

# Appendix A. SAR Plots of System Verification

The plots for system verification are shown as follows.

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Revision: R01

#### **System Check B750 120808**

#### **DUT: Dipole 750 MHz; Type: D750V3; SN: 1013**

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

Medium: B750\_0808 Medium parameters used: f = 750 MHz;  $\sigma = 0.966$  mho/m;  $\varepsilon_r = 55.257$ ;  $\rho =$ 

Date: 2012/08/08

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

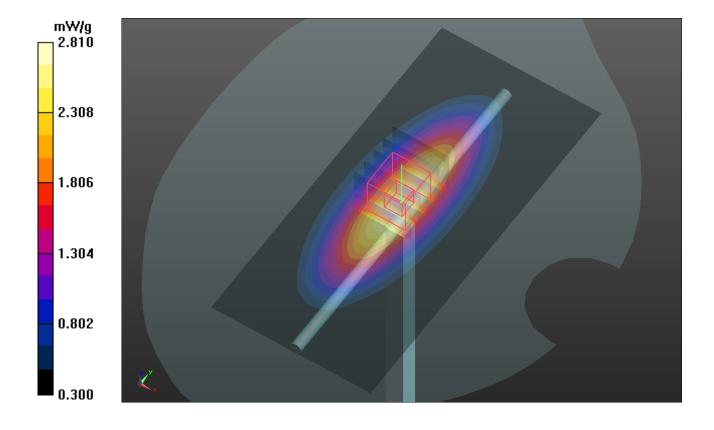
Ambient Temperature: 22.3 °C; Liquid Temperature: 21.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 SN3590; ConvF(10.61, 10.61, 10.61); Calibrated: 2012/02/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2012/04/27
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

# **Pin=250mW/Area Scan (61x131x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.78 mW/g

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 55.234 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 3.263 mW/g SAR(1 g) = 2.26 mW/g; SAR(10 g) = 1.52 mW/g Maximum value of SAR (measured) = 2.81 mW/g



#### **System Check B750 120809**

# **DUT: Dipole 750 MHz; Type: D750V3; SN: 1013**

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

Medium: B750\_0809 Medium parameters used: f = 750 MHz;  $\sigma = 0.969$  mho/m;  $\varepsilon_r = 55.4$ ;  $\rho = 1000$ 

Date: 2012/08/09

 $kg/m^3$ 

Ambient Temperature: 22.4 °C; Liquid Temperature: 21.7 °C

#### DASY4 Configuration:

0.570

0.005

- Probe: EX3DV4 SN3650; ConvF(9.21, 9.21, 9.21); Calibrated: 2011/10/26
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2011/08/29
- 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 (61x131x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.83 mW/g

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 55.5 V/m; Power Drift = 0.006 dB Peak SAR (extrapolated) = 3.36 W/kg SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.57 mW/g Maximum value of SAR (measured) = 2.91 mW/g

2.26 1.70 1.13

#### **System Check B750 120820**

# **DUT: Dipole 750 MHz; Type: D750V3; SN: 1013**

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

Medium: B750\_0820 Medium parameters used: f = 750 MHz;  $\sigma = 0.966$  mho/m;  $\varepsilon_r = 55.257$ ;  $\rho =$ 

Date: 2012/08/20

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

Ambient Temperature: 21.9°C; Liquid Temperature: 20.8°C

#### DASY5 Configuration:

- Probe: EX3DV4 SN3650; ConvF(9.21, 9.21, 9.21); Calibrated: 2011/10/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2011/12/07
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

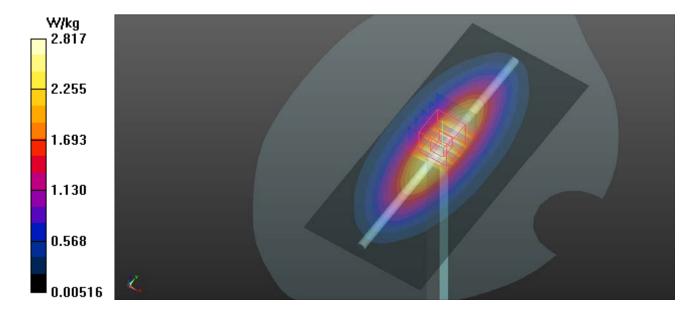
**Pin=250mW/Area Scan (61x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 2.82 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 55.328 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.328 mW/g

SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.56 mW/g

Maximum value of SAR (measured) = 2.89 W/kg



#### **System Check B835 120820**

# **DUT: Dipole 835 MHz; Type: D835V2; SN: 4d021**

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

Medium: B835\_0820 Medium parameters used: f = 835 MHz;  $\sigma = 0.973$  mho/m;  $\varepsilon_r = 55.201$ ;  $\rho =$ 

Date: 2012/08/20

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

Ambient Temperature: 21.8 °C; Liquid Temperature: 20.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 SN3650; ConvF(9.12, 9.12, 9.12); Calibrated: 2011/10/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2011/12/07
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:1653
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

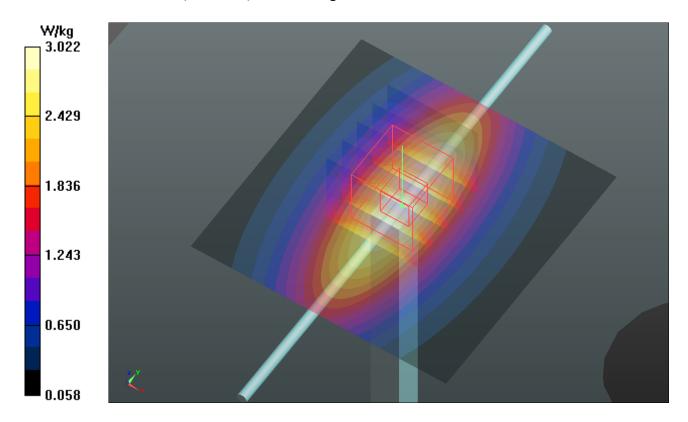
**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 3.02 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 53.637 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.530 mW/g

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

Maximum value of SAR (measured) = 3.02 W/kg



#### **System Check B1750 120820**

#### **DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1023**

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

Medium: B1750\_0820 Medium parameters used: f = 1750 MHz;  $\sigma = 1.47$  mho/m;  $\varepsilon_r = 53.682$ ;  $\rho =$ 

Date: 2012/08/20

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

Ambient Temperature : 21.7 °C; Liquid Temperature : 20.7 °C

#### DASY5 Configuration:

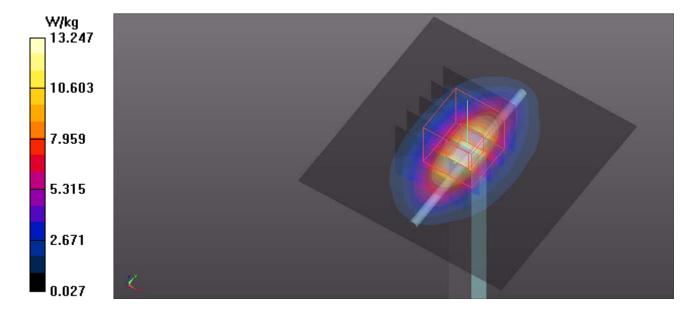
- Probe: EX3DV4 SN3650; ConvF(7.49, 7.49, 7.49); Calibrated: 2011/10/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2011/12/07
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 13.2 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 94.798 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 16.297 mW/g

SAR(1 g) = 9.22 mW/g; SAR(10 g) = 4.92 mW/g

Maximum value of SAR (measured) = 13.1 W/kg



#### **SystemCheck B1900 120820**

# **DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036**

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

Medium: B1900\_0820 Medium parameters used: f = 1900 MHz;  $\sigma = 1.544$  mho/m;  $\varepsilon_r = 52.838$ ;  $\rho =$ 

Date: 2012/08/20

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

Ambient Temperature: 21.8°C; Liquid Temperature: 20.7°C

#### DASY5 Configuration:

- Probe: EX3DV4 SN3650; ConvF(7.46, 7.46, 7.46); Calibrated: 2011/10/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 2011/12/07
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 14.1 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 95.835 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 17.458 mW/g

SAR(1 g) = 9.61 mW/g; SAR(10 g) = 4.97 mW/g

Maximum value of SAR (measured) = 13.8 W/kg

