



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

The plots are shown as follows.

### 01\_GSM850\_GPRS 3 Tx slots\_Left Cheek\_0mm\_Ch251

Communication System: UID 0, GPRS/EDGE (3 Tx slots) (0); Frequency: 848.8 MHz; Duty Cycle: 1:2.77

Medium: HSL\_835 Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 0.921$  S/m;  $\epsilon_r = 42.031$ ;

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

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

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch251/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.253 W/kg

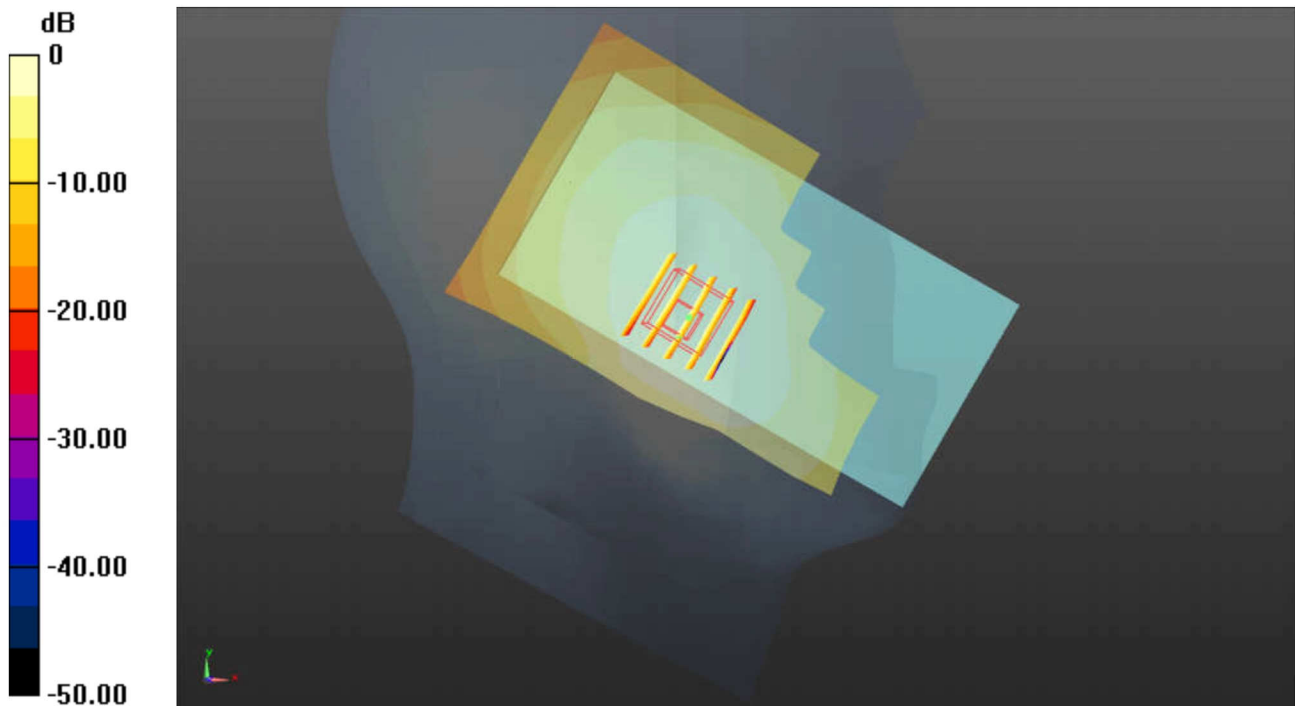
**Ch251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.438 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.281 W/kg

**SAR(1 g) = 0.225 W/kg; SAR(10 g) = 0.175 W/kg**

Maximum value of SAR (measured) = 0.252 W/kg



0 dB = 0.253 W/kg = -5.97 dBW/kg

**02\_GSM1900\_GPRS 3 Tx slots\_Right Cheek\_0mm\_Ch810**

Communication System: UID 0, GPRS/EDGE (3 Tx slots) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.77  
 Medium: HSL\_1900 Medium parameters used:  $f = 1909.8 \text{ MHz}$ ;  $\sigma = 1.412 \text{ S/m}$ ;  $\epsilon_r = 40.547$ ;

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

Ambient Temperature :  $23.3 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.8 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch810/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.157 \text{ W/kg}$

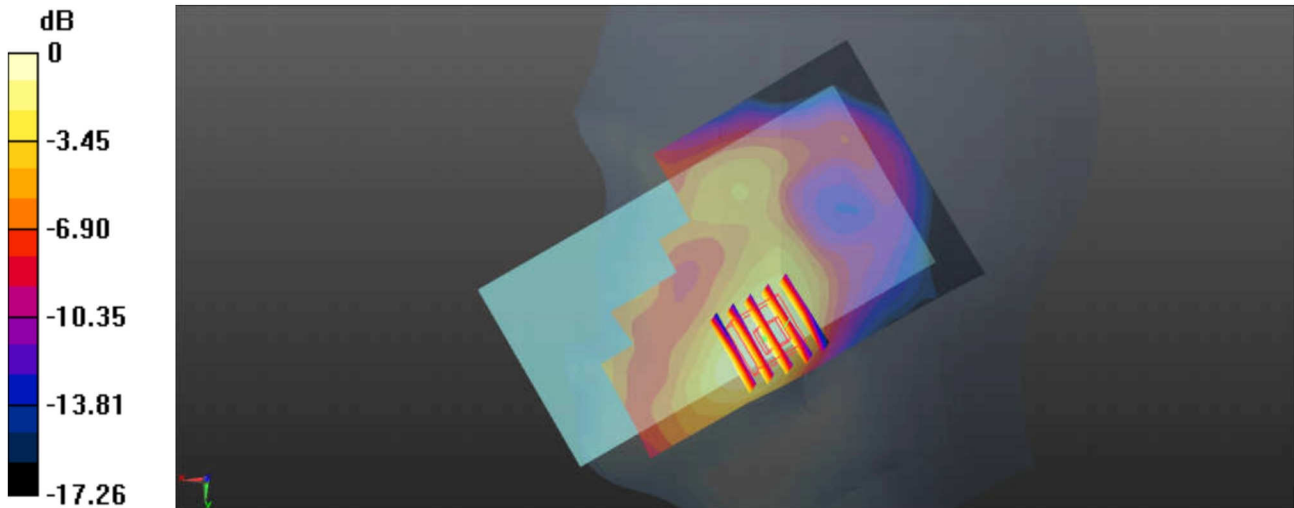
**Ch810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $3.709 \text{ V/m}$ ; Power Drift =  $0.06 \text{ dB}$

Peak SAR (extrapolated) =  $0.181 \text{ W/kg}$

**SAR(1 g) =  $0.120 \text{ W/kg}$ ; SAR(10 g) =  $0.075 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.149 \text{ W/kg}$



$0 \text{ dB} = 0.157 \text{ W/kg} = -8.04 \text{ dBW/kg}$

**03\_WCDMA Band V\_RMC12.2Kbps\_Left Cheek\_0mm\_Ch4182**

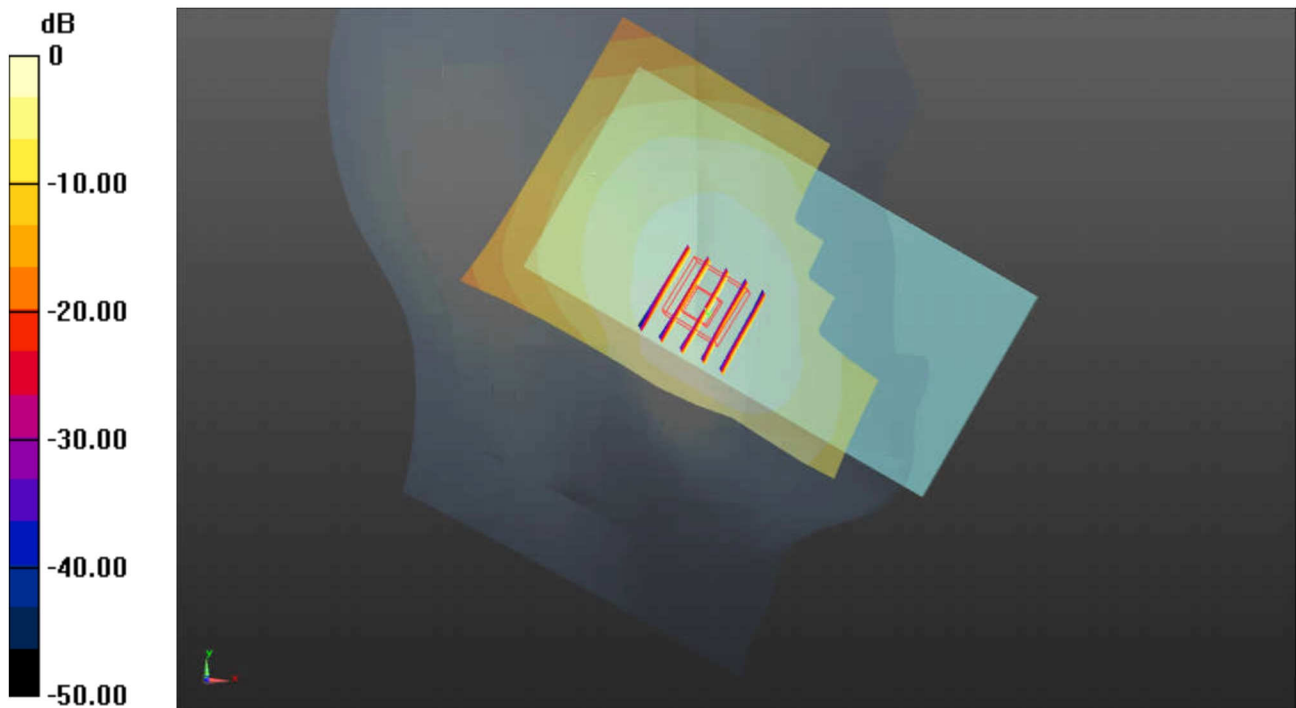
Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz; Duty Cycle: 1:1  
 Medium: HSL\_835 Medium parameters used:  $f = 836.4 \text{ MHz}$ ;  $\sigma = 0.909 \text{ S/m}$ ;  $\epsilon_r = 42.188$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.2 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch4182/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $0.330 \text{ W/kg}$

**Ch4182/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $8.177 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$   
 Peak SAR (extrapolated) =  $0.363 \text{ W/kg}$   
**SAR(1 g) =  $0.290 \text{ W/kg}$ ; SAR(10 g) =  $0.225 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.327 \text{ W/kg}$



0 dB =  $0.330 \text{ W/kg} = -4.81 \text{ dBW/kg}$

**04\_WCDMA Band II\_RMC12.2Kbps\_Right Cheek\_0mm\_Ch9538**

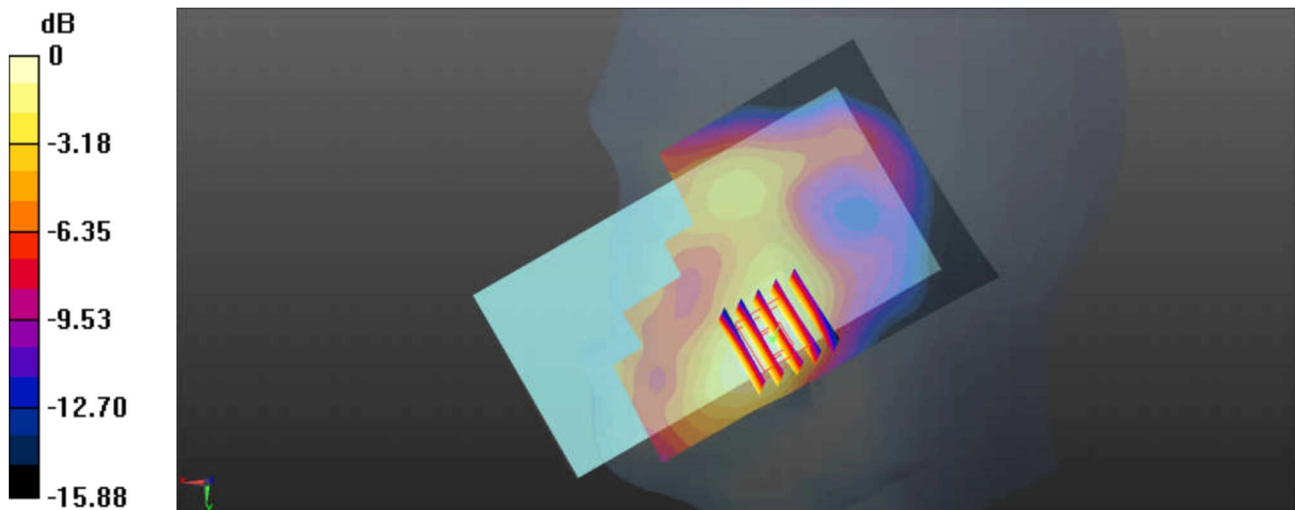
Communication System: UID 0, UMTS (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
 Medium: HSL\_1900 Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.409$  S/m;  $\epsilon_r = 40.548$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch9538/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Maximum value of SAR (interpolated) = 0.280 W/kg

**Ch9538/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 4.778 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 0.318 W/kg  
**SAR(1 g) = 0.218 W/kg; SAR(10 g) = 0.138 W/kg**  
 Maximum value of SAR (measured) = 0.272 W/kg



0 dB = 0.280 W/kg = -5.53 dBW/kg

**05\_CDMA2000 BC0\_RC3 SO55\_Left Cheek\_0mm\_Ch777**

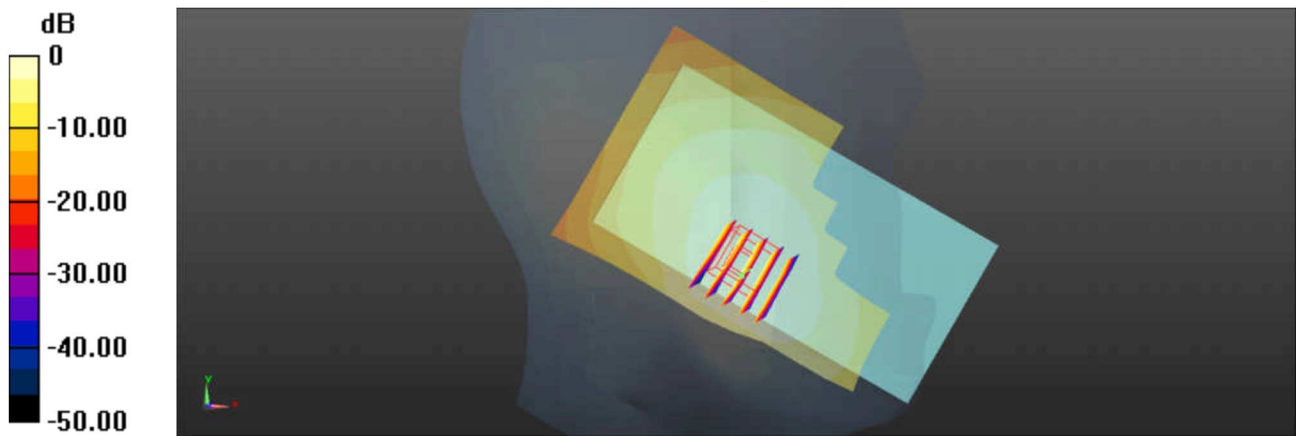
Communication System: UID 0, CDMA2000 (0); Frequency: 848.31 MHz; Duty Cycle: 1:1  
 Medium: HSL\_835 Medium parameters used:  $f = 848.31 \text{ MHz}$ ;  $\sigma = 0.92 \text{ S/m}$ ;  $\epsilon_r = 42.04$ ;  
 $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature :  $23.2 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch777/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $0.452 \text{ W/kg}$

**Ch777/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $8.948 \text{ V/m}$ ; Power Drift =  $0.04 \text{ dB}$   
 Peak SAR (extrapolated) =  $0.490 \text{ W/kg}$   
**SAR(1 g) =  $0.386 \text{ W/kg}$ ; SAR(10 g) =  $0.298 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.440 \text{ W/kg}$



0 dB =  $0.452 \text{ W/kg} = -3.45 \text{ dBW/kg}$



**06\_CDMA2000 BC1\_RC3 SO55\_Right Cheek\_0mm\_Ch1175**

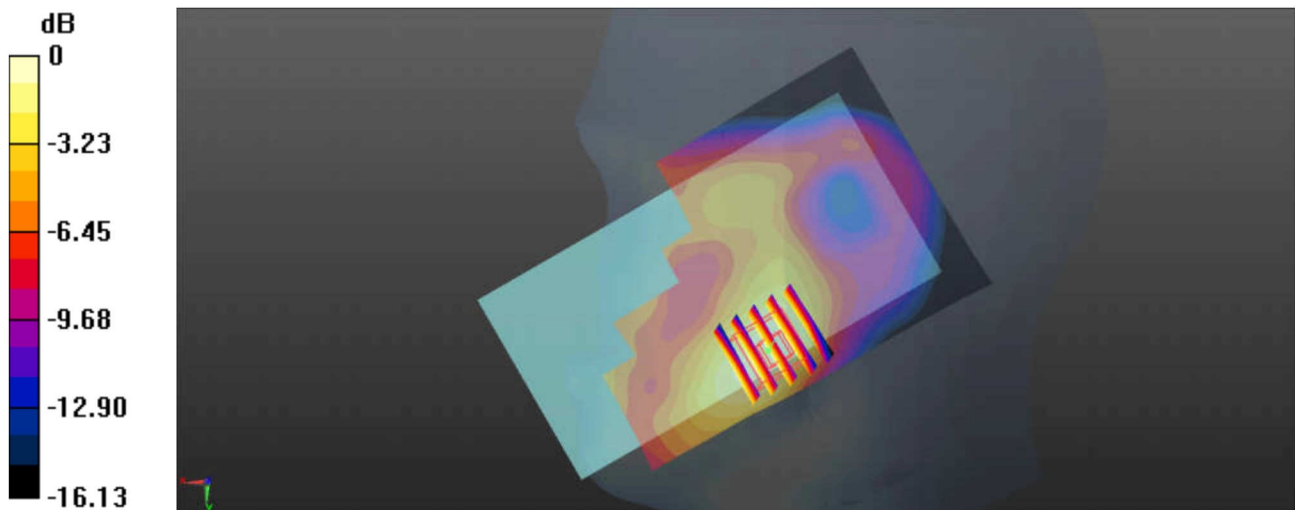
Communication System: UID 0, CDMA2000 (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1  
 Medium: HSL\_1900 Medium parameters used:  $f = 1908.75$  MHz;  $\sigma = 1.41$  S/m;  $\epsilon_r = 40.549$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch1175/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Maximum value of SAR (interpolated) = 0.297 W/kg

**Ch1175/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 4.461 V/m; Power Drift = 0.04 dB  
 Peak SAR (extrapolated) = 0.340 W/kg  
**SAR(1 g) = 0.225 W/kg; SAR(10 g) = 0.141 W/kg**  
 Maximum value of SAR (measured) = 0.273 W/kg



0 dB = 0.297 W/kg = -5.27 dBW/kg

**07\_LTE Band 13\_10M\_QPSK\_1RB\_0Offset\_Left Cheek\_0mm\_Ch23230**

Communication System: UID 0, FDD\_LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.858 \text{ S/m}$ ;  $\epsilon_r = 42.896$ ;  
 $\rho = 1000 \text{ kg/m}^3$

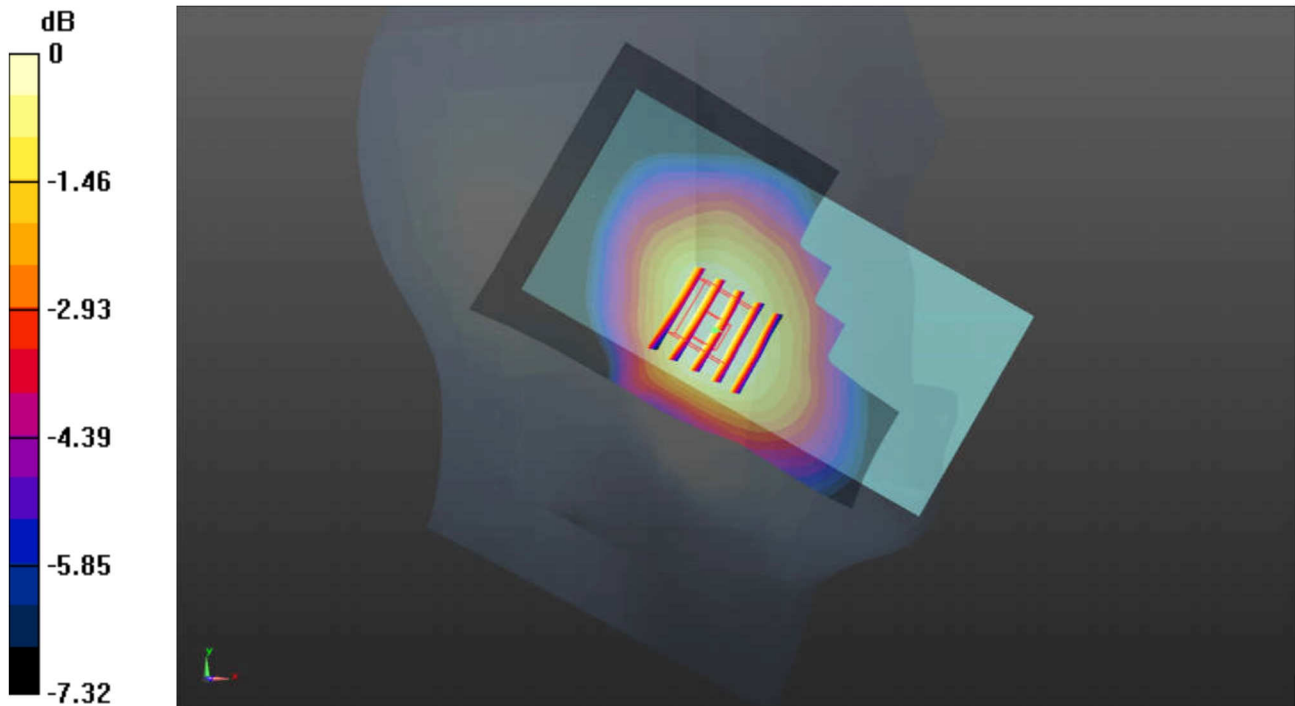
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3954; ConvF(10.72, 10.72, 10.72); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch23230/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) = 0.229 W/kg

**Ch23230/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 7.165 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 0.246 W/kg  
**SAR(1 g) = 0.208 W/kg; SAR(10 g) = 0.167 W/kg**  
Maximum value of SAR (measured) = 0.230 W/kg



0 dB = 0.229 W/kg = -6.40 dBW/kg



**08\_LTE Band 5\_10M\_QPSK\_1RB\_25Offset\_Left Cheek\_0mm\_Ch20525**

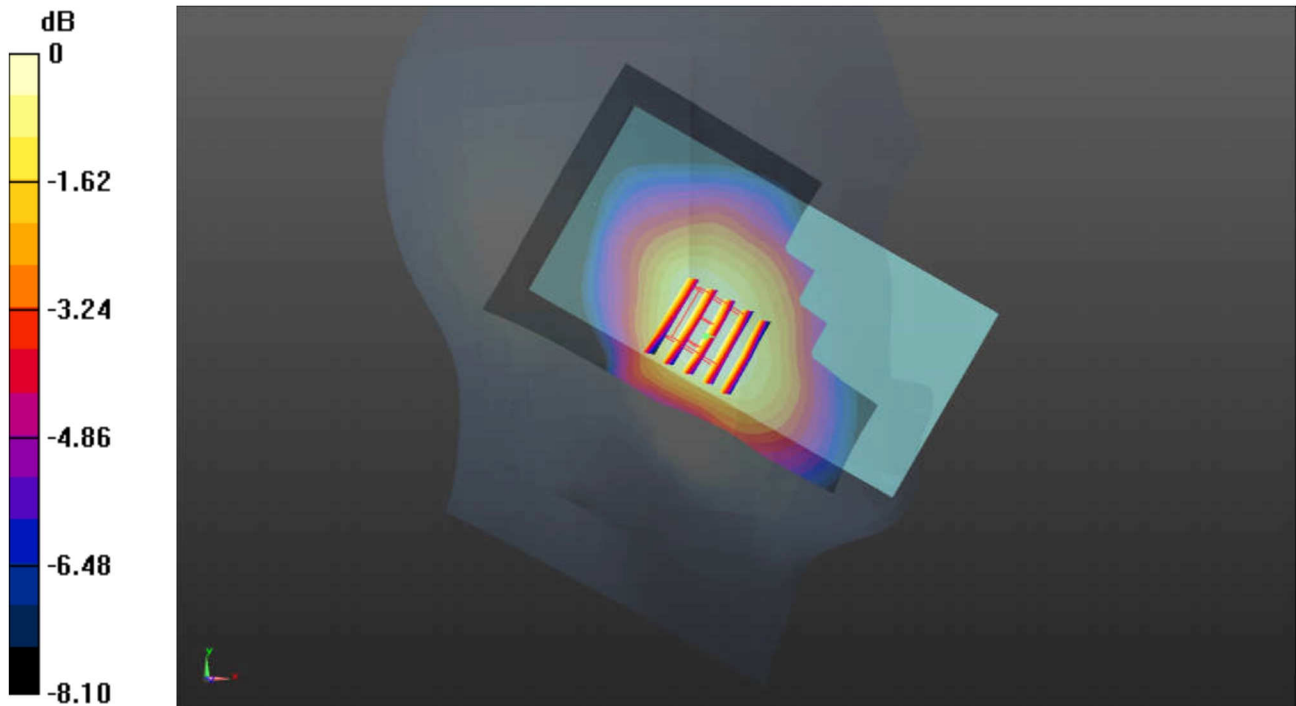
Communication System: UID 0, FDD\_LTE (0); Frequency: 836.5 MHz; Duty Cycle: 1:1  
 Medium: HSL\_835 Medium parameters used :  $f = 836.5$  MHz;  $\sigma = 0.909$  S/m;  $\epsilon_r = 42.186$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch20525/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Maximum value of SAR (interpolated) = 0.290 W/kg

**Ch20525/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 7.979 V/m; Power Drift = 0.03 dB  
 Peak SAR (extrapolated) = 0.318 W/kg  
**SAR(1 g) = 0.259 W/kg; SAR(10 g) = 0.203 W/kg**  
 Maximum value of SAR (measured) = 0.291 W/kg



0 dB = 0.290 W/kg = -5.38 dBW/kg

**09\_LTE Band 66\_20M\_QPSK\_1RB\_0Offset\_Right Cheek\_0mm\_Ch132572**

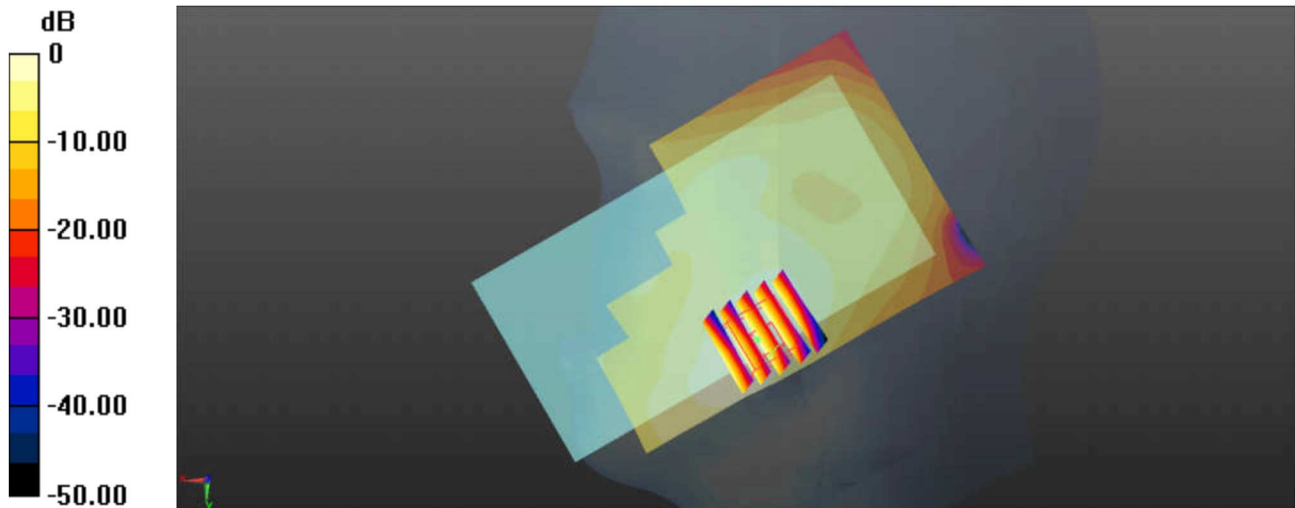
Communication System: UID 0, FDD\_LTE (0); Frequency: 1770 MHz;Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.343$  S/m;  $\epsilon_r = 39.111$ ;  
 $\rho = 1000$ kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(8.65, 8.65, 8.65); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch132572/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.561 W/kg

**Ch132572/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 8.141 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 0.662 W/kg  
**SAR(1 g) = 0.463 W/kg; SAR(10 g) = 0.305 W/kg**  
Maximum value of SAR (measured) = 0.533 W/kg



0 dB = 0.561 W/kg = -2.51 dBW/kg

### 10\_LTE Band 2\_20M\_QPSK\_1RB\_0Offset\_Right Cheek\_0mm\_Ch19100

Communication System: UID 0, FDD\_LTE (0); Frequency: 1900 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.4$  S/m;  $\epsilon_r = 40.573$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>

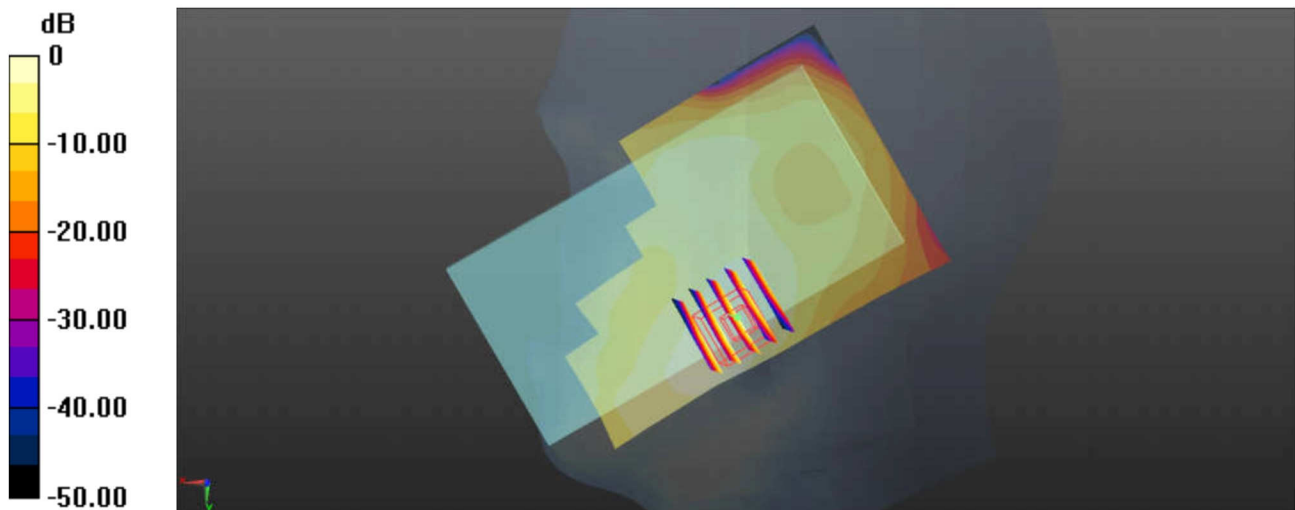
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Ch19100/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 0.331 W/kg

**Ch19100/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
Reference Value = 5.173 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 0.410 W/kg  
**SAR(1 g) = 0.271 W/kg; SAR(10 g) = 0.169 W/kg**  
Maximum value of SAR (measured) = 0.347 W/kg



0 dB = 0.331 W/kg = -4.80 dBW/kg