



Appendix A. Plots of System Performance Check

The plots are shown as follows.

System Check_Body_750MHz

DUT: Dipole 750 MHz (SN: 1012)

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: MSL_750_120229 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 54.646$;

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

Ambient Temperature : 22.5°C ; Liquid Temperature : 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(8.79, 8.79, 8.79); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 2.514 mW/g

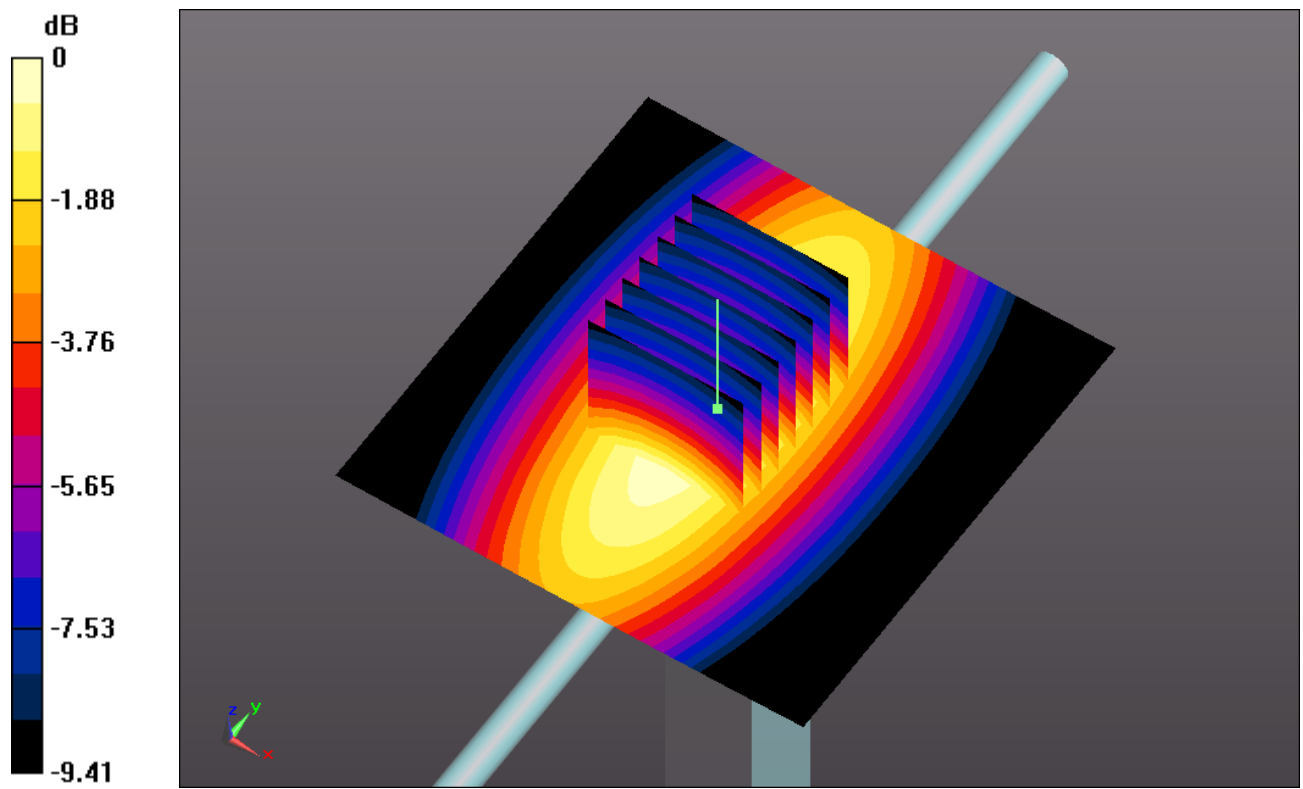
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 50.686 V/m ; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.480 W/kg

SAR(1 g) = 2.34 mW/g ; SAR(10 g) = 1.57 mW/g

Maximum value of SAR (measured) = 2.516 mW/g



0 dB = 2.520mW/g

System Check_Body_835MHz

DUT: Dipole 835 MHz (SN: 4d091)

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

Medium: MSL_850_120225 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.973 \text{ mho/m}$; $\epsilon_r = 54.082$;

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

Ambient Temperature : 22.6°C ; Liquid Temperature : 21.6°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: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 2.432 mW/g

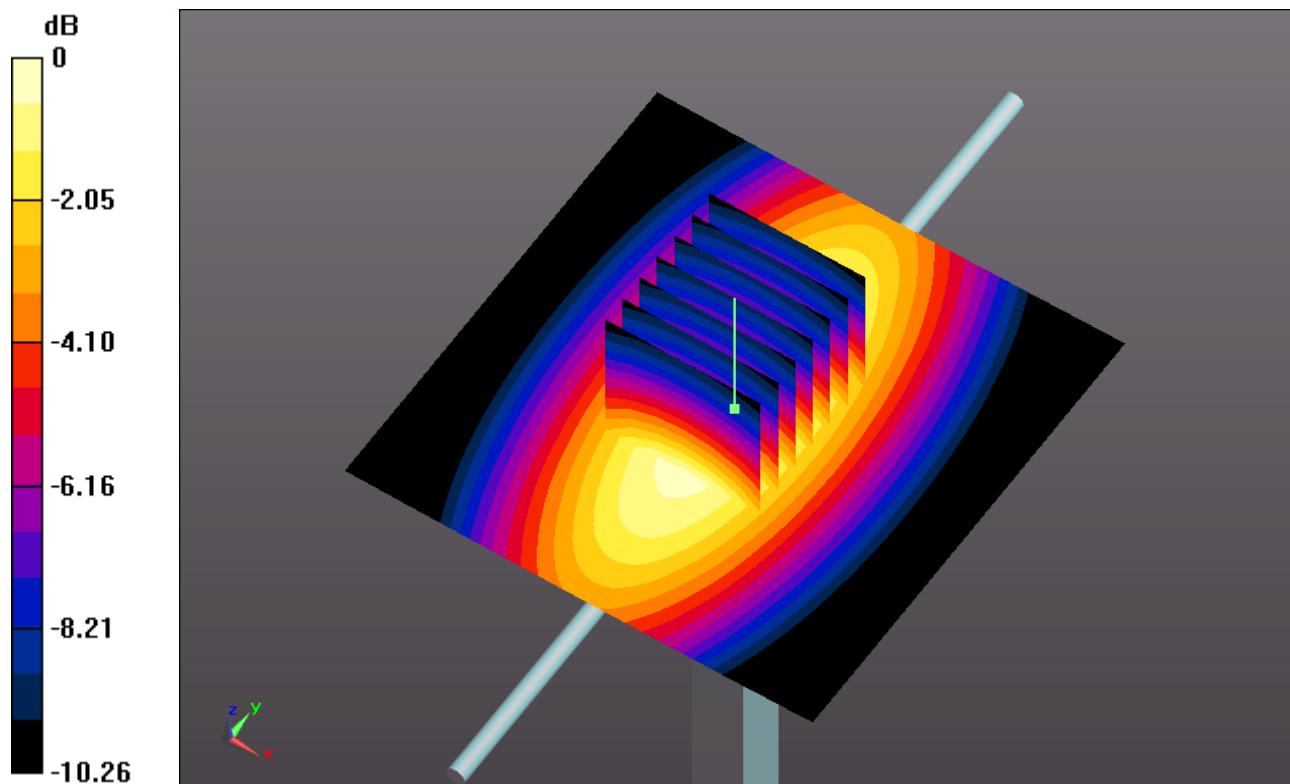
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 50.059 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.334 W/kg

SAR(1 g) = 2.25 mW/g ; SAR(10 g) = 1.48 mW/g

Maximum value of SAR (measured) = 2.435 mW/g



0 dB = 2.440mW/g

System Check_Body_835MHz

DUT: Dipole 835 MHz (SN: 4d091)

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

Medium: MSL_835_120228 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.976 \text{ mho/m}$; $\epsilon_r = 54.388$;

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

Ambient Temperature : 22.6°C ; Liquid Temperature : 21.5°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: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 2.721 mW/g

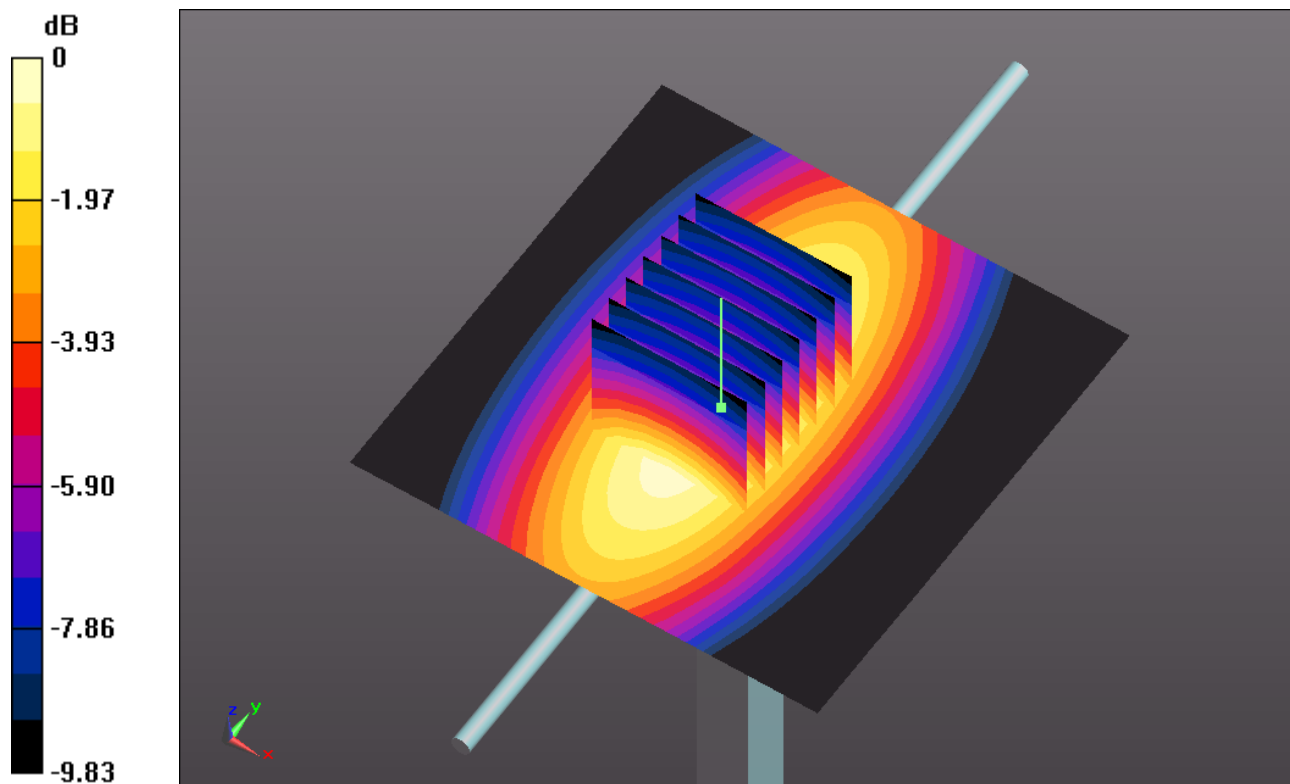
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 52.803 V/m ; Power Drift = -0.0006 dB

Peak SAR (extrapolated) = 3.713 W/kg

SAR(1 g) = 2.52 mW/g ; SAR(10 g) = 1.67 mW/g

Maximum value of SAR (measured) = 2.708 mW/g



0 dB = 2.710mW/g

System Check_Body_1900MHz

DUT: Dipole 1900 MHz (SN: 5d118)

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

Medium: MSL_1900_120227 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.535$ mho/m; $\epsilon_r =$

54.579; $\rho = 1000$ kg/m³

Ambient Temperature : 22.3 °C ; Liquid Temperature : 21.2 °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: SAM3; Type: SAM; Serial: TP-1079
- 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) = 11.589 mW/g

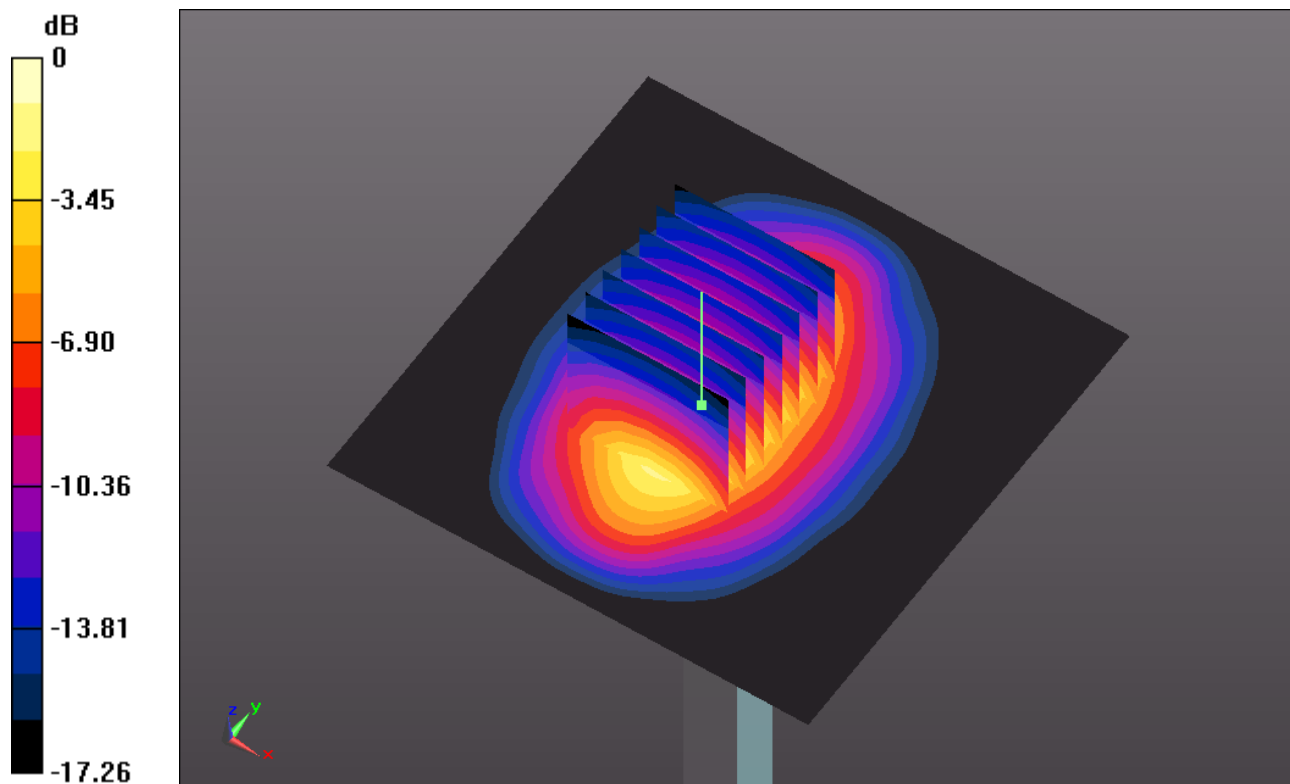
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 85.326 V/m; Power Drift = 0.004 dB

Peak SAR (extrapolated) = 18.729 W/kg

SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.26 mW/g

Maximum value of SAR (measured) = 11.391 mW/g



0 dB = 11.390mW/g

System Check_Body_1900MHz

DUT: Dipole 1900 MHz (SN: 5d118)

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

Medium: MSL_1900_120228 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.525$ mho/m; $\epsilon_r =$

54.504; $\rho = 1000$ kg/m³

Ambient Temperature : 22.4 °C ; Liquid Temperature : 21.3 °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: SAM3; Type: SAM; Serial: TP-1079
- 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) = 12.350 mW/g

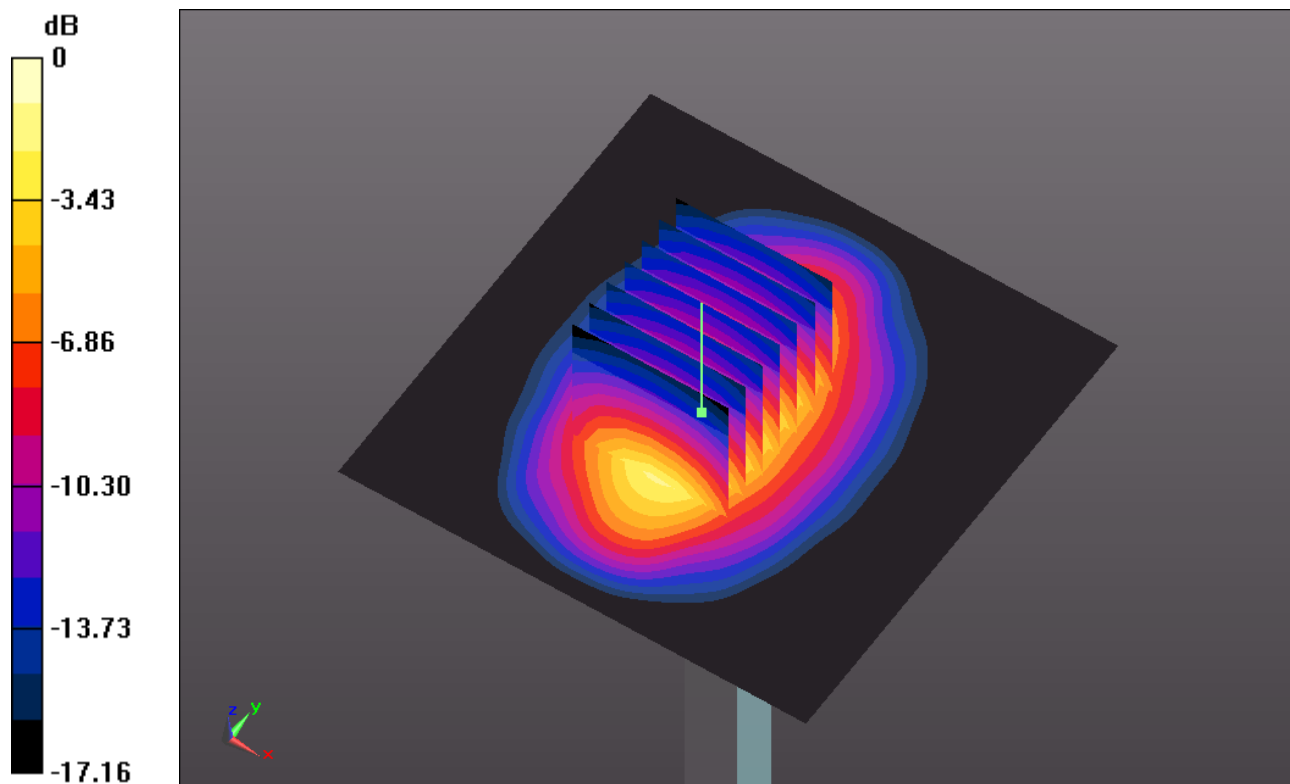
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.308 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 19.870 W/kg

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.65 mW/g

Maximum value of SAR (measured) = 12.139 mW/g



0 dB = 12.140mW/g

System Check_Body_2450MHz

DUT: Dipole 2450 MHz (SN: 840)

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

Medium: MSL_2450_120302 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.992$ mho/m; $\epsilon_r =$

54.311; $\rho = 1000$ kg/m³

Ambient Temperature : 22.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(6.73, 6.73, 6.73); Calibrated: 2011-9-2
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 16.495 mW/g

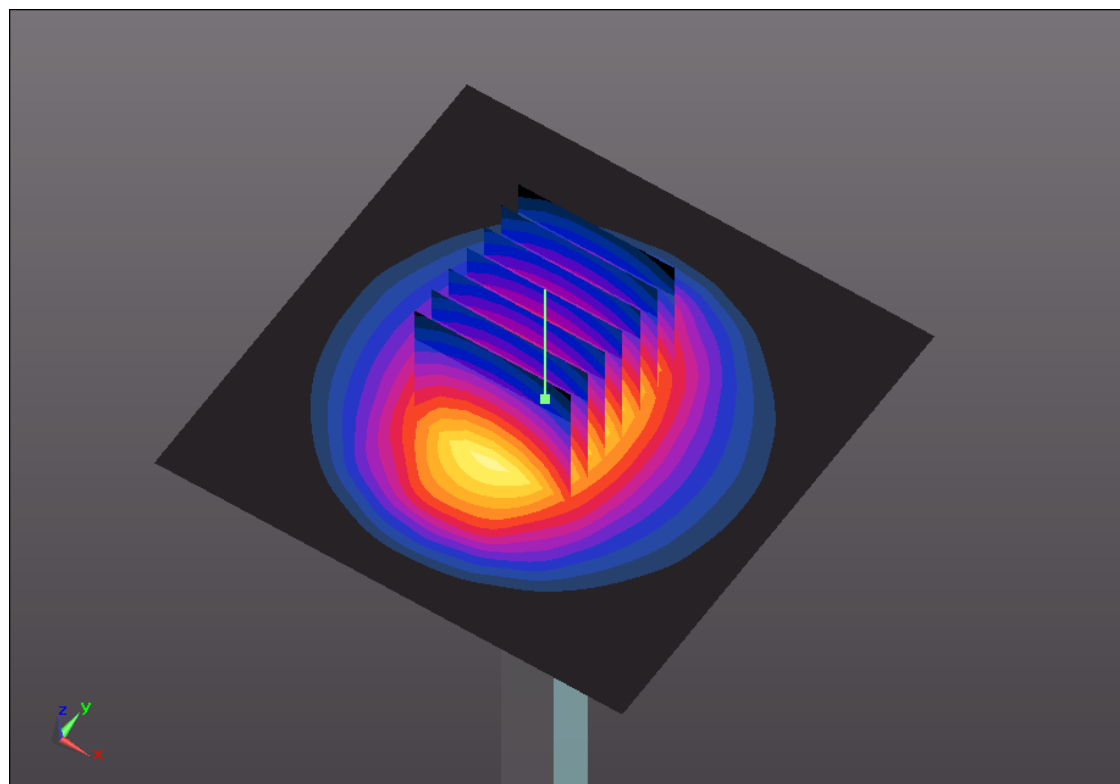
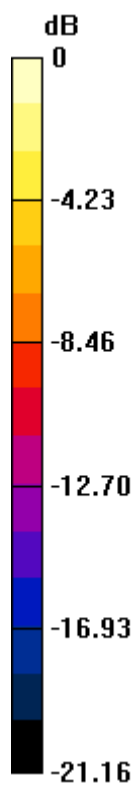
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.391 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 28.009 W/kg

SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.37 mW/g

Maximum value of SAR (measured) = 15.930 mW/g



0 dB = 15.930mW/g

System Check_Body_5200MHz

DUT: Dipole 5GHz (SN: 1113)

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MSL_5000_120301 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.297$ mho/m; $\epsilon_r =$

49.185; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(4.13, 4.13, 4.13); Calibrated: 2011-9-2
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 28.979 mW/g

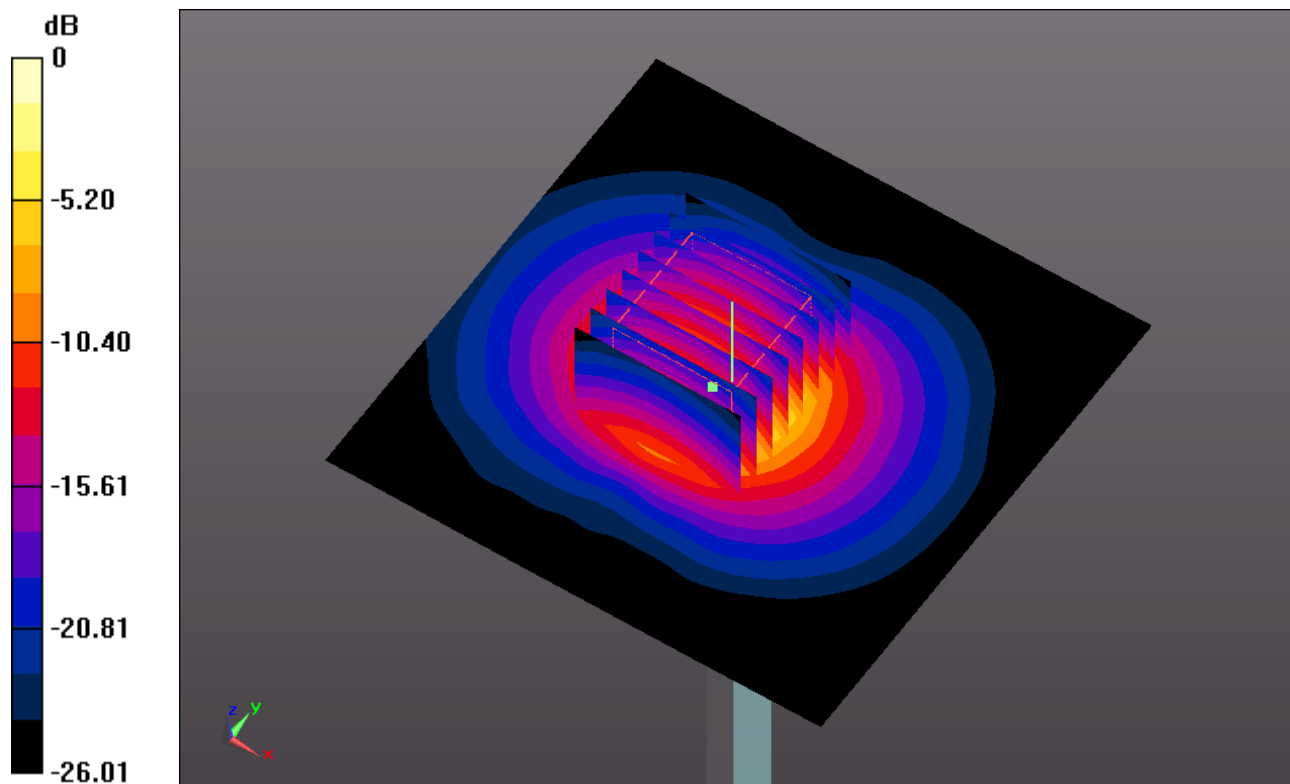
Pin=250mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 73.160 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 44.517 W/kg

SAR(1 g) = 17.9 mW/g; SAR(10 g) = 6.01 mW/g

Maximum value of SAR (measured) = 26.885 mW/g



0 dB = 26.880mW/g

System Check_Body_5800MHz

DUT: Dipole 5GHz (SN: 1113)

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MSL_5000_120301 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.127$ mho/m; $\epsilon_r =$

47.784; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3697; ConvF(3.74, 3.74, 3.74); Calibrated: 2011-9-2
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2011-11-18
- Phantom: SAM3; Type: SAM; Serial: TP-1079
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 30.180 mW/g

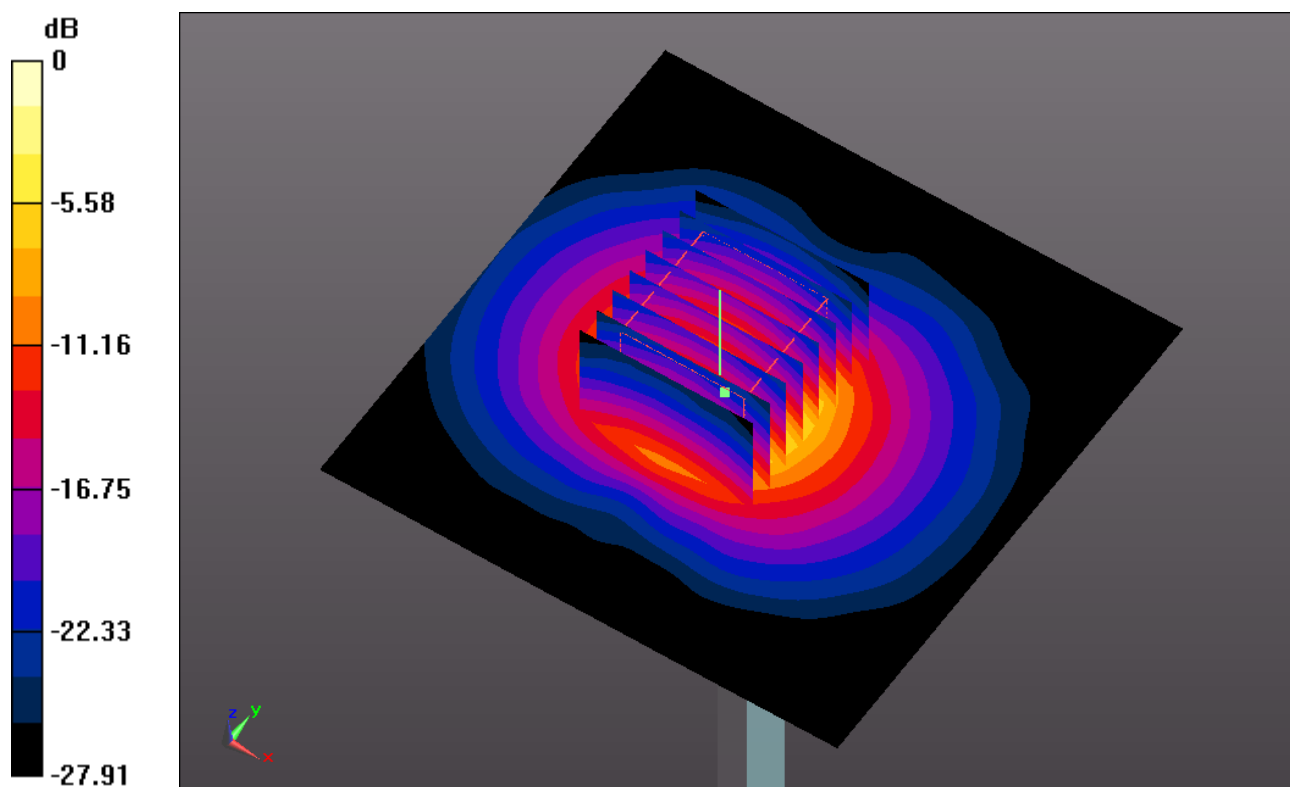
Pin=250mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 69.067 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 43.507 W/kg

SAR(1 g) = 18 mW/g; SAR(10 g) = 5.87 mW/g

Maximum value of SAR (measured) = 28.261 mW/g



0 dB = 28.260mW/g