APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

Date/Time: 7/12/2012 3:31:28 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_07_12_12_Amb_Tem_24.1_Liq_Tem_22.5C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

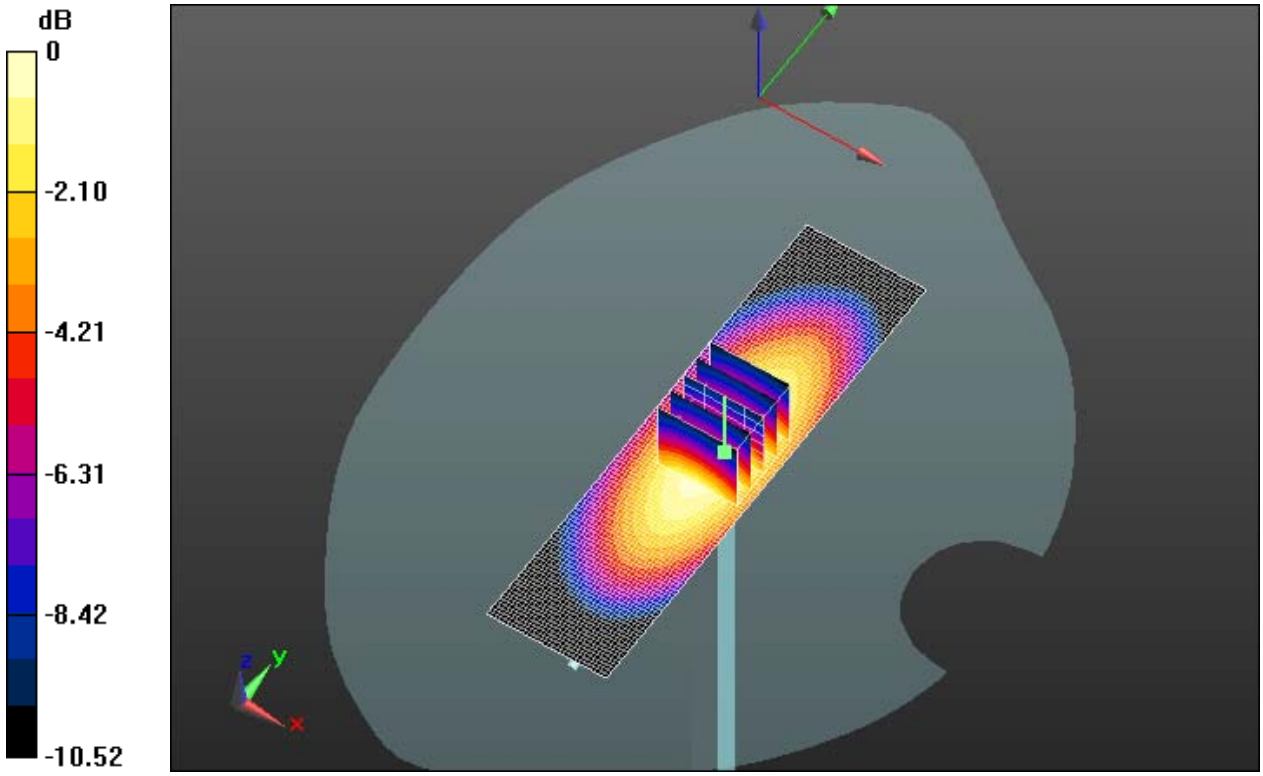
Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.902 mho/m; ε_r = 42.148; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.06, 6.06, 6.06); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.905 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 114.0 V/m; Power Drift = -0.0071 dB
Peak SAR (extrapolated) = 13.9020
SAR(1 g) = 9.44 mW/g; SAR(10 g) = 6.18 mW/g
Maximum value of SAR (measured) = 11.037 mW/g



0 dB = 11.040mW/g = 20.86 dB mW/g

Date/Time: 7/16/2012 10:00:08 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_07_16_12_Amb_Tem_23.7_Liq_Tem_23.0C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

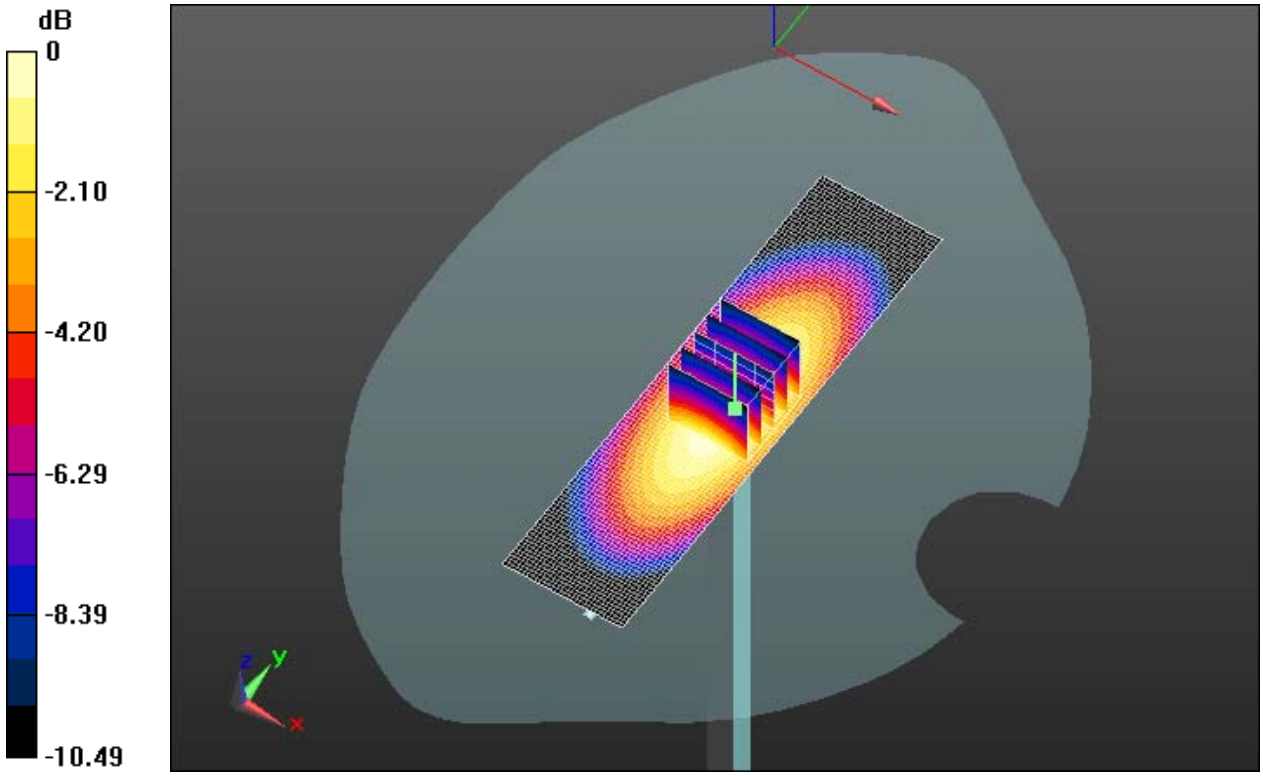
Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.904 mho/m; ε_r = 42.875; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.06, 6.06, 6.06); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.024 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 115.0 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.9070
SAR(1 g) = 9.5 mW/g; SAR(10 g) = 6.24 mW/g
Maximum value of SAR (measured) = 10.994 mW/g



0 dB = 10.990mW/g = 20.82 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_07_24_12_Amb_Tem_23.3_Liq_Tem_23.1C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

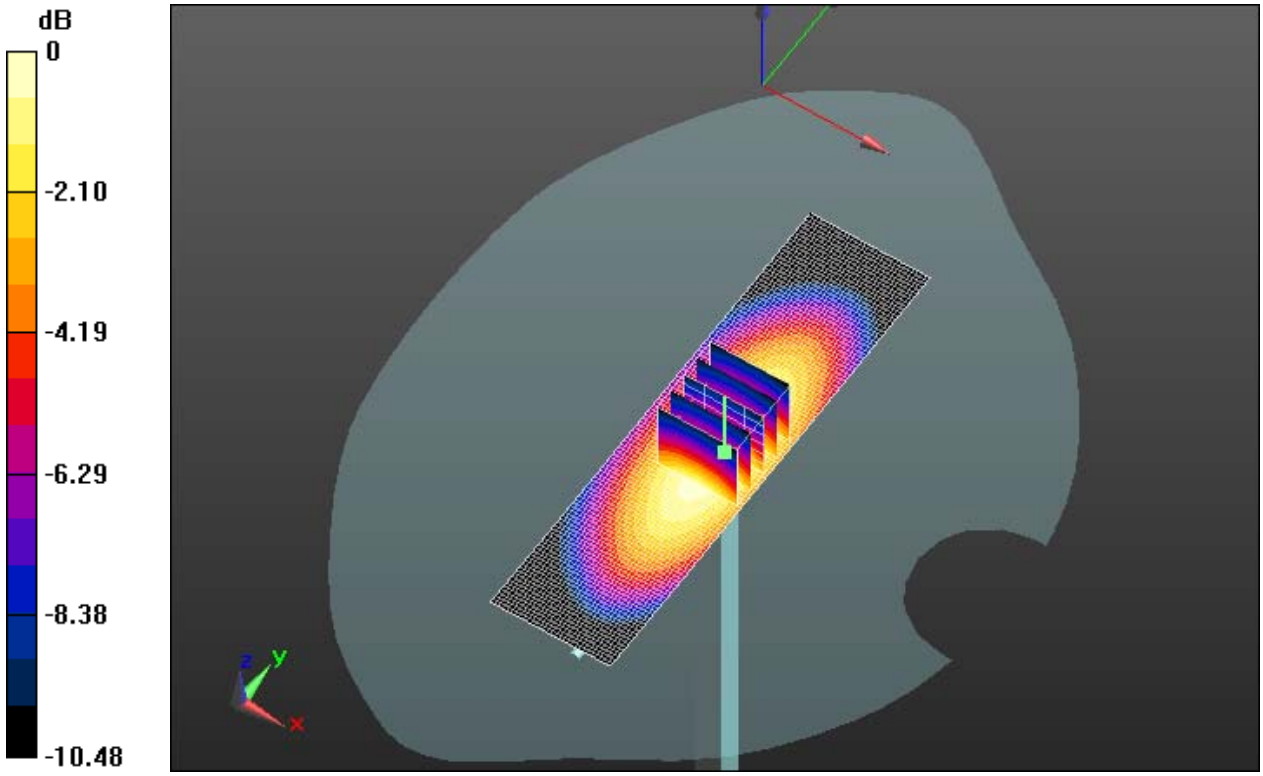
Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.877 mho/m; ε_r = 40.205; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.06, 6.06, 6.06); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.946 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 114.6 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 13.7940
SAR(1 g) = 9.39 mW/g; SAR(10 g) = 6.16 mW/g
Maximum value of SAR (measured) = 10.958 mW/g



0 dB = 10.960mW/g = 20.80 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_07_05_12_Amb_Tem_23.2_Liq_Tem_21.5C

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d020

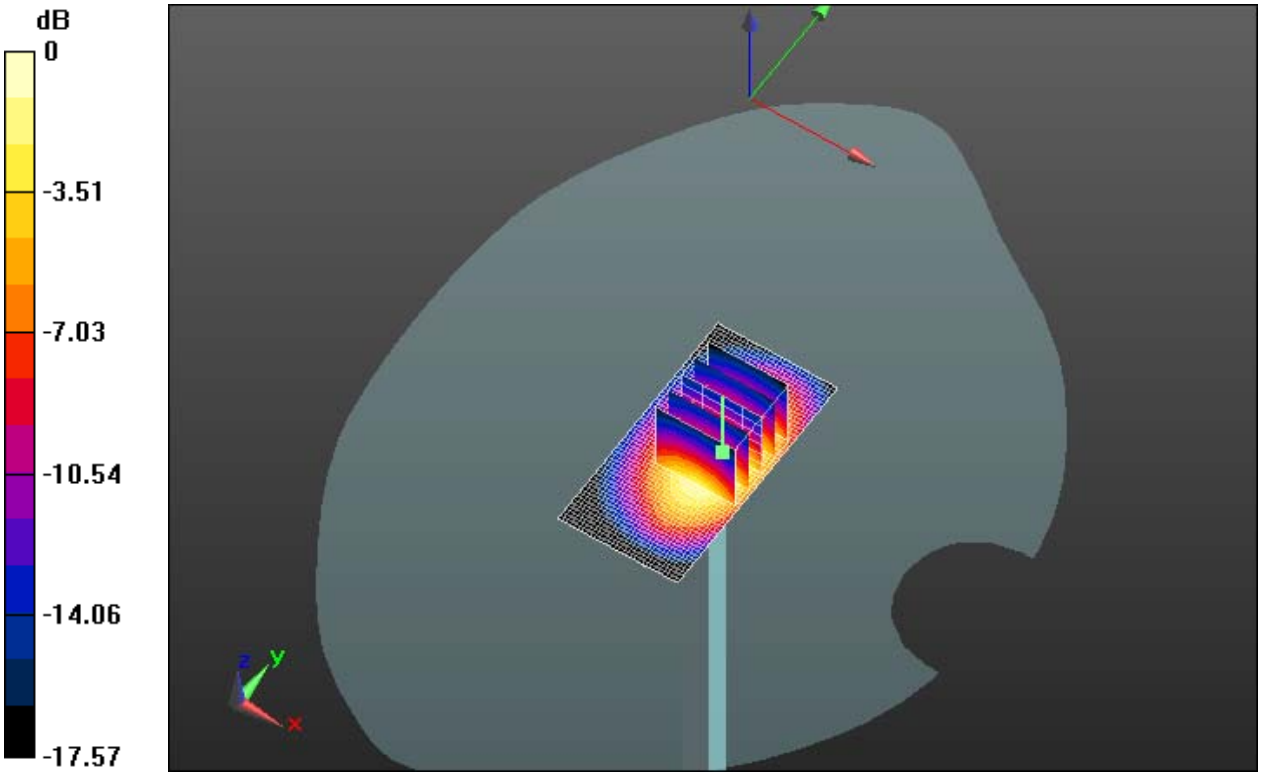
Communication System: CW; Frequency: 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.421 mho/m; ε_r = 38.028; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 46.728 mW/g

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 178.8 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 66.3890
SAR(1 g) = 36.1 mW/g; SAR(10 g) = 18.8 mW/g
Maximum value of SAR (measured) = 45.989 mW/g



0 dB = 45.990mW/g = 33.25 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_07_26_12_Amb_Tem_23.5_Liq_Tem_22.6C

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d020

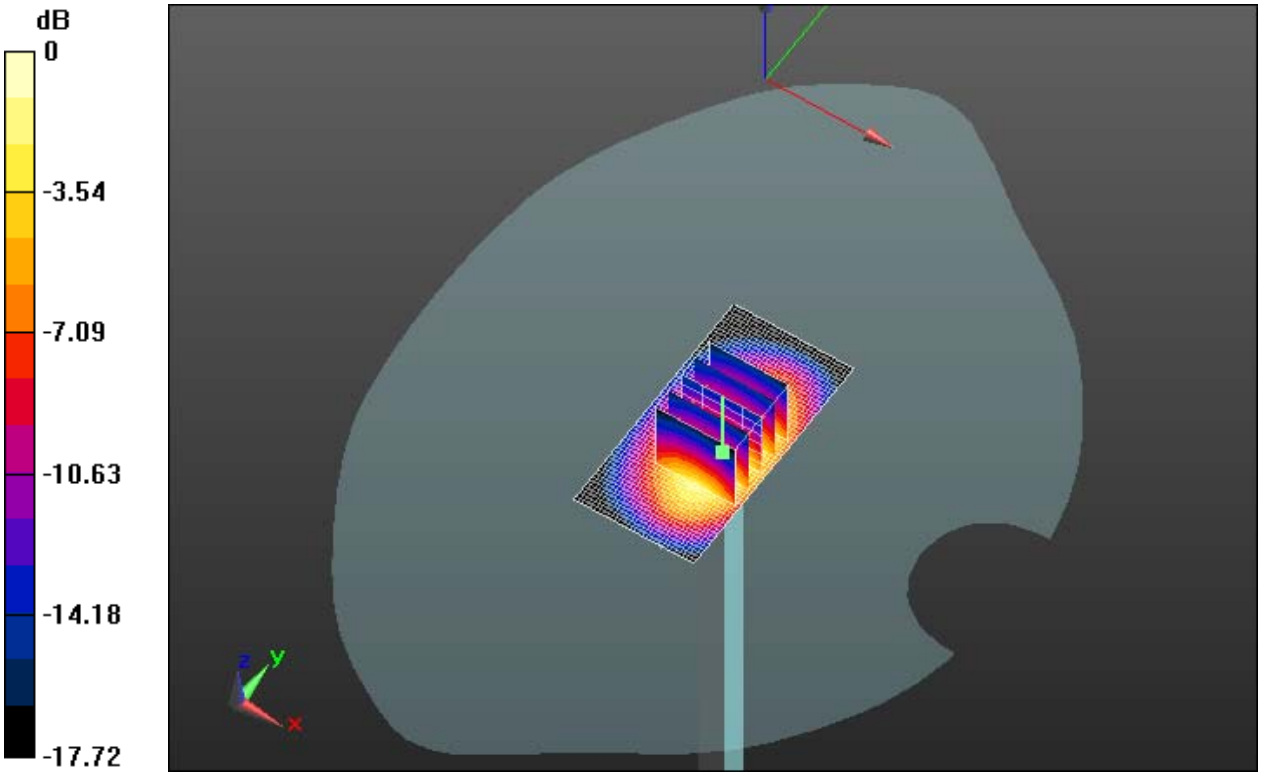
Communication System: CW; Frequency: 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.469 mho/m; ε_r = 38.092; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 49.067 mW/g

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 181.5 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 70.0030
SAR(1 g) = 38.1 mW/g; SAR(10 g) = 19.9 mW/g
Maximum value of SAR (measured) = 48.269 mW/g



0 dB = 48.270mW/g = 33.67 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_07_09_12_Amb_Tem_23.7_Liq_Tem_23.0C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545

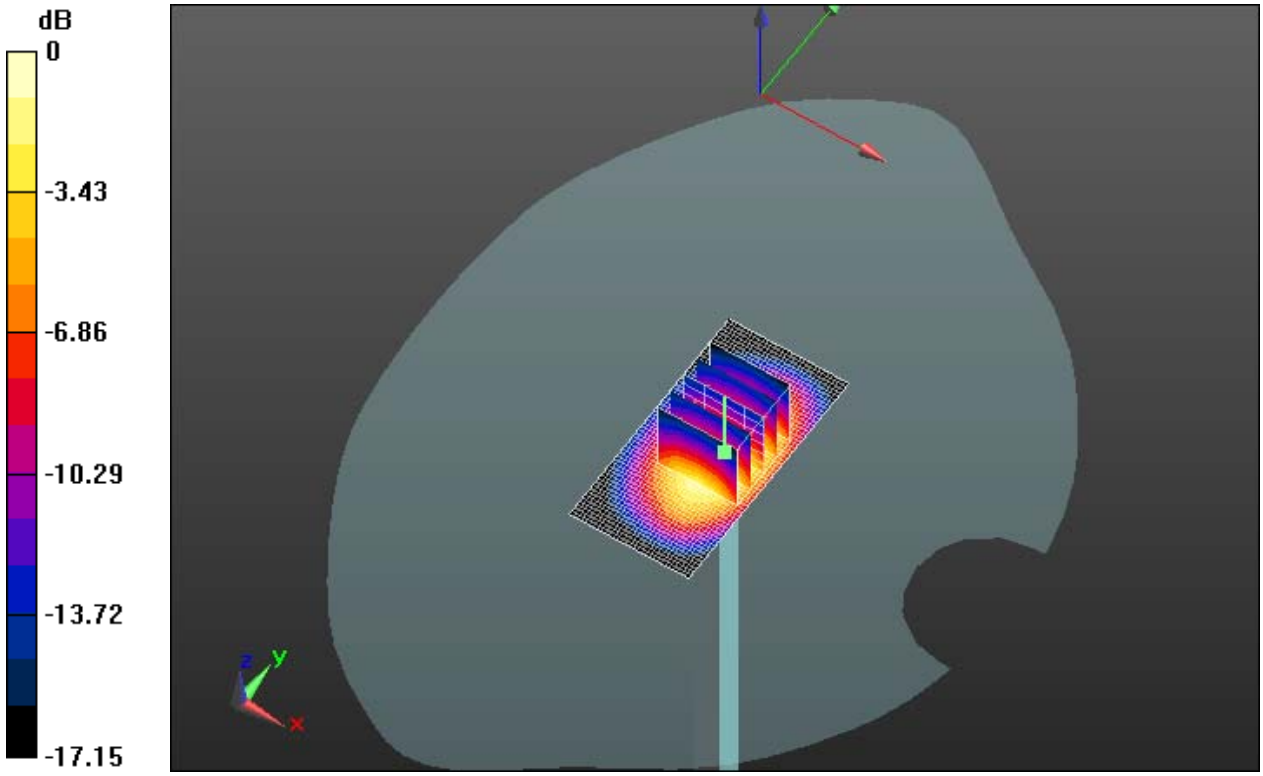
Communication System: CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.383 mho/m; ε_r = 38.863; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 50.993 mW/g

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 194.2 V/m; Power Drift = 0.0033 dB
Peak SAR (extrapolated) = 72.2590
SAR(1 g) = 40.1 mW/g; SAR(10 g) = 21.1 mW/g
Maximum value of SAR (measured) = 50.971 mW/g



0 dB = 50.970mW/g = 34.15 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_07_30_12_Amb_Tem_23.6_Liq_Tem_23.0C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545

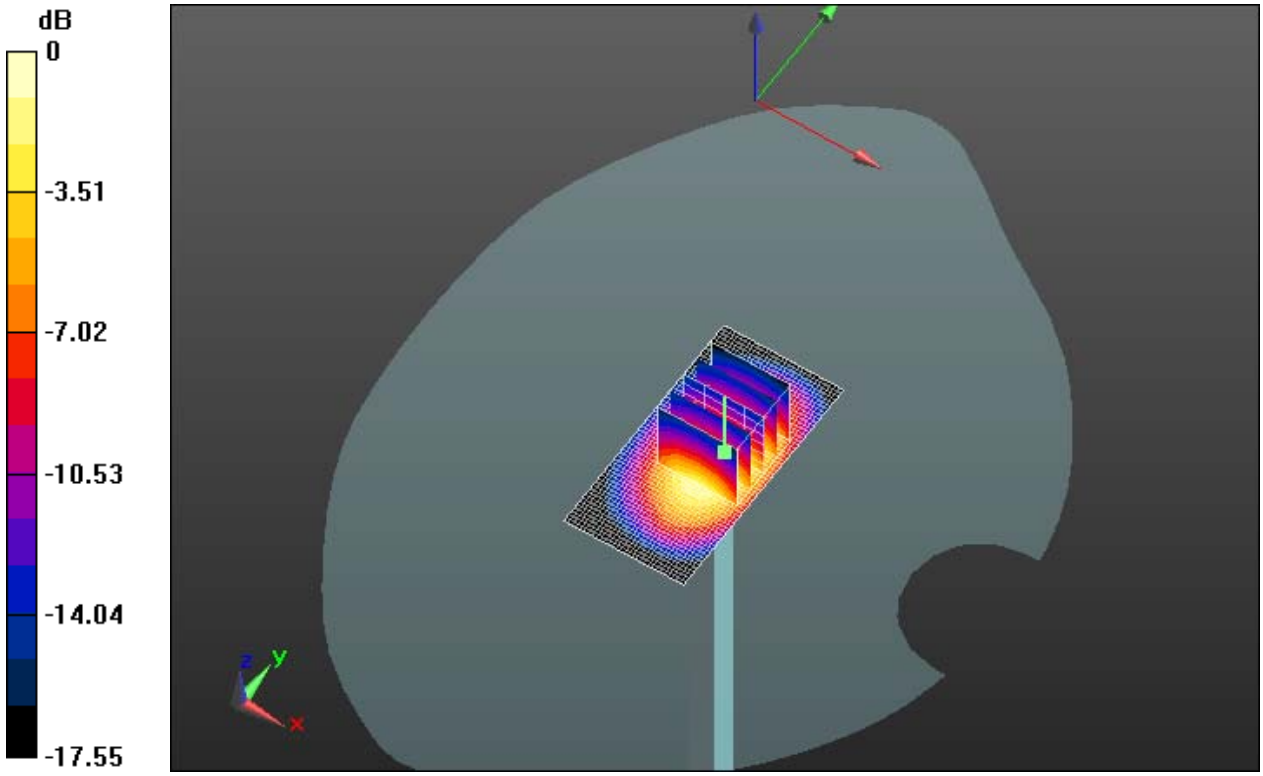
Communication System: CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.388 mho/m; ε_r = 38.398; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 51.724 mW/g

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 195.2 V/m; Power Drift = 0.0073 dB
Peak SAR (extrapolated) = 72.9760
SAR(1 g) = 40.5 mW/g; SAR(10 g) = 21.3 mW/g
Maximum value of SAR (measured) = 51.289 mW/g



0 dB = 51.290mW/g = 34.20 dB mW/g

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Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_07_11_12_Amb_Tem_23.9Liq_Tem_22.3C

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747

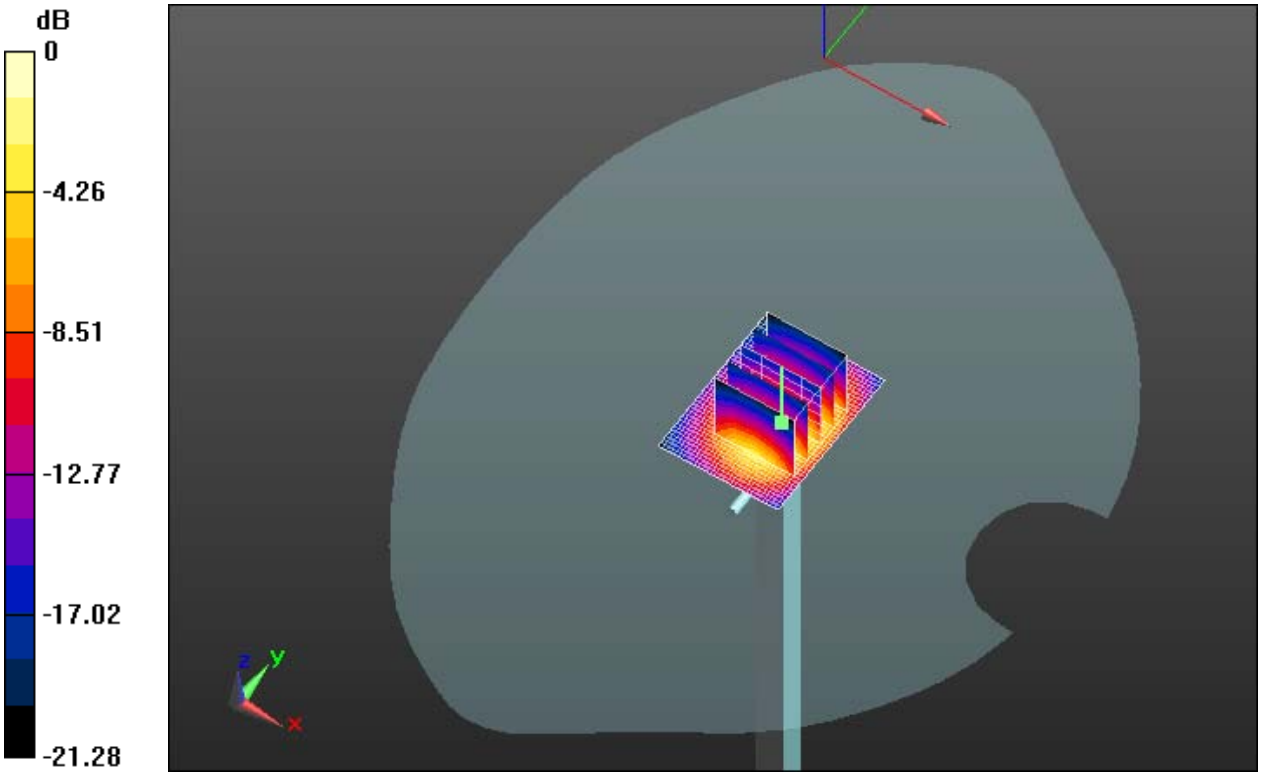
Communication System: CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.816 mho/m; ε_r = 39.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.5, 4.5, 4.5); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 74.542 mW/g

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 206.6 V/m; Power Drift = -0.0046 dB
Peak SAR (extrapolated) = 113.10
SAR(1 g) = 56.4 mW/g; SAR(10 g) = 26.6 mW/g
Maximum value of SAR (measured) = 74.147 mW/g



0 dB = 74.150mW/g = 37.40 dB mW/g