APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION

Mode 1

Mode 2

Mode 3

EUT Photo

SMC
SMC SMC2635W 920418H07

0004E27D67DC
SMC SMC2635W 920418H07

A2: TEST DATA

Date/Time: 04/28/03 15:48:18

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 1 channel 01

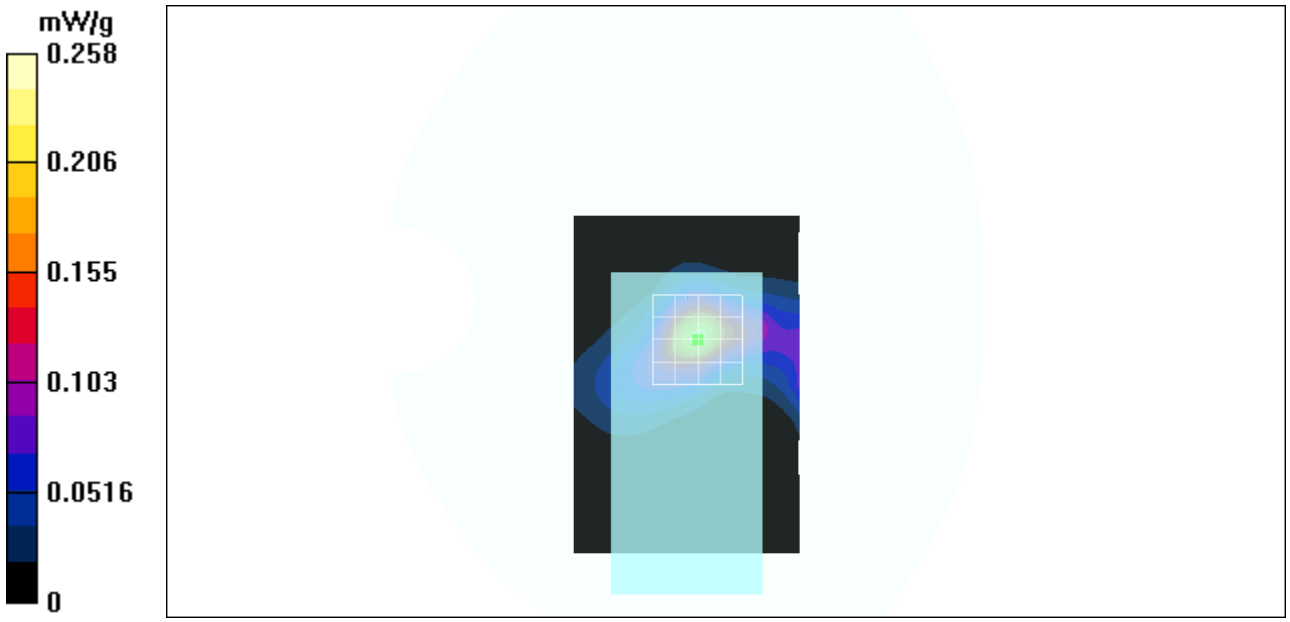
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.93 mho/m, ε_r = 52.2, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The bottom of the card to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x7x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.84 V/m
Peak SAR = 0.347 W/kg
SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.0971 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 16:09:42

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 1 channel 06

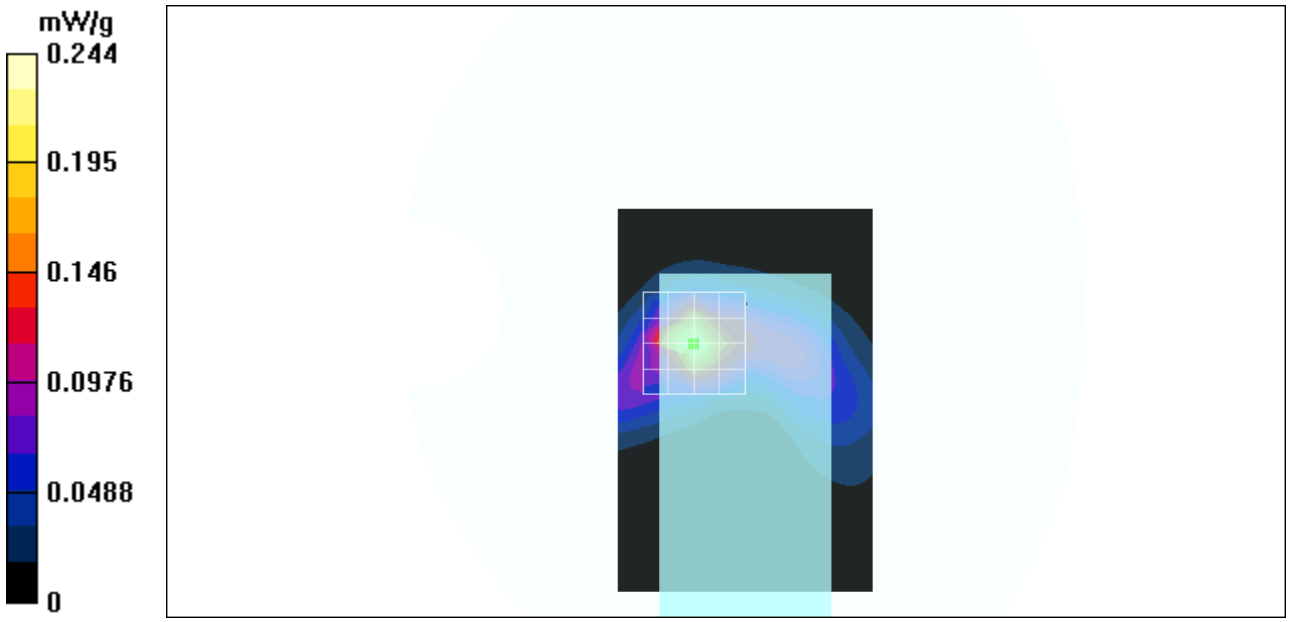
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.95 mho/m, ε_r = 52.18, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The bottom of the card to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x7x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.61 V/m
Peak SAR = 0.332 W/kg
SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.0914 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 16:28:32

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 1 channel 11

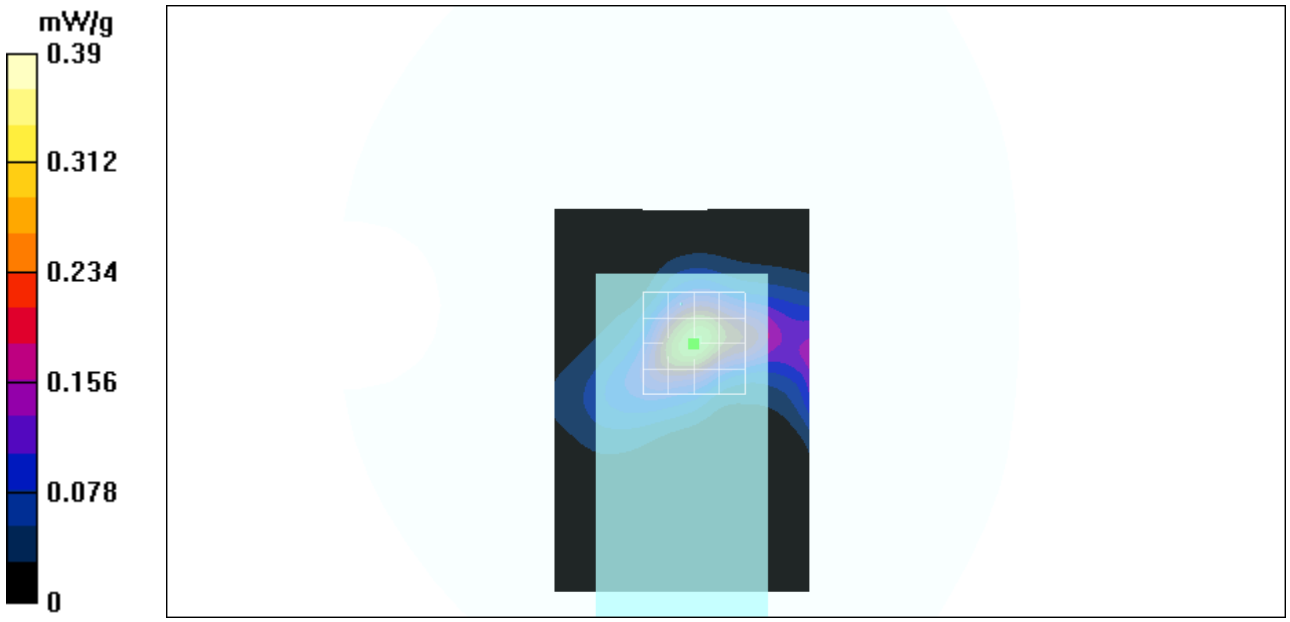
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.99 mho/m, ε_r = 52.1, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The bottom of the card to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x7x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.1 V/m
Peak SAR = 0.563 W/kg
SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.153 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 15:30:10

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 2 channel 01

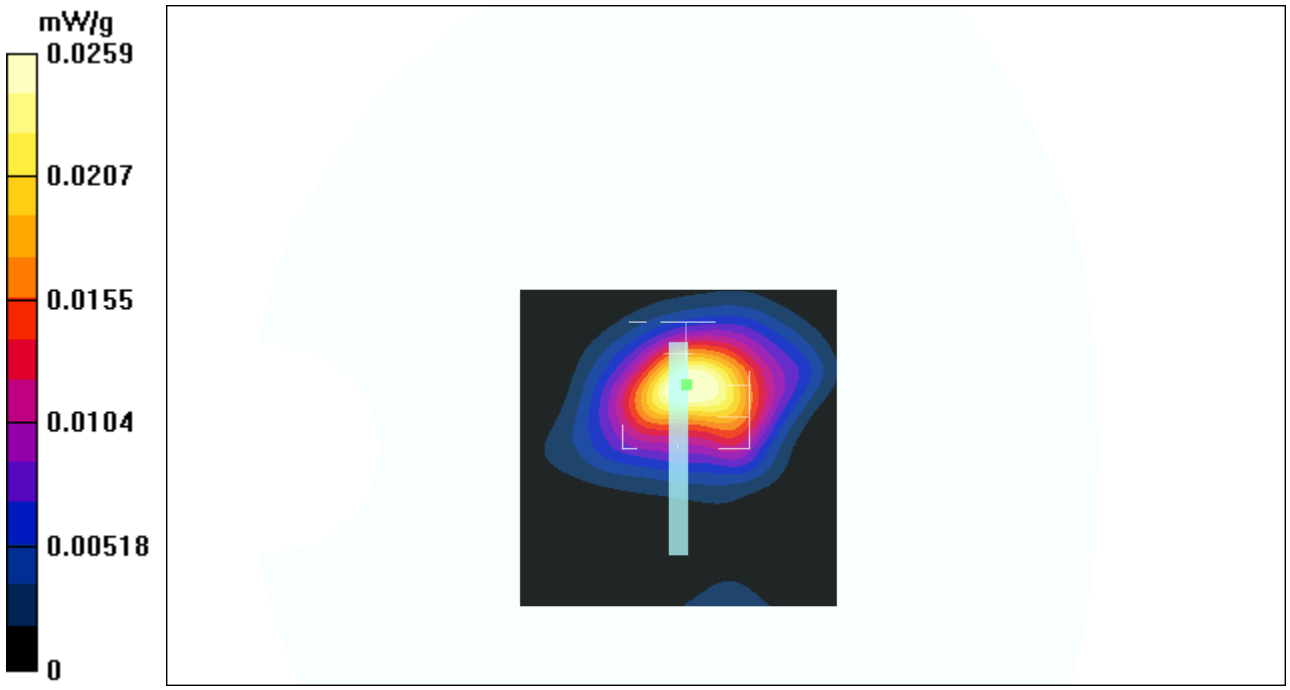
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.93 mho/m, ε_r = 52.2, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 15mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.52 V/m
Peak SAR = 0.0683 W/kg
SAR(1 g) = 0.0224 mW/g; SAR(10 g) = 0.011 mW/g
Power Drift = -0.09 dB



Date/Time: 04/28/03 13:51:34

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 2 channel 06

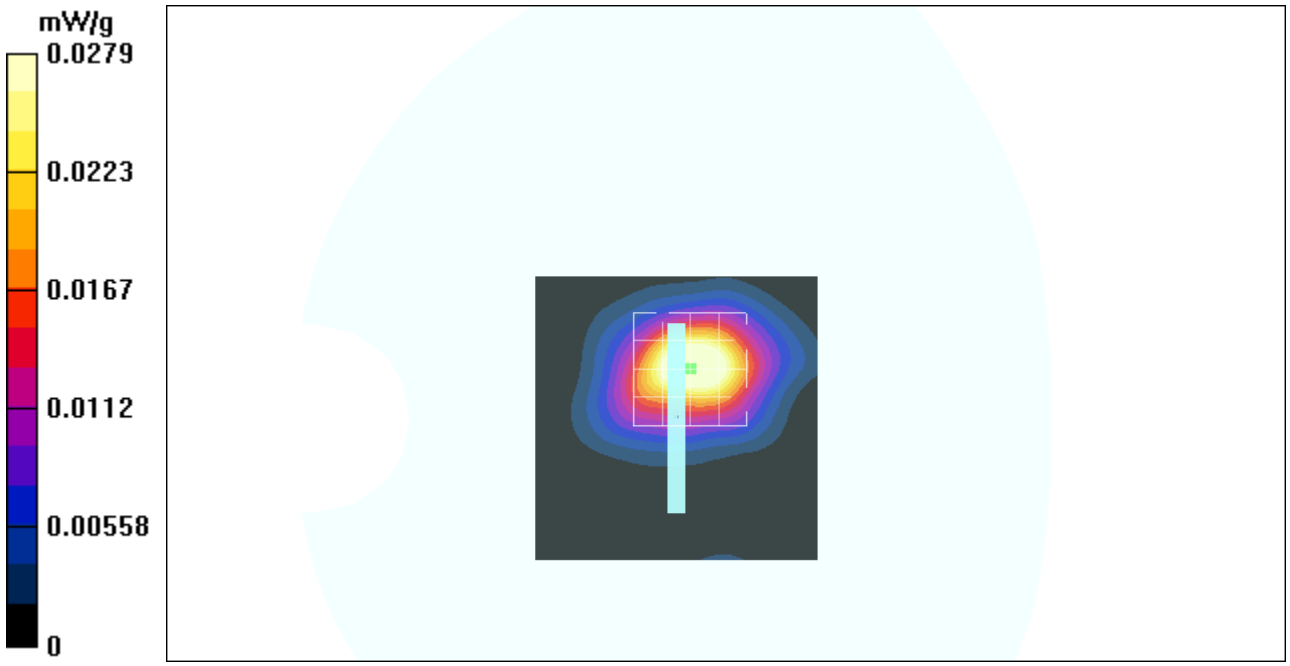
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.95 mho/m, ε_r = 52.18, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 15mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.63 V/m
Peak SAR = 0.0543 W/kg
SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.0123 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 13:37:38

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 2 channel 11

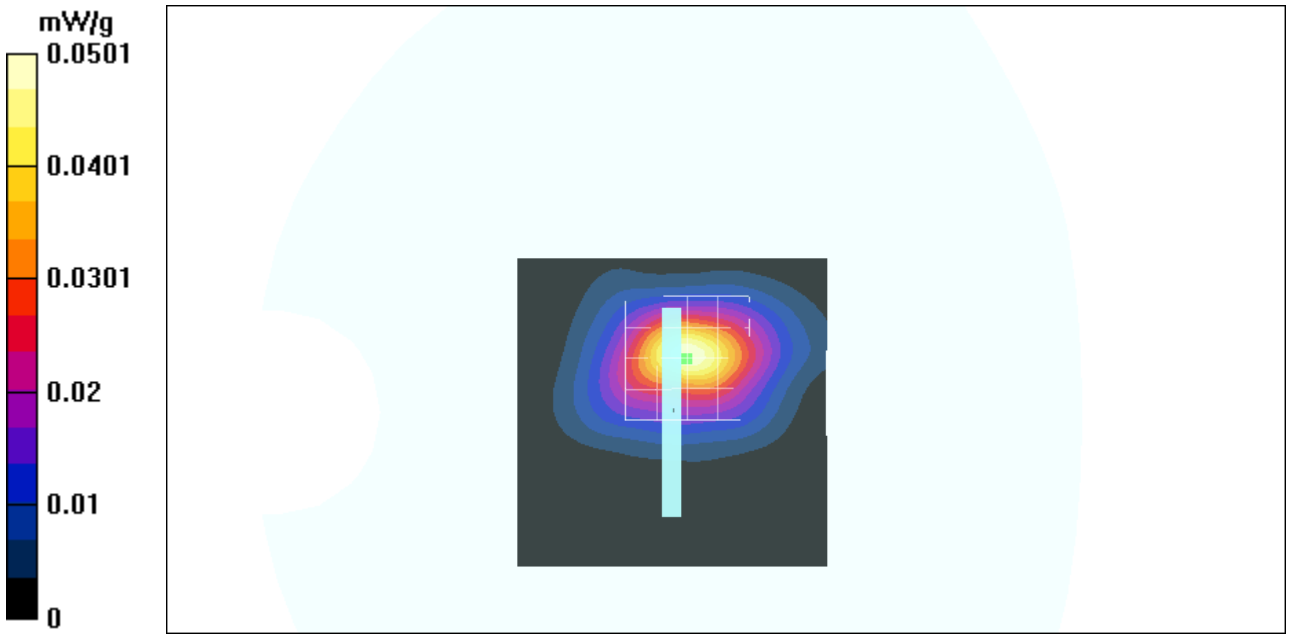
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.99 mho/m, ε_r = 52.1, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 15mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.16 V/m
Peak SAR = 0.0724 W/kg
SAR(1 g) = 0.0379 mW/g; SAR(10 g) = 0.0186 mW/g
Power Drift = -0.1 dB



Date/Time: 04/28/03 12:31:12

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 3 channel 01

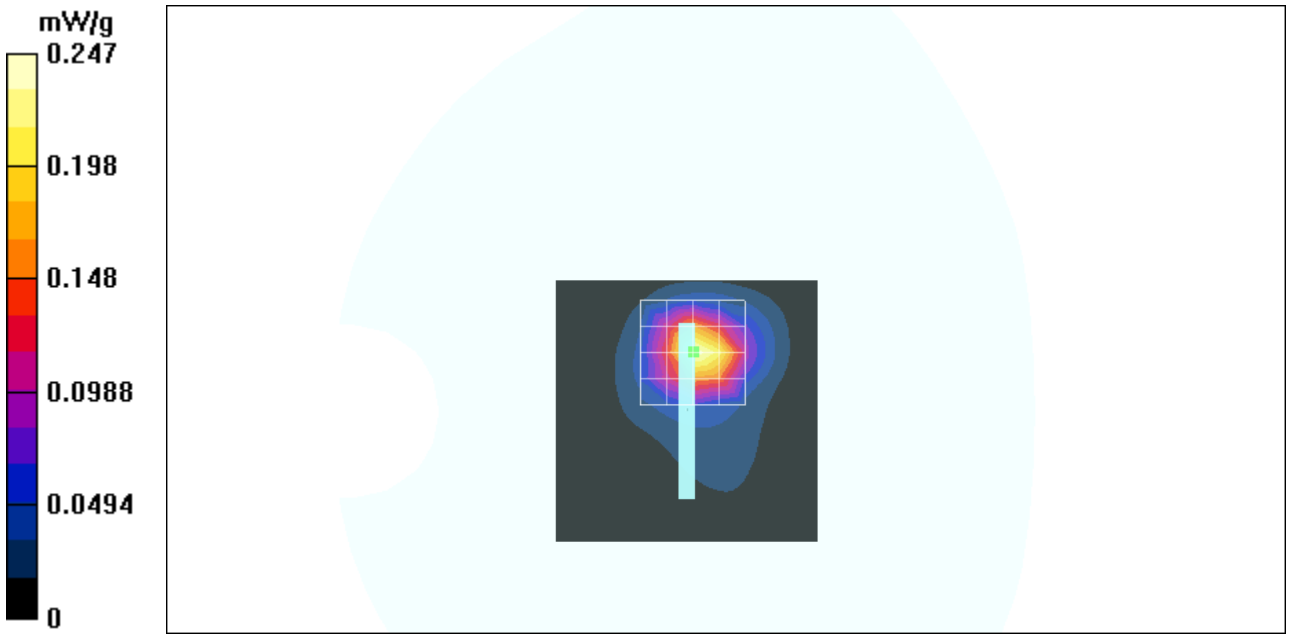
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.93 mho/m, ε_r = 52.2, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.1 V/m
Peak SAR = 0.36 W/kg
SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.0959 mW/g
Power Drift = -0.4 dB



Date/Time: 04/28/03 12:55:38

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 3 channel 06

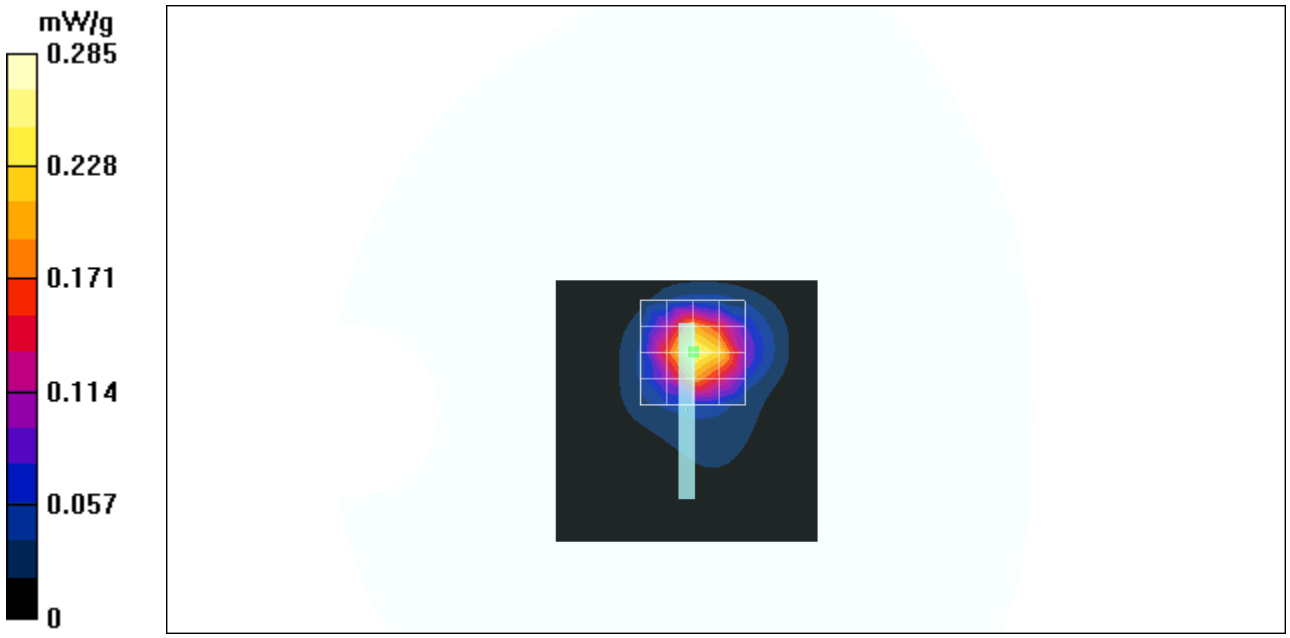
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.95 mho/m, ε_r = 52.18, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.04 V/m
Peak SAR = 0.39 W/kg
SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.103 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 13:16:28

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 3 channel 11

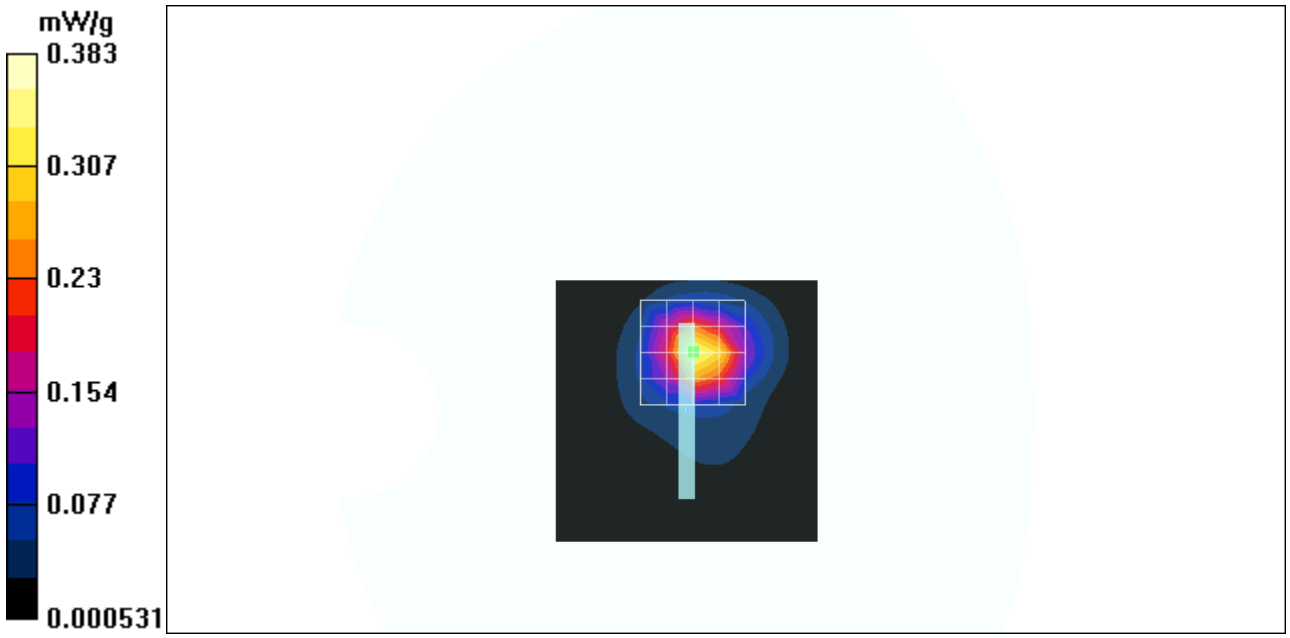
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.99 mho/m, ε_r = 52.1, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Area Scan (5x5x1): Measurement grid: dx=20mm, dy=20mm
System testing procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.85 V/m
Peak SAR = 0.547 W/kg
SAR(1 g) = 0.317 mW/g; SAR(10 g) = 0.141 mW/g
Power Drift = -0.3 dB



A3: VALIDATION TEST DATA

Date/Time: 04/28/03 17:29:00

Test Laboratory: Advance Data Technology Corporation

System Validation Check-MSL2450MHz 2003-04-28

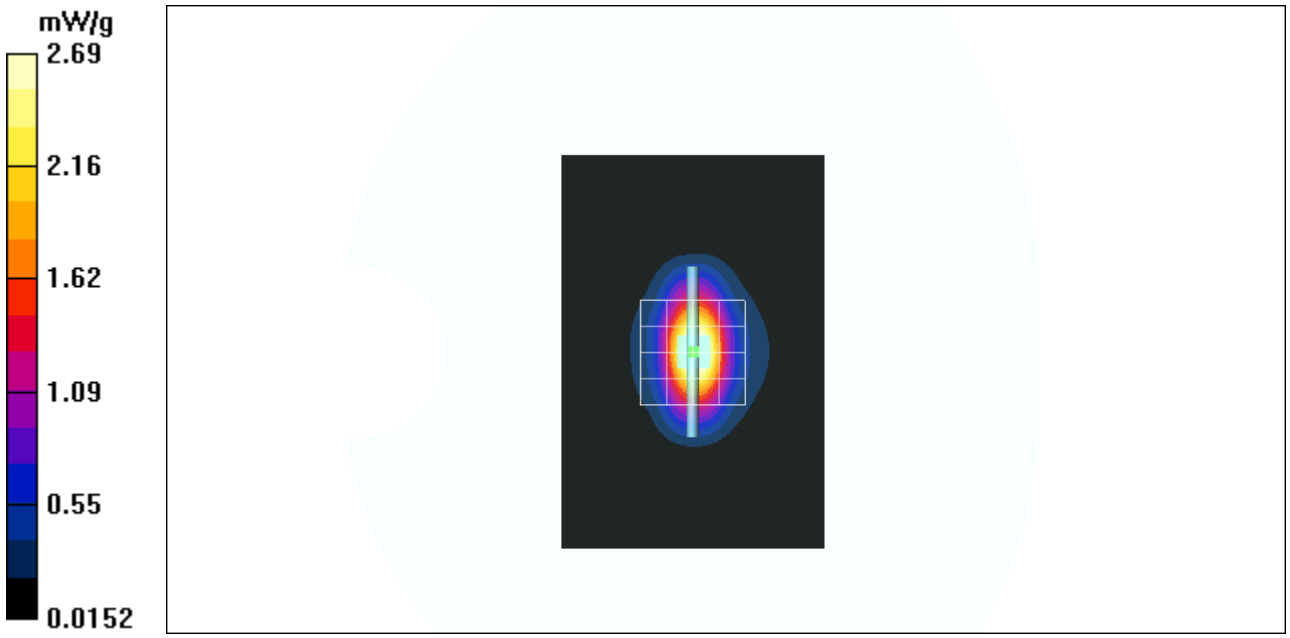
DUT: Dipole 2450 MHz ; Type: D2450V2

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2450 (σ = 1.97 mho/m, ε_r = 52.14, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 10mm(The feetpoint of the dipole to the Phantom)

Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System Validation procedure/Area Scan (4x6x1): Measurement grid: dx=20mm, dy=20mm
System Validation procedure/Zoon Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 39.9 V/m
Peak SAR = 3.98 W/kg
SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.22 mW/g
Power Drift = -0.2 dB



Date/Time: 04/28/03 16:28:32

Test Laboratory: Advance Data Technology Corporation

SMC2635W Mode 1 channel 11

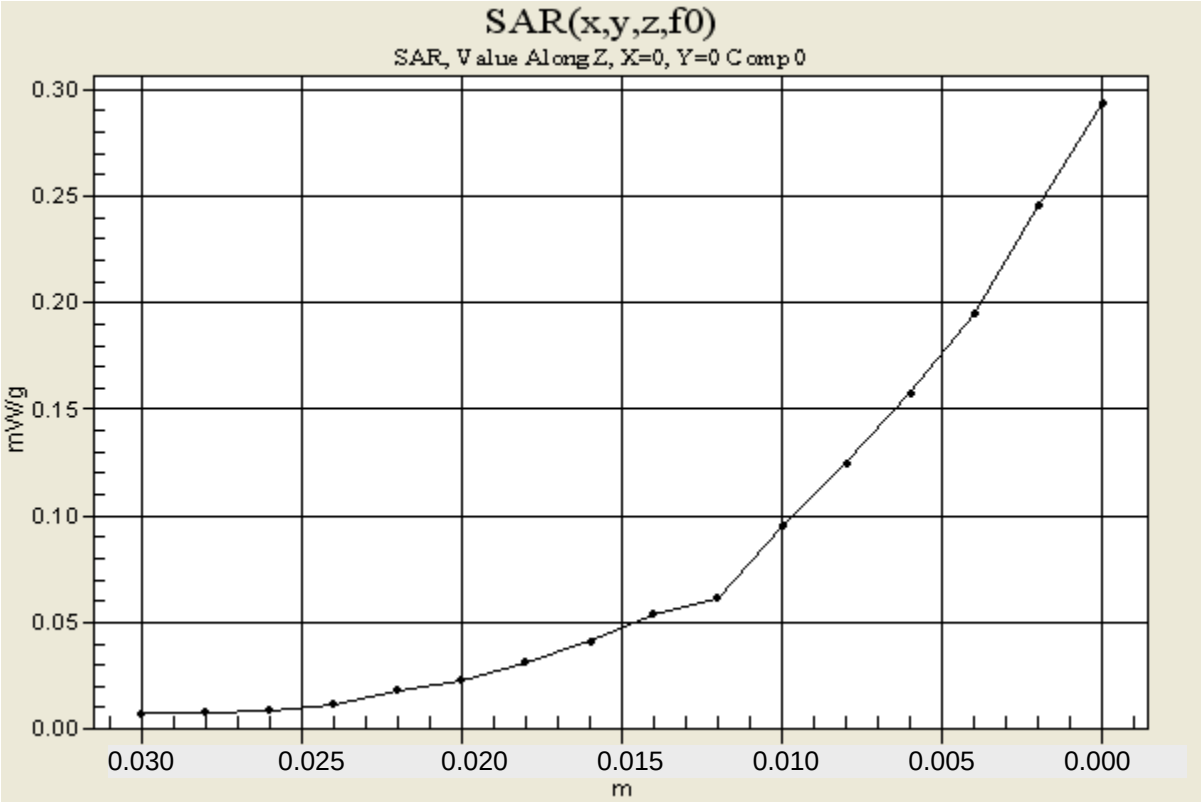
DUT: PCMCIA Wireless Card ; Type: SMC2635W

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: DSSS
Medium: MSL2450 (σ = 1.99 mho/m, ε_r = 52.1, ρ = 1000 kg/m^3) ; Liquid level : 151mm
Phantom section: Flat Section ; Separation distance : 0mm(The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air tempreature : 23.0 degrees ; Liquid temperature : 22.2 degrees

DASY4 Configuration:
- Probe: ET3DV6 - SN1687; ConvF(4.4, 4.4, 4.4); Calibrated: 2002/9/28
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: DAE not calibrated
- Phantom: SAM Twin Phantom V4.0; Type: QD 000 P40 CA; Serial: TP-1150
- Measurement SW: DASY4, V4.1 Build 33; Postprocessing SW: SEMCAD, V1.6 Build 109

System testing procedure/Z Scan (1x1x16): Measurement grid: dx=20mm, dy=20mm, dz=2mm



APPENDIX B: ADT SAR MEASUREMENT SYSTEM