



## **Appendix A. SAR Plots of System Verification**

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

## System Check\_B750\_160121

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

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

Medium: B07T10N3\_0121 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.925 \text{ S/m}$ ;  $\epsilon_r = 55.69$ ;  $\rho = 1000 \text{ kg/m}^3$

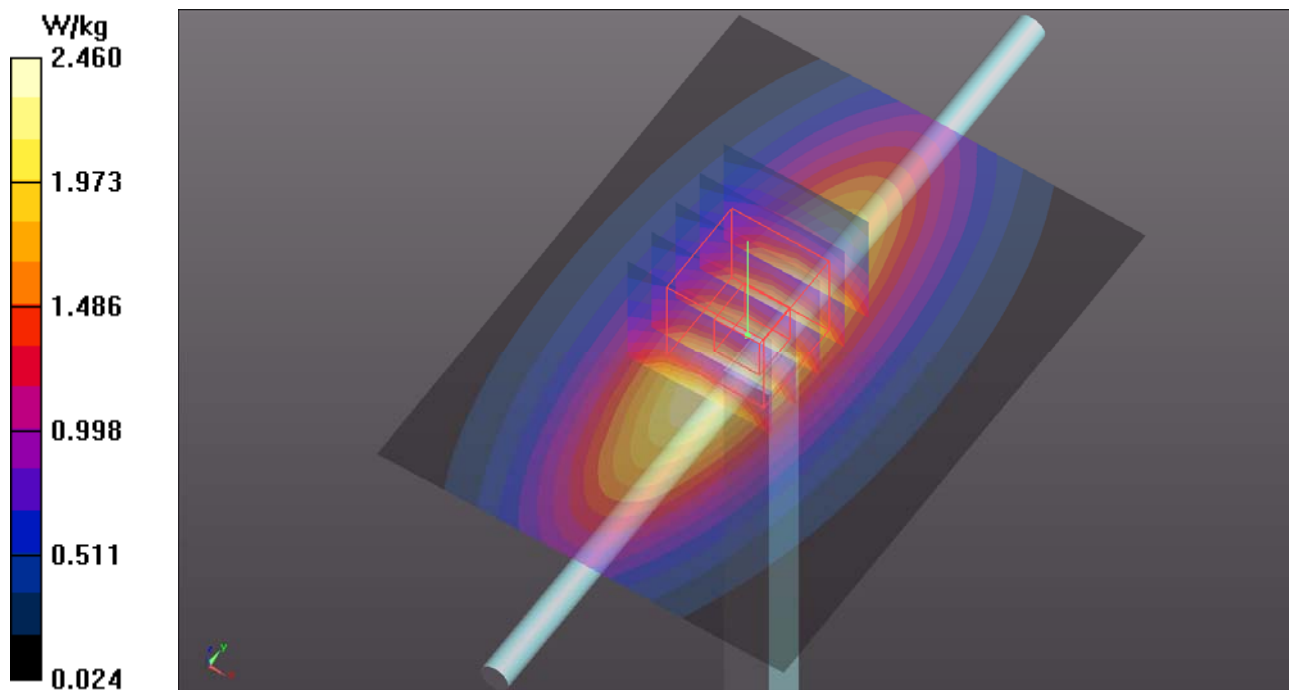
Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $23.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(9.82, 9.82, 9.82); Calibrated: 2015/03/26;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2015/03/20
- Phantom: ELI Phantom\_1245; Type: QDOVA
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $2.46 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $52.46 \text{ V/m}$ ; Power Drift =  $0.03 \text{ dB}$   
Peak SAR (extrapolated) =  $2.84 \text{ W/kg}$   
**SAR(1 g) =  $1.97 \text{ W/kg}$ ; SAR(10 g) =  $1.33 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $2.46 \text{ W/kg}$



### System Check\_B835\_160121

**DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121**

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

Medium: B07T10N3\_0121 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 1.002 \text{ S/m}$ ;  $\epsilon_r = 54.935$ ;  $\rho = 1000 \text{ kg/m}^3$

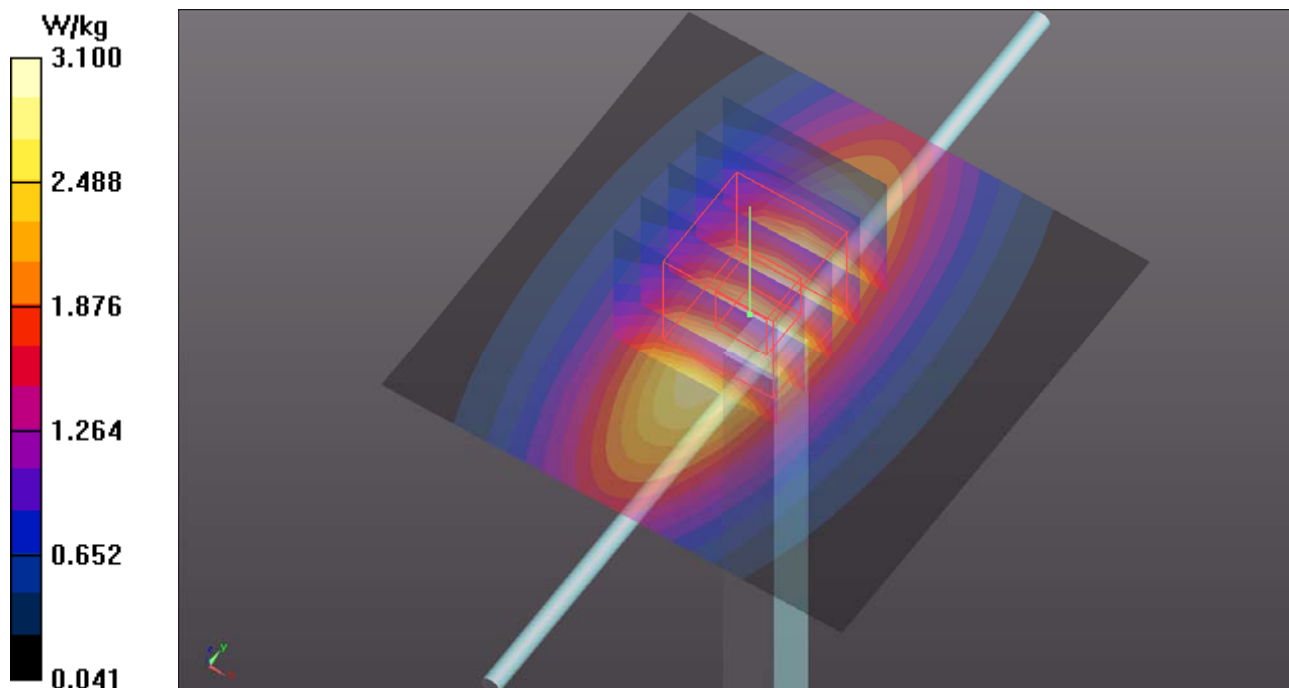
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(9.73, 9.73, 9.73); Calibrated: 2015/03/26;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2015/03/20
- Phantom: ELI Phantom\_1245; Type: QDOVA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) = 3.10 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 53.88 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 3.56 W/kg  
**SAR(1 g) = 2.47 W/kg; SAR(10 g) = 1.64 W/kg**  
Maximum value of SAR (measured) = 3.09 W/kg



### System Check\_B1750\_160201

**DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055**

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

Medium: B16T20N2\_0201 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.436$  S/m;  $\epsilon_r = 51.66$ ;  $\rho = 1000$  kg/m<sup>3</sup>

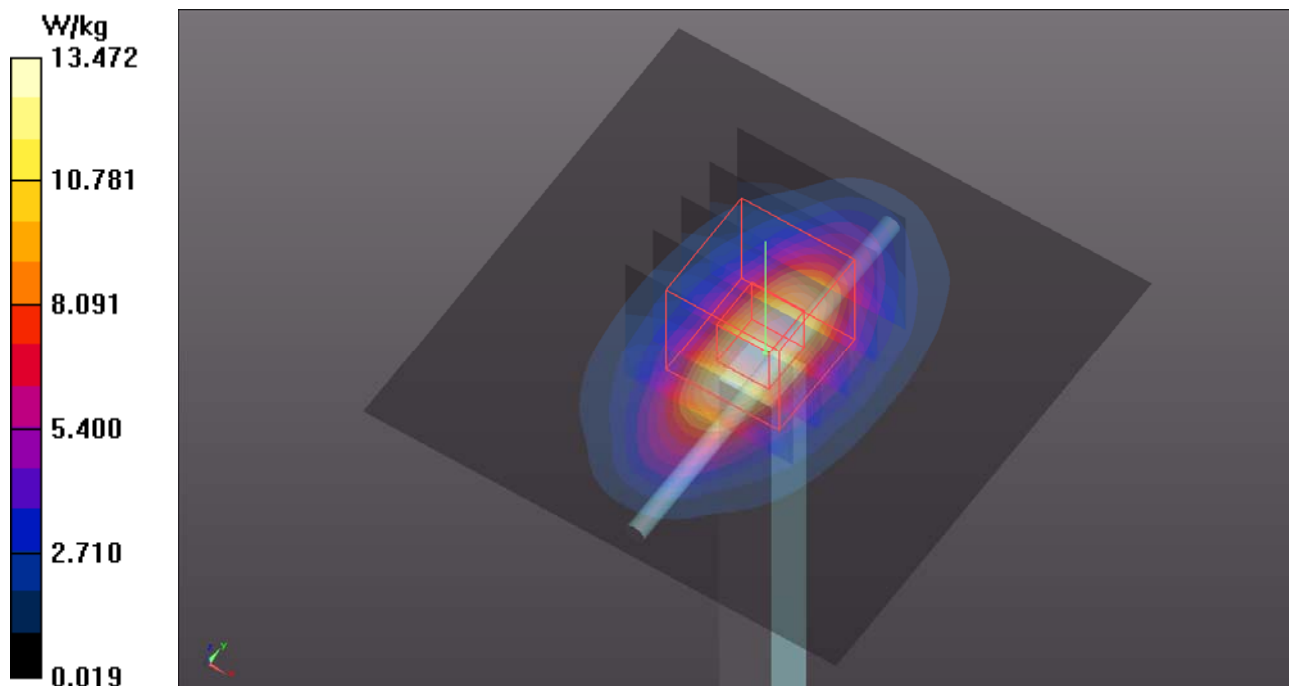
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.8, 7.8, 7.8); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2015/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.5 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 100.6 V/m; Power Drift = -0.09 dB  
Peak SAR (extrapolated) = 15.7 W/kg  
**SAR(1 g) = 8.87 W/kg; SAR(10 g) = 4.74 W/kg**  
Maximum value of SAR (measured) = 13.4 W/kg



### System Check\_B1900\_160201

**DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d018**

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

Medium: B16T20N2\_0201 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.545$  S/m;  $\epsilon_r = 51.484$ ;  $\rho = 1000$  kg/m<sup>3</sup>

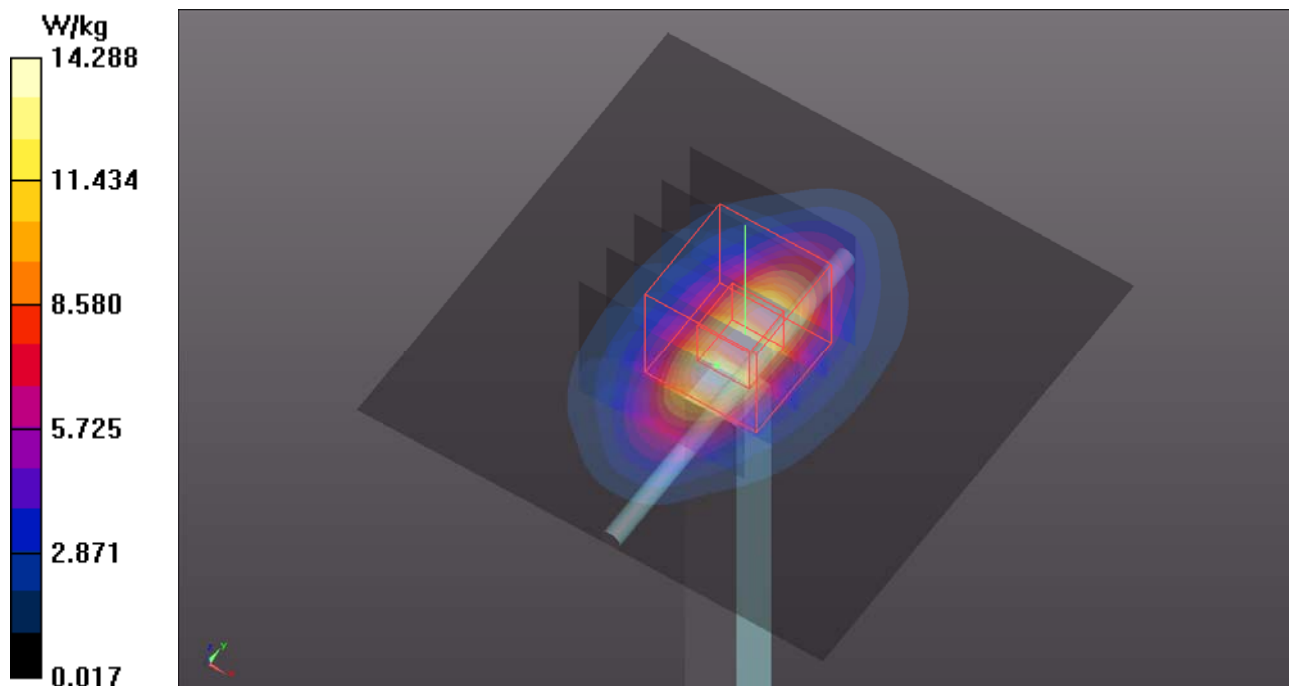
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.59, 7.59, 7.59); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 14.3 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 96.42 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 17.4 W/kg  
**SAR(1 g) = 9.63 W/kg; SAR(10 g) = 5 W/kg**  
Maximum value of SAR (measured) = 13.6 W/kg



### System Check\_B2450\_160203

**DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

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

Medium: B19T27N1\_0203 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.021$  S/m;  $\epsilon_r = 51.629$ ;  $\rho = 1000$  kg/m<sup>3</sup>

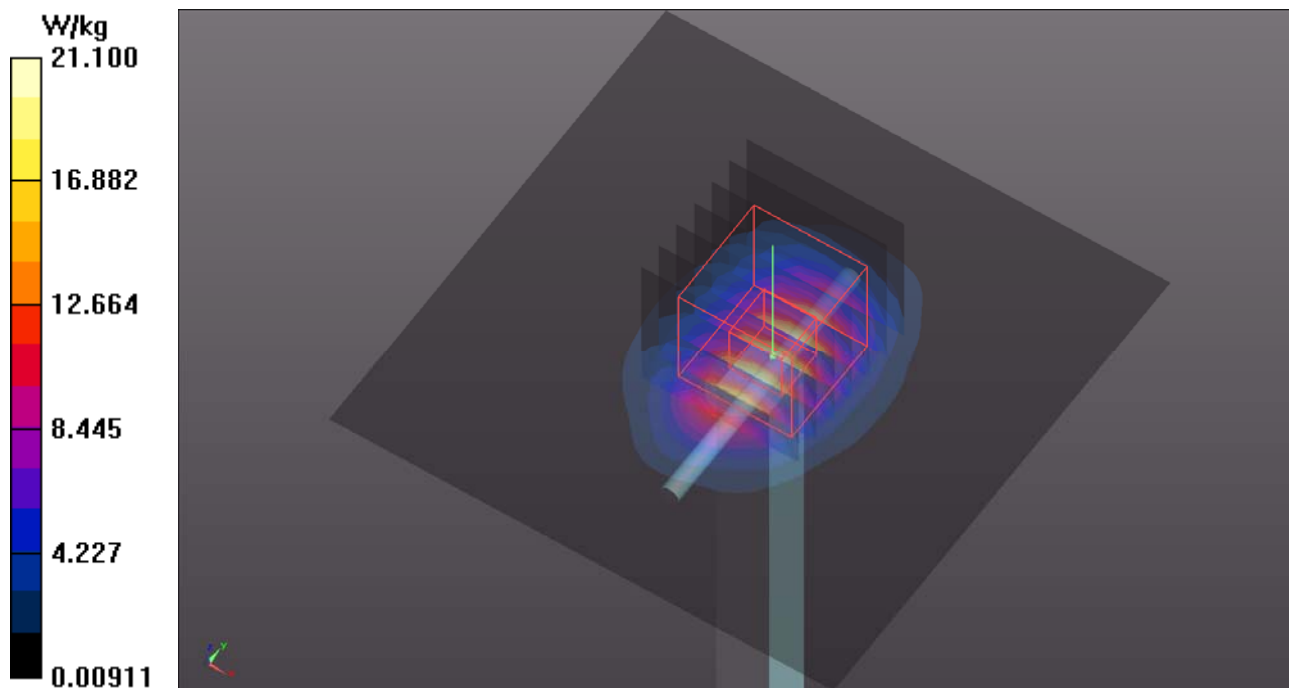
Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.03, 7.03, 7.03); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2015/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 21.1 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 95.46 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 26.2 W/kg  
**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.89 W/kg**  
Maximum value of SAR (measured) = 21.3 W/kg



### System Check\_B5300\_160203

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

Communication System: CW; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: B34T60N1\_0203 Medium parameters used:  $f = 5300$  MHz;  $\sigma = 5.451$  S/m;  $\epsilon_r = 46.983$ ;  $\rho = 1000$  kg/m<sup>3</sup>

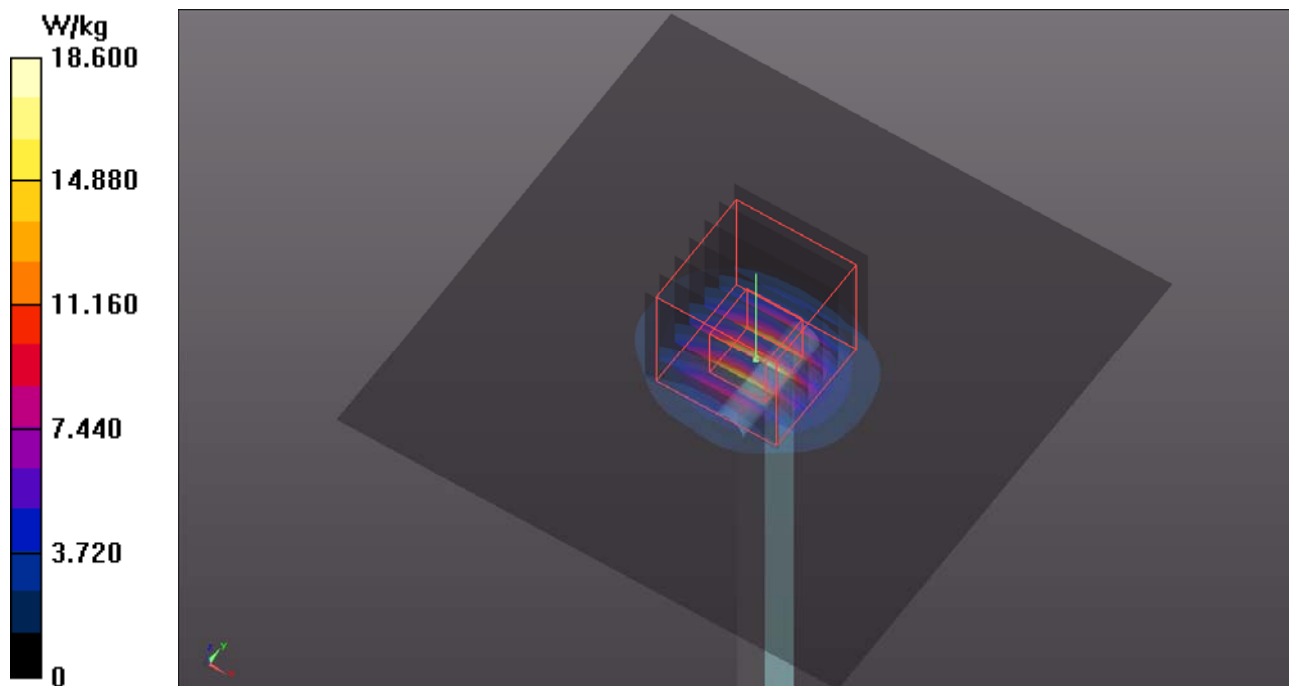
Ambient Temperature : 23.5 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.64, 4.64, 4.64); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2015/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 18.6 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 59.99 V/m; Power Drift = 0.06 dB  
Peak SAR (extrapolated) = 32.8 W/kg  
**SAR(1 g) = 8.21 W/kg; SAR(10 g) = 2.33 W/kg**  
Maximum value of SAR (measured) = 20.4 W/kg



### System Check\_B5600\_160203

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: B34T60N1\_0203 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.835$  S/m;  $\epsilon_r = 46.458$ ;  $\rho = 1000$  kg/m<sup>3</sup>

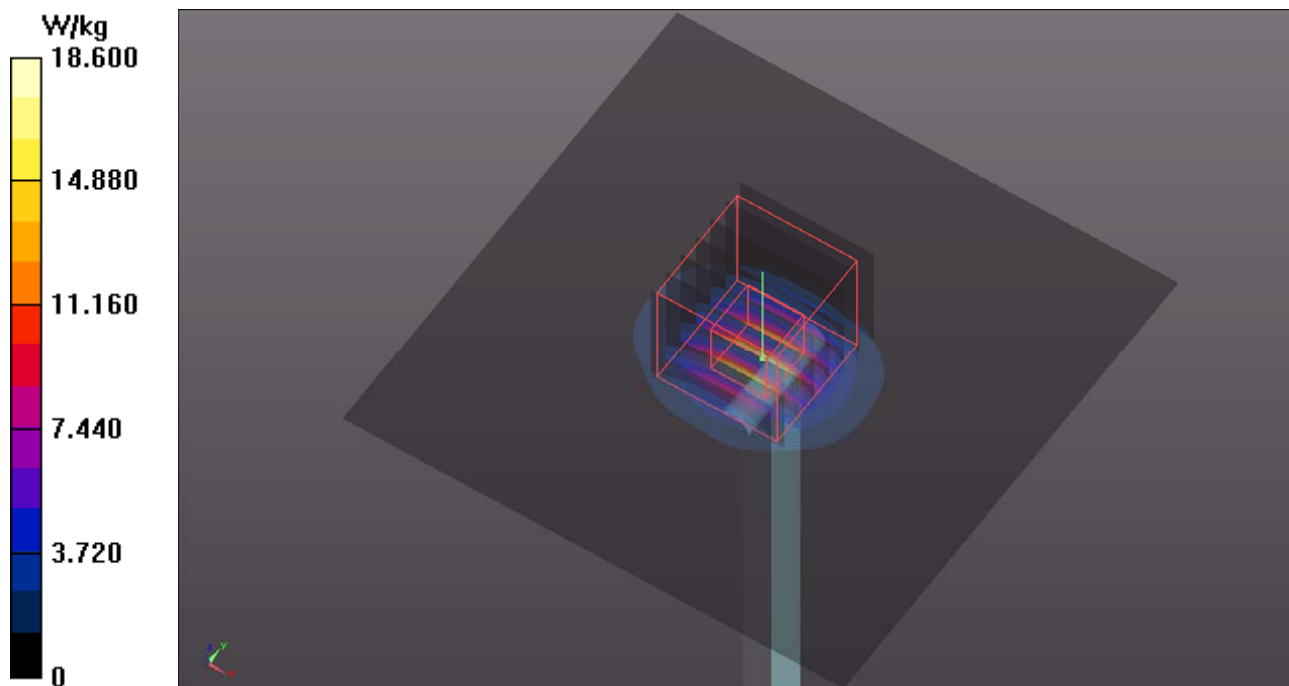
Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.05, 4.05, 4.05); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2015/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 18.6 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 58.71 V/m; Power Drift = -0.08 dB  
Peak SAR (extrapolated) = 33.9 W/kg  
**SAR(1 g) = 8.03 W/kg; SAR(10 g) = 2.26 W/kg**  
Maximum value of SAR (measured) = 20.3 W/kg





### System Check\_B5800\_160203

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

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

Medium: B34T60N1\_0203 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 6.096$  S/m;  $\epsilon_r = 46.082$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.45, 4.45, 4.45); Calibrated: 2015/07/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2015/07/22
- Phantom: ELI Phantom\_1204; Type: QDOVA;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 16.0 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 57.89 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 35.3 W/kg  
**SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.24 W/kg**  
Maximum value of SAR (measured) = 17.5 W/kg

