



Appendix A. Plots of System Performance Check

The plots are shown as follows.

System Check_Head_835MHz_120206**DUT: Dipole 835 MHz**

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

Medium: HSL_850_120206 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.897 \text{ mho/m}$; $\epsilon_r = 40.781$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.7°C ; Liquid Temperature : 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.4, 9.4, 9.4); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 2.566 mW/g

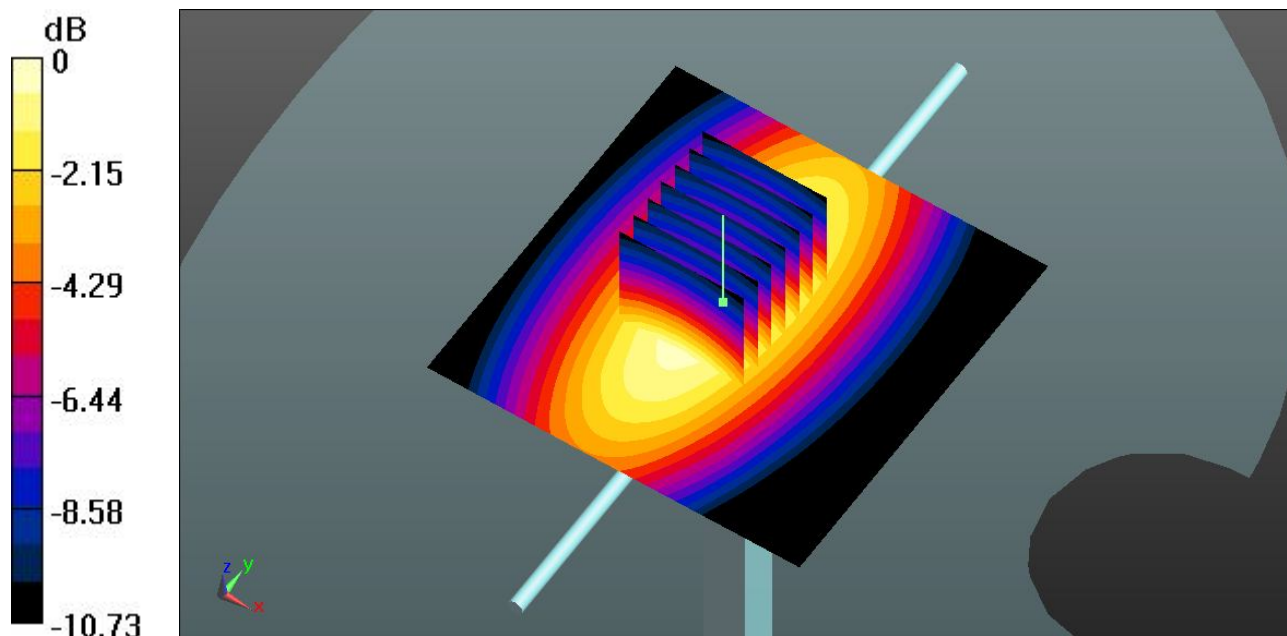
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 52.192 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.6650

SAR(1 g) = 2.4 mW/g ; SAR(10 g) = 1.56 mW/g

Maximum value of SAR (measured) = 2.592 mW/g



$0 \text{ dB} = 2.590 \text{ mW/g} = 8.27 \text{ dB mW/g}$

System Check_Body_835MHz_120209**DUT: Dipole 835 MHz**

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

Medium: MSL_850_120209 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.969 \text{ mho/m}$; $\epsilon_r = 56.069$;

$\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.8°C ; Liquid Temperature : 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.72, 9.72, 9.72); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 2.564 mW/g

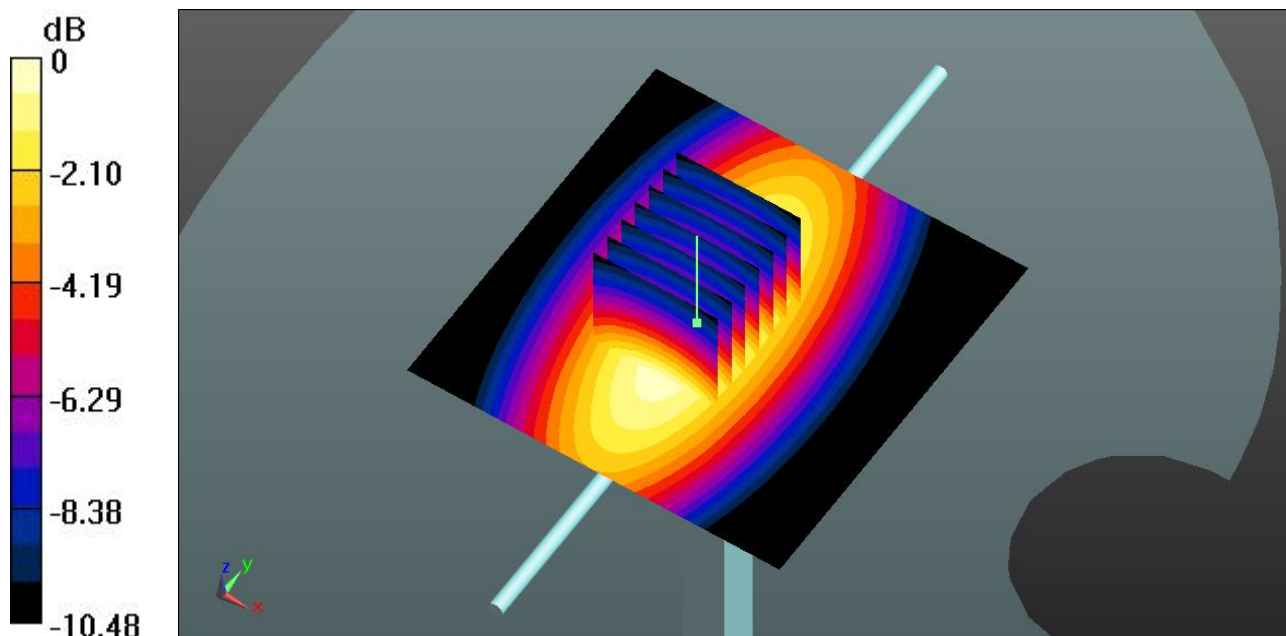
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 51.078 V/m ; Power Drift = -0.00013 dB

Peak SAR (extrapolated) = 3.6010

SAR(1 g) = 2.37 mW/g ; SAR(10 g) = 1.54 mW/g

Maximum value of SAR (measured) = 2.556 mW/g



0 dB = 2.560 mW/g = 8.16 dB mW/g

System Check_Body_835MHz_120221**DUT: Dipole 835 MHz**

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

Medium: MSL_850_120221 Medium parameters used: $f = 835$ MHz; $\sigma = 0.976$ mho/m; $\epsilon_r = 54.382$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(8.67, 8.67, 8.67); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.662 mW/g

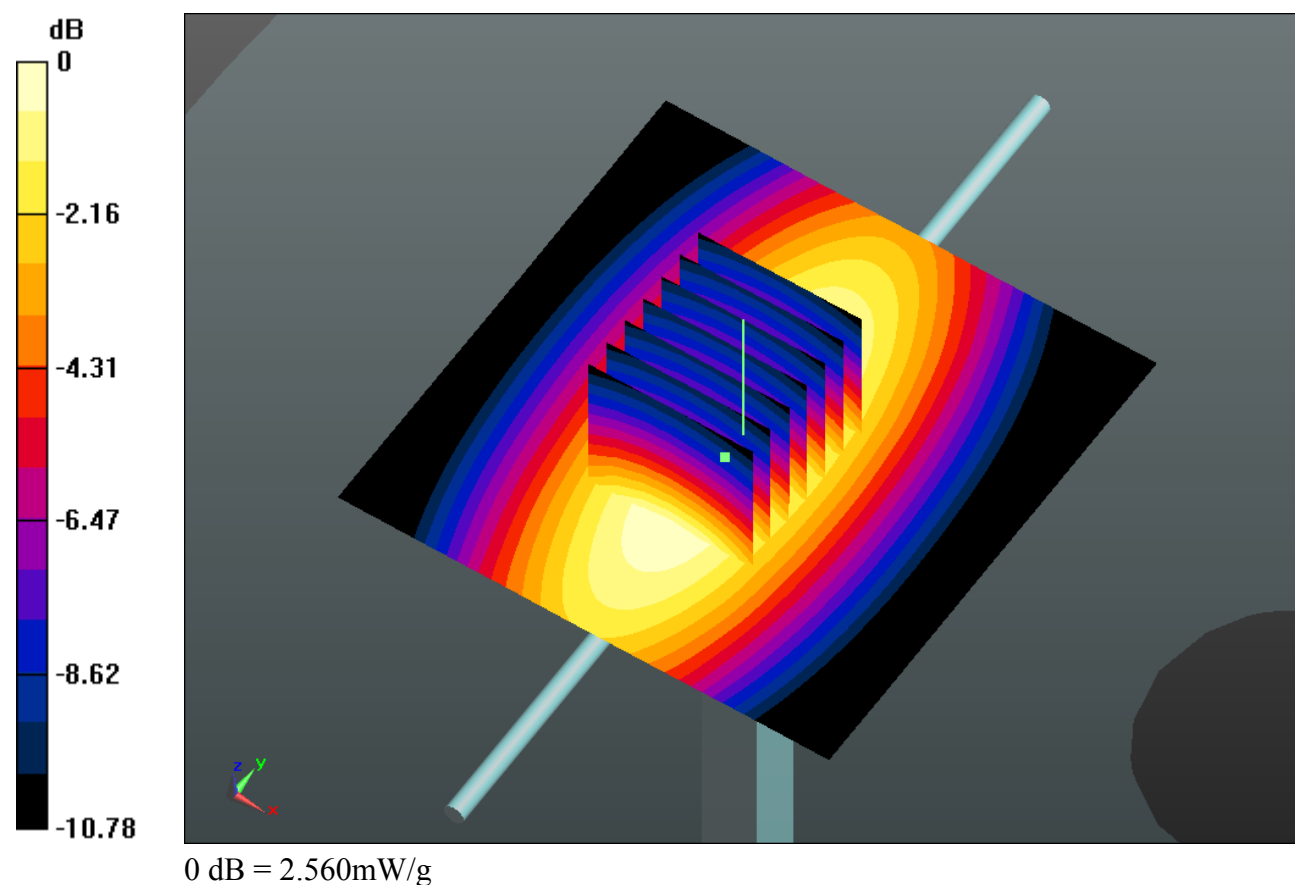
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.731 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 3.626 W/kg

SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.54 mW/g

Maximum value of SAR (measured) = 2.555 mW/g



System Check_Head_1800MHz_120204**DUT: Dipole 1800 MHz**

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120204 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.435$ mho/m; $\epsilon_r =$

41.118; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8.69, 8.69, 8.69); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.201 mW/g

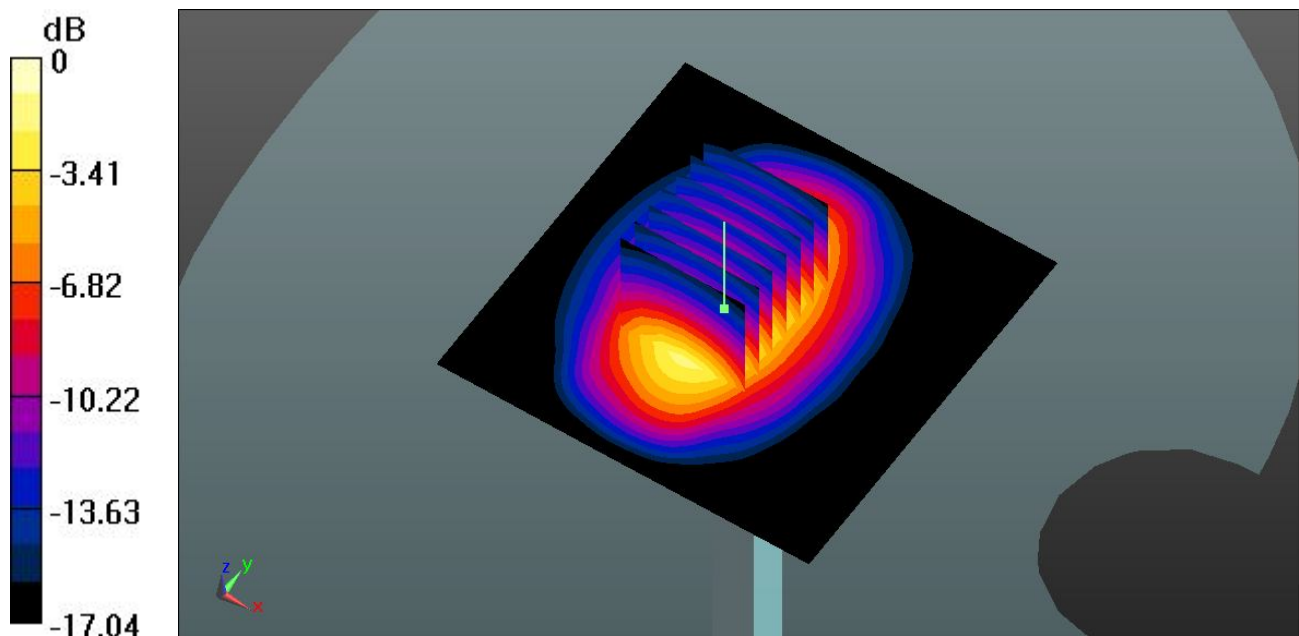
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.253 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 18.1030

SAR(1 g) = 9.76 mW/g; SAR(10 g) = 5.12 mW/g

Maximum value of SAR (measured) = 10.954 mW/g



0 dB = 10.950mW/g = 20.79 dB mW/g

System Check_Body_1800MHz_120208**DUT: Dipole 1800 MHz**

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120208 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.573$ mho/m; $\epsilon_r =$

55.462; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8, 8, 8); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.877 mW/g

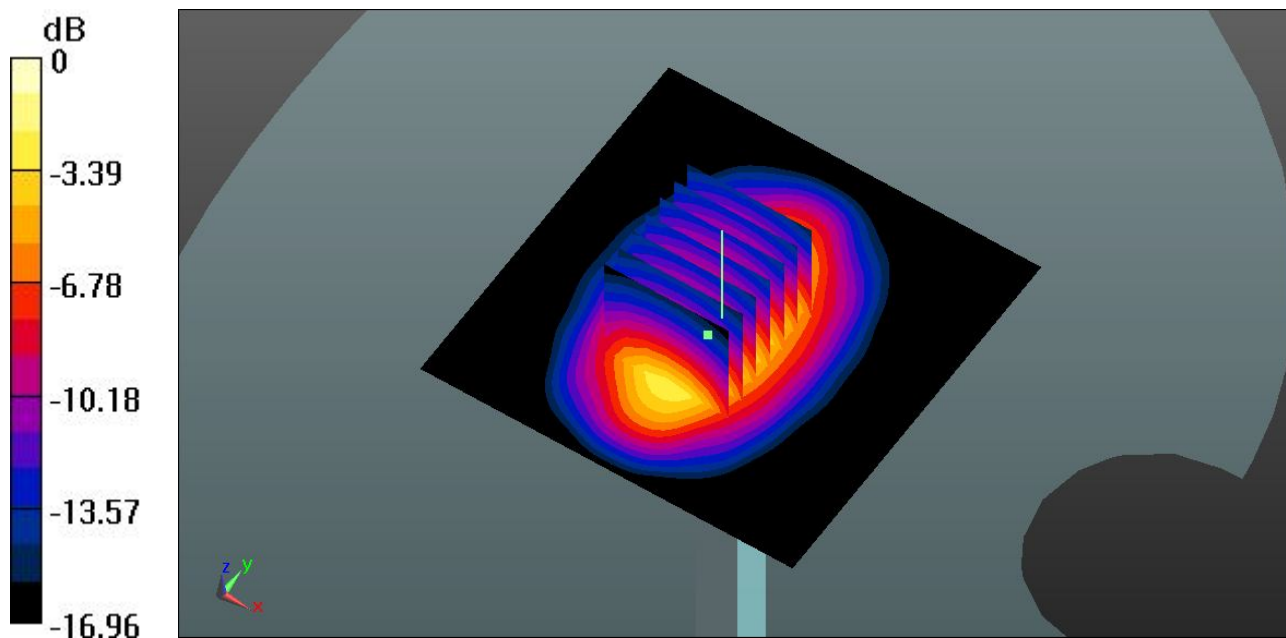
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.554 V/m; Power Drift = 0.0053 dB

Peak SAR (extrapolated) = 18.6350

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.39 mW/g

Maximum value of SAR (measured) = 11.516 mW/g



0 dB = 11.520mW/g = 21.23 dB mW/g

System Check_Body_1800MHz_120221**DUT: Dipole 1800 MHz**

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120221 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.576$ mho/m; $\epsilon_r =$

55.127 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(7.16, 7.16, 7.16); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (91x91x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 10.311 mW/g

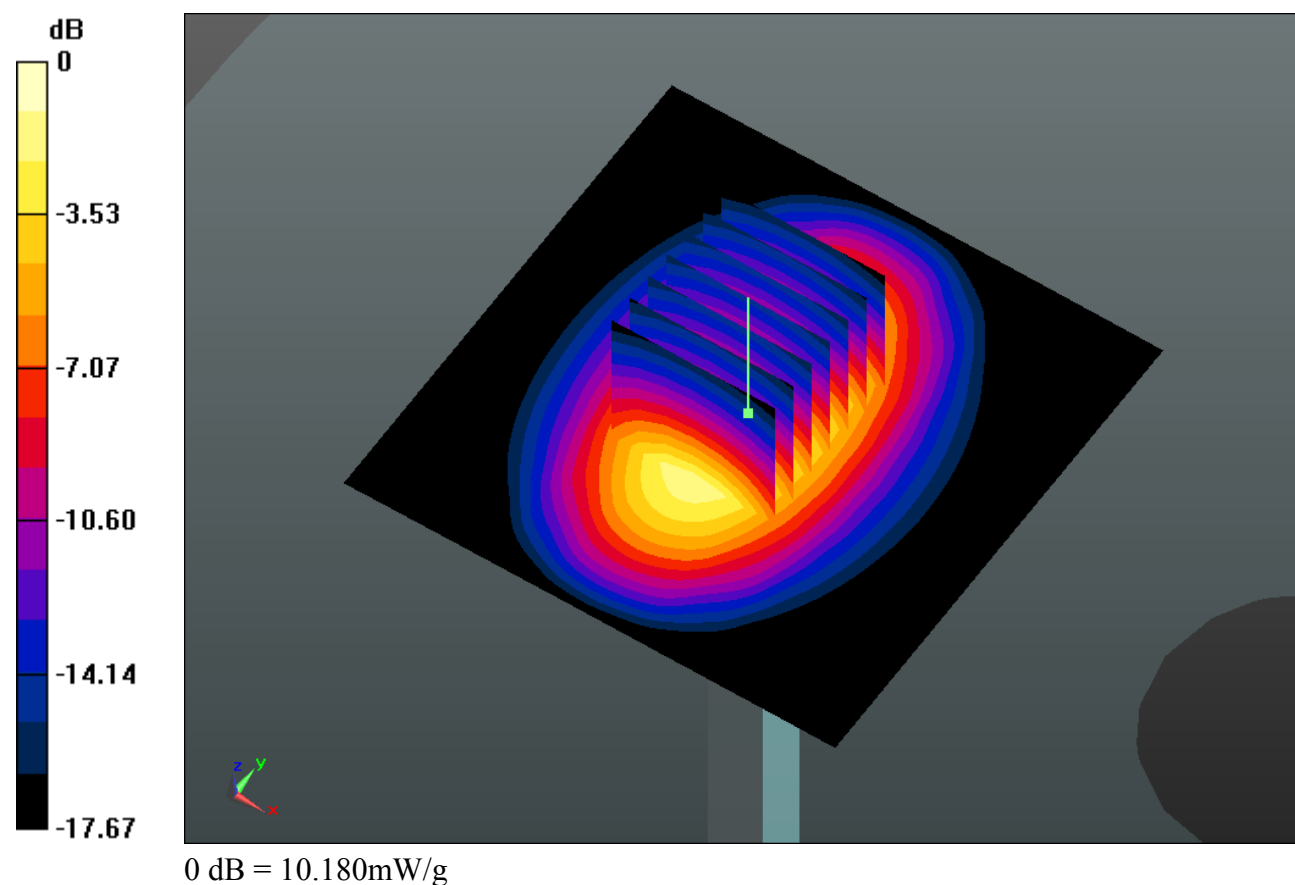
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 80.033 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 17.323 W/kg

SAR(1 g) = 9.05 mW/g; SAR(10 g) = 4.65 mW/g

Maximum value of SAR (measured) = 10.176 mW/g



System Check_Head_1900MHz_120204**DUT: Dipole 1900 MHz**

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

Medium: HSL_1900_120204 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.427$ mho/m; $\epsilon_r =$

41.191; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8.36, 8.36, 8.36); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 10.783 mW/g

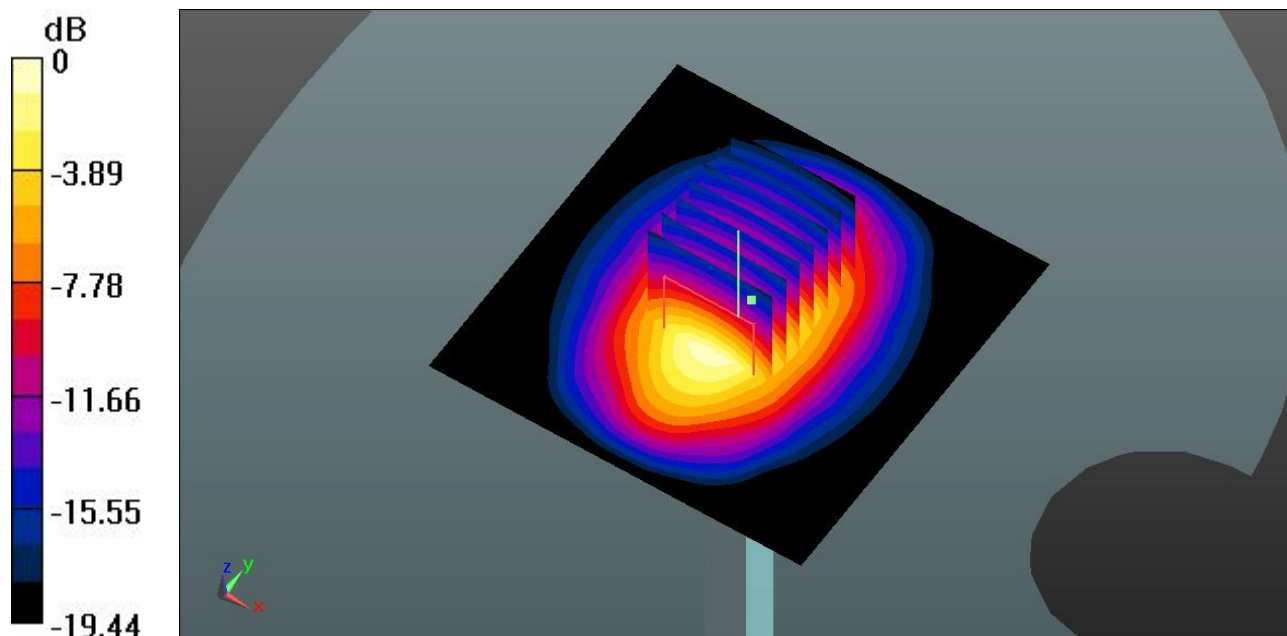
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.819 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 18.6470

SAR(1 g) = 9.55 mW/g; SAR(10 g) = 4.83 mW/g

Maximum value of SAR (measured) = 10.688 mW/g



0 dB = 10.690mW/g = 20.58 dB mW/g

System Check_Body_1900MHz_120208**DUT: Dipole 1900 MHz**

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

Medium: MSL_1900_120208 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.528$ mho/m; $\epsilon_r =$

53.974; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(7.71, 7.71, 7.71); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.445 mW/g

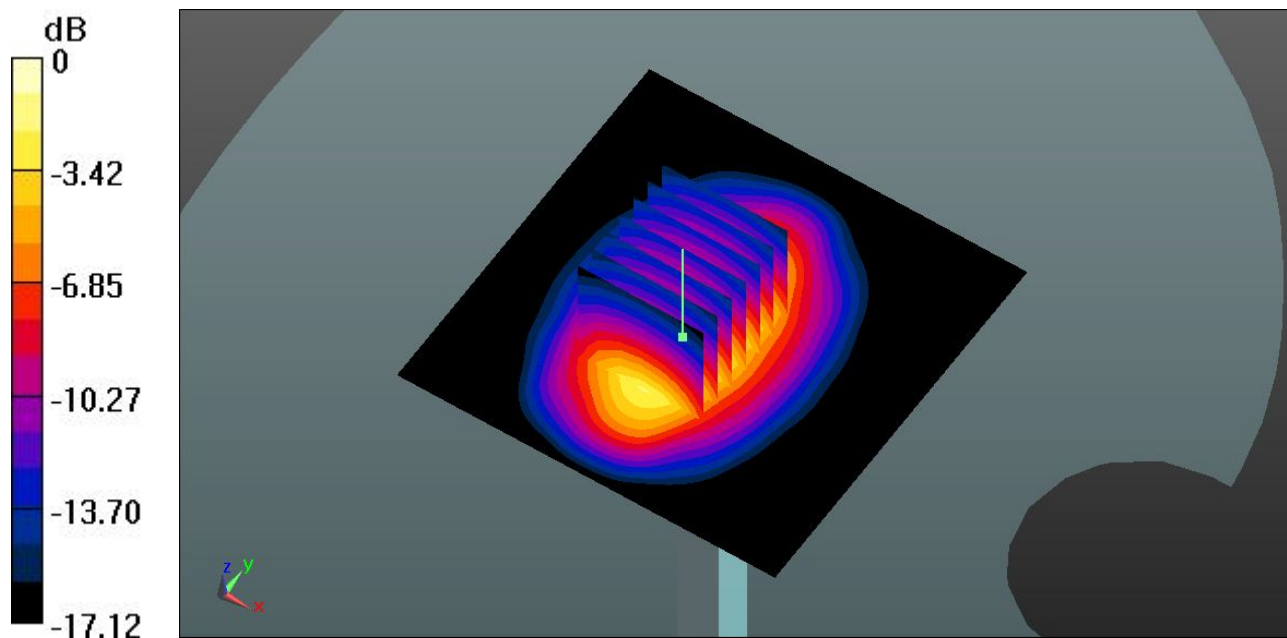
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.036 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 19.2760

SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.49 mW/g

Maximum value of SAR (measured) = 11.729 mW/g



0 dB = 11.730mW/g = 21.39 dB mW/g

System Check_Body_1900MHz_120221**DUT: Dipole 1900 MHz**

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

Medium: MSL_1900_120221 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.512$ mho/m; $\epsilon_r =$

53.903; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(6.96, 6.96, 6.96); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.035 mW/g

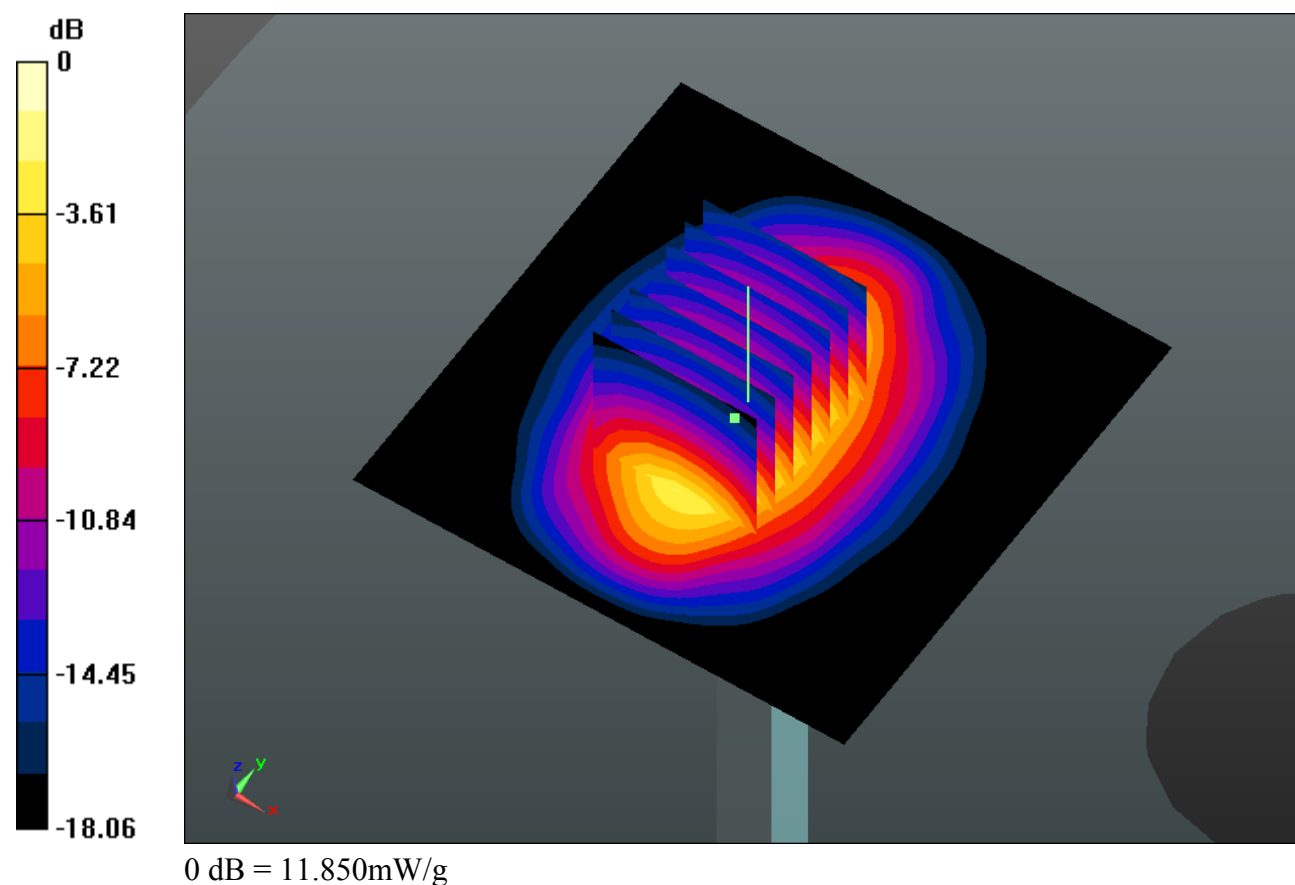
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.338 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 19.792 W/kg

SAR(1 g) = 10.6 mW/g; SAR(10 g) = 5.43 mW/g

Maximum value of SAR (measured) = 11.851 mW/g



System Check_Head_2450MHz_120214**DUT: Dipole 2450 MHz**

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

Medium: HSL_2450_120214 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.834$ mho/m; $\epsilon_r =$

39.654; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(7.33, 7.33, 7.33); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 15.459 mW/g

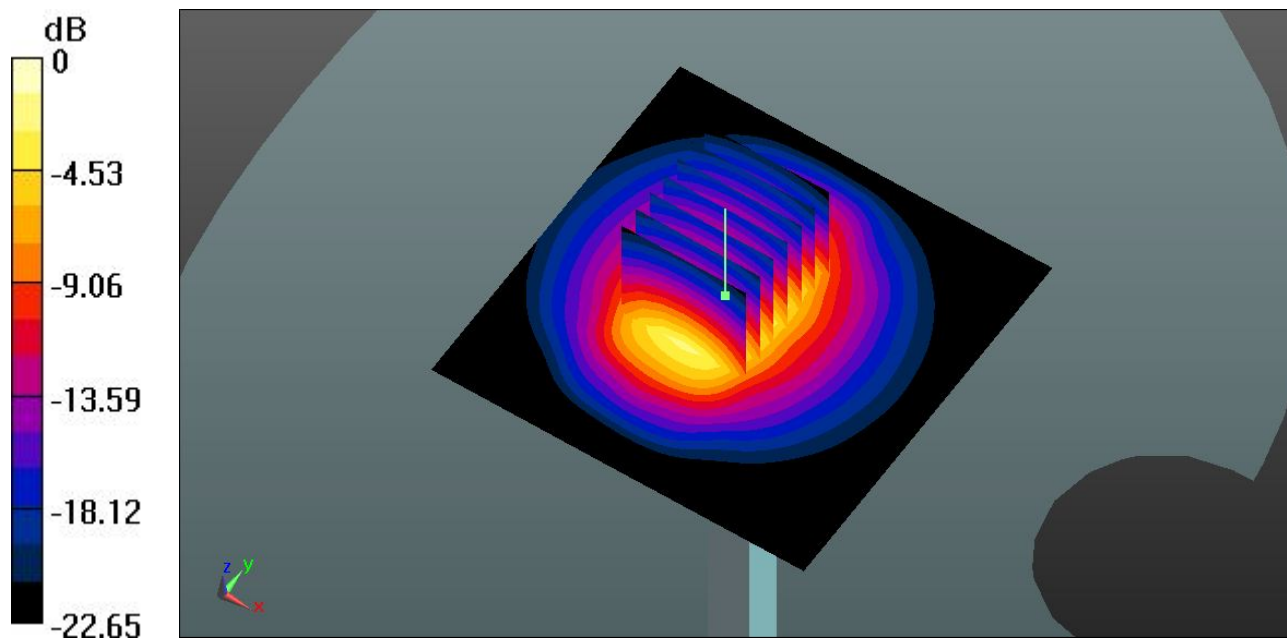
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 79.090 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 28.1750

SAR(1 g) = 13.1 mW/g; SAR(10 g) = 5.97 mW/g

Maximum value of SAR (measured) = 14.806 mW/g



0 dB = 14.810mW/g = 23.41 dB mW/g

System Check_Body_2450MHz_120214**DUT: Dipole 2450 MHz**

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

Medium: MSL_2450_120214 Medium parameters used: $f = 2450$ MHz; $\sigma = 2.002$ mho/m; $\epsilon_r =$

53.464; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(7.4, 7.4, 7.4); Calibrated: 16.11.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.509 mW/g

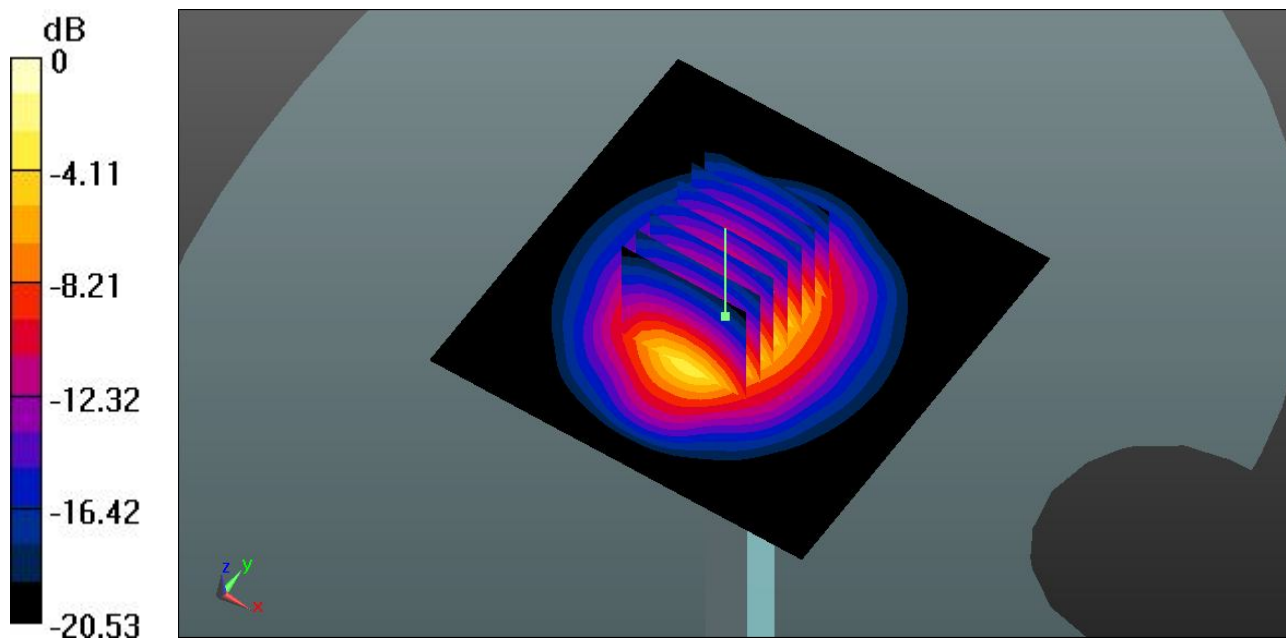
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.158 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 24.7350

SAR(1 g) = 12.5 mW/g; SAR(10 g) = 5.88 mW/g

Maximum value of SAR (measured) = 14.325 mW/g



0 dB = 14.320mW/g = 23.12 dB mW/g