

APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION

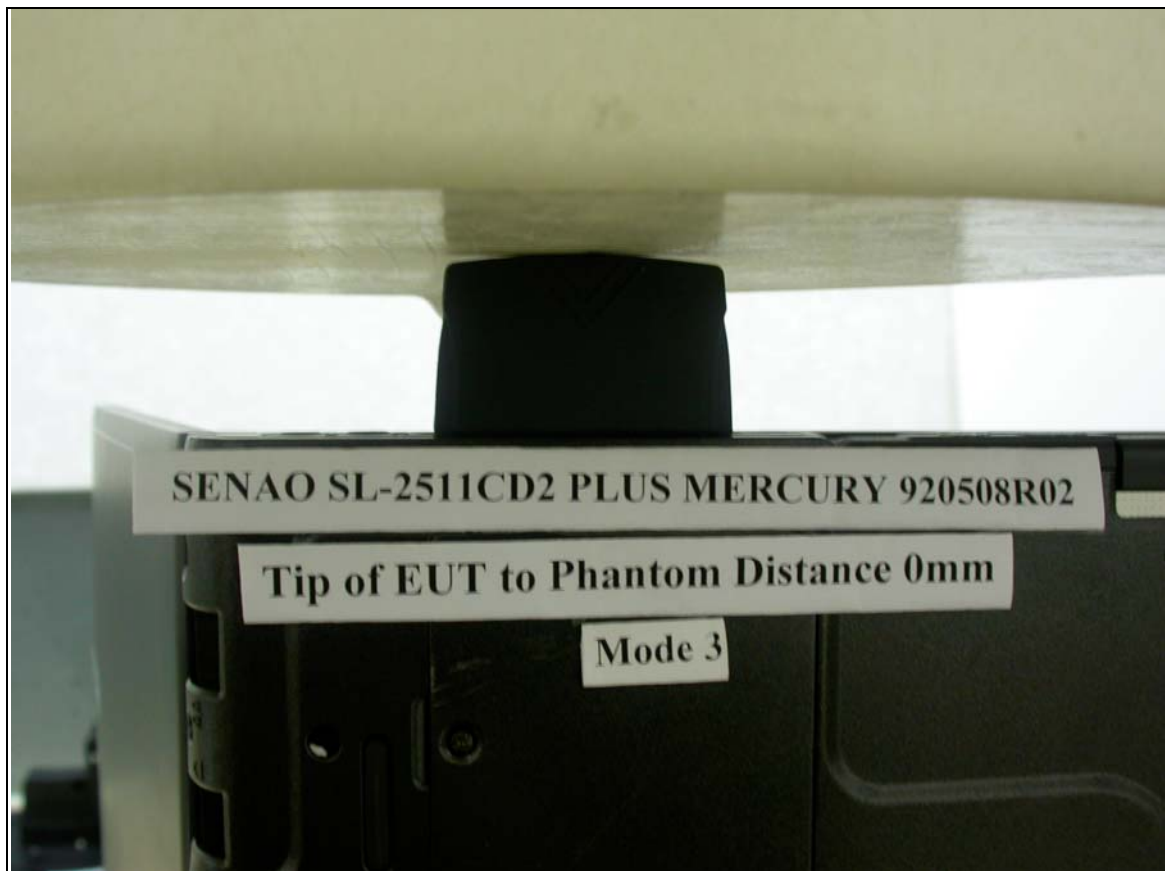
Mode 1



Mode 2



Mode 3



EUT Photo



Liquid Level Photo

2450MHz D=152mm



A2: TEST DATA

Date/Time: 05/25/03 18:47:12

Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 1

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.887$ mho/m, $\epsilon_r = 52.27$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Flat Section ; Separation distance : 11mm(The bottom of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x7x1): Measurement grid: dx=20mm, dy=20mm

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

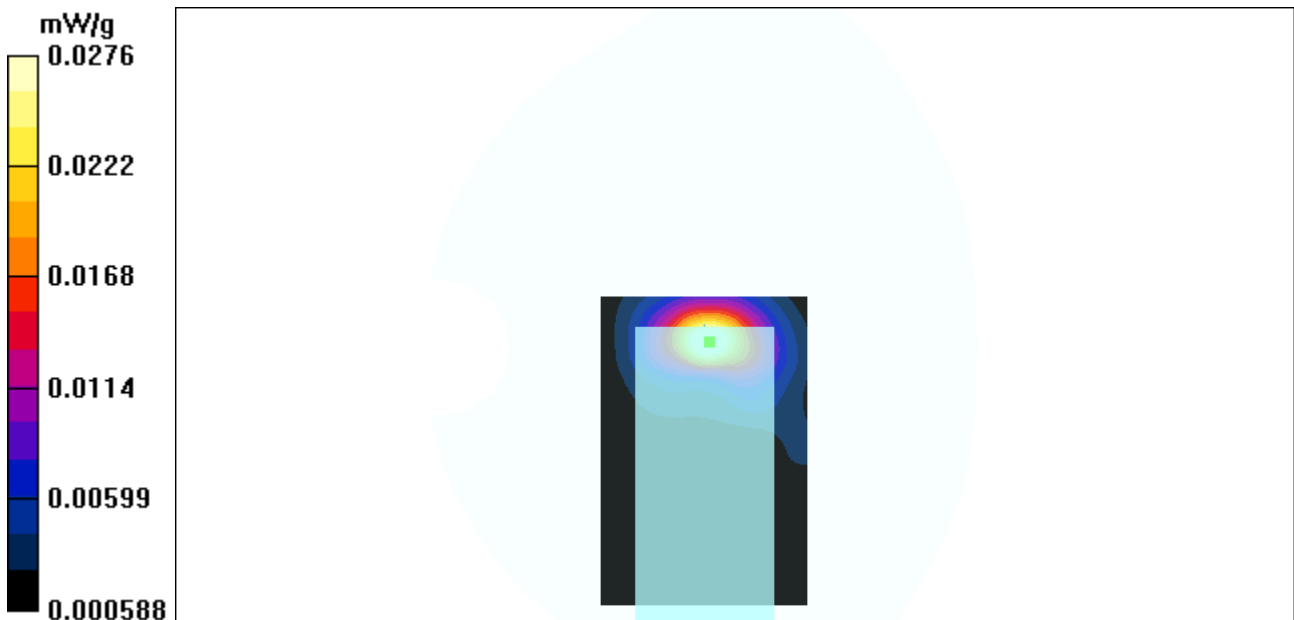
Peak SAR (extrapolated) = 0.0418 W/kg

SAR(1 g) = 0.0254 mW/g; SAR(10 g) = 0.0145 mW/g

Reference Value = 4.05 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.0276 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 1

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2437 MHz

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.91 \text{ mho/m}$, $\epsilon_r = 52.2$, $\rho = 1000 \text{ kg/m}^3$) ; Liquid level : 152mm

Phantom section: Flat Section ; Separation distance : 11mm(The bottom of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x6x1): Measurement grid: dx=20mm, dy=20mm

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

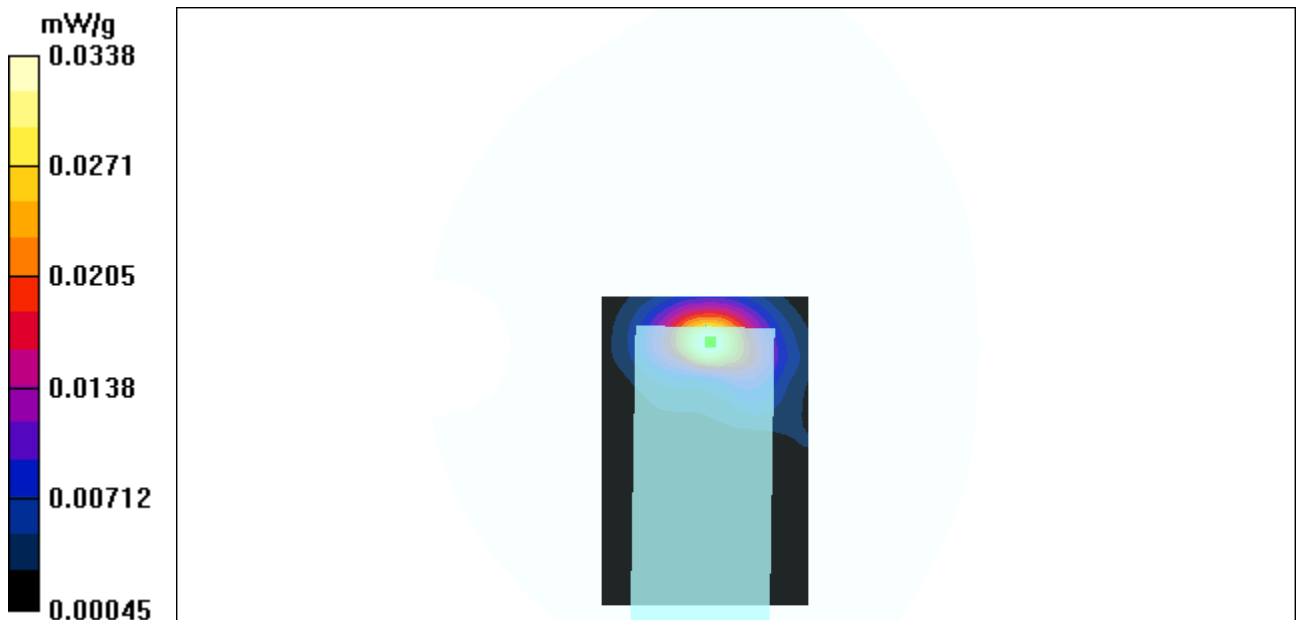
Peak SAR (extrapolated) = 0.0539 W/kg

SAR(1 g) = 0.0295 mW/g; SAR(10 g) = 0.0159 mW/g

Reference Value = 4.23 V/m

Power Drift = -0.4 dB

Maximum value of SAR = 0.0338 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 1

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.95$ mho/m, $\epsilon_r = 52.04$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Flat Section ; Separation distance : 11mm(The bottom of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x7x1): Measurement grid: dx=20mm, dy=20mm

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

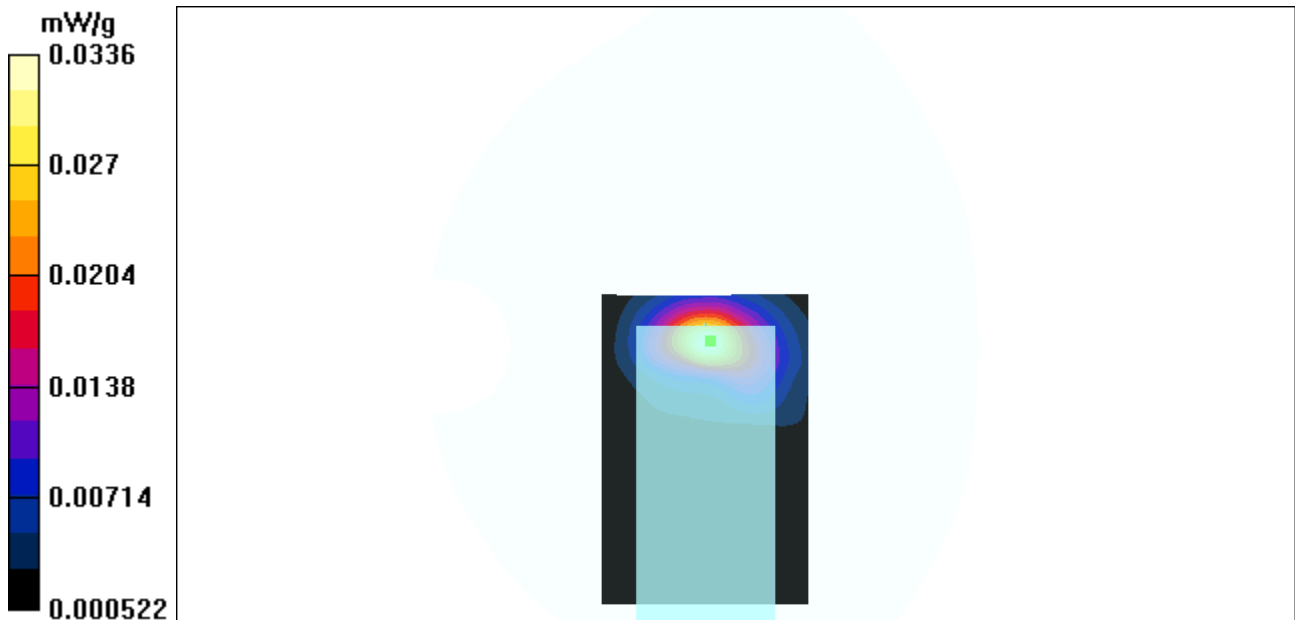
Peak SAR (extrapolated) = 0.0504 W/kg

SAR(1 g) = 0.0294 mW/g; SAR(10 g) = 0.0155 mW/g

Reference Value = 4.19 V/m

Power Drift = -0.5 dB

Maximum value of SAR = 0.0336 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 2

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.887$ mho/m, $\epsilon_r = 52.27$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

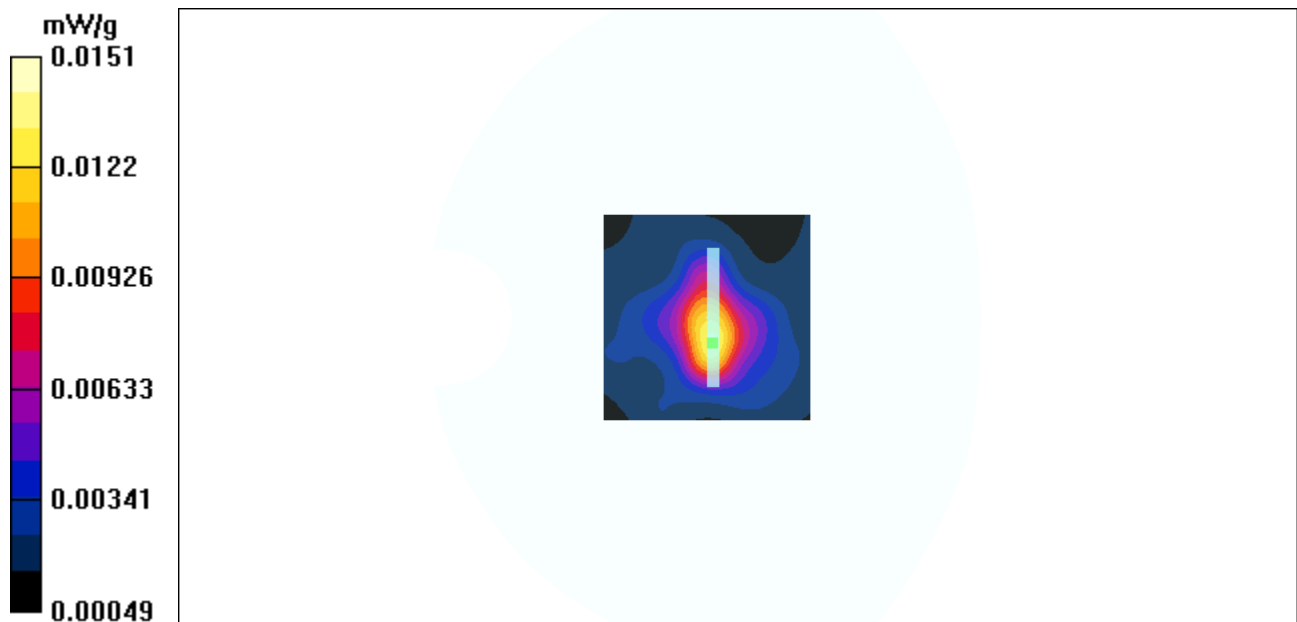
Peak SAR (extrapolated) = 0.0427 W/kg

SAR(1 g) = 0.0128 mW/g; SAR(10 g) = 0.00675 mW/g

Reference Value = 2.75 V/m

Power Drift = -0.3 dB

Maximum value of SAR = 0.0151 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 2

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2437 MHz

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

Medium: MSL2450 ($\sigma = 1.91$ mho/m, $\epsilon_r = 52.2$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

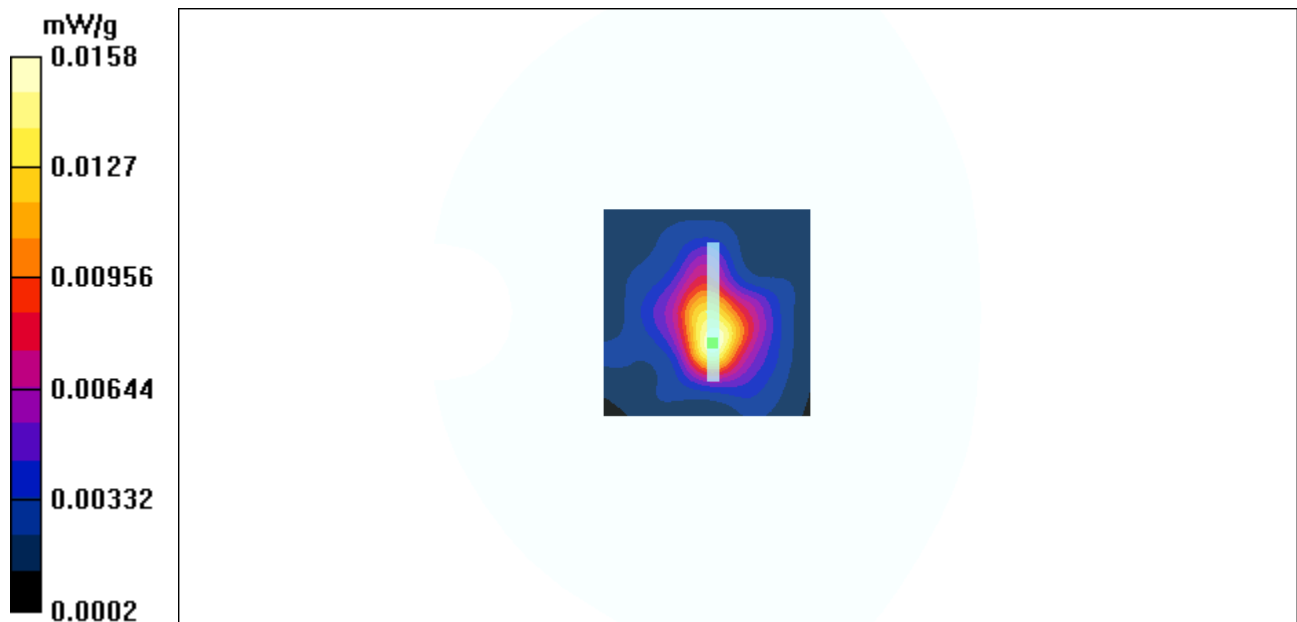
Peak SAR (extrapolated) = 0.0334 W/kg

SAR(1 g) = 0.0135 mW/g; SAR(10 g) = 0.00707 mW/g

Reference Value = 2.84 V/m

Power Drift = -0.7 dB

Maximum value of SAR = 0.0158 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 2

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.95$ mho/m, $\epsilon_r = 52.04$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn541; Calibrated: 2003/1/14
- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

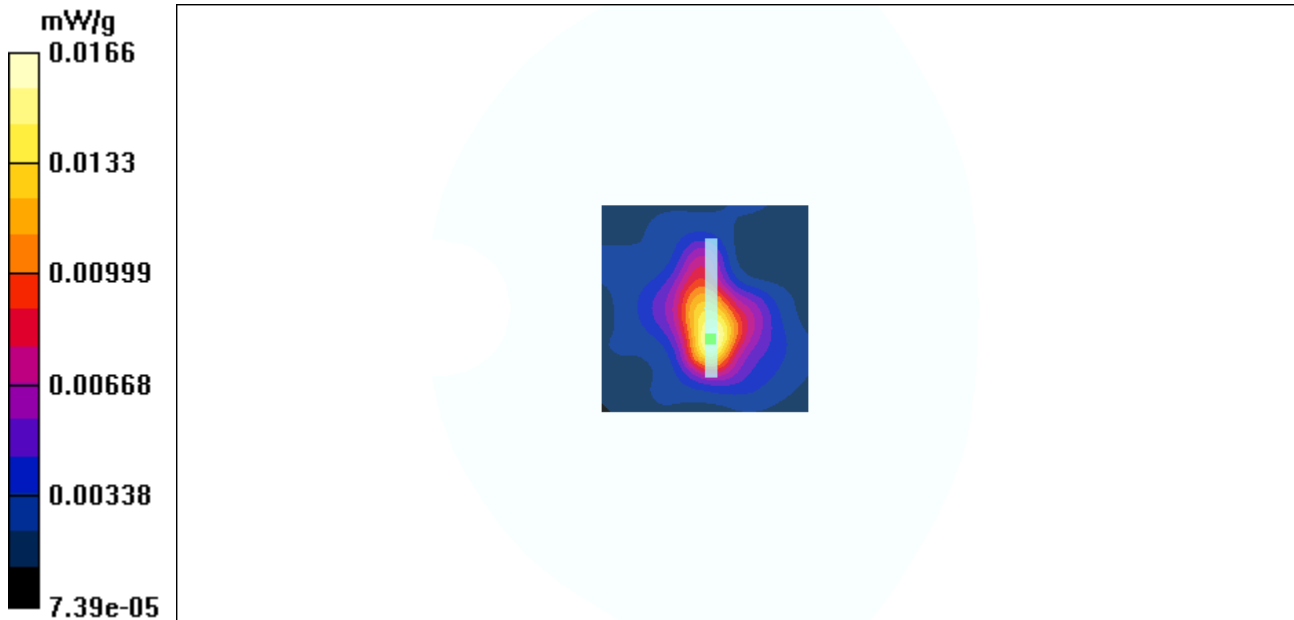
Peak SAR (extrapolated) = 0.0352 W/kg

SAR(1 g) = 0.0149 mW/g; SAR(10 g) = 0.00737 mW/g

Reference Value = 2.79 V/m

Power Drift = -0.3 dB

Maximum value of SAR = 0.0166 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 3

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.887$ mho/m, $\epsilon_r = 52.27$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

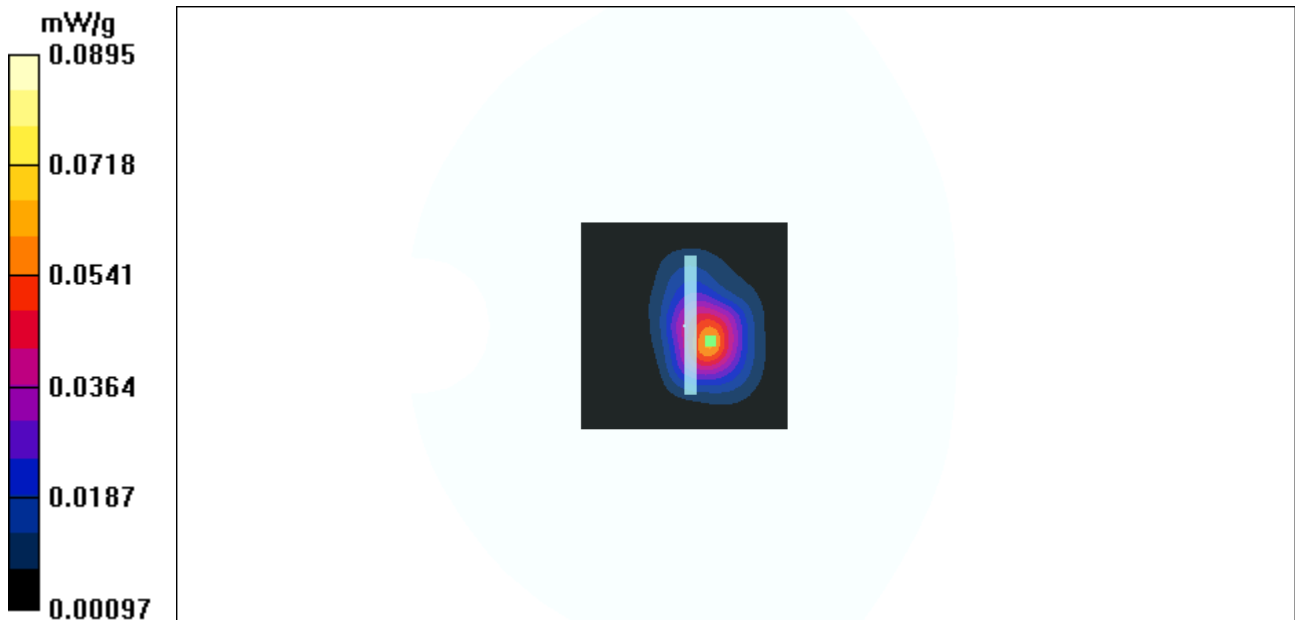
Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.0766 mW/g; SAR(10 g) = 0.0358 mW/g

Reference Value = 4.89 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0895 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 3

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2437 MHz

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

Medium: MSL2450 ($\sigma = 1.91$ mho/m, $\epsilon_r = 52.2$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

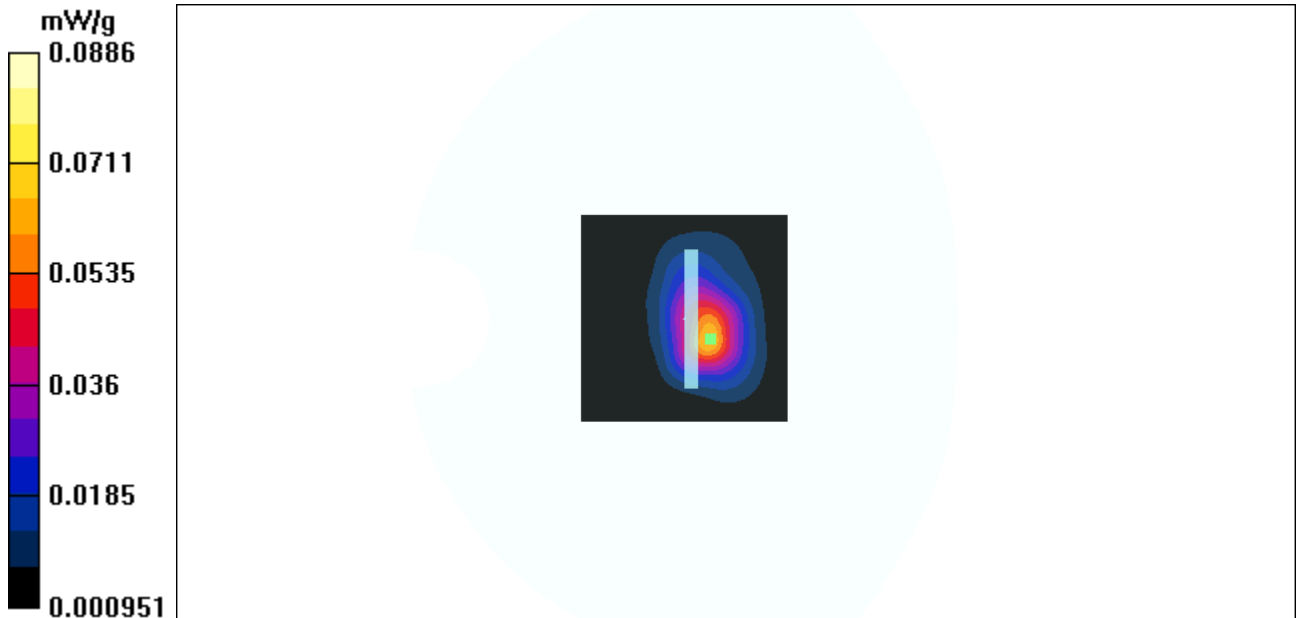
Peak SAR (extrapolated) = 0.153 W/kg

SAR(1 g) = 0.0807 mW/g; SAR(10 g) = 0.0375 mW/g

Reference Value = 4.93 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0886 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 3

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.95$ mho/m, $\epsilon_r = 52.04$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

- 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 (5x5x1): Measurement grid: dx=20mm, dy=20mm

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

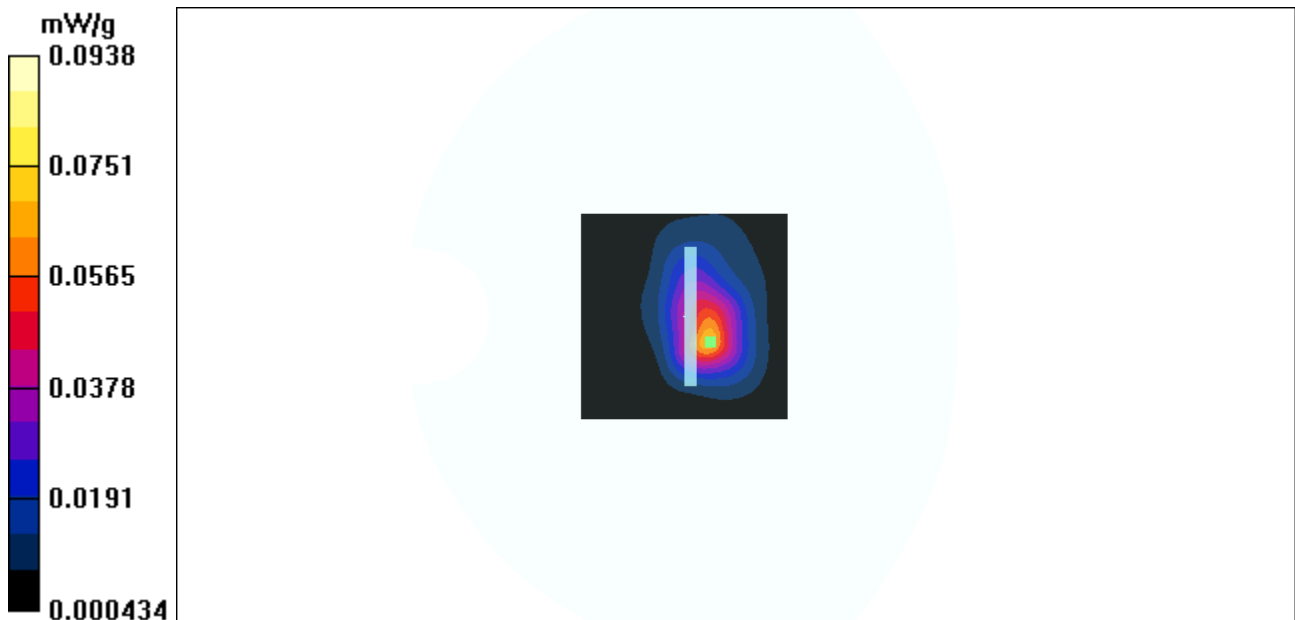
Peak SAR (extrapolated) = 0.153 W/kg

SAR(1 g) = 0.0807 mW/g; SAR(10 g) = 0.0377 mW/g

Reference Value = 4.8 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0938 mW/g



Test Laboratory: Advance Data Technology

SL-2511CD2 PLUS MERCURY Mode 3

DUT: Long Range Wireless PCMCIA Card ; Type: SL-2511 CD2 PLUS MERCURY ; Test Channel Frequency: 2462 MHz

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
Medium: MSL2450 ($\sigma = 1.95 \text{ mho/m}$, $\epsilon_r = 52.04$, $\rho = 1000 \text{ kg/m}^3$) ; Liquid level : 152mm

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

Antenna type : Internal Antenna ; Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28

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

- Electronics: DAE3 Sn541; Calibrated: 2003/1/14

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

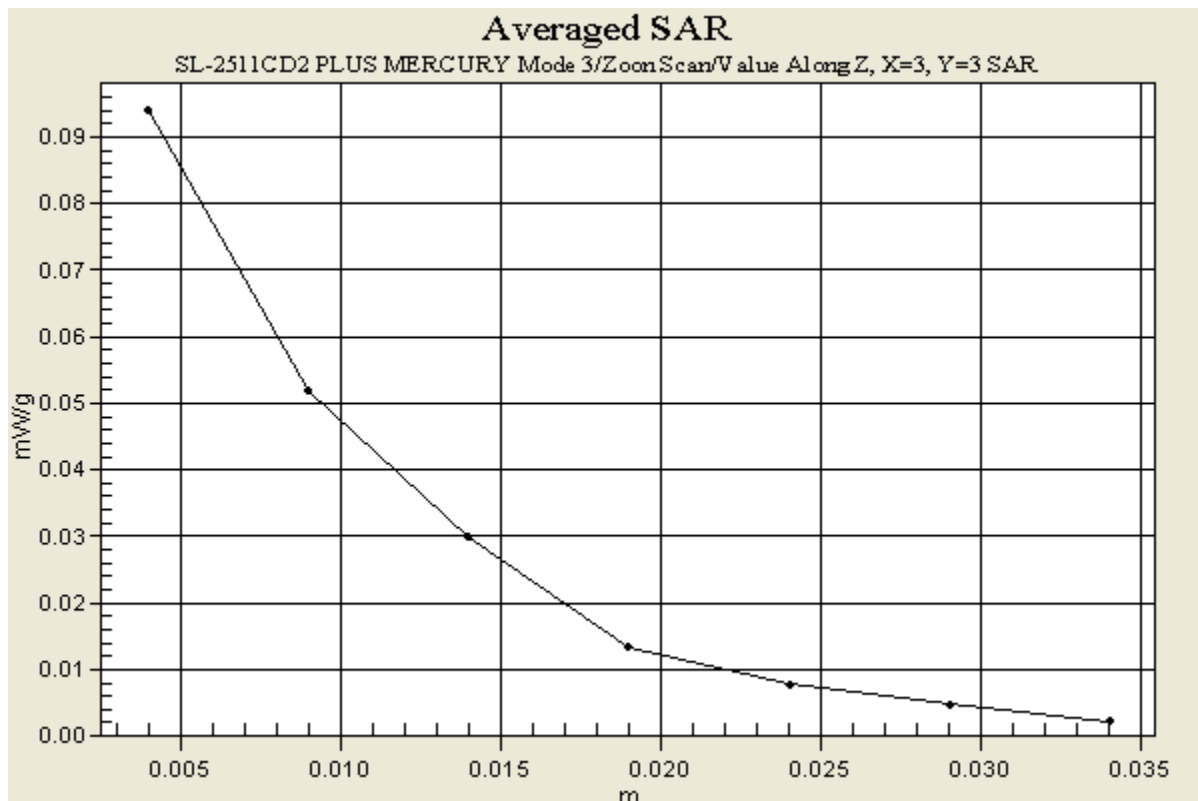
Peak SAR (extrapolated) = 0.153 W/kg

SAR(1 g) = 0.0807 mW/g; SAR(10 g) = 0.0377 mW/g

Reference Value = 4.8 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0938 mW/g



A3: SYSTEM VALIDATION TEST DATA

Date/Time: 05/25/03 10:33:26

Test Laboratory: Advance Data Technology

System Validation Check-MSL2450MHz

DUT: Dipole 2450 MHz ; Type: D2450V2

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW

Medium: MSL2450 ($\sigma = 1.93$ mho/m, $\epsilon_r = 52.1$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Flat Section ; Separation distance : 10mm(The feetpoint of the dipole to the Phantom)

Air temp. : 23.0 degrees ; Liquid temp. : 22.4 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn541; Calibrated: 2003/1/14
- 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 (7x7x1): Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 3.95 W/kg

SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.18 mW/g

Reference Value = 40.9 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 2.66 mW/g

