



REPORT No. : XM19080032W08

## Annex C Plots of System Performance Check

**D750V3 - SN1173**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.929$  S/m;  $\epsilon_r = 41.039$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.8 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(9.14, 9.14, 9.14) @ 750 MHz; Calibrated: 6/19/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D750\_15mm/Area Scan (61x121x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 2.67 W/kg

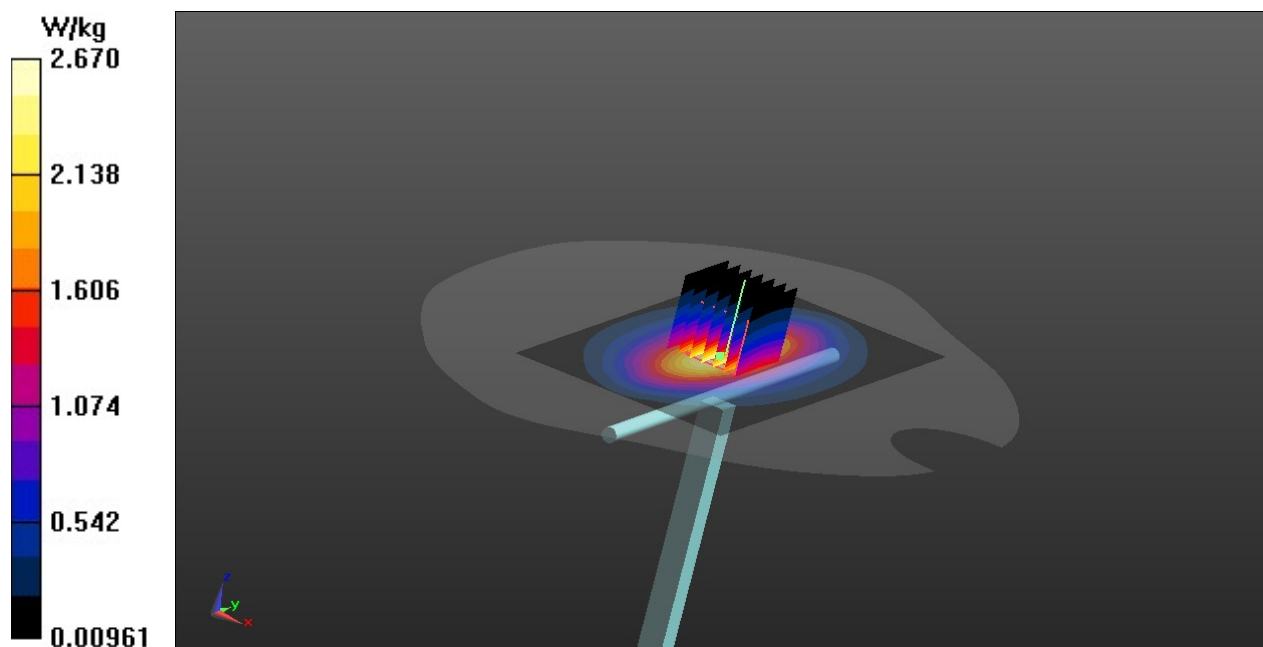
**System Verification/D750\_15mm/Zoom Scan (7x8x7)/Cube 0:** Measurement grid:  $dx=5$  mm,  $dy=5$  mm,  $dz=5$  mm

Reference Value = 53.91 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.12 W/kg

**SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.37 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.67 W/kg



**D835V2 - SN4d227****DUT: D835V2 - SN4d227**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800-1000 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.918$  S/m;  $\epsilon_r = 40.392$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D835\_15mm/Area Scan (61x101x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 3.05 W/kg

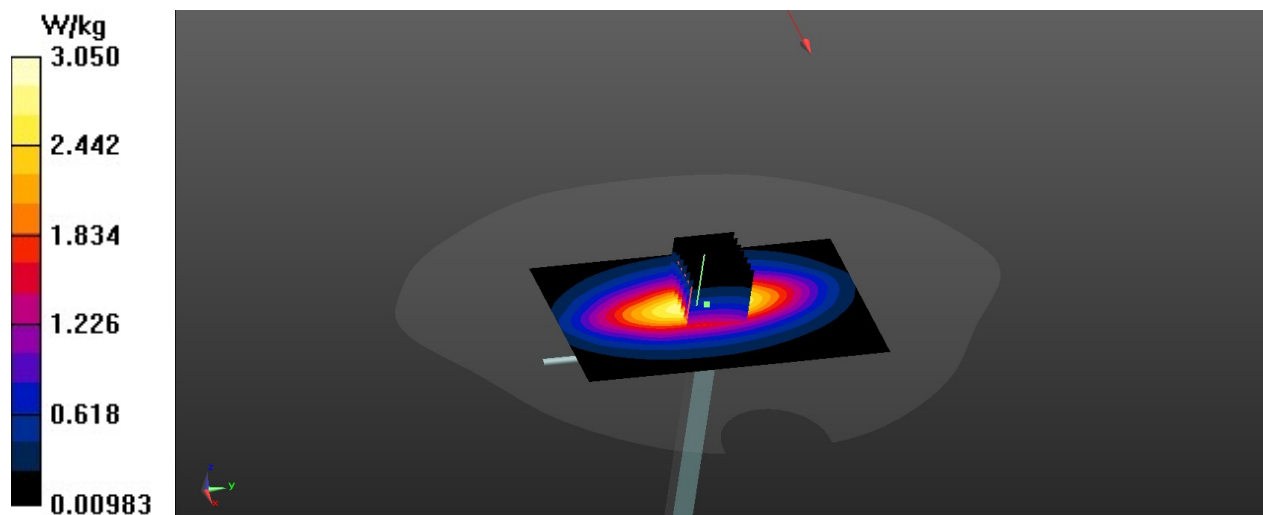
**System Verification/D835\_15mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 56.09 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 3.79 W/kg

**SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.52 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.14 W/kg



**D835V2 - SN4d227****DUT: D835V2 - SN4d227**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800-1000 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 41.554$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.9 °C; Liquid Temperature : 22.4 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D835\_15mm/Area Scan (61x101x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 2.91 W/kg

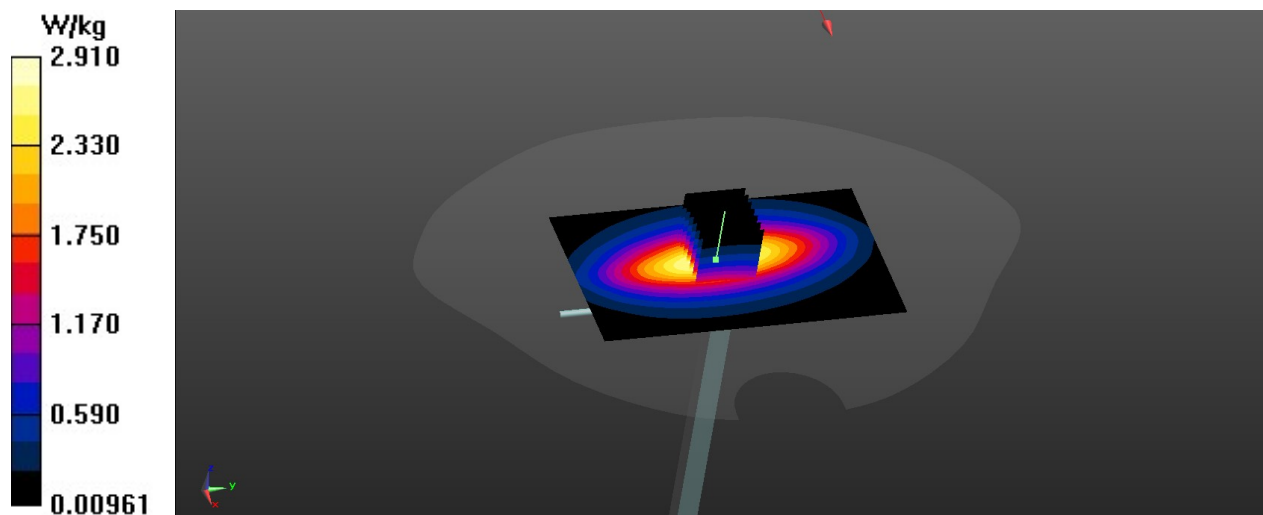
**System Verification/D835\_15mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 56.39 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 3.54 W/kg

**SAR(1 g) = 2.25 W/kg; SAR(10 g) = 1.45 W/kg** (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.94 W/kg



**D1750V2 - SN1160****DUT: D1750V2 - SN1160**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 38.86$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.4 °C; Liquid Temperature : 22.3°C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(8.38, 8.38, 8.38) @ 1750 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D1750\_10mm/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 14.2 W/kg

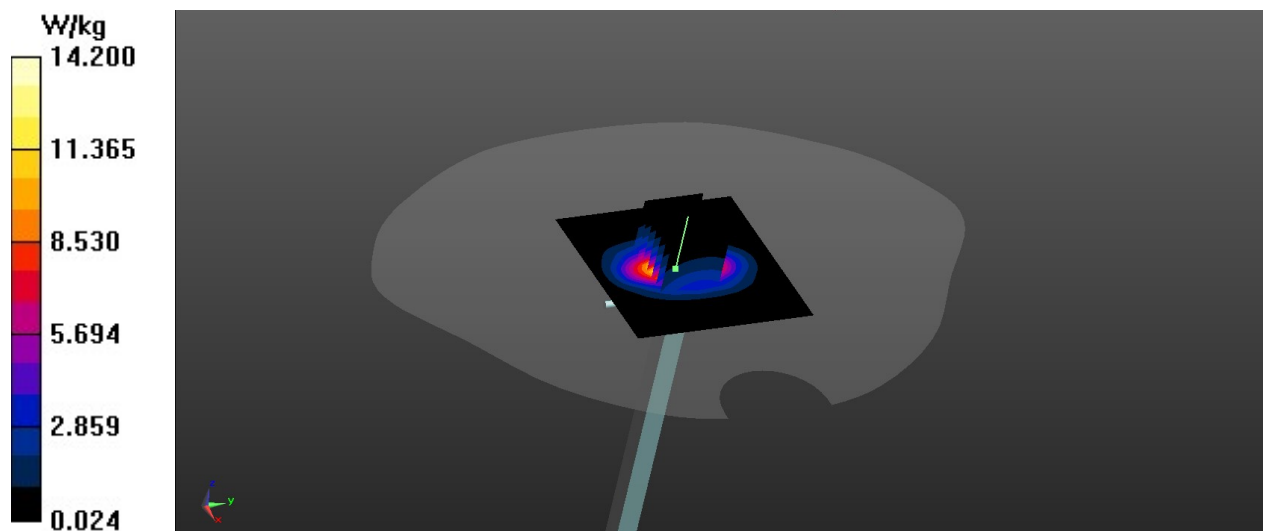
**System Verification/D1750\_10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.6 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 9.73 W/kg; SAR(10 g) = 5.22 W/kg** (SAR corrected for target medium)

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



**D1900V2 - SN5d221****DUT: D1900V2 - SN5d221**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.348$  S/m;  $\epsilon_r = 38.379$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.4 °C; Liquid Temperature : 22.1 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(8.03, 8.03, 8.03) @ 1900 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D1900/Area Scan (61x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 13.9 W/kg

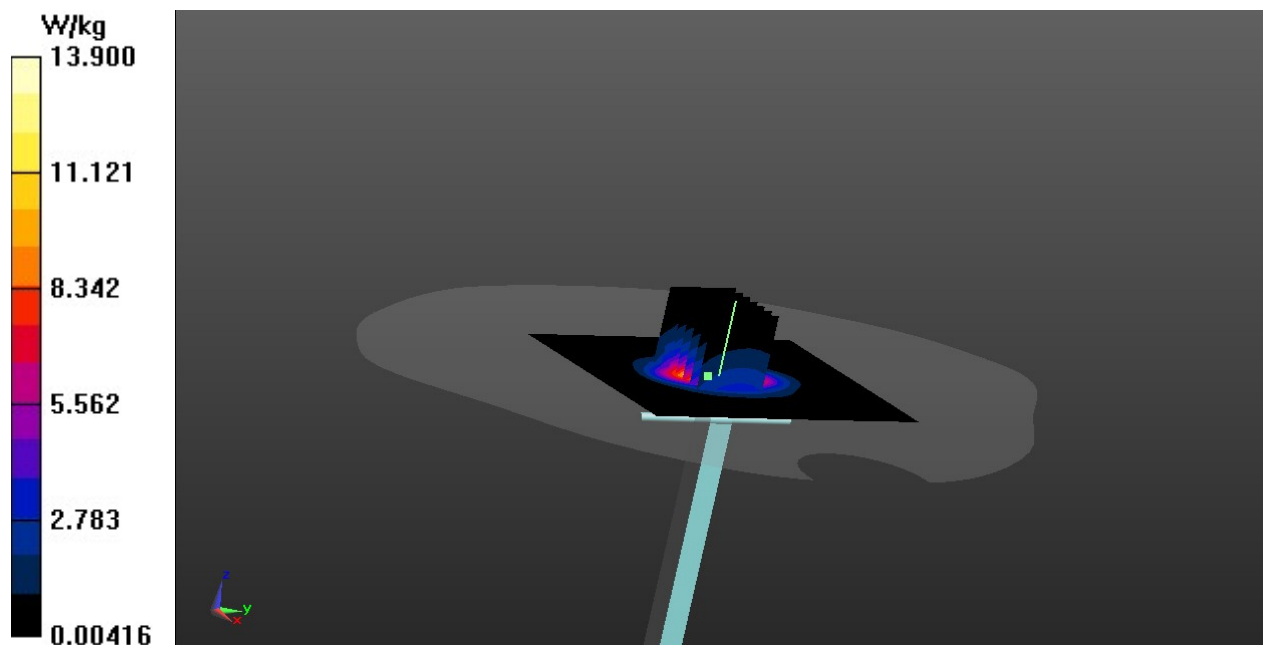
**System Verification/D1900/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.2 V/m; Power Drift = 0.20 dB

Peak SAR (extrapolated) = 18.1 W/kg

**SAR(1 g) = 9.75 W/kg; SAR(10 g) = 5.08 W/kg**

Maximum value of SAR (measured) = 14.1 W/kg



**D1900V2 - SN5d221****DUT: D1900V2 - SN5d221**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900-2100 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.4$  S/m;  $\epsilon_r = 39.879$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.4 °C; Liquid Temperature : 22.2 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(8.03, 8.03, 8.03) @ 1900 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D1900\_10mm/Area Scan (61x81x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 15.9 W/kg

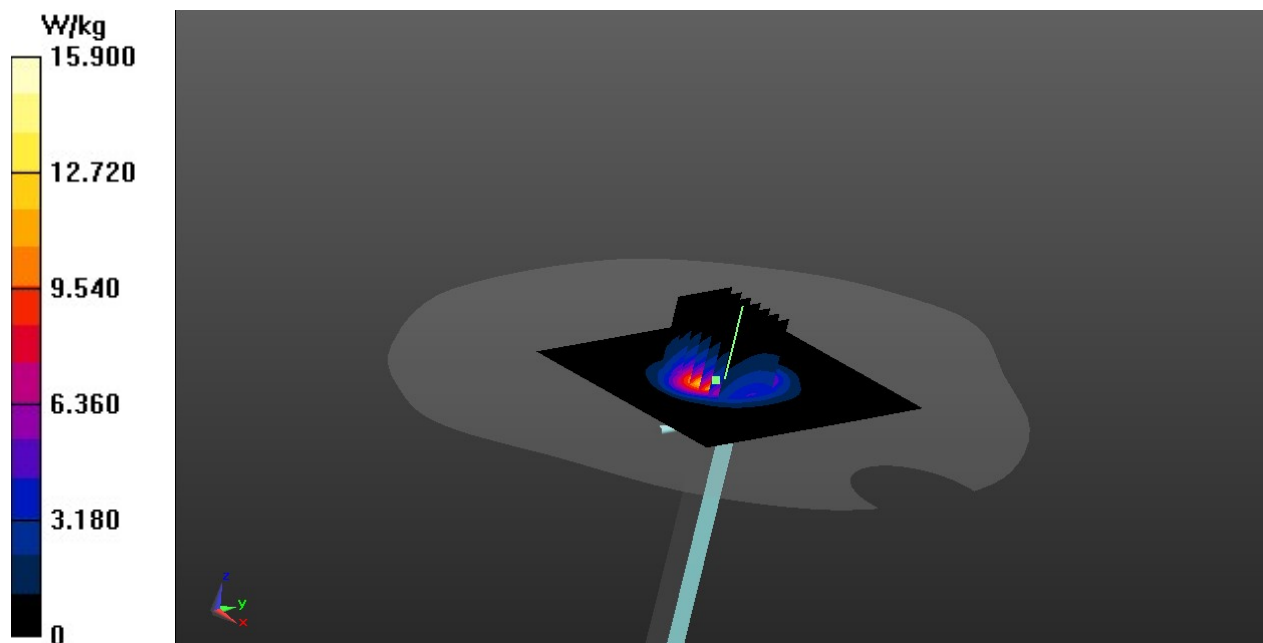
**System Verification/D1900\_10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 108.1 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 19.0 W/kg

**SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.21 W/kg**

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



**D2450V2 - SN997****DUT: D2450V2 - SN997**

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2300-2500 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.808$  S/m;  $\epsilon_r = 38.837$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 23.0 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(7.5, 7.5, 7.5) @ 2450 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D2450\_10mm/Area Scan (71x71x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 20.6 W/kg

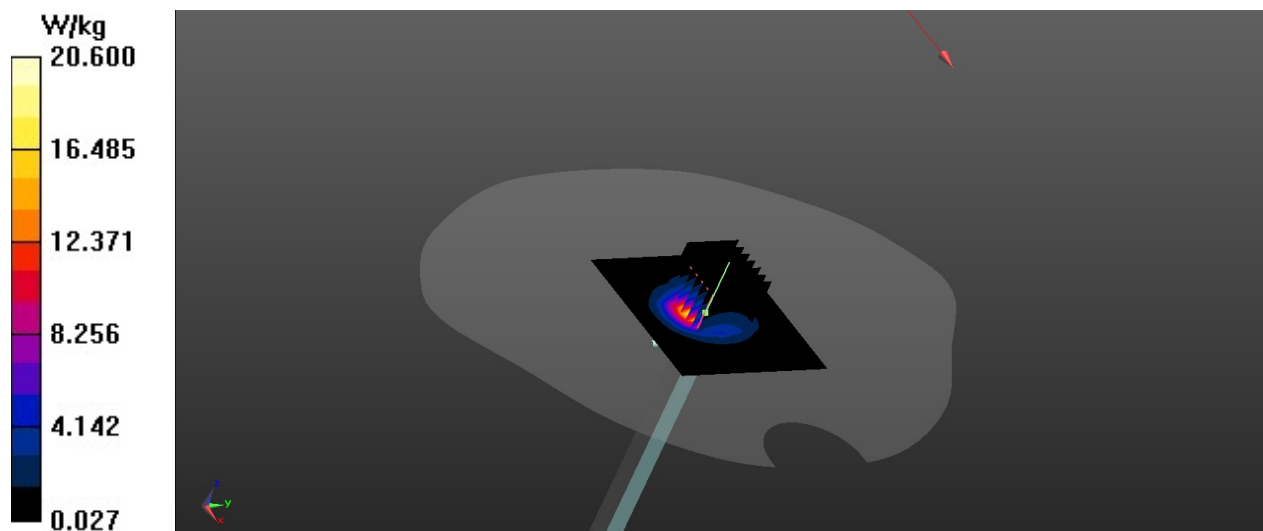
**System Verification/D2450\_10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 106.6 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 27.3 W/kg

**SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.15 W/kg**

Maximum value of SAR (measured) = 20.1 W/kg



**D2600V2 - SN1139****DUT: D2600V2 - SN1139**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.94$  S/m;  $\epsilon_r = 38.985$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 23.1 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN7445; ConvF(7.24, 7.24, 7.24) @ 2600 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D2600\_10mm/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 20.9 W/kg

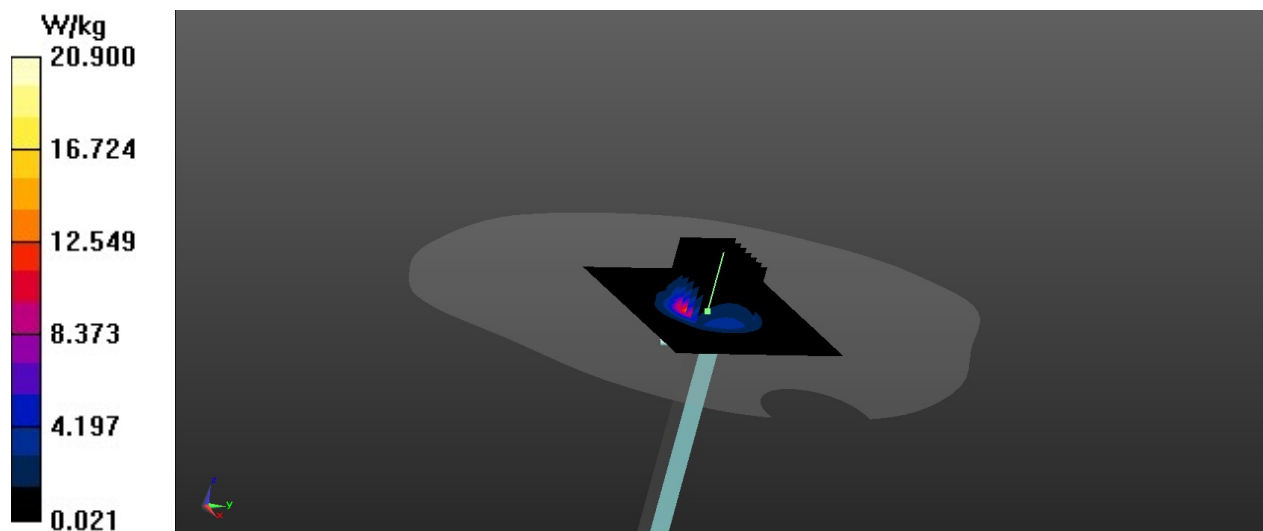
**System Verification/D2600\_10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 105.1 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 28.0 W/kg

**SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.12 W/kg**

Maximum value of SAR (measured) = 20.8 W/kg



## 5250MHz

### DUT: D5GHzV2-1176

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.71$  S/m;  $\epsilon_r = 34.601$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(4.98, 4.98, 4.98) @ 5250 MHz; Calibrated: 9/4/2018
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D5GHz\_10mm/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 15.5 W/kg

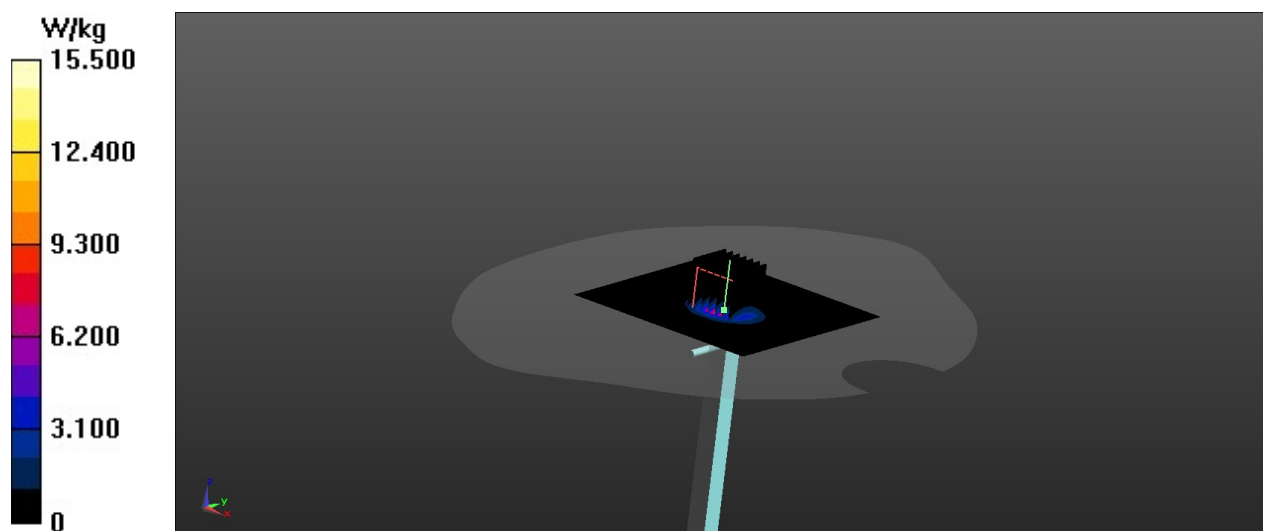
**System Verification/D5GHz\_10mm/Zoom Scan (7x7x13)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 62.44 V/m; Power Drift = -0.20 dB

Peak SAR (extrapolated) = 32.5 W/kg

**SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.29 W/kg**

Maximum value of SAR (measured) = 16.6 W/kg



## 5750MHz

### DUT: D5GHzV2-1176-5750

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HBBL 600-6G Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.248$  S/m;  $\epsilon_r = 35.642$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1°C; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(4.64, 4.64, 4.64) @ 5750 MHz; Calibrated: 11/6/2019
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 11/11/2019
- Phantom: SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1922
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**System Verification/D5GHz\_10mm/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

**System Verification/D5GHz\_10mm/Zoom Scan (7x7x13)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.18 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 37.1 W/kg

**SAR(1 g) = 8.21 W/kg; SAR(10 g) = 2.34 W/kg**

Maximum value of SAR (measured) = 17.4 W/kg

