

APPENDIX A: TEST DATA

Liquid Level Photo

MSL 2450MHz D=150mm



Test Laboratory: Advance Data Technology

D600-11b-Ch1-Mode 1

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm

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

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 1.16 mW/g

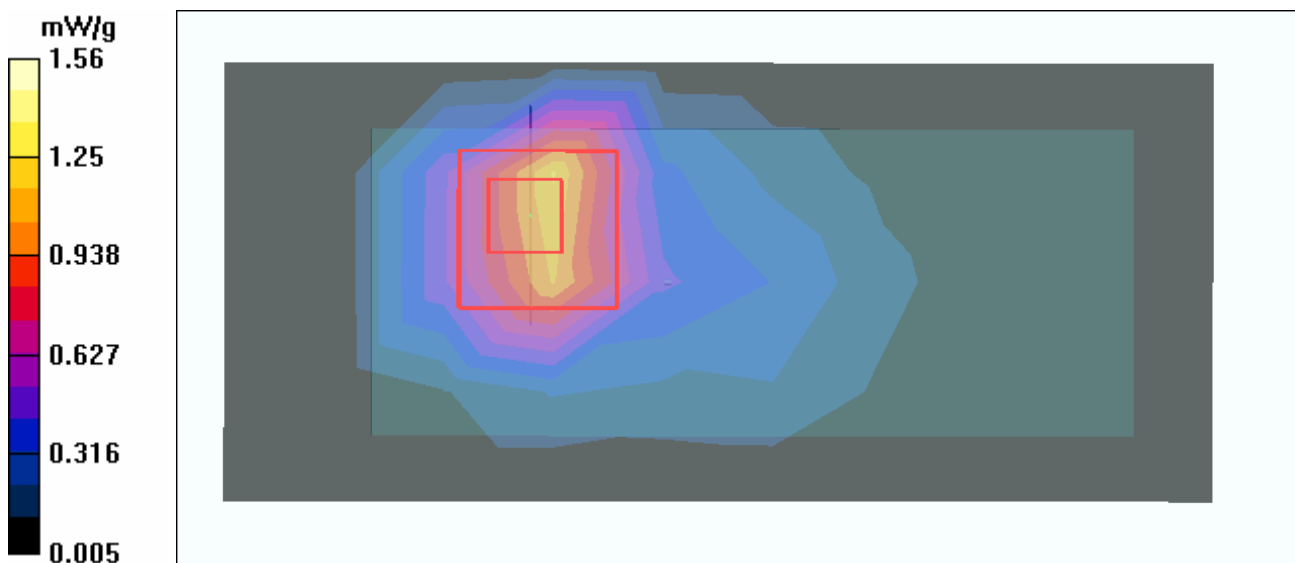
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

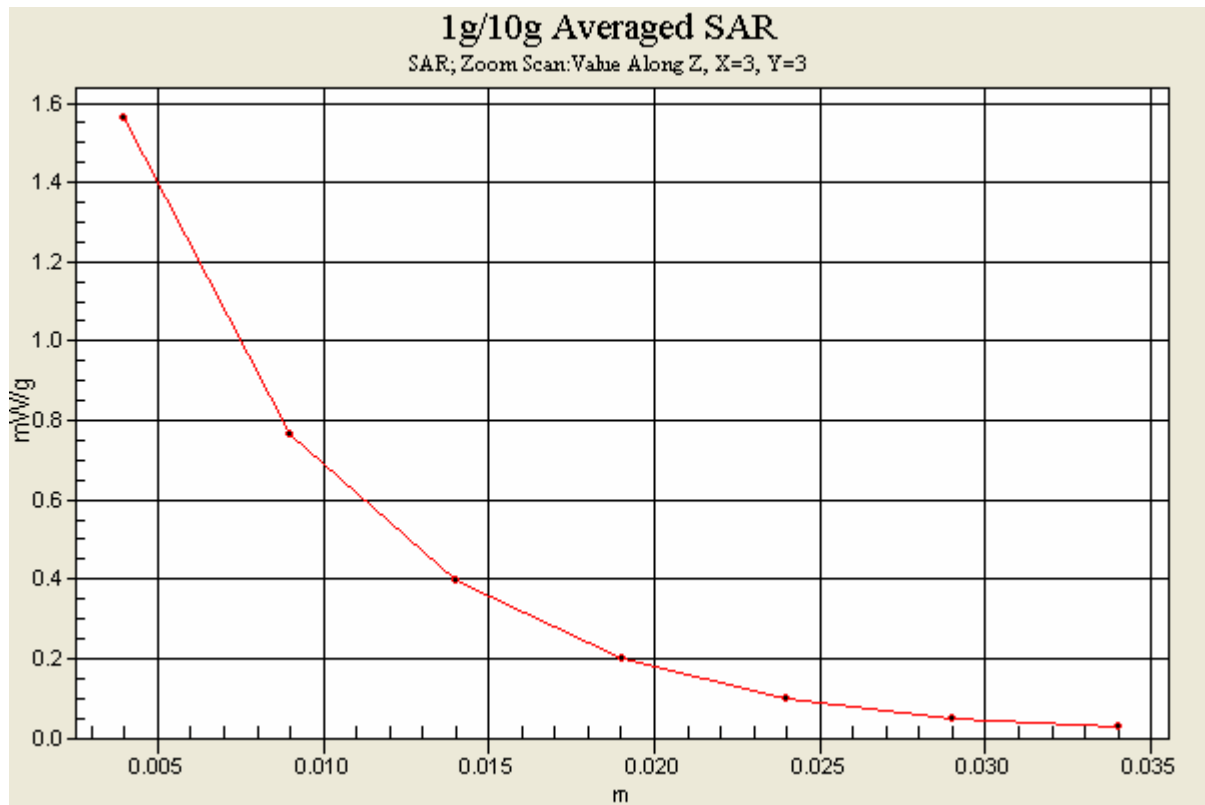
Reference Value = 16.0 V/m

Peak SAR (extrapolated) = 3.27 W/kg

SAR(1 g) = 1.39 mW/g; SAR(10 g) = 0.616 mW/g

Maximum value of SAR (measured) = 1.56 mW/g





Test Laboratory: Advance Data Technology

D600-11b-Ch6-Mode 1

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; 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; $\sigma = 2$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm

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

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 0.961 mW/g

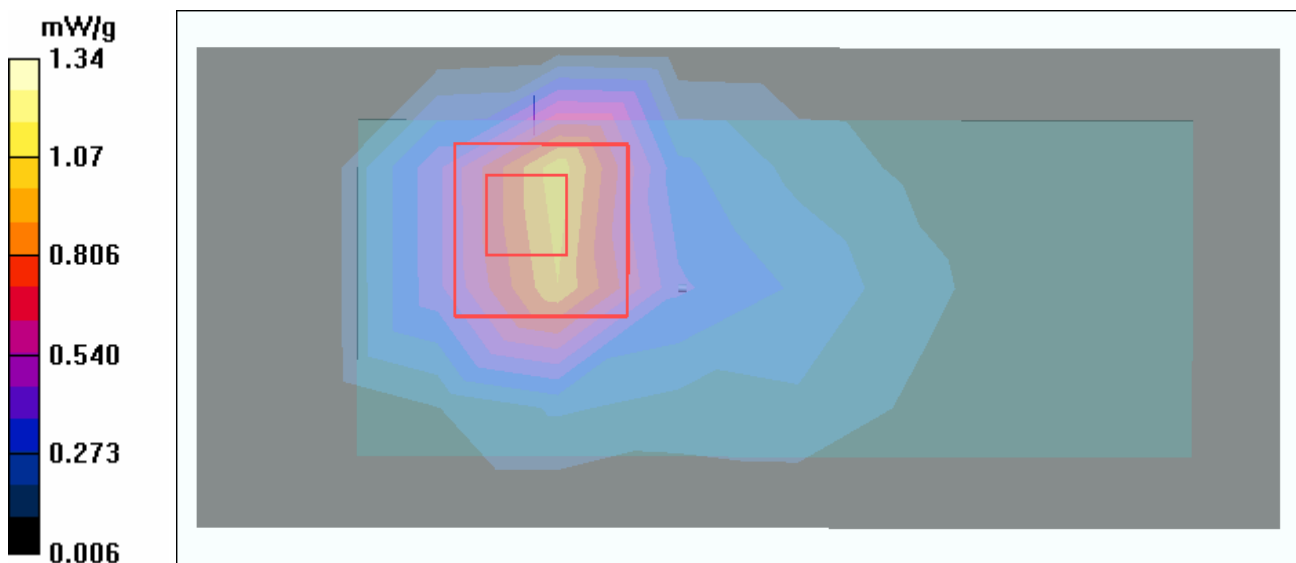
Mid Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.6 V/m

Peak SAR (extrapolated) = 2.79 W/kg

SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.522 mW/g

Maximum value of SAR (measured) = 1.34 mW/g



Test Laboratory: Advance Data Technology

D600-11b-Ch11-Mode 1

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.04 \text{ mho/m}$; $\epsilon_r = 50.8$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150 mm

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

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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=15mm, dy=15mm

Maximum value of SAR (measured) = 0.730 mW/g

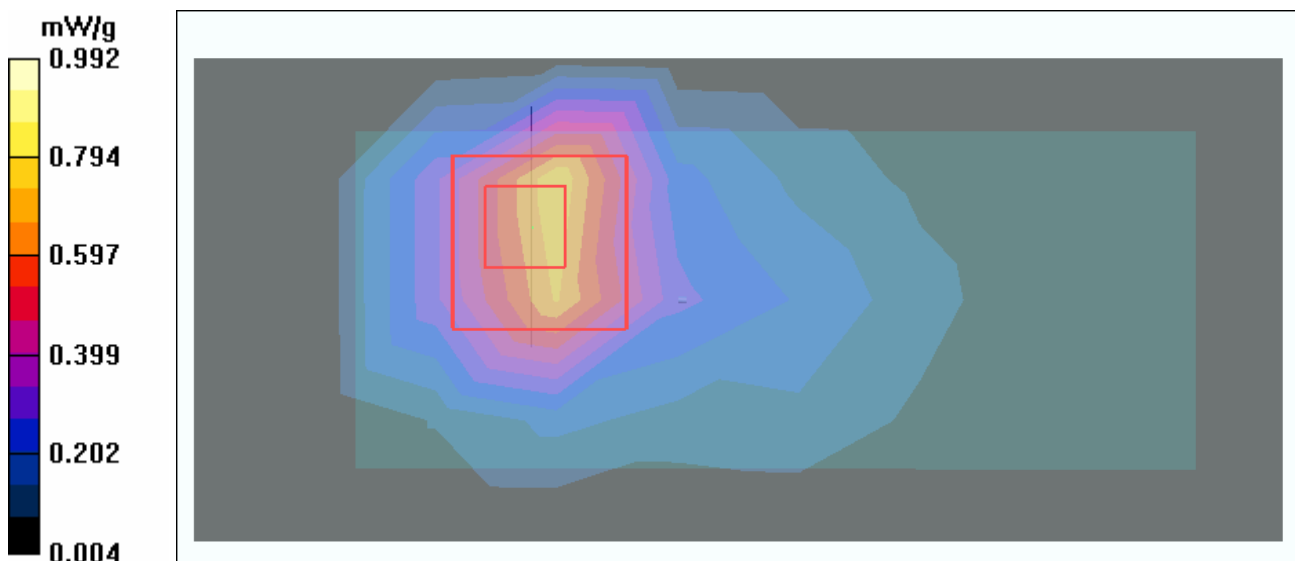
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.6 V/m

Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 0.875 mW/g; SAR(10 g) = 0.391 mW/g

Maximum value of SAR (measured) = 0.992 mW/g



Test Laboratory: Advance Data Technology

D600-11g-Ch1-Mode 2

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; 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; $\sigma = 1.96$ mho/m; $\epsilon_r = 51$; $\rho = 1000$

kg/m³ ; Liquid level : 150 mm

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

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17

- 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) = 0.383 mW/g

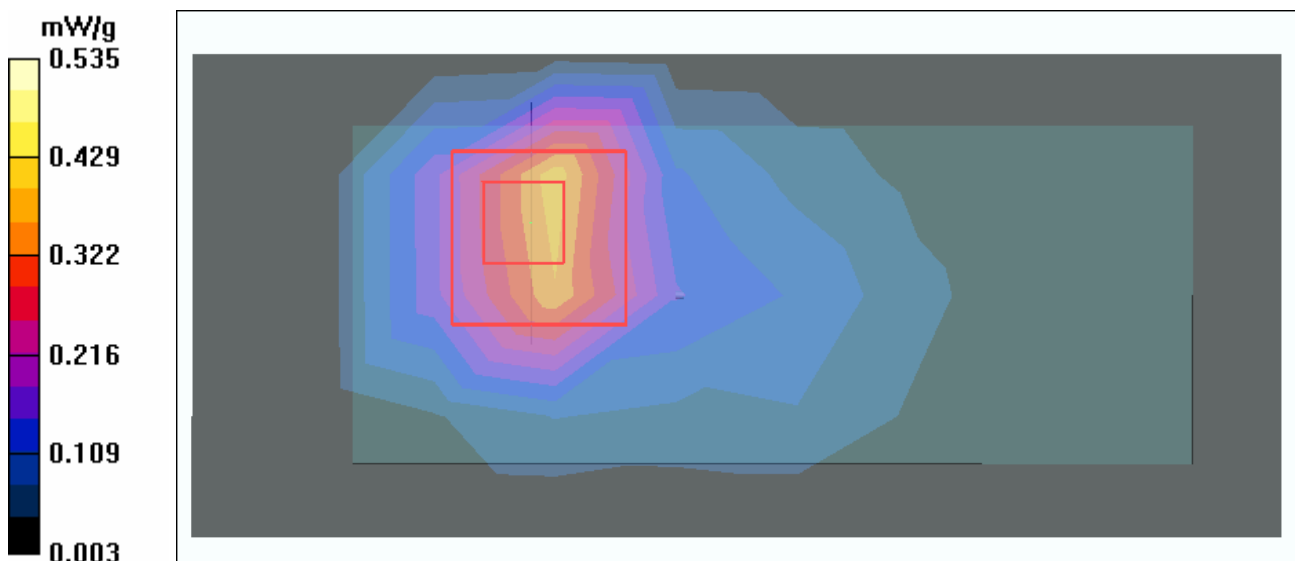
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.34 V/m

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.467 mW/g; SAR(10 g) = 0.207 mW/g

Maximum value of SAR (measured) = 0.535 mW/g



Test Laboratory: Advance Data Technology

C600-11b-Ch1-Mode 3

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm

Phantom section: Flat Section ; Separation distance : 5 mm (The edge side of the EUT to the Phantom)

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 0.220 mW/g

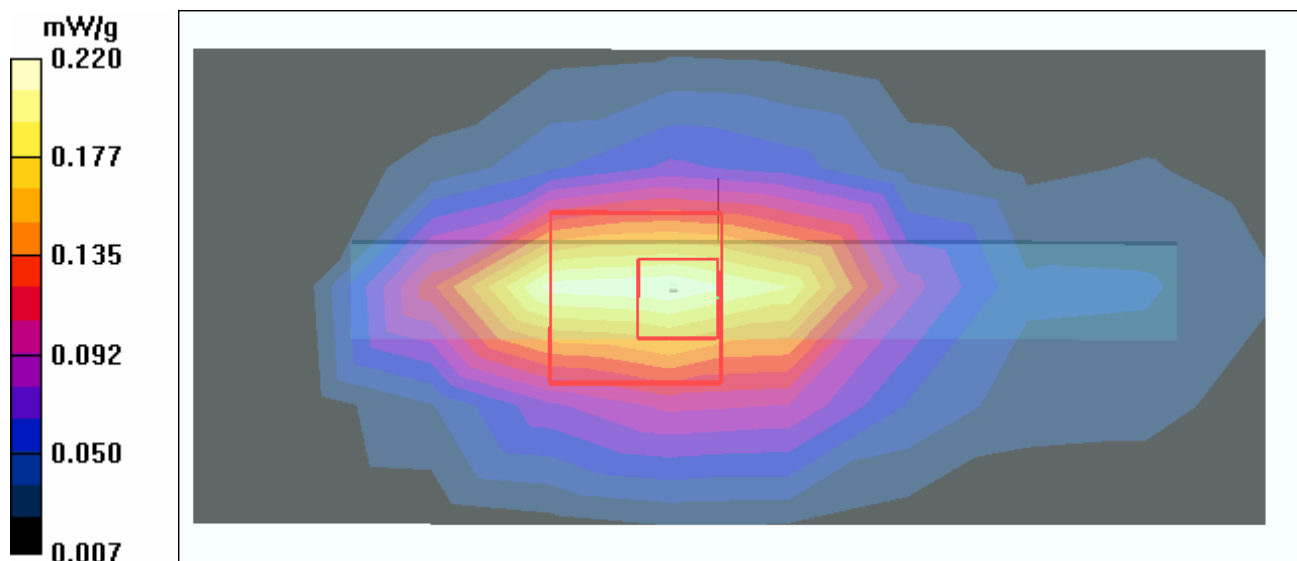
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.8 V/m

Peak SAR (extrapolated) = 0.401 W/kg

SAR(1 g) = 0.183 mW/g; SAR(10 g) = 0.097 mW/g

Maximum value of SAR (measured) = 0.199 mW/g



Test Laboratory: Advance Data Technology

C600-11b-Ch6-Mode 3

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 2 \text{ mho/m}$; $\epsilon_r = 50.9$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150 mm

Phantom section: Flat Section ; Separation distance : 5 mm (The edge side of the EUT to the Phantom)

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 0.152 mW/g

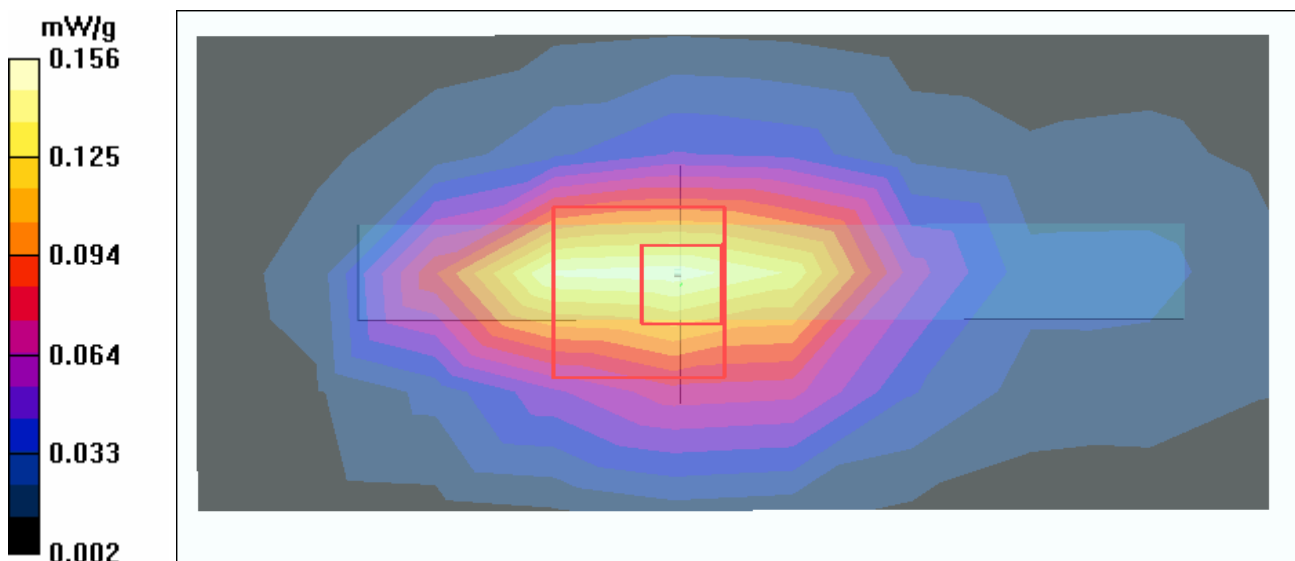
Mid Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.28 V/m

Peak SAR (extrapolated) = 0.306 W/kg

SAR(1 g) = 0.143 mW/g; SAR(10 g) = 0.075 mW/g

Maximum value of SAR (measured) = 0.156 mW/g



Test Laboratory: Advance Data Technology

C600-11b-Ch11-Mode 3

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.04 \text{ mho/m}$; $\epsilon_r = 50.8$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150 mm

Phantom section: Flat Section ; Separation distance : 5 mm (The edge side of the EUT to the Phantom)

Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 0.105 mW/g

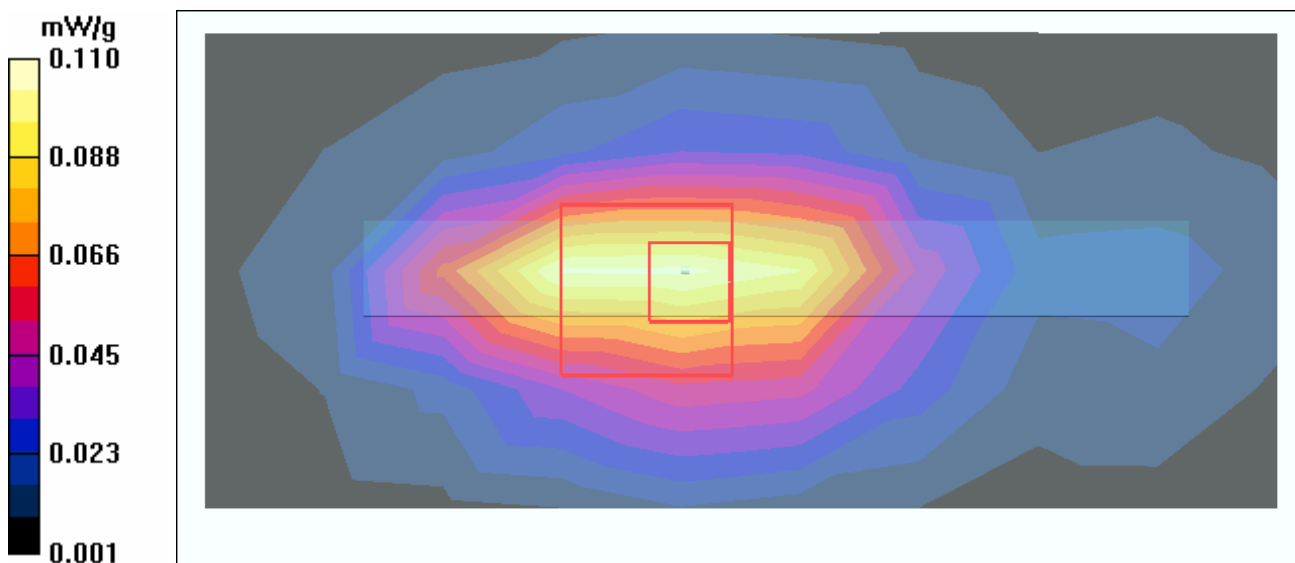
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.61 V/m

Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.100 mW/g; SAR(10 g) = 0.052 mW/g

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



Test Laboratory: Advance Data Technology

C600-11g-Ch1-Mode 4

DUT: Wireless G Plus MIMO USB Network Adapter ; Type: F5D9050 v3000 ; Test Frequency: 2412 MHz

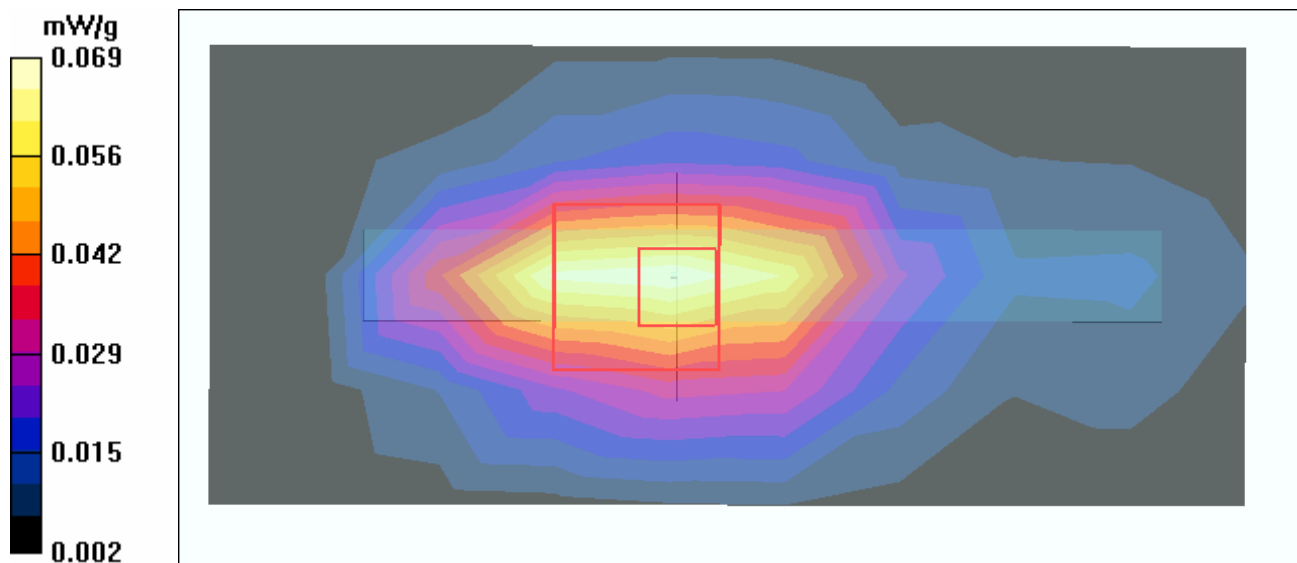
Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM
 Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm
 Phantom section: Flat Section ; Separation distance : 5 mm (The edge side of the EUT to the Phantom)
 Antenna type : Printed Antenna ; Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510 ; Calibrated: 2005/8/17
- 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) = 0.069 mW/g

Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 6.23 V/m
 Peak SAR (extrapolated) = 0.113 W/kg
SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.033 mW/g



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; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm
 Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22.2 degrees ; Liquid temp. : 21.1 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 Sn510; Calibrated: 2005/8/17
- 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) = 15.0 mW/g

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

Reference Value = 91.0 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.1 mW/g

