



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

The plots are shown as follows.

## **System Check\_Head\_835MHz\_110921**

### **DUT: Dipole 835 MHz**

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

Medium: HSL\_835\_110921 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: EX3DV4 - SN3578; ConvF(8.33, 8.33, 8.33); Calibrated: 2011-6-21
- 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) = 2.412 mW/g

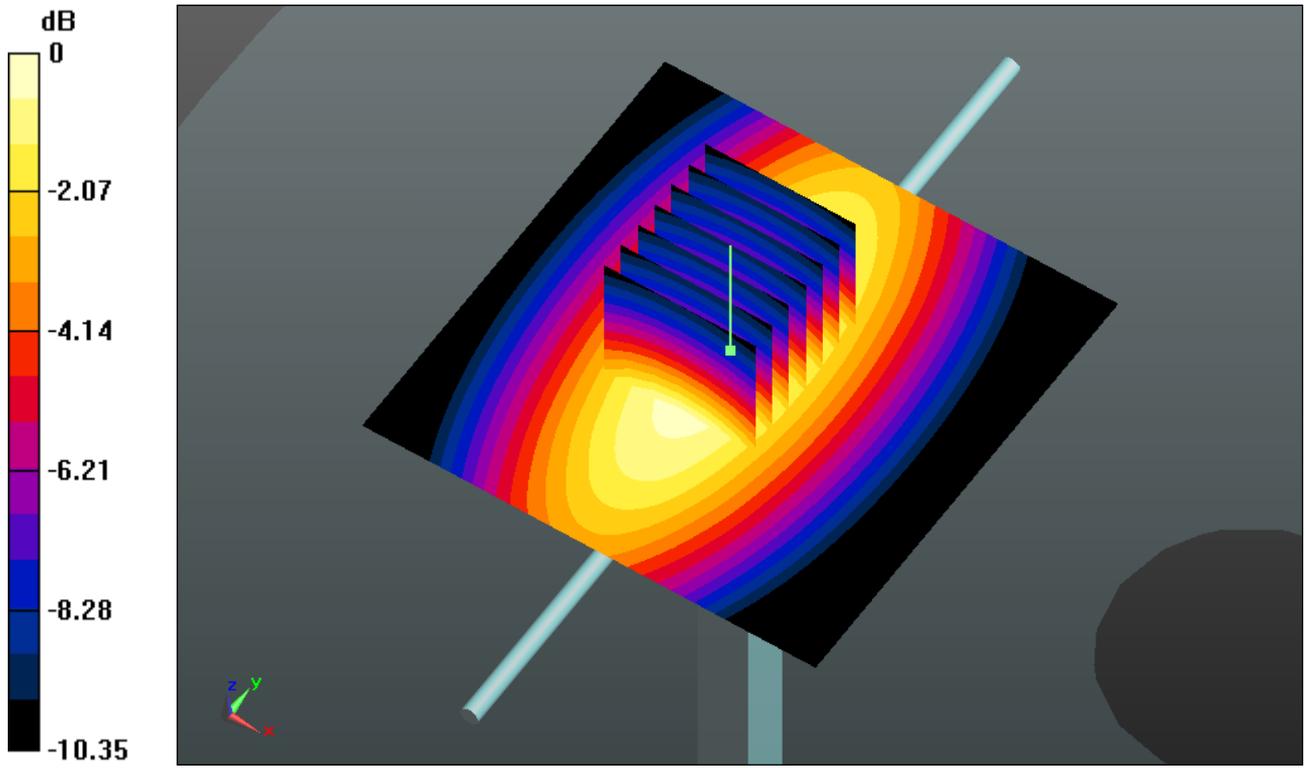
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 51.210 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.390 W/kg

**SAR(1 g) = 2.25 mW/g; SAR(10 g) = 1.47 mW/g**

Maximum value of SAR (measured) = 2.428 mW/g



0 dB = 2.430mW/g

**System Check\_Body\_835MHz\_110925**

**DUT: Dipole 835 MHz**

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

Medium: MSL\_835\_110925 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.976 \text{ mho/m}$ ;  $\epsilon_r = 54.382$ ;

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

Ambient Temperature :  $23.6 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $21.4 \text{ }^\circ\text{C}$

**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:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) =  $2.719 \text{ mW/g}$

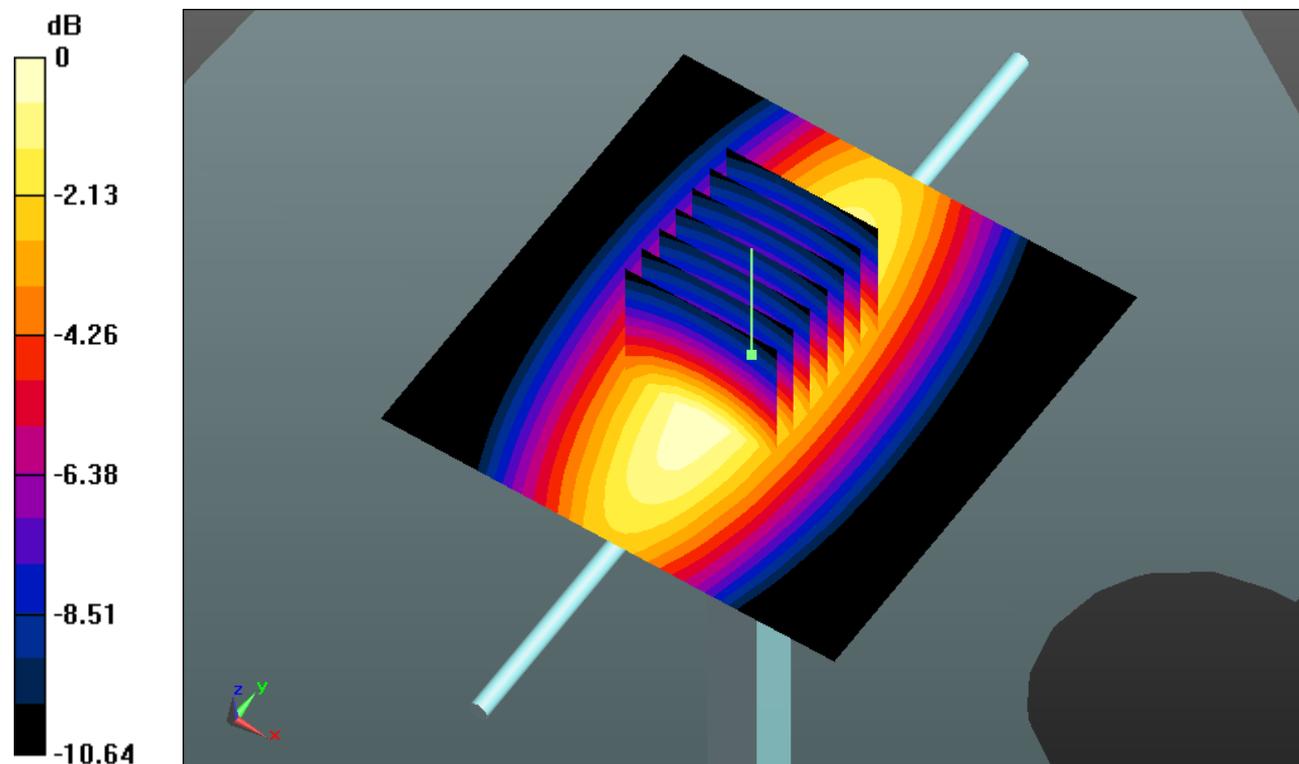
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $54.908 \text{ V/m}$ ; Power Drift =  $-0.008 \text{ dB}$

Peak SAR (extrapolated) =  $3.744 \text{ W/kg}$

**SAR(1 g) =  $2.49 \text{ mW/g}$ ; SAR(10 g) =  $1.59 \text{ mW/g}$**

Maximum value of SAR (measured) =  $2.722 \text{ mW/g}$



0 dB =  $2.720\text{mW/g}$

## **System Check\_Head\_1900MHz\_110921**

### **DUT: Dipole 1900 MHz**

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

Medium: HSL\_1900\_110921 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.427$  mho/m;  $\epsilon_r =$

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

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

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.26, 7.26, 7.26); Calibrated: 2011-6-21
- 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) = 11.441 mW/g

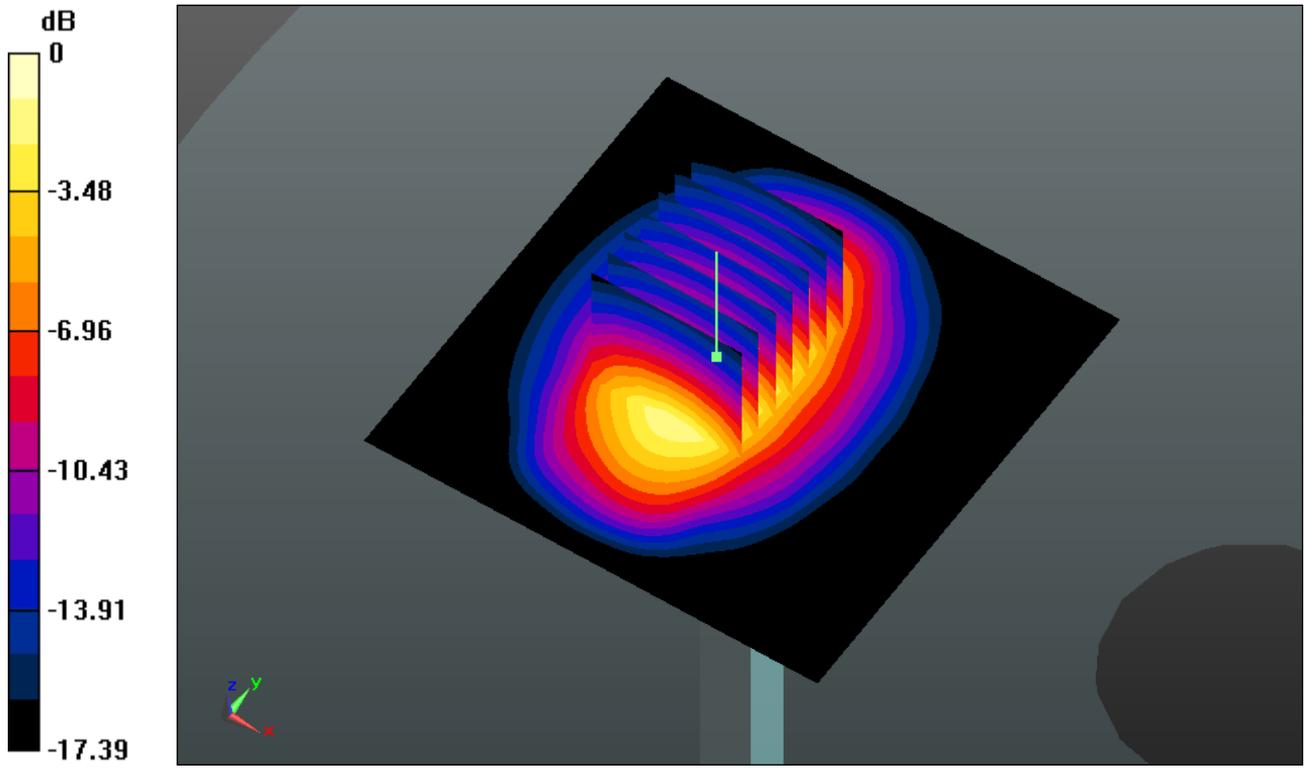
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.202 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 18.463 W/kg

**SAR(1 g) = 9.9 mW/g; SAR(10 g) = 5.15 mW/g**

Maximum value of SAR (measured) = 11.089 mW/g



### System Check\_Body\_1900MHz\_110925

#### DUT: Dipole 1900 MHz

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

Medium: MSL\_1900\_110925 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.535$  mho/m;  $\epsilon_r =$

$54.579$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C ; Liquid Temperature : 21.3 °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) = 12.618 mW/g

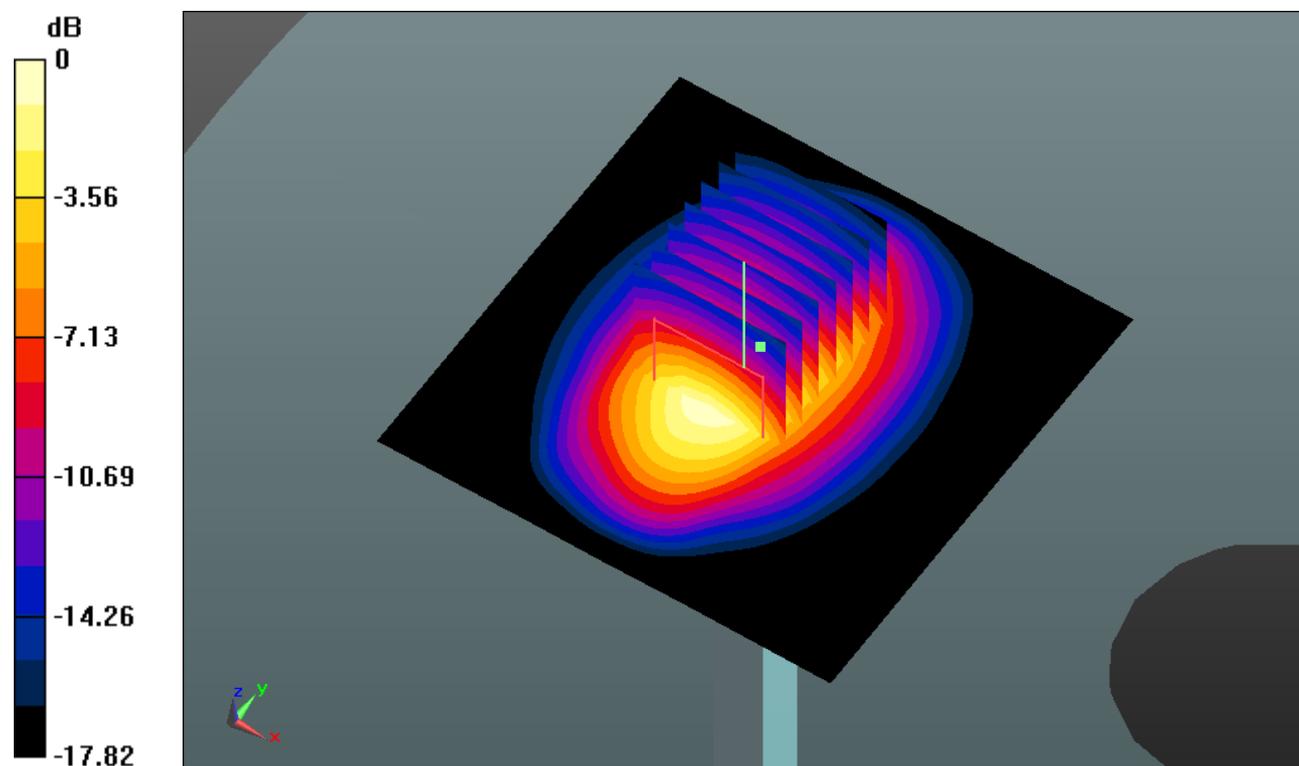
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.546 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 18.084 W/kg

**SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.56 mW/g**

Maximum value of SAR (measured) = 11.981 mW/g



0 dB = 11.980mW/g

### System Check\_Head\_2450MHz\_110928

#### DUT: Dipole 2450 MHz

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

Medium: HSL\_2450\_110928 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.861$  mho/m;  $\epsilon_r =$

$39.575$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.1 °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=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 16.579 mW/g

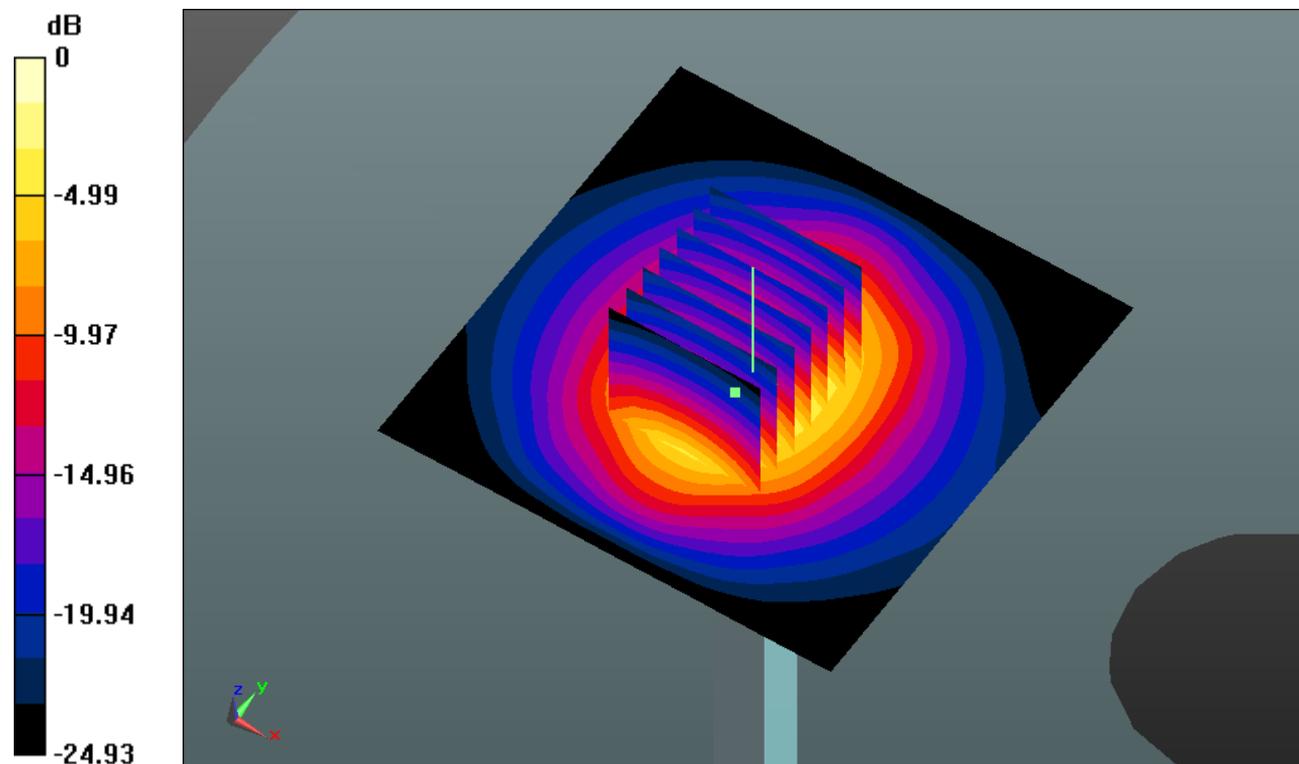
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 32.900 W/kg

**SAR(1 g) = 14.1 mW/g; SAR(10 g) = 6.33 mW/g**

Maximum value of SAR (measured) = 15.764 mW/g



0 dB = 15.760mW/g

### System Check\_Body\_2450MHz\_110928

#### DUT: Dipole 2450 MHz

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

Medium: MSL\_2450\_110928 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.939$  mho/m;  $\epsilon_r =$

$53.98$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ET3DV6 - SN1787; ConvF(3.96, 3.96, 3.96); 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 (91x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 15.315 mW/g

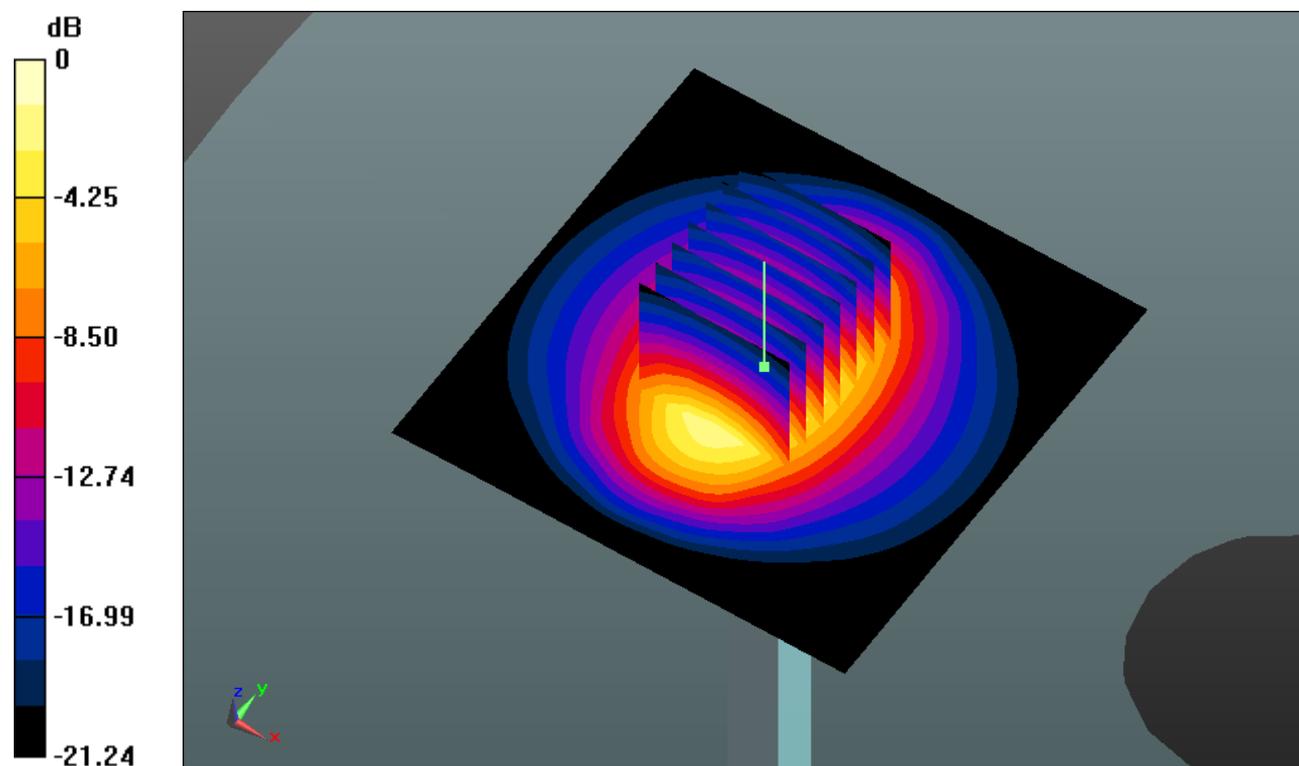
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.286 V/m; Power Drift = -0.0099 dB

Peak SAR (extrapolated) = 33.806 W/kg

**SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.53 mW/g**

Maximum value of SAR (measured) = 14.930 mW/g



0 dB = 14.930mW/g