APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

Date/Time: 6/24/2013 3:56:37 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_06_24_13_Amb_Tem_23.7C_Liq_Tem_22.8 C

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

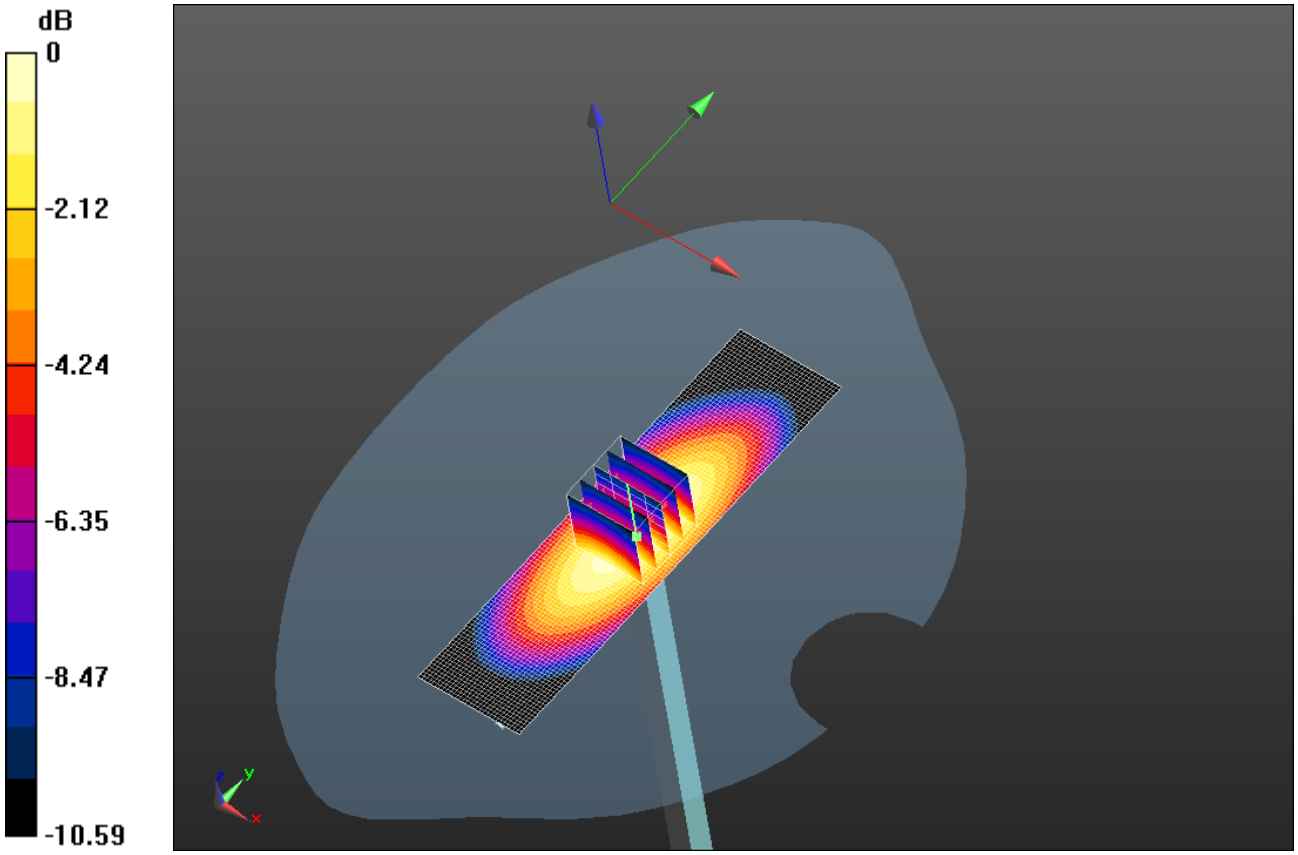
Communication System: UID 0 - n/a, CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.889 S/m; ε_r = 41.397; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 110.1 V/m; Power Drift = -0.02 dB
Fast SAR: SAR(1 g) = 8.68 W/kg; SAR(10 g) = 5.76 W/kg
Maximum value of SAR (interpolated) = 10.0 W/kg

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 110.1 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 12.8 W/kg
SAR(1 g) = 8.68 W/kg; SAR(10 g) = 5.68 W/kg
Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

Date/Time: 6/26/2013 11:59:26 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_06_26_13_Amb_Tem_23.3C_Liq_Tem_22.7 C

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

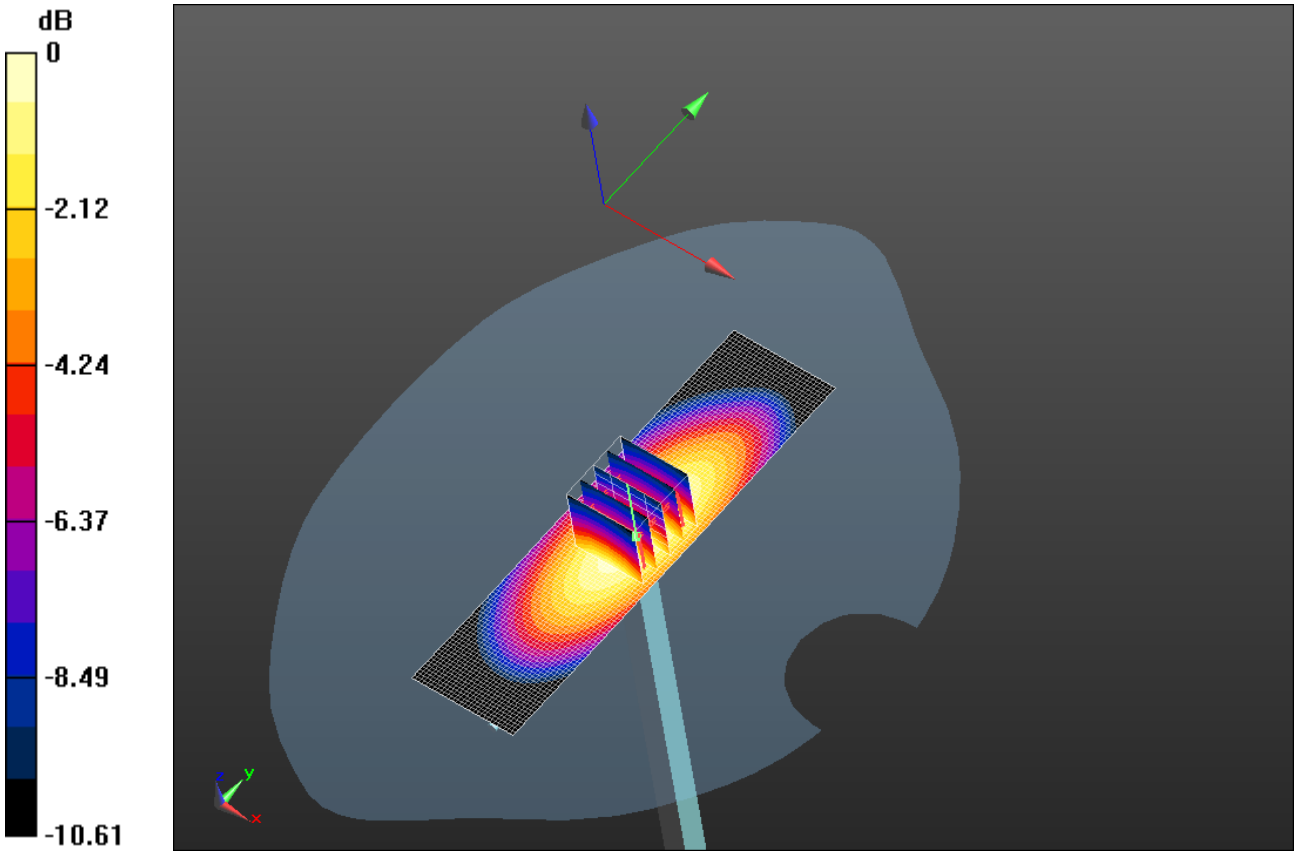
Communication System: UID 0 - n/a, CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.879 S/m; ε_r = 40.705; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 109.9 V/m; Power Drift = 0.00 dB
Fast SAR: SAR(1 g) = 8.66 W/kg; SAR(10 g) = 5.73 W/kg
Maximum value of SAR (interpolated) = 10.0 W/kg

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 109.9 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 12.7 W/kg
SAR(1 g) = 8.59 W/kg; SAR(10 g) = 5.62 W/kg
Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

Date/Time: 7/13/2013 12:26:59 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_07_13_13_Amb_Tem_24.1C_Liq_Tem_23.0 C

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

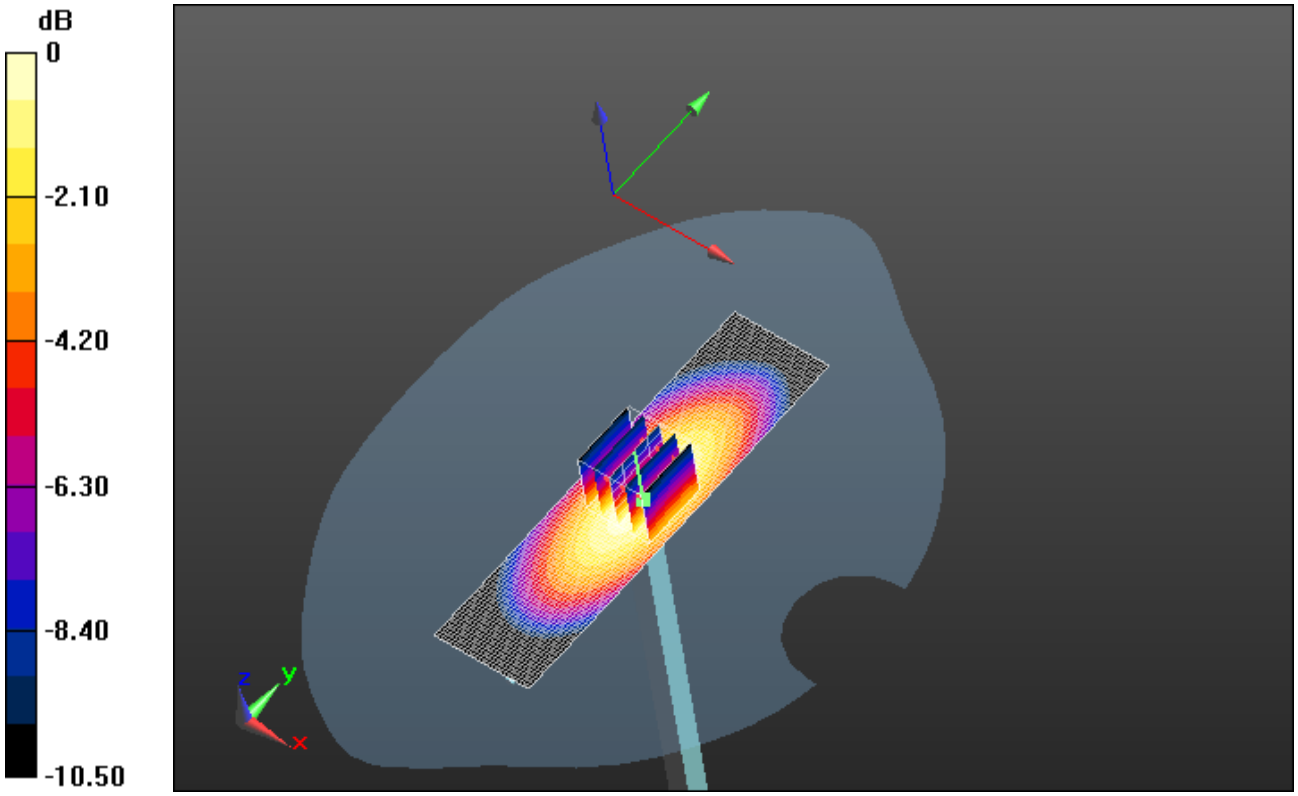
Communication System: UID 0 - n/a, CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.898 S/m; ε_r = 41.565; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 112.0 V/m; Power Drift = -0.02 dB
Fast SAR: SAR(1 g) = 9.09 W/kg; SAR(10 g) = 6.03 W/kg
Maximum value of SAR (interpolated) = 10.5 W/kg

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 112.0 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.4 W/kg
SAR(1 g) = 9.06 W/kg; SAR(10 g) = 5.94 W/kg
Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Date/Time: 7/16/2013 1:18:07 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_07_16_13_Amb_Tem_23.9C_Liq_Tem_23.1C

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

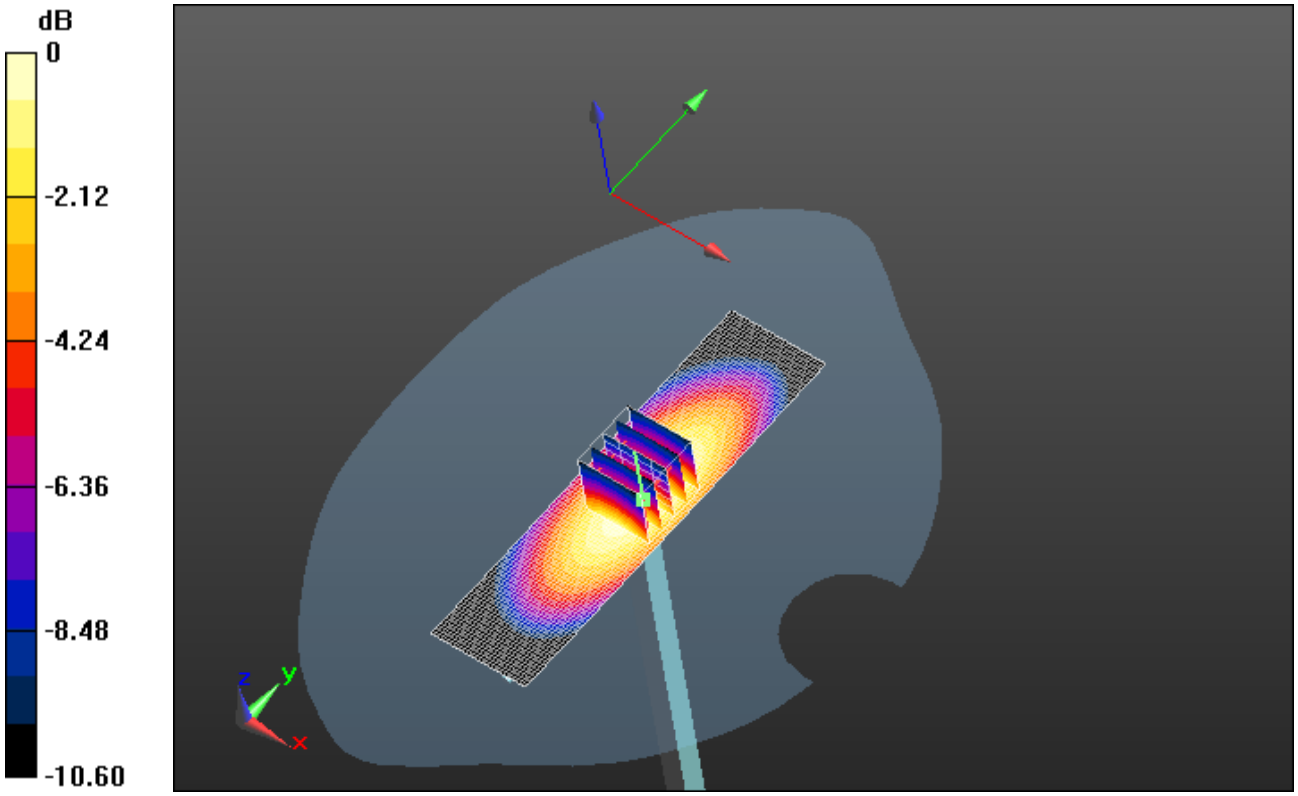
Communication System: UID 0 - n/a, CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.881 S/m; ε_r = 40.559; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 113.2 V/m; Power Drift = -0.20 dB
Fast SAR: SAR(1 g) = 9.08 W/kg; SAR(10 g) = 6.03 W/kg
Maximum value of SAR (interpolated) = 10.5 W/kg

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 113.2 V/m; Power Drift = -0.20 dB
Peak SAR (extrapolated) = 13.0 W/kg
SAR(1 g) = 8.8 W/kg; SAR(10 g) = 5.76 W/kg
Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.3 W/kg = 10.13 dBW/kg

Date/Time: 8/16/2013 12:49:10 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_08_16_13_Amb_Tem_23.6C_Liq_Tem_21.5 C

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

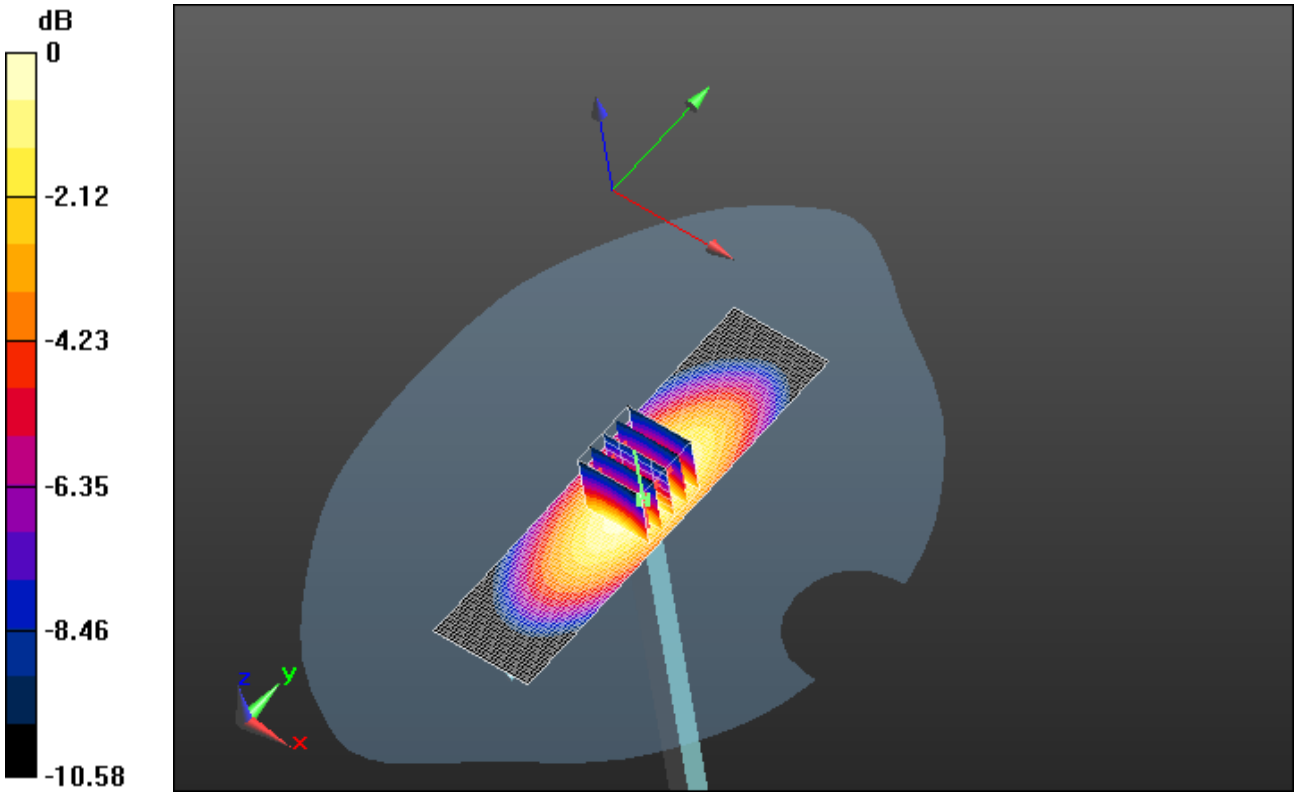
Communication System: UID 0 - n/a, CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.881 S/m; ε_r = 40.395; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 110.6 V/m; Power Drift = -0.01 dB
Fast SAR: SAR(1 g) = 8.7 W/kg; SAR(10 g) = 5.76 W/kg
Maximum value of SAR (interpolated) = 10.0 W/kg

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 110.6 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 12.7 W/kg
SAR(1 g) = 8.61 W/kg; SAR(10 g) = 5.64 W/kg
Maximum value of SAR (measured) = 10.0 W/kg



0 dB = 10.0 W/kg = 10.00 dBW/kg

Date/Time: 6/20/2013 11:44:41 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_06_20_13_Amb_Tem_23.0C_Liq_Tem_22.5 C

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

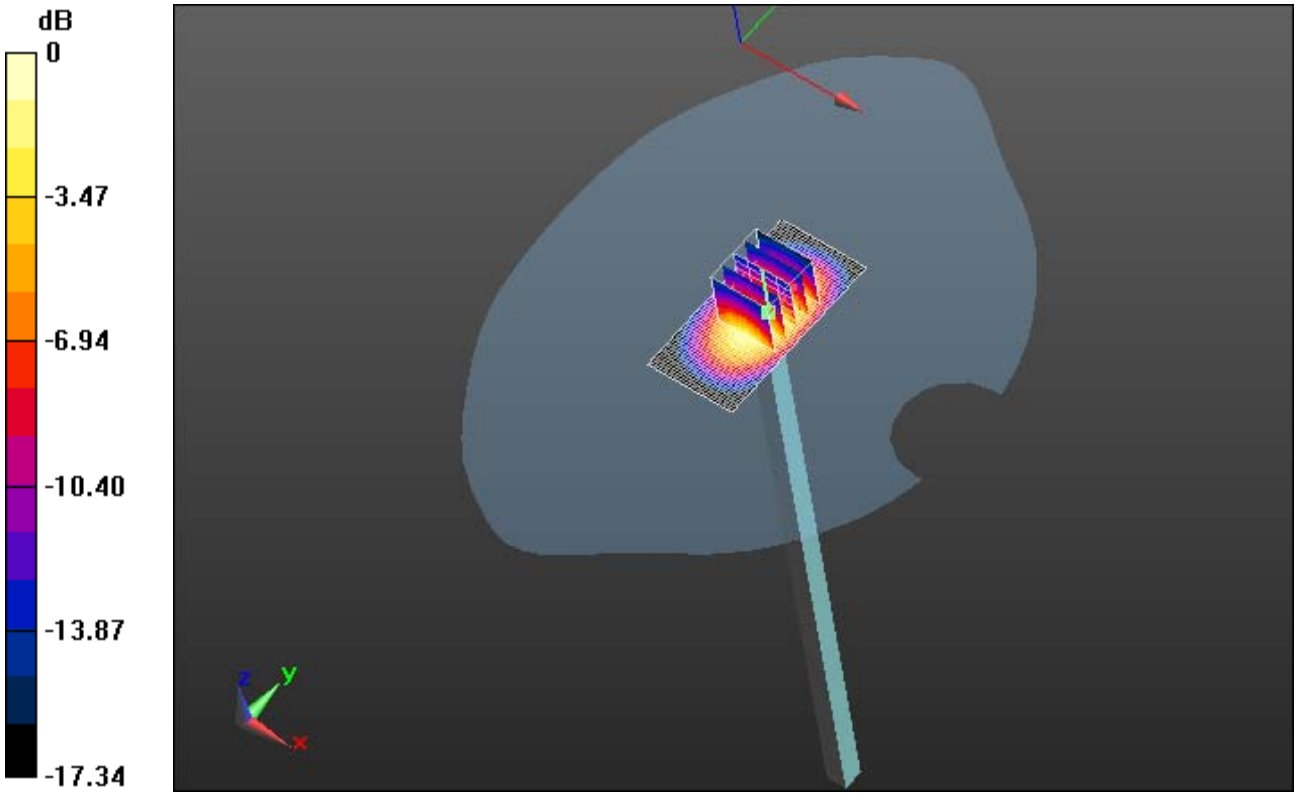
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.409 S/m; ε_r = 38.655; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 191.9 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 38.6 W/kg; SAR(10 g) = 20.2 W/kg
Maximum value of SAR (interpolated) = 48.6 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 191.9 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 67.0 W/kg
SAR(1 g) = 38 W/kg; SAR(10 g) = 20 W/kg
Maximum value of SAR (measured) = 48.1 W/kg



0 dB = 48.1 W/kg = 16.82 dBW/kg

Date/Time: 6/24/2013 12:51:56 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_06_24_13_Amb_Tem_23.3C_Liq_Tem_22.2C

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

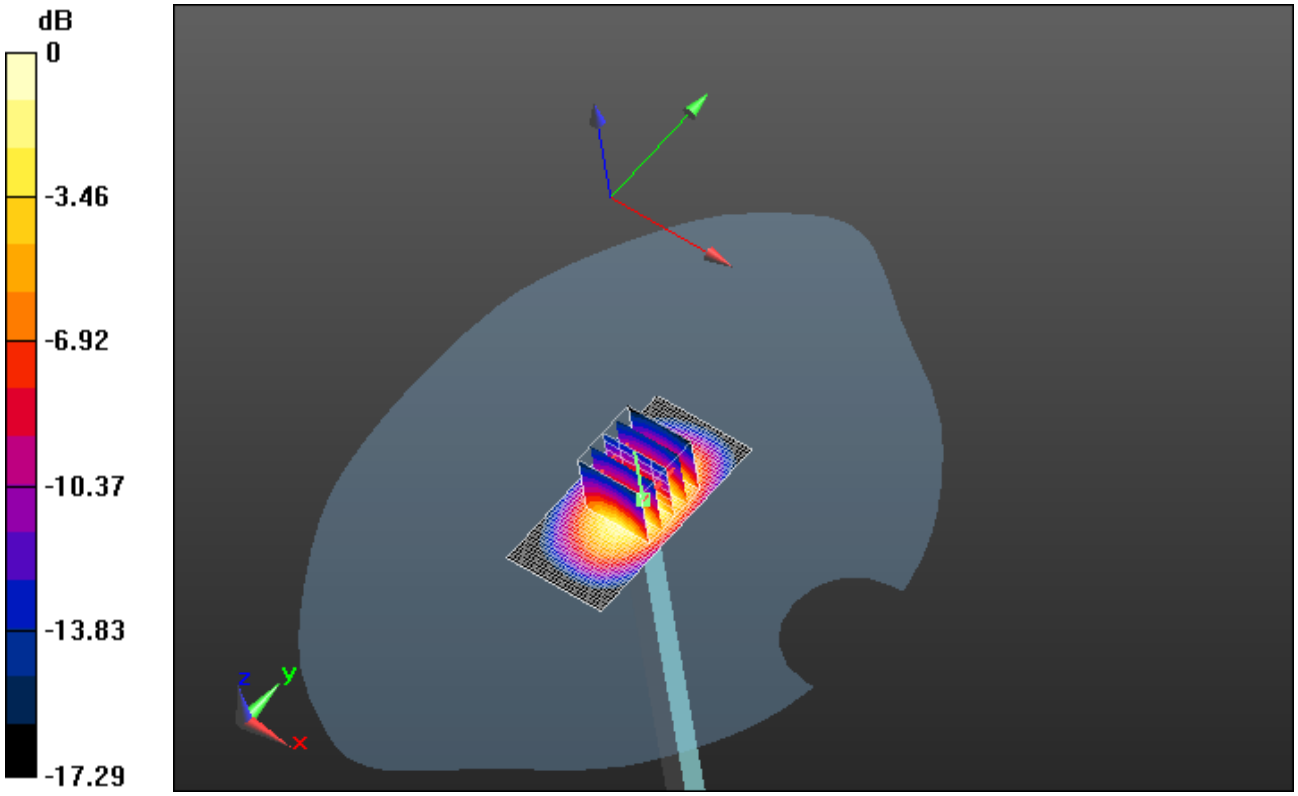
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.4 S/m; ε_r = 39.045; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 188.8 V/m; Power Drift = -0.06 dB
Fast SAR: SAR(1 g) = 37.5 W/kg; SAR(10 g) = 19.7 W/kg
Maximum value of SAR (interpolated) = 47.1 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 188.8 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 64.9 W/kg
SAR(1 g) = 36.6 W/kg; SAR(10 g) = 19.3 W/kg
Maximum value of SAR (measured) = 46.6 W/kg



0 dB = 46.6 W/kg = 16.68 dBW/kg

Date/Time: 6/28/2013 5:34:41 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_06_28_13_Amb_Tem_23.2C_Liq_Tem_23.0 C

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

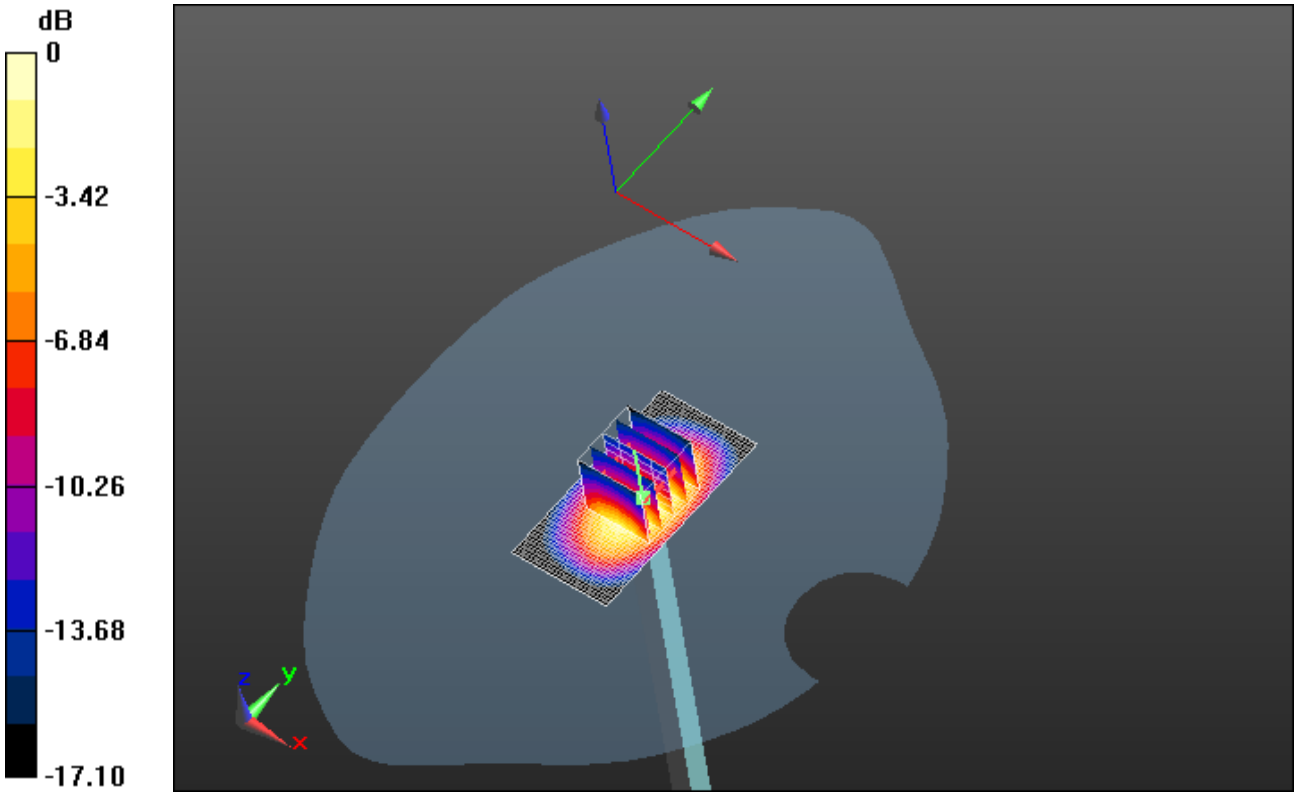
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.375 S/m; ε_r = 39.298; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 188.8 V/m; Power Drift = -0.02 dB
Fast SAR: SAR(1 g) = 36.9 W/kg; SAR(10 g) = 19.5 W/kg
Maximum value of SAR (interpolated) = 46.1 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 188.8 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 64.6 W/kg
SAR(1 g) = 36.4 W/kg; SAR(10 g) = 19.2 W/kg
Maximum value of SAR (measured) = 46.2 W/kg



0 dB = 46.2 W/kg = 16.65 dBW/kg

Date/Time: 7/2/2013 12:46:05 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_07_02_13_Amb_Tem_23.2C_Liq_Tem_21.6C

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

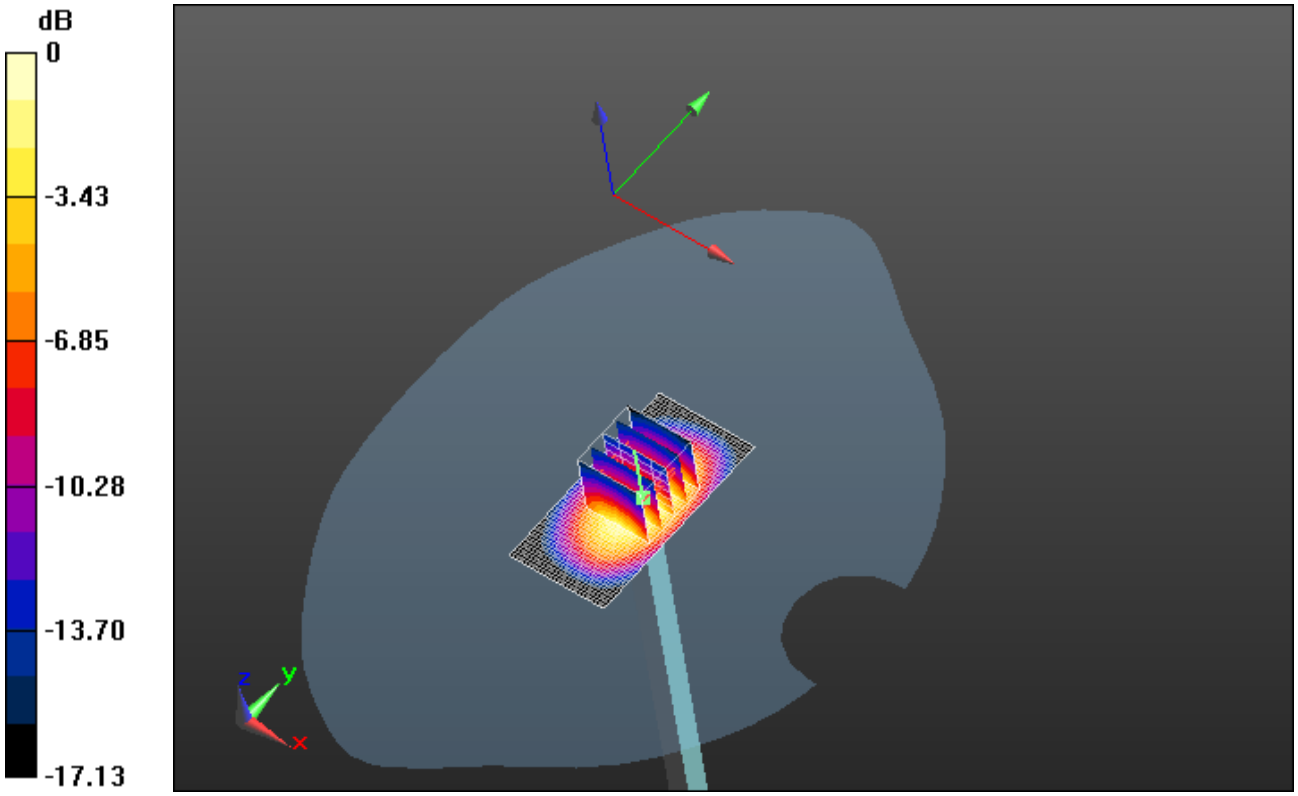
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.387 S/m; ε_r = 38.399; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 190.8 V/m; Power Drift = 0.03 dB
Fast SAR: SAR(1 g) = 37.6 W/kg; SAR(10 g) = 19.8 W/kg
Maximum value of SAR (interpolated) = 47.1 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 190.8 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 65.5 W/kg
SAR(1 g) = 37 W/kg; SAR(10 g) = 19.5 W/kg
Maximum value of SAR (measured) = 46.6 W/kg



0 dB = 46.6 W/kg = 16.68 dBW/kg

Date/Time: 7/5/2013 12:57:00 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_07_05_13_Amb_Tem_23.3C_Liq_Tem_21.7 C

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

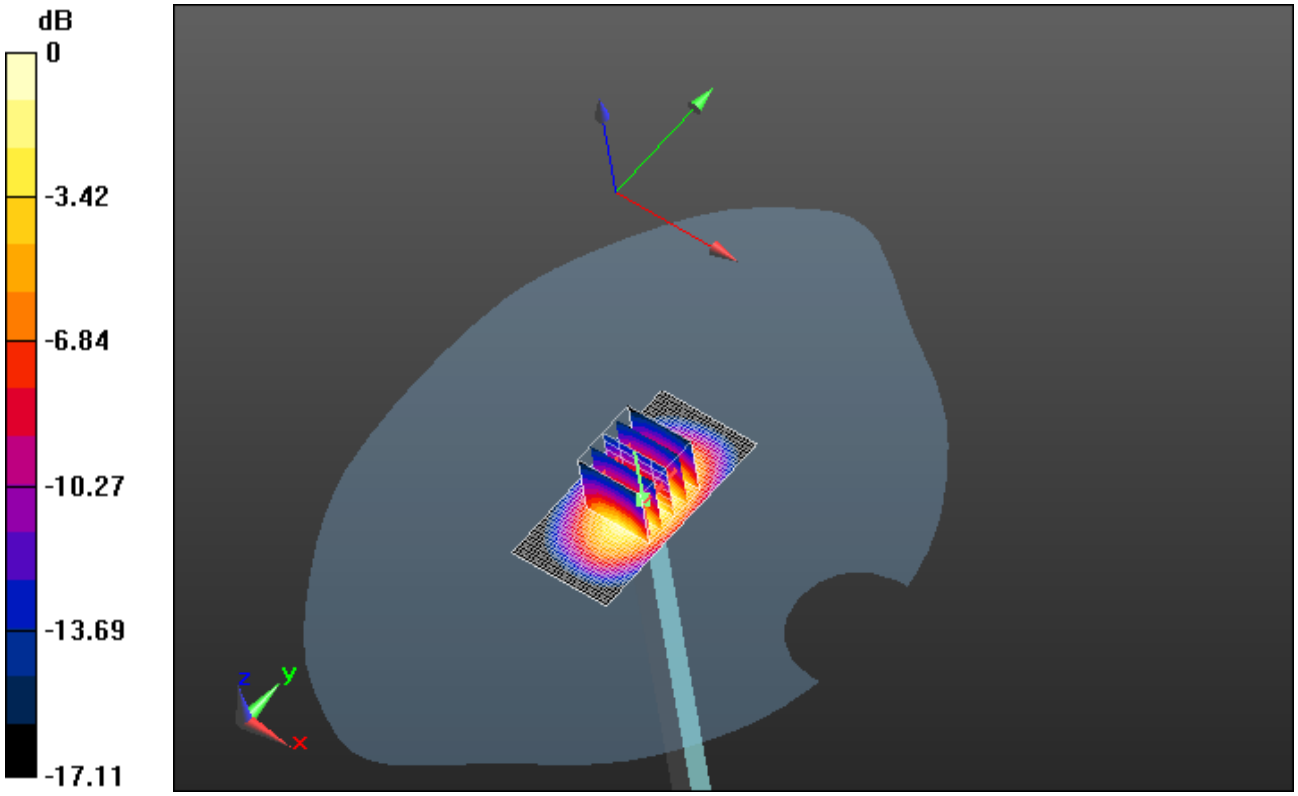
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.408 S/m; ε_r = 38.666; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 186.9 V/m; Power Drift = -0.02 dB
Fast SAR: SAR(1 g) = 36.7 W/kg; SAR(10 g) = 19.4 W/kg
Maximum value of SAR (interpolated) = 45.9 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 186.9 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 63.9 W/kg
SAR(1 g) = 36.2 W/kg; SAR(10 g) = 19.1 W/kg
Maximum value of SAR (measured) = 45.9 W/kg



0 dB = 45.9 W/kg = 16.62 dBW/kg

Date/Time: 7/8/2013 11:04:31 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_07_08_13_Amb_Tem_23.0C_Liq_Tem_22.5 C

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

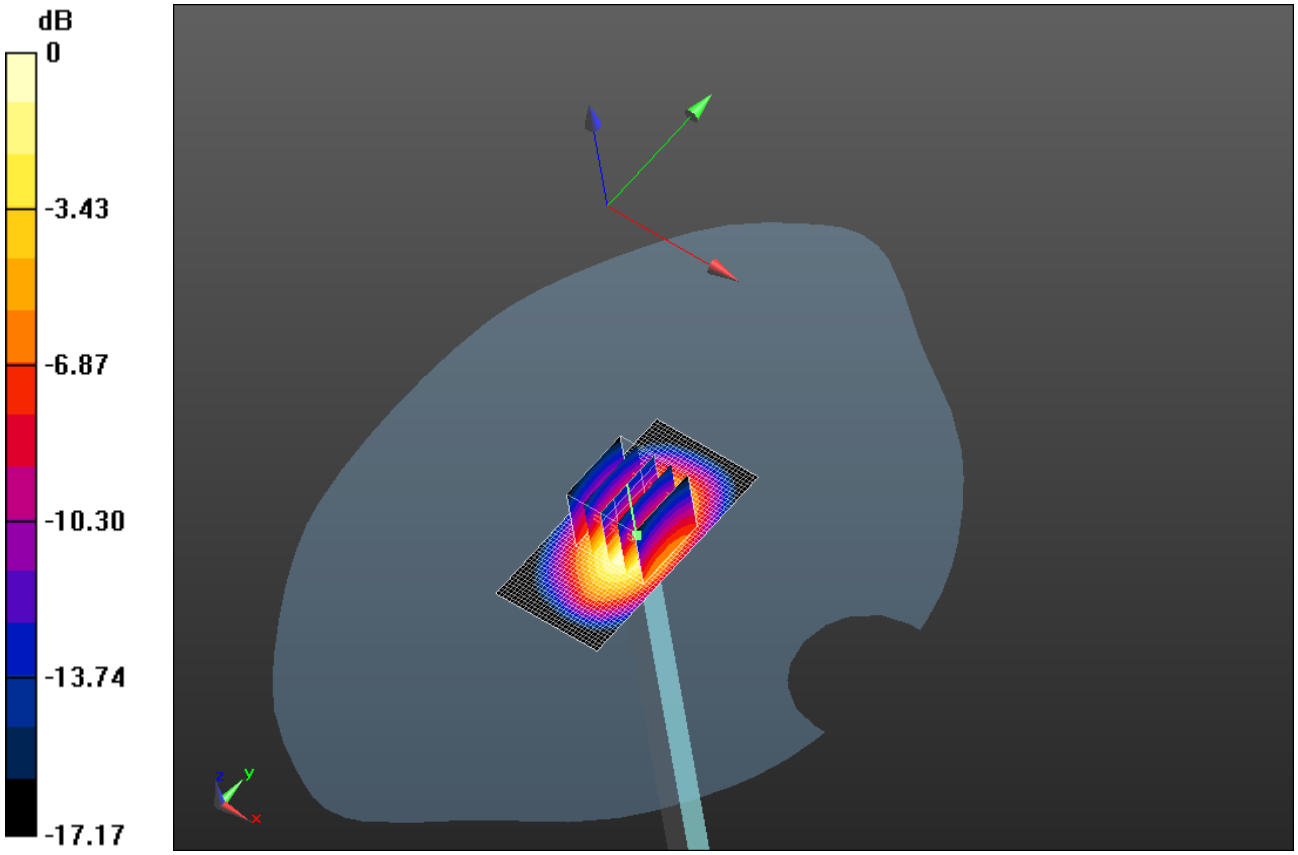
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.375 S/m; ε_r = 38.543; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 190.8 V/m; Power Drift = -0.03 dB
Fast SAR: SAR(1 g) = 37.3 W/kg; SAR(10 g) = 19.6 W/kg
Maximum value of SAR (interpolated) = 46.9 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 190.8 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 65.1 W/kg
SAR(1 g) = 36.6 W/kg; SAR(10 g) = 19.2 W/kg
Maximum value of SAR (measured) = 46.7 W/kg



0 dB = 46.7 W/kg = 16.69 dBW/kg

Date/Time: 8/7/2013 3:04:00 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_08_07_13_Amb_Tem_23.5C_Liq_Tem_22.2 C

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

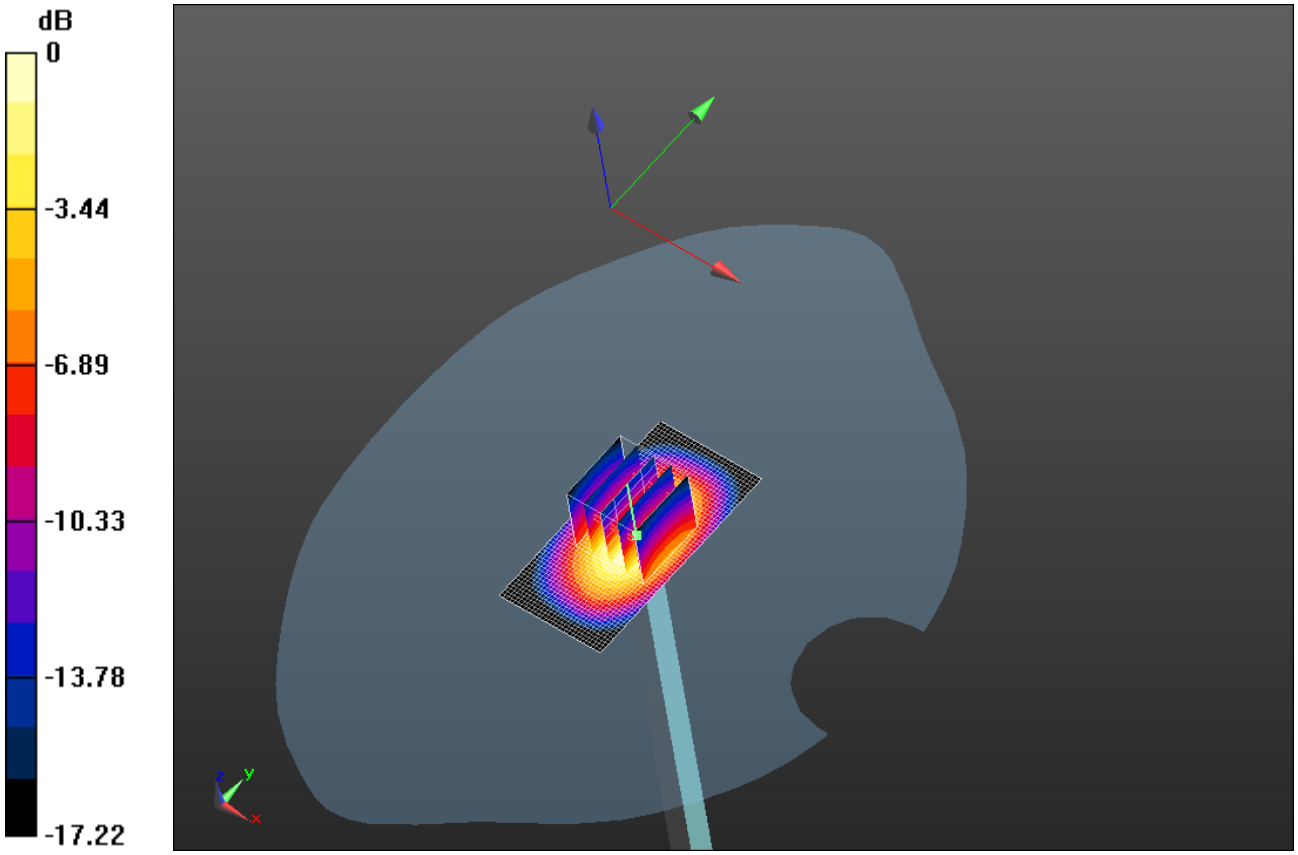
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.378 S/m; ε_r = 38.172; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 194.4 V/m; Power Drift = -0.01 dB
Fast SAR: SAR(1 g) = 38.7 W/kg; SAR(10 g) = 20.5 W/kg
Maximum value of SAR (interpolated) = 48.5 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 194.4 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 67.7 W/kg
SAR(1 g) = 38 W/kg; SAR(10 g) = 19.9 W/kg
Maximum value of SAR (measured) = 48.4 W/kg



0 dB = 48.4 W/kg = 16.85 dBW/kg

Date/Time: 8/15/2013 1:55:03 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_08_15_13_Amb_Tem_23.2C_Liq_Tem_23.0 C

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

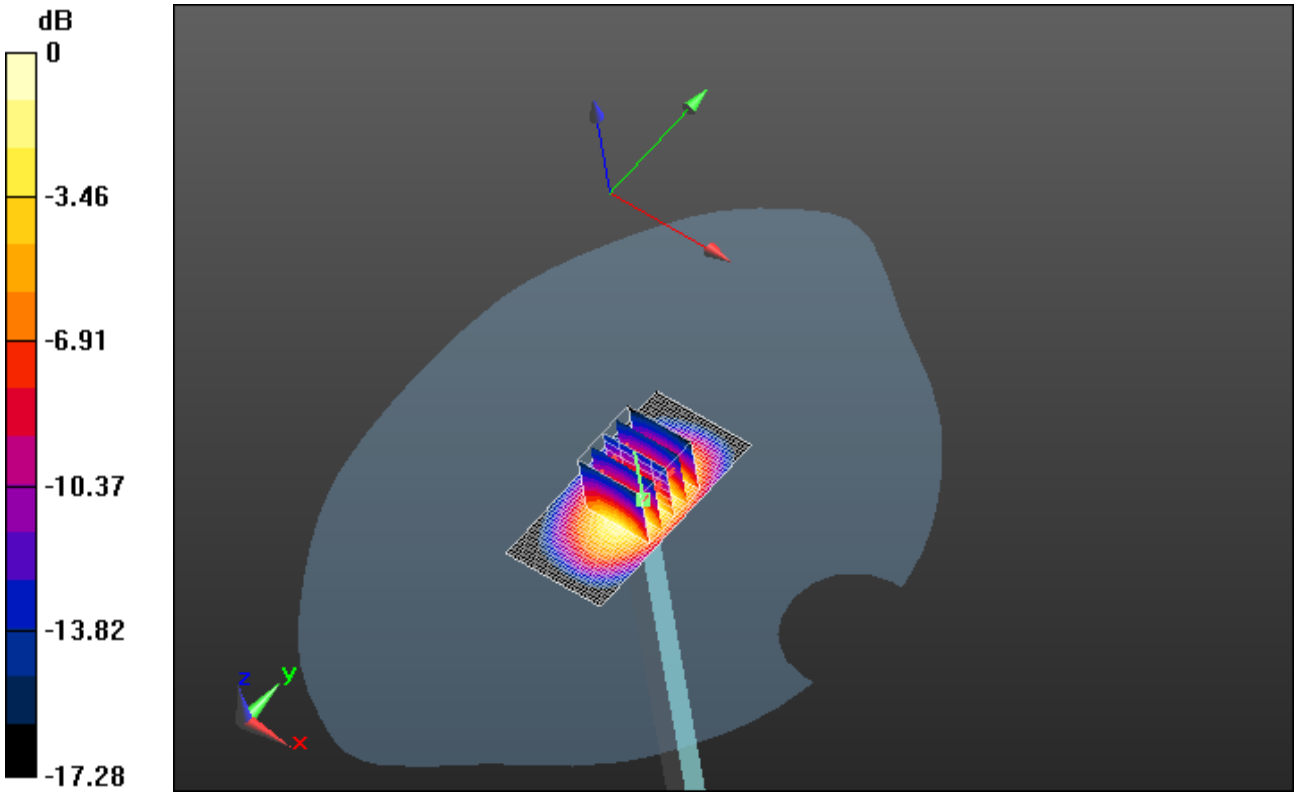
Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.384 S/m; ε_r = 38.362; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 189.0 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 37.6 W/kg; SAR(10 g) = 19.8 W/kg
Maximum value of SAR (interpolated) = 47.1 W/kg

Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 189.0 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 65.1 W/kg
SAR(1 g) = 36.7 W/kg; SAR(10 g) = 19.3 W/kg
Maximum value of SAR (measured) = 46.6 W/kg



0 dB = 46.6 W/kg = 16.68 dBW/kg

Date/Time: 6/17/2013 12:56:14 AM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_06_17_13_Amb_Tem_23.4C_Liq_Tem_22.5 C

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

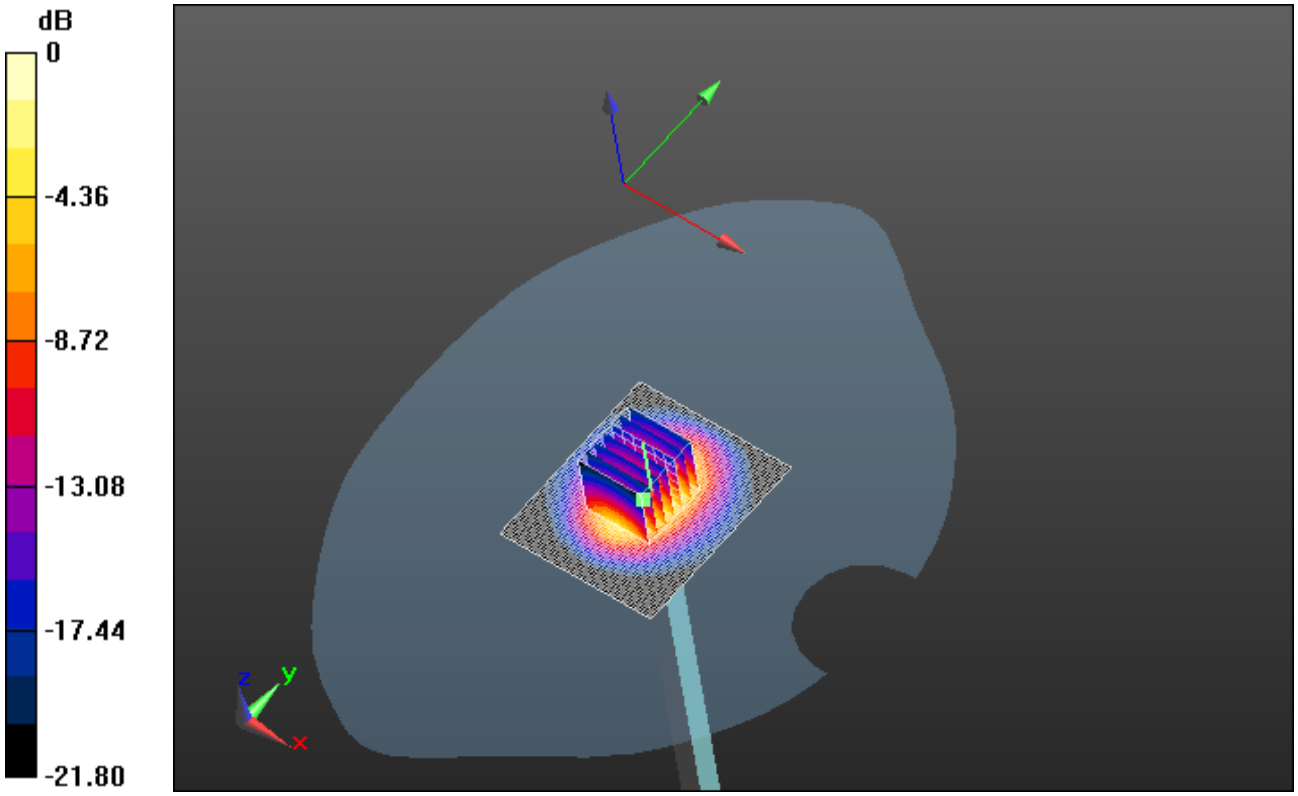
Communication System: UID 0 - n/a, CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.76 S/m; ε_r = 39.411; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.65, 4.65, 4.65); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Area Scan (61x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 202.9 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 50.3 W/kg; SAR(10 g) = 22.1 W/kg
Maximum value of SAR (interpolated) = 69.4 W/kg

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 202.9 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 95.4 W/kg
SAR(1 g) = 49.8 W/kg; SAR(10 g) = 23.8 W/kg
Maximum value of SAR (measured) = 64.4 W/kg



0 dB = 64.4 W/kg = 18.09 dBW/kg

Date/Time: 7/19/2013 8:54:16 AM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_07_19_13_Amb_Tem_23.0C_Liq_Tem_22.8C

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

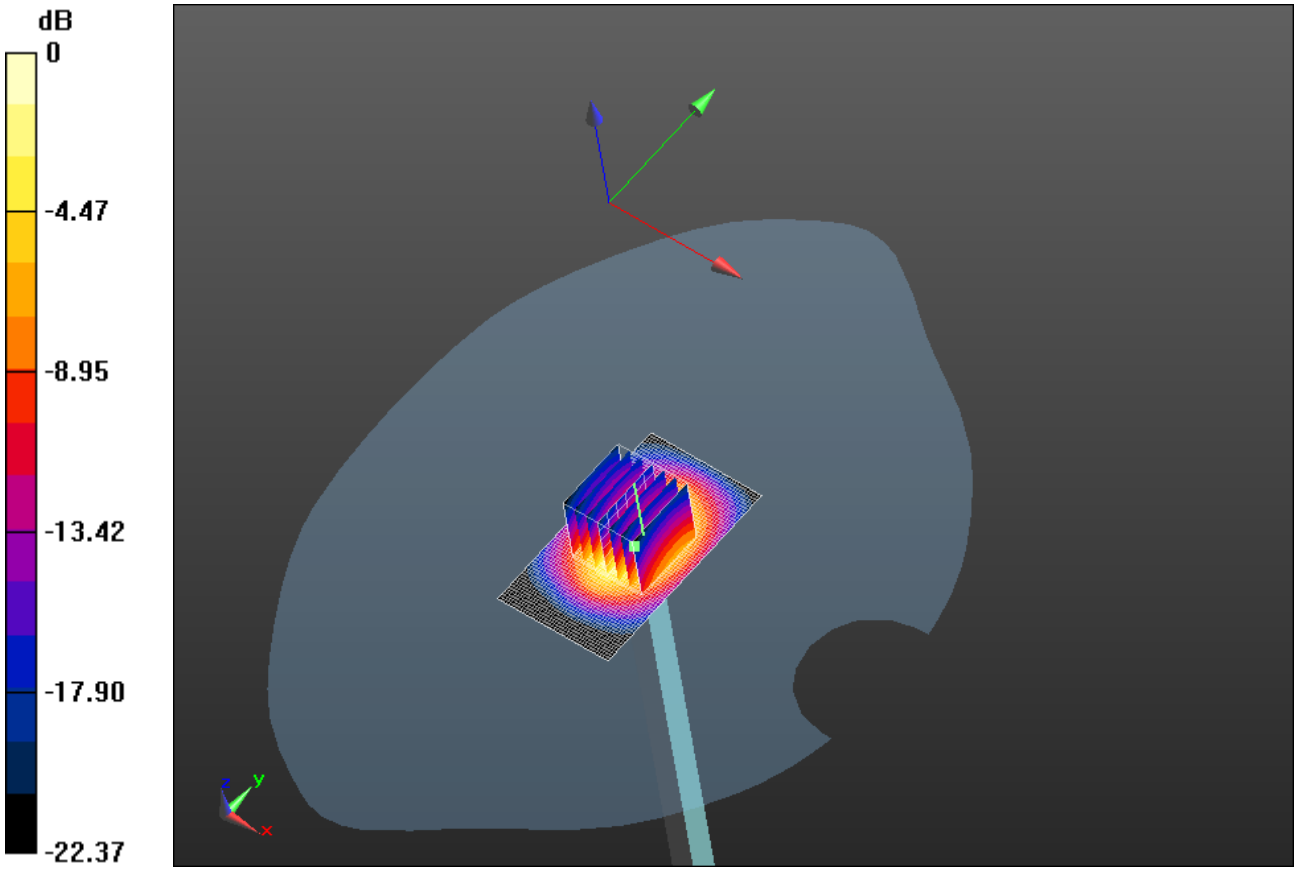
Communication System: UID 0 - n/a, CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.831 S/m; ε_r = 37.795; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.65, 4.65, 4.65); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Area Scan (41x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 204.6 V/m; Power Drift = -0.09 dB
Fast SAR: SAR(1 g) = 52.5 W/kg; SAR(10 g) = 23.2 W/kg
Maximum value of SAR (interpolated) = 71.2 W/kg

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 204.6 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 102 W/kg
SAR(1 g) = 52.1 W/kg; SAR(10 g) = 24.6 W/kg
Maximum value of SAR (measured) = 67.6 W/kg



0 dB = 67.6 W/kg = 18.30 dBW/kg

Date/Time: 7/23/2013 11:15:43 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_07_23_13_Amb_Tem_23.2C_Liq_Tem_22.4 C

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

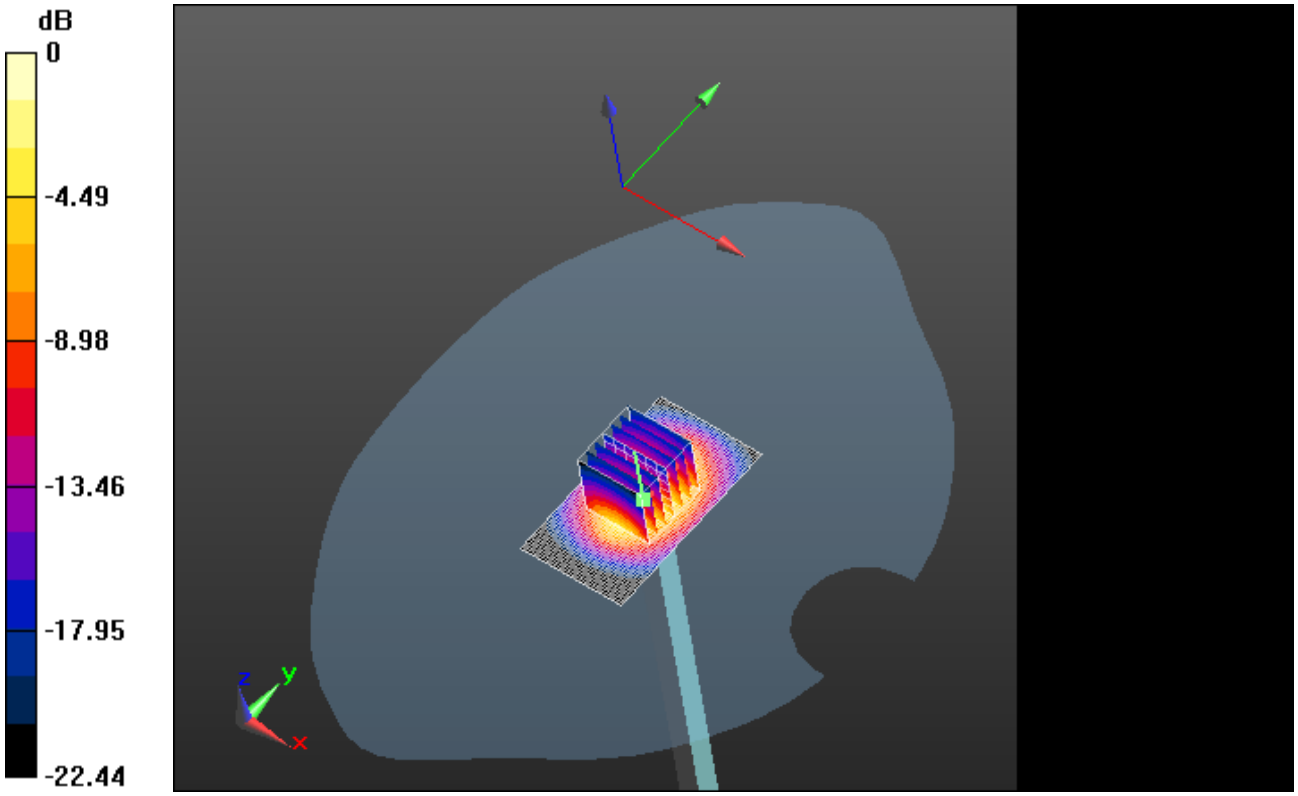
Communication System: UID 0 - n/a, CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.845 S/m; ε_r = 37.878; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.65, 4.65, 4.65); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Area Scan (41x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 202.1 V/m; Power Drift = -0.06 dB
Fast SAR: SAR(1 g) = 51.7 W/kg; SAR(10 g) = 22.8 W/kg
Maximum value of SAR (interpolated) = 70.4 W/kg

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=1000 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 202.1 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 102 W/kg
SAR(1 g) = 51.6 W/kg; SAR(10 g) = 24.3 W/kg
Maximum value of SAR (measured) = 67.1 W/kg



0 dB = 67.1 W/kg = 18.27 dBW/kg

Date/Time: 6/18/2013 12:46:34 PM

Test Laboratory: RIM Testing Services

Dipole Validation_5200-5800

MHz_06_18_13_Amb_Tem_23.8_Liq_Tem_22.2C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033

Communication System: UID 10000 - n/a, CW; Frequency: 5200 MHz
Medium parameters used: f = 5200 MHz; σ = 4.65 S/m; ε_r = 34.46; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3548; ConvF(5.13, 5.13, 5.13); Calibrated: 1/15/2013;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 194.1 V/m; Power Drift = 0.02 dB
Fast SAR: SAR(1 g) = 75.6 W/kg; SAR(10 g) = 21.2 W/kg
Maximum value of SAR (interpolated) = 176 W/kg

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 194.1 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 307 W/kg
SAR(1 g) = 80.2 W/kg; SAR(10 g) = 23.3 W/kg
Maximum value of SAR (measured) = 163 W/kg

Date/Time: 6/18/2013 1:14:23 PM

Test Laboratory: RIM Testing Services

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033

Communication System: UID 0 - n/a, CW-5GHz; Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.917 S/m; ε_r = 34.144; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3548; ConvF(4.79, 4.79, 4.79); Calibrated: 1/15/2013;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 193.7 V/m; Power Drift = -0.00 dB
Fast SAR: SAR(1 g) = 77.6 W/kg; SAR(10 g) = 21.3 W/kg
Maximum value of SAR (interpolated) = 187 W/kg

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 193.7 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 339 W/kg
SAR(1 g) = 81.8 W/kg; SAR(10 g) = 23.4 W/kg
Maximum value of SAR (measured) = 169 W/kg

Date/Time: 6/18/2013 2:17:06 PM

Test Laboratory: RIM Testing Services

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033

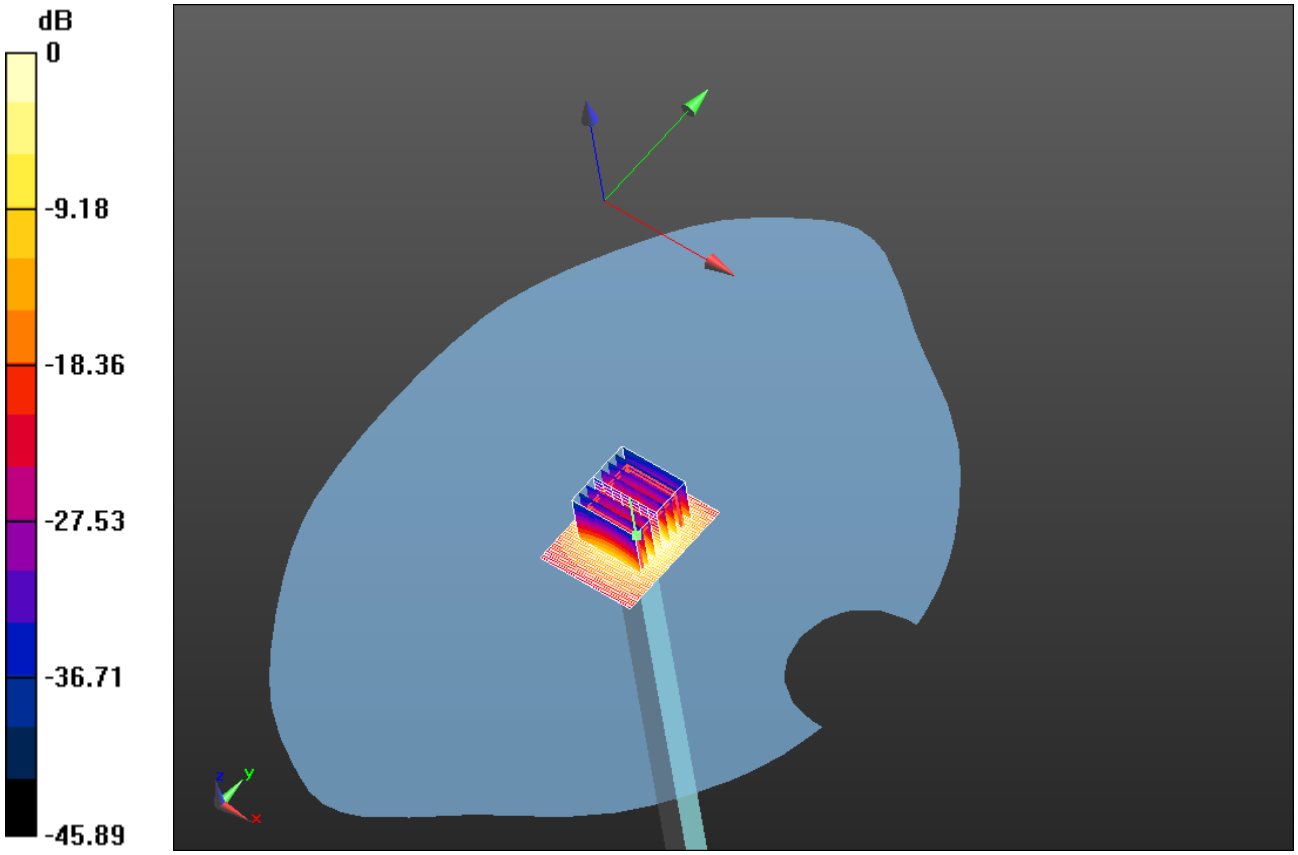
Communication System: UID 0 - n/a, CW; Frequency: 5800 MHz
Medium parameters used: f = 5800 MHz; σ = 5.33 S/m; ε_r = 33.816; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3548; ConvF(4.61, 4.61, 4.61); Calibrated: 1/15/2013;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 23.0
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 190.9 V/m; Power Drift = -0.00 dB
Fast SAR: SAR(1 g) = 77.5 W/kg; SAR(10 g) = 21.4 W/kg
Maximum value of SAR (interpolated) = 187 W/kg

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 190.9 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 343 W/kg
SAR(1 g) = 82.1 W/kg; SAR(10 g) = 23.5 W/kg
Maximum value of SAR (measured) = 171 W/kg



0 dB = 171 W/kg = 22.33 dBW/kg

Date: 7/22/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5200

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz);
Frequency: 5200 MHz
Medium Parameters used: f=5200 MHz; σ = 4.633 S/m; ε_r = 35.221; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

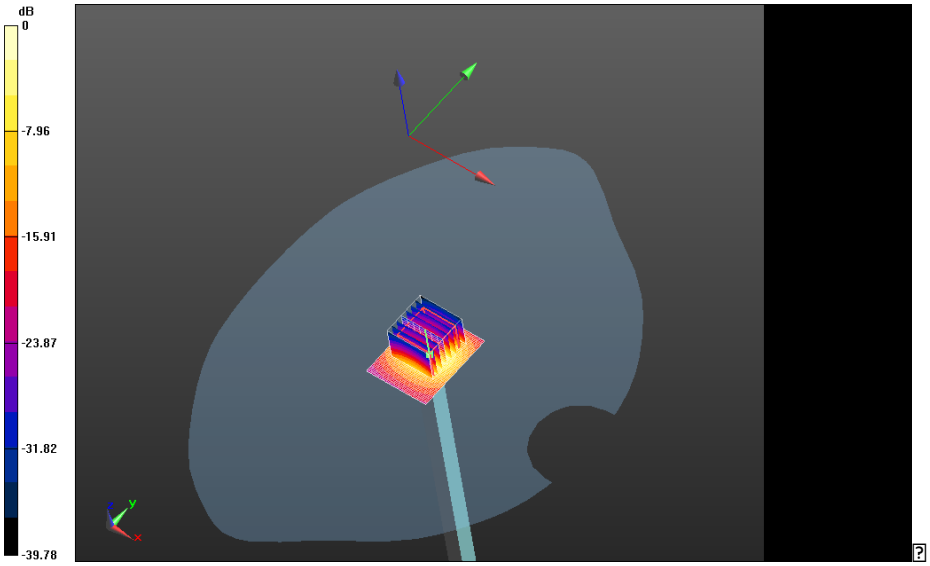
- Probe: EX3DV4 - SN3548; ConvF: (5.13,5.13,5.13); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 195.0 V/m; **Power Drift = -0.00767 dB**

Fast SAR: SAR(1g) = 77.3 W/kg; SAR(10g) = 21.6 W/kg
Maximum value of SAR (interpolated) = 175 W/kg

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 195.0 V/m; **Power Drift = -0.00767 dB**

Averaged SAR: SAR(1g) = 83.1 W/kg; SAR(10g) = 24.1 W/kg
Maximum value of SAR (interpolated) = 316 W/kg



0 dB = 167 W/kg = 22.23 dBW/kg

Date: 7/22/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5500

Communication System: CW-5GHz; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5500 MHz
Medium Parameters used: f=5500 MHz; σ = 5.007 S/m; ε_r = 34.543; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

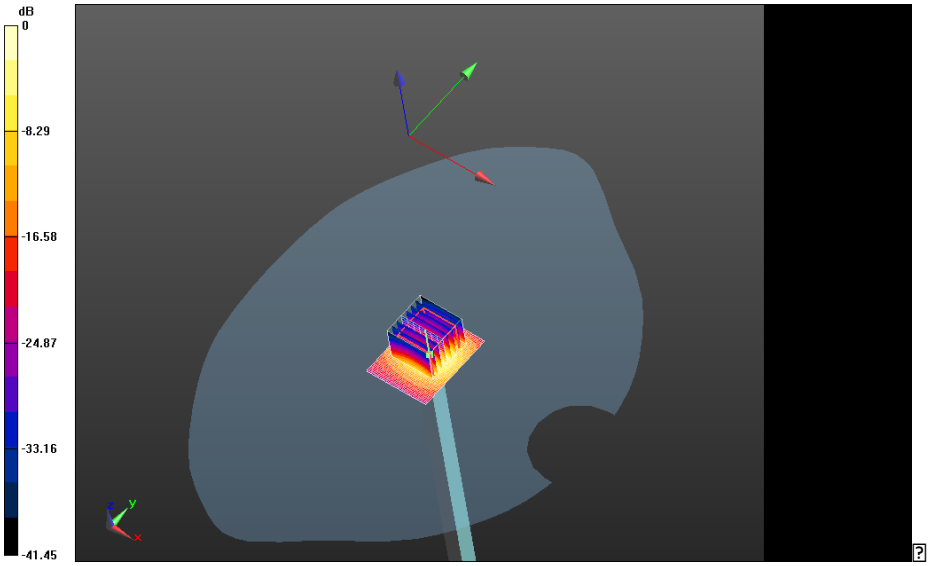
- Probe: EX3DV4 - SN3548; ConvF: (4.79,4.79,4.79); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 197.1 V/m; **Power Drift = 0.028 dB**

Fast SAR: SAR(1g) = 83.2 W/kg; SAR(10g) = 22.9 W/kg
Maximum value of SAR (interpolated) = 193 W/kg

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 197.1 V/m; **Power Drift = 0.028 dB**

Averaged SAR: SAR(1g) = 90.0 W/kg; SAR(10g) = 25.7 W/kg
Maximum value of SAR (interpolated) = 378 W/kg



0 dB = 189 W/kg = 22.76 dBW/kg

Date: 7/22/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5800

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz
Medium Parameters used: f=5800 MHz; σ = 5.322 S/m; ε_r = 33.887; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

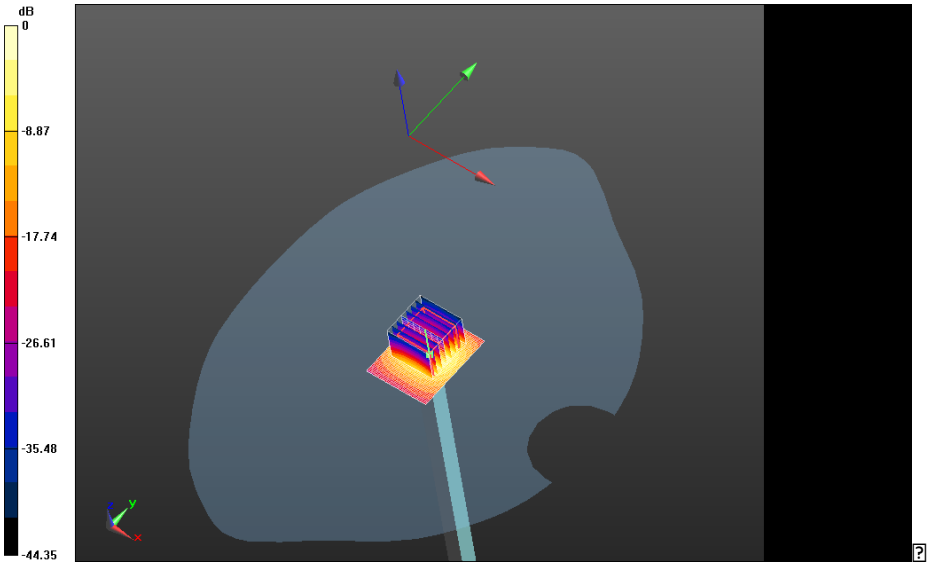
- Probe: EX3DV4 - SN3548; ConvF: (4.61,4.61,4.61); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 188.7 V/m; **Power Drift = 0.025 dB**

Fast SAR: SAR(1g) = 78.1 W/kg; SAR(10g) = 21.6 W/kg
Maximum value of SAR (interpolated) = 182 W/kg

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 188.7 V/m; **Power Drift = 0.025 dB**

Averaged SAR: SAR(1g) = 84.5 W/kg; SAR(10g) = 24.3 W/kg
Maximum value of SAR (interpolated) = 348 W/kg



0 dB = 174 W/kg = 22.41 dBW/kg

Date: 8/8/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5200

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz);
Frequency: 5200 MHz
Medium Parameters used: f=5200 MHz; σ = 4.579 S/m; ε_r = 34.269; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

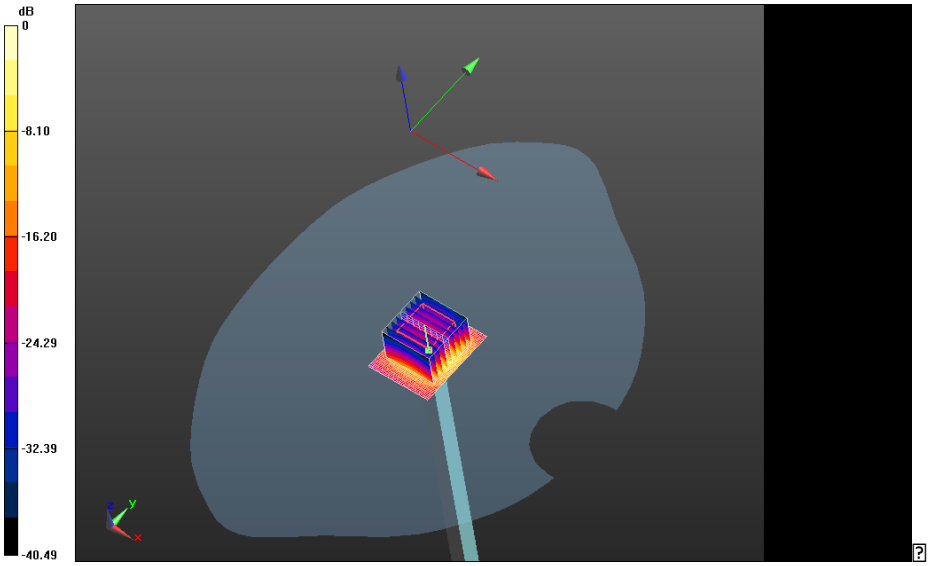
- Probe: EX3DV4 - SN3548; ConvF: (5.13,5.13,5.13); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 205.9 V/m; **Power Drift = -0.100 dB**

Fast SAR: SAR(1g) = 79.2 W/kg; SAR(10g) = 22.0 W/kg
Maximum value of SAR (interpolated) = 185 W/kg

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (41x41x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 205.9 V/m; **Power Drift = -0.100 dB**

Averaged SAR: SAR(1g) = 83.4 W/kg; SAR(10g) = 24.3 W/kg
Maximum value of SAR (interpolated) = 321 W/kg



0 dB = 171 W/kg = 22.33 dBW/kg

Date: 8/8/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5500

Communication System: CW-5GHz; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5500 MHz
Medium Parameters used: f=5500 MHz; σ = 4.998 S/m; ε_r = 34.213; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

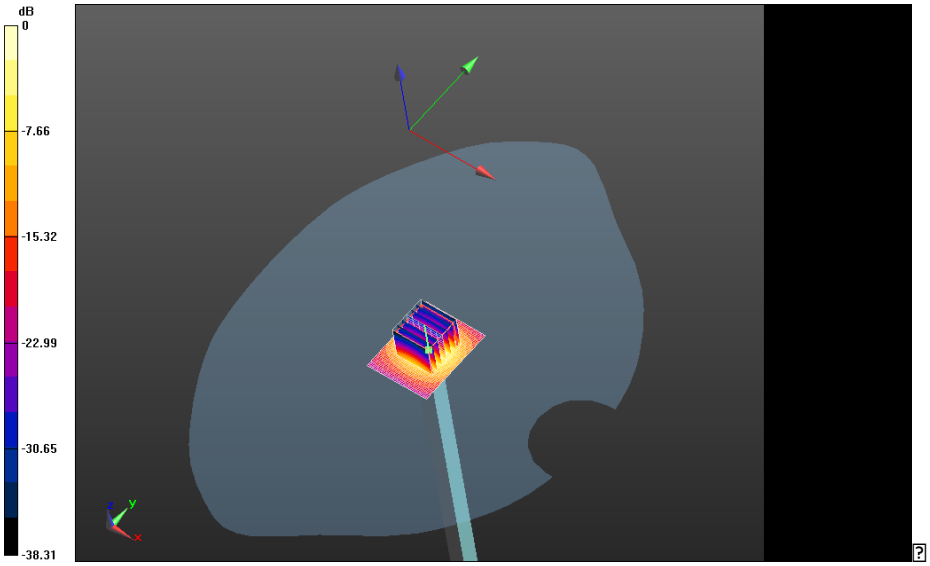
- Probe: EX3DV4 - SN3548; ConvF: (4.79,4.79,4.79); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 211.2 V/m; **Power Drift = 0.036 dB**

Fast SAR: SAR(1g) = 88.7 W/kg; SAR(10g) = 24.1 W/kg
Maximum value of SAR (interpolated) = 214 W/kg

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (31x31x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 211.2 V/m; **Power Drift = 0.036 dB**

Averaged SAR: SAR(1g) = 93.2 W/kg; SAR(10g) = 26.7 W/kg
Maximum value of SAR (interpolated) = 380 W/kg



0 dB = 191 W/kg = 22.81 dBW/kg

Date: 8/8/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole_5800

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz
Medium Parameters used: f=5800 MHz; σ = 5.289 S/m; ε_r = 33.541; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

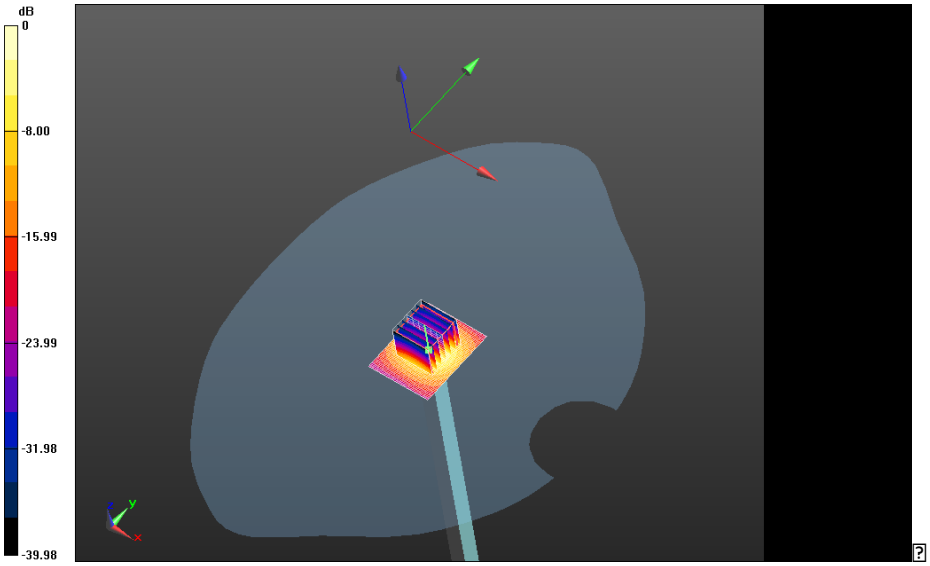
- Probe: EX3DV4 - SN3548; ConvF: (4.61,4.61,4.61); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 197.8 V/m; **Power Drift = -0.013 dB**

Fast SAR: SAR(1g) = 79.6 W/kg; SAR(10g) = 21.7 W/kg
Maximum value of SAR (interpolated) = 191 W/kg

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (31x31x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 197.8 V/m; **Power Drift = -0.013 dB**

Averaged SAR: SAR(1g) = 83.7 W/kg; SAR(10g) = 24.0 W/kg
Maximum value of SAR (interpolated) = 347 W/kg



0 dB = 175 W/kg = 22.43 dBW/kg

Date: 8/12/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole – 5200 MHz

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz);
Frequency: 5200 MHz
Medium Parameters used: f=5200 MHz; σ = 4.667 S/m; ε_r = 34.365; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

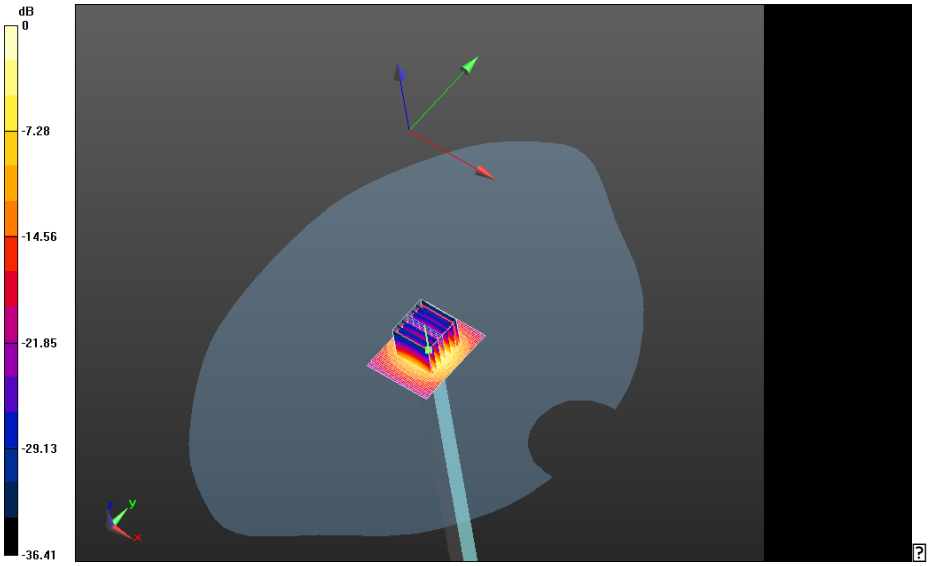
- Probe: EX3DV4 - SN3548; ConvF: (5.13,5.13,5.13); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 195.6 V/m; **Power Drift = 0.00864 dB**

Fast SAR: SAR(1g) = 74.4 W/kg; SAR(10g) = 20.6 W/kg
Maximum value of SAR (interpolated) = 174 W/kg

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (31x31x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 195.6 V/m; **Power Drift = 0.00864 dB**

Averaged SAR: SAR(1g) = 78.1 W/kg; SAR(10g) = 22.7 W/kg
Maximum value of SAR (interpolated) = 300 W/kg



0 dB = 161 W/kg = 22.07 dBW/kg

Date: 8/12/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole – 5500 MHz

Communication System: CW-5GHz; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5500 MHz
Medium Parameters used: f=5500 MHz; σ = 4.997 S/m; ε_r = 34.755; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

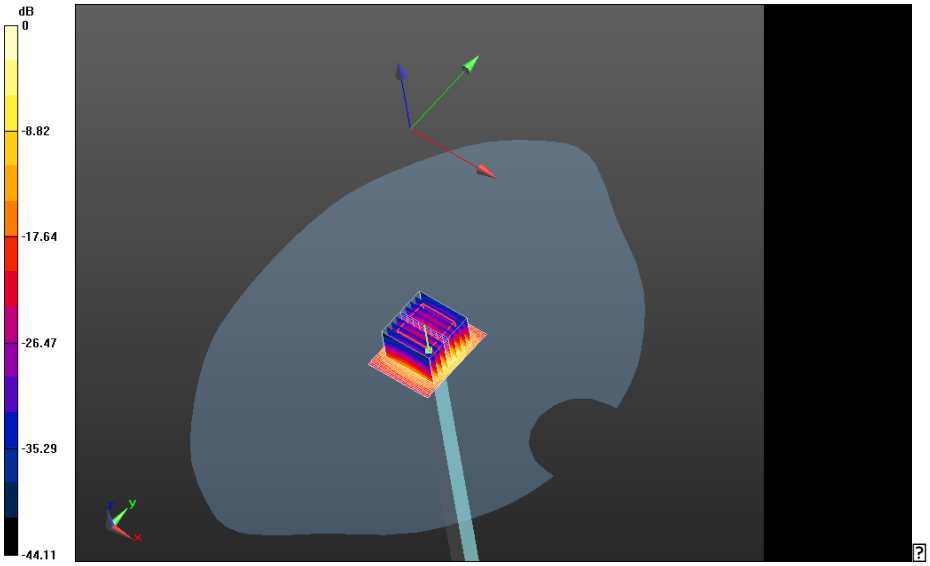
- Probe: EX3DV4 - SN3548; ConvF: (4.79,4.79,4.79); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 198.0 V/m; **Power Drift = 0.021 dB**

Fast SAR: SAR(1g) = 80.9 W/kg; SAR(10g) = 21.9 W/kg
Maximum value of SAR (interpolated) = 197 W/kg

System Performance Check with D5GHzV2 Dipole 2/d=10mm, Pin=1000mW, f=5500 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (41x41x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 198.0 V/m; **Power Drift = 0.021 dB**

Averaged SAR: SAR(1g) = 85.1 W/kg; SAR(10g) = 24.3 W/kg
Maximum value of SAR (interpolated) = 355 W/kg



0 dB = 176 W/kg = 22.46 dBW/kg

Date: 8/12/2013

Test Lab: RIM Testing Services
DUT Name: Dipole D5GHzV2, Type: D5GHzV2, Serial: D5GHzV2 - SN:1033

Configuration: System Performance Check with D5GHzV2 Dipole – 5800 MHz

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz
Medium Parameters used: f=5800 MHz; σ = 5.279 S/m; ε_r = 33.885; ρ = 1.000 g/cm^3
Phantom section: Flat Section

DASY Configuration:

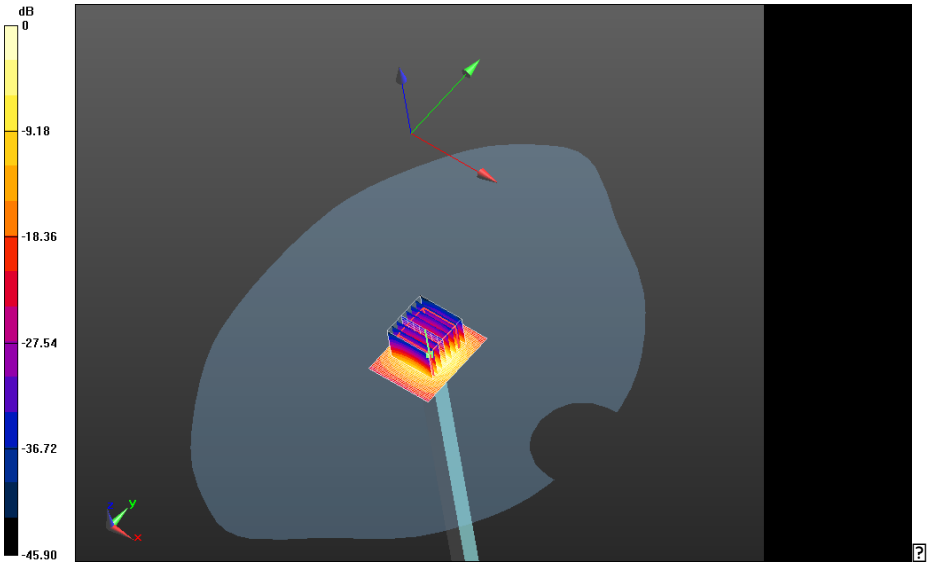
- Probe: EX3DV4 - SN3548; ConvF: (4.61,4.61,4.61); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Area Scan (41x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 198.4 V/m; **Power Drift = 0.019 dB**

Fast SAR: SAR(1g) = 81.9 W/kg; SAR(10g) = 22.2 W/kg
Maximum value of SAR (interpolated) = 201 W/kg

System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 198.4 V/m; **Power Drift = 0.019 dB**

Averaged SAR: SAR(1g) = 86.0 W/kg; SAR(10g) = 24.6 W/kg
Maximum value of SAR (interpolated) = 365 W/kg



0 dB = 181 W/kg = 22.58 dBW/kg