



REPORT No. : SZ18100096S01

## Annex C Plots of System Performance Check

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## System Check\_750MHz\_Head\_181114

### DUT: Dipole 750 MHz

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

Medium: HSL\_750\_181114 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 40.799$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(10.03, 10.03, 10.03); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW750/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.24 W/kg

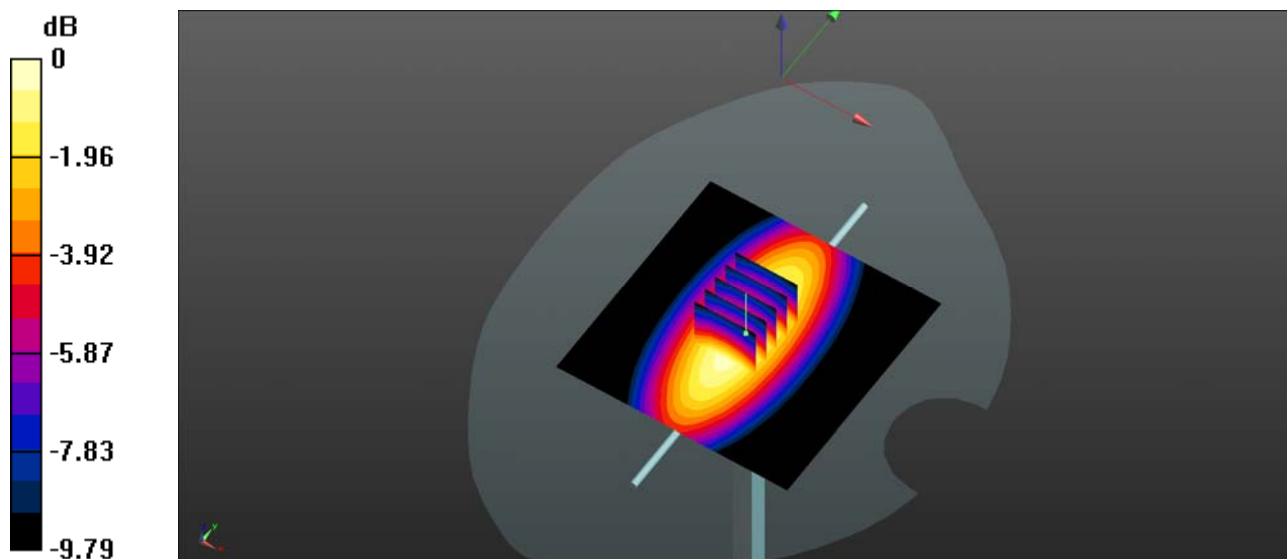
**CW750/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.75 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.03 W/kg

**SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.39 W/kg**

Maximum value of SAR (measured) = 2.23 W/kg



0 dB = 2.24 W/kg

### System Check\_835MHz\_Head\_181113

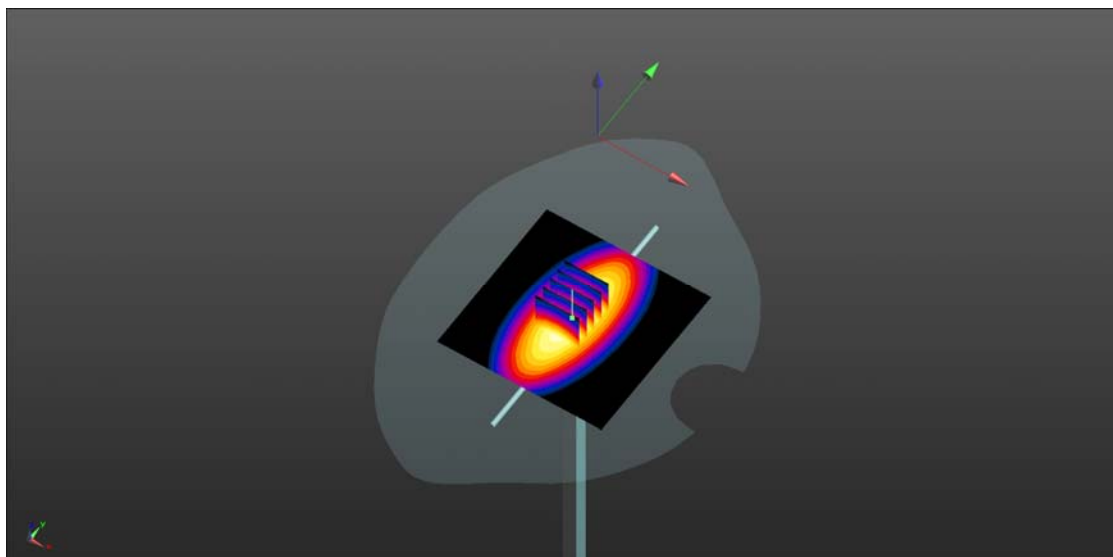
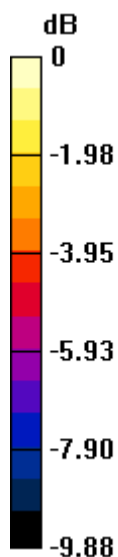
Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_181113 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 41.75$   $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(9.66, 9.66, 9.66); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW835/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.70 W/kg

**CW835/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 55.53 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 3.62 W/kg  
**SAR(1 g) = 2.43W/kg; SAR(10 g) = 1.56W/kg**  
Maximum value of SAR (measured) = 2.69 W/kg



0 dB = 2.70 W/kg

## System Check\_1750MHz\_Head\_181112

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

Medium: HSL\_1750\_181112 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.42$  S/m;  $\epsilon_r = 41.266$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.1 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(8.29, 8.29, 8.29); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 2; Type: QD000P40CC; Serial: TP:1464
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW1750/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 10.6 W/kg

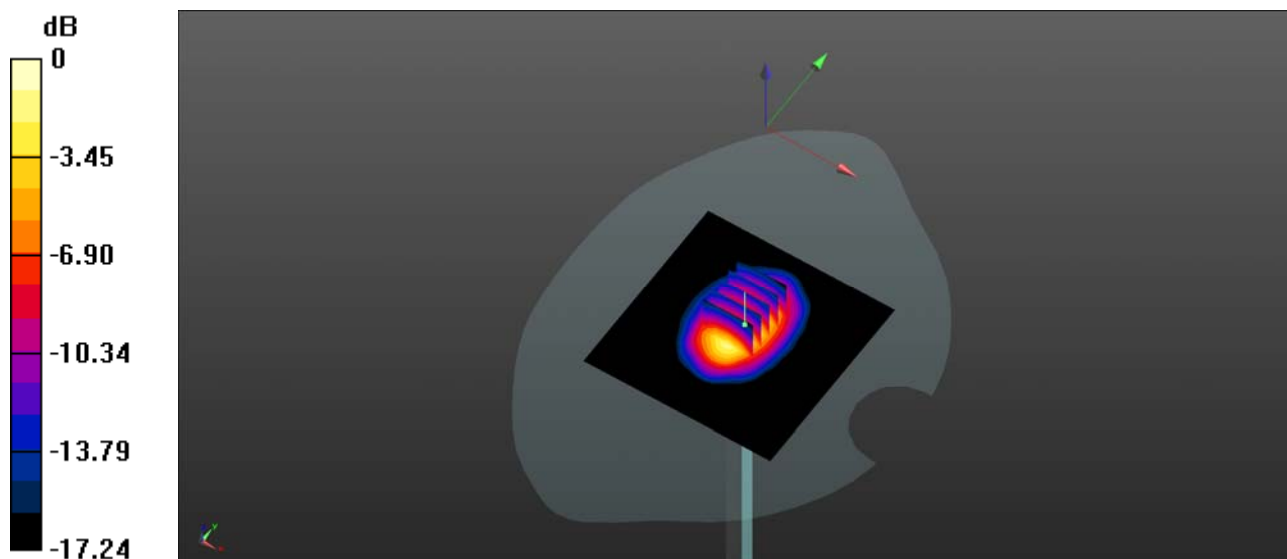
**CW1750/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.15 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 17.1 W/kg

**SAR(1 g) = 9.28 W/kg; SAR(10 g) = 4.88 W/kg**

Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.6 W/kg

## System Check\_1900MHz\_Head\_181112

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

Medium: HSL\_1900\_181112 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 40.882$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.89, 7.89, 7.89); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 2; Type: QD000P40CC; Serial: TP:1464
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 1900/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.3 W/kg

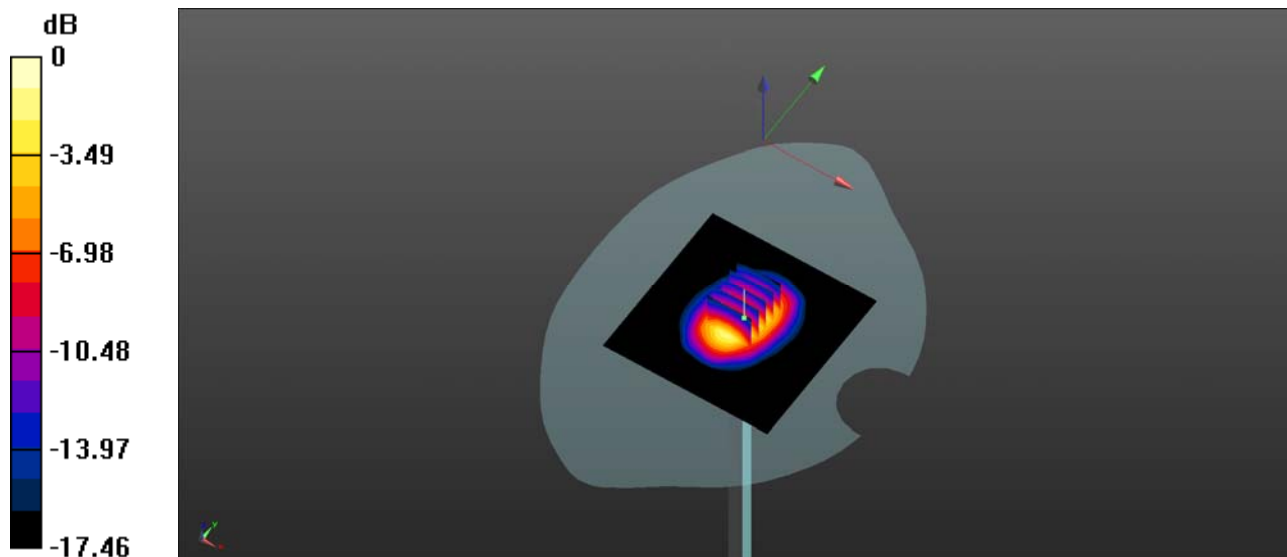
**CW 1900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 92.78 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 20.1 W/kg

**SAR(1 g) = 10.23 W/kg; SAR(10 g) = 5.26 W/kg**

Maximum value of SAR (measured) = 12.2 W/kg



0 dB = 12.3 W/kg

## System Check\_2450MHz\_Head\_181111

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

Medium: HSL\_2450\_181111 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.82$  S/m;  $\epsilon_r = 40.021$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 2; Type: QD000P40CC; Serial: TP:1464
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW2450/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.7 W/kg

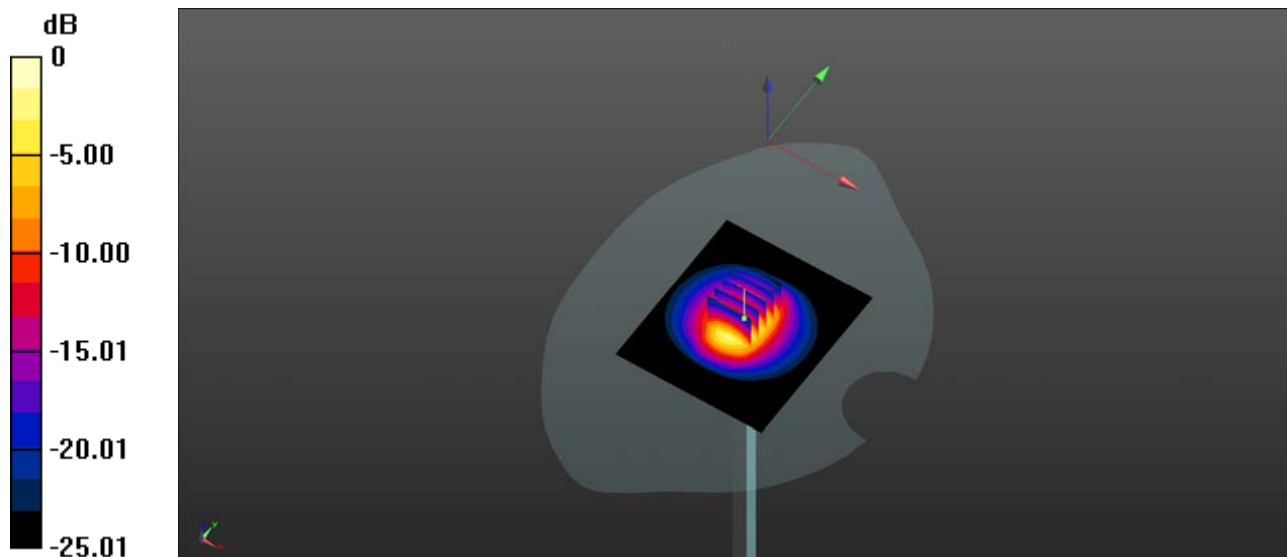
**CW2450/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.51 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 30.1 W/kg

**SAR(1 g) = 13.21 W/kg; SAR(10 g) = 6.15 W/kg**

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 15.7 W/kg

## System Check\_2600MHz\_Head\_181111

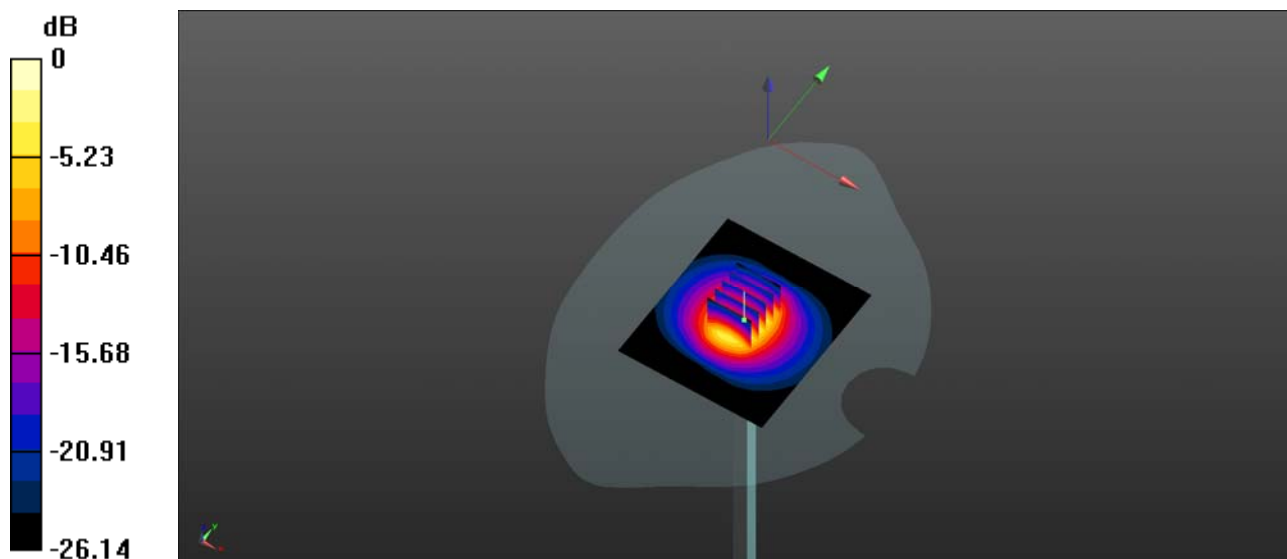
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1  
 Medium: HSL\_2600\_181111 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.046$  S/m;  $\epsilon_r = 37.758$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.6 °C; Liquid Temperature : 22.3 °C

### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detectio8n)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW2600/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Maximum value of SAR (interpolated) = 16.2 W/kg

**CW2600/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 87.88 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 32.5 W/kg  
**SAR(1 g) = 13.63 W/kg; SAR(10 g) = 6.02 W/kg**  
 Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 16.2 W/kg

## System Check\_750MHz\_Body\_181114

### DUT: Dipole 750 MHz

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

Medium: MSL\_750\_181114 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.963$  S/m;  $\epsilon_r = 54.224$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.1 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(10.05, 10.05, 10.05); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 2; Type: QD000P40CC; Serial: TP:1464
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 750/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.21 W/kg

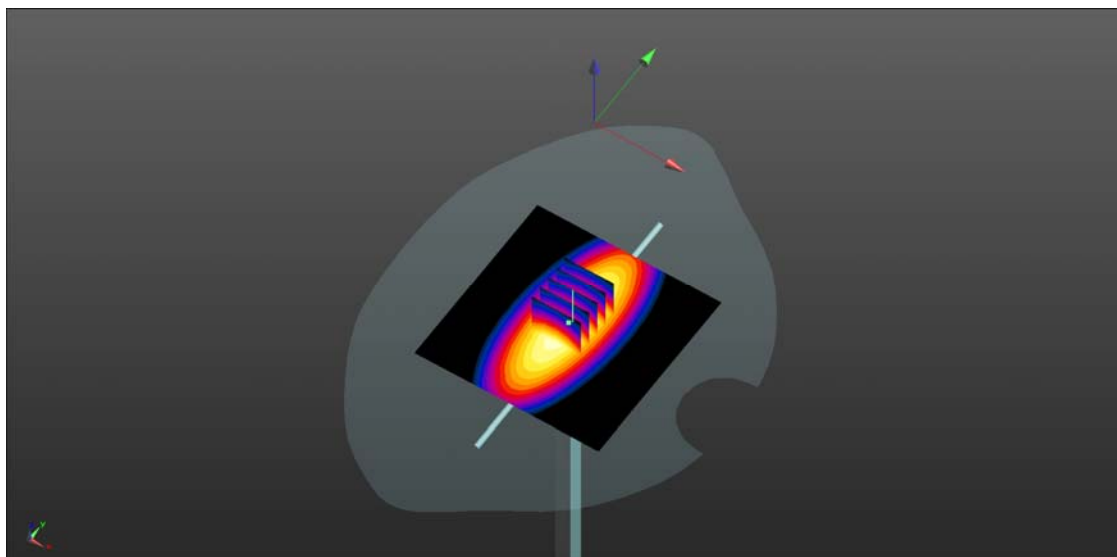
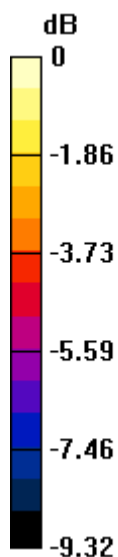
**CW 750/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 66.25 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 5.86 W/kg

**SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.42 W/kg**

Maximum value of SAR (measured) = 3.20 W/kg



0 dB = 3.21 W/kg



## System Check\_835MHz\_Body\_181112

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

Medium: MSL\_835\_181112 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.943 \text{ S/m}$ ;  $\epsilon_r = 54.343$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.2 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.2 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(9.69, 9.69, 9.69); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 835/Area Scan (81x81x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $2.53 \text{ W/kg}$

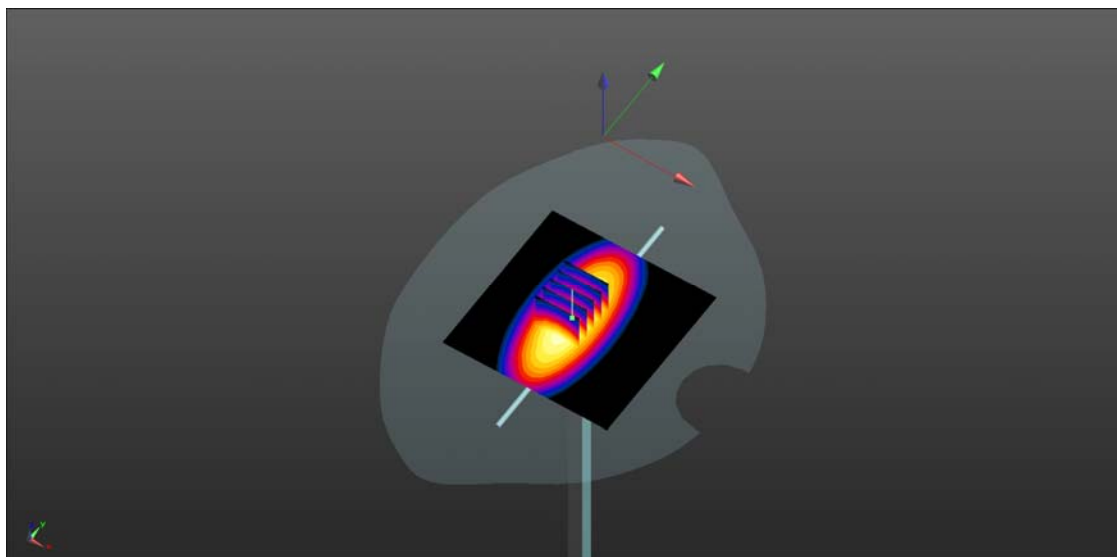
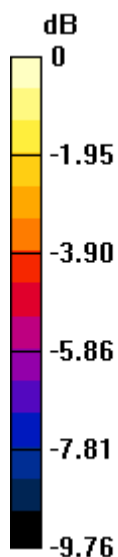
**CW 835/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $51.04 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

Peak SAR (extrapolated) =  $3.44 \text{ W/kg}$

**SAR(1 g) =  $2.45 \text{ W/kg}$ ; SAR(10 g) =  $1.62 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.56 \text{ W/kg}$



0 dB =  $2.53 \text{ W/kg}$

## System Check\_1750MHz\_Body\_181111

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

Medium: MSL\_1750\_181111 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.536$  S/m;  $\epsilon_r = 53.912$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.93, 7.93, 7.93); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW1750/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.0 W/kg

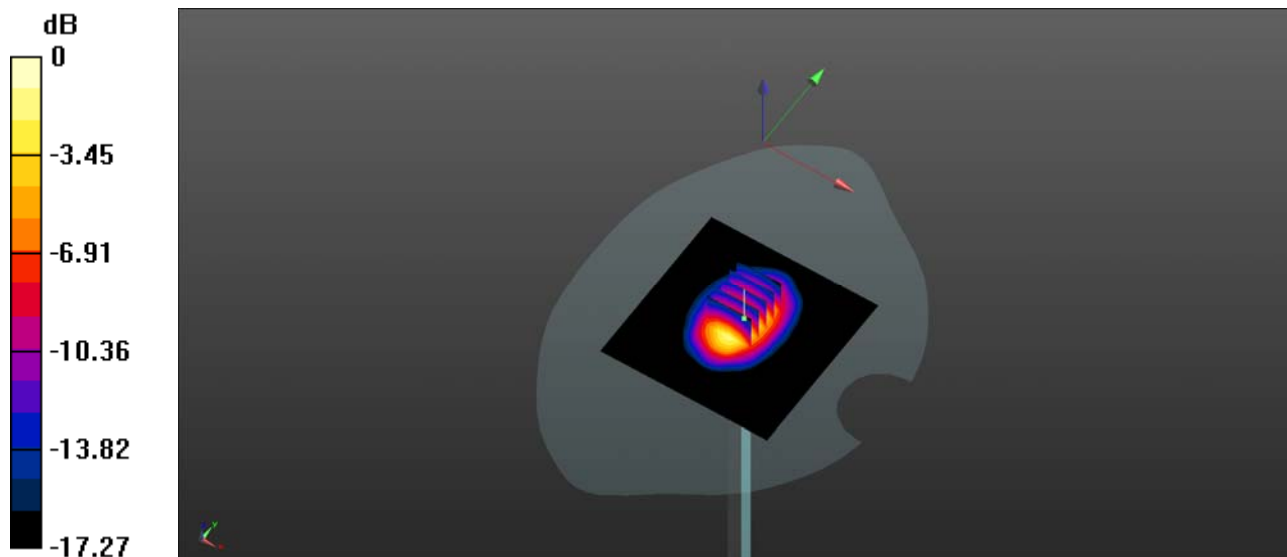
**CW1750/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 88.23 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 20.7 W/kg

**SAR(1 g) = 9.49 W/kg; SAR(10 g) = 4.96 W/kg**

Maximum value of SAR (measured) = 11.7 W/kg



0 dB = 12.0 W/kg

## System Check\_1900MHz\_Body\_181112

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

Medium: MSL\_1900\_181112 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.531$  S/m;  $\epsilon_r = 52.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.56, 7.56, 7.56); Calibrated: 2018.09.04;;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 1900/Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 11.1 W/kg

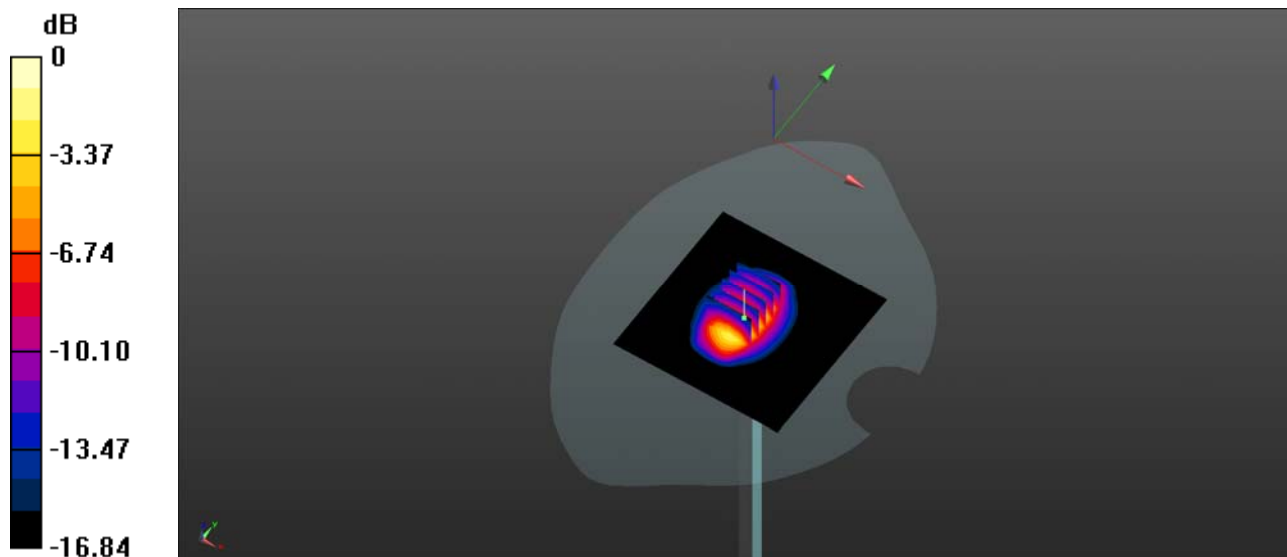
**CW 1900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 79.19 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 18.0 W/kg

**SAR(1 g) = 9.92 W/kg; SAR(10 g) = 5.29 W/kg**

Maximum value of SAR (measured) = 11.2 W/kg



0 dB = 11.1 W/kg

## System Check\_2450MHz\_Body\_181111

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

Medium: MSL\_2450\_181111 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.036$  S/m;  $\epsilon_r = 50.655$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(7.27, 7.27, 7.27); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 2450/Area Scan (101x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 13.6 W/kg

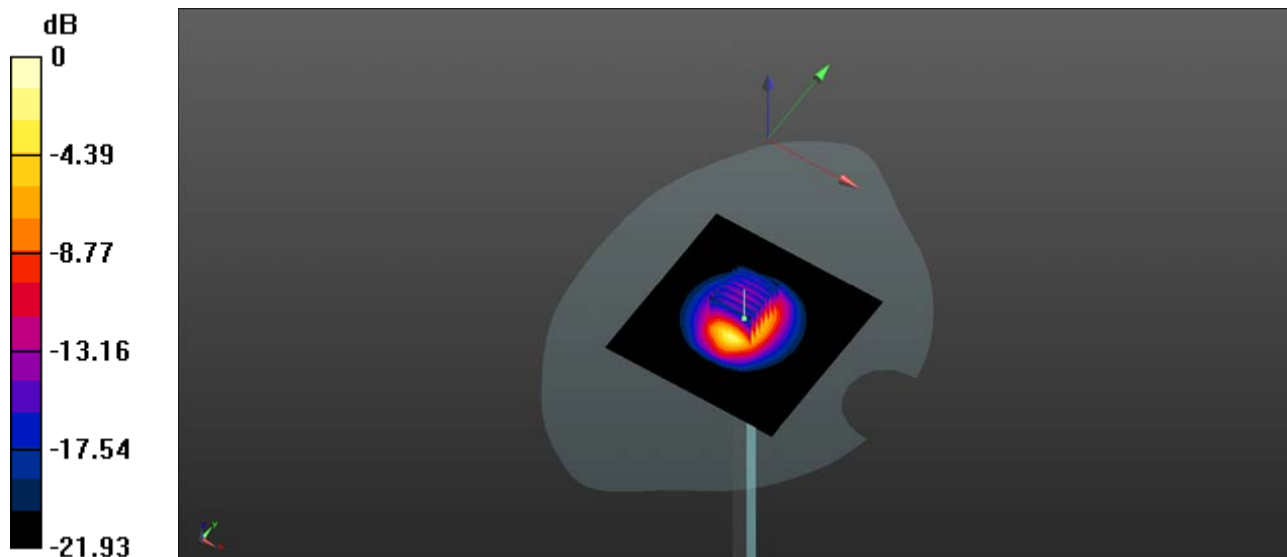
**CW 2450/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.5 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 26.3 W/kg

**SAR(1 g) = 13.19 W/kg; SAR(10 g) = 6.12 W/kg**

Maximum value of SAR (measured) = 20.5 W/kg



0 dB = 20.5 W/kg

## System Check\_2600MHz\_Body\_181111

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

Medium: MSL\_2600\_181111 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.178$  S/m;  $\epsilon_r = 50.984$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C; Liquid Temperature : 22.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7445; ConvF(6.96, 6.96, 6.96); Calibrated: 2018.09.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1516; Calibrated: 2018.07.14
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1471
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**CW 2600/Area Scan (101x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 15.6 W/kg

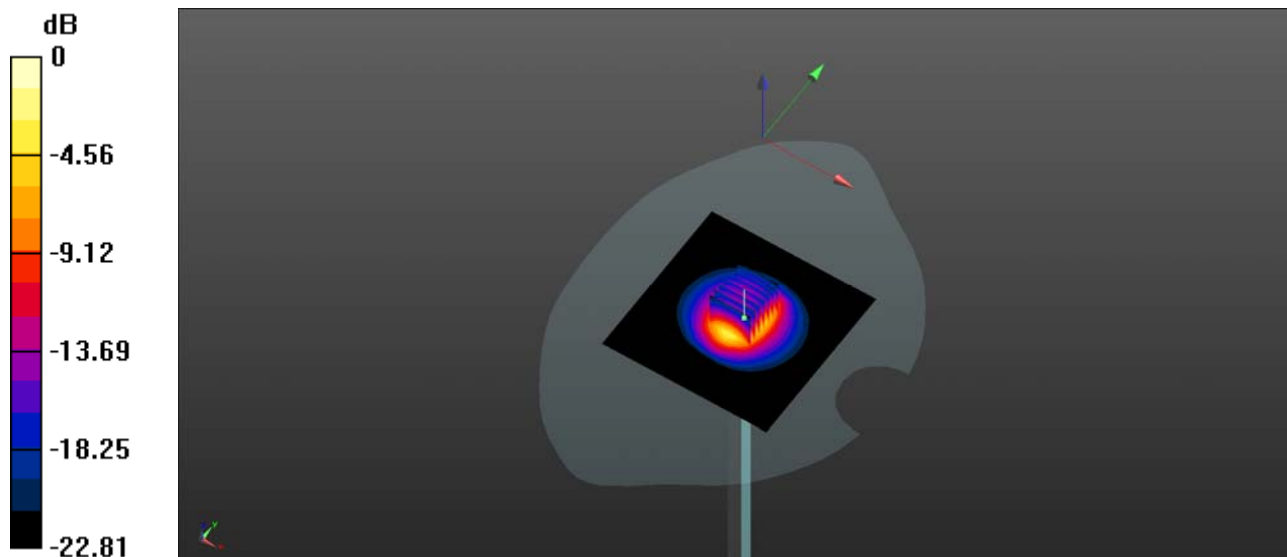
**CW 2600/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.68 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 28.7 W/kg

**SAR(1 g) = 13.25 W/kg; SAR(10 g) = 5.95 W/kg**

Maximum value of SAR (measured) = 15.6 W/kg



0 dB = 15.6 W/kg