



### Appendix A. SAR Plots of System Verification

The plots for system verification are shown as follows.

**System Check\_H835\_120824****DUT: Dipole 835 MHz; Type: D835V2; SN: 4d021**

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

Medium: H835\_0824 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.909$  mho/m;  $\epsilon_r = 42.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.6 °C; Liquid Temperature : 20.9 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(9.8, 9.8, 9.8); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 3.08 mW/g

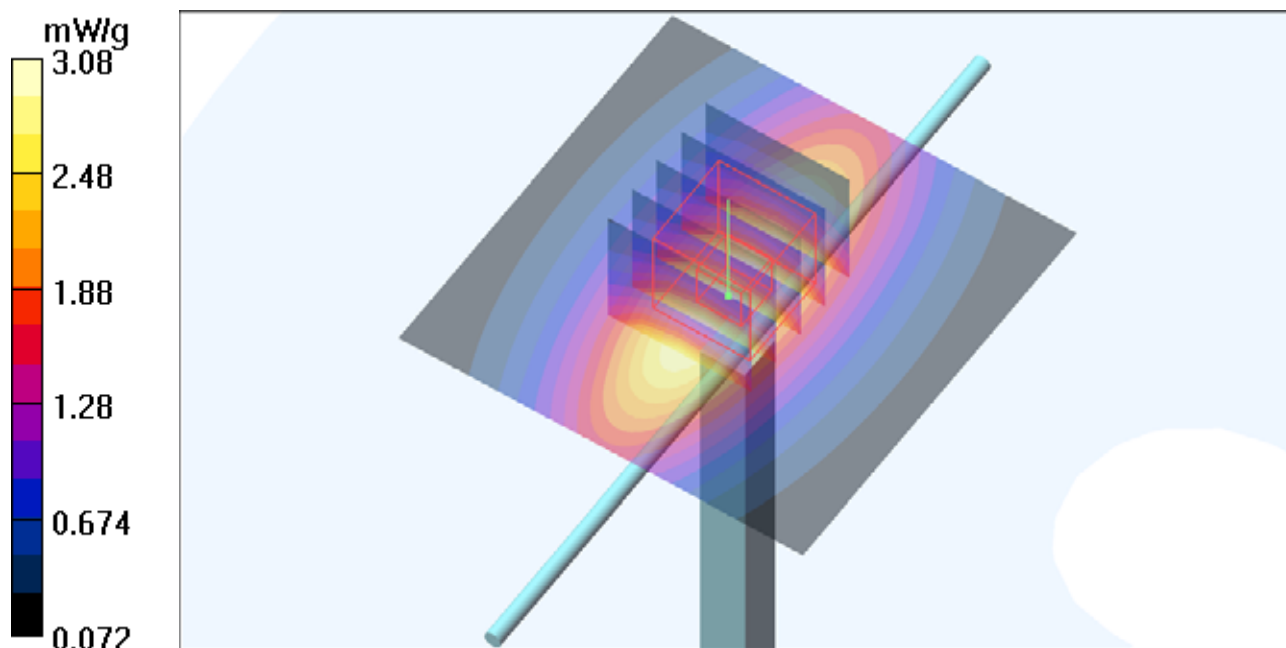
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.0 V/m; Power Drift = -0.003 dB

Peak SAR (extrapolated) = 3.66 W/kg

**SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.59 mW/g**

Maximum value of SAR (measured) = 3.07 mW/g



**System Check\_H1750\_120825****DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1023**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: H1750\_0825 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.34$  mho/m;  $\epsilon_r = 41.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.8 °C; Liquid Temperature : 20.5 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(8.56, 8.56, 8.56); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 13.6 mW/g

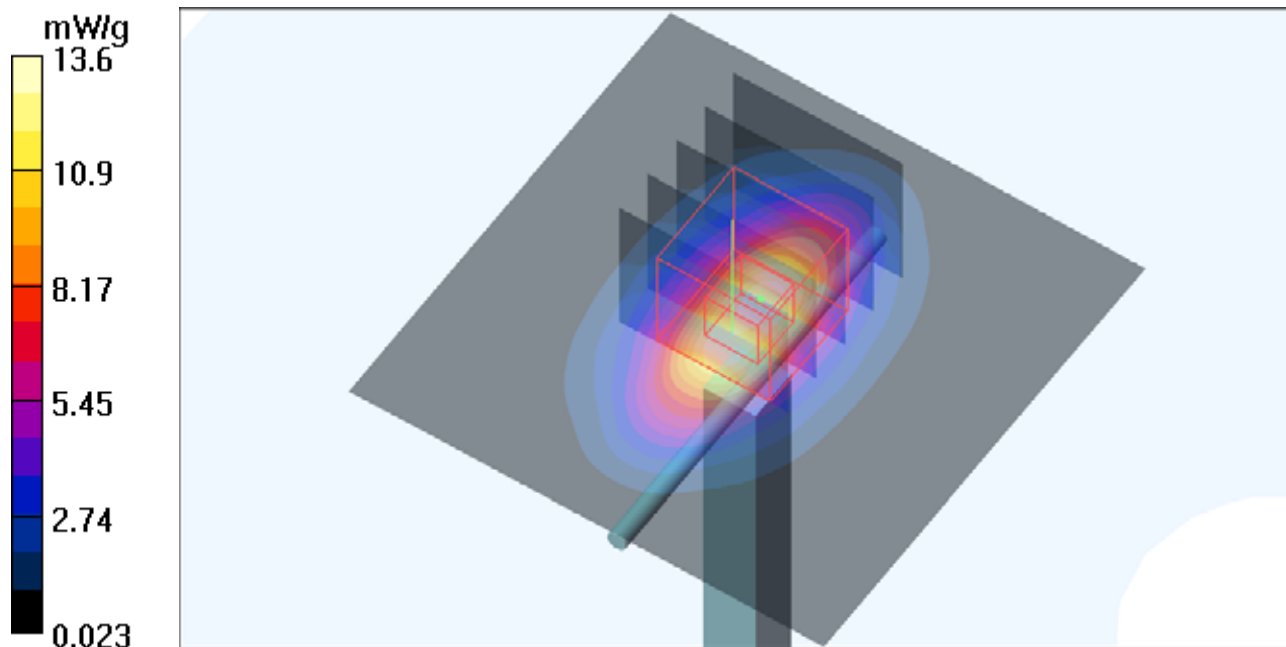
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 99.5 V/m; Power Drift = 0.004 dB

Peak SAR (extrapolated) = 16.1 W/kg

**SAR(1 g) = 8.95 mW/g; SAR(10 g) = 4.76 mW/g**

Maximum value of SAR (measured) = 12.5 mW/g



**System Check\_H1900\_120824****DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036**

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

Medium: H1900\_0824 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.44$  mho/m;  $\epsilon_r = 39.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.5 °C; Liquid Temperature : 20.8 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(8.13, 8.13, 8.13); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 15.0 mW/g

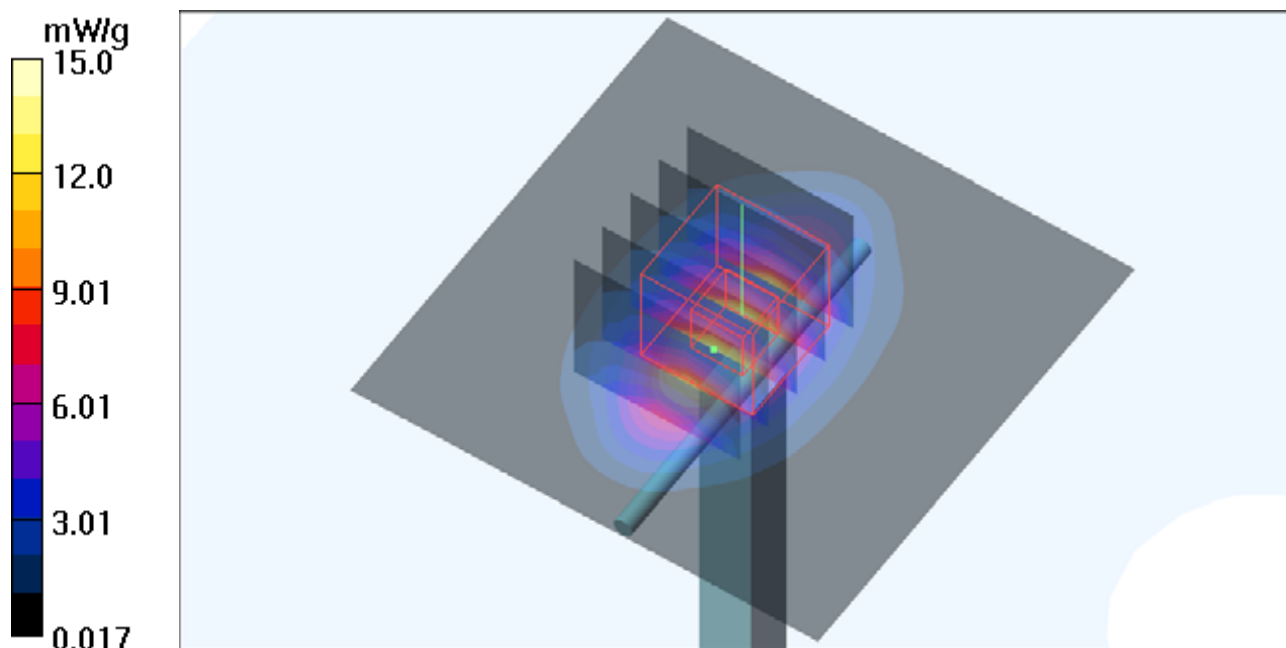
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.8 V/m; Power Drift = 0.004 dB

Peak SAR (extrapolated) = 18.4 W/kg

**SAR(1 g) = 9.73 mW/g; SAR(10 g) = 4.96 mW/g**

Maximum value of SAR (measured) = 13.9 mW/g



**System Check\_H2450\_120823****DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

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

Medium: H2450\_0823 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.79$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.6 °C; Liquid Temperature : 20.7 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 22.1 mW/g

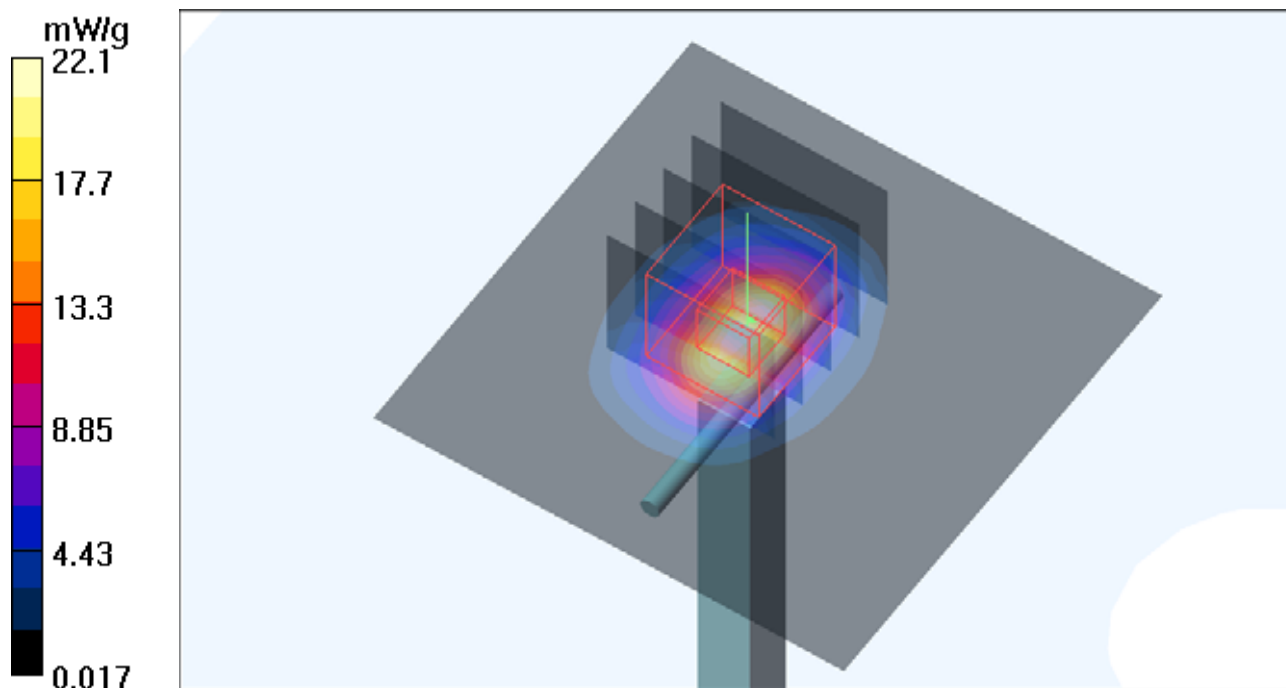
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 108.7 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 27.9 W/kg

**SAR(1 g) = 13.1 mW/g; SAR(10 g) = 5.95 mW/g**

Maximum value of SAR (measured) = 20.1 mW/g



**System Check\_B835\_120824****DUT: Dipole 835 MHz; Type: D835V2; SN: 4d021**

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

Medium: B835\_0824 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.978$  mho/m;  $\epsilon_r = 55.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.7 °C; Liquid Temperature : 20.5 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(9.94, 9.94, 9.94); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 3.03 mW/g

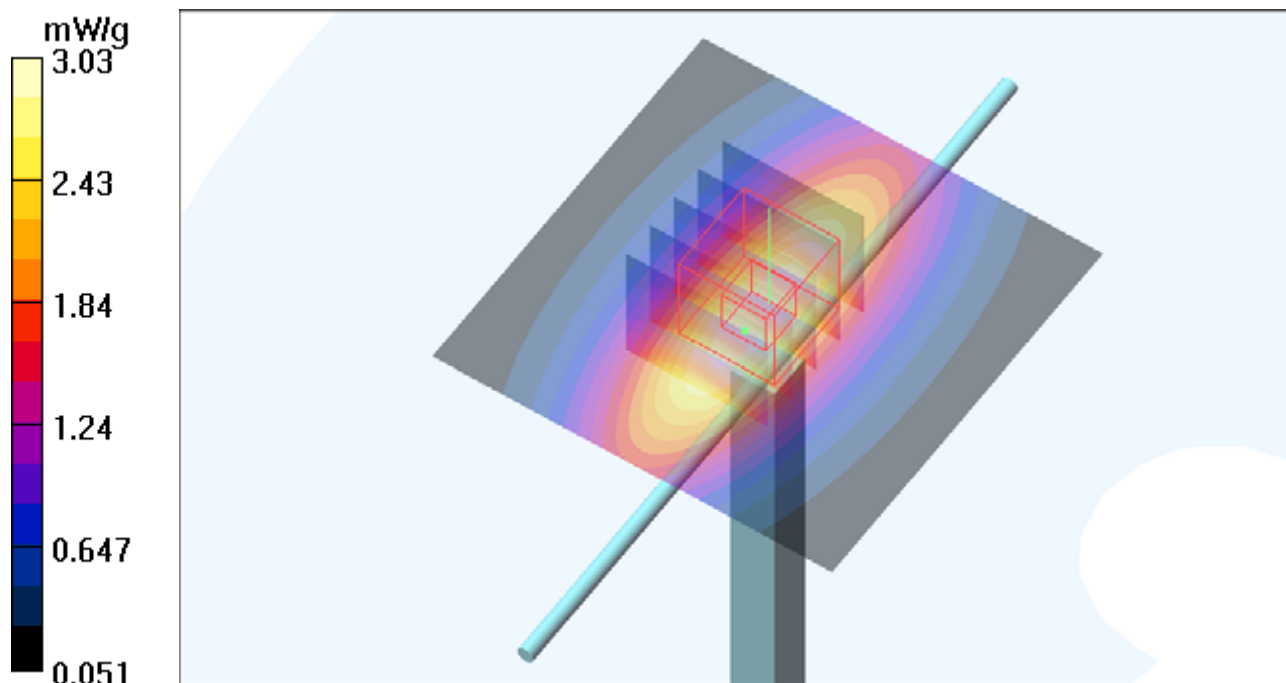
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.6 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 3.53 W/kg

**SAR(1 g) = 2.38 mW/g; SAR(10 g) = 1.57 mW/g**

Maximum value of SAR (measured) = 3.00 mW/g



**System Check\_B1750\_120825****DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1023**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: B1750\_0825 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.47$  mho/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.5 °C; Liquid Temperature : 20.4 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(8.45, 8.45, 8.45); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 13.4 mW/g

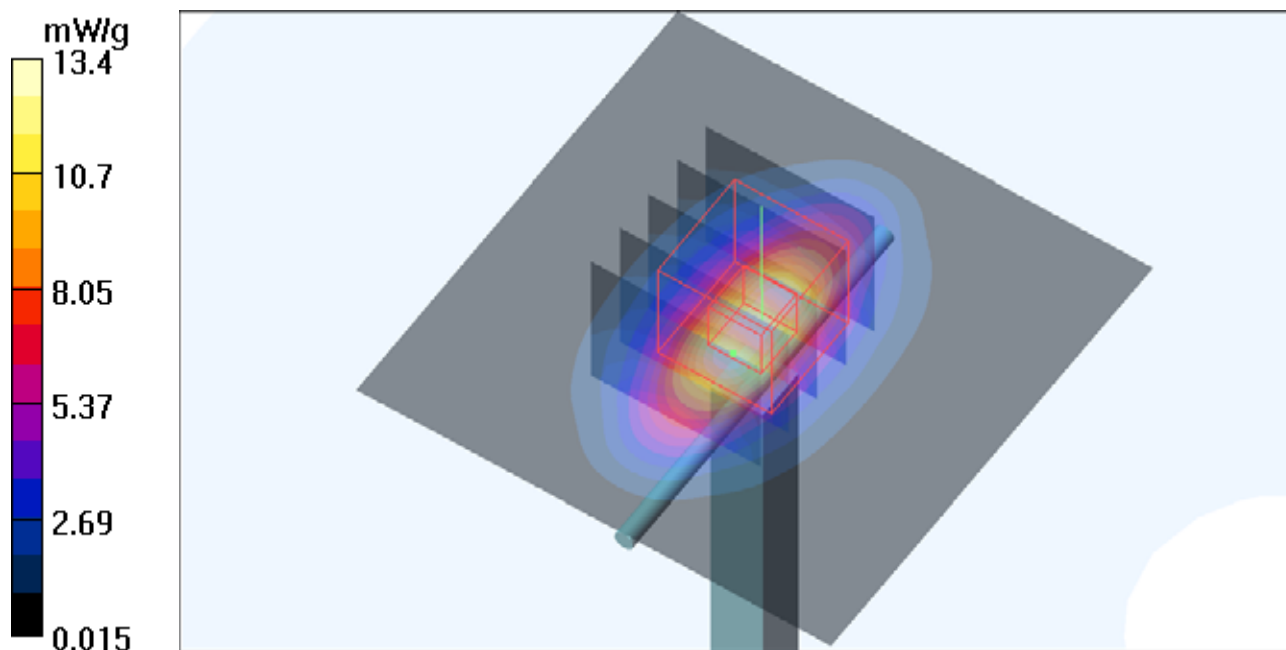
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 96.7 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 16.2 W/kg

**SAR(1 g) = 9.29 mW/g; SAR(10 g) = 5 mW/g**

Maximum value of SAR (measured) = 13.0 mW/g



**System Check\_B1750\_120904****DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1023**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: B1750\_0904 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.1 °C; Liquid Temperature : 21.3 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(8.45, 8.45, 8.45); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 14.1 mW/g

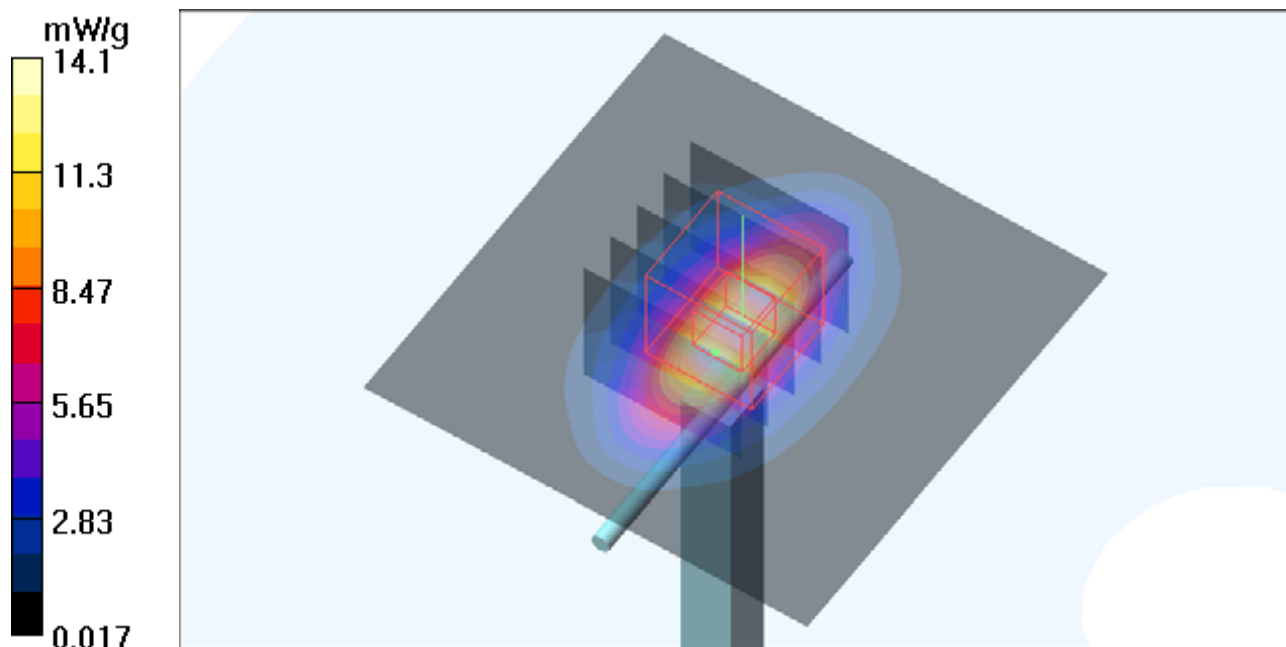
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 97.0 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 16.9 W/kg

**SAR(1 g) = 9.74 mW/g; SAR(10 g) = 5.24 mW/g**

Maximum value of SAR (measured) = 13.6 mW/g





**System Check\_B1900\_120824****DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036**

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

Medium: B1900\_0824 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.2 °C; Liquid Temperature : 21.3 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.88, 7.88, 7.88); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 14.6 mW/g

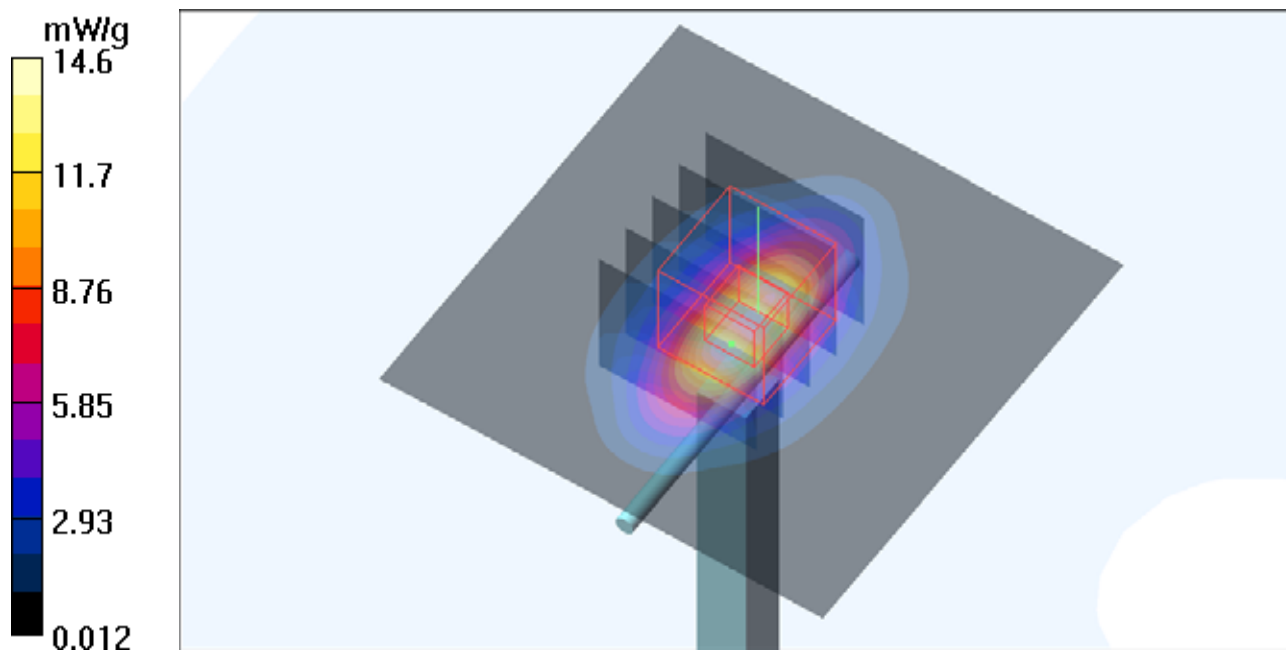
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 96.5 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 9.7 mW/g; SAR(10 g) = 5.03 mW/g**

Maximum value of SAR (measured) = 13.7 mW/g



**System Check\_B2450\_120823****DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

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

Medium: B2450\_0823 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.01$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 21.7 °C ; Liquid Temperature : 20.5 °C

DASY4 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.49, 7.49, 7.49); Calibrated: 2012/07/19
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom\_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (interpolated) = 19.2 mW/g

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 97.6 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 25.4 W/kg

**SAR(1 g) = 12.2 mW/g; SAR(10 g) = 5.62 mW/g**

Maximum value of SAR (measured) = 18.2 mW/g

