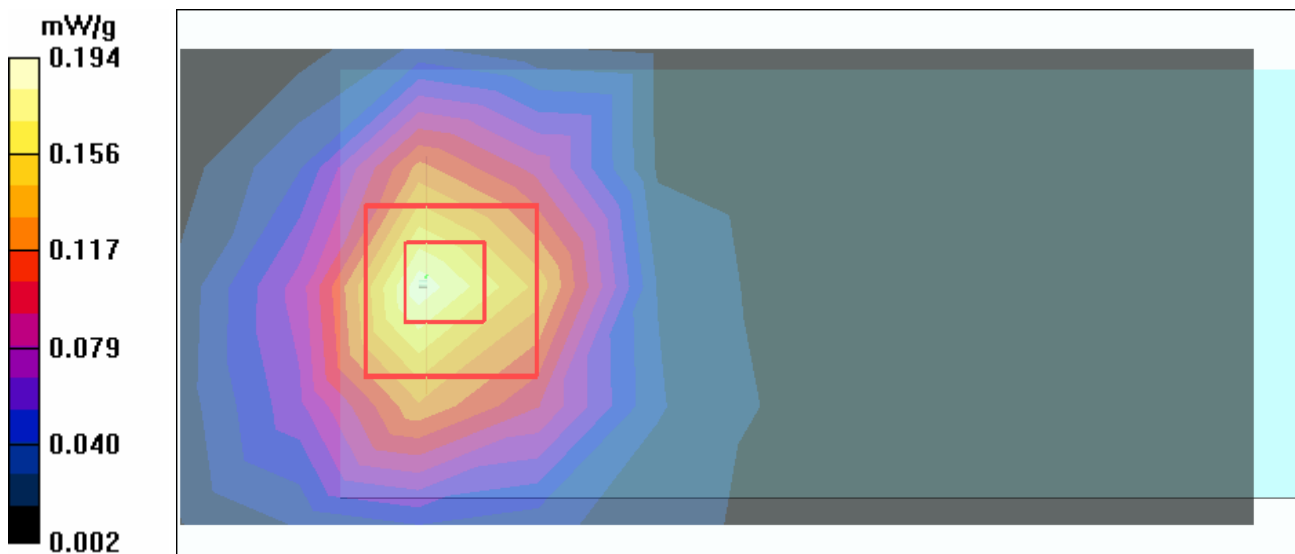
Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1
 Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$; Liquid Level : 150mm
 Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: CCK
 Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)
 Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

High Channel 11/Area Scan (5x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.191 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 = 10.3 V/m
 Peak SAR (extrapolated) = 0.359 W/kg
SAR(1 g) = 0.183 mW/g; SAR(10 g) = 0.099 mW/g
 Maximum value of SAR (measured) = 0.194 mW/g



Date/Time: 2005/11/8 11:37:52

Test Laboratory: Advance Data Technology

N800C-11g-Ch1-Mode 2

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2412 MHz

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

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³ ; Liquid Level : 150mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: OFDM

Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)

Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

Low Channel 1/Area Scan (5x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.105 mW/g

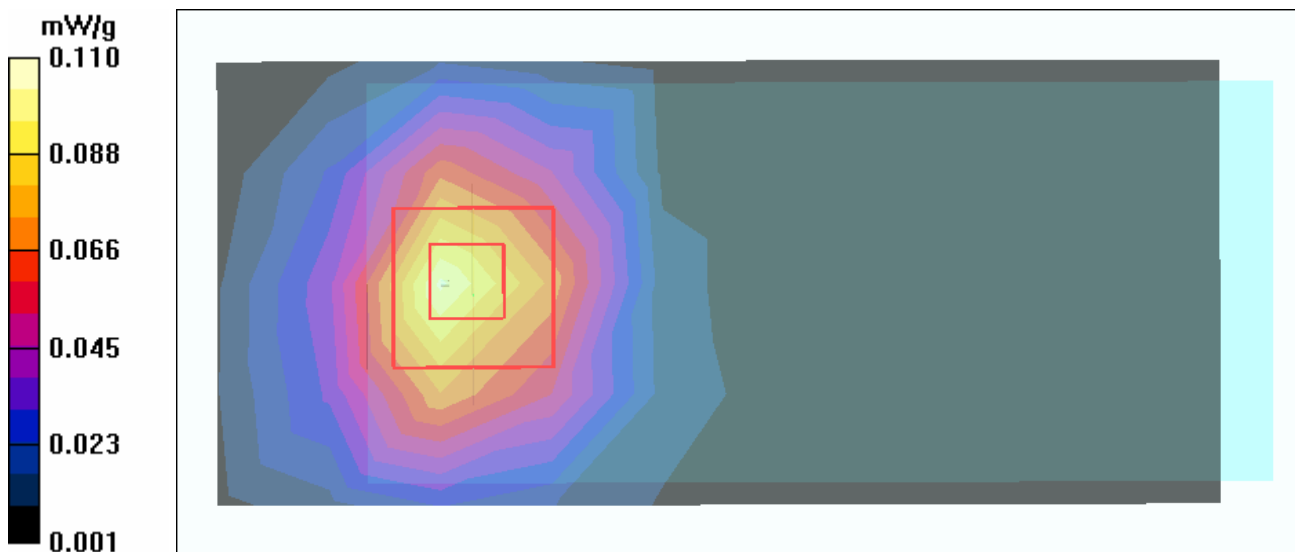
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.65 V/m

Peak SAR (extrapolated) = 0.180 W/kg

SAR(1 g) = 0.100 mW/g; SAR(10 g) = 0.055 mW/g

Maximum value of SAR (measured) = 0.110 mW/g



Date/Time: 2005/11/8 11:55:10

Test Laboratory: Advance Data Technology

N800C-11g-Ch6-Mode 2

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2437 MHz

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³ ; Liquid Level : 150mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: OFDM

Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)

Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

Mid Channel 6/Area Scan (5x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.090 mW/g

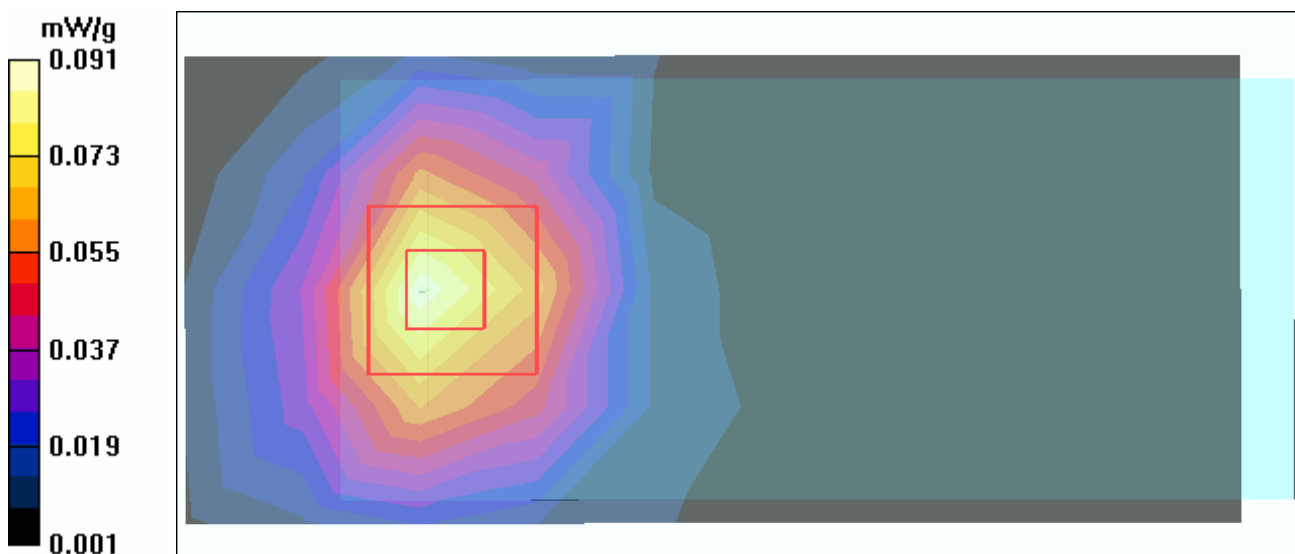
Mid Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.23 V/m

Peak SAR (extrapolated) = 0.162 W/kg

SAR(1 g) = 0.086 mW/g; SAR(10 g) = 0.047 mW/g

Maximum value of SAR (measured) = 0.091 mW/g



Date/Time: 2005/11/8 12:13:30

Test Laboratory: Advance Data Technology

N800C-11g-Ch11-Mode 2

DUT: Wireless-G Notebook Adapter with RangeBooster ; Type: WPC54GR ; Test Frequency: 2462 MHz

Communication System: 802.11g ; Frequency: 2462 MHz ; Duty Cycle: 1:1
 Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$; Liquid Level : 150mm
 Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: OFDM
 Separation Distance : 12 mm (The bottom side of the EUT to the Phantom)
 Antenna Type : PIFA Antenna ; Air Temp. : 22.7 degrees ; Liquid Temp. : 21.3 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, V4.6 Build 23 ; Postprocessing SW: SEMCAD, V1.8 Build 160

High Channel 11/Area Scan (5x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.093 mW/g

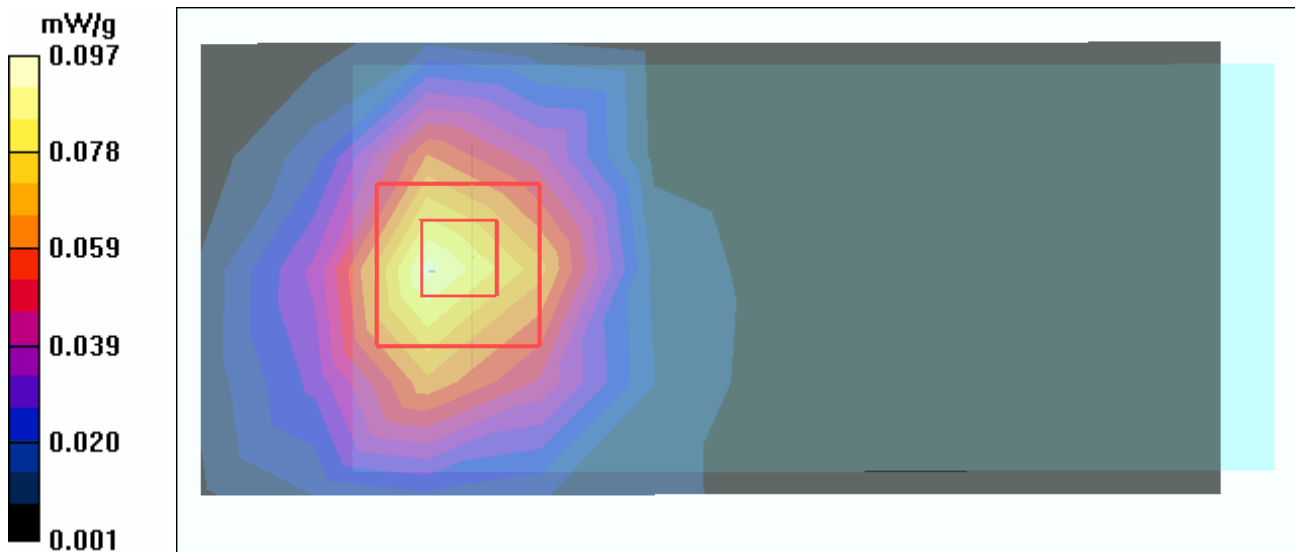
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.22 V/m

Peak SAR (extrapolated) = 0.152 W/kg

SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.047 mW/g

Maximum value of SAR (measured) = 0.097 mW/g



Date/Time: 2005/11/8 10:09:36

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; $\sigma = 1.98$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm
 Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22.7 degrees ; Liquid temp. : 21.3 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, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 14.4 mW/g

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

Reference Value = 90.3 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 27.4 W/kg

SAR(1 g) = 12.7 mW/g; SAR(10 g) = 5.87 mW/g

Maximum value of SAR (measured) = 14.3 mW/g

