



## ***Appendix A. Plots of System Performance Check***

The plots are shown as follows.

**System Check\_Head\_835MHz\_110923****DUT: Dipole 835 MHz**

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

Medium: HSL\_835\_110923 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.909$  mho/m;  $\epsilon_r = 41.806$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C ; Liquid Temperature : 21.3 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.71, 6.71, 6.71); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 2.468 mW/g

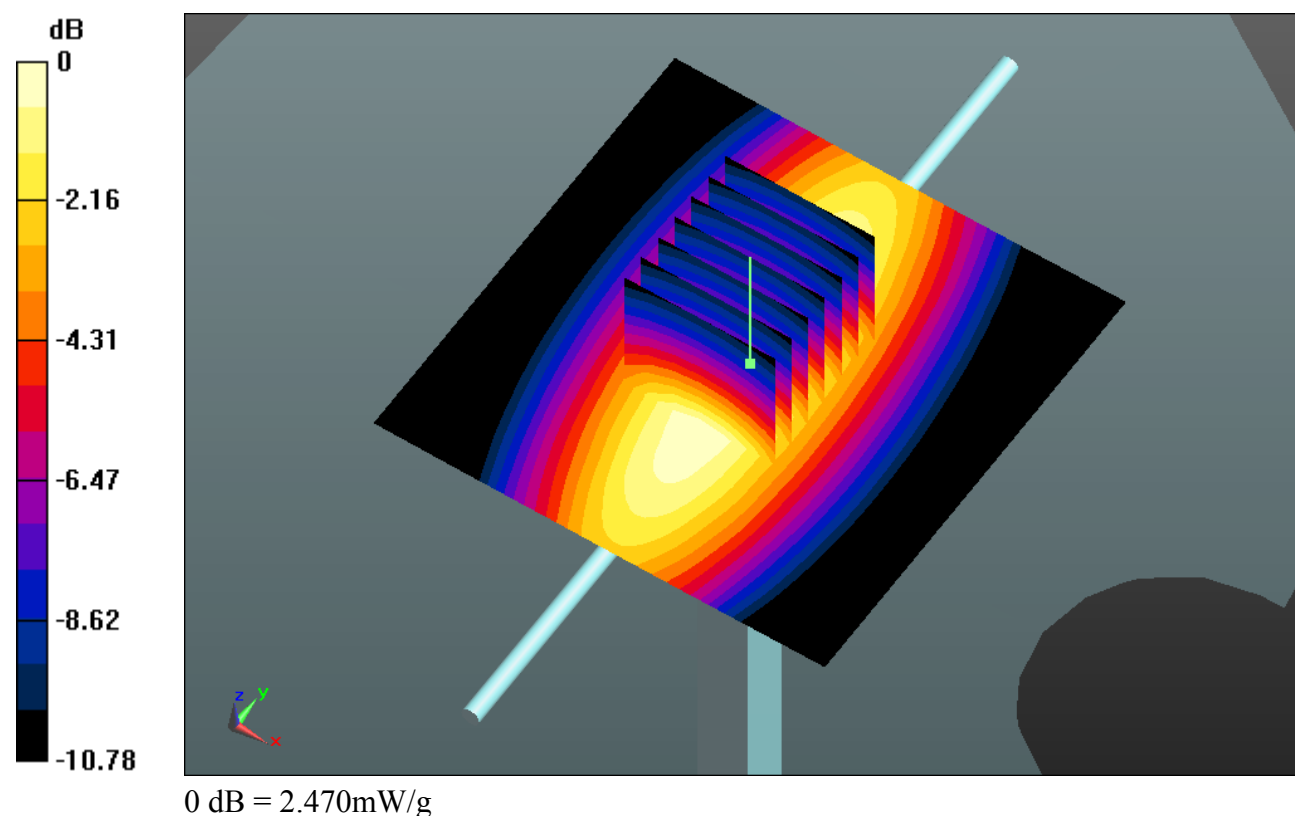
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.596 V/m; Power Drift = -0.0078 dB

Peak SAR (extrapolated) = 3.384 W/kg

**SAR(1 g) = 2.25 mW/g; SAR(10 g) = 1.43 mW/g**

Maximum value of SAR (measured) = 2.471 mW/g



**System Check\_Body\_835MHz\_110923****DUT: Dipole 835 MHz**

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

Medium: MSL\_835\_110923 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.978$  mho/m;  $\epsilon_r = 54.403$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.2 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(6.35, 6.35, 6.35); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 2.573 mW/g

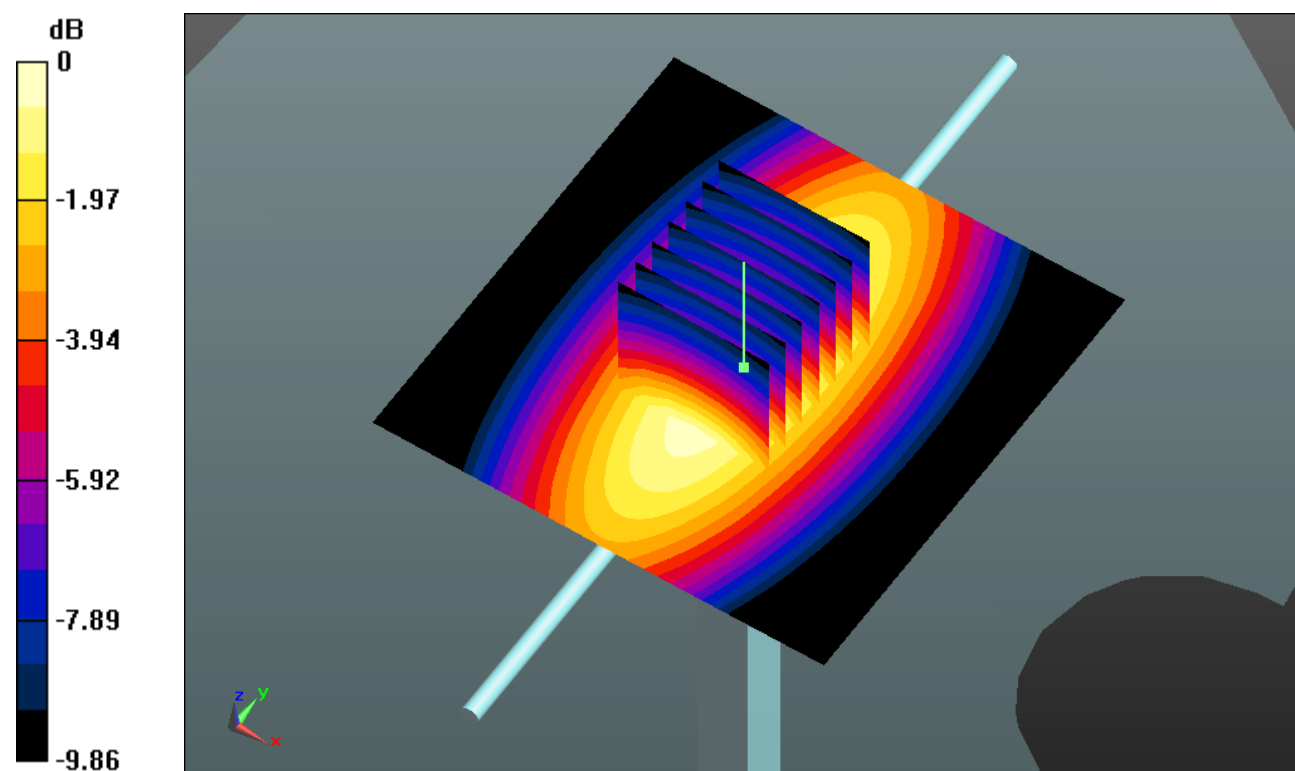
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.768 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.284 W/kg

**SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.59 mW/g**

Maximum value of SAR (measured) = 2.576 mW/g



0 dB = 2.580mW/g

**System Check\_Head\_1900MHz\_110923****DUT: Dipole 1900 MHz**

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

Medium: HSL\_1900\_110923 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.427$  mho/m;  $\epsilon_r =$

41.191;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.6 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(5.03, 5.03, 5.03); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 11.135 mW/g

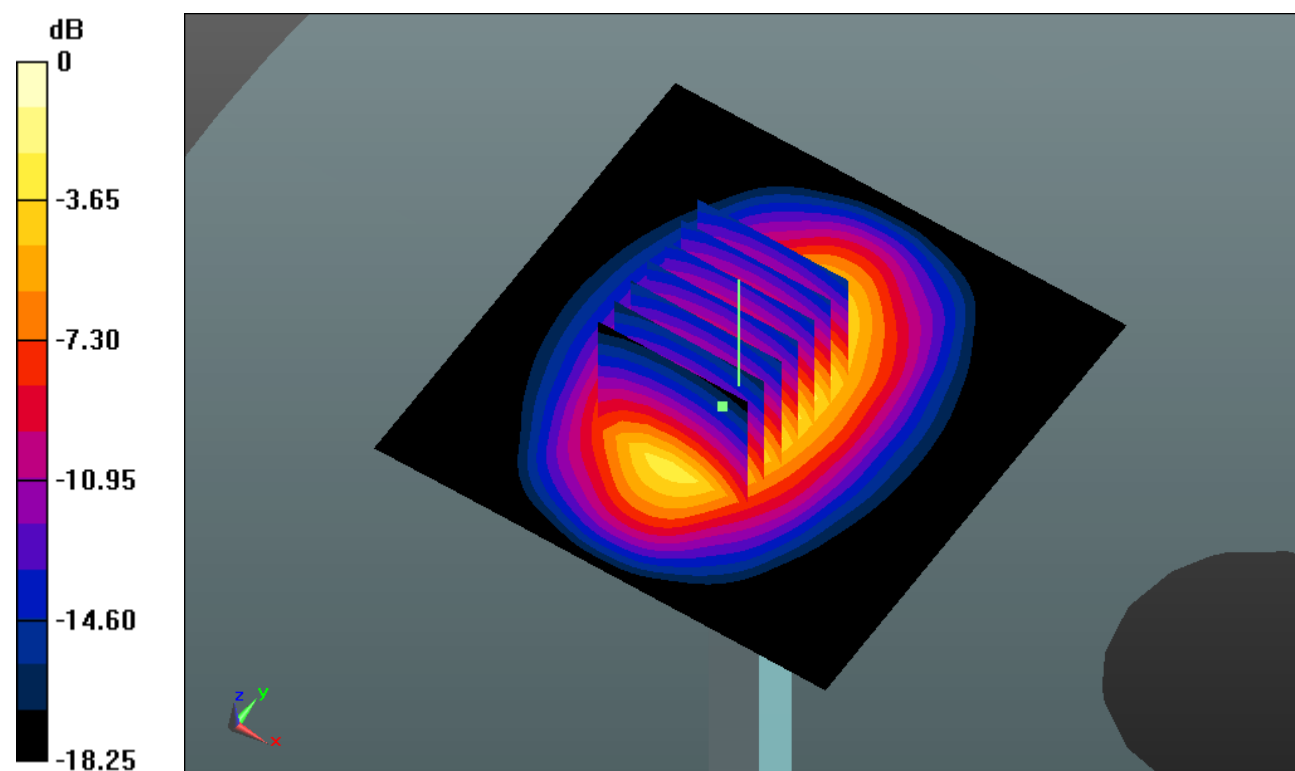
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.764 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 16.666 W/kg

**SAR(1 g) = 9.48 mW/g; SAR(10 g) = 5.01 mW/g**

Maximum value of SAR (measured) = 10.593 mW/g



0 dB = 10.590mW/g

**System Check\_Body\_1900MHz\_110923****DUT: Dipole 1900 MHz**

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

Medium: MSL\_1900\_110923 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.532$  mho/m;  $\epsilon_r =$

52.397;  $\rho = 1000$  kg/m<sup>3</sup>

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

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.48, 4.48, 4.48); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

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

Maximum value of SAR (interpolated) = 12.969 mW/g

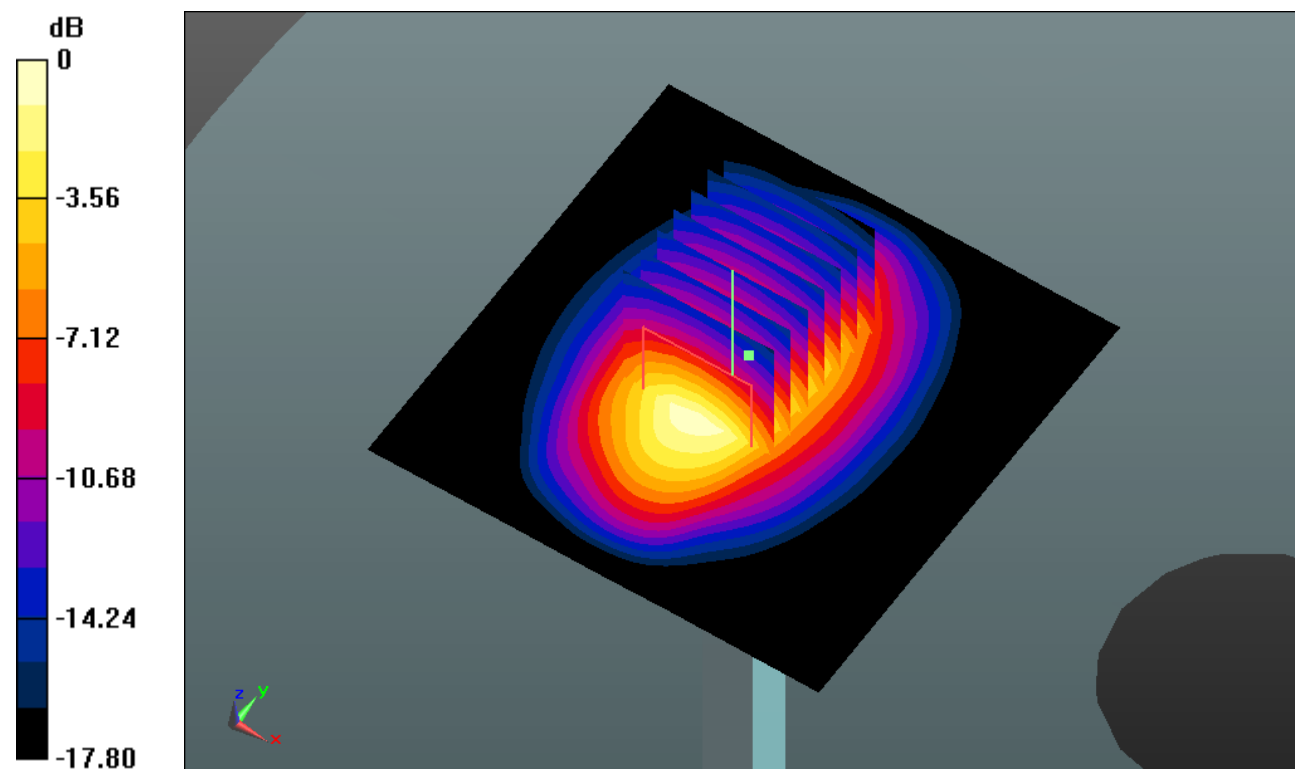
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 92.137 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 18.301 W/kg

**SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.67 mW/g**

Maximum value of SAR (measured) = 12.126 mW/g



**System Check\_Head\_2450MHz\_110926****DUT: Dipole 2450 MHz**

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

Medium: HSL\_2450\_110926 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.82$  mho/m;  $\epsilon_r =$

$39.753$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.5 °C

**DASY5 Configuration:**

- Probe: ET3DV6 - SN1787; ConvF(4.41, 4.41, 4.41); Calibrated: 2011-5-20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010-11-18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Pin=100mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 16.216 mW/g

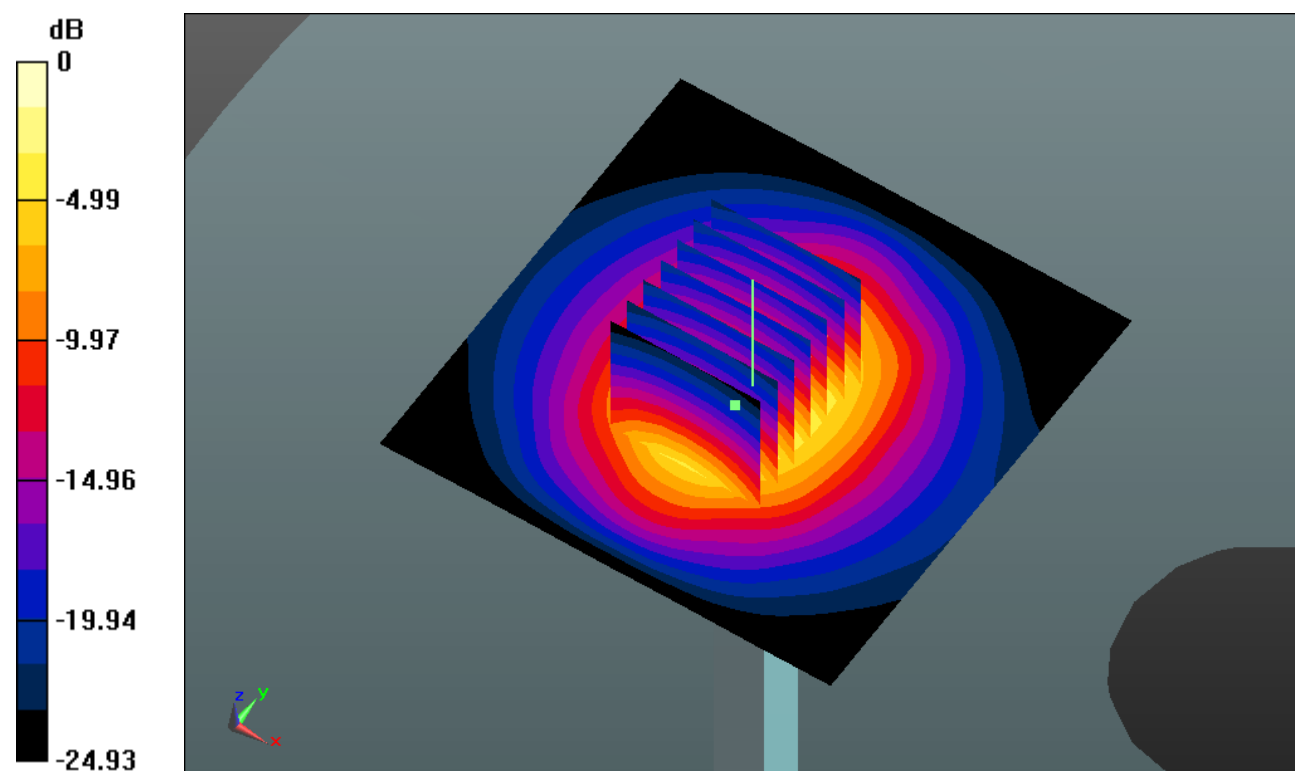
**Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.594 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 32.179 W/kg

**SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.19 mW/g**

Maximum value of SAR (measured) = 15.419 mW/g



0 dB = 15.420mW/g