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APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

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Date/Time: 7/28/2011 7:58:52 PM, Date/Time: 7/28/2011 8:03:41 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_Amb_Tem_23.4_Liq_Tem_23.1C_07_28_11

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

Communication System: CWFrequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.899 \text{ mho/m}$; $\epsilon_r = 39.89$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.47, 6.47, 6.47); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 9.884 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

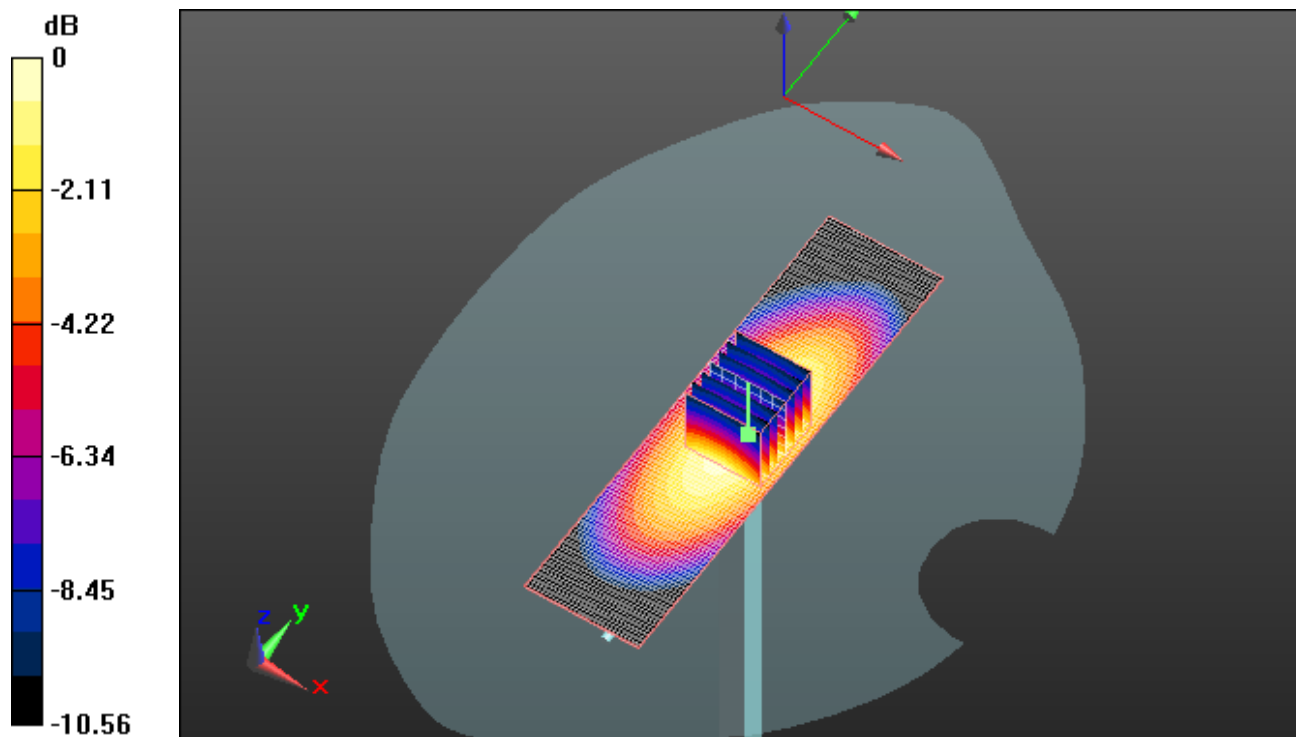
Reference Value = 106.8 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 13.929 W/kg

SAR(1 g) = 9.23 mW/g; SAR(10 g) = 6.03 mW/g

Maximum value of SAR (measured) = 9.987 mW/g

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0 dB = 9.990mW/g

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Date/Time: 8/2/2011 6:23:53 PM, Date/Time: 8/2/2011 6:28:43 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_Amb_Tem_23.8_Liq_Tem_23.1C_08_02_11

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

Communication System: CW; Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.872 \text{ mho/m}$; $\epsilon_r = 41.556$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.47, 6.47, 6.47); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 9.528 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

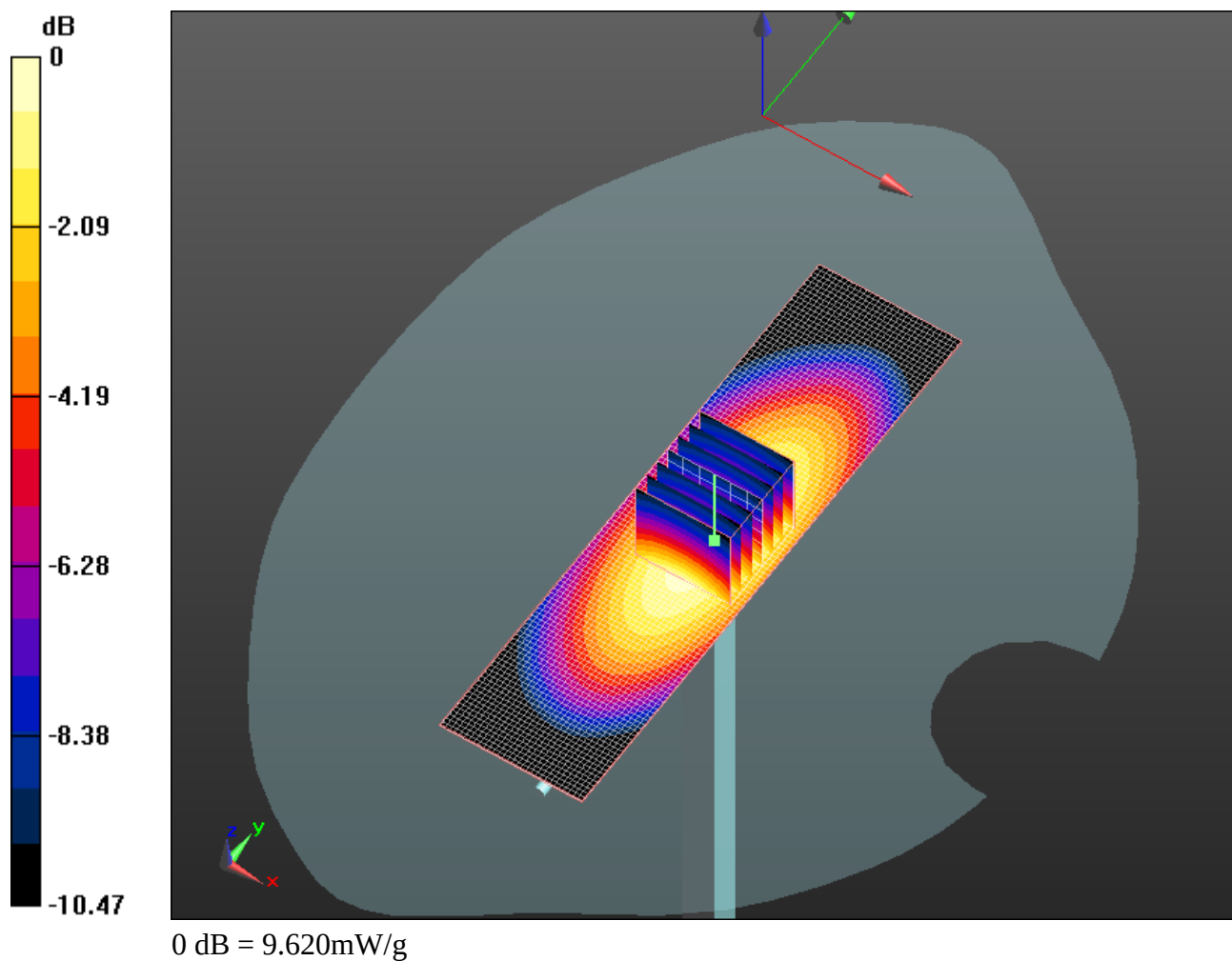
Reference Value = 105.5 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 13.391 W/kg

SAR(1 g) = 8.92 mW/g; SAR(10 g) = 5.83 mW/g

Maximum value of SAR (measured) = 9.616 mW/g

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Date/Time: 9/15/2011 12:25:11 PM, Date/Time: 9/15/2011 12:29:54 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_09_15_11_Amb_Tem_24.5_Liq_Tem_22.6C

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

Communication System: CW; Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 39.894$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.11, 6.11, 6.11); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 11.452 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

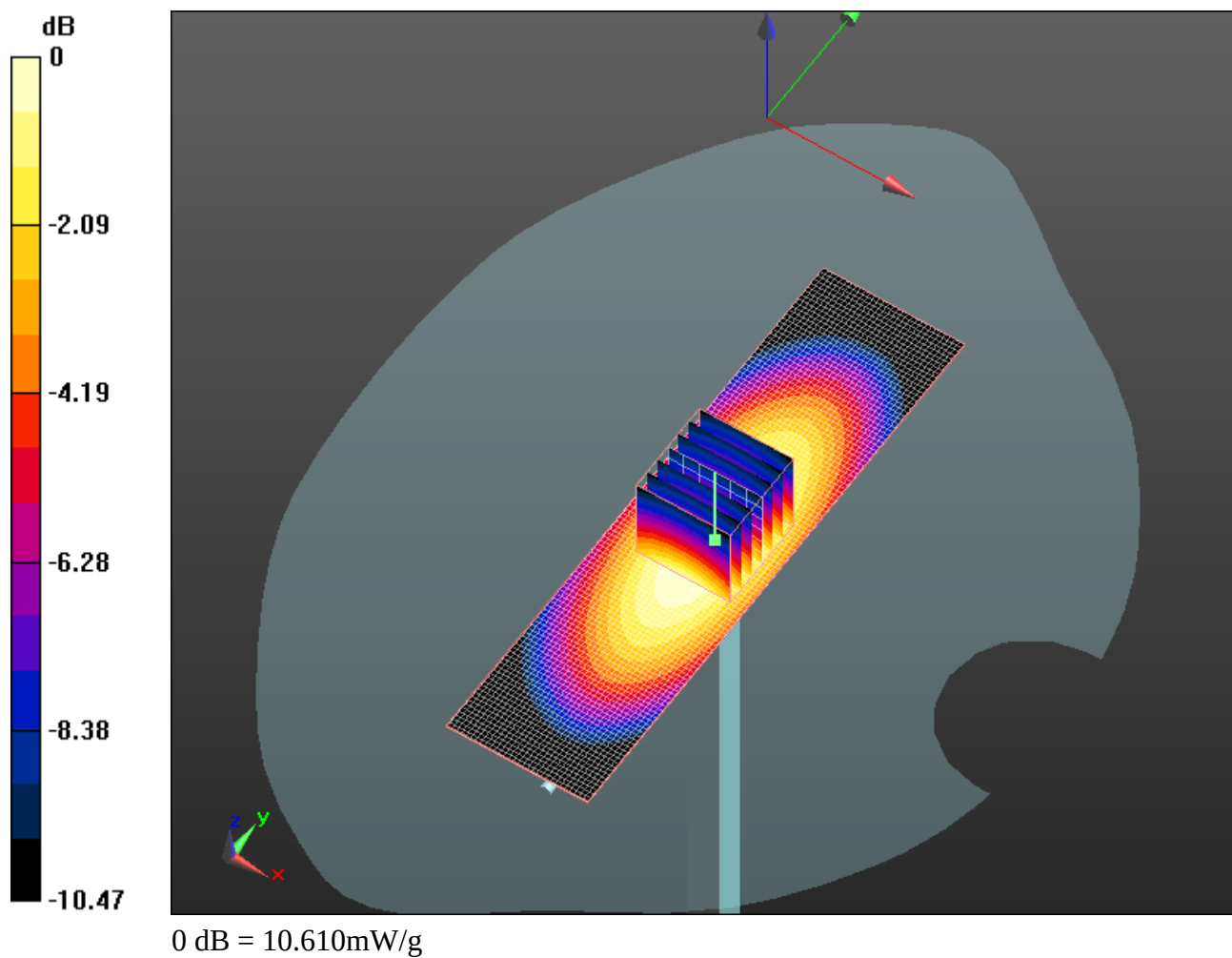
Reference Value = 114.5 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 14.819 W/kg

SAR(1 g) = 9.85 mW/g; SAR(10 g) = 6.43 mW/g

Maximum value of SAR (measured) = 10.611 mW/g

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Date/Time: 8/11/2011 8:13:42 PM, Date/Time: 8/11/2011 8:16:16 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_08_11_11_Amb_Tem_23.0_Liq_Tem_22.9C

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

Communication System: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.377 \text{ mho/m}$; $\epsilon_r = 38.348$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 45.784 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

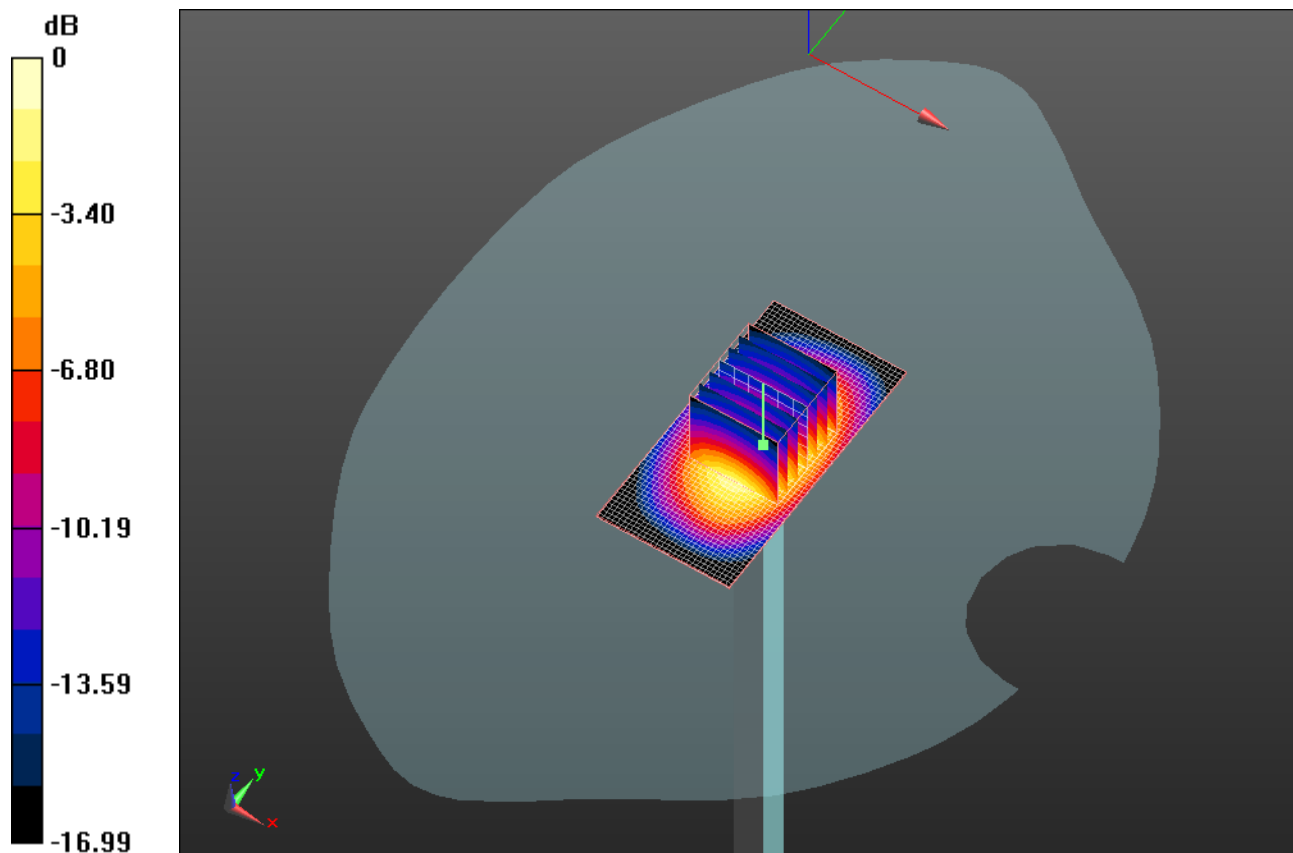
Reference Value = 193.6 V/m; Power Drift = -0.0073 dB

Peak SAR (extrapolated) = 73.407 W/kg

SAR(1 g) = 40.3 mW/g; SAR(10 g) = 21.1 mW/g

Maximum value of SAR (measured) = 45.097 mW/g

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0 dB = 45.100mW/g

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Date/Time: 8/23/2011 10:00:51 AM, Date/Time: 8/23/2011 10:03:26 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_08_15_11_Amb_Tem_23.8_Liq_Tem_23.0C

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

Communication System: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 40.036$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 44.040 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

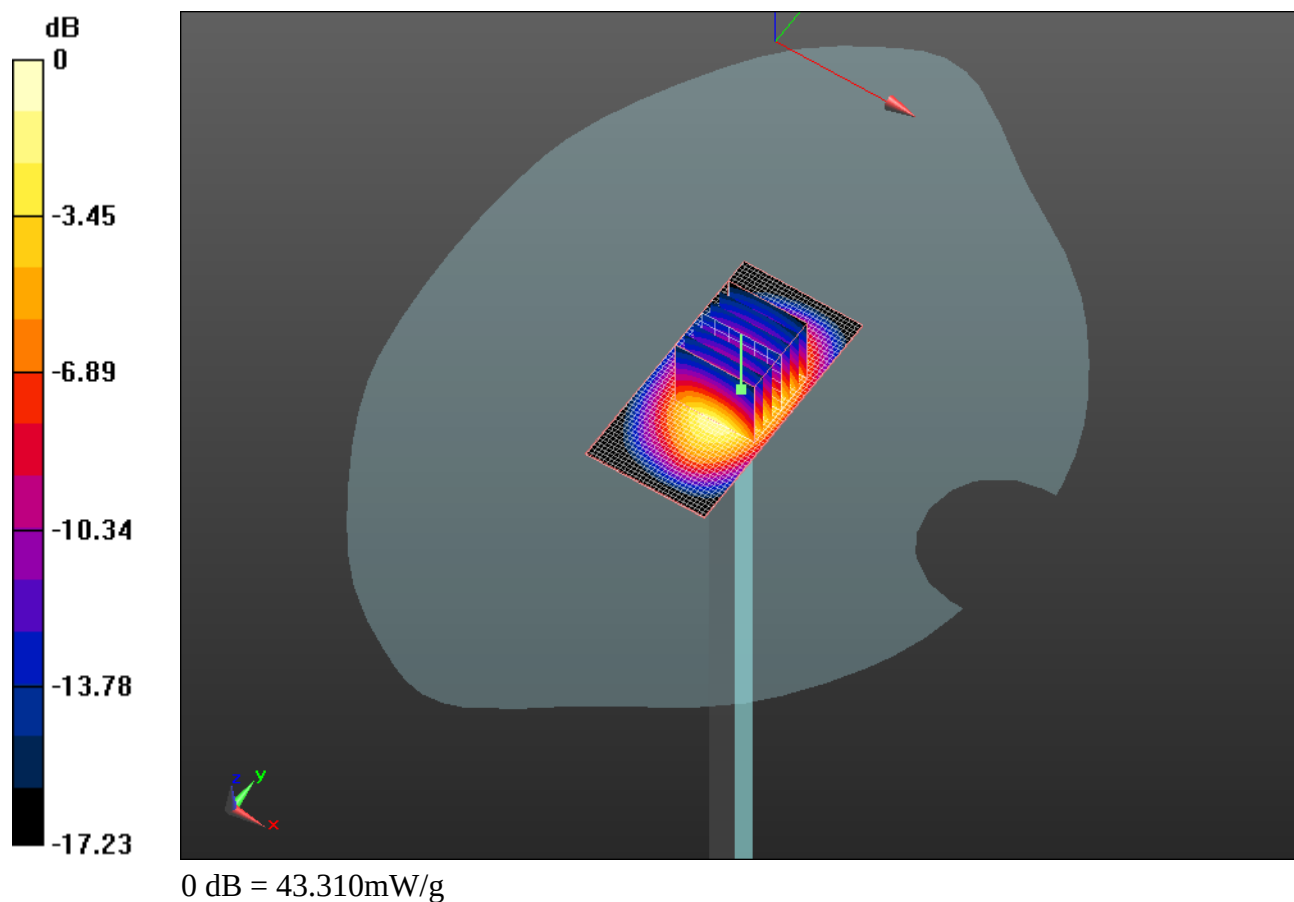
Reference Value = 181.4 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 69.948 W/kg

SAR(1 g) = 38.5 mW/g; SAR(10 g) = 20.3 mW/g

Maximum value of SAR (measured) = 43.306 mW/g

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Date/Time: 9/13/2011 12:21:26 PM, Date/Time: 9/13/2011 12:36:00 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_13_11_Amb_Tem_24.2_Liq_Tem_23.0C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.388 \text{ mho/m}$; $\epsilon_r = 39.048$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 50.317 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2

(7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

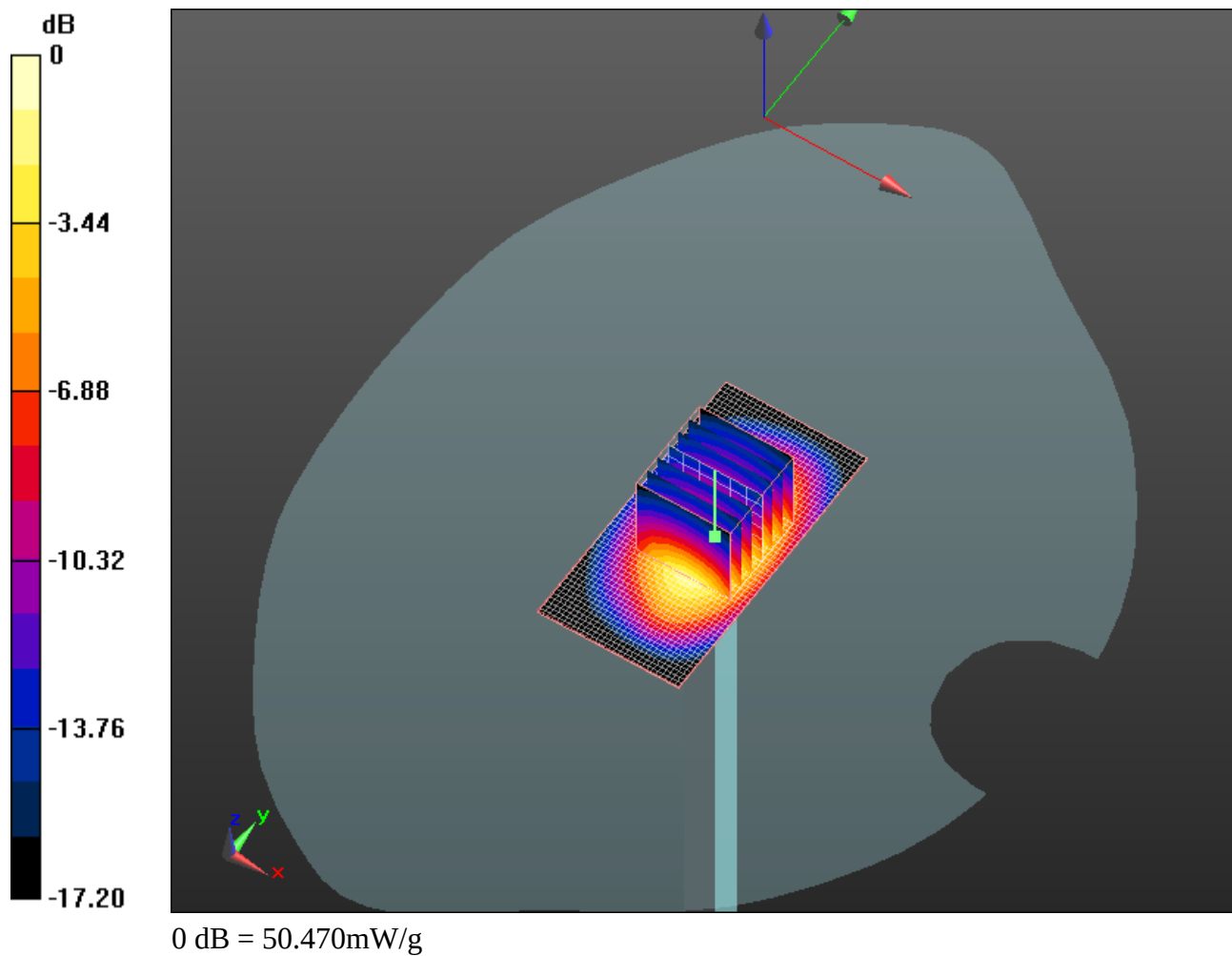
Reference Value = 195.3 V/m; Power Drift = 0.0036 dB

Peak SAR (extrapolated) = 72.778 W/kg

SAR(1 g) = 39.7 mW/g; SAR(10 g) = 20.7 mW/g

Maximum value of SAR (measured) = 50.474 mW/g

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Date/Time: 8/19/2011 10:36:50 AM, Date/Time: 8/19/2011 10:38:44 AM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_Amb_Tem_23.3_Liq_Tem_23.1C_08_19_11

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

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.854 \text{ mho/m}$; $\epsilon_r = 37.708$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.6, 4.6, 4.6); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 66.481 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

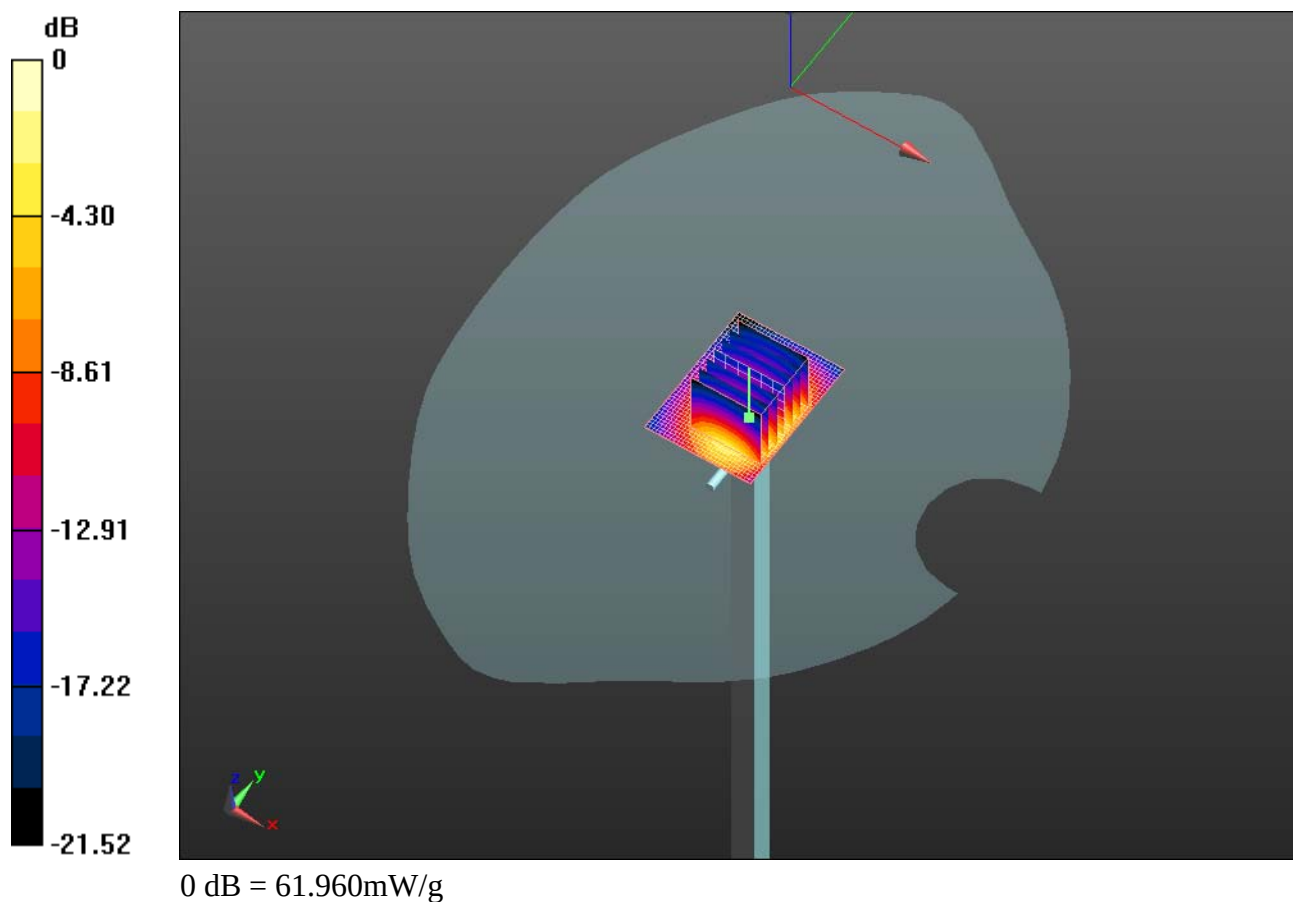
Reference Value = 171.8 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 113.4 W/kg

SAR(1 g) = 54.6 mW/g; SAR(10 g) = 25.6 mW/g

Maximum value of SAR (measured) = 61.958 mW/g

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Date/Time: 8/22/2011 1:52:28 PM, Date/Time: 8/22/2011 1:54:22 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_Amb_Tem_23.8_Liq_Tem_23.0C_08_22_11

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

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 37.515$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.6, 4.6, 4.6); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 63.601 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

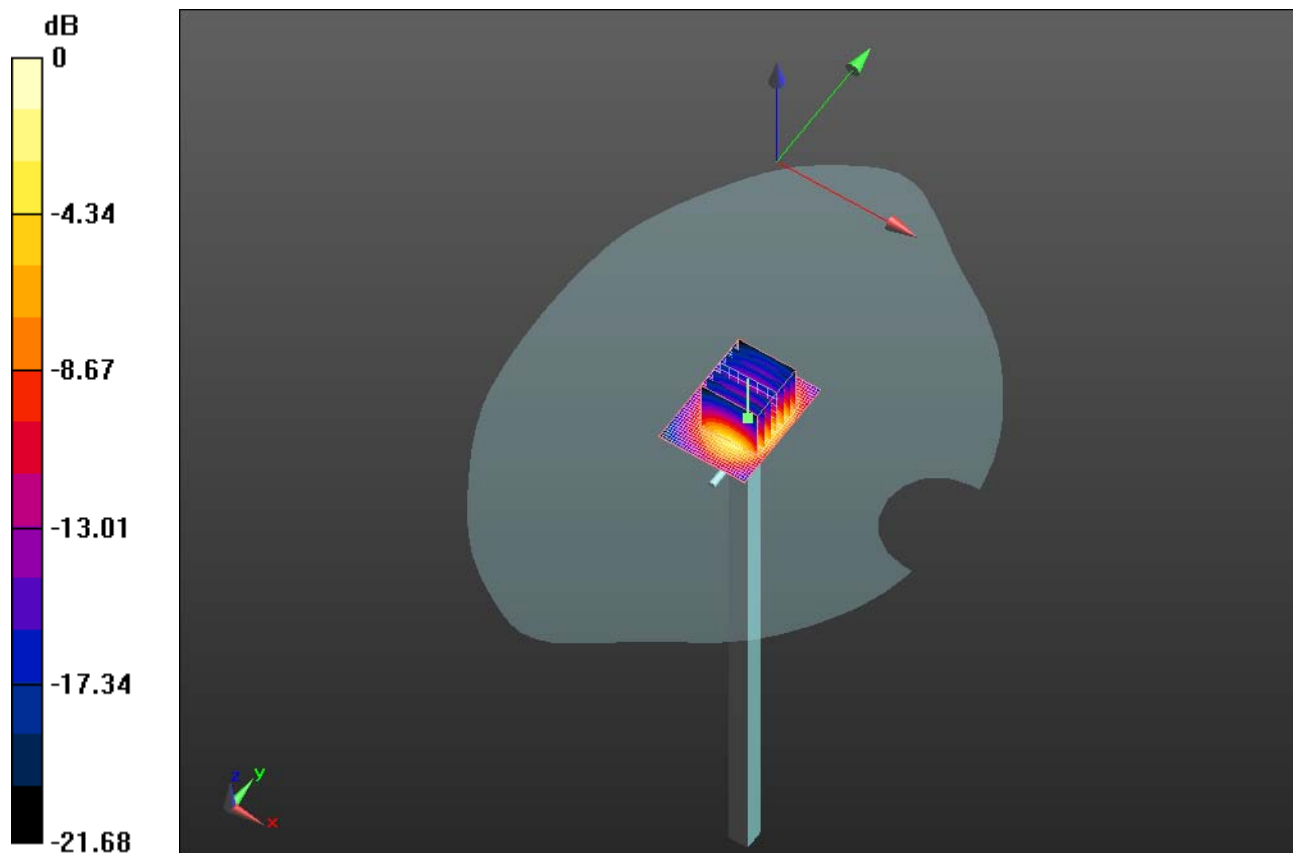
Reference Value = 192.5 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 114.5 W/kg

SAR(1 g) = 55 mW/g; SAR(10 g) = 25.5 mW/g

Maximum value of SAR (measured) = 62.703 mW/g

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0 dB = 62.700mW/g

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Date/Time: 9/6/2011 10:59:42 PM, Date/Time: 9/6/2011 11:01:32 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_09_06_11_Amb_Tem_23.9_Liq_Tem_23.7C

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

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 38.053$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.6, 4.6, 4.6); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 76.512 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

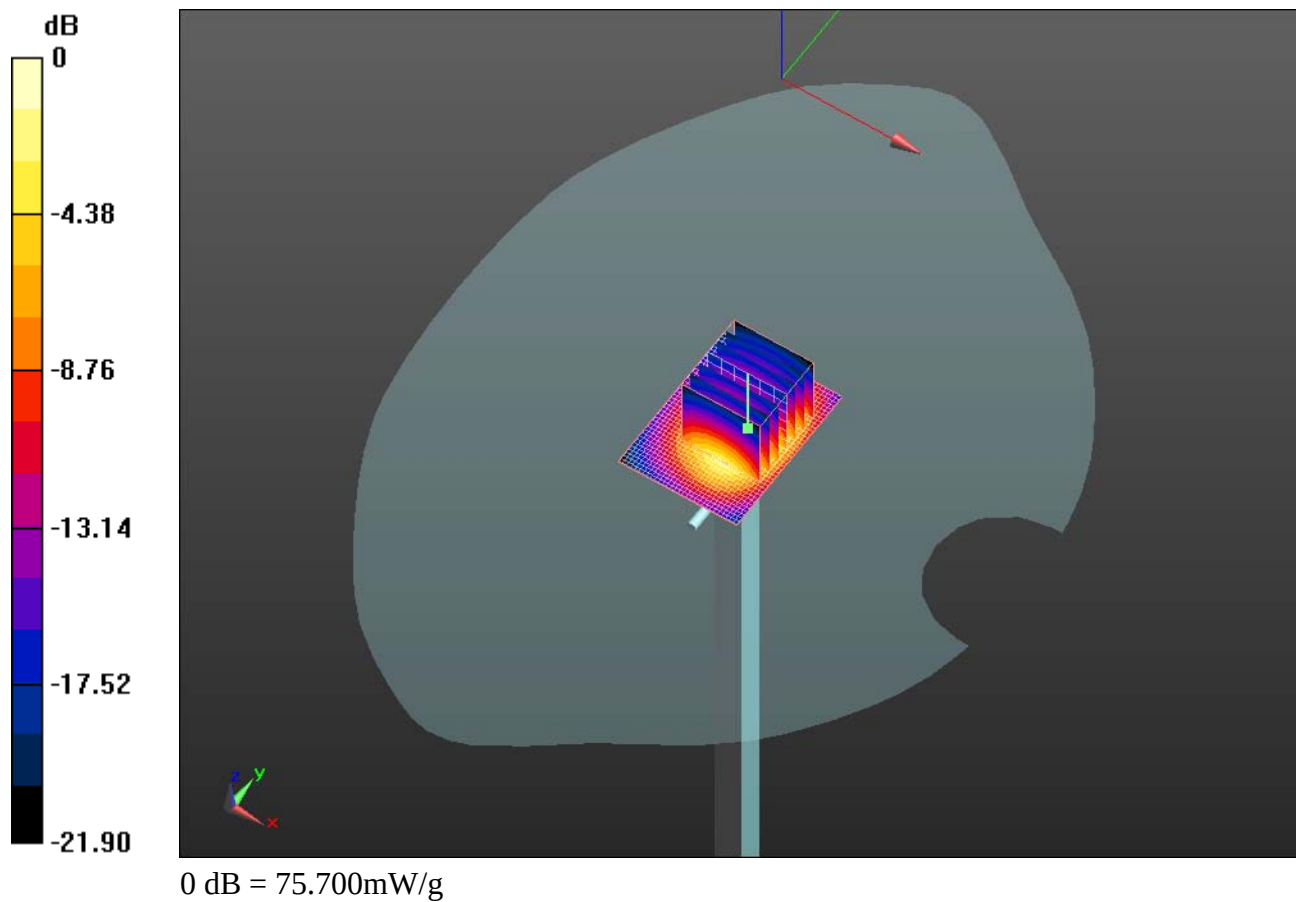
Reference Value = 205.3 V/m; Power Drift = -0.0062 dB

Peak SAR (extrapolated) = 118.0 W/kg

SAR(1 g) = 57.2 mW/g; SAR(10 g) = 26.7 mW/g

Maximum value of SAR (measured) = 75.700 mW/g

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Date/Time: 8/17/2011 6:20:21 PM, Date/Time: 8/17/2011 6:23:00 PM

Test Laboratory: RIM Testing Services

Dipole Validation_5200 MHz_08_17_11

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

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 5200$ MHz; $\sigma = 4.669$ mho/m; $\epsilon_r = 34.394$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.5, 4.5, 4.5); Calibrated: 11/18/2010
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 179.4 mW/g

System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan (3x3x2mm, graded), dist=2mm 2 (11x11x6)/Cube 0: Measurement grid: dx=3mm, dy=3mm, dz=2mm

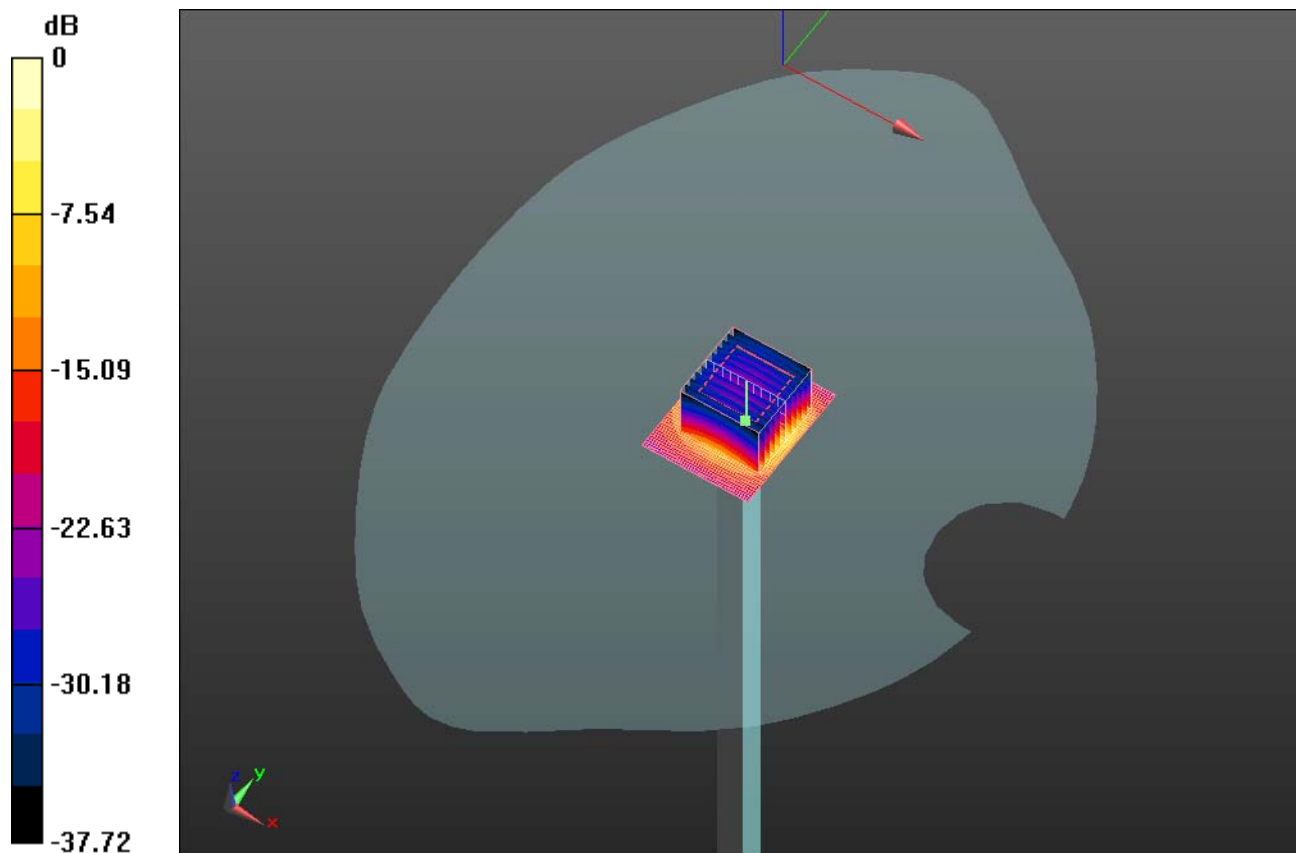
Reference Value = 201.8 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 286.6 W/kg

SAR(1 g) = 78.1 mW/g; SAR(10 g) = 22.6 mW/g

Maximum value of SAR (measured) = 159.7 mW/g

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0 dB = 159.7mW/g

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Date/Time: 9/16/2011 2:59:12 AM, Date/Time: 9/16/2011 3:01:53 AM

Test Laboratory: RIM Testing Services

Dipole Validation_5200 MHz_09_16_11_Amb_Tem_23.8 _Liq_Tem_22.0C

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

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 5200$ MHz; $\sigma = 4.841$ mho/m; $\epsilon_r = 34.622$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.5, 4.5, 4.5); Calibrated: 11/18/2010
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000

mW, f=5200 MHz/Area Scan (41x51x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 178.2 mW/g

System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000

mW, f=5200 MHz/Zoom Scan (3x3x2mm), dist=2mm 2 (11x11x12)/Cube 0:

Measurement grid: dx=3mm, dy=3mm, dz=2mm

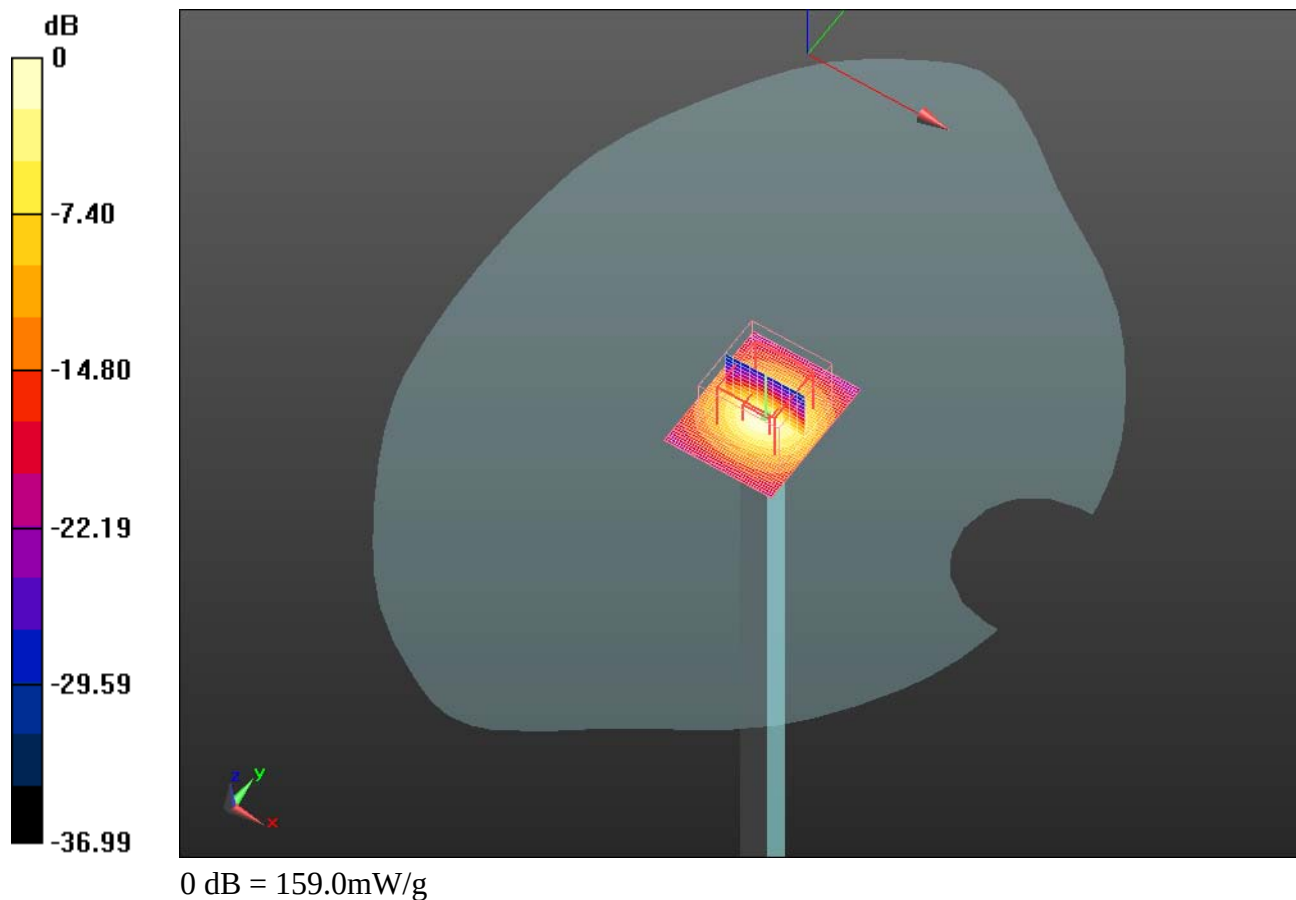
Reference Value = 196.2 V/m; Power Drift = -0.0092 dB

Peak SAR (extrapolated) = 292.7 W/kg

SAR(1 g) = 77.3 mW/g; SAR(10 g) = 22.3 mW/g

Maximum value of SAR (measured) = 159.0 mW/g

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0 dB = 159.0mW/g

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Date/Time: 8/17/2011 3:09:31 PM, Date/Time: 8/17/2011 4:06:56 PM

Test Laboratory: RIM Testing Services

Dipole Validation_5500 MHz_08_17_11

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

Communication System: CW-5GHz; Frequency: 5500 MHz; Communication System

PAR: 0 dB

Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.151 \text{ mho/m}$; $\epsilon_r = 35.445$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.25, 4.25, 4.25); Calibrated: 11/18/2010
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

System Performance Check with D5GHzV2 Dipole/d=10mm,

Pin=1000mW, f=5500 MHz/Area Scan (91x91x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 183.9 mW/g

System Performance Check with D5GHzV2 Dipole/d=10mm,

Pin=1000mW, f=5500 MHz/Zoom Scan (3x3x2mm), dist=2mm

(11x11x11)/Cube 0: Measurement grid: dx=3mm, dy=3mm, dz=2mm

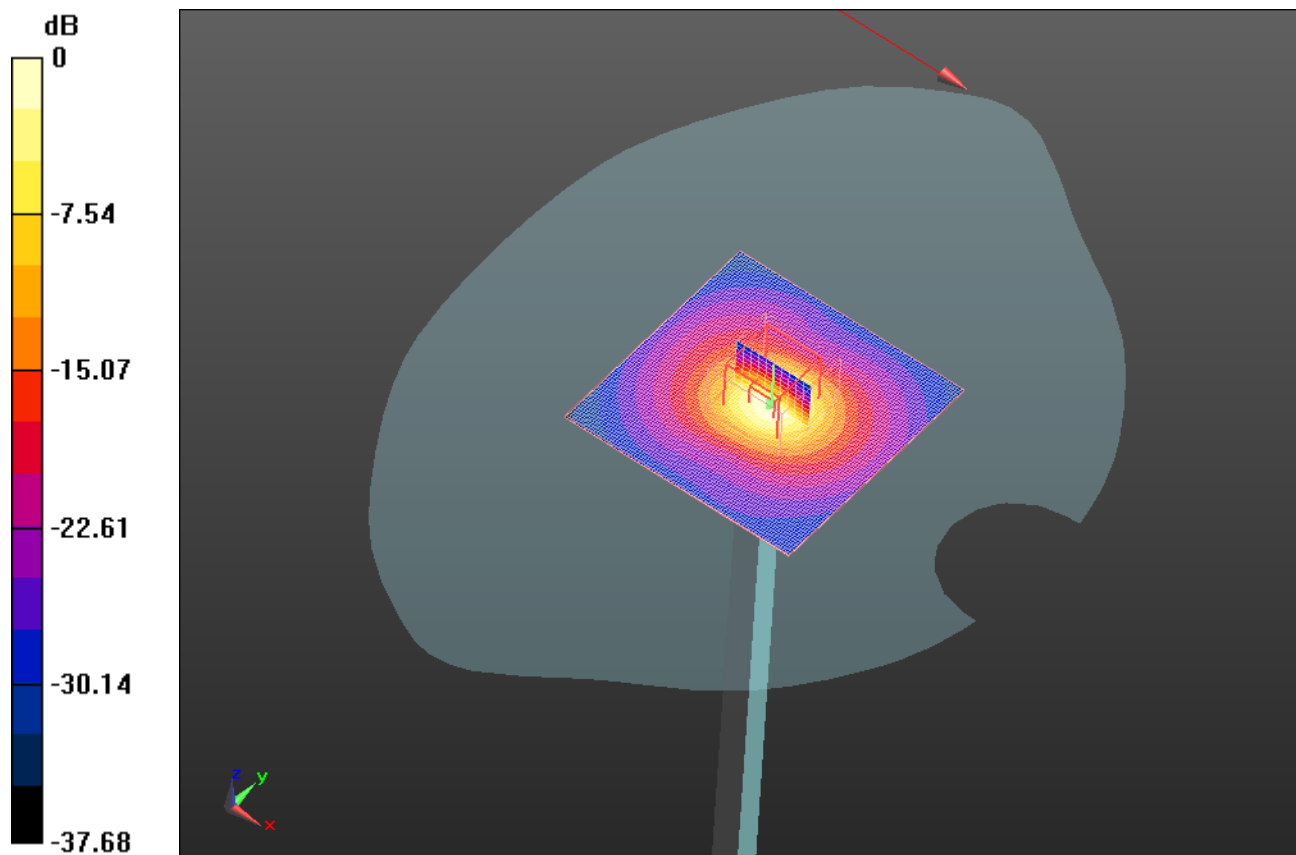
Reference Value = 199.5 V/m; Power Drift = -0.51 dB

Peak SAR (extrapolated) = 354.8 W/kg

SAR(1 g) = 85.3 mW/g; SAR(10 g) = 24.4 mW/g

Maximum value of SAR (measured) = 174.8 mW/g

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0 dB = 174.8mW/g

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Date/Time: 9/16/2011 4:10:56 AM, Date/Time: 9/16/2011 4:19:42 AM

Test Laboratory: RIM Testing Services

Dipole Validation_5500_MHz_09_16_11_Amb_Tem_23.8 _Liq_Tem_22.0C

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

Communication System: CW-5GHz; Frequency: 5500 MHz; Communication System
PAR: 0 dB

Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.135 \text{ mho/m}$; $\epsilon_r = 34.312$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

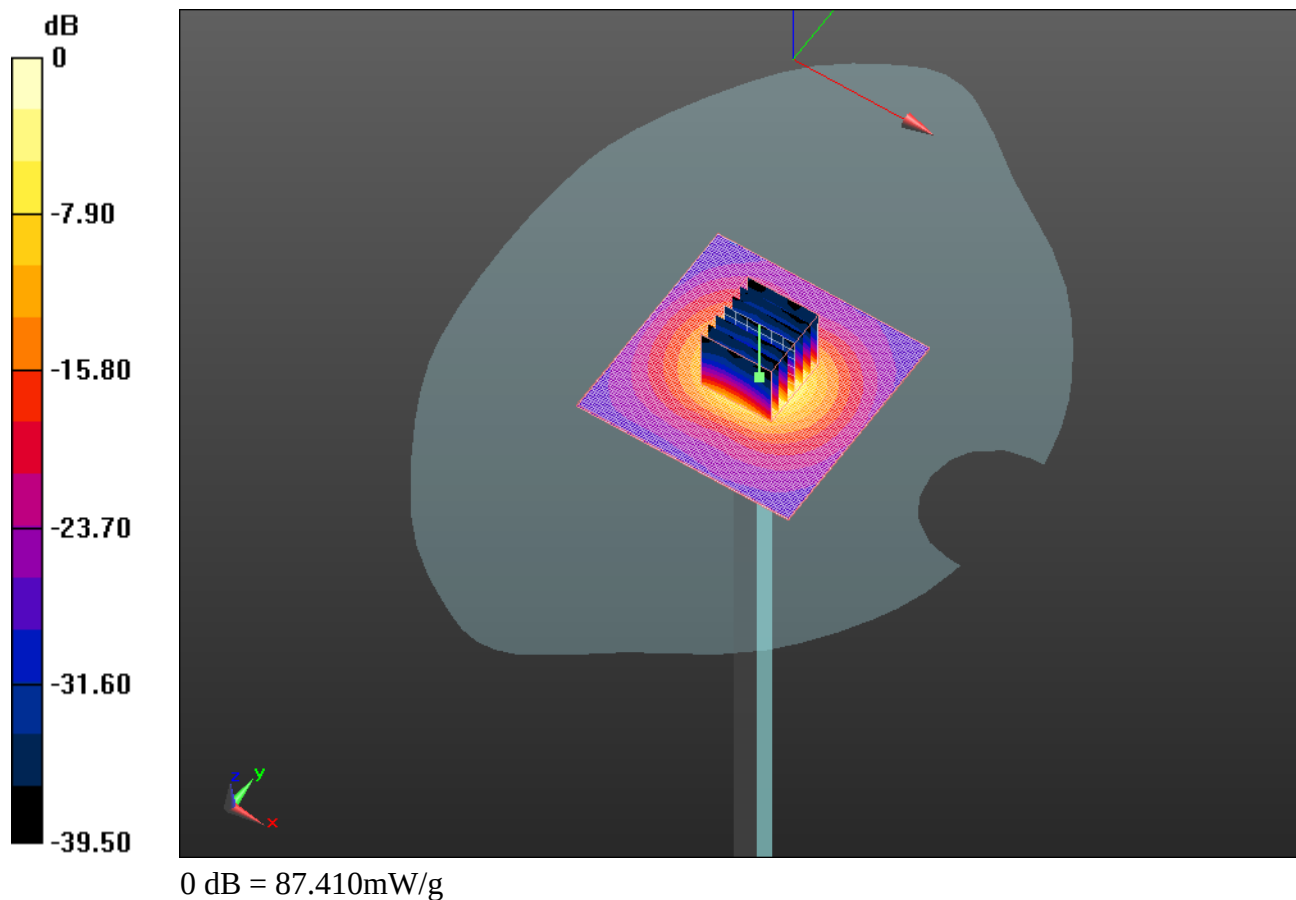
DASY5 Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.25, 4.25, 4.25); Calibrated: 11/18/2010
- Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

System Performance Check with D5GHzV2 Dipole/d=10mm,
Pin=1000mW, f=5500 MHz/Area Scan (91x91x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 154.7 mW/g

System Performance Check with D5GHzV2 Dipole/d=10mm,
Pin=1000mW, f=5500 MHz/Zoom Scan (3x3x2mm), dist=2mm
(11x11x11)/Cube 0: Measurement grid: dx=3mm, dy=3mm, dz=2mm
Reference Value = 186.0 V/m; Power Drift = -0.0029 dB
Peak SAR (extrapolated) = 478.0 W/kg
SAR(1 g) = 88.5 mW/g; SAR(10 g) = 24.4 mW/g
Maximum value of SAR (measured) = 87.411 mW/g

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Date/Time: 8/17/2011 4:51:18 PM, Date/Time: 8/17/2011 5:16:16 PM

Test Laboratory: RIM Testing Services

Dipole Validation_5800 MHz_08_17_11

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

Communication System: CW-5GHz; Frequency: 5800 MHz; Communication System

PAR: 0 dB

Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 5.3 \text{ mho/m}$; $\epsilon_r = 33.922$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.98, 3.98, 3.98); Calibrated: 11/18/2010
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

System Performance Check with D5GHzV2 Dipole/d=10mm,

Pin=1000mW, f=5800 MHz/Area Scan (41x51x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 203.7 mW/g

System Performance Check with D5GHzV2 Dipole/d=10mm,

Pin=1000mW, f=5800 MHz/Zoom Scan (3x3x2mm), dist=2mm

(11x11x11)/Cube 0: Measurement grid: $dx=3\text{mm}$, $dy=3\text{mm}$, $dz=2\text{mm}$

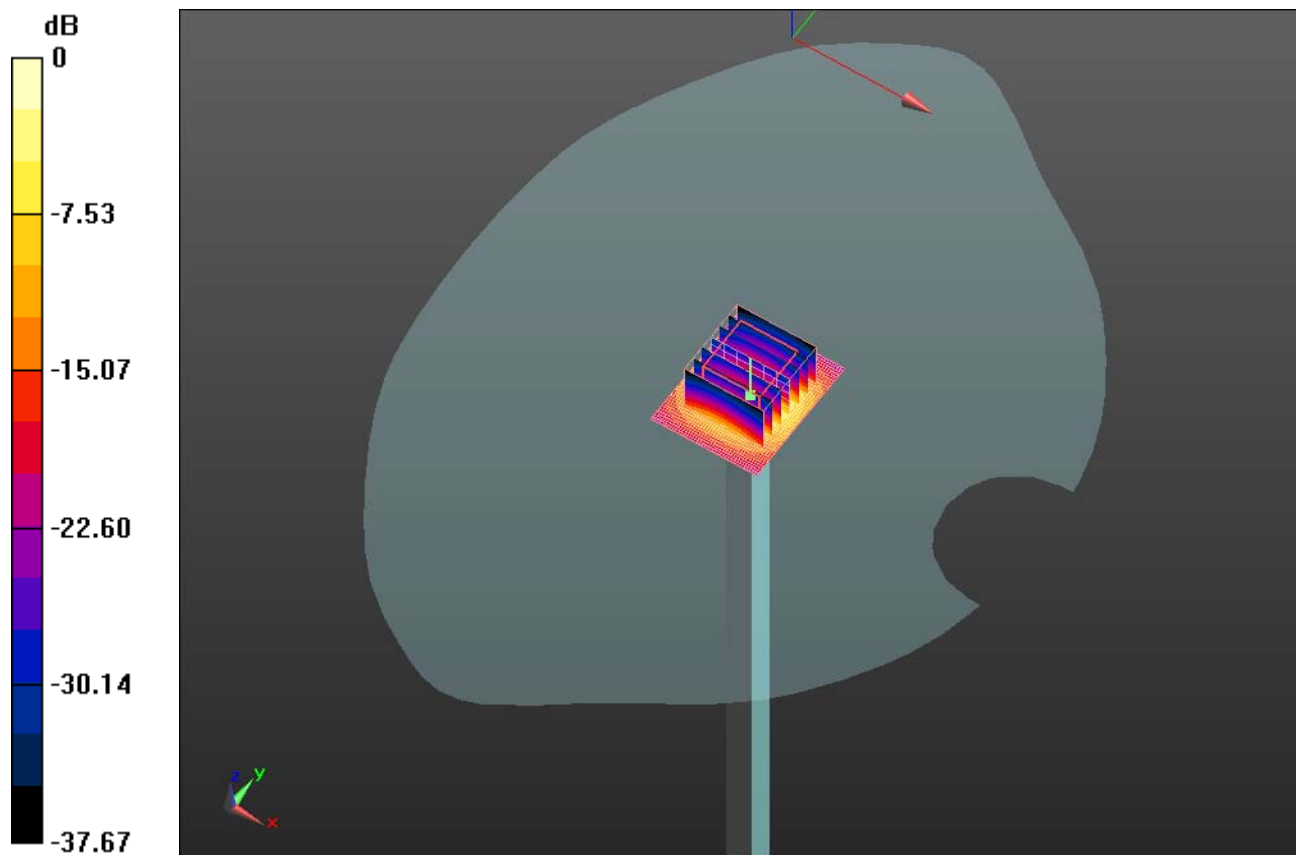
Reference Value = 203.4 V/m; Power Drift = -0.25 dB

Peak SAR (extrapolated) = 331.9 W/kg

SAR(1 g) = 81.4 mW/g; SAR(10 g) = 23.1 mW/g

Maximum value of SAR (measured) = 174.3 mW/g

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0 dB = 174.3mW/g

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Date/Time: 8/10/2011 5:20:09 PM, Date/Time: 8/10/2011 5:22:41 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_08_10_11_Amb_Tem_23.3_Liq_Tem_23.1C

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

Communication System: CW; Frequency: 1800 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.394 \text{ mho/m}$; $\epsilon_r = 38.77$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 45.240 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

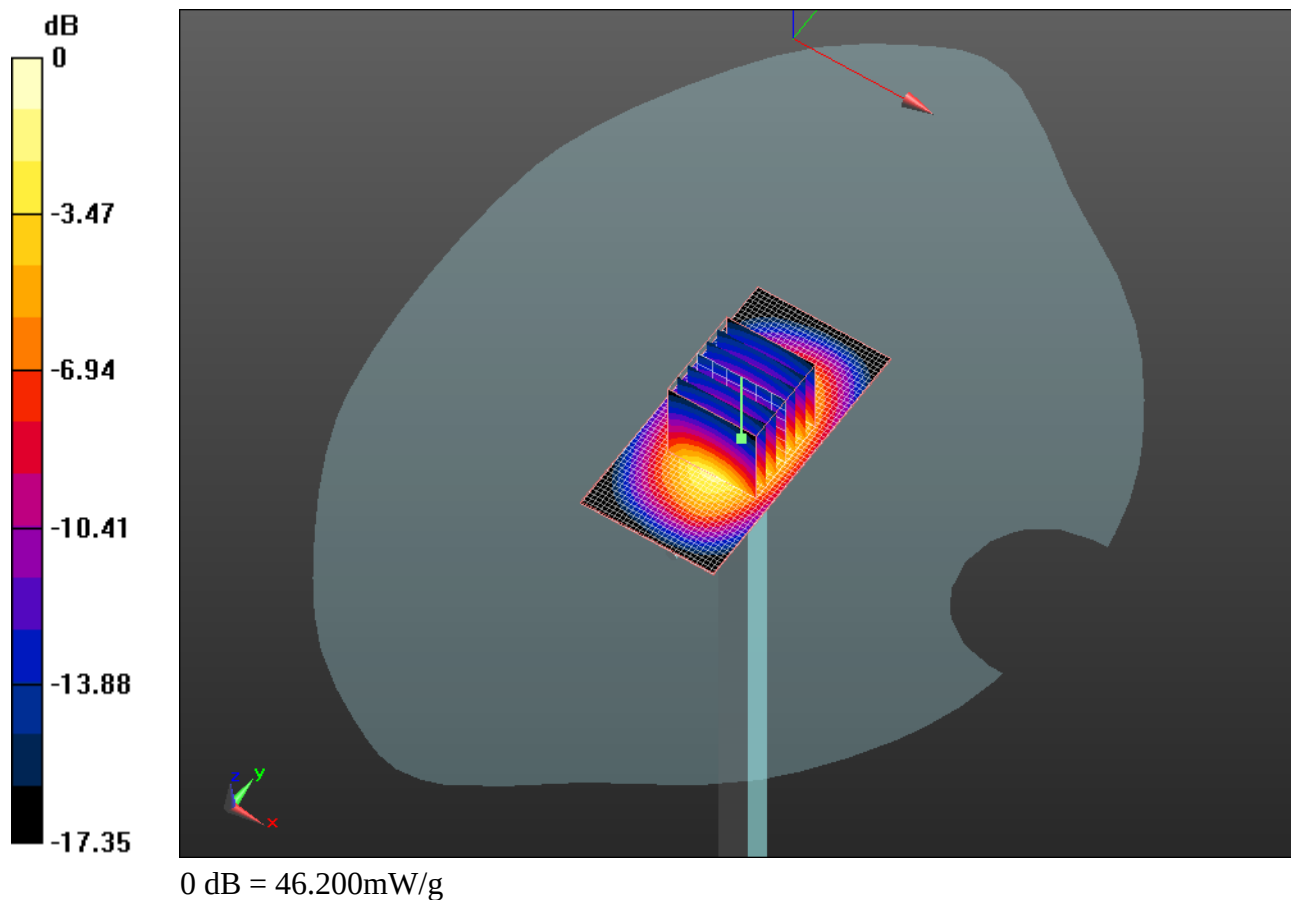
Reference Value = 186.3 V/m; Power Drift = -0.0065 dB

Peak SAR (extrapolated) = 67.061 W/kg

SAR(1 g) = 36 mW/g; SAR(10 g) = 18.8 mW/g

Maximum value of SAR (measured) = 46.198 mW/g

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Date/Time: 9/14/2011 12:54:44 PM, Date/Time: 9/14/2011 12:57:16 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_09_14_11_Amb_Tem_23.2_Liq_Tem_22.8C

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

Communication System: CW; Frequency: 1800 MHz

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.452 \text{ mho/m}$; $\epsilon_r = 39.294$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/1528)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 48.095 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 188.4 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 70.449 W/kg

SAR(1 g) = 37.9 mW/g; SAR(10 g) = 19.7 mW/g

Maximum value of SAR (measured) = 48.220 mW/g

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