

### System Check\_Head\_2300MHz\_20160702

**DUT: D2300V2 - SN:1055**

Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: HSL\_2300\_2016/07/02 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.693$  S/m;  $\epsilon_r = 38.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>

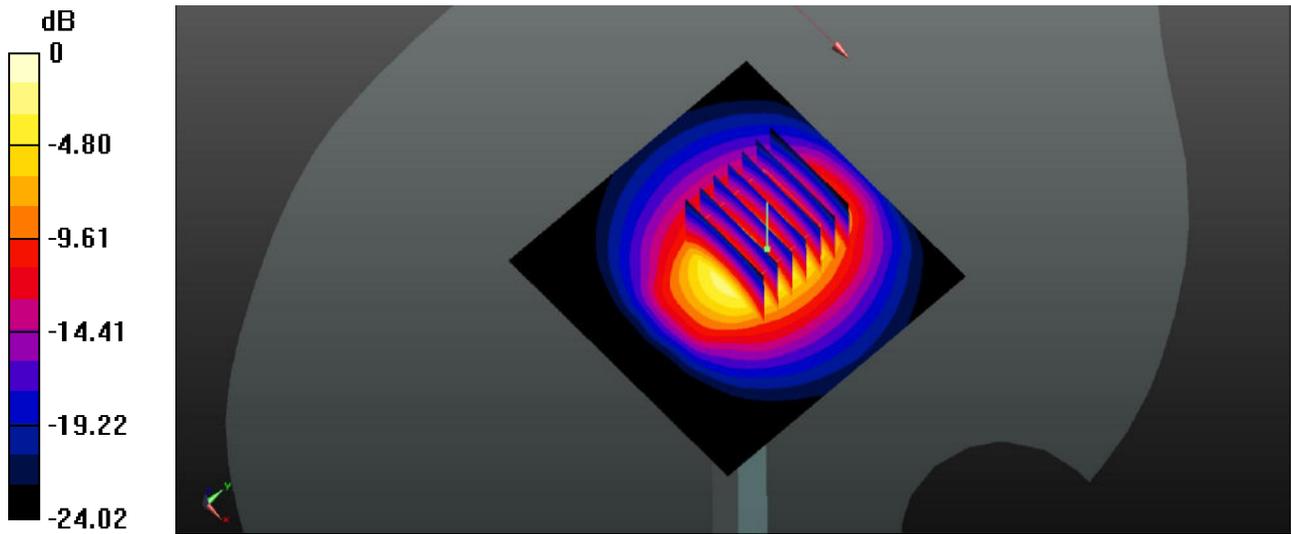
Ambient Temperature : 23.5 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.96, 7.96, 7.96); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x71x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 18.7 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 83.44 V/m; Power Drift = -0.08 dB  
Peak SAR (extrapolated) = 26.4 W/kg  
**SAR(1 g) = 12 W/kg; SAR(10 g) = 5.37 W/kg**  
Maximum value of SAR (measured) = 18.8 W/kg



0 dB = 18.8 W/kg

### System Check\_Head\_2600MHz\_20160702

#### DUT: Dipole 2600 MHz D2600V2

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

Medium: HSL\_2600\_2016/07/02 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.055$  S/m;  $\epsilon_r = 38.321$ ;  $\rho = 1000$  kg/m<sup>3</sup>

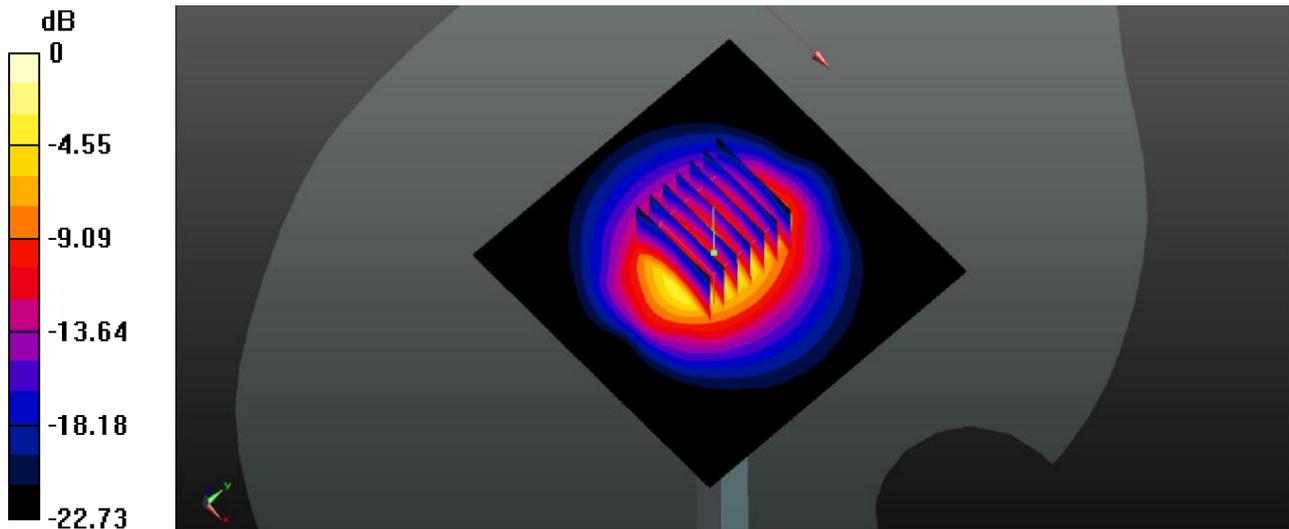
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 25.9 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 88.17 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 34.1 W/kg  
**SAR(1 g) = 15.4 W/kg; SAR(10 g) = 6.91 W/kg**  
Maximum value of SAR (measured) = 26.9 W/kg



0 dB = 26.9 W/kg

### System Check\_Body\_835MHz\_160730

**DUT: D835V2 - SN:4d091**

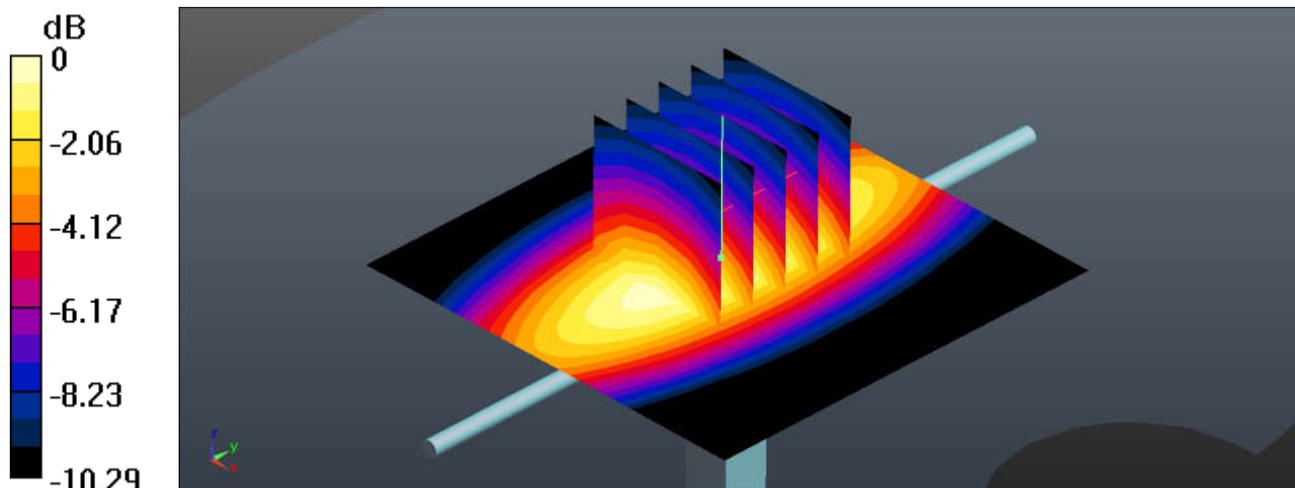
Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium: MSL\_850\_160730 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.995$  S/m;  $\epsilon_r = 56.342$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.17, 10.17, 10.17); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- 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) = 3.17 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 51.90 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 3.66 W/kg  
**SAR(1 g) = 2.54 W/kg; SAR(10 g) = 1.67 W/kg**  
Maximum value of SAR (measured) = 3.19 W/kg



0 dB = 3.19 W/kg = 5.04 dBW/kg

**System Check\_Body\_835MHz\_20160823**

**DUT: Dipole 835 MHz D835V2**

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

Medium: MSL\_835\_2016/08/23 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.976 \text{ S/m}$ ;  $\epsilon_r = 54.442$ ;

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

Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.3 \text{ }^\circ\text{C}$

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) =  $3.03 \text{ W/kg}$

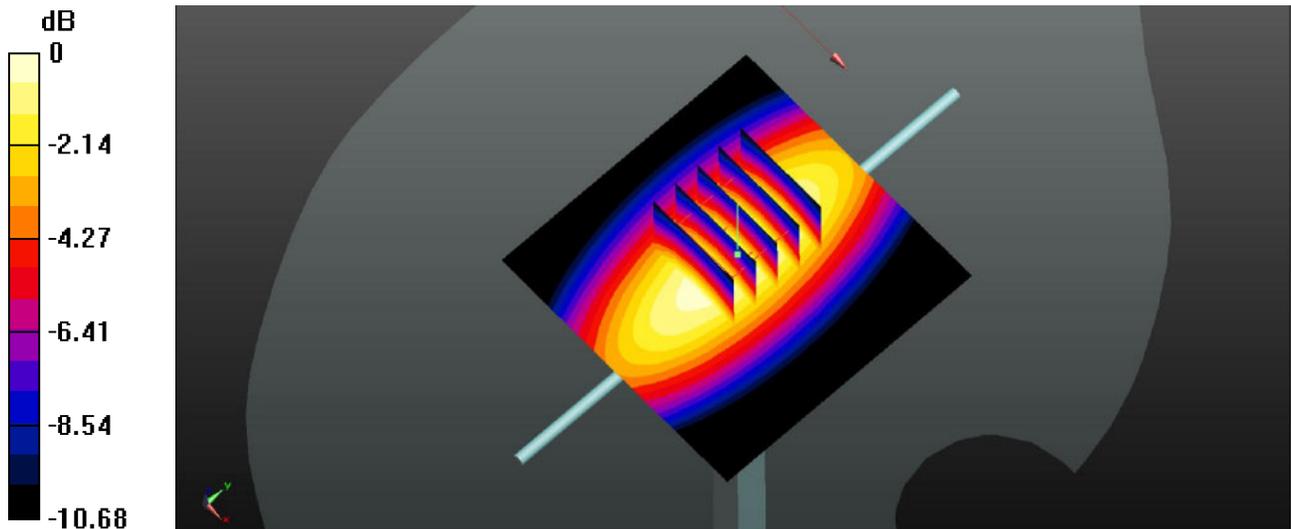
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $50.99 \text{ V/m}$ ; Power Drift =  $0.04 \text{ dB}$

Peak SAR (extrapolated) =  $3.57 \text{ W/kg}$

**SAR(1 g) =  $2.4 \text{ W/kg}$ ; SAR(10 g) =  $1.57 \text{ W/kg}$**

Maximum value of SAR (measured) =  $3.03 \text{ W/kg}$



0 dB =  $3.03 \text{ W/kg}$

### System Check\_Body\_1750MHz\_20160705

#### DUT: Dipole 1750 MHz D1750V2

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

Medium: MSL\_1750\_2016/07/05 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.517$  S/m;  $\epsilon_r = 53.127$ ;  $\rho = 1000$  kg/m<sup>3</sup>

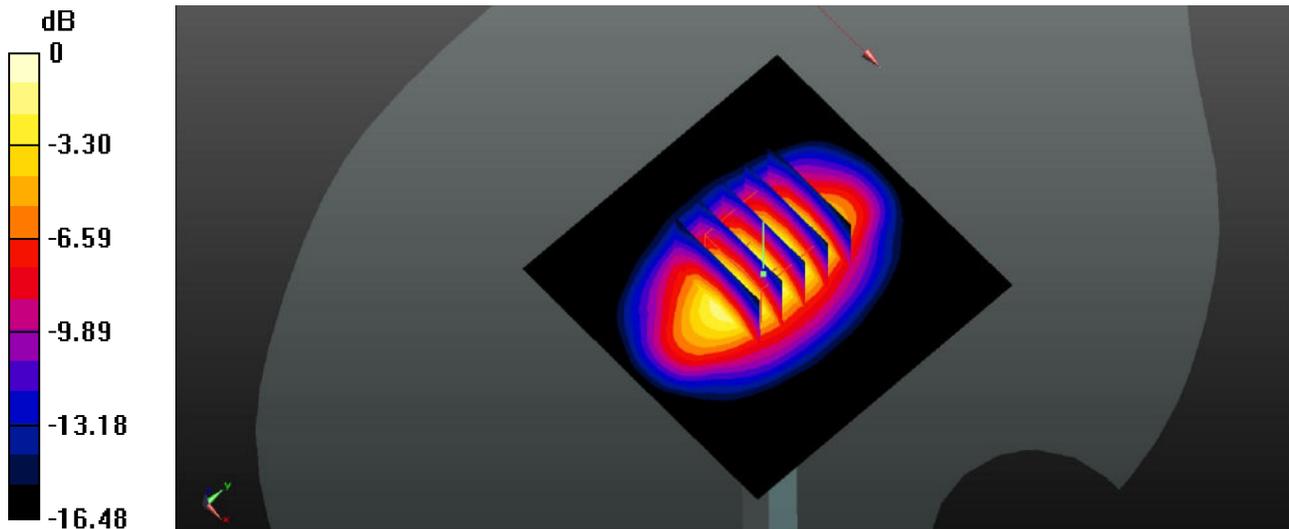
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 13.6 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 90.79 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 16.2 W/kg  
**SAR(1 g) = 9.07 W/kg; SAR(10 g) = 4.85 W/kg**  
Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg

### System Check\_Body\_1750MHz\_160802

**DUT: D1750V2 - SN:1069**

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

Medium: MSL\_1750\_160802 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.498$  S/m;  $\epsilon_r = 53.463$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.7 °C ; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.9 W/kg

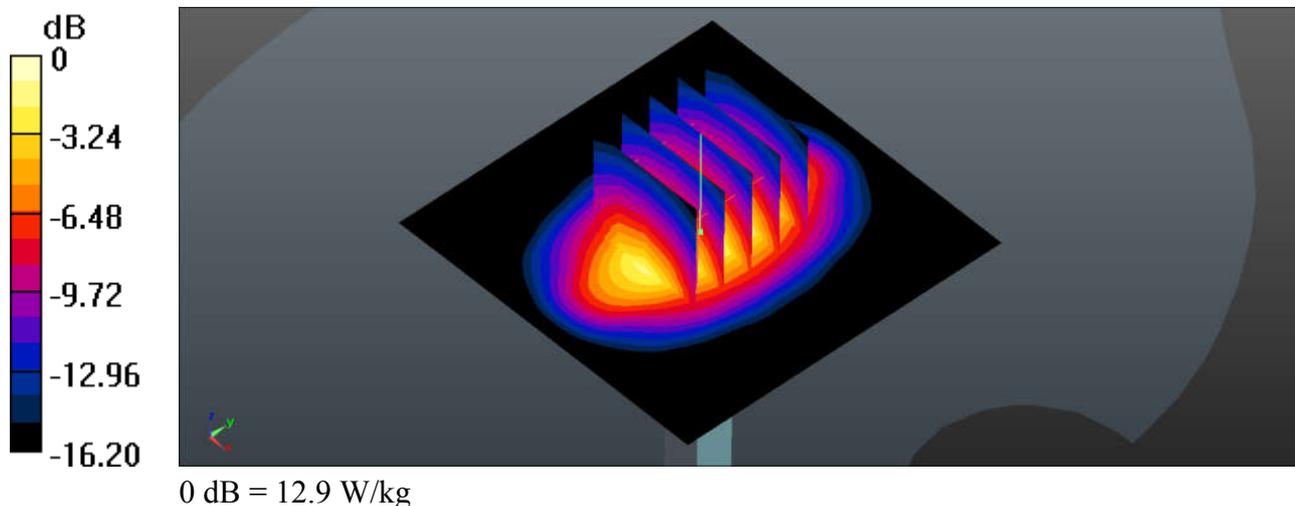
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 83.14 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 16.0 W/kg

**SAR(1 g) = 9.19 W/kg; SAR(10 g) = 4.92 W/kg**

Maximum value of SAR (measured) = 12.9 W/kg



### System Check\_Body\_1750MHz\_20160822

#### DUT: Dipole 1750 MHz D1750V2

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

Medium: MSL\_1750\_2016/08/22 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.503$  S/m;  $\epsilon_r = 52.575$ ;  $\rho = 1000$  kg/m<sup>3</sup>

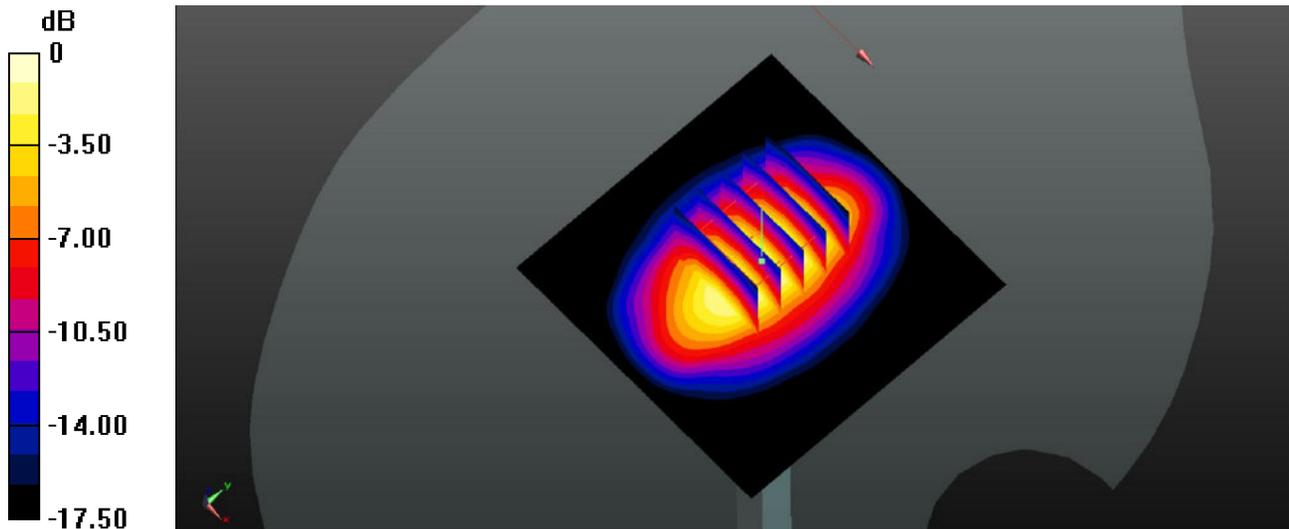
Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 13.0 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 92.21 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 16.3 W/kg  
**SAR(1 g) = 9.15 W/kg; SAR(10 g) = 4.83 W/kg**  
Maximum value of SAR (measured) = 12.8 W/kg



0 dB = 12.8 W/kg

### System Check\_Body\_1900MHz\_20160823

#### DUT: Dipole 1900 MHz D1900V2

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

Medium: MSL\_1900\_2016/08/23 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.558$  S/m;  $\epsilon_r = 55.398$ ;  $\rho = 1000$  kg/m<sup>3</sup>

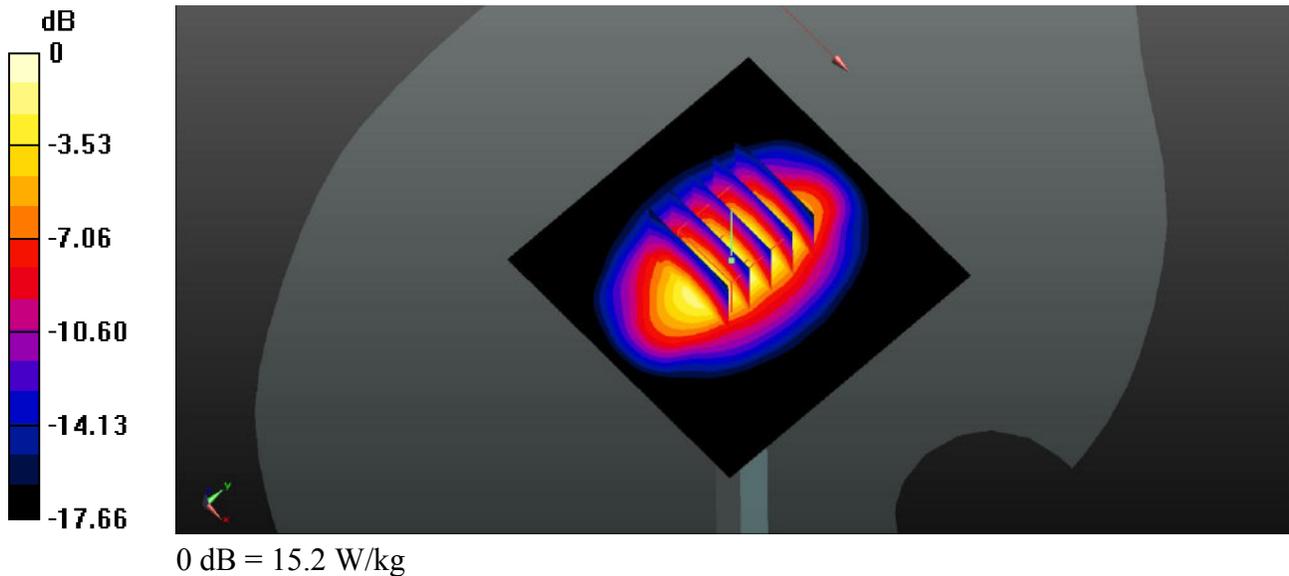
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 15.5 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 83.56 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 18.3 W/kg  
**SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.29 W/kg**  
Maximum value of SAR (measured) = 15.2 W/kg



### System Check\_Body\_2300MHz\_20160702

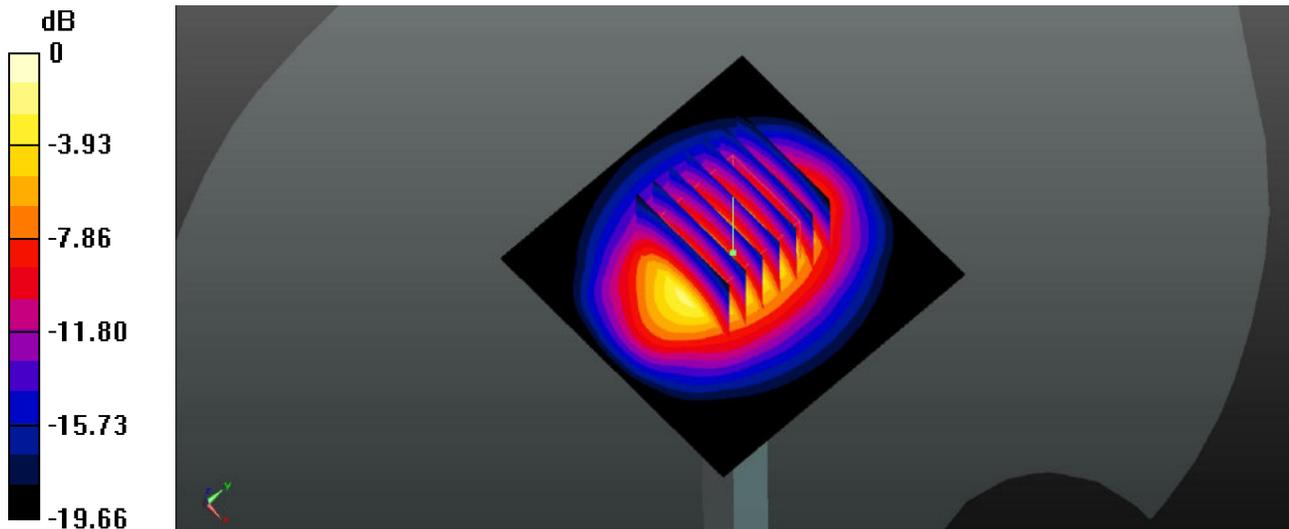
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1  
Medium: MSL\_2300\_2016/07/02 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.768$  S/m;  $\epsilon_r = 53.269$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.72, 7.72, 7.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 18.6 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 102.2 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 24.1 W/kg  
**SAR(1 g) = 12.5 W/kg; SAR(10 g) = 6.07 W/kg**  
Maximum value of SAR (measured) = 18.5 W/kg



### System Check\_Body\_2300MHz\_20160823

#### DUT: D2300V2

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: MSL\_2300\_2016/08/23 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.768$  S/m;  $\epsilon_r = 52.888$ ;  $\rho = 1000$  kg/m<sup>3</sup>

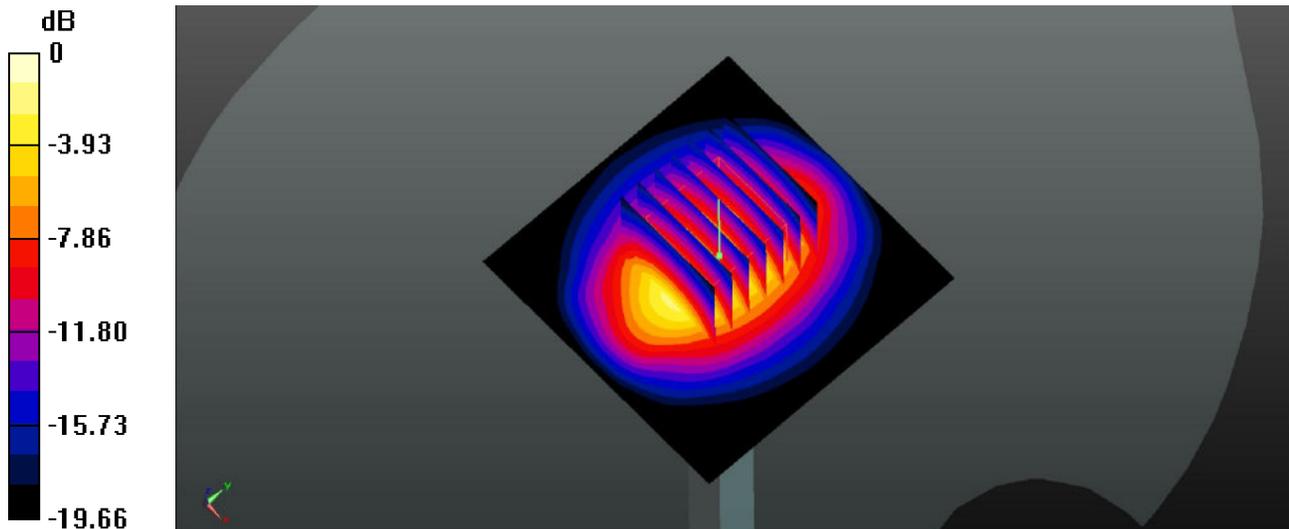
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.72, 7.72, 7.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 18.6 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 102.2 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 24.1 W/kg  
**SAR(1 g) = 12.5 W/kg; SAR(10 g) = 6.07 W/kg**  
Maximum value of SAR (measured) = 18.5 W/kg



0 dB = 18.5 W/kg

### System Check\_Body\_2600MHz\_20160702

#### DUT: Dipole 2600 MHz D2600V2

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

Medium: MSL\_2600\_2016/07/02 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.178$  S/m;  $\epsilon_r = 52.247$ ;  $\rho = 1000$  kg/m<sup>3</sup>

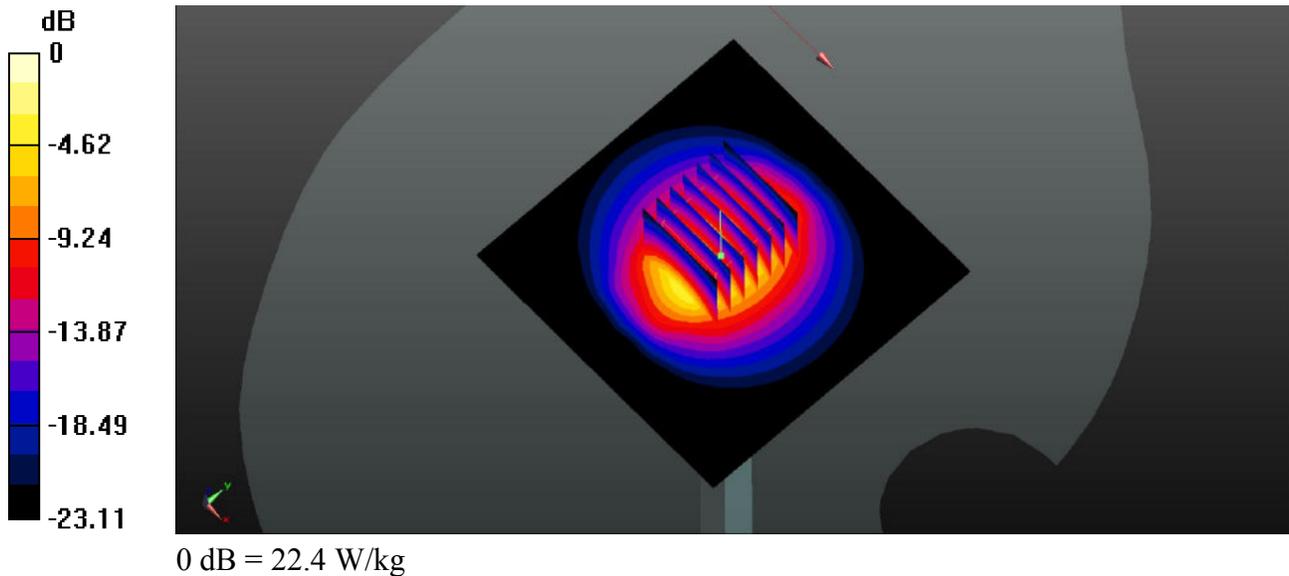
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.37, 7.37, 7.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 21.9 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 84.11 V/m; Power Drift = 0.18 dB  
Peak SAR (extrapolated) = 30.5 W/kg  
**SAR(1 g) = 14.4 W/kg; SAR(10 g) = 6.38 W/kg**  
Maximum value of SAR (measured) = 22.4 W/kg



### System Check\_Head\_2450MHz\_20160721

#### DUT: Dipole 2450 MHz D2450V2

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

Medium: HSL\_2450\_2016/07/21 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.845$  S/m;  $\epsilon_r = 37.668$ ;  $\rho = 1000$  kg/m<sup>3</sup>

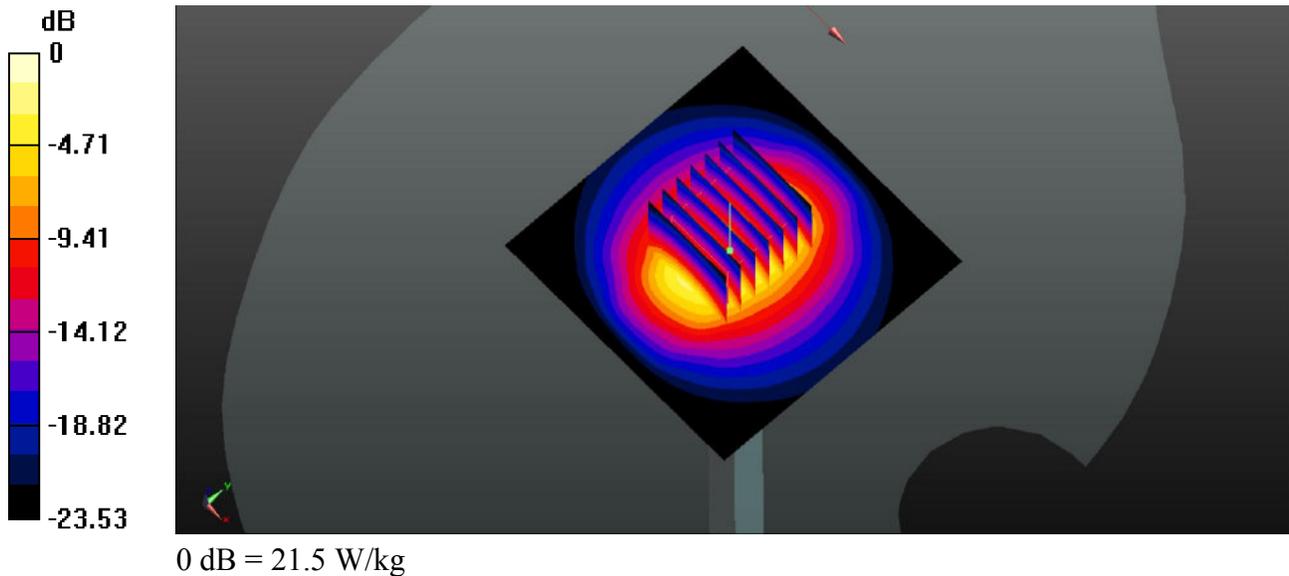
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.49, 7.49, 7.49); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (71x71x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 22.3 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 92.41 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 29.8 W/kg  
**SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.17 W/kg**  
Maximum value of SAR (measured) = 21.5 W/kg



### System Check\_Head\_5250MHz\_20160722

#### DUT: Dipole 5GHz

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

Medium: HSL\_5G\_2016/07/22 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.588$  S/m;  $\epsilon_r = 36.661$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>

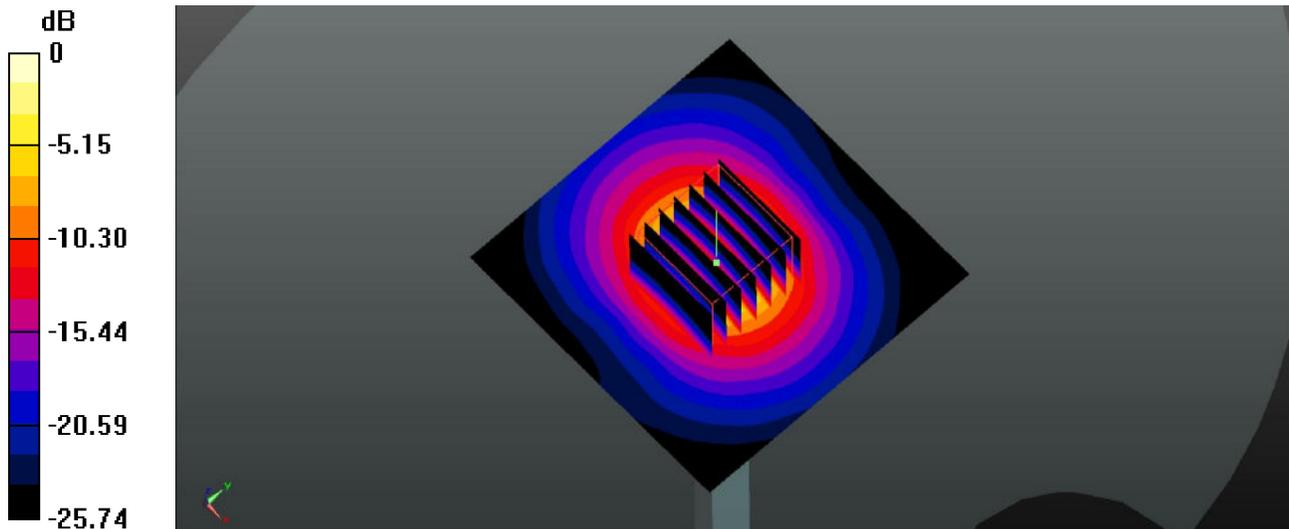
Ambient Temperature : 23.5 °C; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.11, 5.11, 5.11); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (71x71x1):** Interpolated grid: dx=10mm, dy=10mm  
Maximum value of SAR (interpolated) = 17.8 W/kg

**Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 57.09 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 29.7 W/kg  
**SAR(1 g) = 7.6 W/kg; SAR(10 g) = 2.1 W/kg**  
Maximum value of SAR (measured) = 18.8 W/kg



0 dB = 18.8 W/kg

### System Check\_Head\_5750MHz\_20160722

#### DUT: Dipole 5GHz

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

Medium: HSL\_5G\_2016/07/22 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.164$  S/m;  $\epsilon_r = 35.867$ ;

$\rho = 1000$  kg/m<sup>3</sup>

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

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.37, 4.37, 4.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (71x71x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 19.6 W/kg

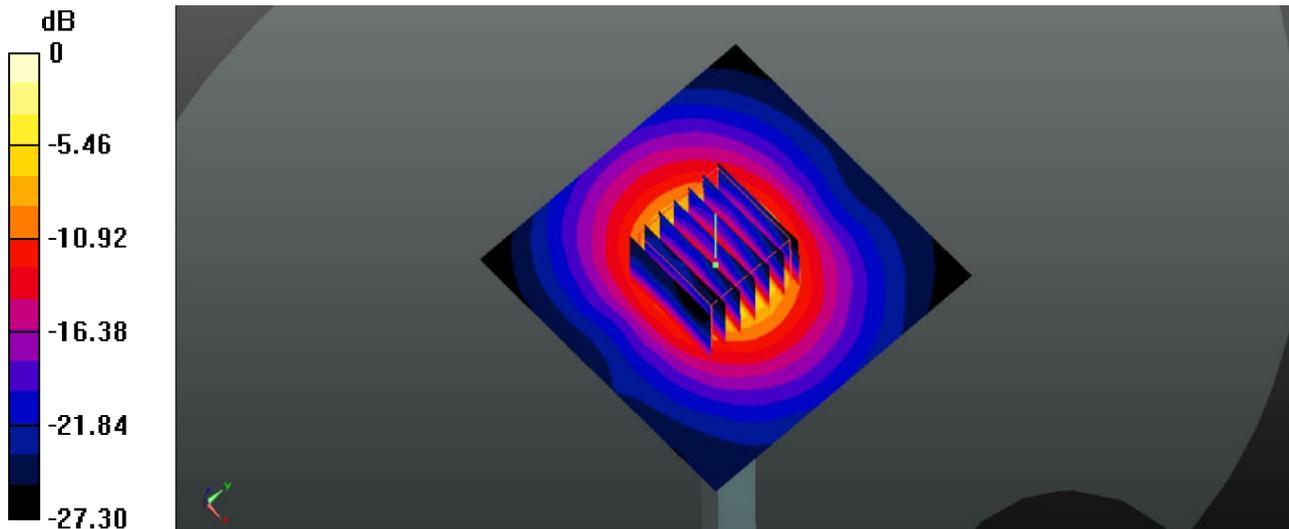
**Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 55.10 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 32.2 W/kg

**SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.28 W/kg**

Maximum value of SAR (measured) = 19.9 W/kg



0 dB = 19.9 W/kg

### System Check\_Body\_2450MHz\_20160722

#### DUT: Dipole 2450 MHz D2450V2

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

Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.972$  S/m;  $\epsilon_r = 51.844$ ;  $\rho = 1000$  kg/m<sup>3</sup>

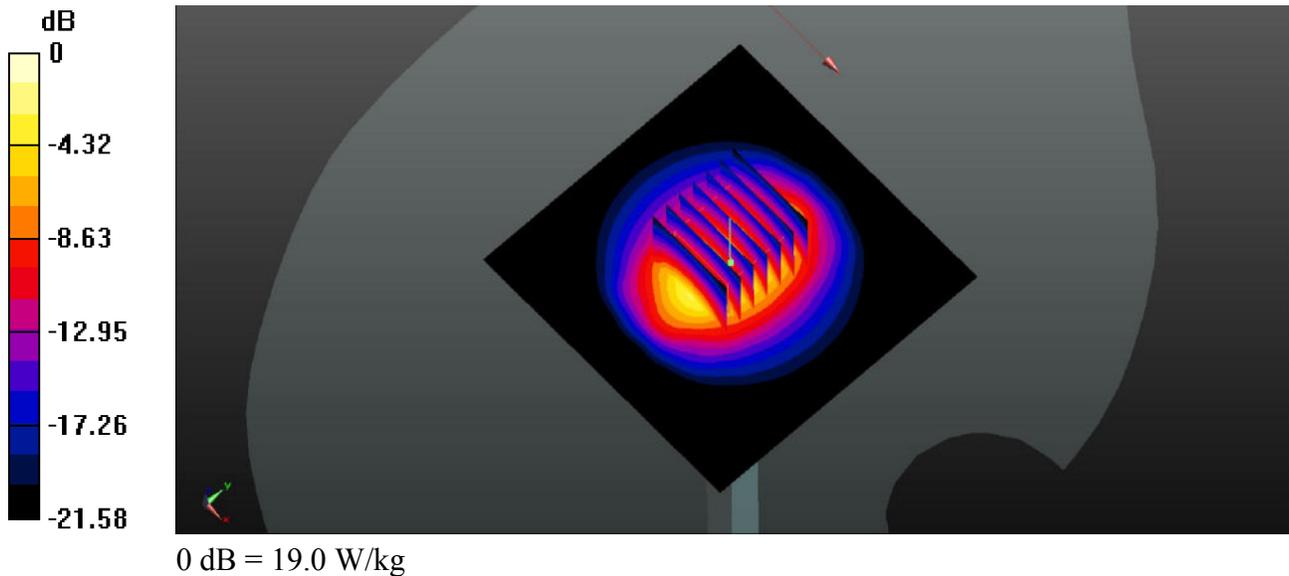
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 18.8 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 84.65 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 25.3 W/kg  
**SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.75 W/kg**  
Maximum value of SAR (measured) = 19.0 W/kg



### System Check\_Body\_5250MHz\_20160722

#### DUT: Dipole 5GHz

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

Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 5.437$  S/m;  $\epsilon_r = 48.733$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.35, 4.35, 4.35); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (71x71x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 17.7 W/kg

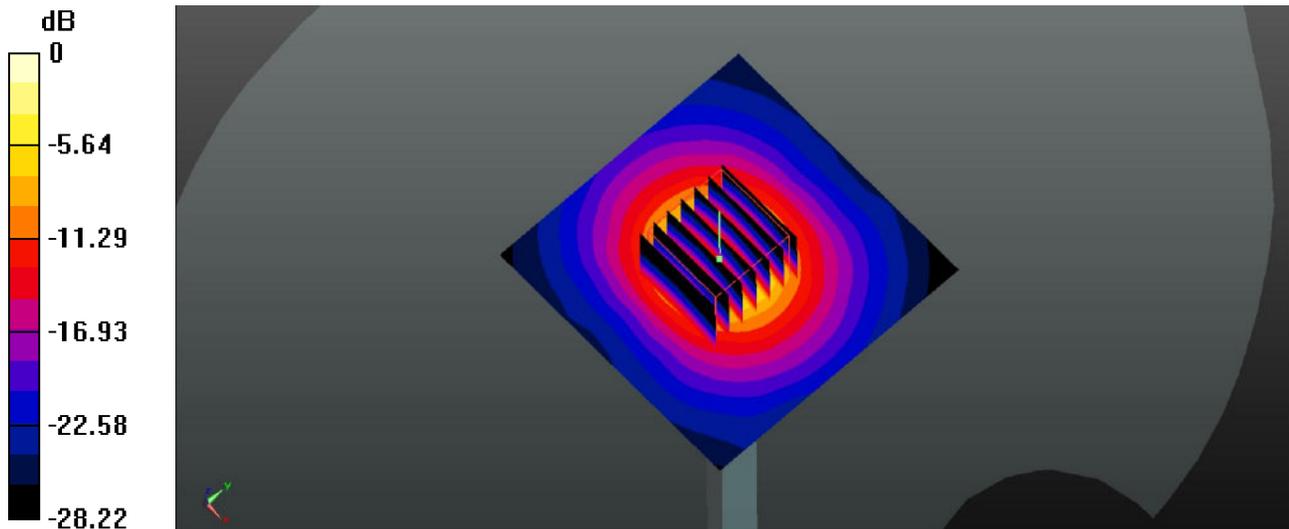
**Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.06 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 29.5 W/kg

**SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.08 W/kg**

Maximum value of SAR (measured) = 18.6 W/kg



0 dB = 18.6 W/kg

### System Check\_Body\_5750MHz\_20160722

#### DUT: Dipole 5GHz

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

Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 6.112$  S/m;  $\epsilon_r = 47.895$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>

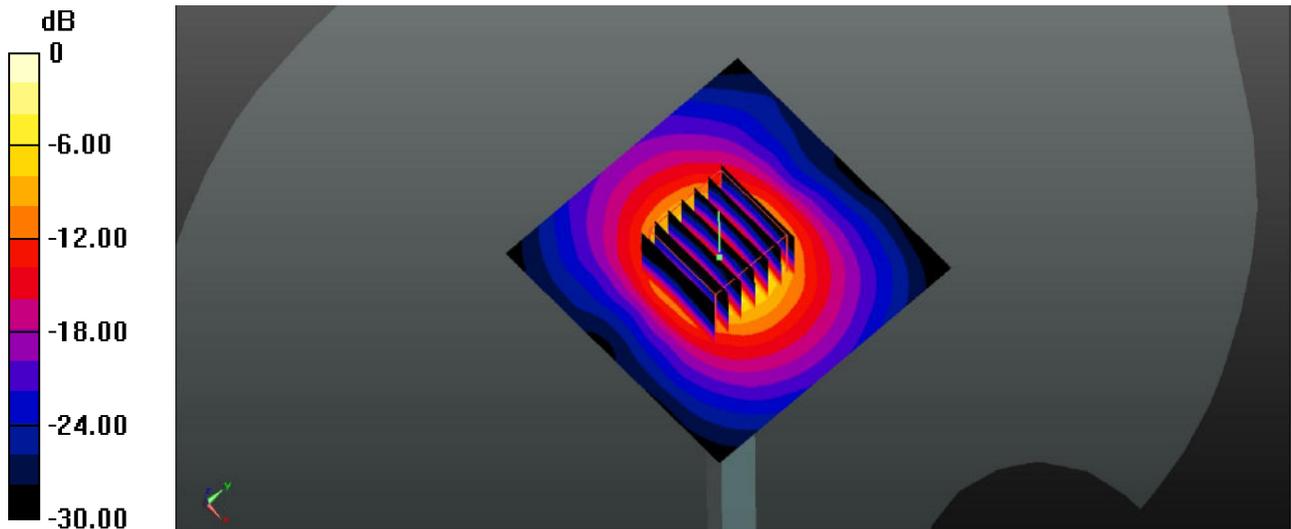
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(3.81, 3.81, 3.81); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=100mW/Area Scan (71x71x1):** Interpolated grid: dx=10mm, dy=10mm  
Maximum value of SAR (interpolated) = 19.2 W/kg

**Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 45.59 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 32.5 W/kg  
**SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.11 W/kg**  
Maximum value of SAR (measured) = 19.4 W/kg



0 dB = 19.4 W/kg



## **Appendix B. Plots of High SAR Measurement**

The plots are shown as follows.

### 01\_GSM850\_GPRS(2 Tx slots)\_Right Cheek\_0mm\_Ch251\_Top Ant

Communication System: UID 0, GPRS (GMSK 2 Tx slot) (0); Frequency: 848.8 MHz; Duty Cycle: 1:4.15

Medium: HSL\_835\_2016/07/19 Medium parameters used:  $f = 849$  MHz;  $\sigma = 0.913$  S/m;  $\epsilon_r = 41.583$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.15, 10.15, 10.15); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch251/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.35 W/kg

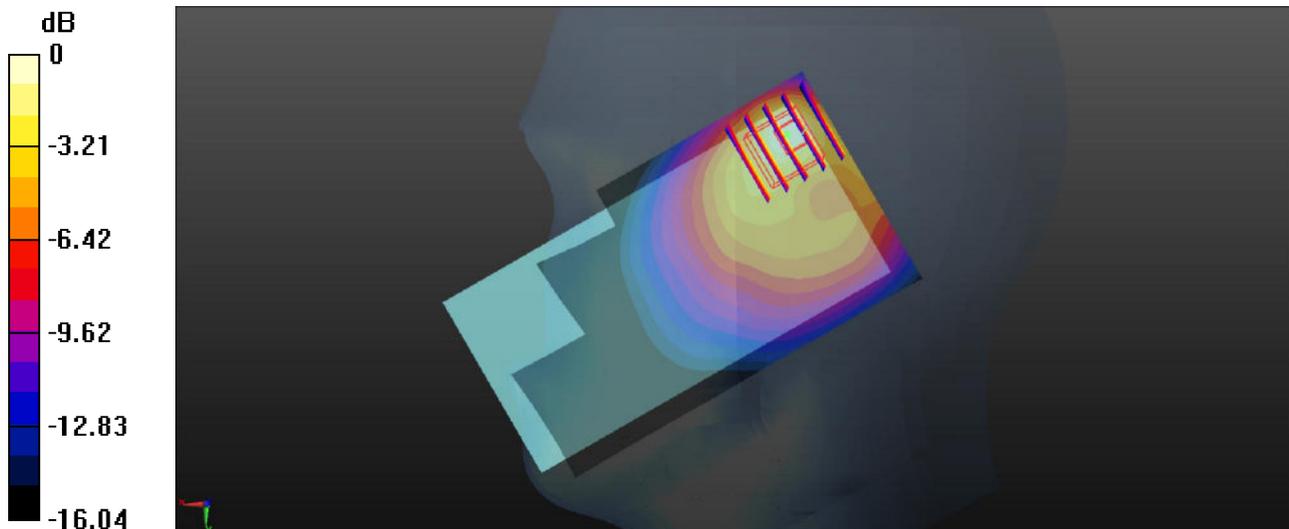
**Ch251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.27 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.57 W/kg

**SAR(1 g) = 0.693 W/kg; SAR(10 g) = 0.372 W/kg**

Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 1.13 W/kg

## 02\_GSM1900\_GPRS(4 Tx slots)\_Right Cheek\_0mm\_Ch810\_Top Ant

Communication System: UID 0, GPRS (GMSK 4 Tx slot) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: HSL\_1900\_2016/07/20 Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 41.238$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.7 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.37, 8.37, 8.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.31 W/kg

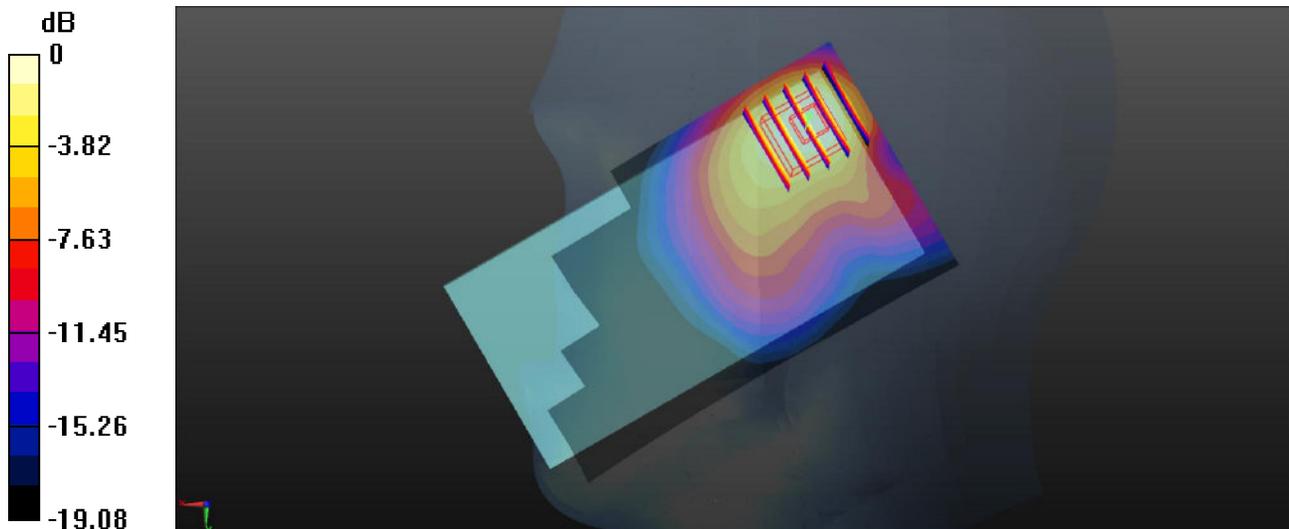
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.40 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.40 W/kg

**SAR(1 g) = 0.792 W/kg; SAR(10 g) = 0.431 W/kg**

Maximum value of SAR (measured) = 1.06 W/kg



0 dB = 1.06 W/kg

### 03\_WCDMA V\_RMC 12.2Kbps\_Right Cheek\_0mm\_Ch4182\_Top Ant

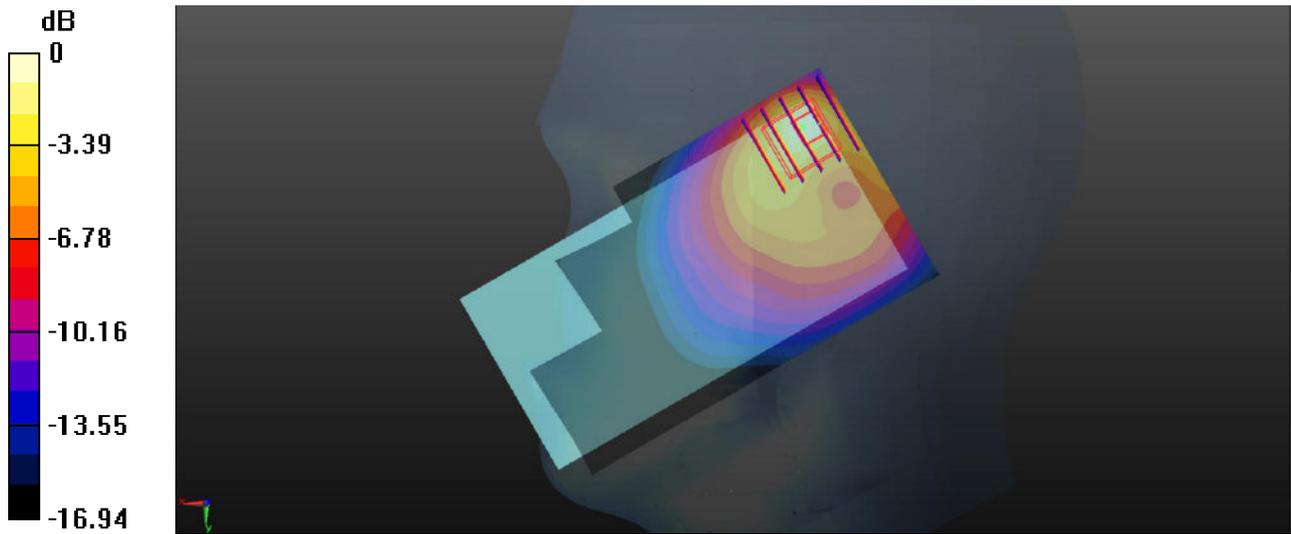
Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_2016/07/19 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.901$  S/m;  $\epsilon_r = 41.734$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.15, 10.15, 10.15); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch4182/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.51 W/kg

**Ch4182/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 15.75 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 1.96 W/kg  
**SAR(1 g) = 0.791 W/kg; SAR(10 g) = 0.412 W/kg**  
Maximum value of SAR (measured) = 1.42 W/kg



0 dB = 1.42 W/kg

### 04\_WCDMA IV\_RMC 12.2Kbps\_Right Cheek\_0mm\_Ch1413\_Top Ant

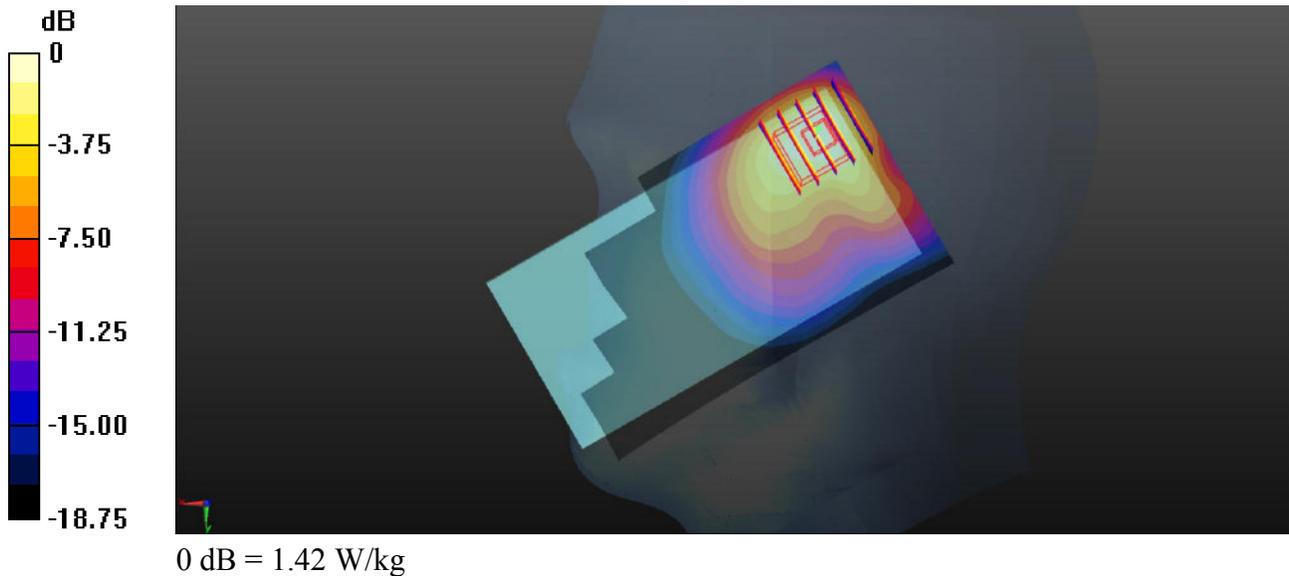
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750\_2016/07/20 Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.35$  S/m;  $\epsilon_r = 40.809$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.69, 8.69, 8.69); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1413/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.73 W/kg

**Ch1413/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.57 V/m; Power Drift = -0.10 dB  
Peak SAR (extrapolated) = 1.81 W/kg  
**SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.584 W/kg**  
Maximum value of SAR (measured) = 1.42 W/kg



### 05\_WCDMA II\_RMC 12.2Kbps\_Right Cheek\_0mm\_Ch9262\_Top Ant

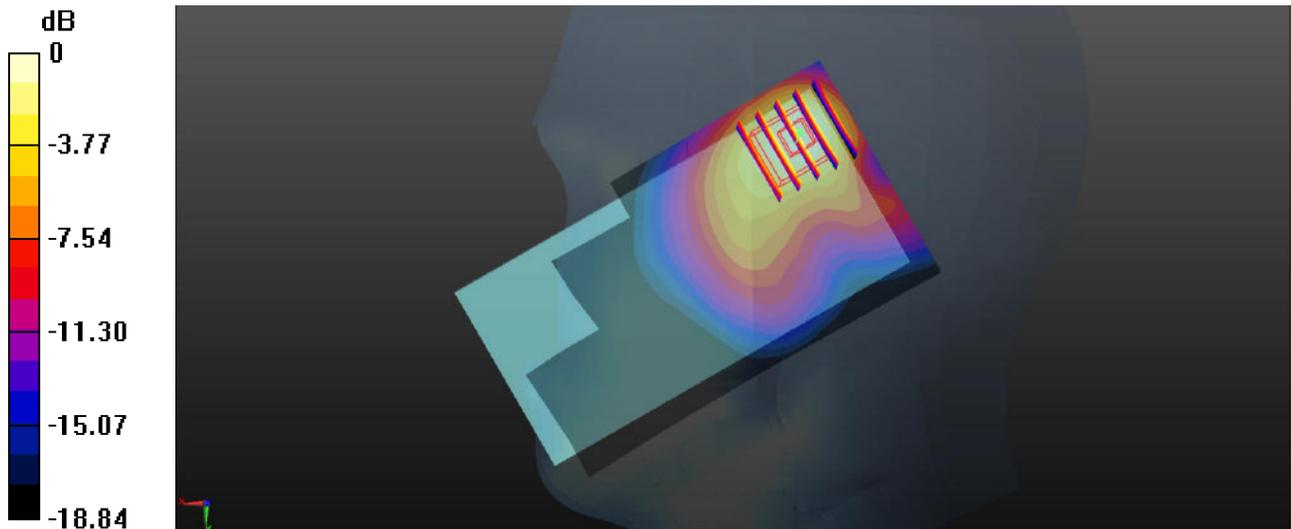
Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900\_2016/07/20 Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.372$  S/m;  $\epsilon_r = 41.492$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.7 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.37, 8.37, 8.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch9262/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.42 W/kg

**Ch9262/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 11.92 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 1.39 W/kg  
**SAR(1 g) = 0.807 W/kg; SAR(10 g) = 0.446 W/kg**  
Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg

**06\_CDMA2000 BC10\_1xRTT RC3 SO55\_Right Cheek\_0mm\_Ch476\_Top Ant**

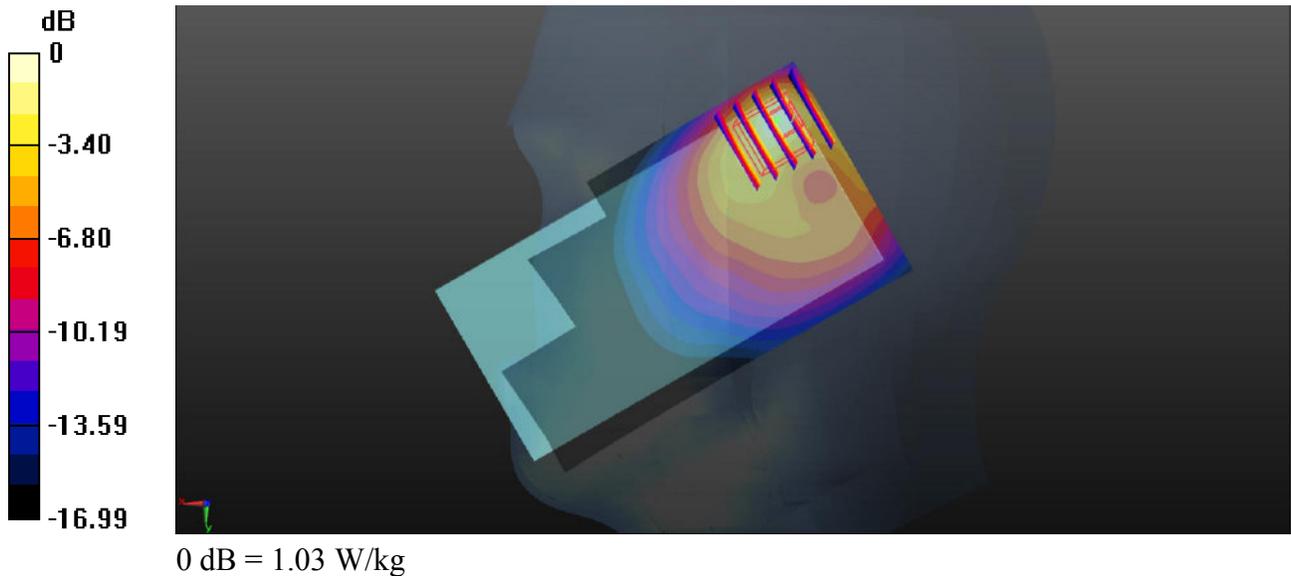
Communication System: UID 0, CDMA2000 (0); Frequency: 817.9 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_2016/07/19 Medium parameters used:  $f = 817.9$  MHz;  $\sigma = 0.883$  S/m;  $\epsilon_r = 41.972$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.15, 10.15, 10.15); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch476/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.13 W/kg

**Ch476/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 13.02 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 1.44 W/kg  
**SAR(1 g) = 0.581 W/kg; SAR(10 g) = 0.305 W/kg**  
Maximum value of SAR (measured) = 1.03 W/kg



**07\_CDMA2000 BC0\_1xRTT RC3 SO55\_Right Cheek\_0mm\_Ch1013\_Top Ant**

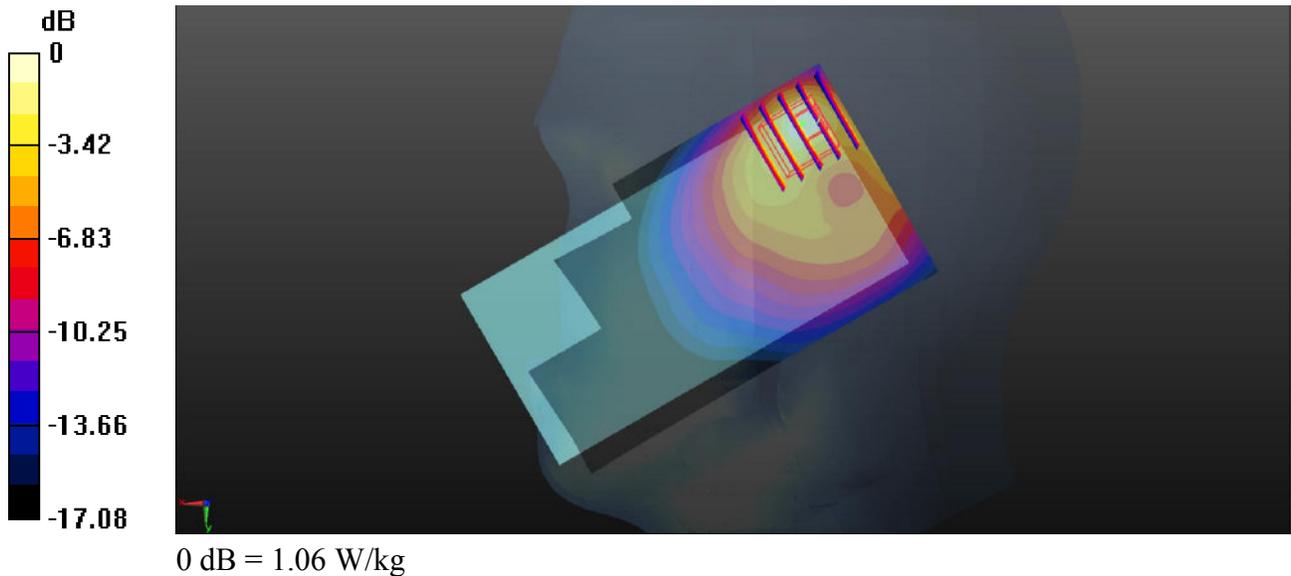
Communication System: UID 0, CDMA2000 (0); Frequency: 824.7 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_2016/07/19 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.89$  S/m;  $\epsilon_r = 41.88$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.15, 10.15, 10.15); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1013/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.15 W/kg

**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 13.05 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 1.48 W/kg  
**SAR(1 g) = 0.594 W/kg; SAR(10 g) = 0.312 W/kg**  
Maximum value of SAR (measured) = 1.06 W/kg



**08\_CDMA2000 BC1\_1xRTT RC3 SO55\_Right Cheek\_0mm\_Ch1175\_Top Ant**

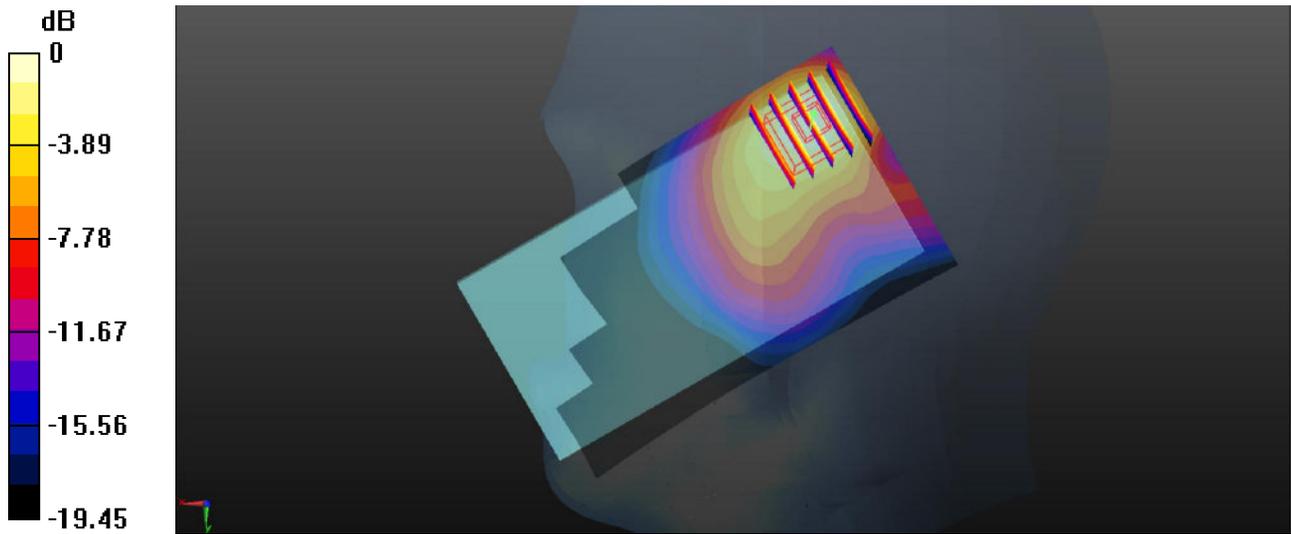
Communication System: UID 0, CDMA2000 (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900\_2016/07/20 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 41.242$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.7 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.37, 8.37, 8.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1175/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.91 W/kg

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 12.59 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 1.96 W/kg  
**SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.608 W/kg**  
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg

**09\_LTE Band 12\_10M\_QPSK\_1RB\_0offset\_Right Cheek\_0mm\_Ch23095\_Top Ant**

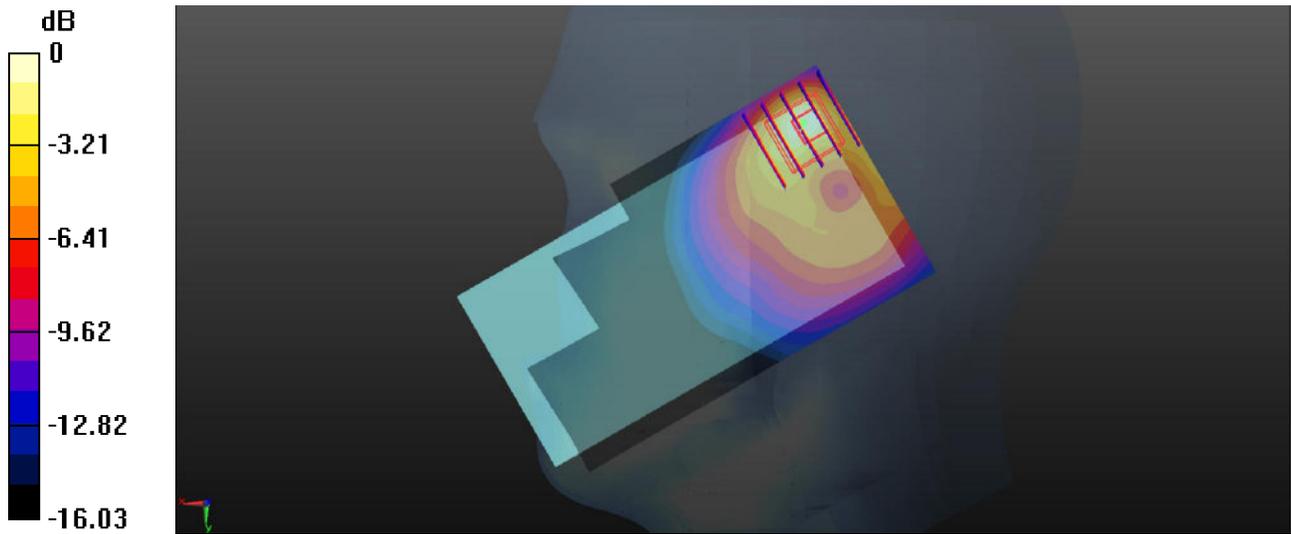
Communication System: UID 0, FDD-LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_750\_2016/07/14 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.854$  S/m;  $\epsilon_r = 42.573$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.72, 10.72, 10.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23095/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.893 W/kg

**Ch23095/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 11.08 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 1.14 W/kg  
**SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.239 W/kg**  
Maximum value of SAR (measured) = 0.816 W/kg



0 dB = 0.816 W/kg

**10\_LTE Band 13\_10M\_QPSK\_1RB\_0offset\_Right Cheek\_0mm\_Ch23230\_Top Ant**

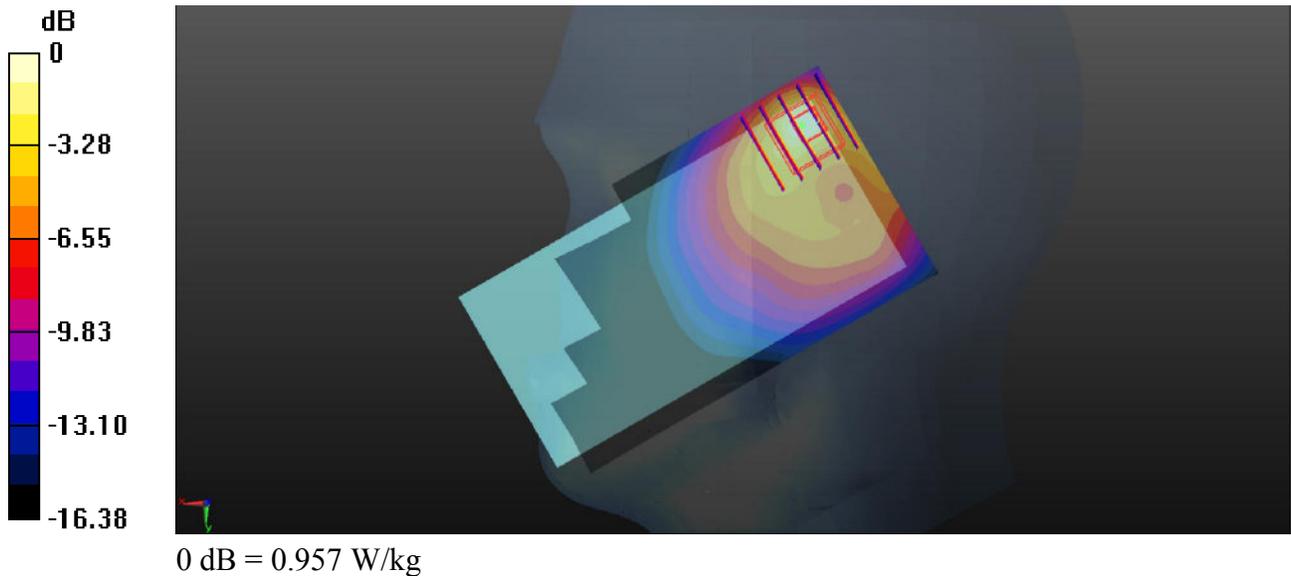
Communication System: UID 0, FDD-LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1  
Medium: HSL\_750\_2016/07/14 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.922 \text{ S/m}$ ;  $\epsilon_r = 41.571$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.5 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.72, 10.72, 10.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23230/Area Scan (61x111x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (interpolated) =  $1.05 \text{ W/kg}$

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $13.17 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $1.32 \text{ W/kg}$   
**SAR(1 g) =  $0.538 \text{ W/kg}$ ; SAR(10 g) =  $0.274 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $0.957 \text{ W/kg}$



### 11\_LTE Band 26\_15M\_QPSK\_1RB\_0offset\_Right Cheek\_0mm\_Ch26865\_Top Ant

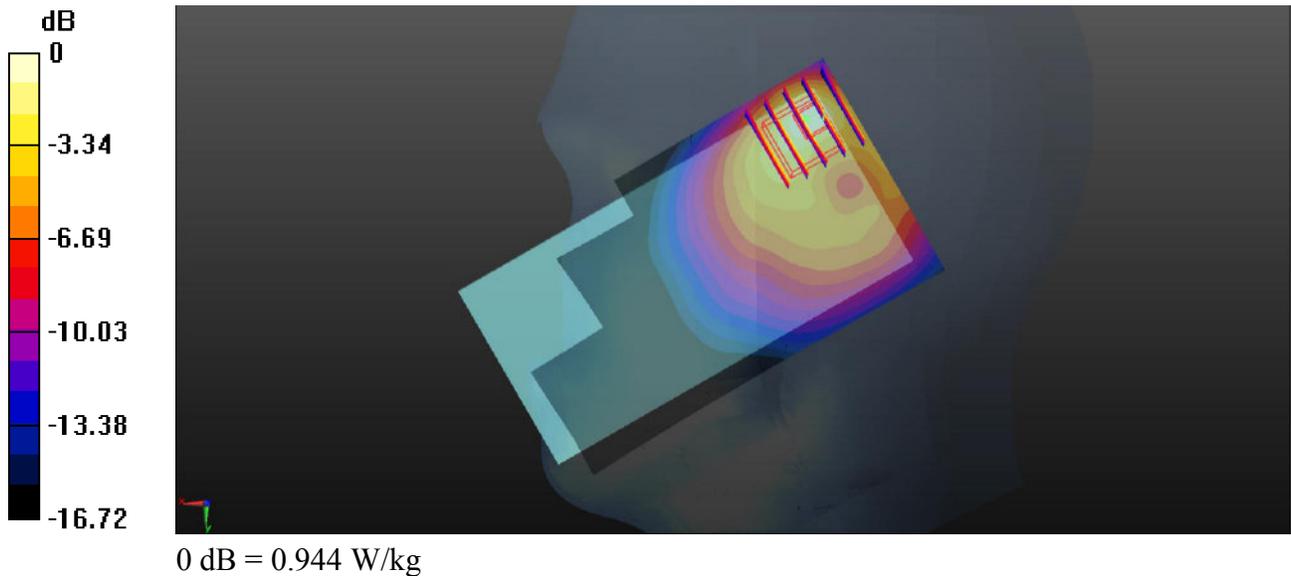
Communication System: UID 0, FDD-LTE (0); Frequency: 831.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_2016/07/19 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.896$  S/m;  $\epsilon_r = 41.792$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.15, 10.15, 10.15); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26865/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.07 W/kg

**Ch26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 12.81 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 1.31 W/kg  
**SAR(1 g) = 0.549 W/kg; SAR(10 g) = 0.294 W/kg**  
Maximum value of SAR (measured) = 0.944 W/kg



### 12\_LTE Band 4\_20M\_QPSK\_1RB\_0offset\_Right Cheek\_0mm\_Ch20175\_Top Ant

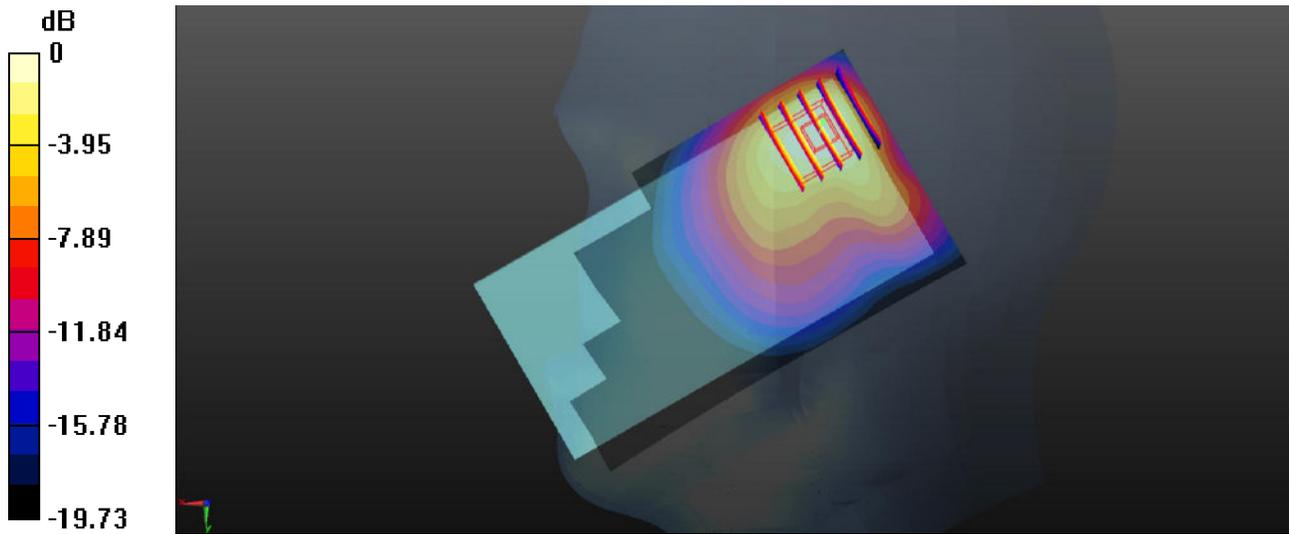
Communication System: UID 0, FDD-LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750\_2016/07/20 Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.349$  S/m;  $\epsilon_r = 40.812$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.69, 8.69, 8.69); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.87 W/kg

**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.11 V/m; Power Drift = -0.10 dB  
Peak SAR (extrapolated) = 1.90 W/kg  
**SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.602 W/kg**  
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg

### 13\_LTE Band 25\_20M\_QPSK\_1RB\_0offset\_Right Cheek\_0mm\_Ch26590\_Top Ant

Communication System: UID 0, FDD-LTE (0); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: HSL\_1900\_2016/07/20 Medium parameters used:  $f = 1905$  MHz;  $\sigma = 1.426$  S/m;  $\epsilon_r = 41.26$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.7 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.37, 8.37, 8.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26590/Area Scan (61x111x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.77 W/kg

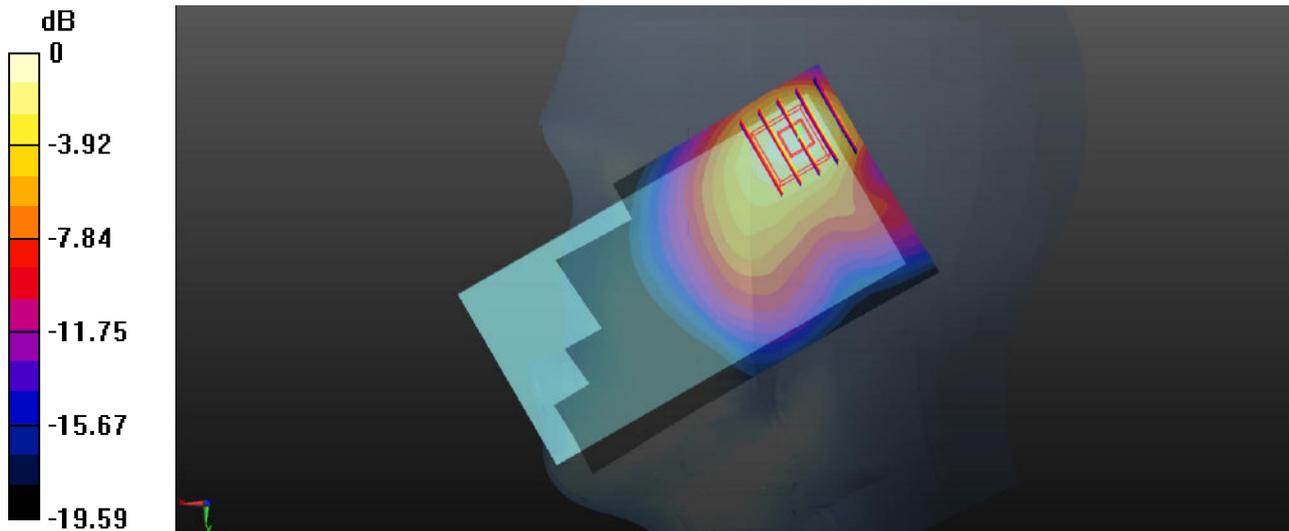
**Ch26590/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.69 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.78 W/kg

**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.555 W/kg**

Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg

### 14\_LTE Band 30\_10M\_QPSK\_1RB\_25offset\_Right Cheek\_0mm\_Ch27710

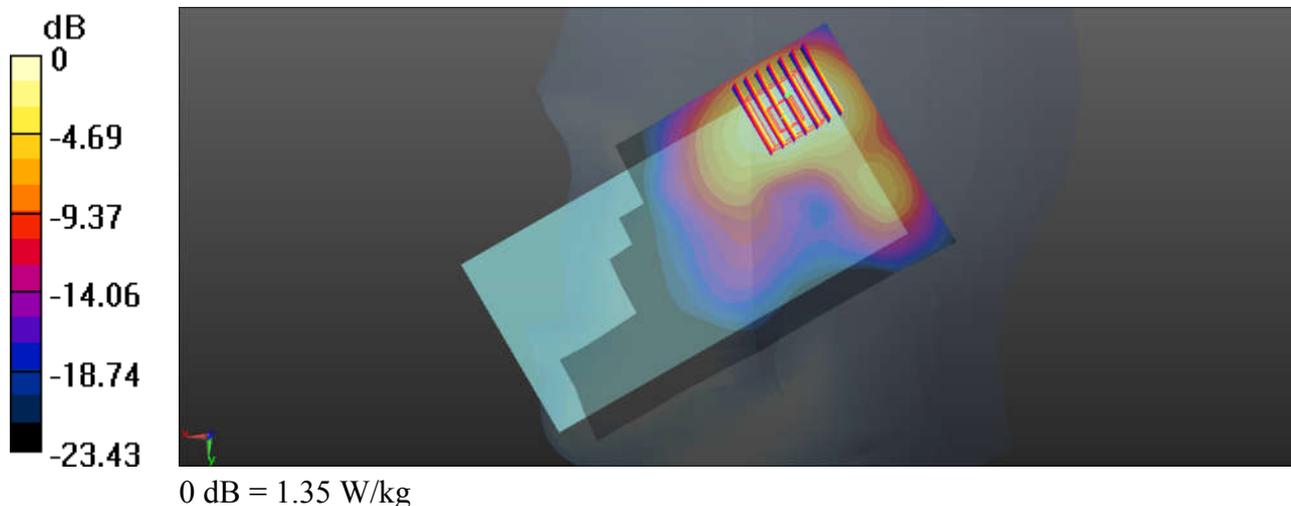
Communication System: UID 0, FDD\_LTE (0); Frequency: 2310 MHz; Duty Cycle: 1:1  
Medium: HSL\_2300\_2016/08/02 Medium parameters used:  $f = 2310 \text{ MHz}$ ;  $\sigma = 1.699 \text{ S/m}$ ;  $\epsilon_r = 38.749$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.7 \text{ }^\circ\text{C}$  ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.44, 7.44, 7.44); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch27710/Area Scan (81x151x1):** Interpolated grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$   
Maximum value of SAR (interpolated) =  $1.33 \text{ W/kg}$

**Ch27710/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $11.76 \text{ V/m}$ ; Power Drift =  $0.03 \text{ dB}$   
Peak SAR (extrapolated) =  $1.94 \text{ W/kg}$   
**SAR(1 g) =  $0.969 \text{ W/kg}$ ; SAR(10 g) =  $0.501 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $1.35 \text{ W/kg}$



### 15\_LTE Band 7\_20M\_QPSK\_1RB\_0offset\_Left Cheek\_0mm\_Ch21350\_Bottom Ant

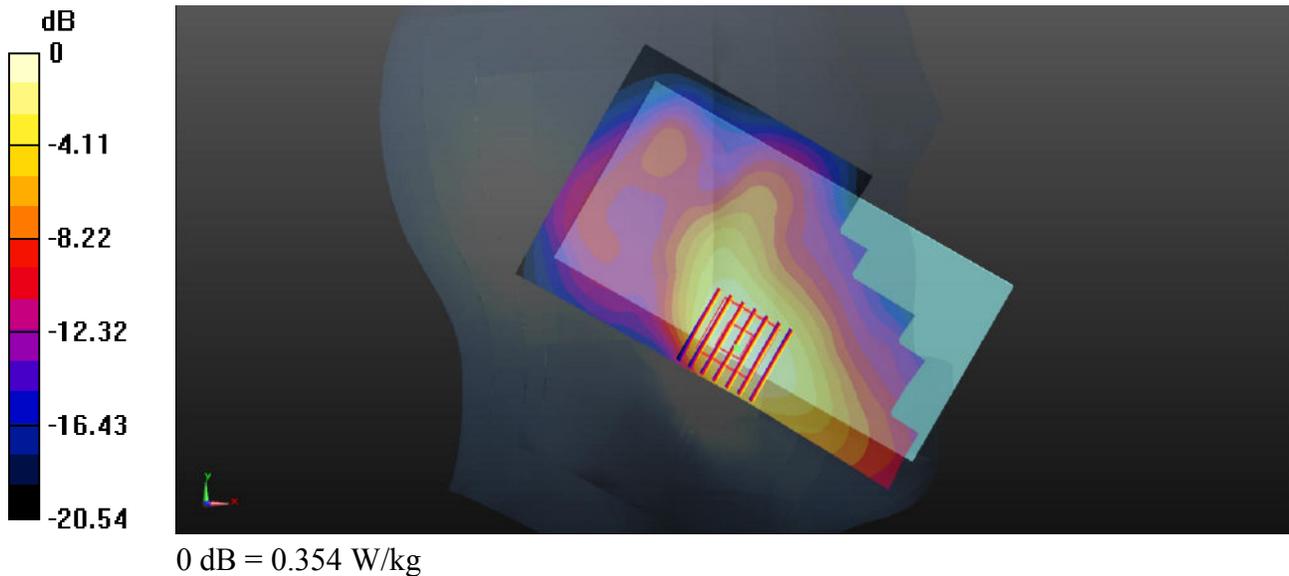
Communication System: UID 0, FDD-LTE (0); Frequency: 2560 MHz; Duty Cycle: 1:1  
Medium: HSL\_2600\_2016/07/02 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.008$  S/m;  $\epsilon_r = 38.536$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch21350/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.376 W/kg

**Ch21350/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 3.475 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 0.446 W/kg  
**SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.141 W/kg**  
Maximum value of SAR (measured) = 0.354 W/kg



**16\_LTE Band 41\_20M\_QPSK\_1RB\_0offset\_Left Cheek\_0mm\_Ch40185\_Bottom Ant**

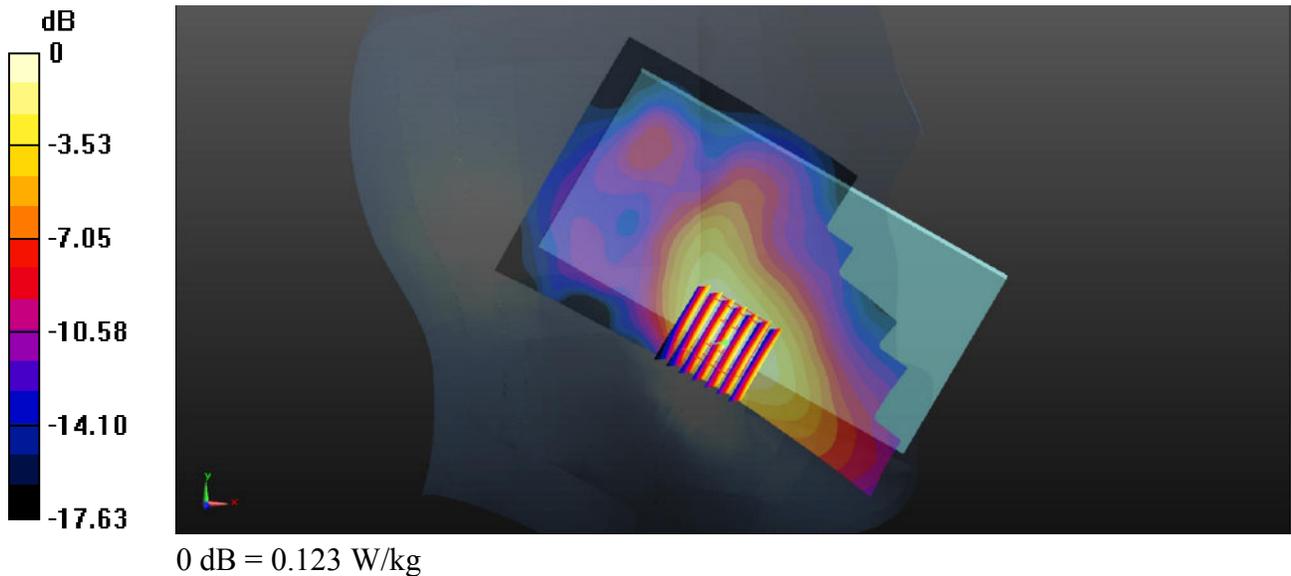
Communication System: UID 0, TDD-LTE (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.59  
Medium: HSL\_2600\_2016/07/02 Medium parameters used:  $f = 2549.5$  MHz;  $\sigma = 1.996$  S/m;  $\epsilon_r = 38.575$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch40185/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.128 W/kg

**Ch40185/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 2.182 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 0.157 W/kg  
**SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.050 W/kg**  
Maximum value of SAR (measured) = 0.123 W/kg



### 17\_WLAN2.4GHz\_802.11b 1Mbps\_Left Cheek\_0mm\_Ch11\_Ant 1

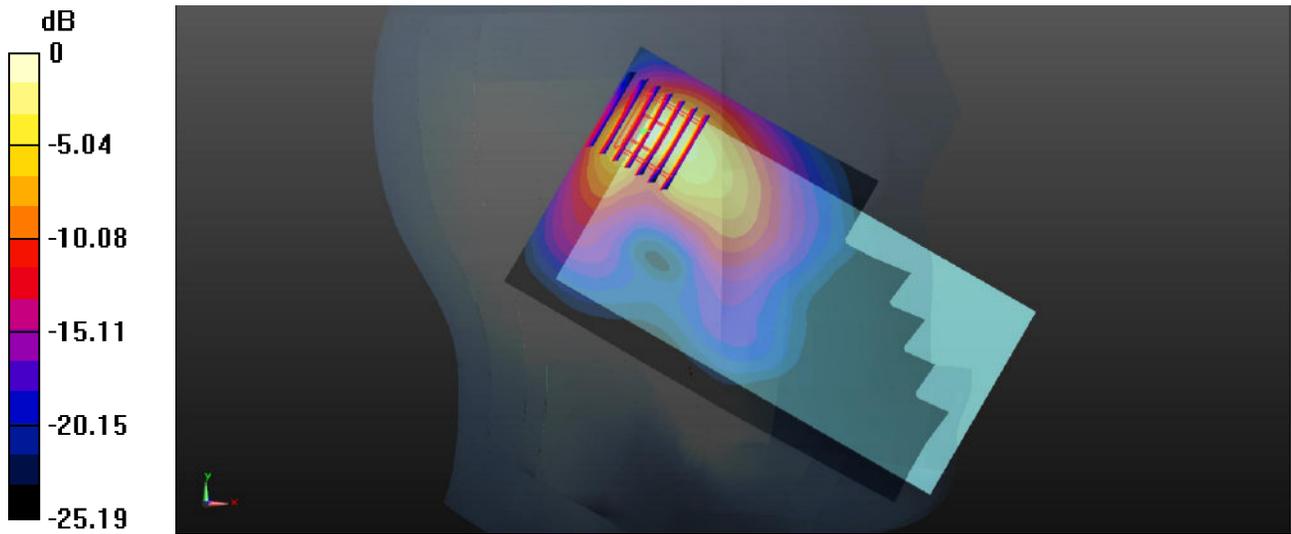
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: HSL\_2450\_2016/07/21 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 37.621$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.49, 7.49, 7.49); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 1.49 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 7.702 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 2.41 W/kg  
**SAR(1 g) = 0.883 W/kg; SAR(10 g) = 0.353 W/kg**  
Maximum value of SAR (measured) = 1.71 W/kg



0 dB = 1.71 W/kg

### 18\_WLAN2.4GHz\_802.11b 1Mbps\_Right Cheek\_0mm\_Ch11\_Ant 2

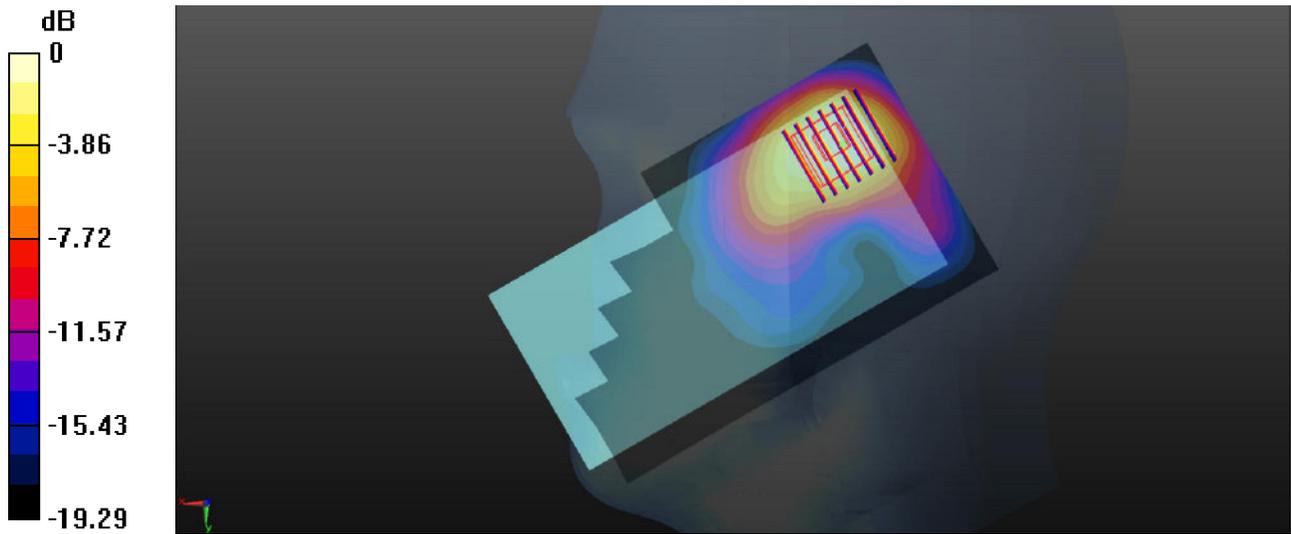
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: HSL\_2450\_2016/07/21 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 37.621$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.49, 7.49, 7.49); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.312 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 3.499 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 0.400 W/kg  
**SAR(1 g) = 0.180 W/kg; SAR(10 g) = 0.097 W/kg**  
Maximum value of SAR (measured) = 0.284 W/kg



### 19\_WLAN2.4GHz\_802.11b 1Mbps\_Left Cheek\_0mm\_Ch11\_Ant 1+2

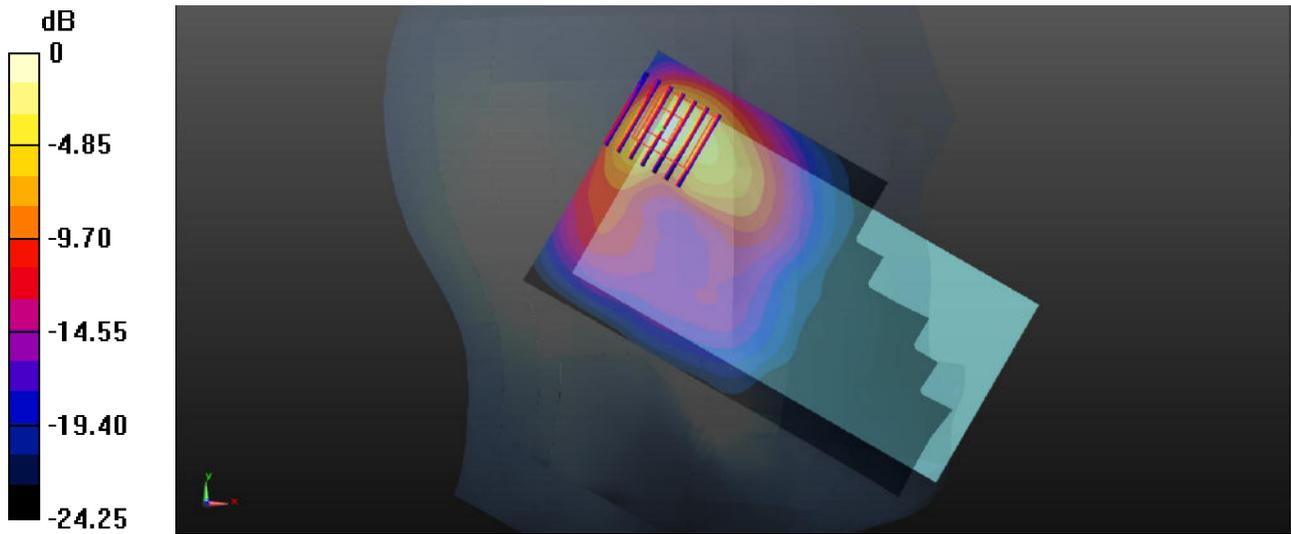
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.009  
Medium: HSL\_2450\_2016/07/21 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 37.621$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.49, 7.49, 7.49); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.789 W/kg

**Ch11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 4.738 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 1.00 W/kg  
**SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.143 W/kg**  
Maximum value of SAR (measured) = 0.748 W/kg



0 dB = 0.748 W/kg

## 20\_WLAN5.2GHz\_802.11a 6Mbps\_Left Cheek\_0mm\_Ch36\_Ant 1

Communication System: UID 0, 802.11a (0); Frequency: 5180 MHz; Duty Cycle: 1:1.042

Medium: HSL\_5G\_2016/07/22 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 4.51$  S/m;  $\epsilon_r = 36.77$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.11, 5.11, 5.11); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch36/Area Scan (101x171x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.05 W/kg

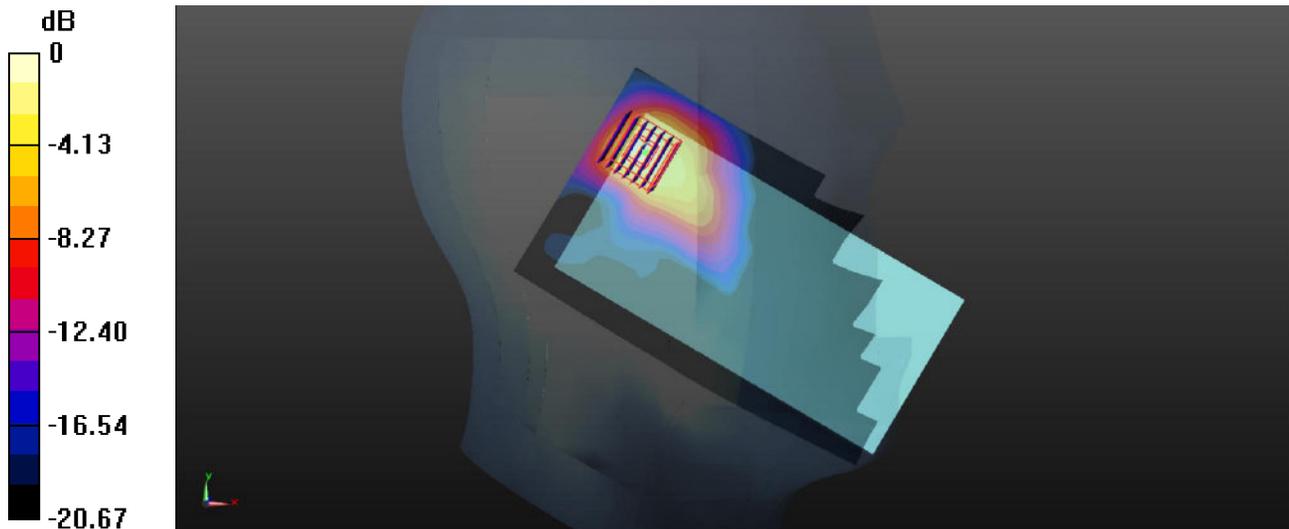
**Ch36/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.309 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.77 W/kg

**SAR(1 g) = 0.463 W/kg; SAR(10 g) = 0.163 W/kg**

Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 1.09 W/kg

### 21\_WLAN5.8GHz\_802.11a 6Mbps\_Left Cheek\_0mm\_Ch165\_Ant 1

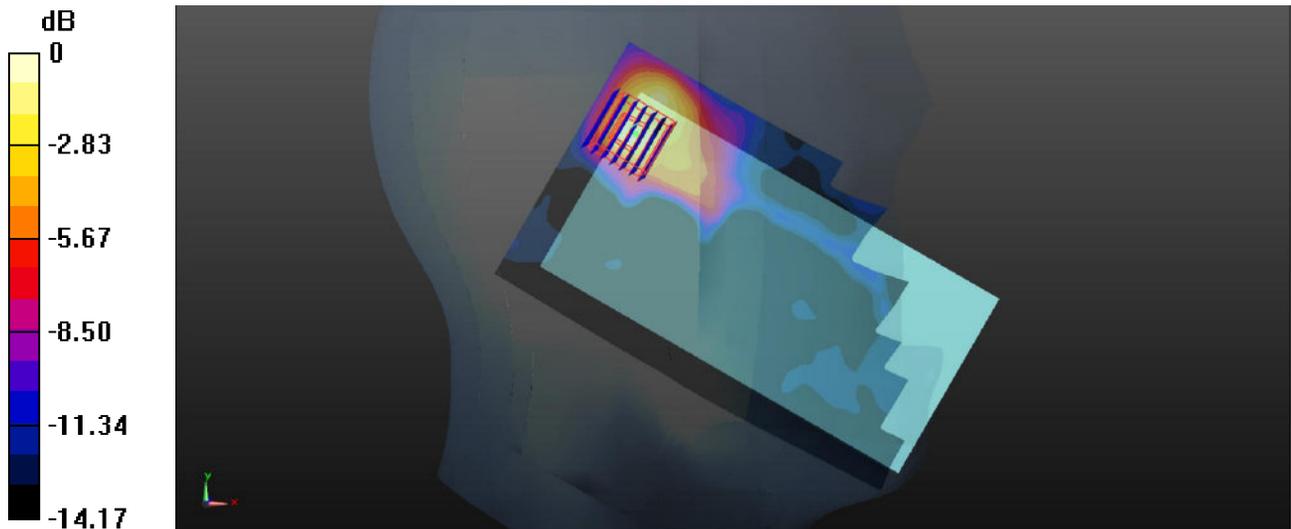
Communication System: UID 0, 802.11a (0); Frequency: 5825 MHz; Duty Cycle: 1:1.042  
Medium: HSL\_5G\_2016/07/22 Medium parameters used:  $f = 5825$  MHz;  $\sigma = 5.25$  S/m;  $\epsilon_r = 35.758$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.37, 4.37, 4.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch165/Area Scan (101x171x1):** Interpolated grid: dx=10mm, dy=10mm  
Maximum value of SAR (interpolated) = 0.184 W/kg

**Ch165/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 1.830 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 0.356 W/kg  
**SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.035 W/kg**  
Maximum value of SAR (measured) = 0.214 W/kg



0 dB = 0.214 W/kg

**22\_GSM850\_GPRS(2 Tx slots)\_Back\_10mm\_Ch189\_Top Ant**

Communication System: UID 0, GPRS (GMSK 2 Tx slot) (0); Frequency: 836.4 MHz; Duty Cycle: 1:4.15

Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.979$  S/m;  $\epsilon_r = 54.452$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch189/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.383 W/kg

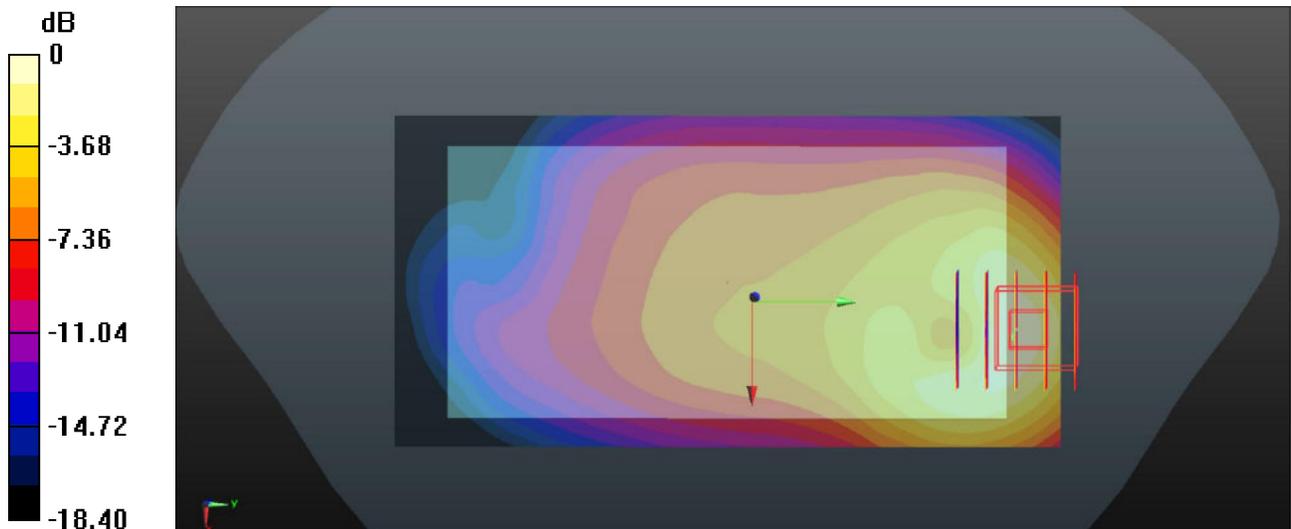
**Ch189/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.548 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.549 W/kg

**SAR(1 g) = 0.290 W/kg; SAR(10 g) = 0.158 W/kg**

Maximum value of SAR (measured) = 0.441 W/kg



0 dB = 0.441 W/kg

**23\_GSM1900\_GPRS(4 Tx slots)\_Back\_10mm\_Ch810\_Bottom Ant**

Communication System: UID 0, GPRS (GMSK 4 Tx slot) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.539$  S/m;  $\epsilon_r = 55.176$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.04 W/kg

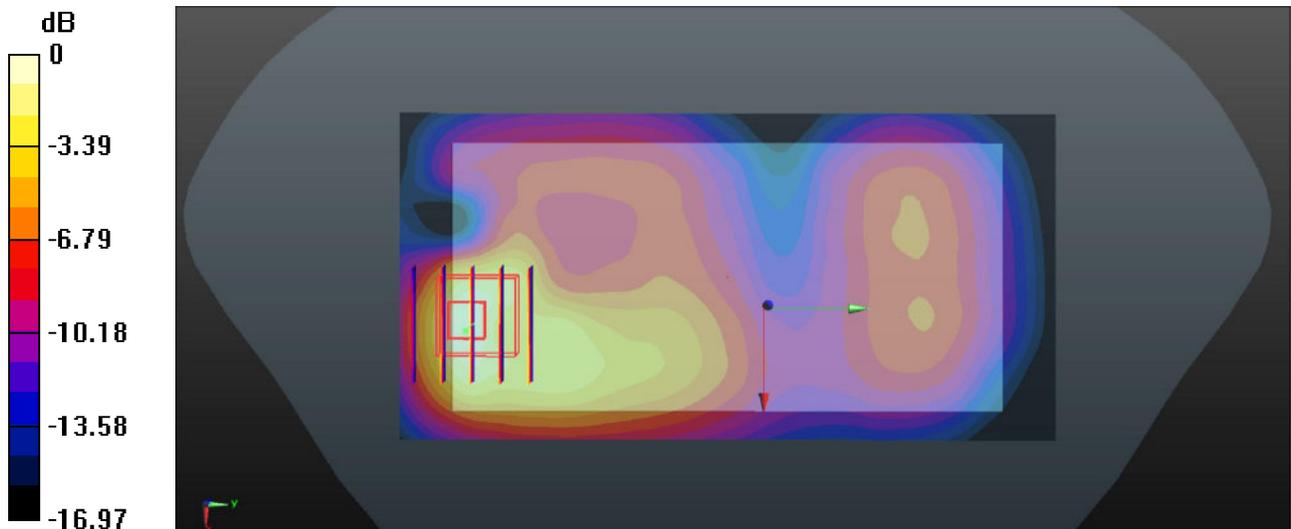
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.143 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.16 W/kg

**SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.308 W/kg**

Maximum value of SAR (measured) = 0.976 W/kg



0 dB = 0.976 W/kg

### 24\_WCDMA V\_RMC 12.2Kbps\_Back\_10mm\_Ch4132\_Bottom Ant

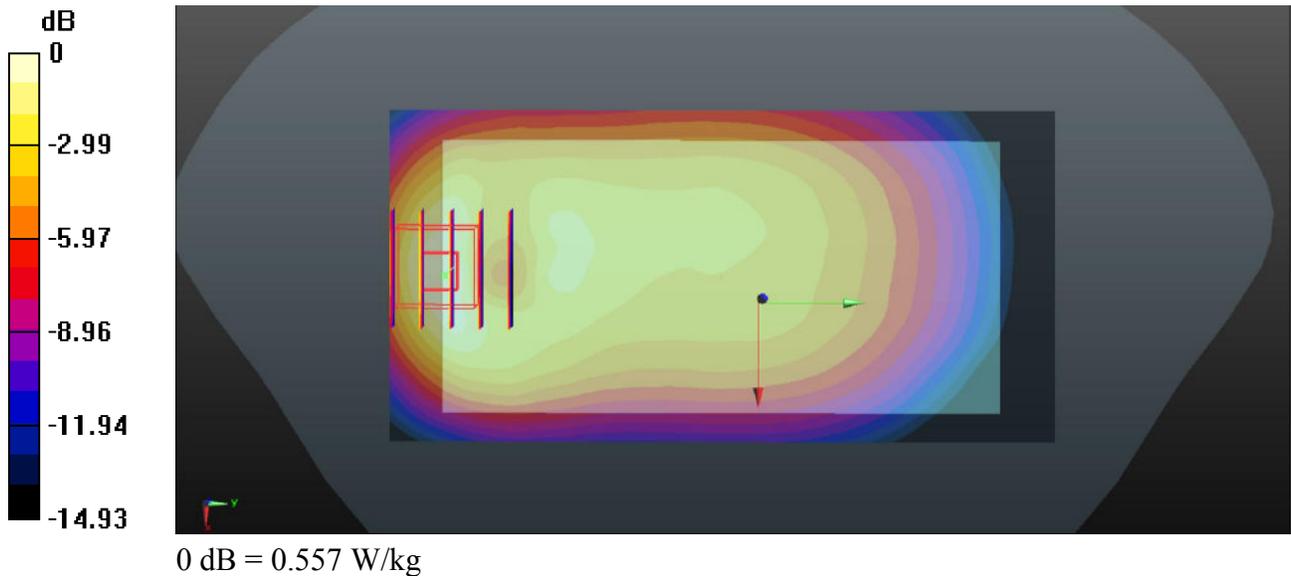
Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.967$  S/m;  $\epsilon_r = 54.561$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch4132/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.553 W/kg

**Ch4132/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 15.76 V/m; Power Drift = -0.08 dB  
Peak SAR (extrapolated) = 0.675 W/kg  
**SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.209 W/kg**  
Maximum value of SAR (measured) = 0.557 W/kg



### 25\_WCDMA IV\_RMC 12.2Kbps\_Bottom side\_10mm\_Ch1413\_Bottom Ant

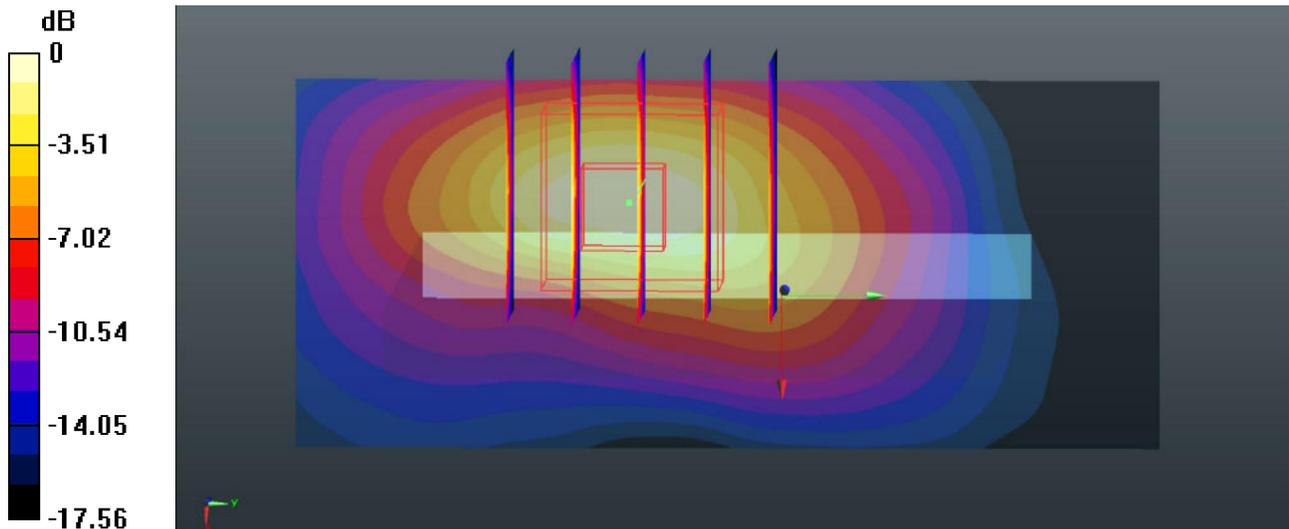
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1  
Medium: MSL\_1750\_2016/07/05 Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.499$  S/m;  $\epsilon_r = 53.179$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1413/Area Scan (31x71x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.947 W/kg

**Ch1413/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.48 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 1.23 W/kg  
**SAR(1 g) = 0.750 W/kg; SAR(10 g) = 0.334 W/kg**  
Maximum value of SAR (measured) = 0.977 W/kg



0 dB = 0.977 W/kg

## 26\_WCDMA II\_RMC 12.2Kbps\_Back\_10mm\_Ch9538\_Bottom Ant

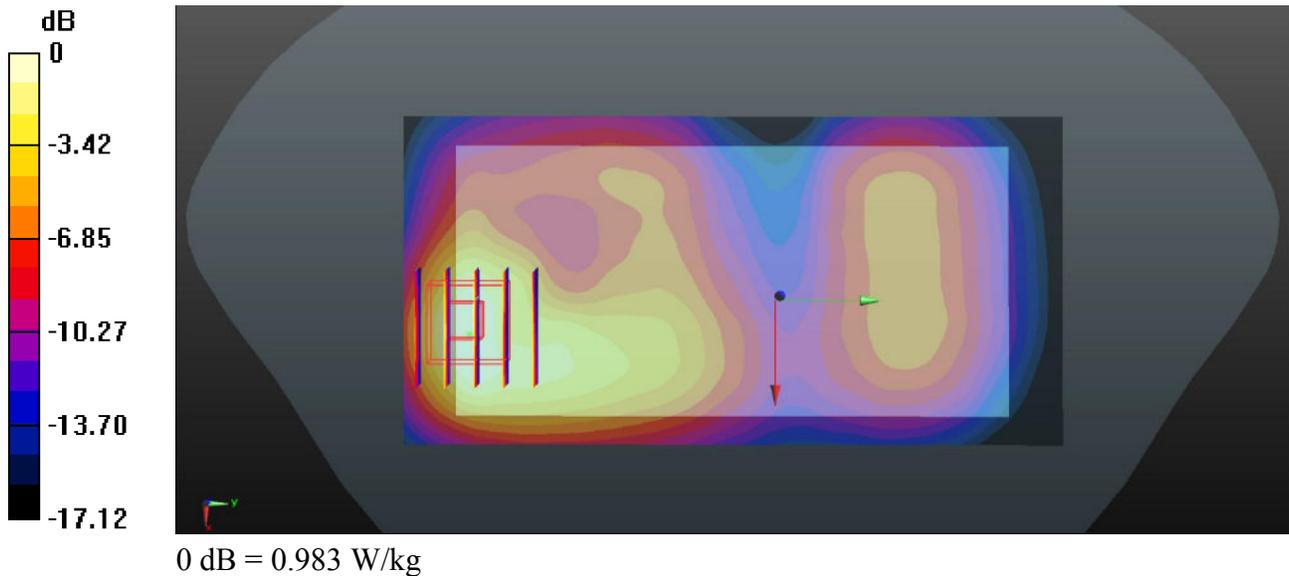
Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.536$  S/m;  $\epsilon_r = 55.192$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.4 °C

### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.22 W/kg

**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 7.754 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 1.25 W/kg  
**SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.333 W/kg**  
Maximum value of SAR (measured) = 0.983 W/kg



### 27\_CDMA2000 BC10\_RTAP 153.6K\_Right side\_10mm\_Ch476\_Bottom Ant

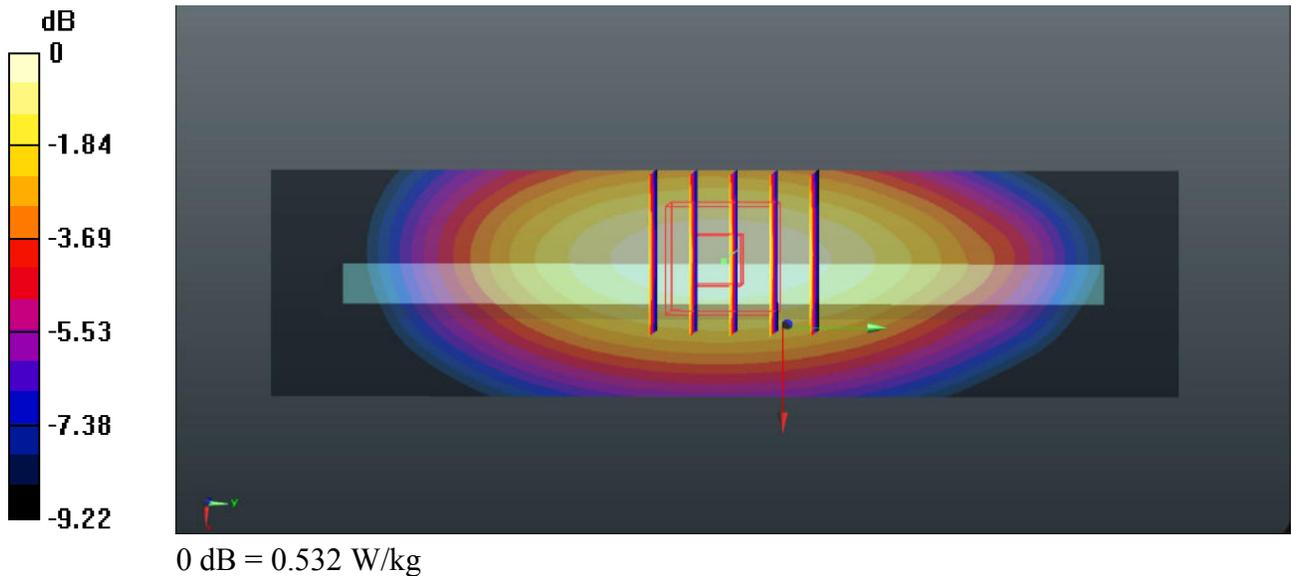
Communication System: UID 0, CDMA2000 (0); Frequency: 817.9 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 818 \text{ MHz}$ ;  $\sigma = 0.957 \text{ S/m}$ ;  $\epsilon_r = 54.681$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.5 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch476/Area Scan (31x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (interpolated) =  $0.534 \text{ W/kg}$

**Ch476/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $20.59 \text{ V/m}$ ; Power Drift =  $-0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $0.604 \text{ W/kg}$   
**SAR(1 g) =  $0.410 \text{ W/kg}$ ; SAR(10 g) =  $0.283 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $0.532 \text{ W/kg}$



### 28\_CDMA2000 BC0\_RTAP 153.6K\_Right side\_10mm\_Ch1013\_Bottom Ant

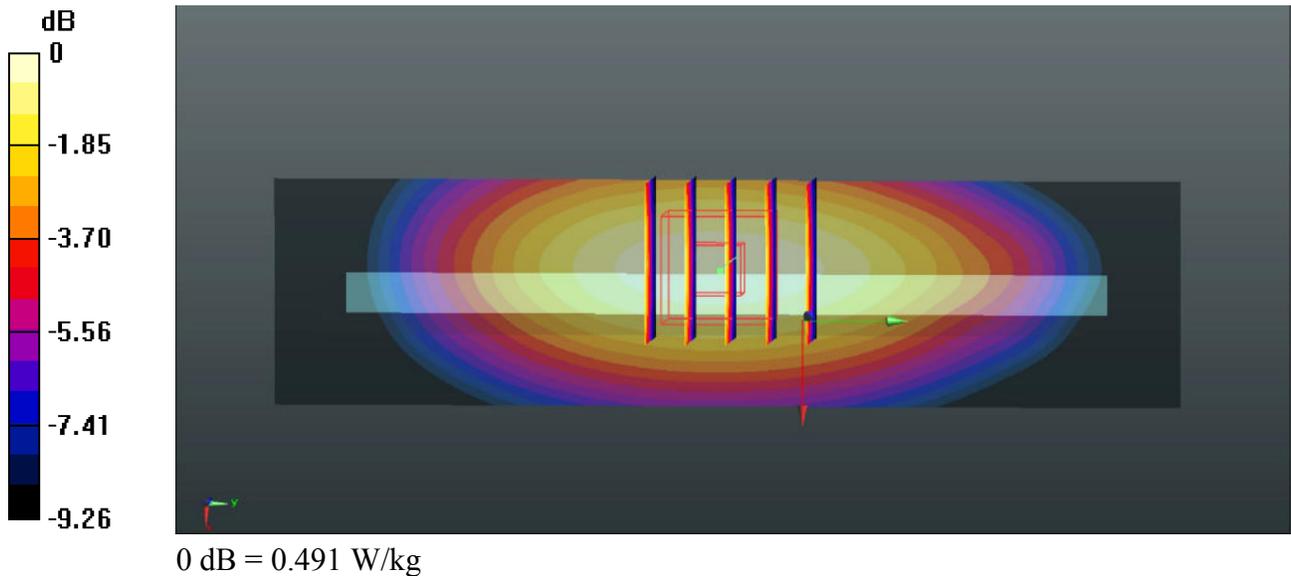
Communication System: UID 0, CDMA2000 (0); Frequency: 824.7 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 825 \text{ MHz}$ ;  $\sigma = 0.966 \text{ S/m}$ ;  $\epsilon_r = 54.574$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.5 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1013/Area Scan (31x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (interpolated) =  $0.482 \text{ W/kg}$

**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $19.56 \text{ V/m}$ ; Power Drift =  $-0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $0.556 \text{ W/kg}$   
**SAR(1 g) =  $0.374 \text{ W/kg}$ ; SAR(10 g) =  $0.258 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $0.491 \text{ W/kg}$



### 29\_CDMA2000 BC1\_RTAP153.6Kbps\_Back\_10mm\_Ch1175\_Bottom Ant

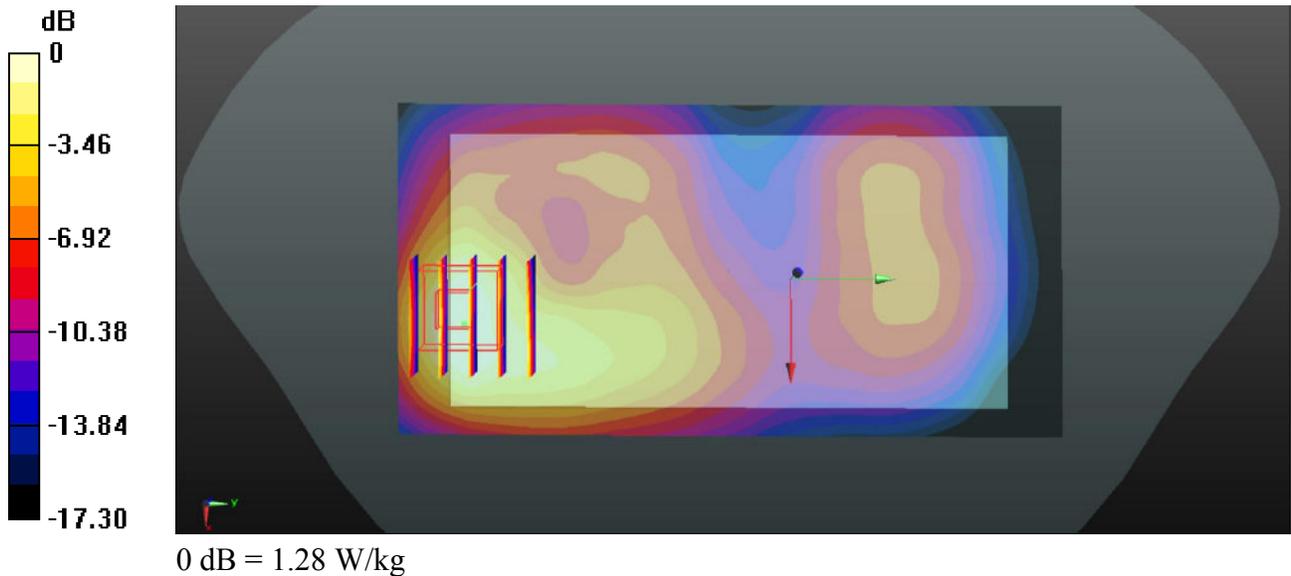
Communication System: UID 0, CDMA2000 (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.538$  S/m;  $\epsilon_r = 55.185$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1175/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.61 W/kg

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 8.716 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 1.70 W/kg  
**SAR(1 g) = 0.902 W/kg; SAR(10 g) = 0.464 W/kg**  
Maximum value of SAR (measured) = 1.28 W/kg



### 30\_LTE Band 12\_10M\_QPSK\_25RB\_0offset\_Back\_10mm\_Ch23095\_Bottom Ant

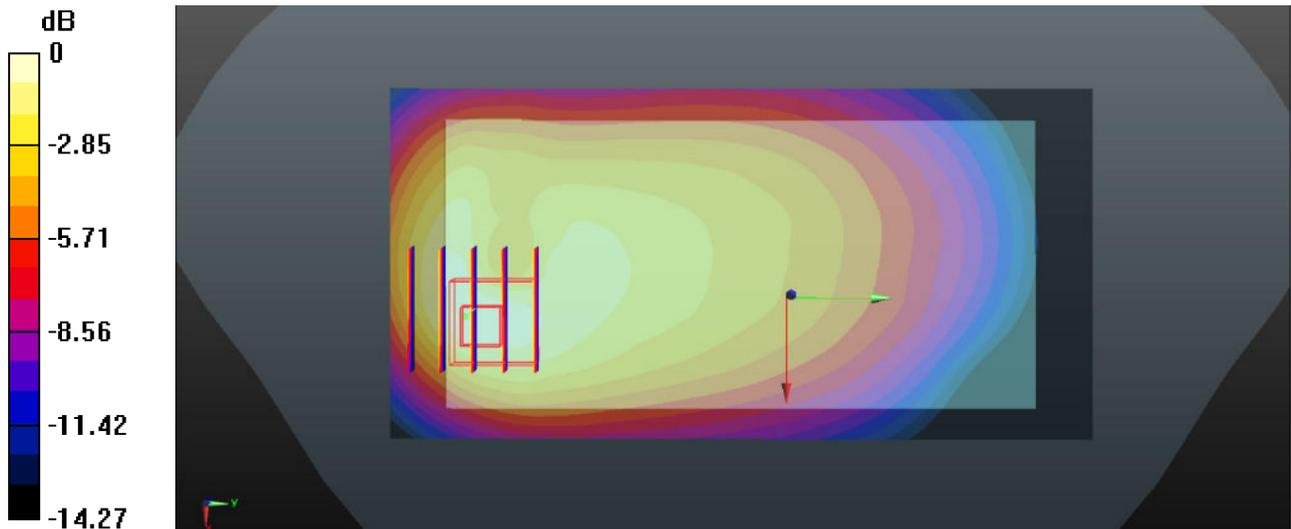
Communication System: UID 0, FDD-LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium: MSL\_750\_2016/07/19 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 55.5$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.59, 10.59, 10.59); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23095/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.311 W/kg

**Ch23095/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 11.82 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 0.391 W/kg  
**SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.116 W/kg**  
Maximum value of SAR (measured) = 0.311 W/kg



0 dB = 0.311 W/kg

### 31\_LTE Band 13\_10M\_QPSK\_1RB\_0offset\_Right side\_10mm\_Ch23230\_Bottom Ant

Communication System: UID 0, FDD-LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL\_750\_2016/07/19 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.995$  S/m;  $\epsilon_r = 54.712$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.59, 10.59, 10.59); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23230/Area Scan (31x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.569 W/kg

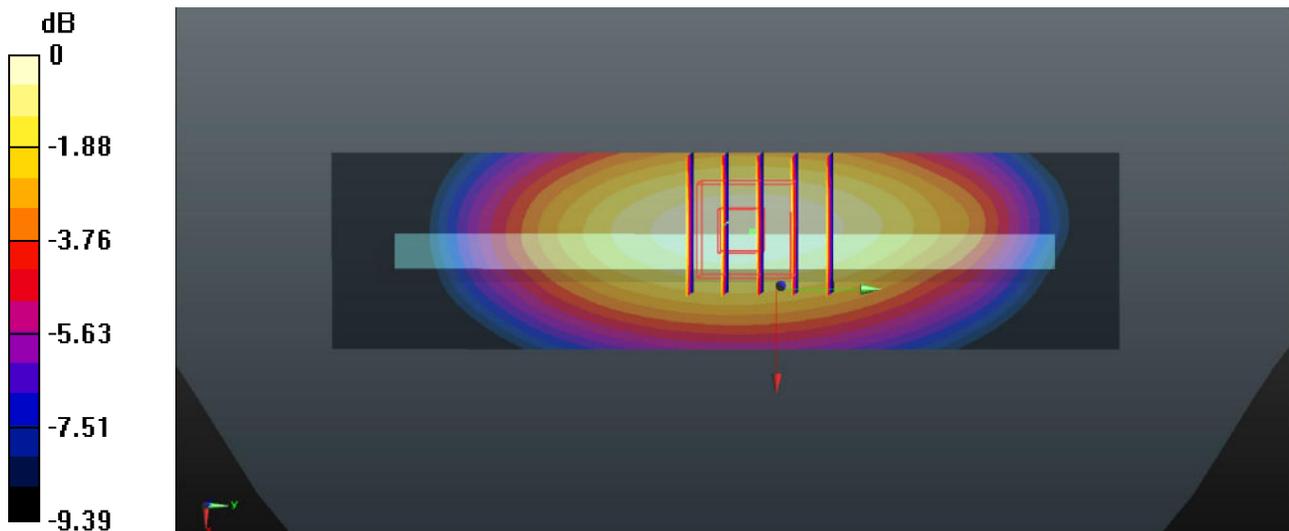
**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.78 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.649 W/kg

**SAR(1 g) = 0.437 W/kg; SAR(10 g) = 0.301 W/kg**

Maximum value of SAR (measured) = 0.571 W/kg



0 dB = 0.571 W/kg

### 32\_LTE Band 26\_15M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch26865\_Top Ant

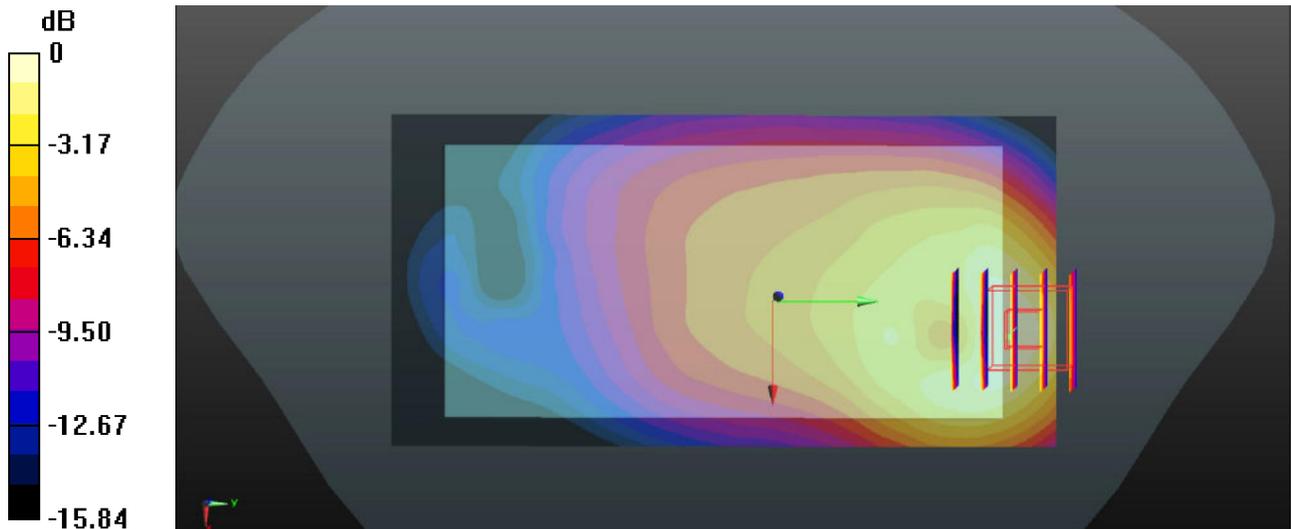
Communication System: UID 0, FDD-LTE (0); Frequency: 831.5 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.973$  S/m;  $\epsilon_r = 54.503$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26865/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.300 W/kg

**Ch26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 8.576 V/m; Power Drift = -0.06 dB  
Peak SAR (extrapolated) = 0.395 W/kg  
**SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.117 W/kg**  
Maximum value of SAR (measured) = 0.321 W/kg



0 dB = 0.321 W/kg

### 33\_LTE Band 4\_20M\_QPSK\_1RB\_0offset\_Bottom side\_10mm\_Ch20175\_Bottom Ant

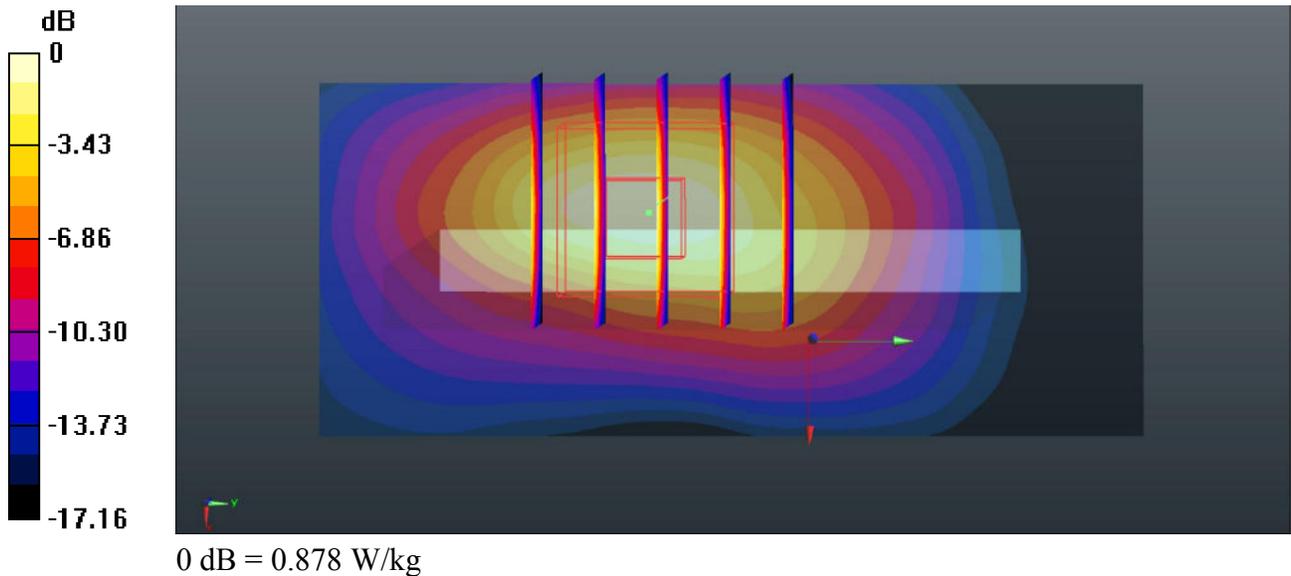
Communication System: UID 0, FDD-LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1  
Medium: MSL\_1750\_2016/07/05 Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.498$  S/m;  $\epsilon_r = 53.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (31x71x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.866 W/kg

**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.63 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 1.11 W/kg  
**SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.302 W/kg**  
Maximum value of SAR (measured) = 0.878 W/kg



**34\_LTE Band 25\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch26340\_Bottom Ant**

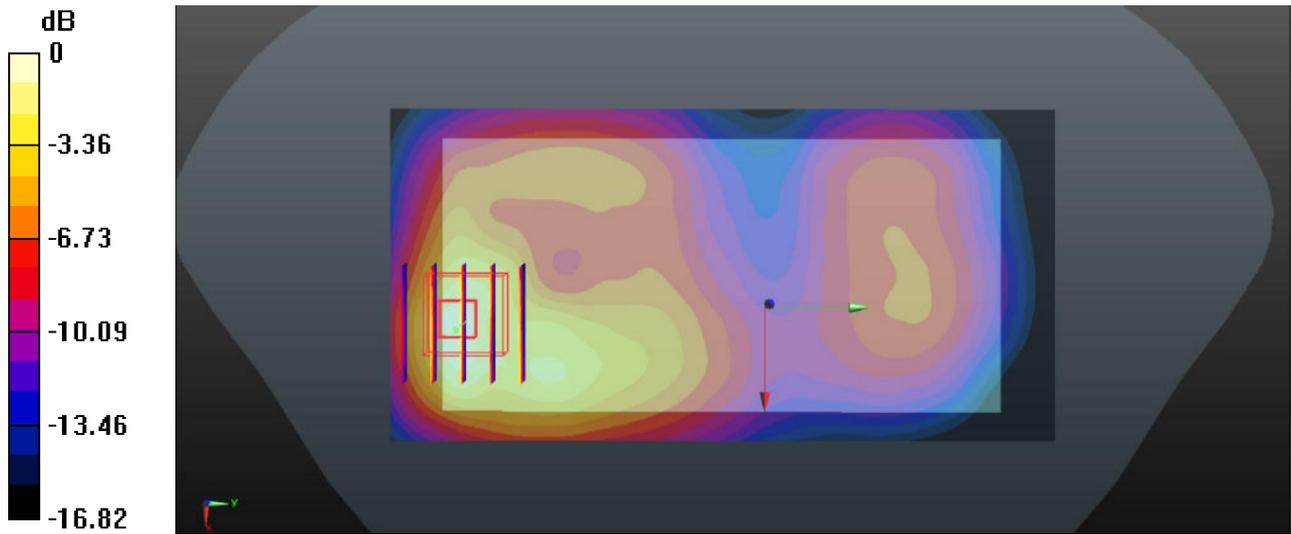
Communication System: UID 0, FDD-LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1  
 Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.508$  S/m;  $\epsilon_r = 55.364$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26340/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
 Maximum value of SAR (interpolated) = 1.15 W/kg

**Ch26340/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 8.232 V/m; Power Drift = -0.12 dB  
 Peak SAR (extrapolated) = 1.32 W/kg  
**SAR(1 g) = 0.689 W/kg; SAR(10 g) = 0.355 W/kg**  
 Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg

### 35\_LTE Band 30\_10M\_QPSK\_1RB\_25offset\_Back\_10mm\_Ch27710\_Bottom Ant

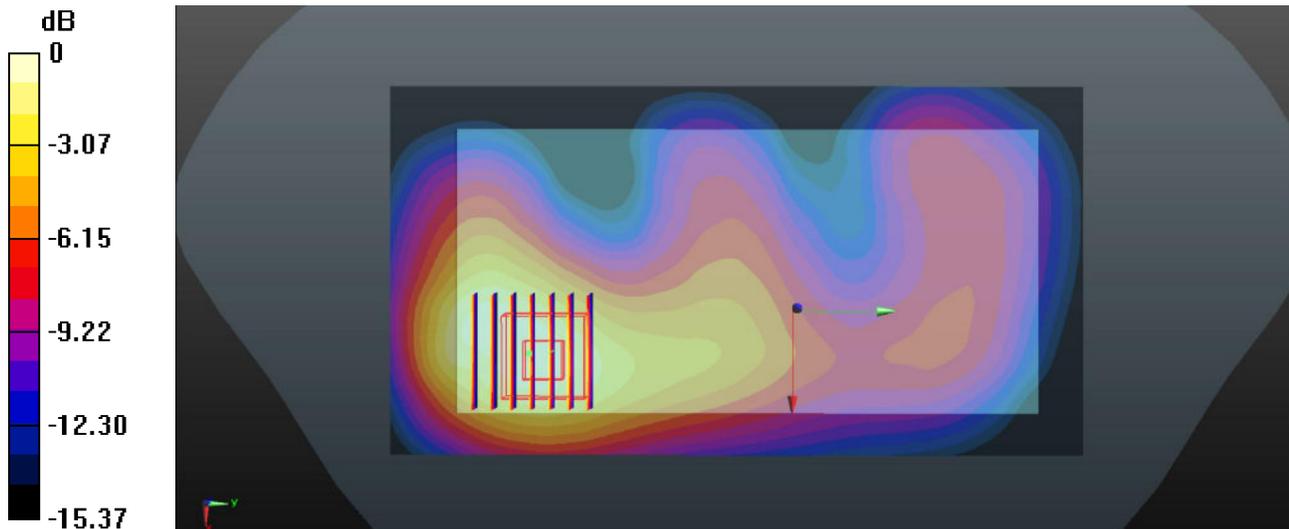
Communication System: UID 0, FDD-LTE (0); Frequency: 2310 MHz; Duty Cycle: 1:1  
Medium: MSL\_2300\_2016/07/02 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.782$  S/m;  $\epsilon_r = 53.246$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.72, 7.72, 7.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch27710/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.399 W/kg

**Ch27710/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 6.766 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 0.497 W/kg  
**SAR(1 g) = 0.296 W/kg; SAR(10 g) = 0.164 W/kg**  
Maximum value of SAR (measured) = 0.395 W/kg



0 dB = 0.395 W/kg

**36\_LTE Band 7\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch21350\_Bottom Ant**

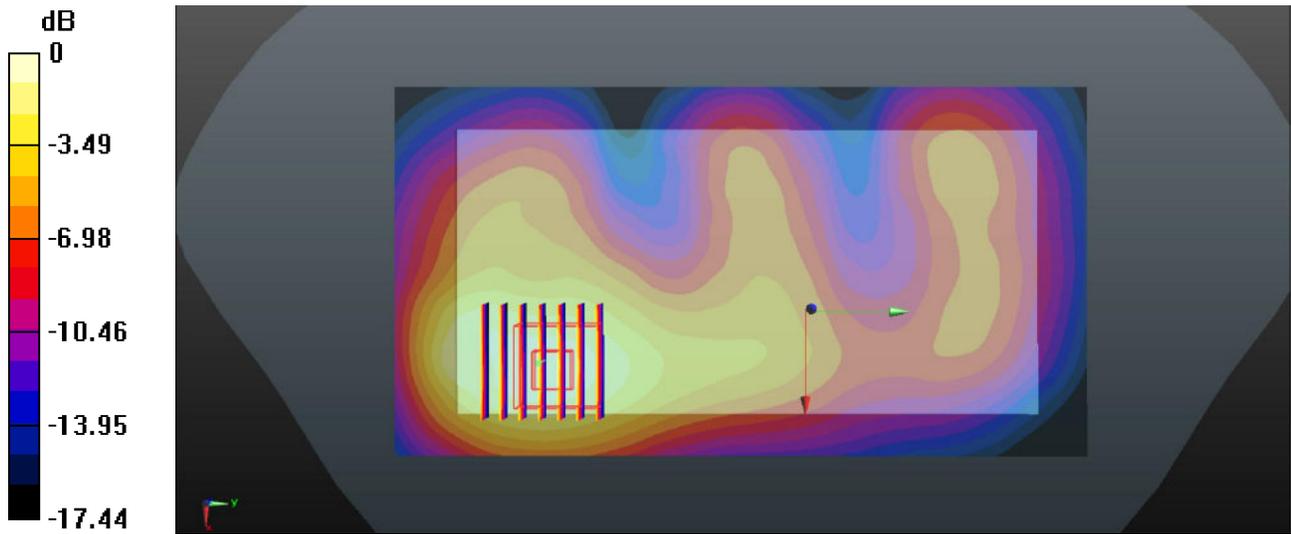
Communication System: UID 0, FDD-LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1  
 Medium: MSL\_2600\_2016/07/02 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.121$  S/m;  $\epsilon_r = 52.405$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.37, 7.37, 7.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch21350/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
 Maximum value of SAR (interpolated) = 0.403 W/kg

**Ch21350/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 6.157 V/m; Power Drift = -0.14 dB  
 Peak SAR (extrapolated) = 0.535 W/kg  
**SAR(1 g) = 0.296 W/kg; SAR(10 g) = 0.158 W/kg**  
 Maximum value of SAR (measured) = 0.408 W/kg



0 dB = 0.408 W/kg

**37\_LTE Band 41\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch40185\_Bottom Ant**

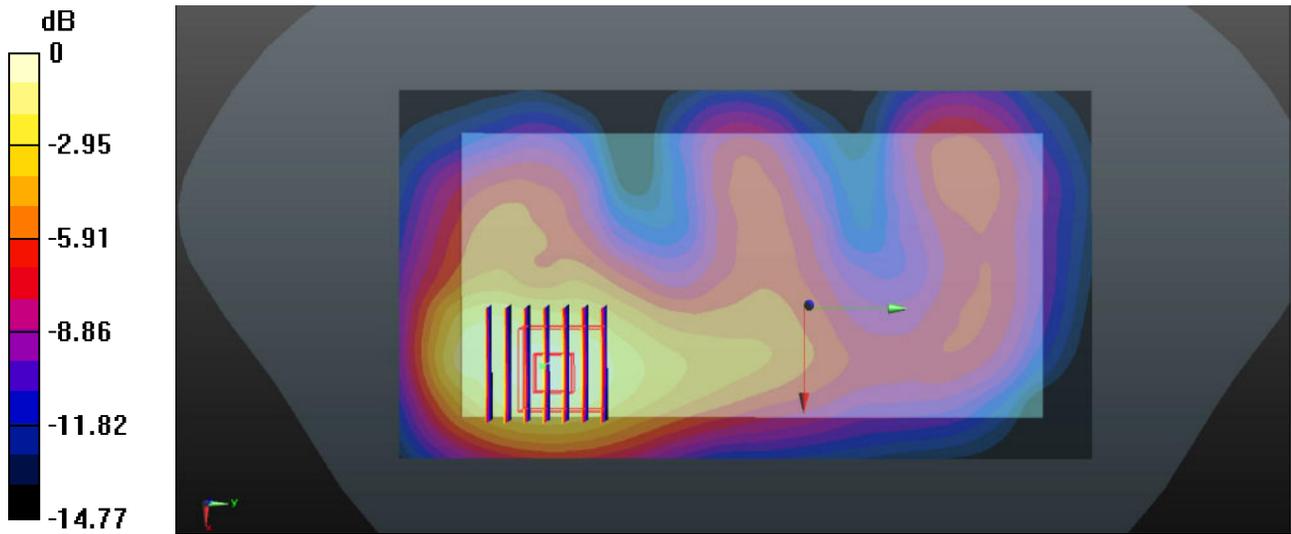
Communication System: UID 0, TDD-LTE (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.59  
 Medium: MSL\_2600\_2016/07/02 Medium parameters used:  $f = 2549.5$  MHz;  $\sigma = 2.106$  S/m;  $\epsilon_r = 52.446$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3935; ConvF(7.37, 7.37, 7.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch40185/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
 Maximum value of SAR (interpolated) = 0.125 W/kg

**Ch40185/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 3.707 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 0.175 W/kg  
**SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.053 W/kg**  
 Maximum value of SAR (measured) = 0.133 W/kg



0 dB = 0.133 W/kg

### 38\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 1

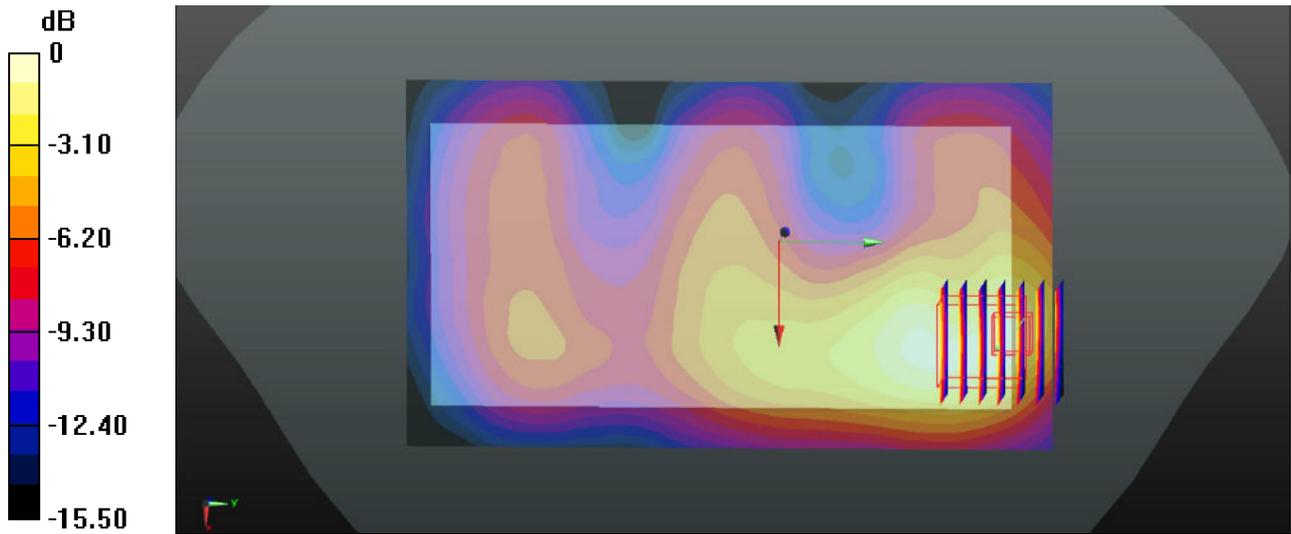
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.135 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 3.231 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 0.161 W/kg  
**SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.043 W/kg**  
Maximum value of SAR (measured) = 0.131 W/kg



0 dB = 0.131 W/kg

### 39\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 2

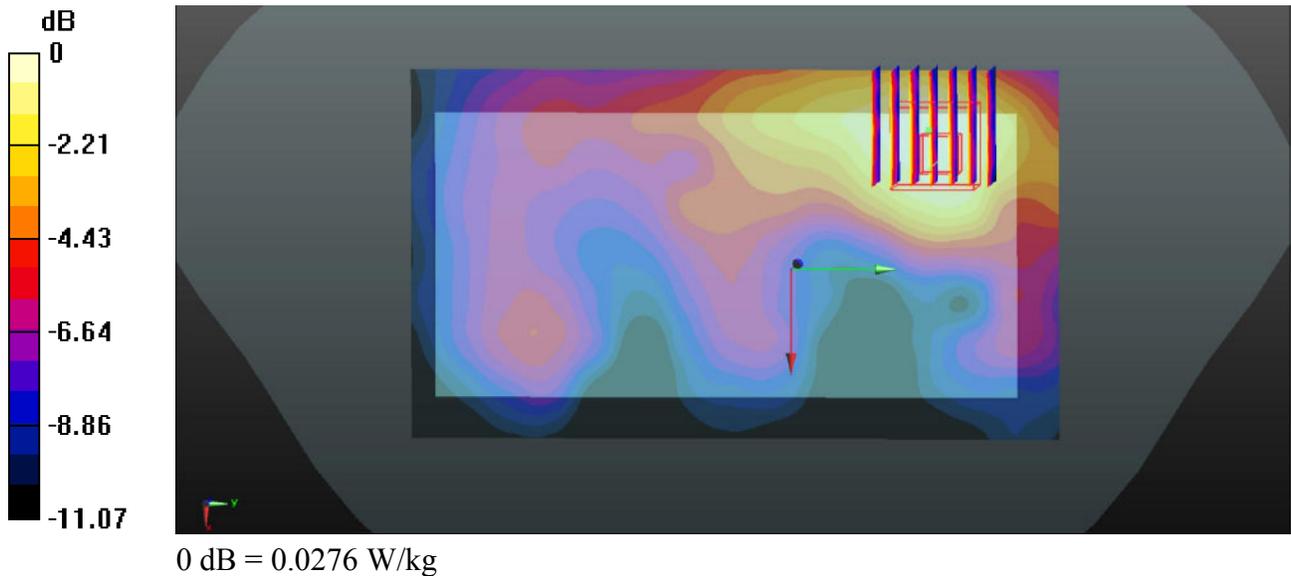
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.0296 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 1.952 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 0.0330 W/kg  
**SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.012 W/kg**  
Maximum value of SAR (measured) = 0.0276 W/kg



### 40\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 1+2

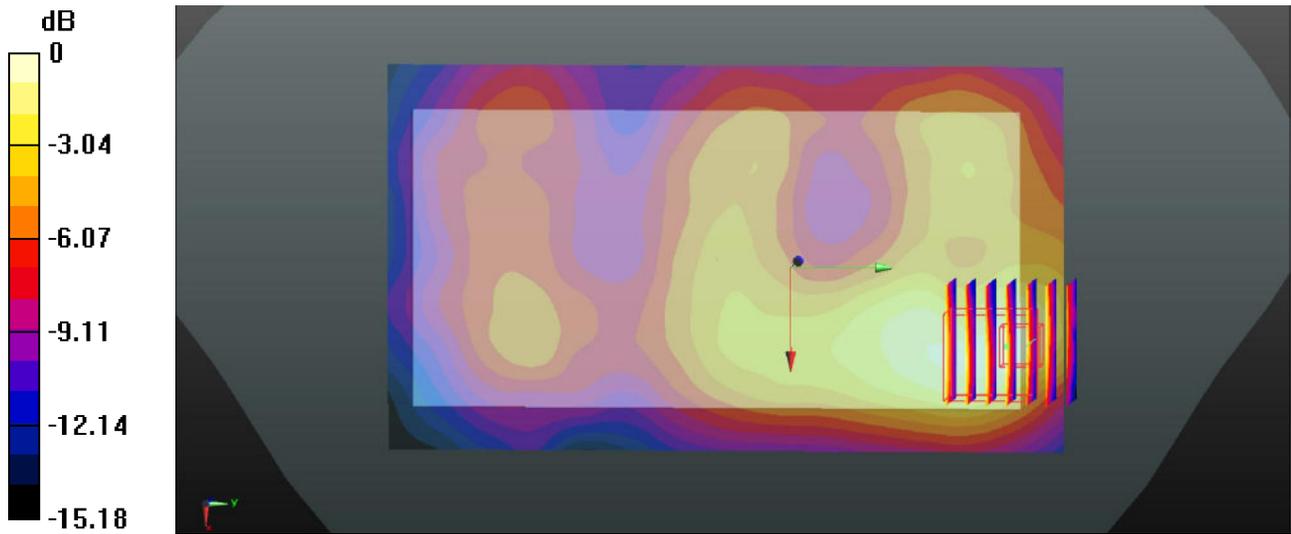
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.009  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.0605 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 1.068 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 0.0740 W/kg  
**SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.021 W/kg**  
Maximum value of SAR (measured) = 0.0593 W/kg



0 dB = 0.0593 W/kg

**41\_GSM850\_GPRS(2 Tx slots)\_Back\_10mm\_Ch189\_Top Ant**

Communication System: UID 0, GPRS (GMSK 2 Tx slot) (0); Frequency: 836.4 MHz; Duty Cycle: 1:4.15

Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 836.4$  MHz;  $\sigma = 0.979$  S/m;  $\epsilon_r = 54.452$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch189/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.383 W/kg

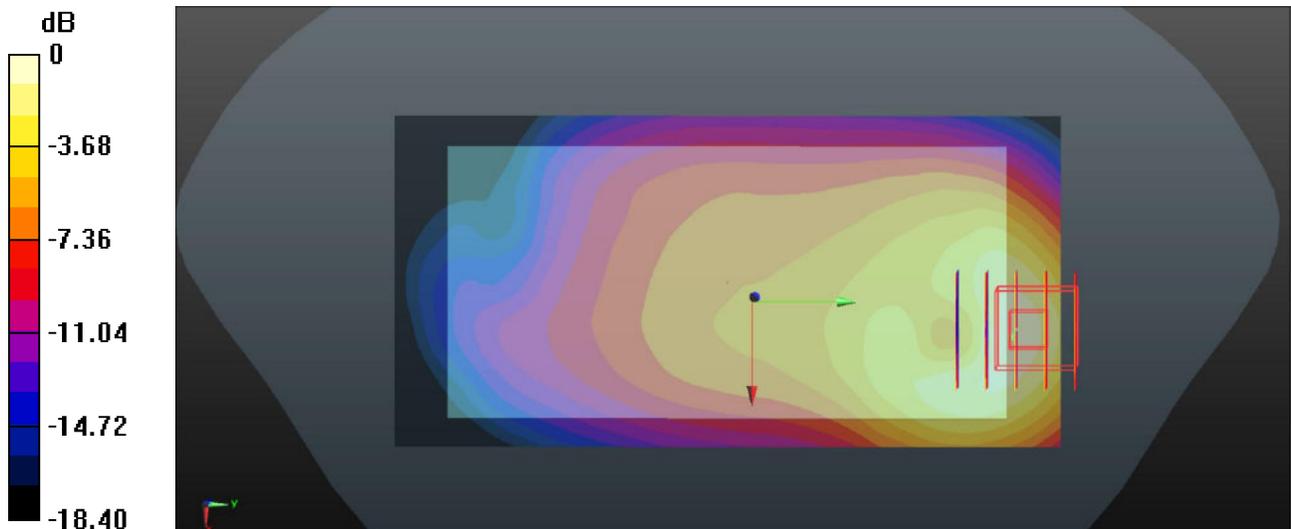
**Ch189/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.548 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.549 W/kg

**SAR(1 g) = 0.290 W/kg; SAR(10 g) = 0.158 W/kg**

Maximum value of SAR (measured) = 0.441 W/kg



0 dB = 0.441 W/kg

### 42\_GSM1900\_GPRS(4 Tx slots)\_Back\_10mm\_Ch810\_Bottom Ant

Communication System: UID 0, GPRS (GMSK 4 Tx slot) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.539$  S/m;  $\epsilon_r = 55.176$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.04 W/kg

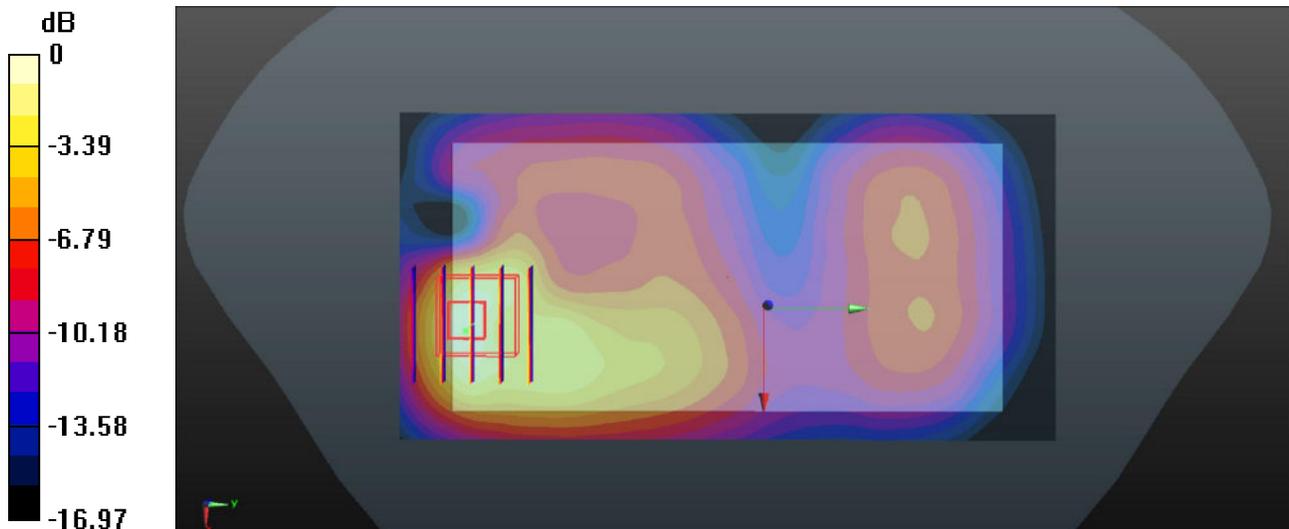
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.143 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.16 W/kg

**SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.308 W/kg**

Maximum value of SAR (measured) = 0.976 W/kg



0 dB = 0.976 W/kg

### 43\_WCDMA V\_RMC 12.2Kbps\_Back\_10mm\_Ch4132\_Bottom Ant

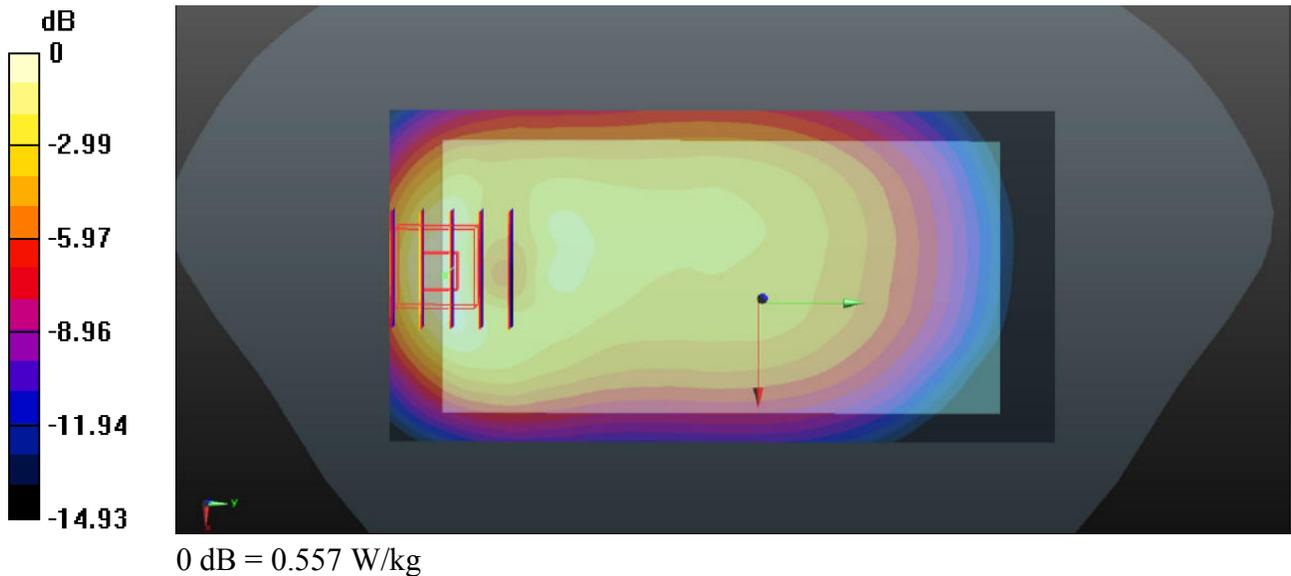
Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.967$  S/m;  $\epsilon_r = 54.561$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch4132/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.553 W/kg

**Ch4132/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 15.76 V/m; Power Drift = -0.08 dB  
Peak SAR (extrapolated) = 0.675 W/kg  
**SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.209 W/kg**  
Maximum value of SAR (measured) = 0.557 W/kg



**44\_WCDMA IV\_RMC 12.2Kbps\_Back\_10mm\_Ch1413\_Bottom Ant**

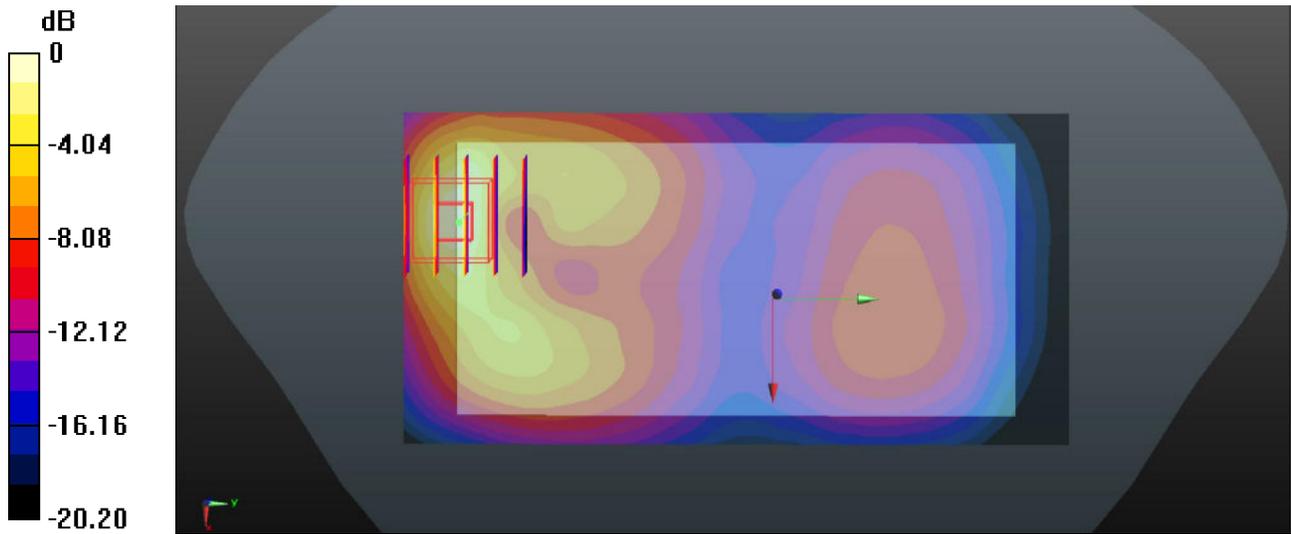
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1  
 Medium: MSL\_1750\_2016/07/05 Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.499 \text{ S/m}$ ;  $\epsilon_r = 53.179$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.5 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.7 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1413/Area Scan (61x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (interpolated) =  $1.04 \text{ W/kg}$

**Ch1413/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $4.616 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$   
 Peak SAR (extrapolated) =  $1.19 \text{ W/kg}$   
**SAR(1 g) =  $0.646 \text{ W/kg}$ ; SAR(10 g) =  $0.315 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.992 \text{ W/kg}$



0 dB =  $0.992 \text{ W/kg}$

### 45\_WCDMA II\_RMC 12.2Kbps\_Back\_10mm\_Ch9538\_Bottom Ant

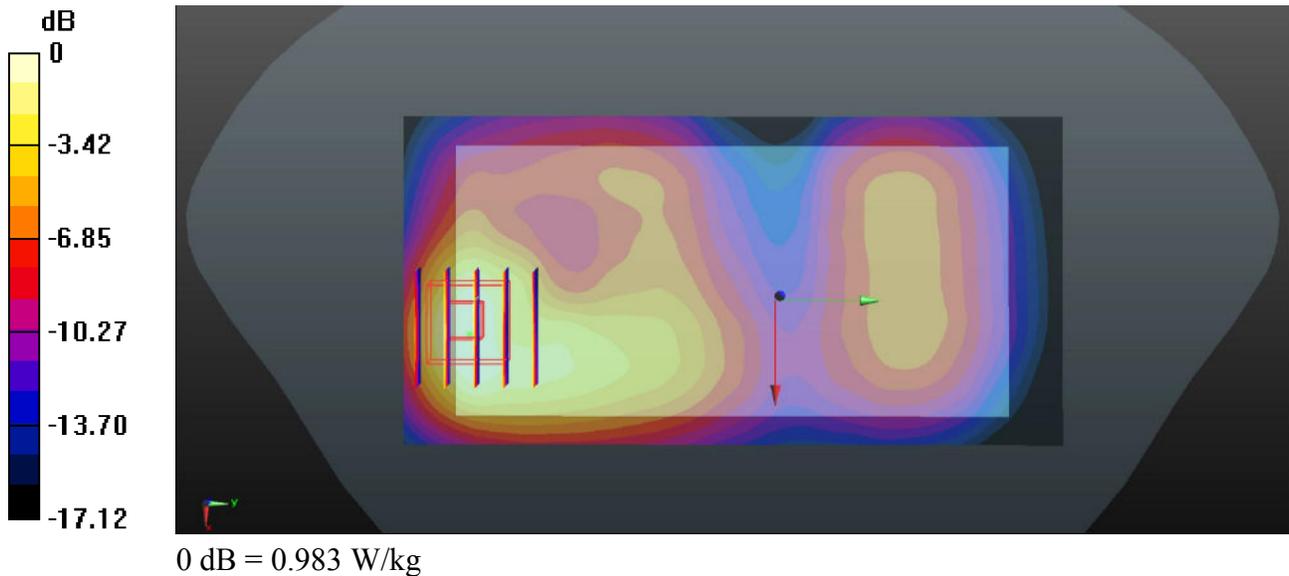
Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.536$  S/m;  $\epsilon_r = 55.192$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.22 W/kg

**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 7.754 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 1.25 W/kg  
**SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.333 W/kg**  
Maximum value of SAR (measured) = 0.983 W/kg



### 46\_CDMA2000 BC10\_1xRTT RC3 SO32\_Back\_10mm\_Ch1013\_Bottom Ant

Communication System: UID 0, CDMA2000 (0); Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 825$  MHz;  $\sigma = 0.966$  S/m;  $\epsilon_r = 54.574$ ;

$\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1013/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.441 W/kg

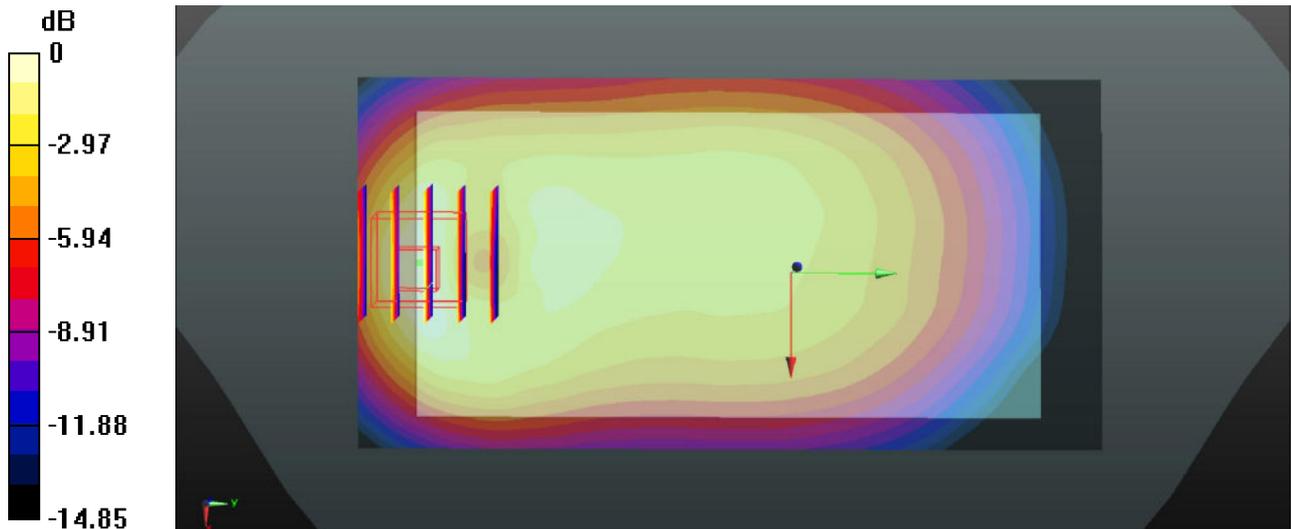
**Ch1013/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.75 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.296 W/kg; SAR(10 g) = 0.169 W/kg**

Maximum value of SAR (measured) = 0.440 W/kg



0 dB = 0.440 W/kg

**47\_CDMA2000 BC0\_1xRTT RC3 SO32\_Back\_10mm\_Ch476\_Bottom Ant**

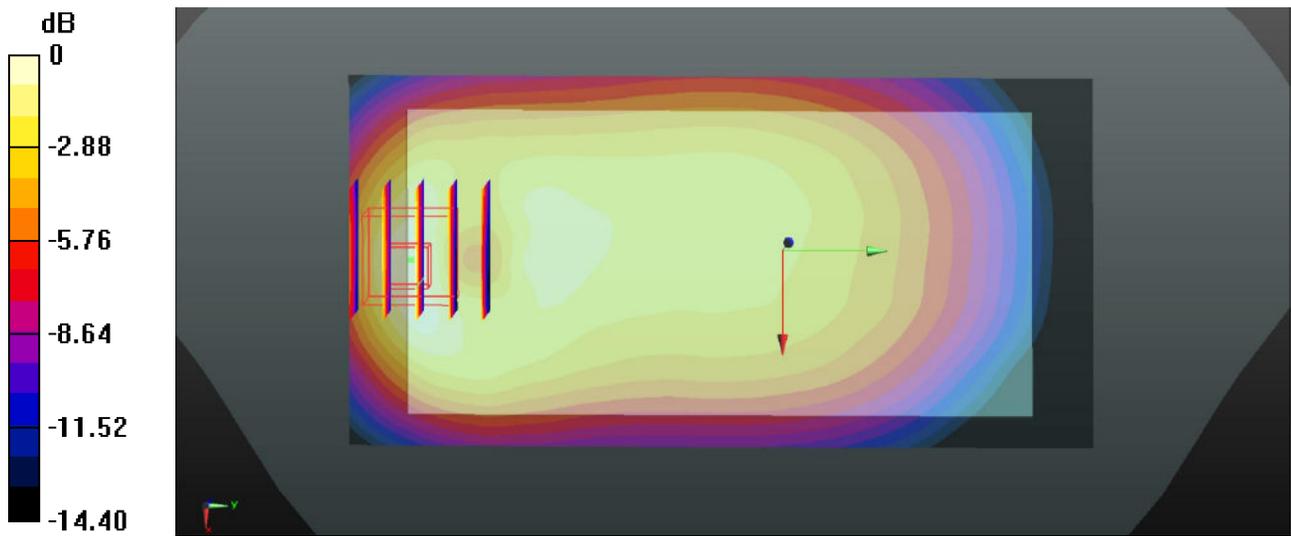
Communication System: UID 0, CDMA2000 (0); Frequency: 817.9 MHz; Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 818 \text{ MHz}$ ;  $\sigma = 0.957 \text{ S/m}$ ;  $\epsilon_r = 54.681$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.5 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch476/Area Scan (61x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (interpolated) =  $0.439 \text{ W/kg}$

**Ch476/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $15.04 \text{ V/m}$ ; Power Drift =  $-0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $0.524 \text{ W/kg}$   
**SAR(1 g) =  $0.298 \text{ W/kg}$ ; SAR(10 g) =  $0.171 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $0.444 \text{ W/kg}$



0 dB =  $0.444 \text{ W/kg}$

**48\_CDMA2000 BC1\_1xRTT RC3 SO32\_Back\_10mm\_Ch1175\_Bottom Ant**

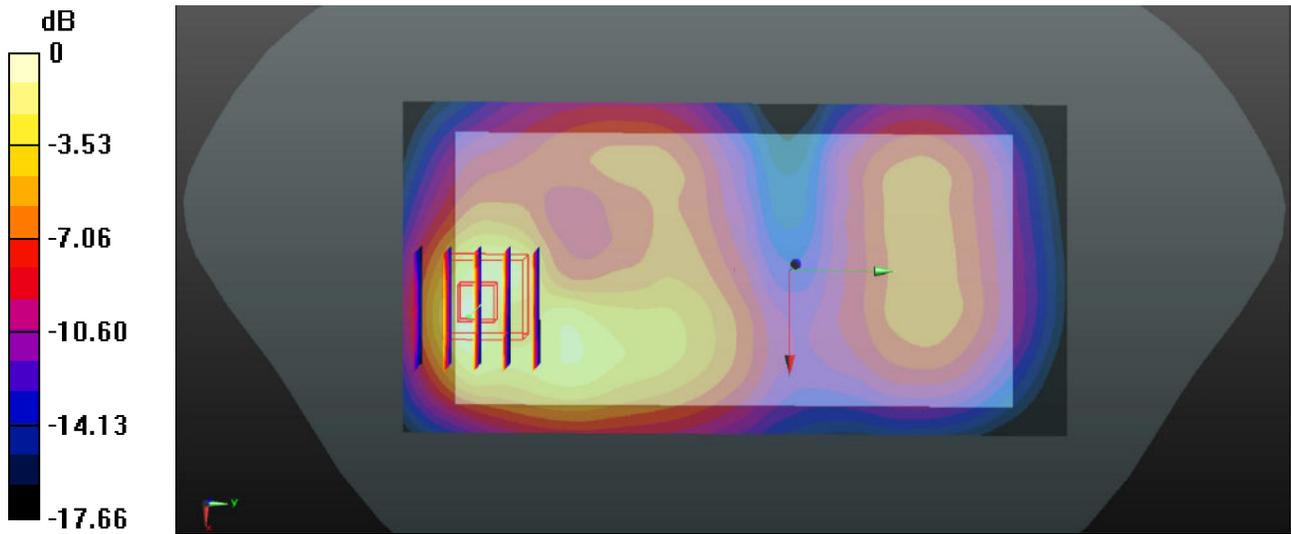
Communication System: UID 0, CDMA2000 (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1  
 Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1909 \text{ MHz}$ ;  $\sigma = 1.538 \text{ S/m}$ ;  $\epsilon_r = 55.185$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.3 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.4 \text{ }^\circ\text{C}$

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1175/Area Scan (61x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (interpolated) =  $1.32 \text{ W/kg}$

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $10.16 \text{ V/m}$ ; Power Drift =  $-0.12 \text{ dB}$   
 Peak SAR (extrapolated) =  $1.77 \text{ W/kg}$   
**SAR(1 g) =  $0.904 \text{ W/kg}$ ; SAR(10 g) =  $0.458 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $1.47 \text{ W/kg}$



0 dB =  $1.47 \text{ W/kg}$

**49\_LTE Band 12\_10M\_QPSK\_25RB\_0offset\_Back\_10mm\_Ch23095\_Bottom Ant**

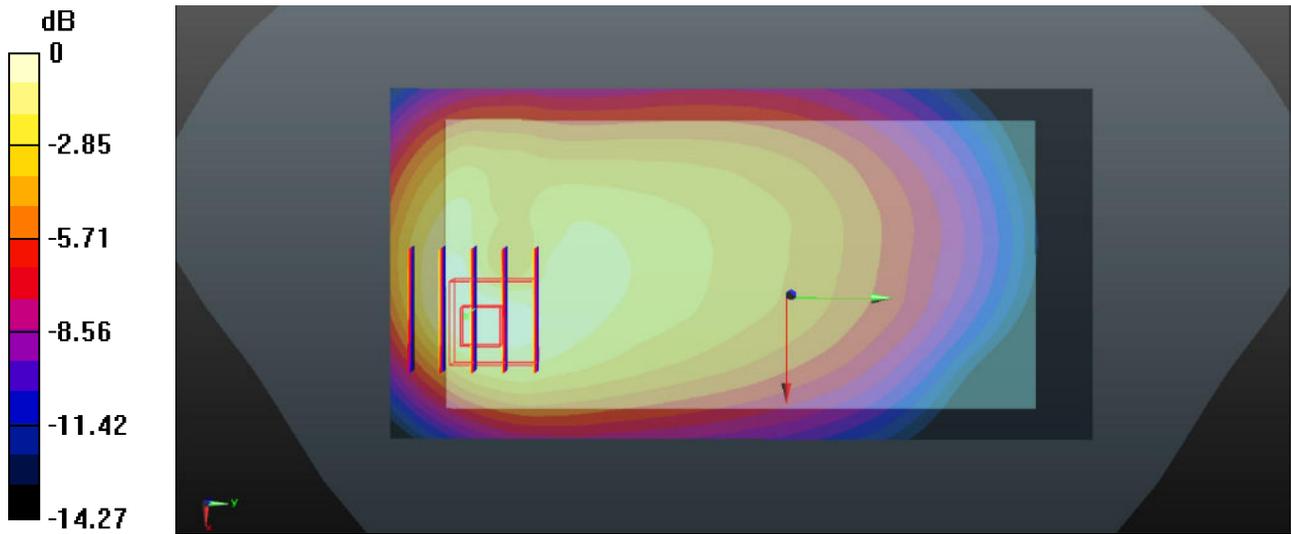
Communication System: UID 0, FDD-LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1  
Medium: MSL\_750\_2016/07/19 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 55.5$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.59, 10.59, 10.59); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23095/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.311 W/kg

**Ch23095/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 11.82 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 0.391 W/kg  
**SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.116 W/kg**  
Maximum value of SAR (measured) = 0.311 W/kg



0 dB = 0.311 W/kg

**50\_LTE Band 13\_10M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch23230\_Bottom Ant**

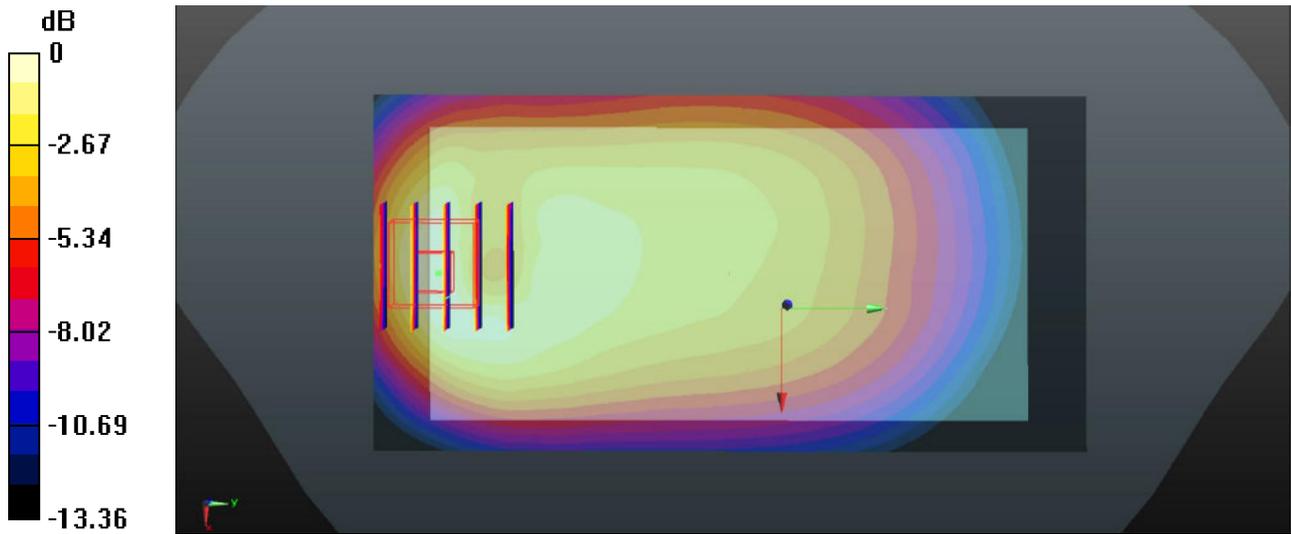
Communication System: UID 0, FDD-LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1  
 Medium: MSL\_750\_2016/07/19 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.995 \text{ S/m}$ ;  $\epsilon_r = 54.712$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.8 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.5 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.59, 10.59, 10.59); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23230/Area Scan (61x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (interpolated) =  $0.617 \text{ W/kg}$

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $17.13 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$   
 Peak SAR (extrapolated) =  $0.736 \text{ W/kg}$   
**SAR(1 g) =  $0.402 \text{ W/kg}$ ; SAR(10 g) =  $0.229 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.610 \text{ W/kg}$



0 dB =  $0.610 \text{ W/kg}$

**51\_LTE Band 26\_15M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch26865\_Top Ant**

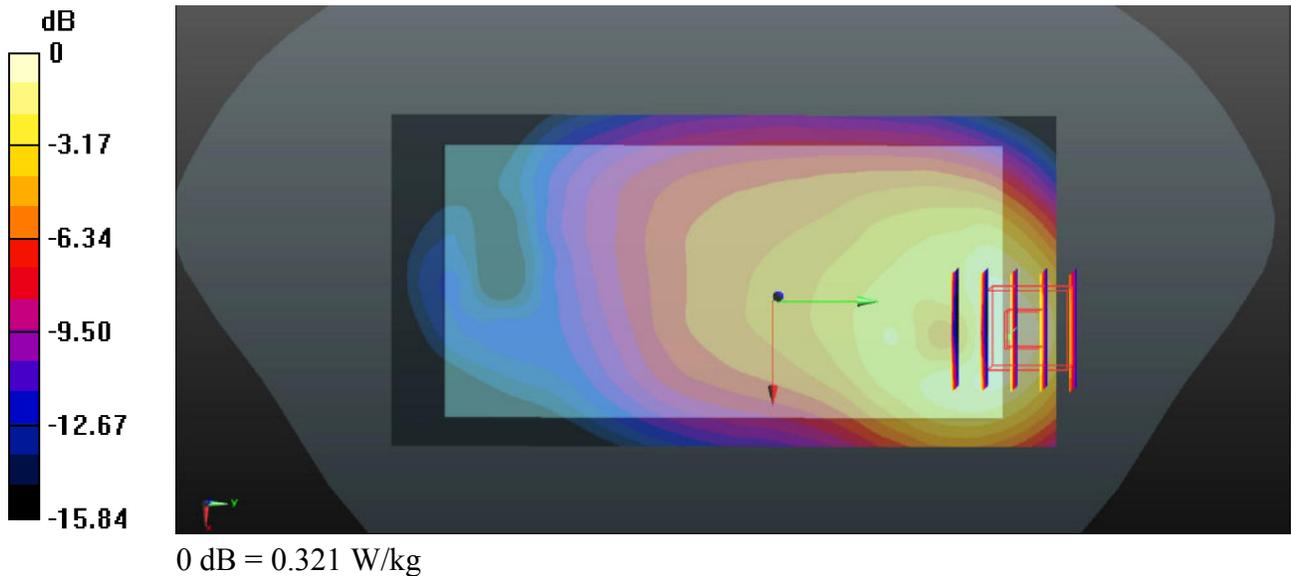
Communication System: UID 0, FDD-LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1  
Medium: MSL\_835\_2016/07/19 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.973$  S/m;  $\epsilon_r = 54.503$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(10.3, 10.3, 10.3); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1754
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26865/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.300 W/kg

**Ch26865/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 8.576 V/m; Power Drift = -0.06 dB  
Peak SAR (extrapolated) = 0.395 W/kg  
**SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.117 W/kg**  
Maximum value of SAR (measured) = 0.321 W/kg



**52\_LTE Band 4\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch20175\_Bottom Ant**

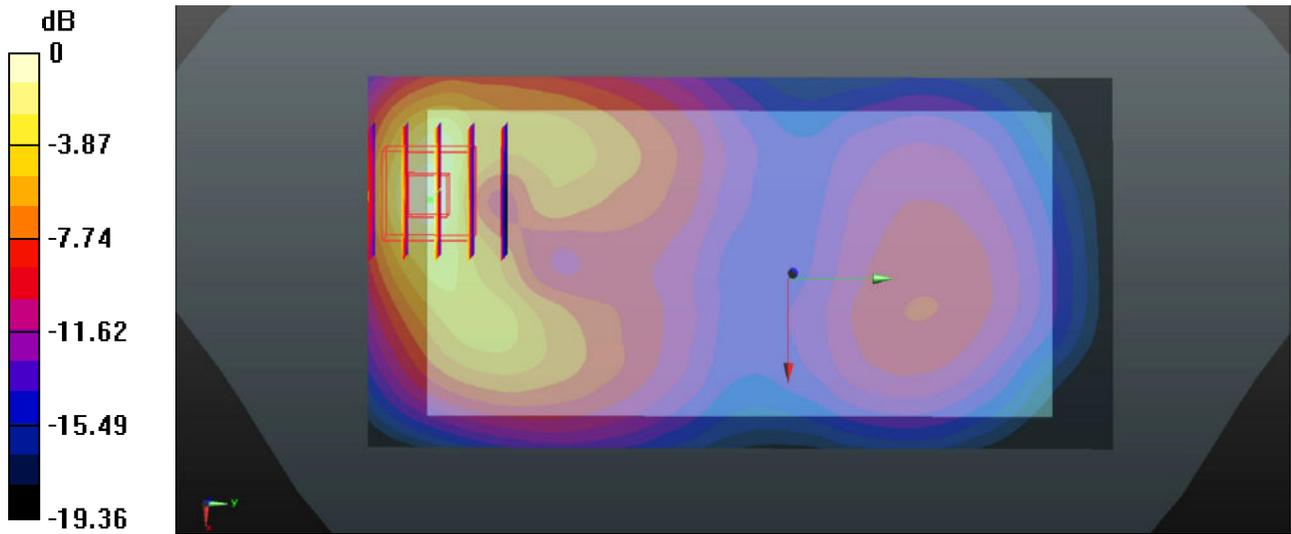
Communication System: UID 0, FDD-LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1  
Medium: MSL\_1750\_2016/07/05 Medium parameters used:  $f = 1732.5$  MHz;  $\sigma = 1.498$  S/m;  $\epsilon_r = 53.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(8.24, 8.24, 8.24); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch20175/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.810 W/kg

**Ch20175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 4.448 V/m; Power Drift = 0.13 dB  
Peak SAR (extrapolated) = 0.932 W/kg  
**SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.255 W/kg**  
Maximum value of SAR (measured) = 0.805 W/kg



0 dB = 0.805 W/kg

**53\_LTE Band 25\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch26340\_Bottom Ant**

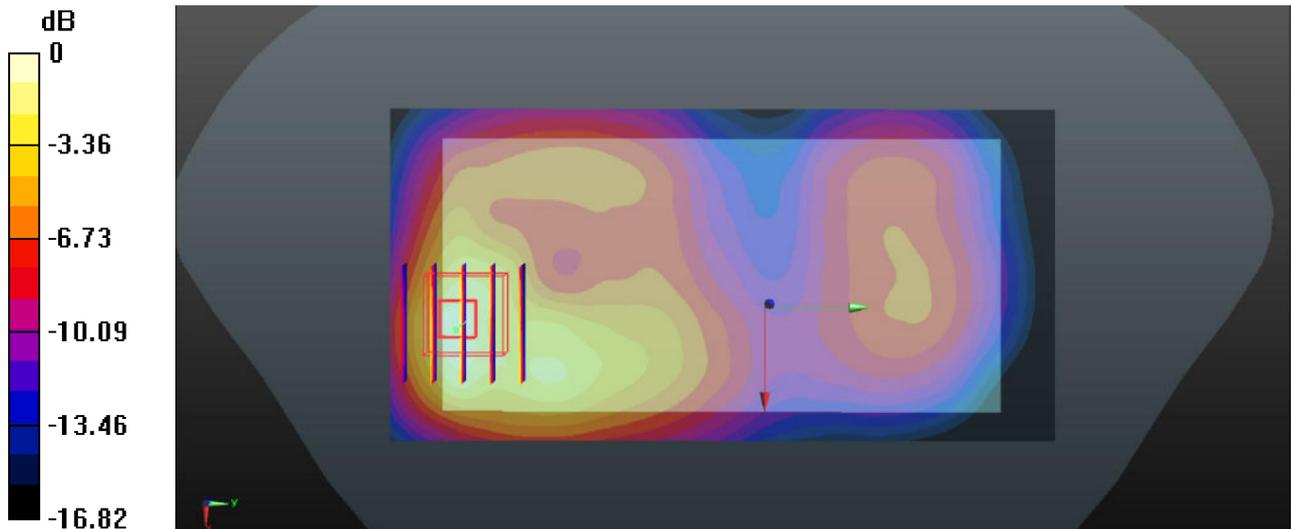
Communication System: UID 0, FDD-LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1  
Medium: MSL\_1900\_2016/07/20 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.508$  S/m;  $\epsilon_r = 55.364$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch26340/Area Scan (61x121x1):** Interpolated grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 1.15 W/kg

**Ch26340/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 8.232 V/m; Power Drift = -0.12 dB  
Peak SAR (extrapolated) = 1.32 W/kg  
**SAR(1 g) = 0.689 W/kg; SAR(10 g) = 0.355 W/kg**  
Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg

**54\_LTE Band 30\_10M\_QPSK\_1RB\_25offset\_Back\_10mm\_Ch27710\_Bottom Ant**

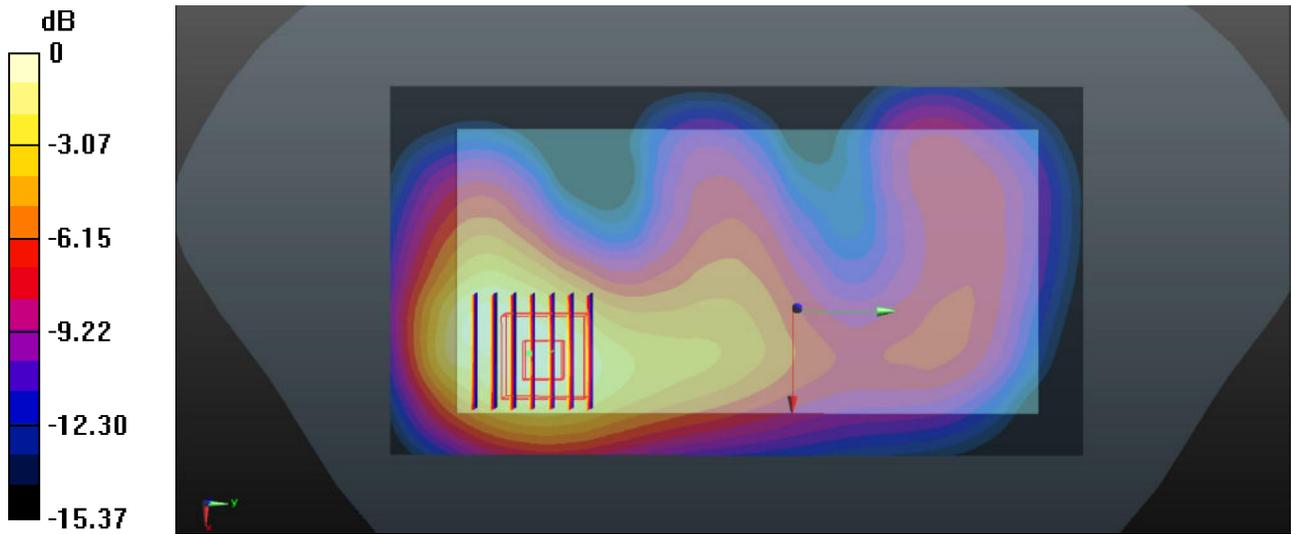
Communication System: UID 0, FDD-LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1  
Medium: MSL\_2300\_2016/07/02 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.782$  S/m;  $\epsilon_r = 53.246$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.72, 7.72, 7.72); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch27710/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.399 W/kg

**Ch27710/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 6.766 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 0.497 W/kg  
**SAR(1 g) = 0.296 W/kg; SAR(10 g) = 0.164 W/kg**  
Maximum value of SAR (measured) = 0.395 W/kg



0 dB = 0.395 W/kg

**55\_LTE Band 7\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch21350\_Bottom Ant**

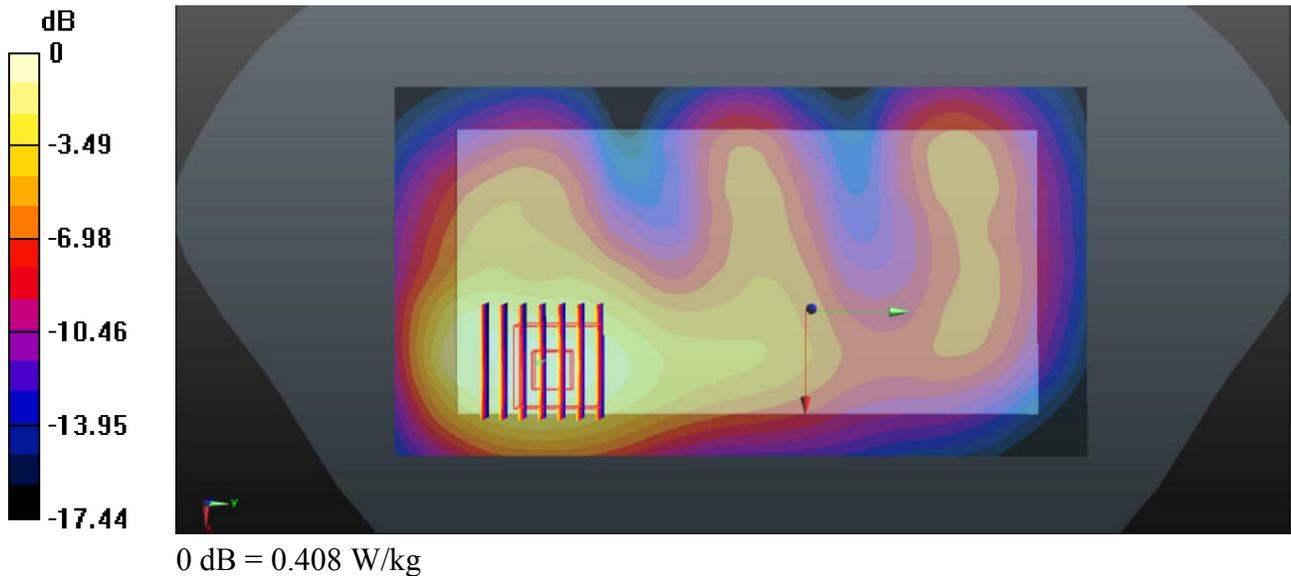
Communication System: UID 0, FDD-LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1  
 Medium: MSL\_2600\_2016/07/02 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.121$  S/m;  $\epsilon_r = 52.405$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.37, 7.37, 7.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch21350/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
 Maximum value of SAR (interpolated) = 0.403 W/kg

**Ch21350/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 6.157 V/m; Power Drift = -0.14 dB  
 Peak SAR (extrapolated) = 0.535 W/kg  
**SAR(1 g) = 0.296 W/kg; SAR(10 g) = 0.158 W/kg**  
 Maximum value of SAR (measured) = 0.408 W/kg



**56\_LTE Band 41\_20M\_QPSK\_1RB\_0offset\_Back\_10mm\_Ch40185\_Bottom Ant**

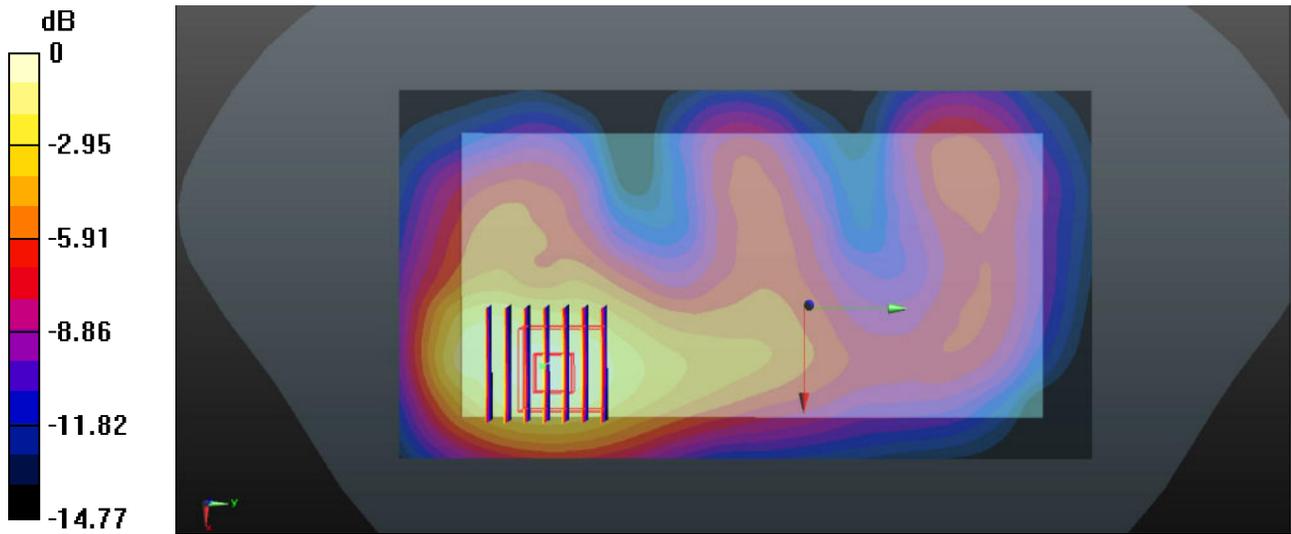
Communication System: UID 0, TDD-LTE (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.59  
 Medium: MSL\_2600\_2016/07/02 Medium parameters used:  $f = 2549.5$  MHz;  $\sigma = 2.106$  S/m;  $\epsilon_r = 52.446$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3935; ConvF(7.37, 7.37, 7.37); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch40185/Area Scan (81x151x1):** Interpolated grid: dx=12mm, dy=12mm  
 Maximum value of SAR (interpolated) = 0.125 W/kg

**Ch40185/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 3.707 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 0.175 W/kg  
**SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.053 W/kg**  
 Maximum value of SAR (measured) = 0.133 W/kg



0 dB = 0.133 W/kg

### 57\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 1

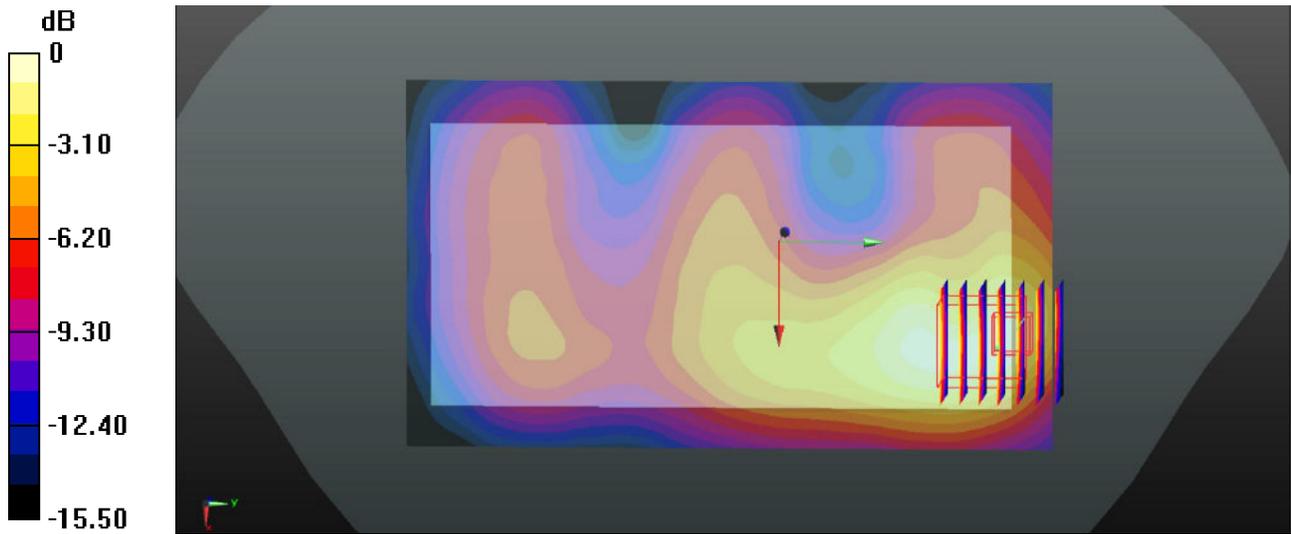
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.135 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 3.231 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 0.161 W/kg  
**SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.043 W/kg**  
Maximum value of SAR (measured) = 0.131 W/kg



0 dB = 0.131 W/kg

### 58\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 2

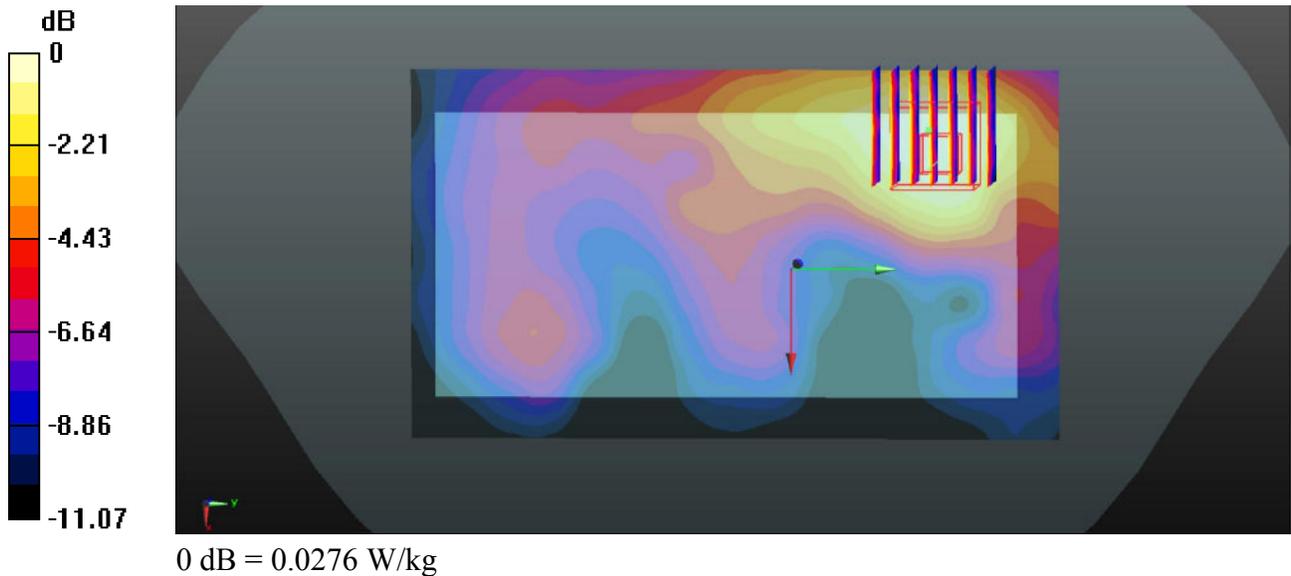
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.011  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.0296 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 1.952 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 0.0330 W/kg  
**SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.012 W/kg**  
Maximum value of SAR (measured) = 0.0276 W/kg



### 59\_WLAN2.4GHz\_802.11b 1Mbps\_Front\_10mm\_Ch11\_Ant 1+2

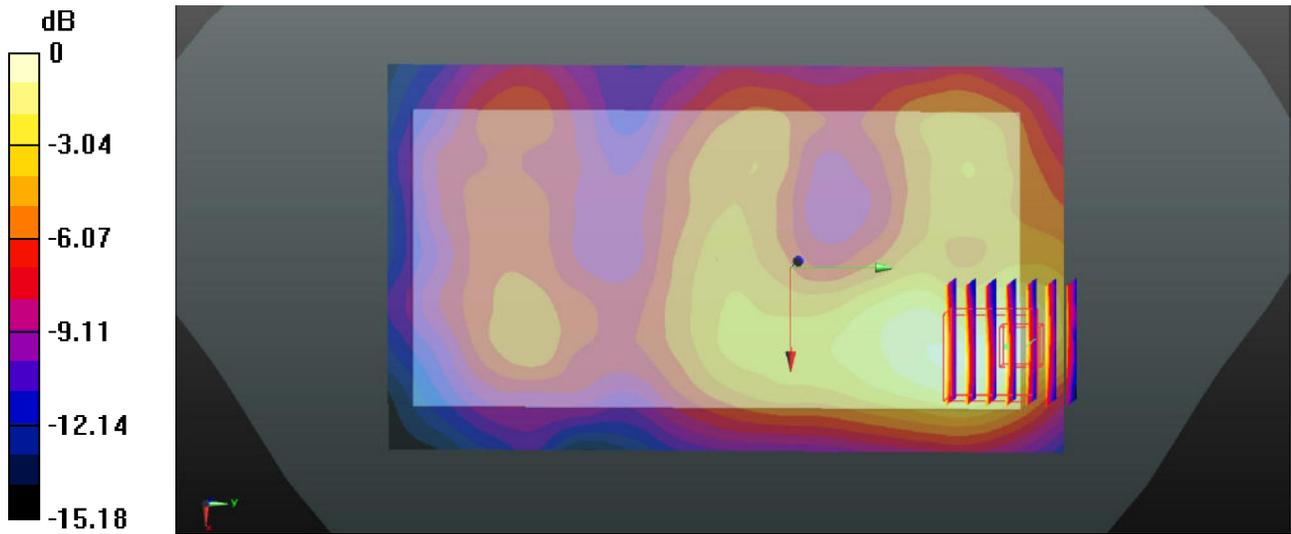
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.009  
Medium: MSL\_2450\_2016/07/22 Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.988$  S/m;  $\epsilon_r = 51.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.5 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.55, 7.55, 7.55); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch11/Area Scan (81x141x1):** Interpolated grid: dx=12mm, dy=12mm  
Maximum value of SAR (interpolated) = 0.0605 W/kg

**Ch11/Zoom Scan (7x7x4)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 1.068 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 0.0740 W/kg  
**SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.021 W/kg**  
Maximum value of SAR (measured) = 0.0593 W/kg



0 dB = 0.0593 W/kg

### 60\_WLAN5.2GHz\_802.11a 6Mbps\_Front\_10mm\_Ch36\_Ant 1

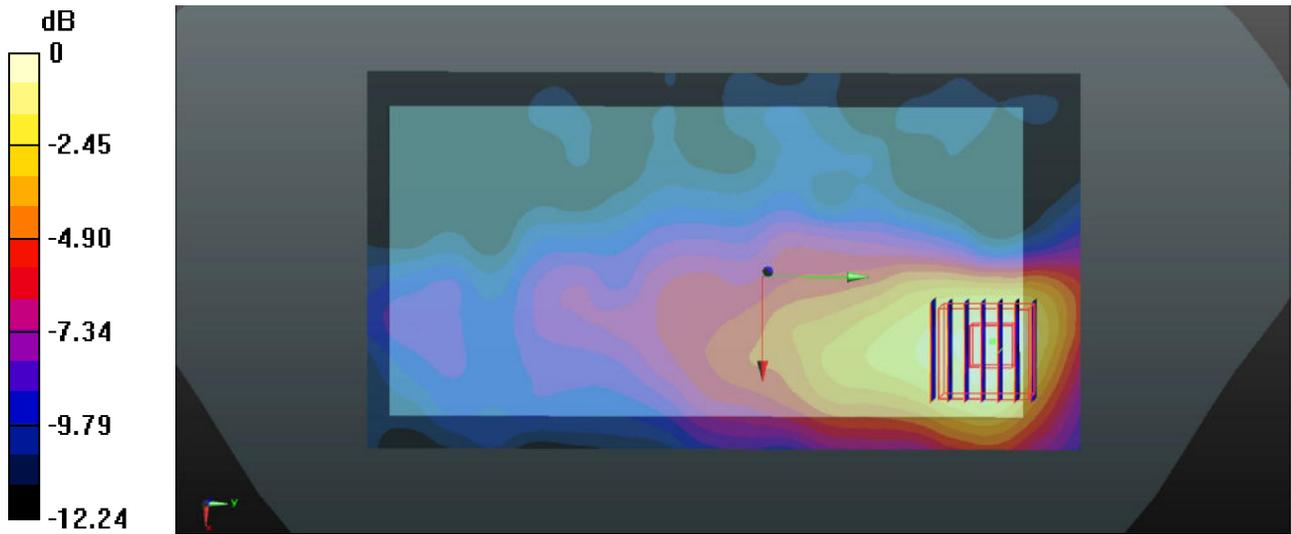
Communication System: UID 0, 802.11a (0); Frequency: 5180 MHz; Duty Cycle: 1:1.042  
Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.344$  S/m;  $\epsilon_r = 48.864$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.35, 4.35, 4.35); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch36/Area Scan (91x171x1):** Interpolated grid: dx=10mm, dy=10mm  
Maximum value of SAR (interpolated) = 0.144 W/kg

**Ch36/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 1.984 V/m; Power Drift = -0.09 dB  
Peak SAR (extrapolated) = 0.205 W/kg  
**SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.036 W/kg**  
Maximum value of SAR (measured) = 0.135 W/kg



0 dB = 0.135 W/kg

### 61\_WLAN5.8GHz\_802.11a 6Mbps\_Front\_10mm\_Ch165\_Ant 1

Communication System: UID 0, 802.11a (0); Frequency: 5825 MHz; Duty Cycle: 1:1.042

Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5825$  MHz;  $\sigma = 6.22$  S/m;  $\epsilon_r = 47.78$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(3.81, 3.81, 3.81); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch165/Area Scan (91x171x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.0331 W/kg

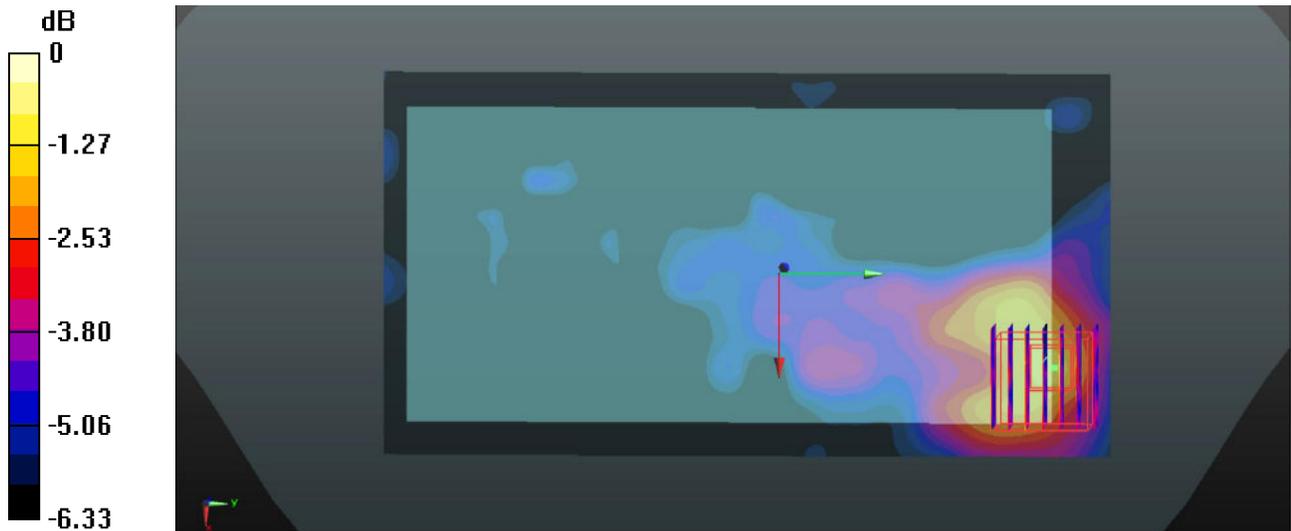
**Ch165/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 1.674 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.125 W/kg

**SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.019 W/kg**

Maximum value of SAR (measured) = 0.0415 W/kg



0 dB = 0.0415 W/kg

### 62\_WLAN5.2GHz\_802.11a 6Mbps\_Front\_0mm\_Ch36\_Ant 1

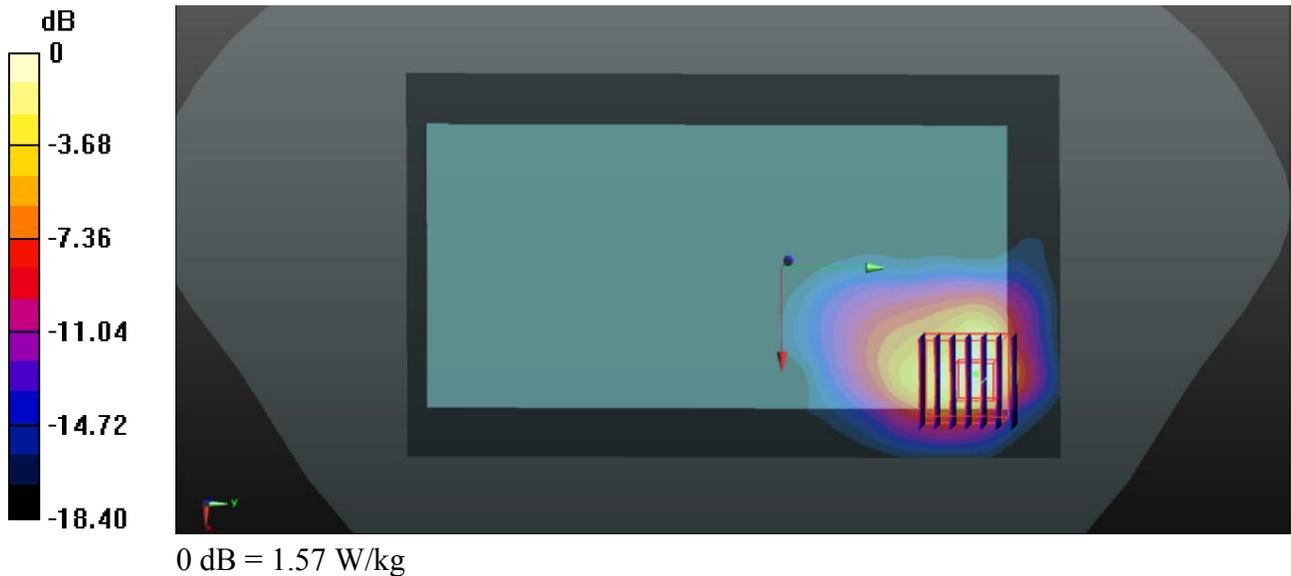
Communication System: UID 0, 802.11a (0); Frequency: 5180 MHz; Duty Cycle: 1:1.042  
Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5180$  MHz;  $\sigma = 5.344$  S/m;  $\epsilon_r = 48.864$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.35, 4.35, 4.35); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch36/Area Scan (101x171x1):** Interpolated grid: dx=10mm, dy=10mm  
Maximum value of SAR (interpolated) = 1.91 W/kg

**Ch36/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 2.040 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 2.62 W/kg  
**SAR(1 g) = 0.646 W/kg; SAR(10 g) = 0.228 W/kg**  
Maximum value of SAR (measured) = 1.57 W/kg



### 63\_WLAN5.8GHz\_802.11a 6Mbps\_Right side\_0mm\_Ch165\_Ant 1

Communication System: UID 0, 802.11a (0); Frequency: 5825 MHz; Duty Cycle: 1:1.042

Medium: MSL\_5G\_2016/07/22 Medium parameters used:  $f = 5825$  MHz;  $\sigma = 6.22$  S/m;  $\epsilon_r = 47.78$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(3.81, 3.81, 3.81); Calibrated: 2015/11/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2015/8/27
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1753
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch165/Area Scan (31x171x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.819 W/kg

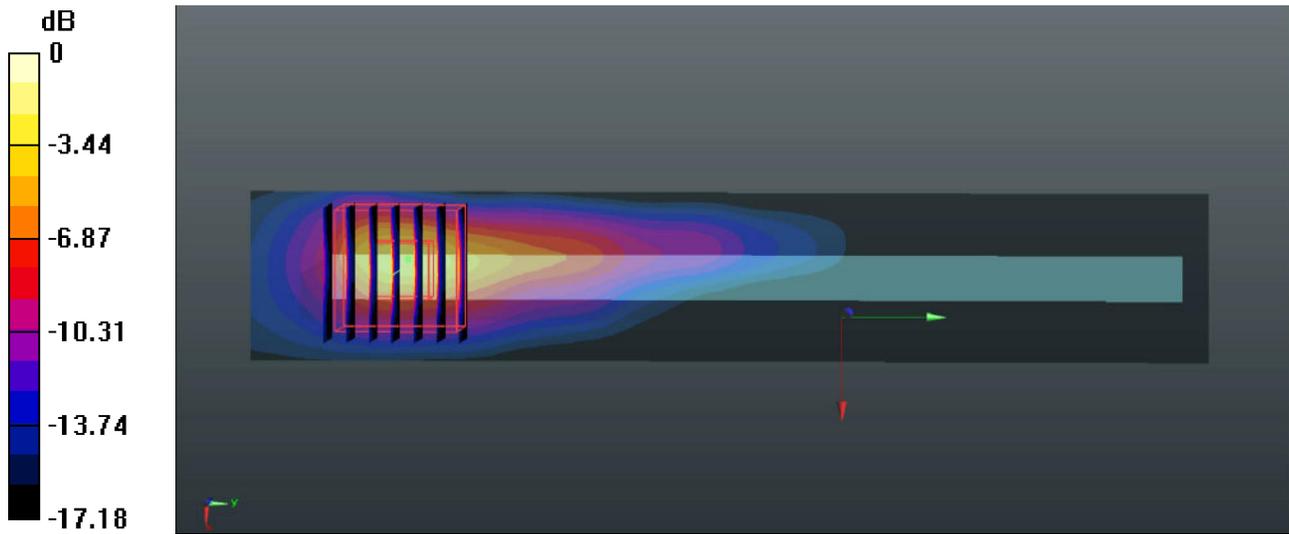
**Ch165/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 3.328 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 2.79 W/kg

**SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.133 W/kg**

Maximum value of SAR (measured) = 1.42 W/kg





## **Appendix C. DASYS Calibration Certificate**

The DASYS calibration certificates are shown as follows.



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton-CN (Auden)**

Certificate No: **D750V3-1087\_Mar16**

## CALIBRATION CERTIFICATE

Object: **D750V3 - SN:1087**

Calibration procedure(s): **QA CAL-05.v9  
Calibration procedure for dipole validation kits above 700 MHz**

Calibration date: **March 16, 2016**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	US37292783	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	MY41092317	07-Oct-15 (No. 217-02223)	Oct-16
Reference 20 dB Attenuator	SN: 5058 (20k)	01-Apr-15 (No. 217-02131)	Mar-16
Type-N mismatch combination	SN: 5047.2 / 06327	01-Apr-15 (No. 217-02134)	Mar-16
Reference Probe EX3DV4	SN: 7349	31-Dec-15 (No. EX3-7349_Dec15)	Dec-16
DAE4	SN: 601	30-Dec-15 (No. DAE4-601_Dec15)	Dec-16
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100972	15-Jun-15 (in house check Jun-15)	In house check: Jun-18
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Calibrated by: **Jeton Kastrati** (Name), **Laboratory Technician** (Function),  (Signature)

Approved by: **Katja Pokovic** (Name), **Technical Manager** (Function),  (Signature)

Issued: March 16, 2016

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY4/5 System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

## Measurement Conditions

DASY system configuration, as far as not given on page 1.

<b>DASY Version</b>	DASY5	V52.8.8
<b>Extrapolation</b>	Advanced Extrapolation	
<b>Phantom</b>	Modular Flat Phantom	
<b>Distance Dipole Center - TSL</b>	15 mm	with Spacer
<b>Zoom Scan Resolution</b>	dx, dy, dz = 5 mm	
<b>Frequency</b>	750 MHz ± 1 MHz	

## Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
<b>Nominal Head TSL parameters</b>	22.0 °C	41.9	0.89 mho/m
<b>Measured Head TSL parameters</b>	(22.0 ± 0.2) °C	41.9 ± 6 %	0.91 mho/m ± 6 %
<b>Head TSL temperature change during test</b>	< 0.5 °C	----	----

## SAR result with Head TSL

<b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Head TSL</b>	Condition	
SAR measured	250 mW input power	2.11 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>8.30 W/kg ± 17.0 % (k=2)</b>

<b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Head TSL</b>	condition	
SAR measured	250 mW input power	1.38 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>5.45 W/kg ± 16.5 % (k=2)</b>

## Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
<b>Nominal Body TSL parameters</b>	22.0 °C	55.5	0.96 mho/m
<b>Measured Body TSL parameters</b>	(22.0 ± 0.2) °C	54.7 ± 6 %	0.98 mho/m ± 6 %
<b>Body TSL temperature change during test</b>	< 0.5 °C	----	----

## SAR result with Body TSL

<b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Body TSL</b>	Condition	
SAR measured	250 mW input power	2.20 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	<b>8.64 W/kg ± 17.0 % (k=2)</b>

<b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Body TSL</b>	condition	
SAR measured	250 mW input power	1.46 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	<b>5.75 W/kg ± 16.5 % (k=2)</b>

## Appendix (Additional assessments outside the scope of SCS 0108)

### Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.0 $\Omega$ - 1.8 j $\Omega$
Return Loss	- 29.3 dB

### Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.8 $\Omega$ - 3.5 j $\Omega$
Return Loss	- 28.5 dB

### General Antenna Parameters and Design

Electrical Delay (one direction)	1.031 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

Manufactured by	SPEAG
Manufactured on	April 04, 2013

# DASY5 Validation Report for Head TSL

Date: 16.03.2016

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1087**

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.91 \text{ S/m}$ ;  $\epsilon_r = 41.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.28, 10.28, 10.28); Calibrated: 31.12.2015;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom Type: QD000P49AA
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

## Dipole Calibration for Head Tissue EX-Probe/Pin=250 mW, d=15mm/Zoom Scan

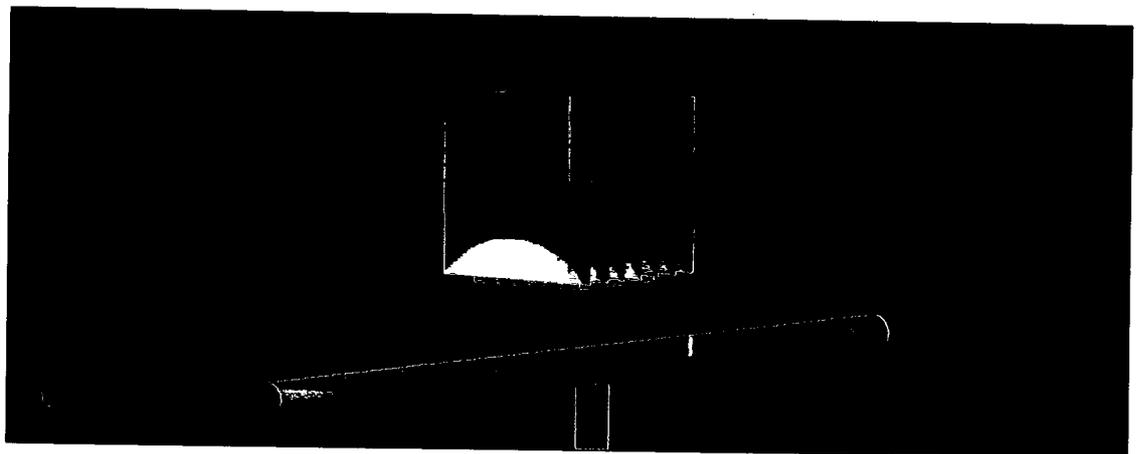
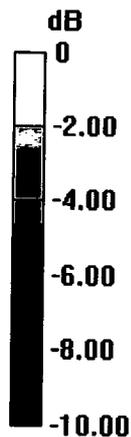
(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.15 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.14 W/kg

**SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.38 W/kg**

Maximum value of SAR (measured) = 2.79 W/kg



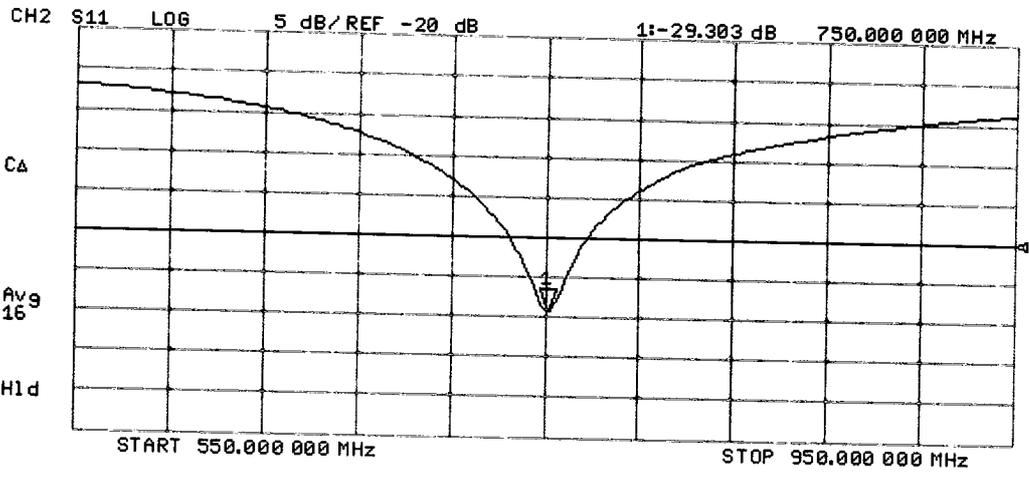
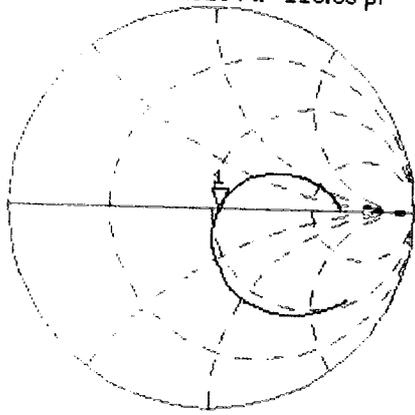
0 dB = 2.79 W/kg = 4.46 dBW/kg

# Impedance Measurement Plot for Head TSL

CH1 S11 1 U FS

16 Mar 2016 13:57:40  
 1: 53.027  $\Omega$  -1.8164  $\Omega$  116.83 pF  
 750.000 000 MHz

\*  
 De1  
 CA  
 Avg  
 16  
 H1d



# DASY5 Validation Report for Body TSL

Date: 16.03.2016

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1087**

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.98 \text{ S/m}$ ;  $\epsilon_r = 54.7$ ;  $\rho = 1000 \text{ kg/m}^3$

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.99, 9.99, 9.99); Calibrated: 31.12.2015;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom Type: QD000P49AA
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

## Dipole Calibration for Body Tissue EX-Probe/Pin=250 mW, d=15mm/Zoom Scan

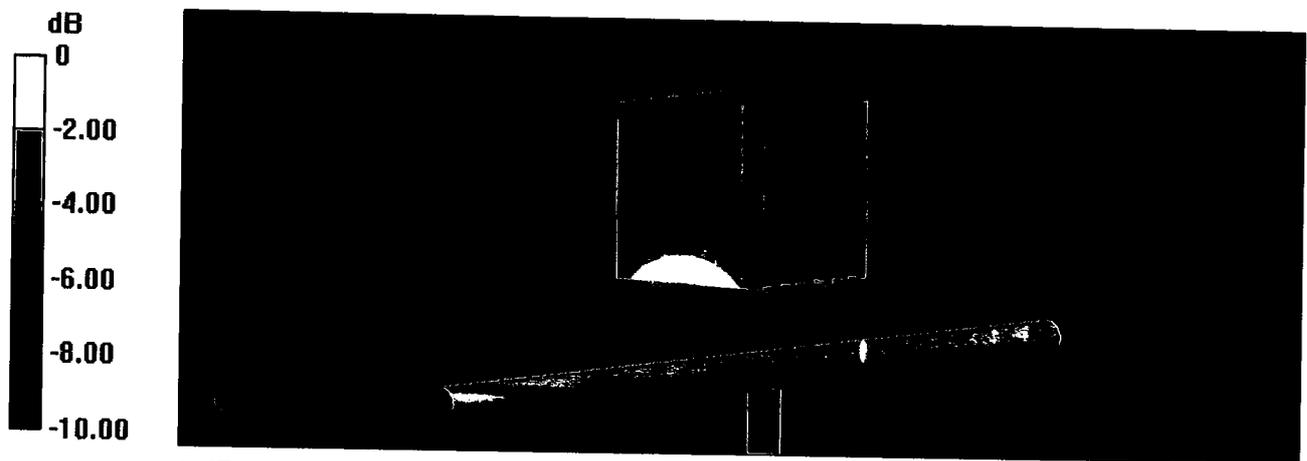
(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.44 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 3.26 W/kg

**SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.46 W/kg**

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

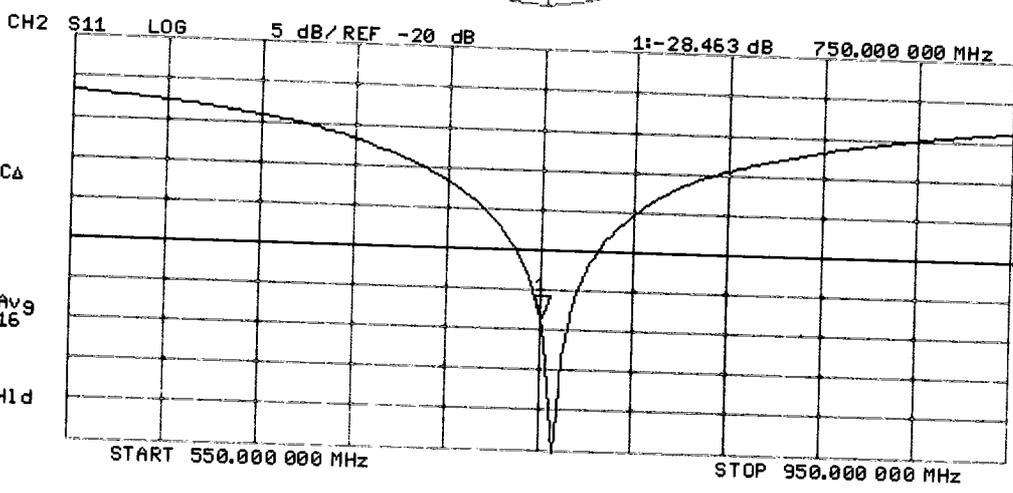
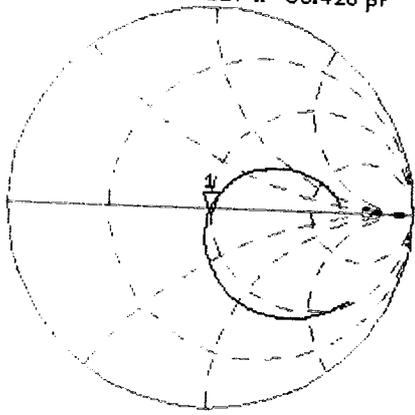


0 dB = 2.91 W/kg = 4.64 dBW/kg

# Impedance Measurement Plot for Body TSL

CH1 S11 1 U FS 16 Mar 2016 11:39:47  
 1: 48.750  $\Omega$  -3.5117  $\Omega$  60.428 pF 750.000 000 MHz

\*  
 De1  
 CA  
 Avg  
 16  
 H1d





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The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton-CN (Auden)**

Certificate No: **D835V2-4d151\_Mar16**

## CALIBRATION CERTIFICATE

Object **D835V2 - SN:4d151**

Calibration procedure(s) **QA CAL-05.v9  
Calibration procedure for dipole validation kits above 700 MHz**

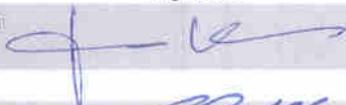
Calibration date: **March 16, 2016**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	US37292783	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	MY41092317	07-Oct-15 (No. 217-02223)	Oct-16
Reference 20 dB Attenuator	SN: 5058 (20k)	01-Apr-15 (No. 217-02131)	Mar-16
Type-N mismatch combination	SN: 5047.2 / 06327	01-Apr-15 (No. 217-02134)	Mar-16
Reference Probe EX3DV4	SN: 7349	31-Dec-15 (No. EX3-7349_Dec15)	Dec-16
DAE4	SN: 601	30-Dec-15 (No. DAE4-601_Dec15)	Dec-16
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100972	15-Jun-15 (in house check Jun-15)	In house check: Jun-18
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Calibrated by: **Jeton Kastrati** (Name) / **Laboratory Technician** (Function) /  (Signature)

Approved by: **Katja Pokovic** (Name) / **Technical Manager** (Function) /  (Signature)

Issued: March 16, 2016

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



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Accreditation No.: **SCS 0108**

### Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Additional Documentation:

- DASY4/5 System Handbook

### Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.