



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

## System Check\_B2450\_150718

### DUT: Dipole 2450 MHz D2450V2\_ SN:929

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

Medium: B2450\_150718 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.004$  S/m;  $\epsilon_r = 51.279$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C**

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 19.5 W/kg

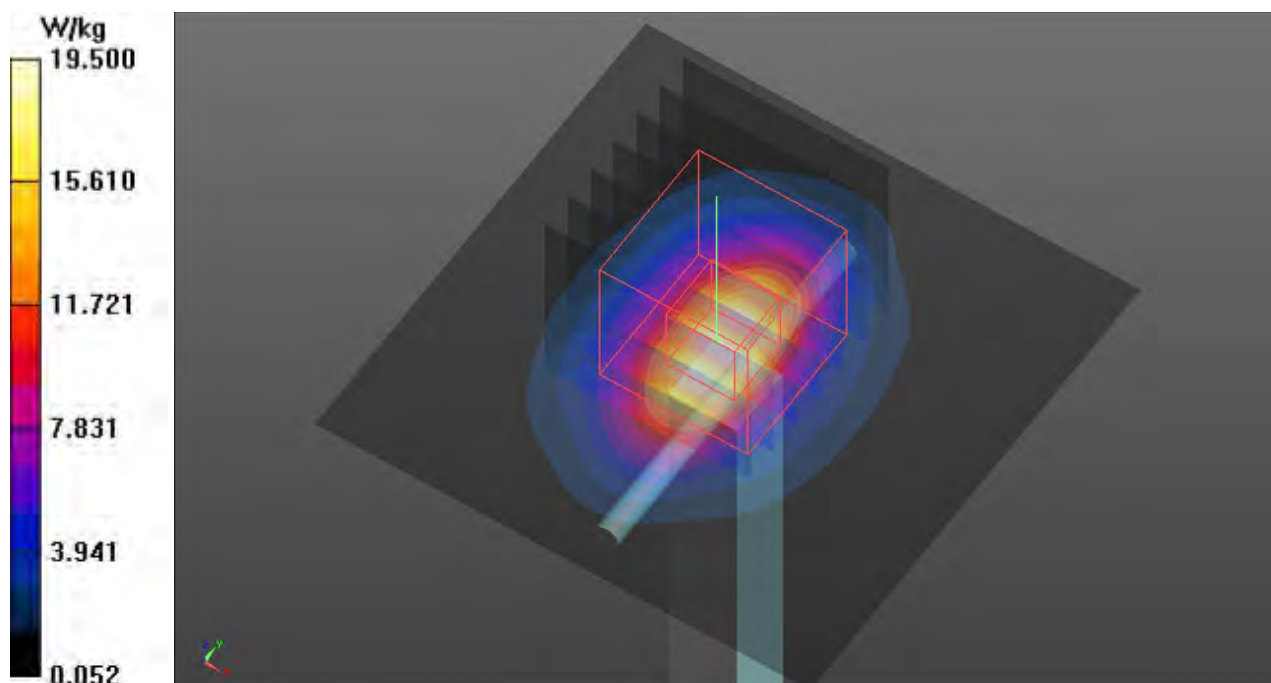
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 97.90 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 26.8 W/kg

**SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.87 W/kg**

Maximum value of SAR (measured) = 19.5 W/kg



## System Check\_B2450\_150720

### DUT: Dipole 2450 MHz D2450V2\_ SN:929

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

Medium: B2450\_150720 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.002$  S/m;  $\epsilon_r = 51.299$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.2 °C; **Liquid Temperature** : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 19.5 W/kg

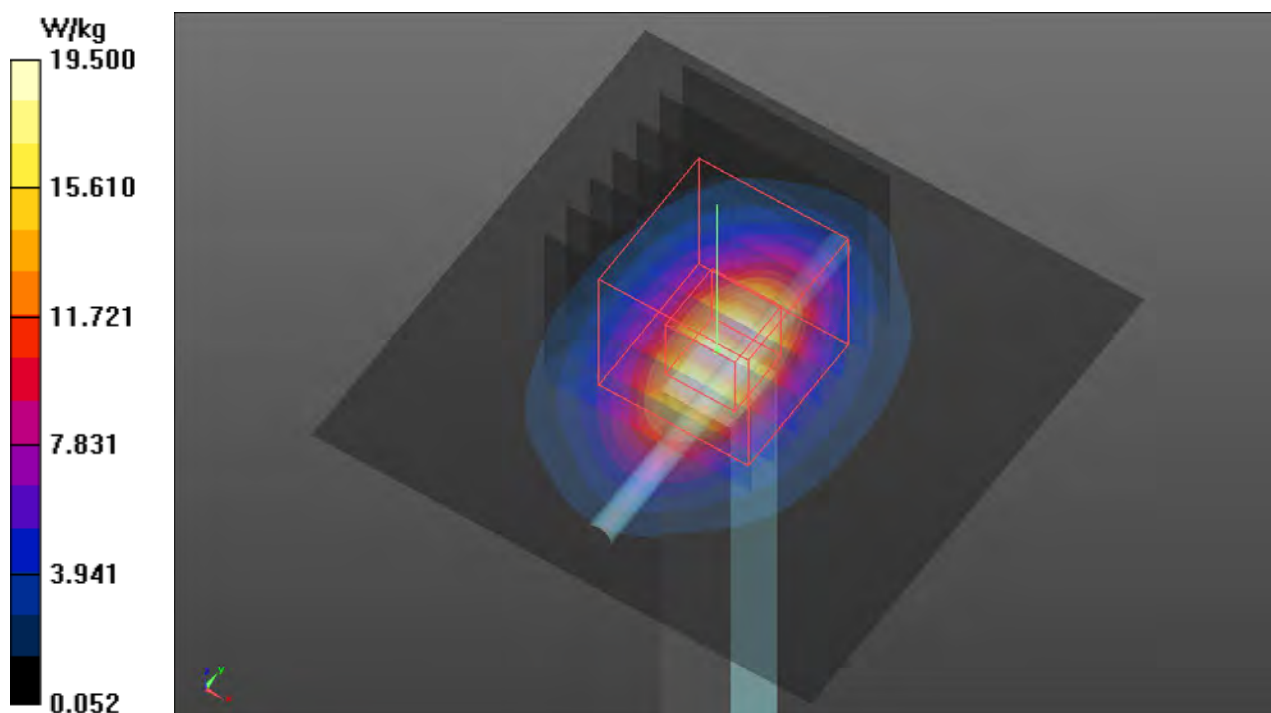
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.90 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 26.8 W/kg

**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.86 W/kg**

Maximum value of SAR (measured) = 19.5 W/kg



**System Check\_B5200\_150717****DUT: Dipole D5GHzV2\_ SN: 1171**

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: B5G\_150717 Medium parameters used:  $f = 5200$  MHz;  $\sigma = 5.21$  S/m;  $\epsilon_r = 47.773$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.2 °C; **Liquid Temperature** : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 13.3 W/kg

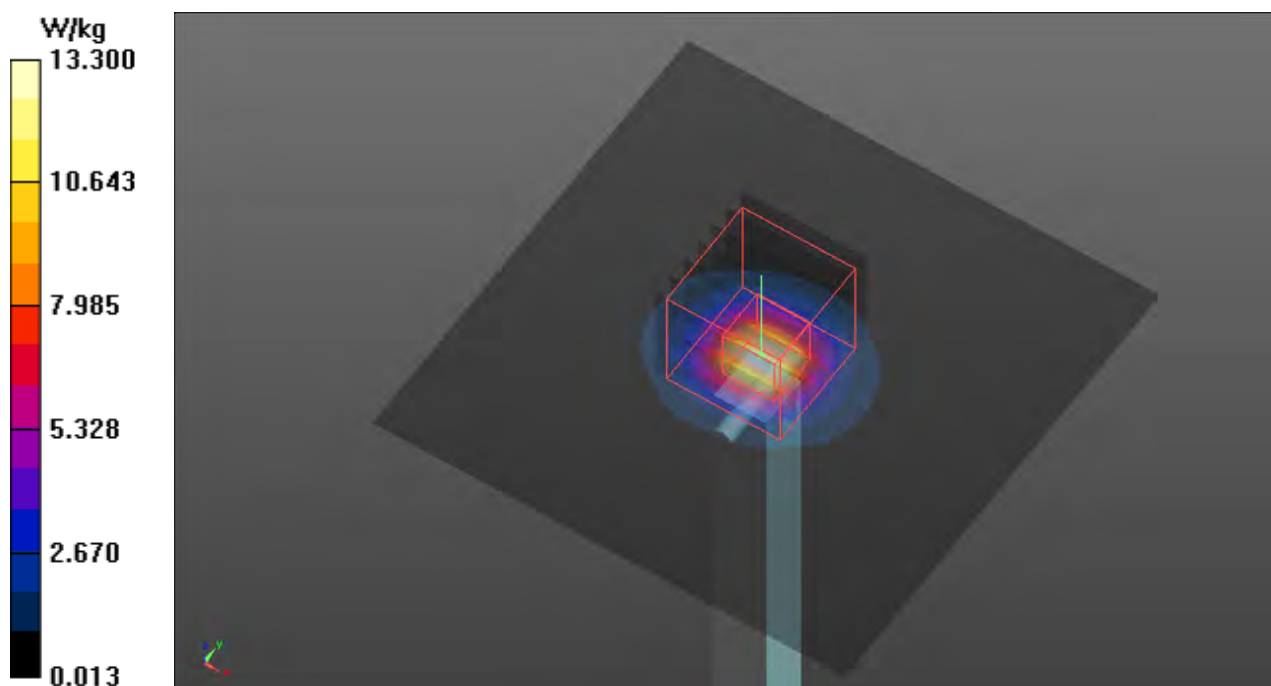
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.17 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 29.6 W/kg

**SAR(1 g) = 6.96 W/kg; SAR(10 g) = 1.99 W/kg**

Maximum value of SAR (measured) = 14.4 W/kg



## System Check\_B5200\_150720

### DUT: Dipole D5GHzV2\_ SN: 1171

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: B5G\_150720 Medium parameters used:  $f = 5200$  MHz;  $\sigma = 5.364$  S/m;  $\epsilon_r = 48.731$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.4 °C; **Liquid Temperature** : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 13.4 W/kg

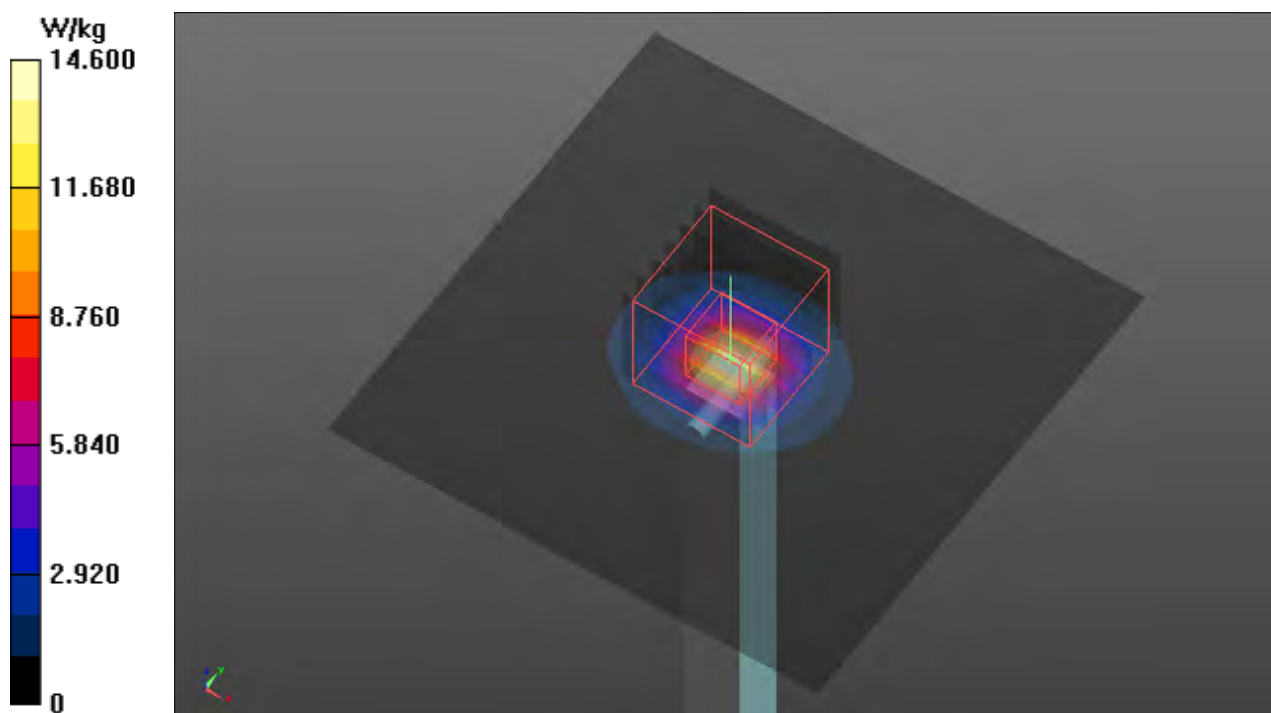
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.06 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 30.6 W/kg

**SAR(1 g) = 7.06 W/kg; SAR(10 g) = 2.01 W/kg**

Maximum value of SAR (measured) = 14.6 W/kg



**System Check\_B5300\_150717****DUT: Dipole D5GHzV2\_ SN: 1171**

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

Medium: B5G\_150717 Medium parameters used:  $f = 5300$  MHz;  $\sigma = 5.339$  S/m;  $\epsilon_r = 47.636$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.2 °C; **Liquid Temperature** : 22.6 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 14.2 W/kg

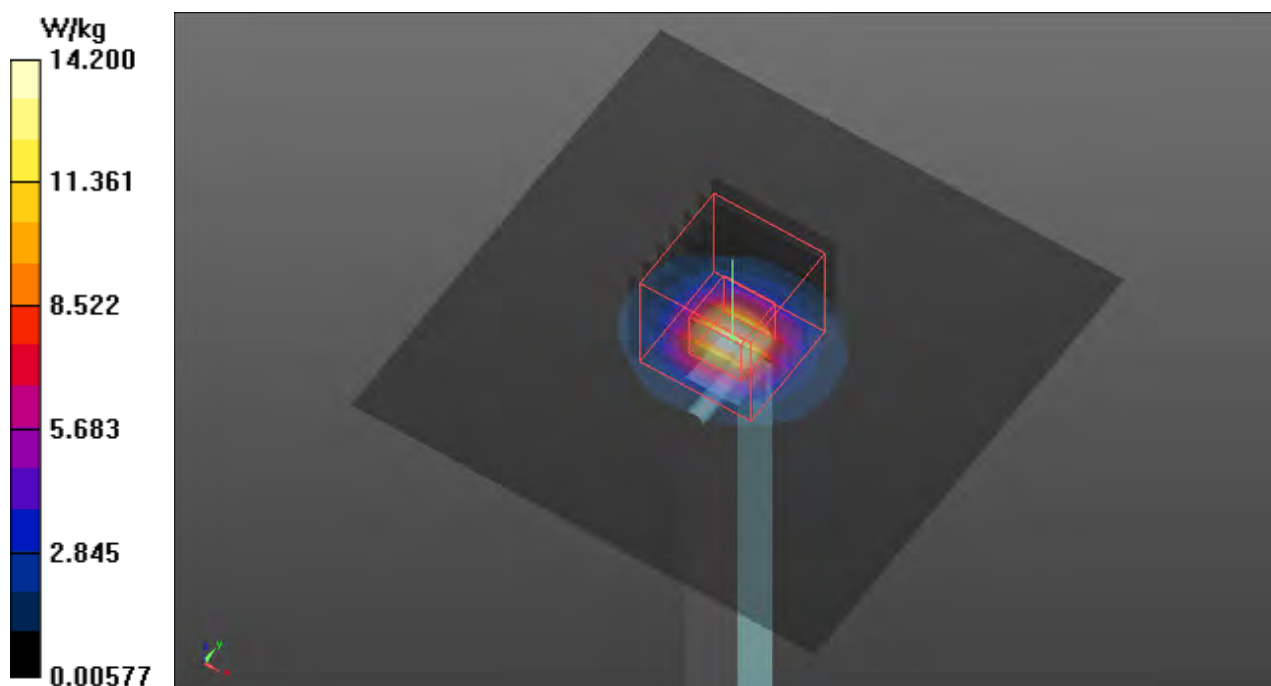
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.48 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 32.1 W/kg

**SAR(1 g) = 7.29 W/kg; SAR(10 g) = 2.04 W/kg**

Maximum value of SAR (measured) = 15.4 W/kg



## System Check\_B5300\_150720

### DUT: Dipole D5GHzV2\_ SN: 1171

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

Medium: B5G\_150720 Medium parameters used:  $f = 5300$  MHz;  $\sigma = 5.495$  S/m;  $\epsilon_r = 48.561$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.4 °C; **Liquid Temperature** : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 14.6 W/kg

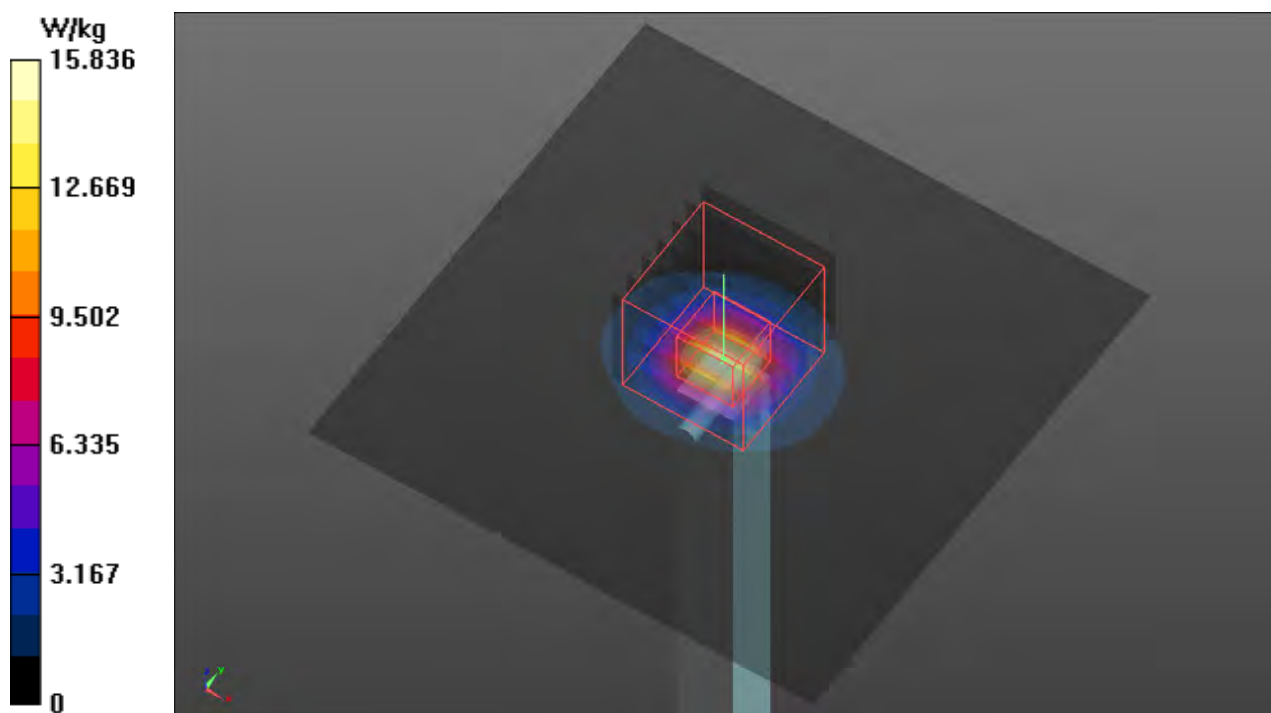
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.48 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 33.1 W/kg

**SAR(1 g) = 7.5 W/kg; SAR(10 g) = 2.1 W/kg**

Maximum value of SAR (measured) = 15.8 W/kg



**System Check\_B5600\_150717****DUT: Dipole D5GHzV2\_ SN: 1171**

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

Medium: B5G\_150717 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.736$  S/m;  $\epsilon_r = 47.176$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.2 °C; **Liquid Temperature** : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(3.9, 3.9, 3.9); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 14.8 W/kg

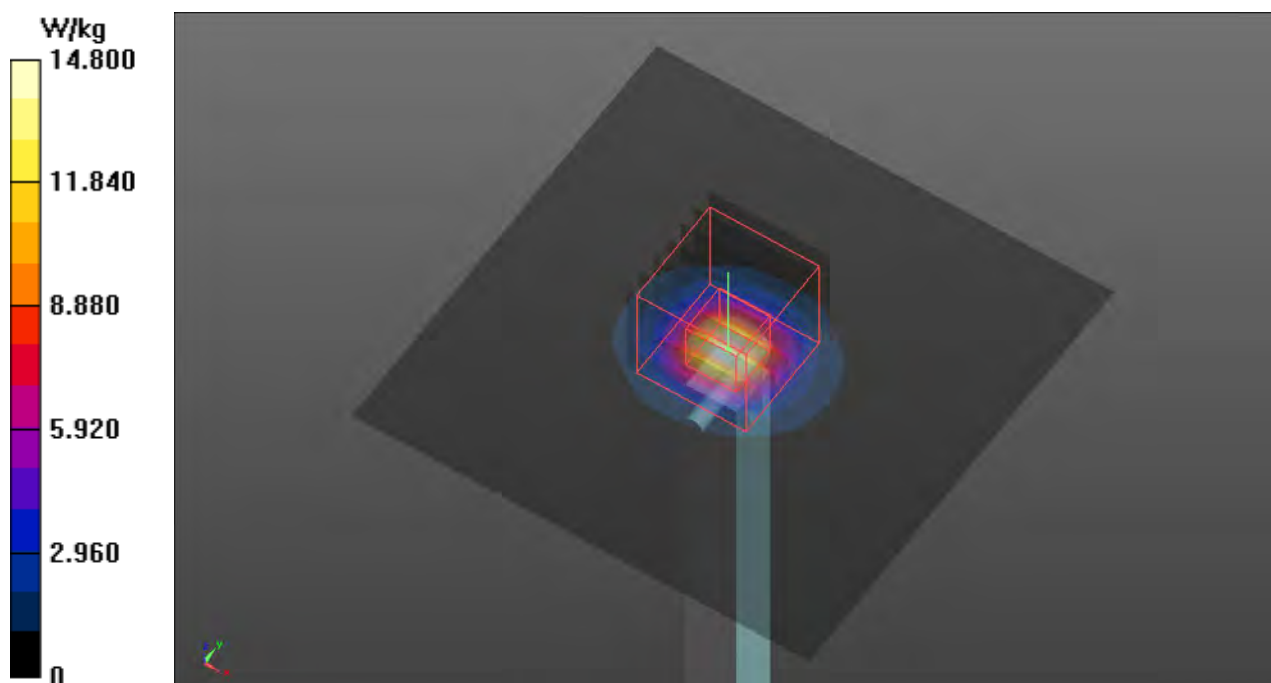
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.12 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 34.4 W/kg

**SAR(1 g) = 7.52 W/kg; SAR(10 g) = 2.1 W/kg**

Maximum value of SAR (measured) = 16.1 W/kg





## System Check\_B5600\_150721

### DUT: Dipole D5GHzV2\_ SN:1171

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

Medium: B5G\_150721 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.899$  S/m;  $\epsilon_r = 48.05$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.3 °C; **Liquid Temperature** : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(3.9, 3.9, 3.9); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 15.2 W/kg

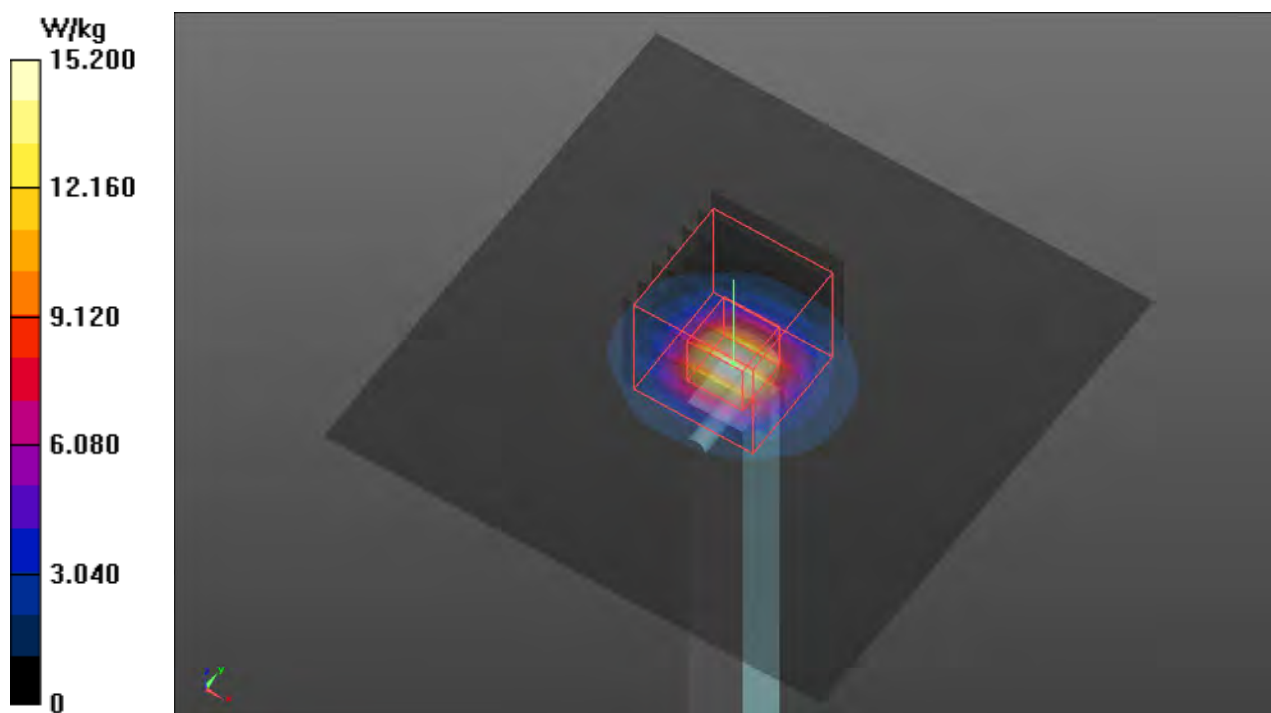
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.12 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 35.4 W/kg

**SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.16 W/kg**

Maximum value of SAR (measured) = 16.5 W/kg



**System Check\_B5800\_150717****DUT: Dipole D5GHzV2\_ SN: 1171**

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

Medium: B5G\_150717 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.993$  S/m;  $\epsilon_r = 46.842$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.2 °C; **Liquid Temperature** : 22.6 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3976; ConvF(4.23, 4.23, 4.23); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 14.0 W/kg

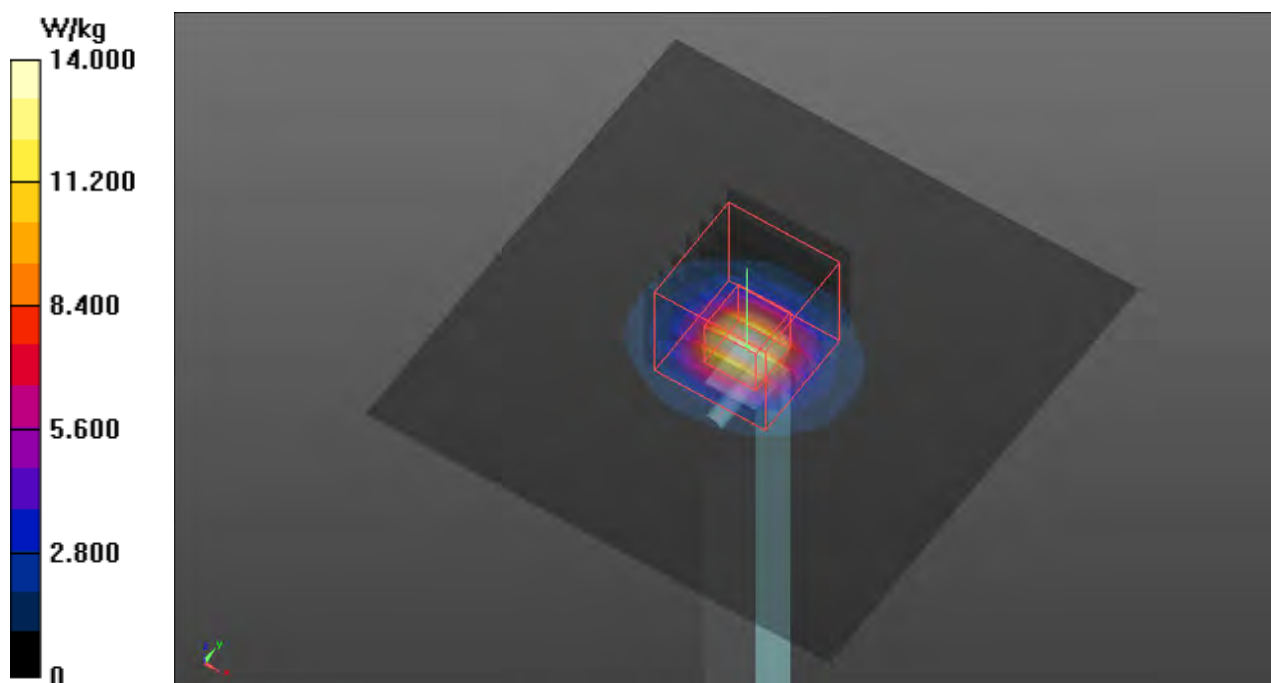
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 52.95 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 33.7 W/kg

**SAR(1 g) = 7.42 W/kg; SAR(10 g) = 2.07 W/kg**

Maximum value of SAR (measured) = 16.1 W/kg



**System Check\_B5800\_150721****DUT: Dipole D5GHzV2\_ SN: 1171**

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

Medium: B5G\_150721 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 6.174$  S/m;  $\epsilon_r = 47.733$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ambient Temperature** : 23.3 °C; **Liquid Temperature** : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3976; ConvF(4.23, 4.23, 4.23); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- 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) = 14.4 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 52.95 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 34.7 W/kg

**SAR(1 g) = 7.65 W/kg; SAR(10 g) = 2.14 W/kg**

Maximum value of SAR (measured) = 16.5 W/kg

