

APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION

Mode 1



EUT to the phantom distance 11mm

Mode 2



EUT to the phantom distance 15mm

Mode 3



EUT to the phantom distance 0mm

EUT Photo



Liquid Level Photo

2450MHz D=155mm



A2 : TEST DATA

Date/Time: 09/19/03 18:14:22

Test Laboratory: Advance Data Technology

XI-330 Mode 1

DUT: 11Mbps 802.11b Wireless PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2412 MHz

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

Medium: MSL2450 ($\sigma = 1.93$ mho/m, $\epsilon_r = 52.89$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510;

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 1/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.73 V/m

Power Drift = 0.009 dB

Maximum value of SAR = 0.2 mW/g

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

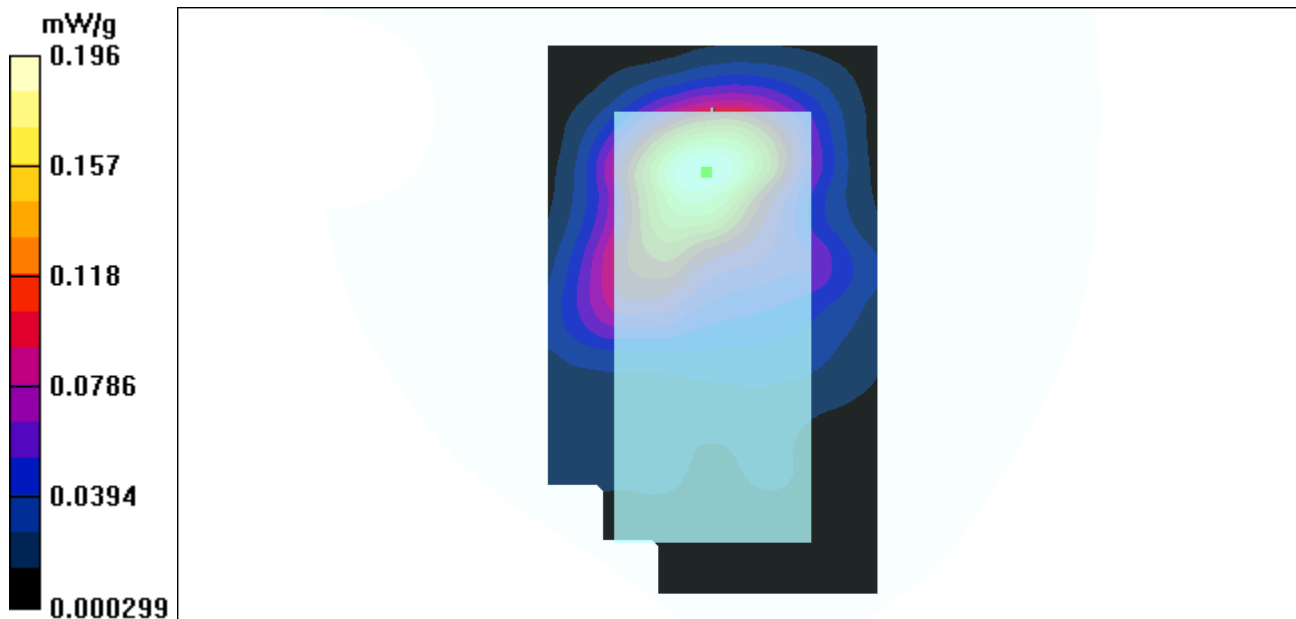
Peak SAR (extrapolated) = 0.396 W/kg

SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.0992 mW/g

Reference Value = 7.73 V/m

Power Drift = 0.009 dB

Maximum value of SAR = 0.196 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 1

DUT: 11Mbps 802.11b Wireless PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.97$ mho/m, $\epsilon_r = 52.74$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510;
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 6/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 6.98 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.171 mW/g

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

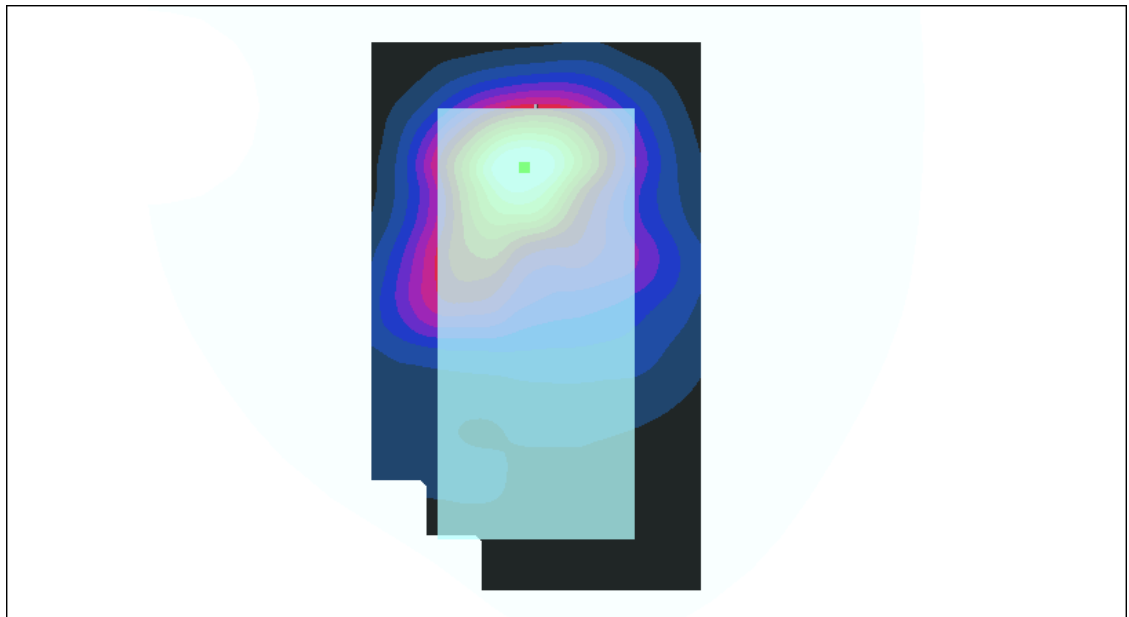
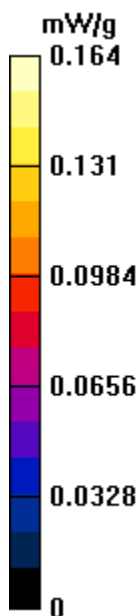
Peak SAR (extrapolated) = 0.336 W/kg

SAR(1 g) = 0.158 mW/g; SAR(10 g) = 0.0824 mW/g

Reference Value = 6.98 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.164 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 1

DUT: 11Mbps 802.11b Wireless PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 2.01$ mho/m, $\epsilon_r = 52.23$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510;
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 11/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 6.53 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 0.154 mW/g

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

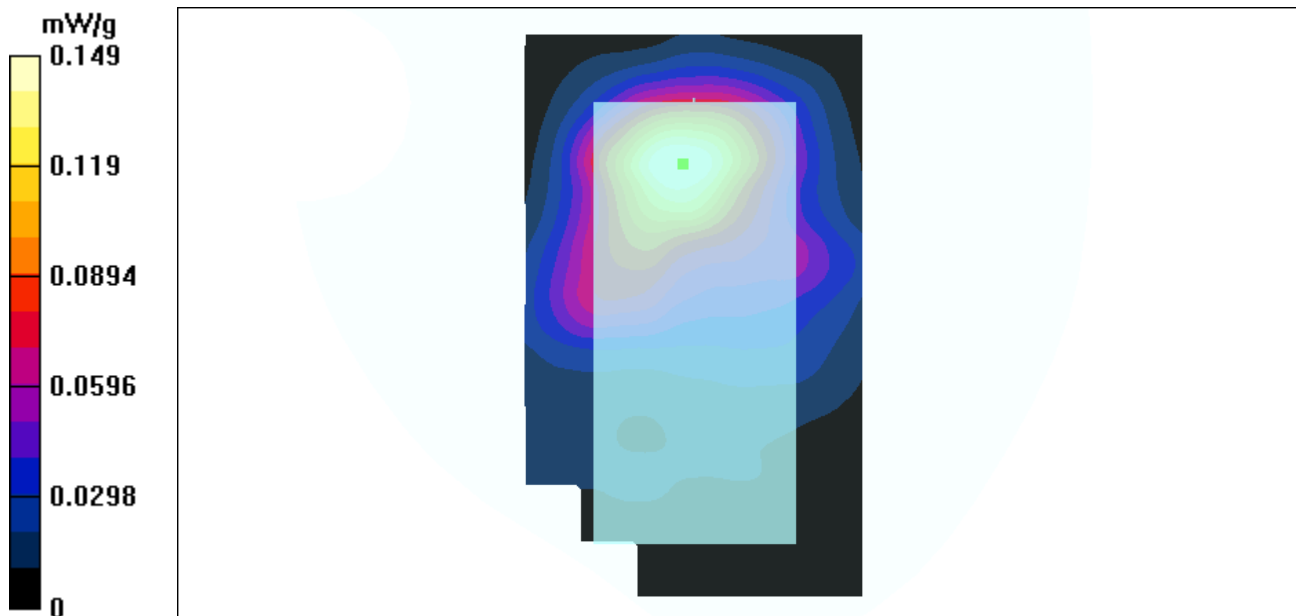
Peak SAR (extrapolated) = 0.299 W/kg

SAR(1 g) = 0.141 mW/g; SAR(10 g) = 0.0743 mW/g

Reference Value = 6.53 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 0.149 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 2

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2412 MHz

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

Medium: MSL2450 ($\sigma = 1.93$ mho/m, $\epsilon_r = 52.89$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 15mm(The tip side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22 degrees ; Liquid temp. : 21 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510; Calibrated: 2003/6/2

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 1/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.66 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.0457 mW/g

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

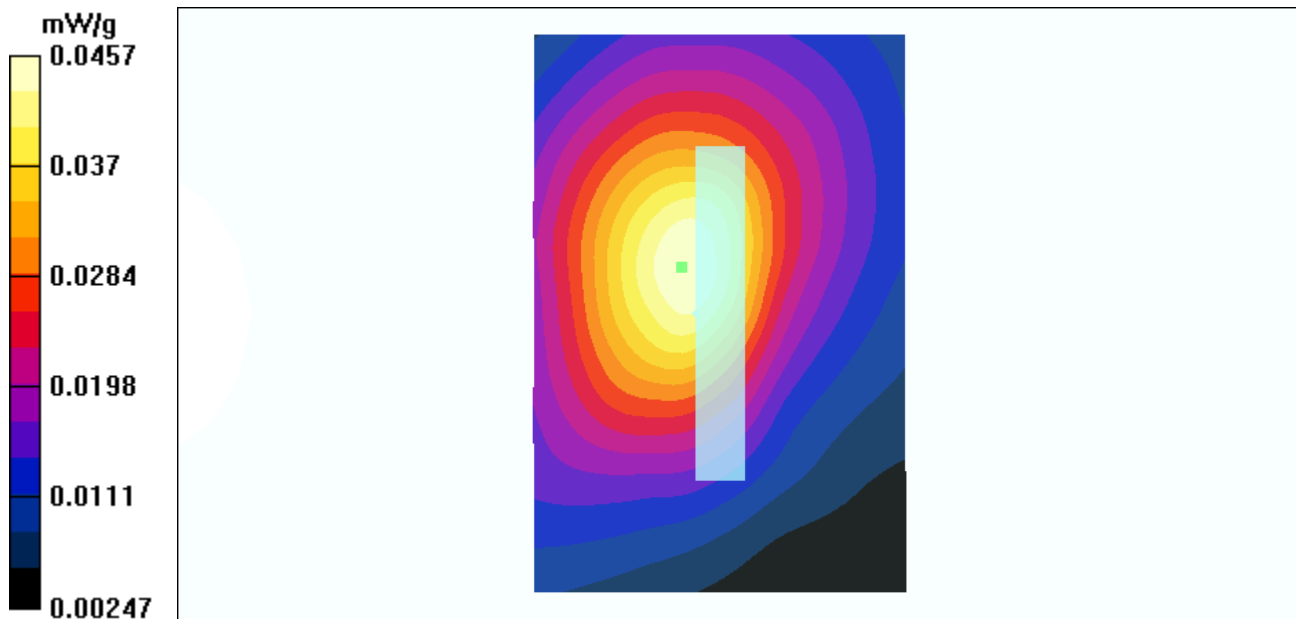
Peak SAR (extrapolated) = 0.0937 W/kg

SAR(1 g) = 0.0439 mW/g; SAR(10 g) = 0.0235 mW/g

Reference Value = 4.66 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.0456 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 2

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2437 MHz

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

Medium: MSL2450 ($\sigma = 1.97$ mho/m, $\epsilon_r = 52.74$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 15mm(The tip side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22 degrees ; Liquid temp. : 21 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510; Calibrated: 2003/6/2

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 6/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.99 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.0406 mW/g

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

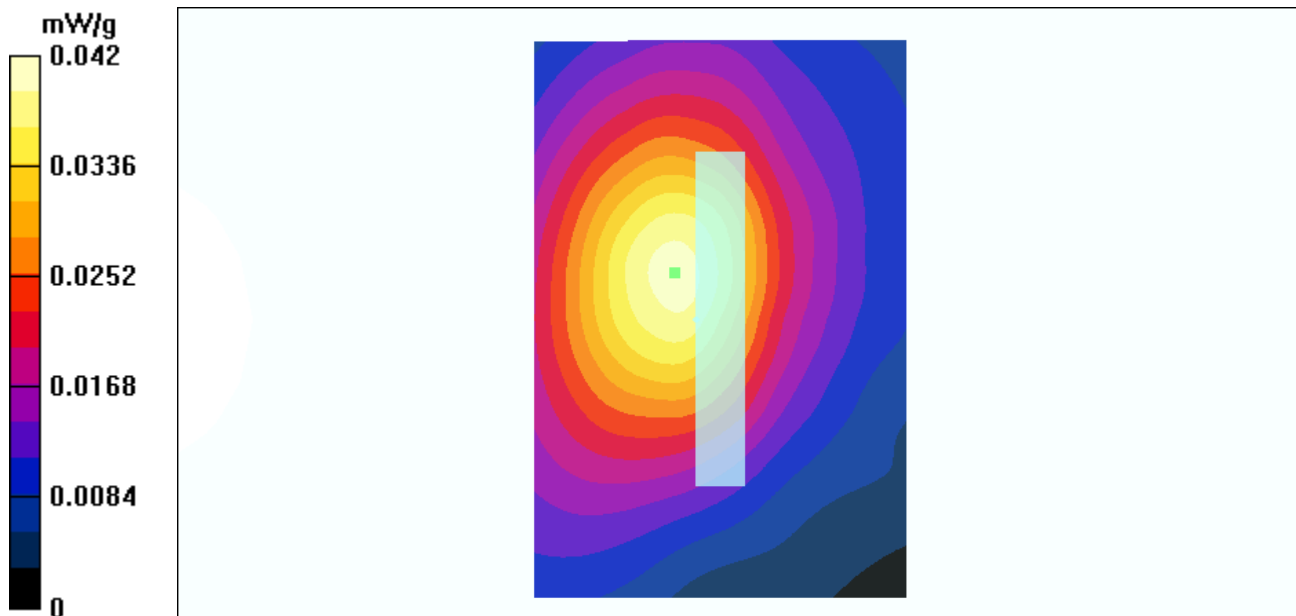
Peak SAR (extrapolated) = 0.0921 W/kg

SAR(1 g) = 0.0404 mW/g; SAR(10 g) = 0.0211 mW/g

Reference Value = 4.99 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.042 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 2

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 2.01$ mho/m, $\epsilon_r = 52.23$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 15mm(The tip side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22 degrees ; Liquid temp. : 21 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2003/6/2
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 11/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.05 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.035 mW/g

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

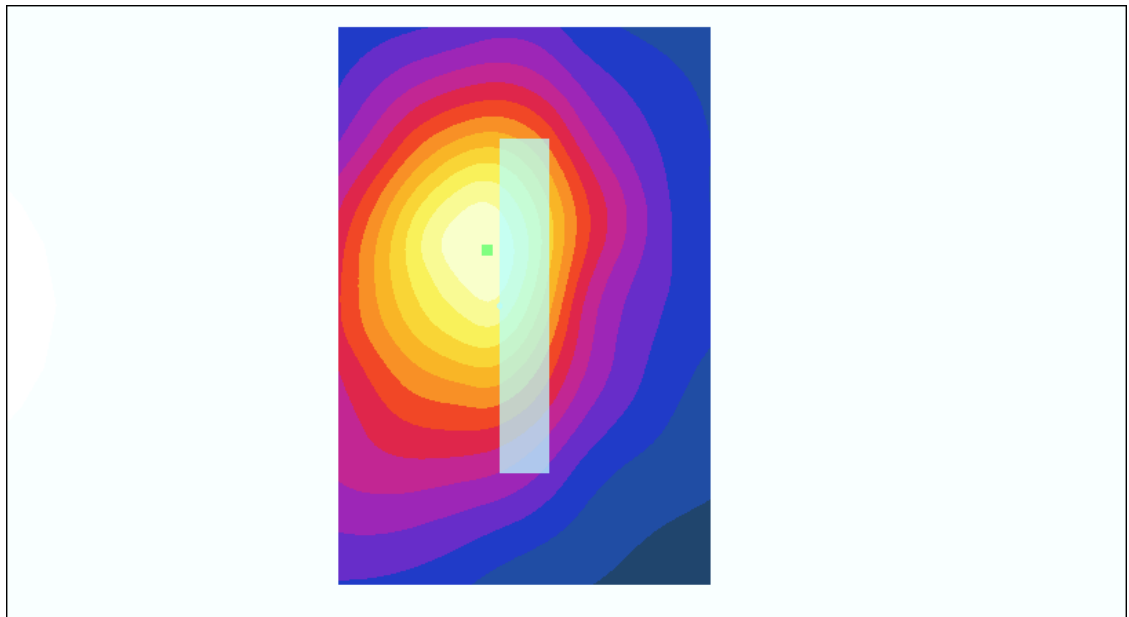
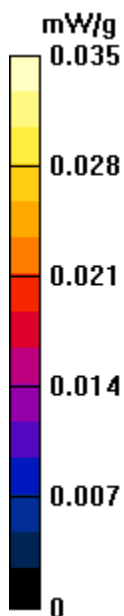
Peak SAR (extrapolated) = 0.0714 W/kg

SAR(1 g) = 0.0338 mW/g; SAR(10 g) = 0.018 mW/g

Reference Value = 4.05 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.035 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 3

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2412 MHz

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

Medium: MSL2450 ($\sigma = 1.93 \text{ mho/m}$, $\epsilon_r = 52.89$, $\rho = 1000 \text{ kg/m}^3$) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510;

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 1/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 16.6 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.545 mW/g

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

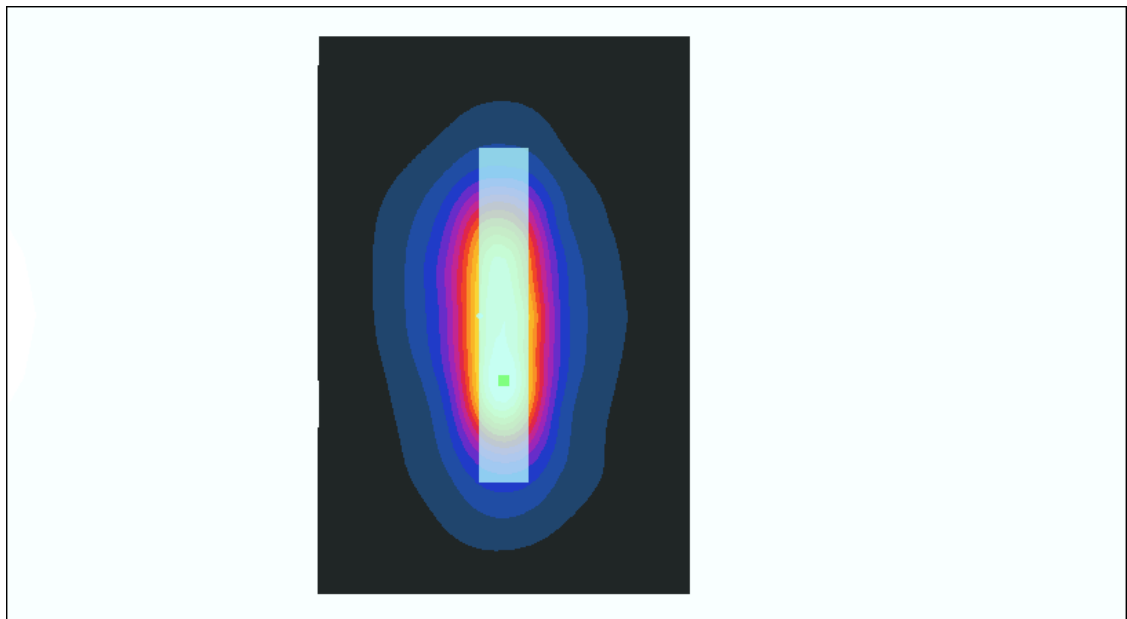
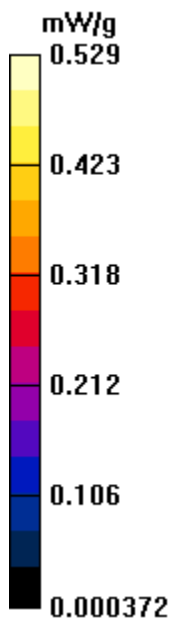
Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.483 mW/g; SAR(10 g) = 0.199 mW/g

Reference Value = 16.6 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.529 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 3

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2437 MHz

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

Medium: MSL2450 ($\sigma = 1.97$ mho/m, $\epsilon_r = 52.74$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510;

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 6/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 15.7 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.526 mW/g

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

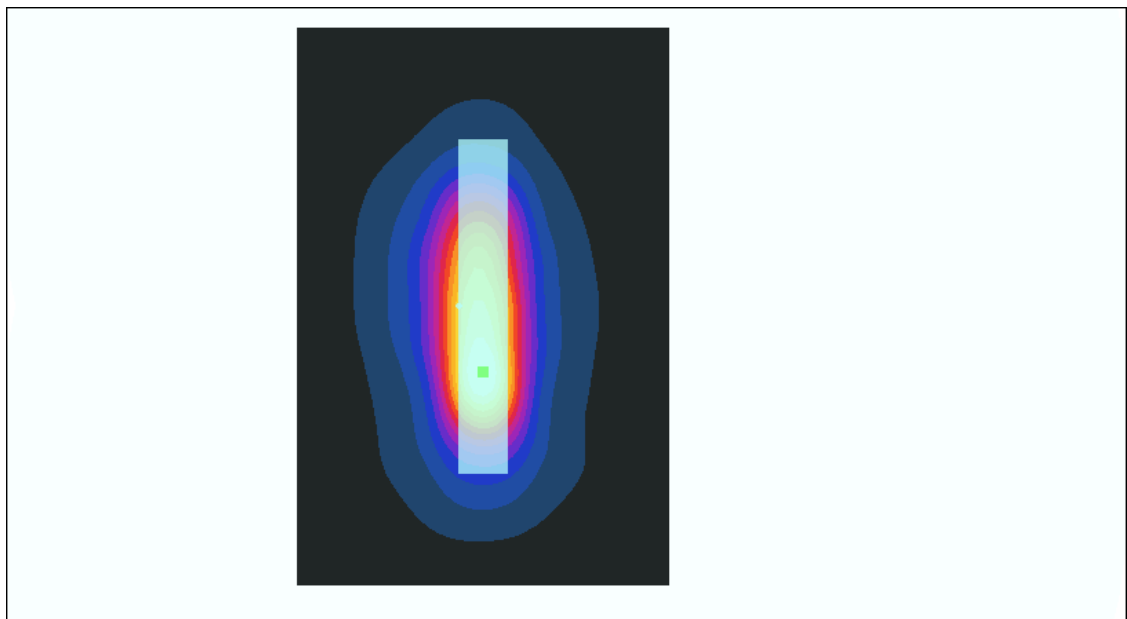
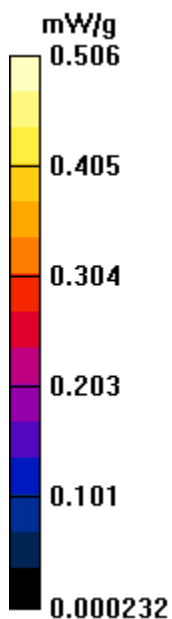
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.46 mW/g; SAR(10 g) = 0.184 mW/g

Reference Value = 15.7 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.506 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 3

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 2.01$ mho/m, $\epsilon_r = 52.23$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18

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

- Electronics: DAE3 Sn510;

- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 11/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 15.4 V/m

Power Drift = -0.01 dB

Maximum value of SAR = 0.545 mW/g

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

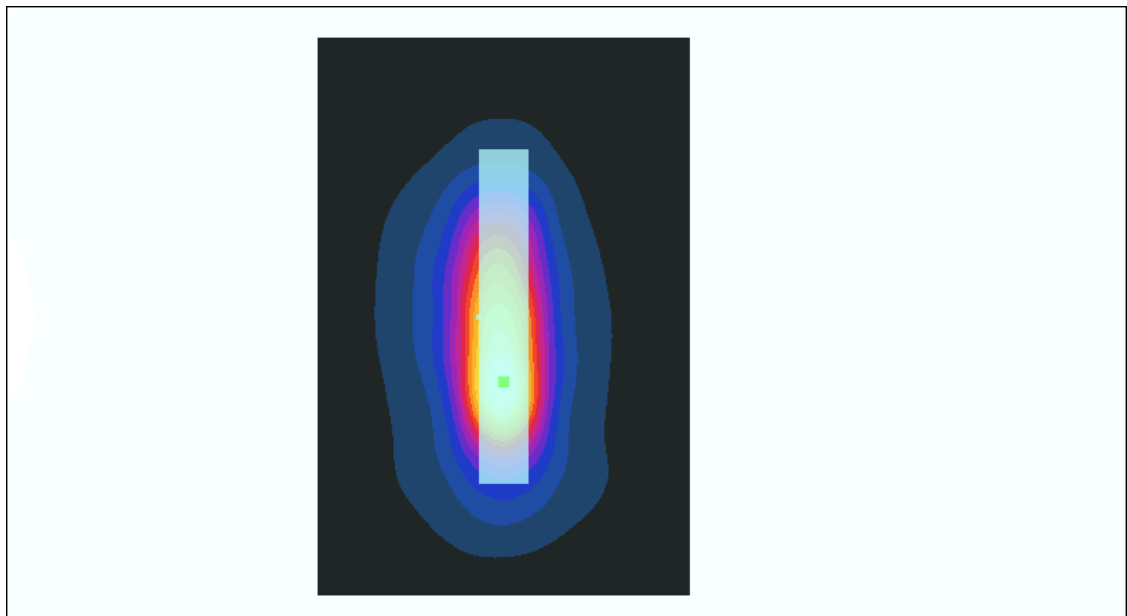
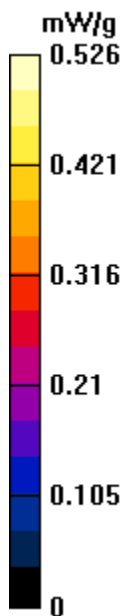
Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.479 mW/g; SAR(10 g) = 0.186 mW/g

Reference Value = 15.4 V/m

Power Drift = -0.01 dB

Maximum value of SAR = 0.526 mW/g



Test Laboratory: Advance Data Technology

XI-330 Mode 3

DUT: Wireless LAN PCMCIA Card ; Type: XI-330 ; Test Channel Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.93 \text{ mho/m}$, $\epsilon_r = 52.89$, $\rho = 1000 \text{ kg/m}^3$) ; Liquid level : 155mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2003/6/2
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Channel 1/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 16.6 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.545 mW/g

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

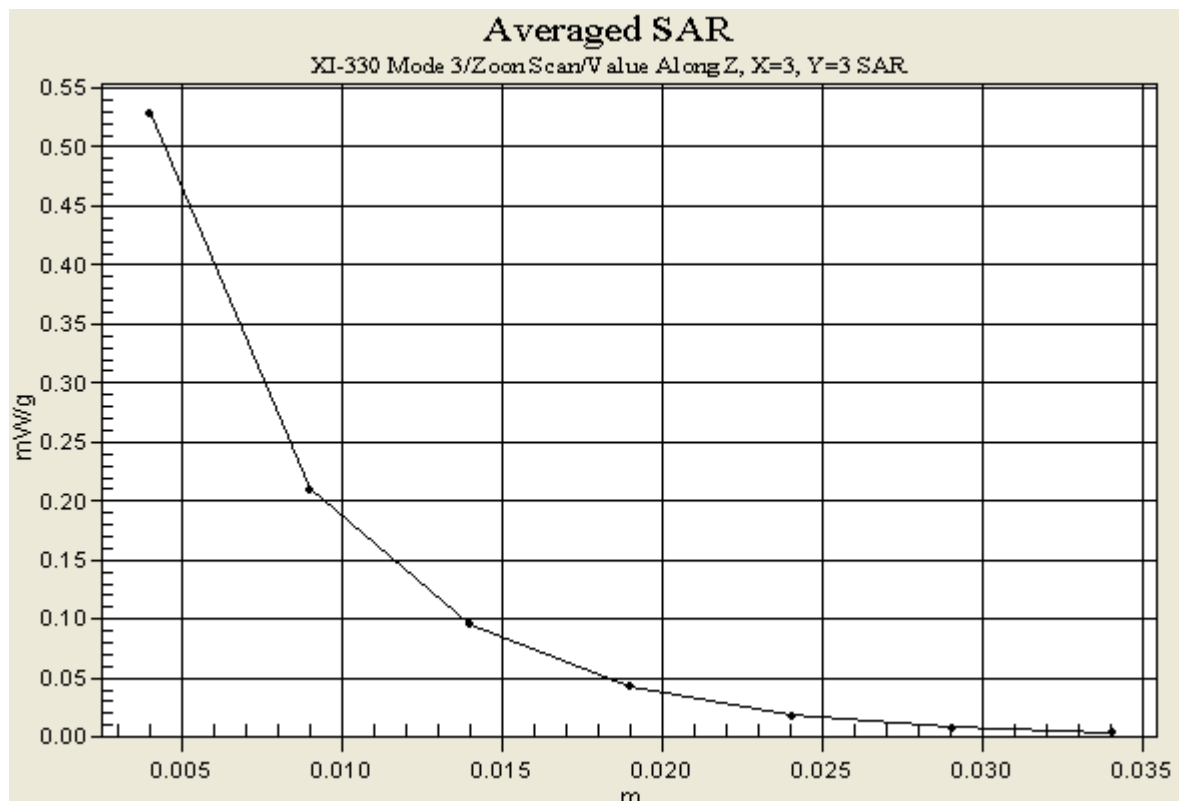
Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.483 mW/g; SAR(10 g) = 0.199 mW/g

Reference Value = 16.6 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.529 mW/g



A3 : SYSTEM VALIDATION TEST DATA

Date/Time: 09/19/03 09:28:04

Test Laboratory: Advance Data Technology

SystemPerformanceCheck-Body 2450-2003-09-19

DUT: Dipole 2450 MHz ; Type: D2450V2

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 52.52$, $\rho = 1000$ kg/m³) ; Liquid level : 155mm
Phantom section: Flat Section ; Separation distance : 10mm(The feetpoint of the dipole to the Phantom)
Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1686; ConvF(4.5, 4.5, 4.5); Calibrated: 2003/6/18
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510;
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=10mm, Pin=50mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 41.0 V/m

Power Drift = -0.02 dB

Maximum value of SAR = 3.05 mW/g

d=10mm, Pin=50mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 6.21 W/kg

SAR(1 g) = 2.73 mW/g; SAR(10 g) = 1.25 mW/g

Reference Value = 41.0 V/m

Power Drift = -0.02 dB

Maximum value of SAR = 3.05 mW/g

