APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

Date/Time: 04/02/2010 6:44:33 PM

Test Laboratory: RIM TESTING SERVICES
File Name:
DipoleValidation_835MHz_Amb_Tem_22.6_Liq_Tem_21.2_C_02_04_10.da4

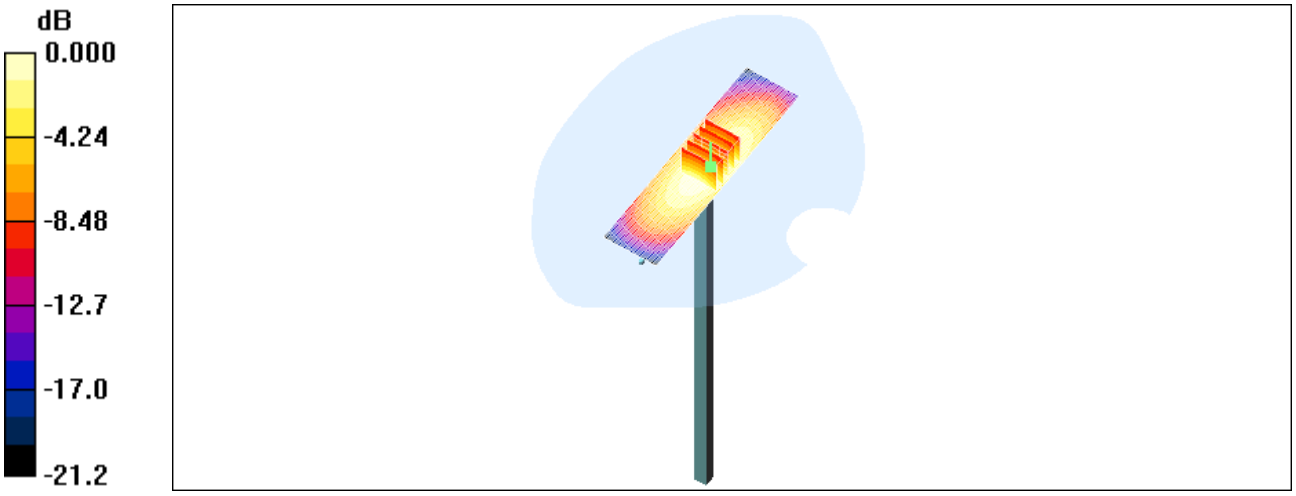
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446
Program Name: System Performance Check at 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.868 mho/m; ε_r = 40.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(6.08, 6.08, 6.08); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 111.9 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 13.8 W/kg
SAR(1 g) = 9.42 mW/g; SAR(10 g) = 6.19 mW/g
Maximum value of SAR (measured) = 10.2 mW/g

d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.2 mW/g



0 dB = 10.2mW/g

Date/Time: 08/02/2010 6:15:47 PM

Test Laboratory: RIM TESTING SERVICES
File Name:
DipoleValidation_835MHz_Amb_Tem_22.2_Liq_Tem_21.3_C_02_08_10.da4

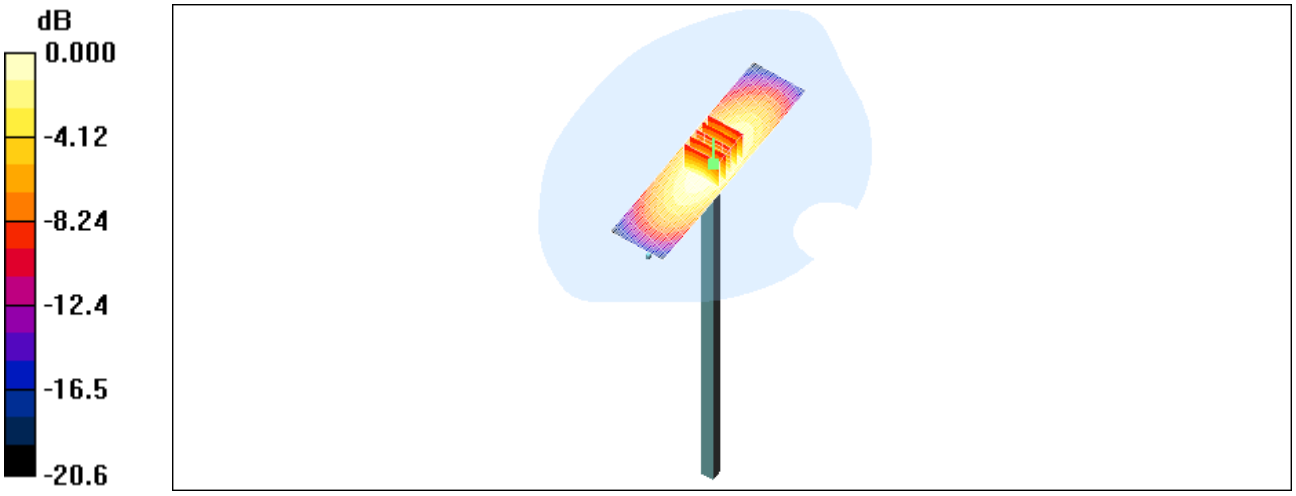
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446
Program Name: System Performance Check at 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.867 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(6.08, 6.08, 6.08); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 112.9 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 13.9 W/kg
SAR(1 g) = 9.57 mW/g; SAR(10 g) = 6.3 mW/g
Maximum value of SAR (measured) = 10.3 mW/g

d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.3 mW/g



0 dB = 10.3mW/g

Date/Time: 11/02/2010 7:03:04 PM

Test Laboratory: RIM TESTING SERVICES
File Name:
DipoleValidation_1900MHz_Amb_Tem_23.0_Liq_Tem_21.6_C_02_11_10.da4

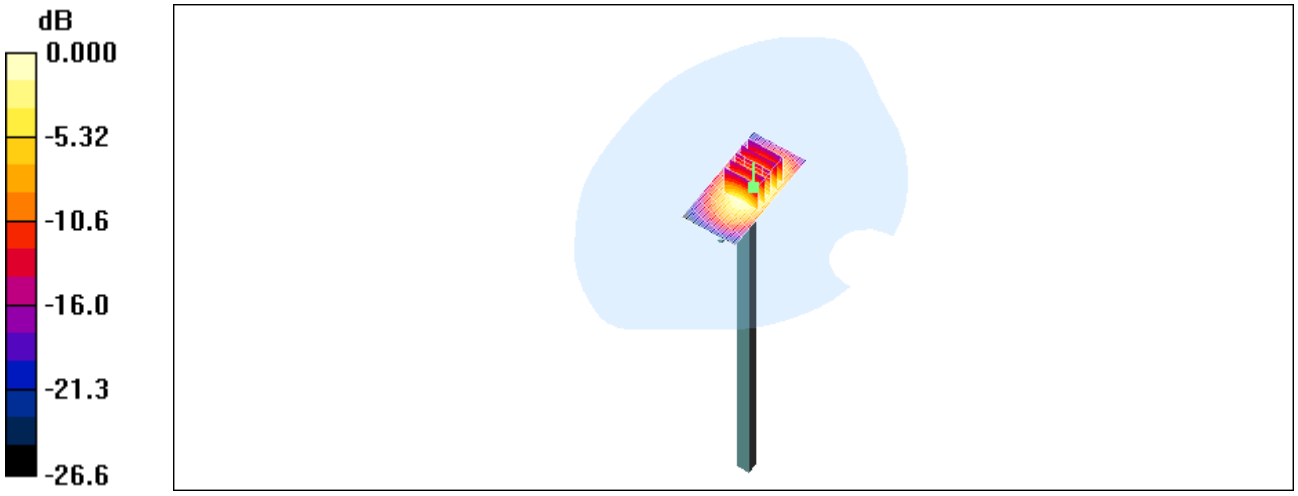
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545
Program Name: System Performance Check at 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.44 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(5.17, 5.17, 5.17); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 179.5 V/m; Power Drift = 0.049 dB
Peak SAR (extrapolated) = 67.8 W/kg
SAR(1 g) = 38.4 mW/g; SAR(10 g) = 20.1 mW/g
Maximum value of SAR (measured) = 43.1 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 44.8 mW/g



0 dB = 44.8mW/g

Date/Time: 3/16/2010 7:11:04 PM

Test Laboratory: RIM TESTING SERVICES
File Name:
DipoleValidation_1900MHz_Amb_Tem_22.6_Liq_Tem_21.2_C_03_16_10.da4

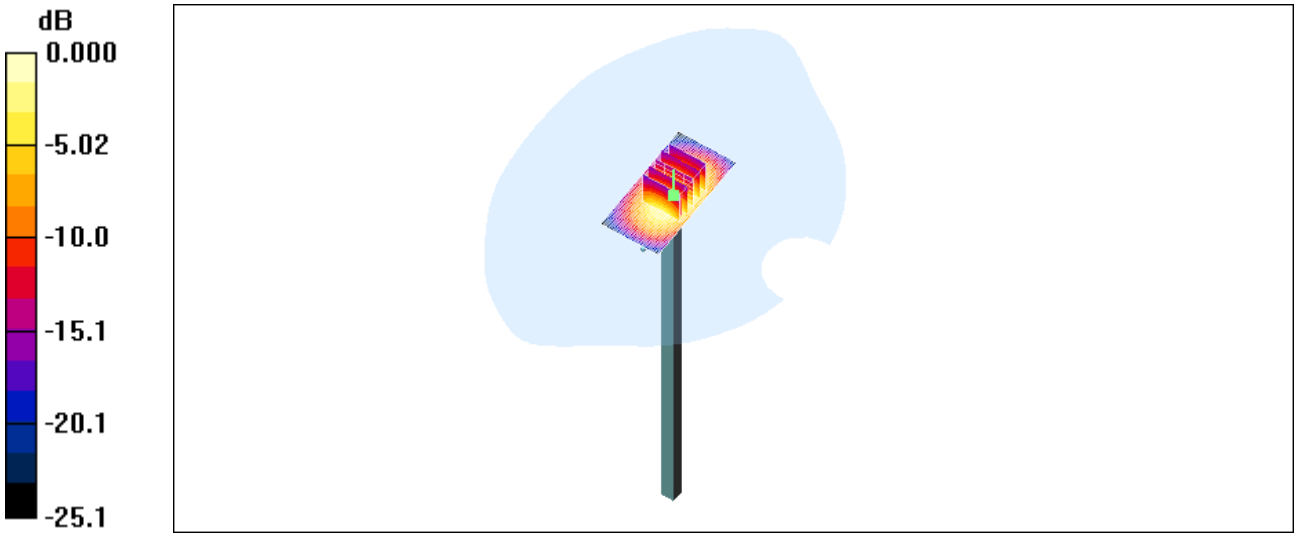
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545
Program Name: System Performance Check at 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.43 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(5.17, 5.17, 5.17); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 176.1 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 64.9 W/kg
SAR(1 g) = 36.9 mW/g; SAR(10 g) = 19.2 mW/g
Maximum value of SAR (measured) = 41.6 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 42.2 mW/g



0 dB = 42.2mW/g

Date/Time: 2/2/2010 7:18:47 PM

Test Laboratory: RIM TESTING SERVICES
File Name:
DipoleValidation_2450MHz_Amb_Tem_23.3_Liq_Tem_21.6_C_02_02_10.da4

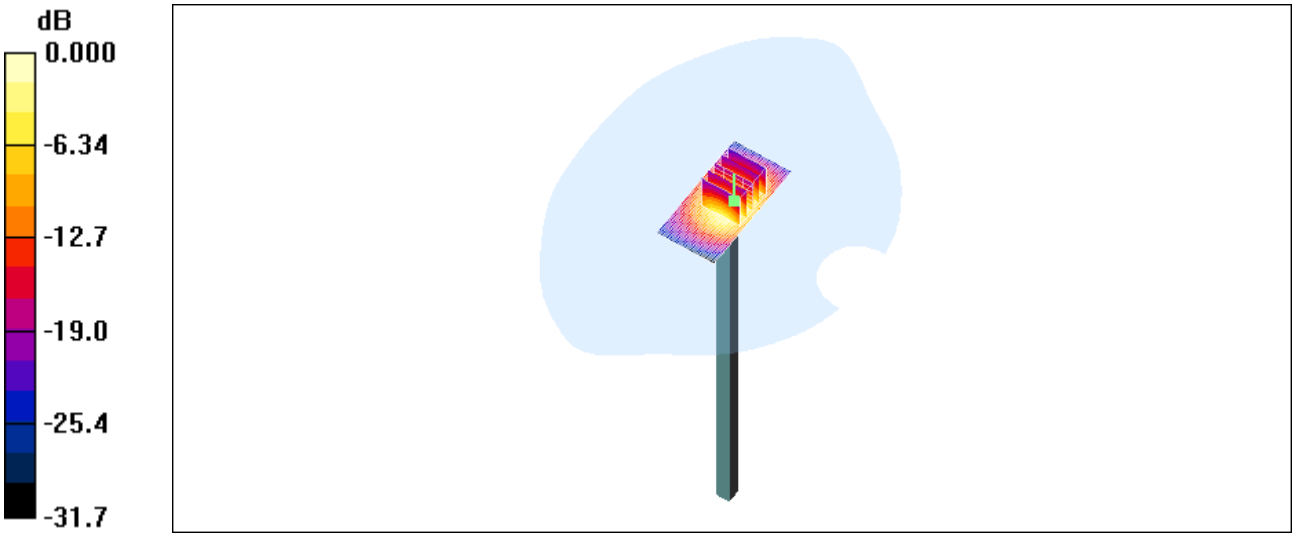
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747
Program Name: System Performance Check at 1900 MHz

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.88 mho/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(4.5, 4.5, 4.5); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/3/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 188.1 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 134.6 W/kg
SAR(1 g) = 57.8 mW/g; SAR(10 g) = 26.2 mW/g
Maximum value of SAR (measured) = 63.7 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 68.4 mW/g



0 dB = 68.4mW/g

Date/Time: 3/11/2010 3:45:15 PM

Test Laboratory: RIM TESTING SERVICES
File Name: DipoleValidation_2450MHz_Amb_Tem_23.0_Liq_Tem_22.5C.da4

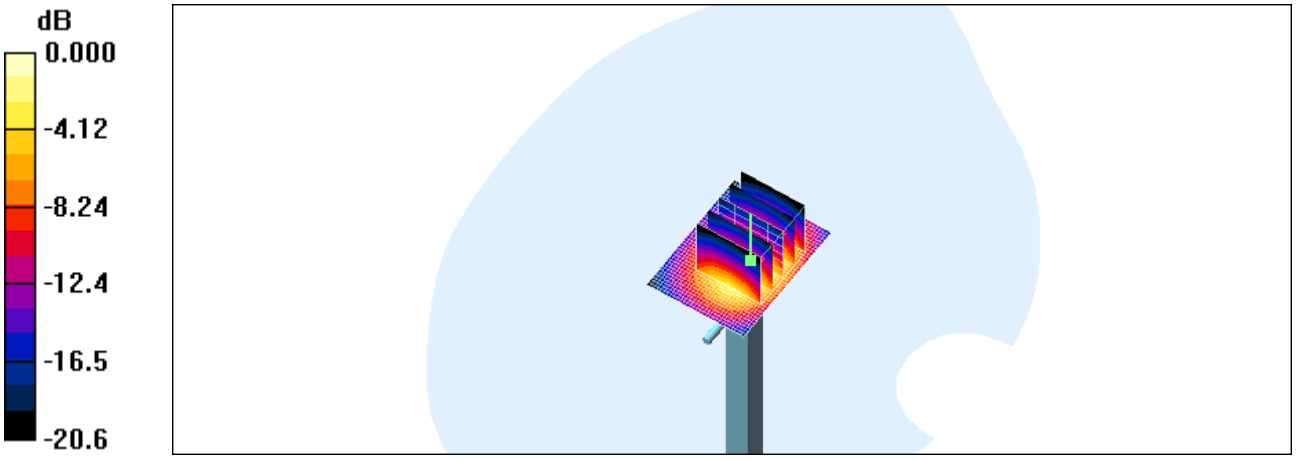
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747
Program Name: System Performance Check at 2450 MHz

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.88 mho/m; ε_r = 37.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(4.5, 4.5, 4.5); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 188.3 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 126.3 W/kg
SAR(1 g) = 55.9 mW/g; SAR(10 g) = 25.7 mW/g
Maximum value of SAR (measured) = 62.0 mW/g

d=10mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 63.7 mW/g



0 dB = 63.7mW/g