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APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

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Date/Time: 2/9/2011 11:52:25 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_Amb_Tem_23.5_Liq_Tem_22.4C_02_09_11

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

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.922 \text{ mho/m}$; $\epsilon_r = 40.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(6.01, 6.01, 6.01); Calibrated: 3/9/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 110.0 V/m ; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 13.9 W/kg

SAR(1 g) = 9.59 mW/g ; SAR(10 g) = 6.29 mW/g

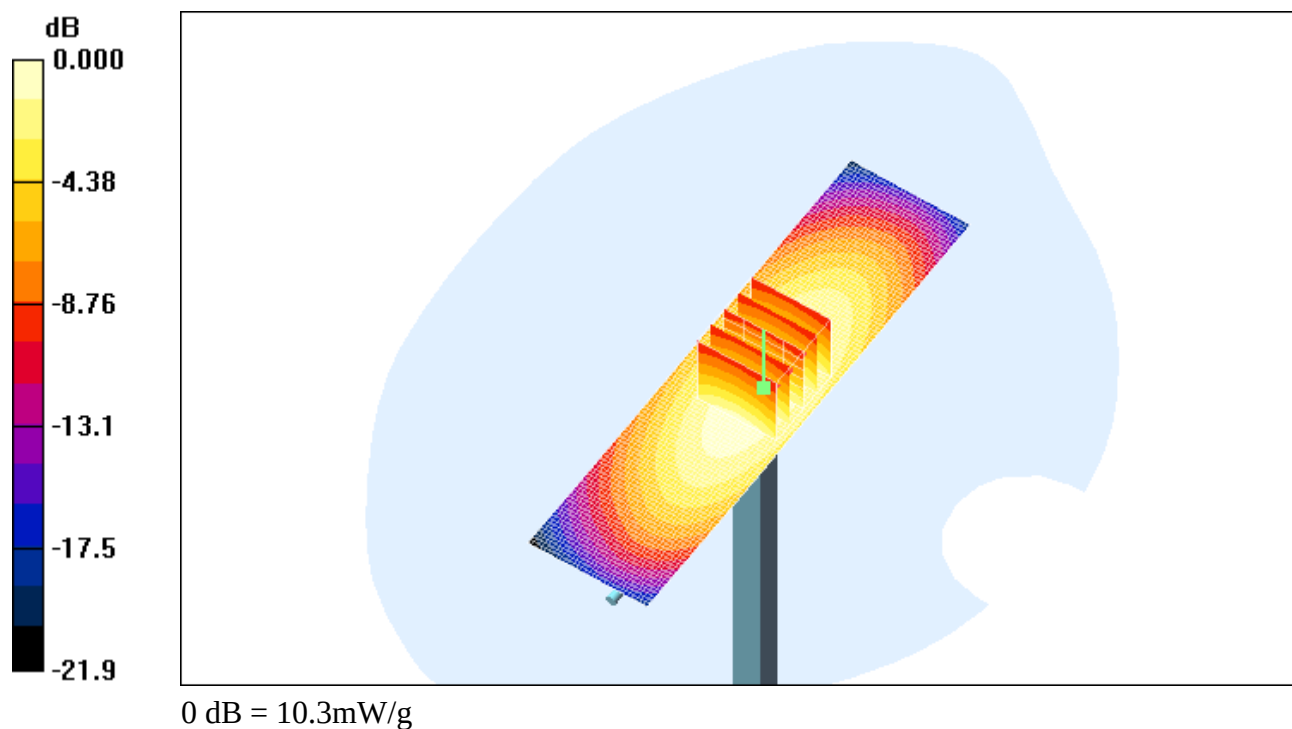
Maximum value of SAR (measured) = 10.4 mW/g

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

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 10.3 mW/g

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Date/Time: 2/14/2011 5:48:17 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_Amb_Tem_23.5_Liq_Tem_22.1_02_14_11

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

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 38.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1643; ConvF(4.99, 4.99, 4.99); Calibrated: 3/9/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 5/17/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 187.0 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 65.6 W/kg

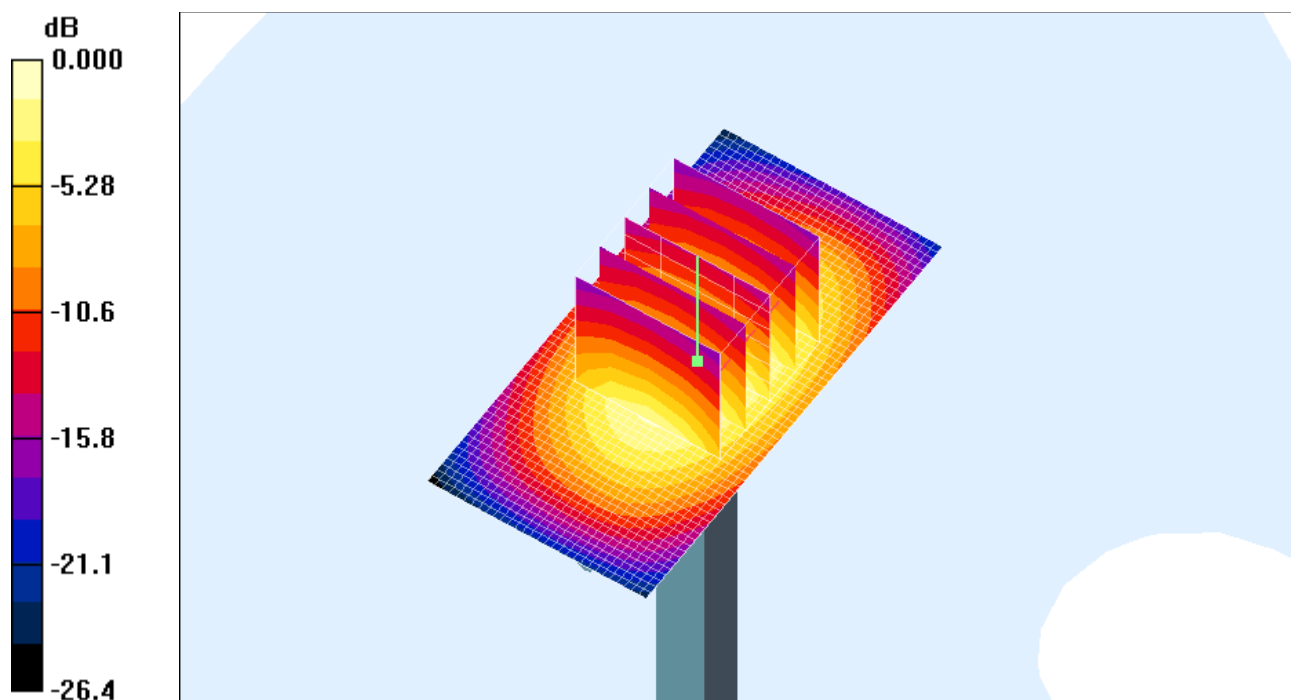
SAR(1 g) = 38.3 mW/g; SAR(10 g) = 20.2 mW/g

Maximum value of SAR (measured) = 43.2 mW/g

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

Maximum value of SAR (interpolated) = 44.1 mW/g

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0 dB = 44.1mW/g

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Date/Time: 1/11/2011 6:30:20 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_Amb_Tem_23.7_Liq_Tem_22.4C

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

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.86 \text{ mho/m}$; $\epsilon_r = 37.7$; $\rho = 1000 \text{ kg/m}^3$

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: 5/17/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 190.3 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 128.3 W/kg

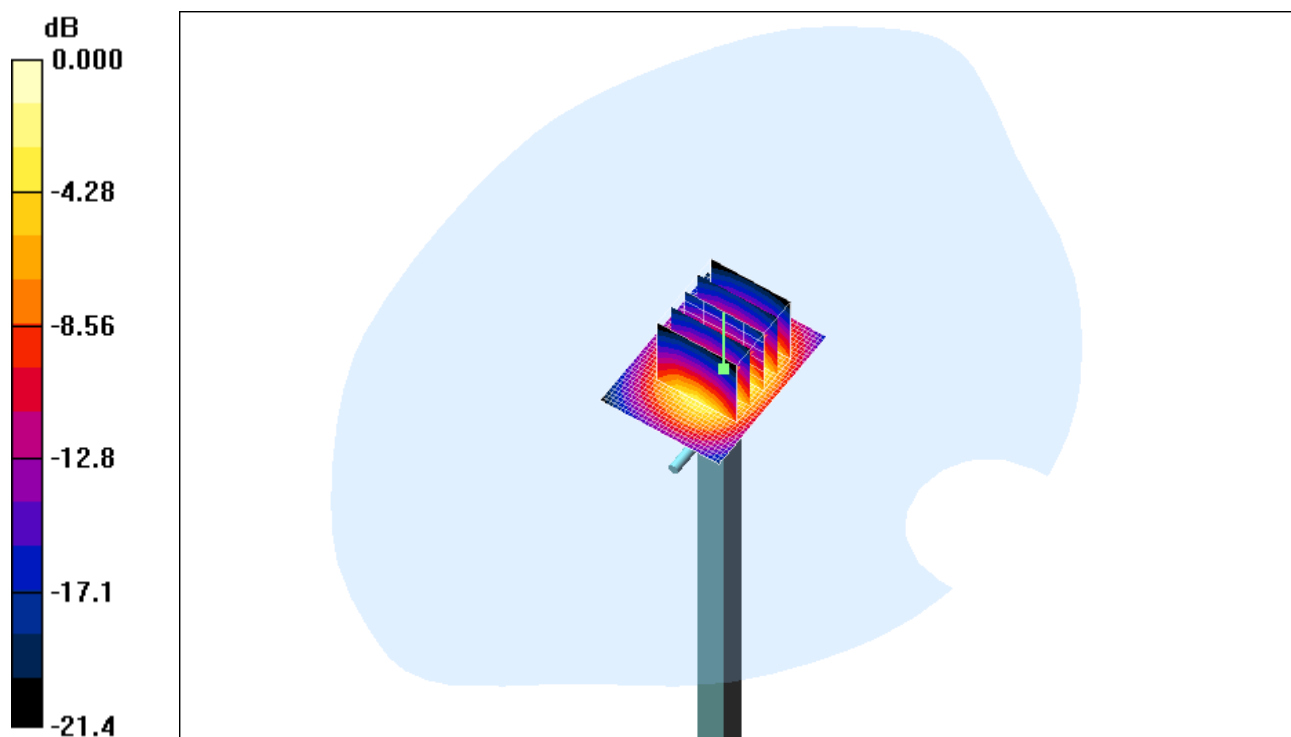
SAR(1 g) = 56.1 mW/g; SAR(10 g) = 25.7 mW/g

Maximum value of SAR (measured) = 62.0 mW/g

d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 63.8 mW/g

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0 dB = 63.8mW/g

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Date/Time: 6/30/2011 6:07:24 PM, Date/Time: 6/30/2011 6:09:58 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_Amb_Tem_23.5_Liq_Tem_22.6C_06_30_11

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

Communication System: CW; Frequency: 1800 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.423 \text{ mho/m}$; $\epsilon_r = 41.092$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

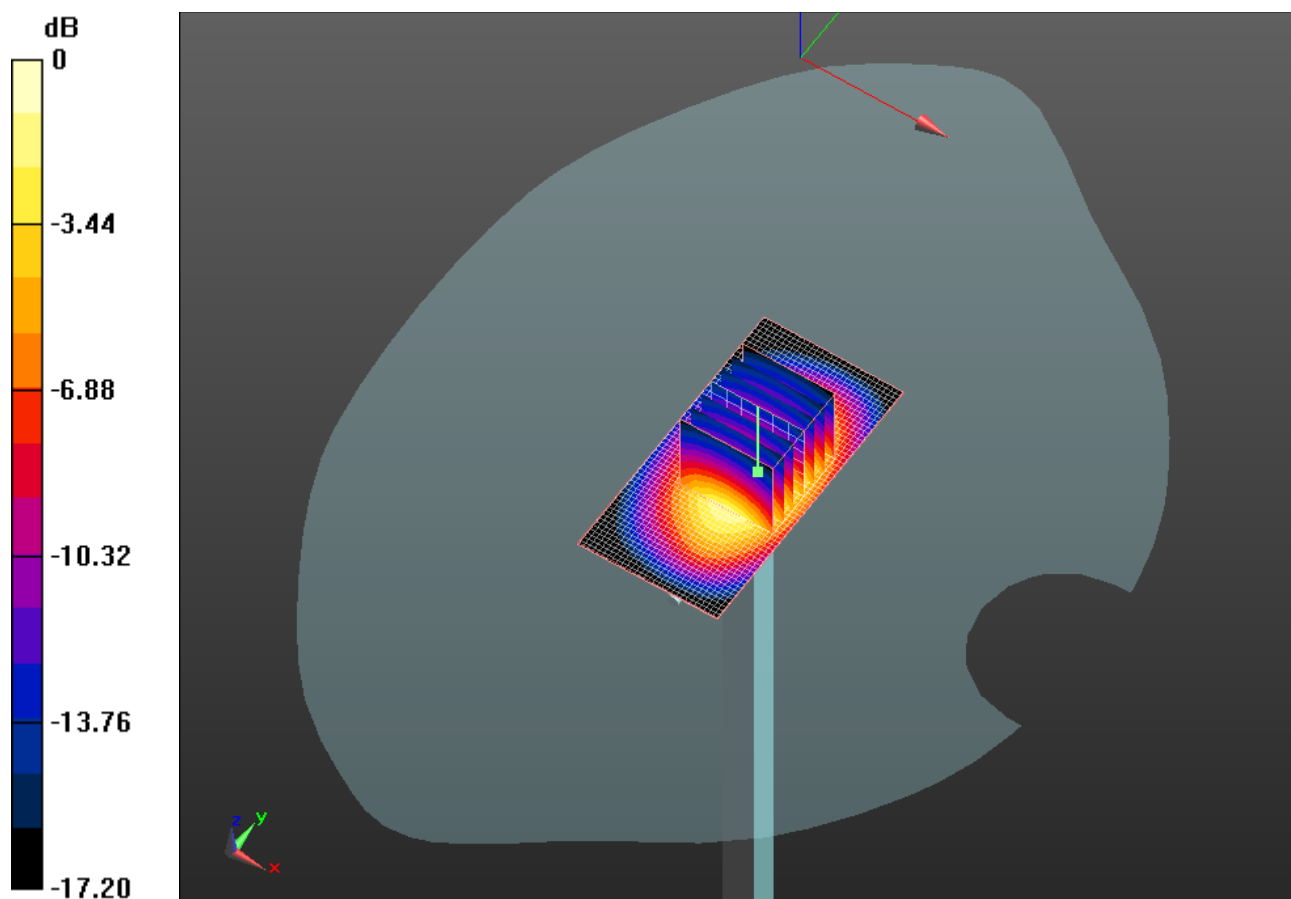
DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- 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 (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 43.703 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 175.9 V/m; Power Drift = -0.0041 dB
Peak SAR (extrapolated) = 71.225 W/kg
SAR(1 g) = 38.8 mW/g; SAR(10 g) = 20.3 mW/g
Maximum value of SAR (measured) = 43.674 mW/g

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0 dB = 43.670mW/g

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Date/Time: 7/4/2011 10:50:11 PM, Date/Time: 7/4/2011 10:52:46 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1800MHz_Amb_Tem_23.8_Liq_Tem_22.8C_07_04_11

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

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

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.424 \text{ mho/m}$; $\epsilon_r = 40.62$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- 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 (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 42.994 mW/g

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

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

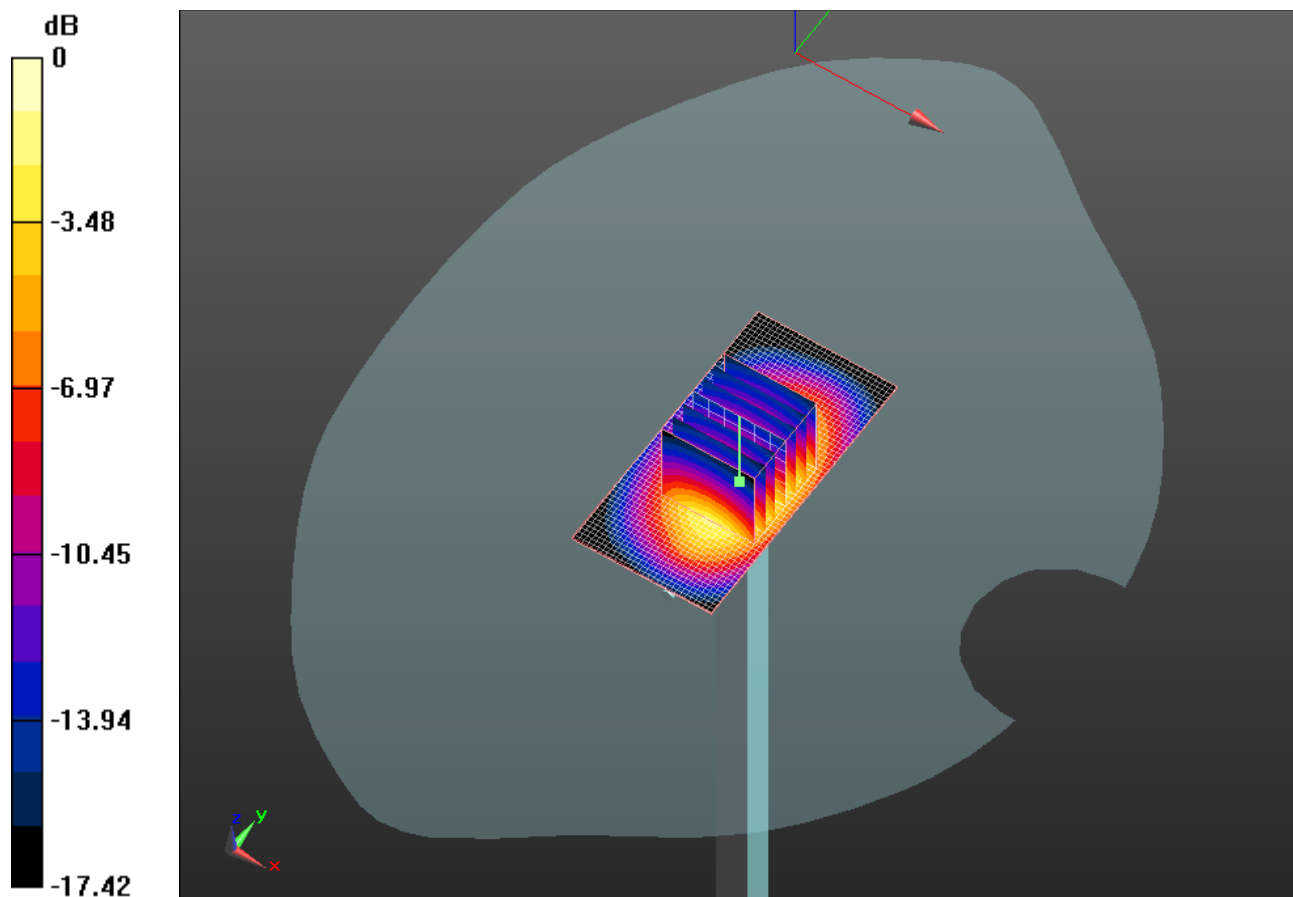
Reference Value = 173.1 V/m; Power Drift = -0.0089 dB

Peak SAR (extrapolated) = 70.153 W/kg

SAR(1 g) = 38 mW/g; SAR(10 g) = 19.9 mW/g

Maximum value of SAR (measured) = 42.745 mW/g

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0 dB = 42.740mW/g