

### 20\_WLAN5GHz\_802.11n-HT40 MCS0\_Left Cheek\_0mm\_Ch159

Communication System: UID 0, WLAN5G (0); Frequency: 5795 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5795$  MHz;  $\sigma = 5.207$  S/m;  $\epsilon_r = 35.516$ ;  $\rho = 1000$  kg/m<sup>3</sup>

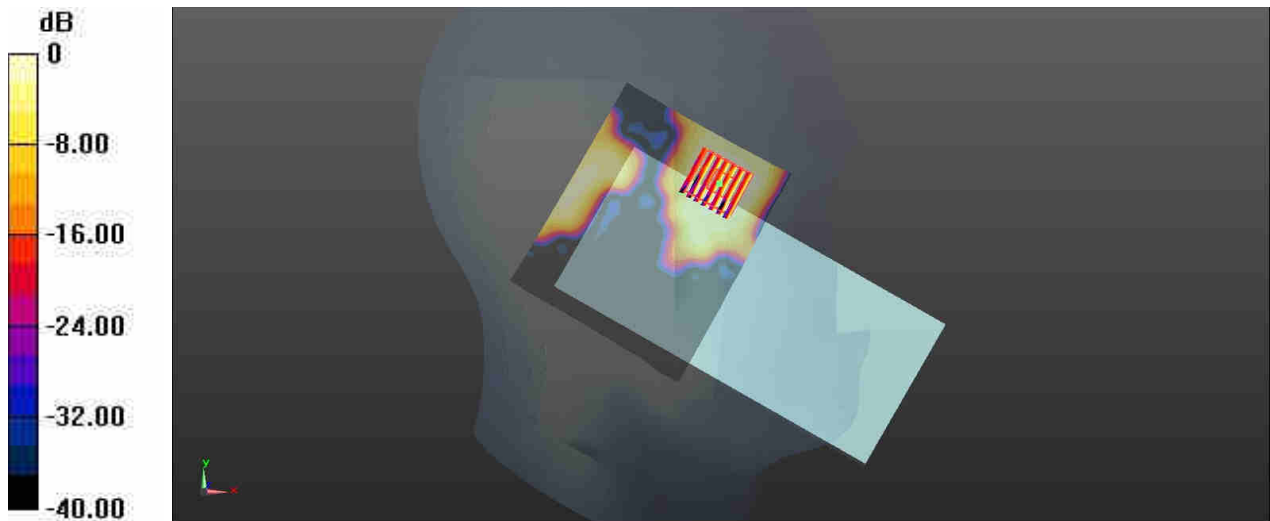
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.67, 4.67, 4.67); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (111x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.286 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 1.310 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 0.486 W/kg  
**SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.048 W/kg**  
Maximum value of SAR (measured) = 0.289 W/kg



0 dB = 0.289 W/kg = -5.39 dBW/kg

### 21\_Bluetooth\_1Mbps\_Left Cheek\_0mm\_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1.301

Medium: HSL\_2450 Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.851$  S/m;  $\epsilon_r = 38.624$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.6, 7.6, 7.6); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.487 W/kg

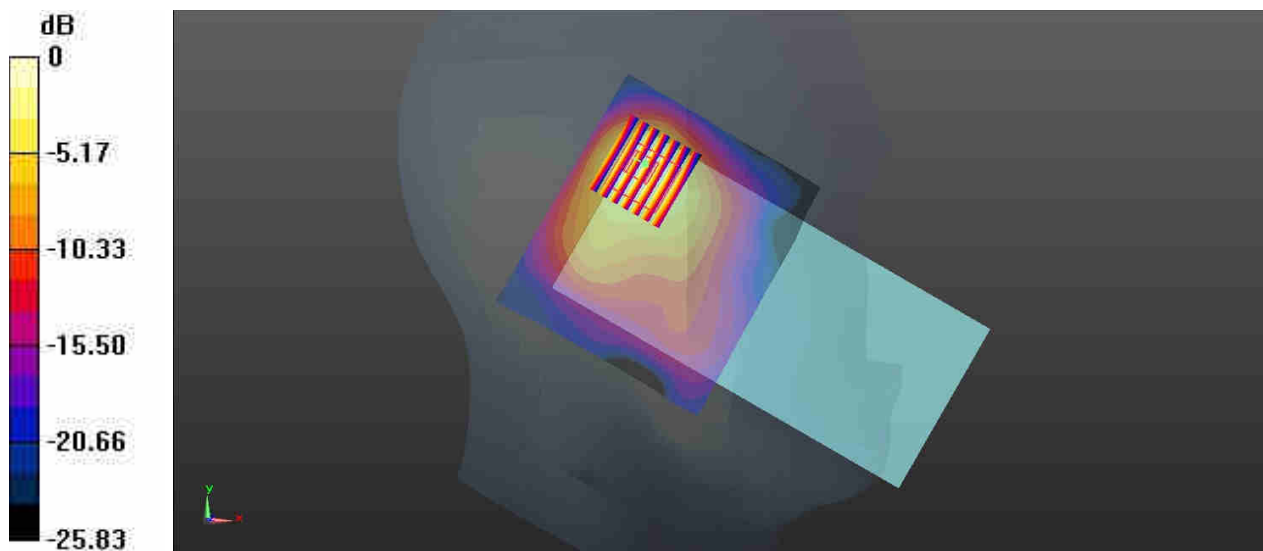
**Zoom Scan (8x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.024 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.603 W/kg

**SAR(1 g) = 0.273 W/kg; SAR(10 g) = 0.137 W/kg**

Maximum value of SAR (measured) = 0.455 W/kg



0 dB = 0.455 W/kg = -3.42 dBW/kg

## 22\_GSM850\_GPRS 2 Tx slot\_Front\_5mm\_Ch128

Communication System: UID 0, GSM850 (0); Frequency: 824.2 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_835 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.895$  S/m;  $\epsilon_r = 42.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

### Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.926 W/kg

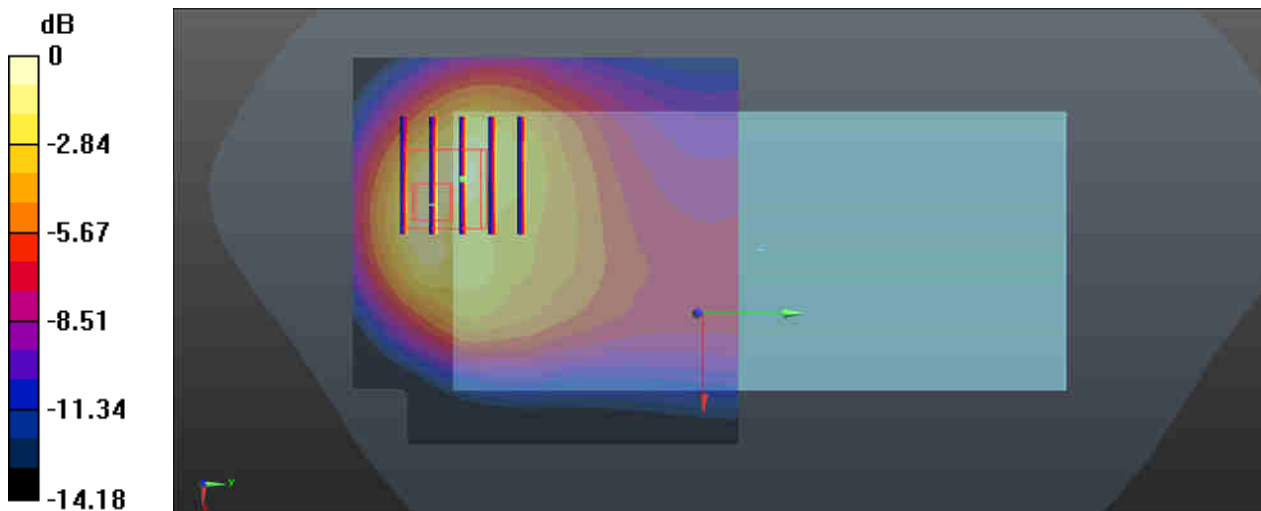
### Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.99 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.71 W/kg

**SAR(1 g) = 0.847 W/kg; SAR(10 g) = 0.452 W/kg**

Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

### 23\_GSM1900\_GPRS 2 Tx slot\_Front\_5mm\_Ch661

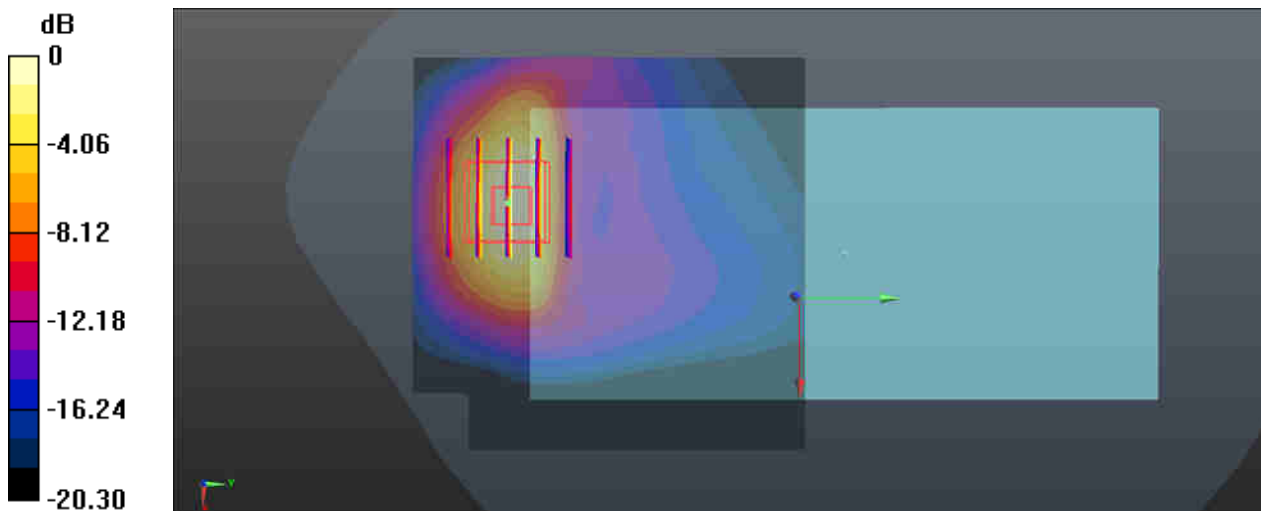
Communication System: UID 0, PCS (0); Frequency: 1880 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.804$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.22 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.216 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 1.62 W/kg  
**SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.448 W/kg**  
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

### 24\_WCDMA II\_RMC 12.2Kbps\_Bottom Side\_5mm\_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.381$  S/m;  $\epsilon_r = 39.699$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (41x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.27 W/kg

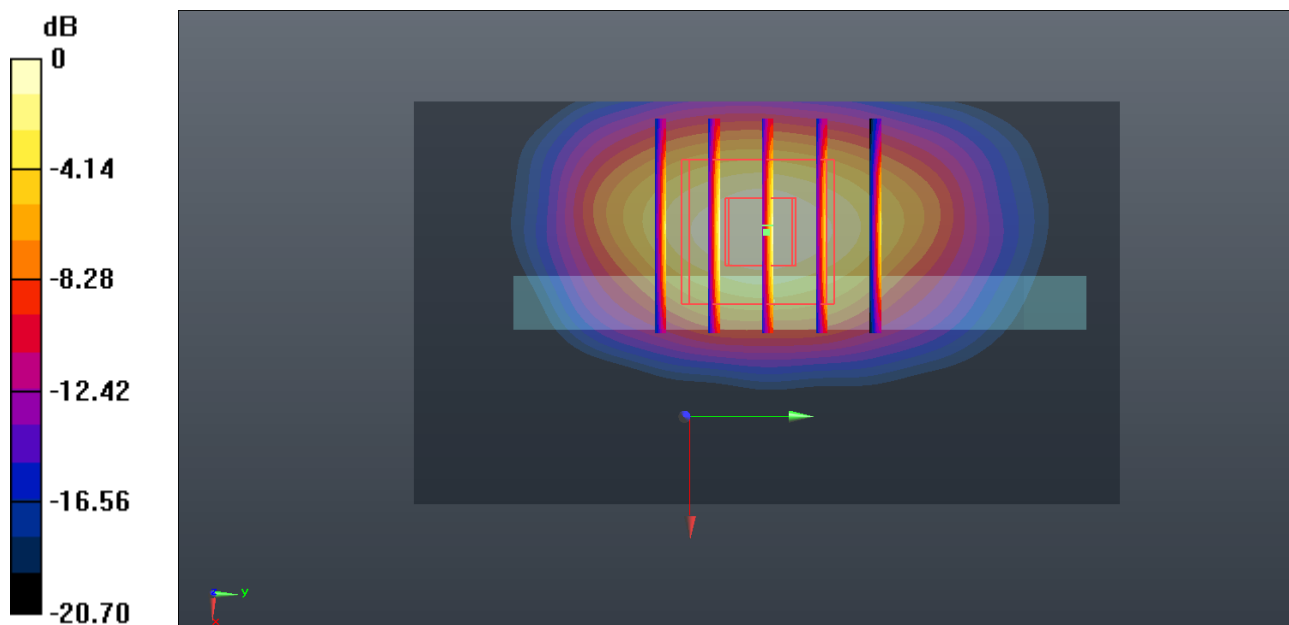
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.52 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.70 W/kg

**SAR(1 g) = 0.886 W/kg; SAR(10 g) = 0.421 W/kg**

Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

### 25\_WCDMA IV\_RMC 12.2Kbps\_Bottom Side\_5mm\_Ch1513

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1753$  MHz;  $\sigma = 1.363$  S/m;  $\epsilon_r = 39.037$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (41x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.74 W/kg

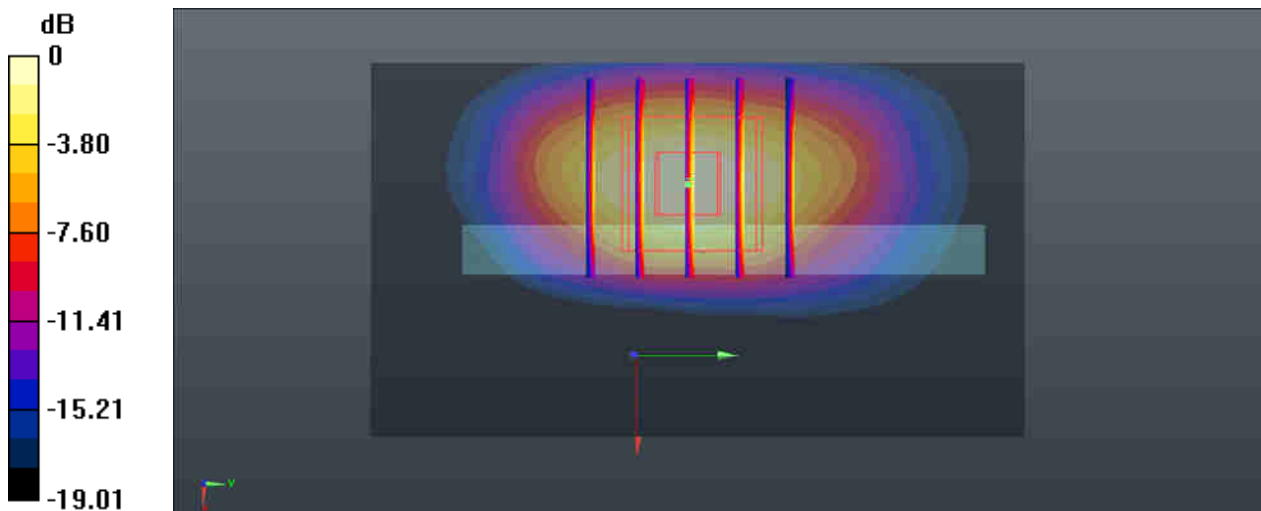
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.06 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.21 W/kg

**SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.569 W/kg**

Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg = 1.79 dBW/kg

### 26\_WCDMA V\_RMC 12.2Kbps\_Front\_5mm\_Ch4233

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 847 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 42.081$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.1 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.7 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $1.53 \text{ W/kg}$

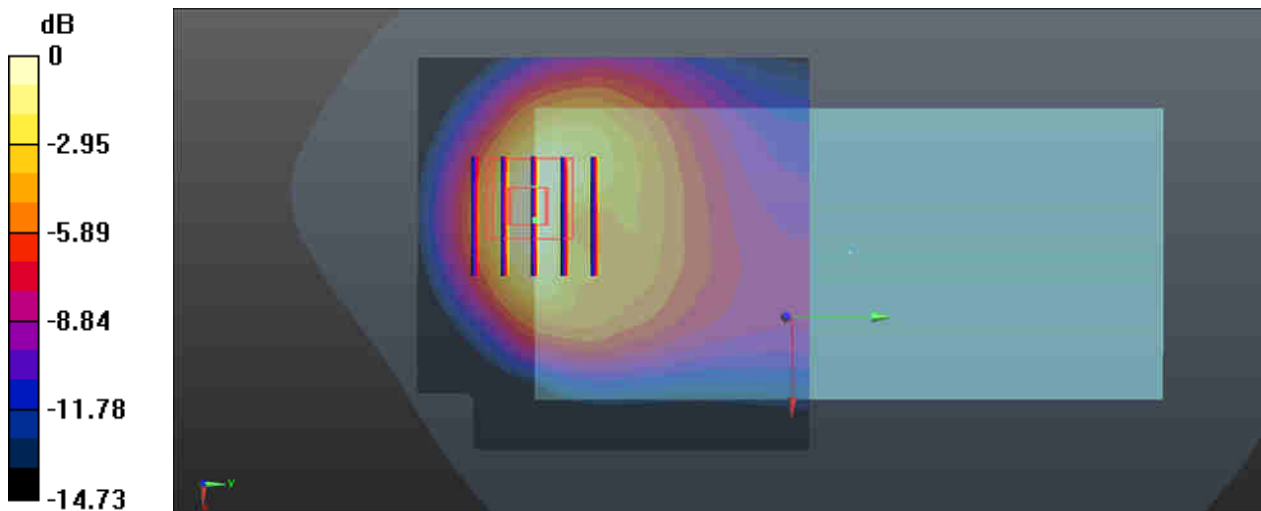
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $15.39 \text{ V/m}$ ; Power Drift =  $0.06 \text{ dB}$

Peak SAR (extrapolated) =  $2.44 \text{ W/kg}$

**SAR(1 g) =  $1.18 \text{ W/kg}$ ; SAR(10 g) =  $0.608 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.52 \text{ W/kg}$



0 dB =  $1.52 \text{ W/kg}$  =  $1.82 \text{ dBW/kg}$

### 27\_CDMA2000 BC0\_RTAP 153.6Kbps\_Front\_5mm\_Ch777

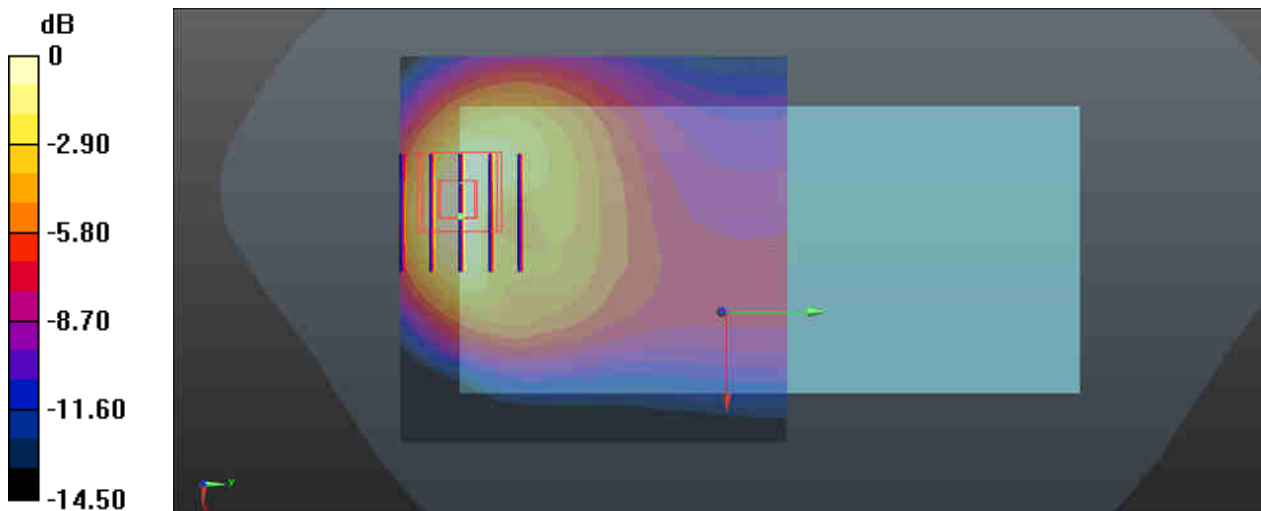
Communication System: UID 0, CDMA (0); Frequency: 848.31 MHz; Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 42.072$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.43 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 17.14 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 2.22 W/kg  
**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.584 W/kg**  
Maximum value of SAR (measured) = 1.42 W/kg



0 dB = 1.42 W/kg = 1.52 dBW/kg

**28\_CDMA2000 BC10\_RTAP 153.6Kbps\_Front\_5mm\_Ch684**

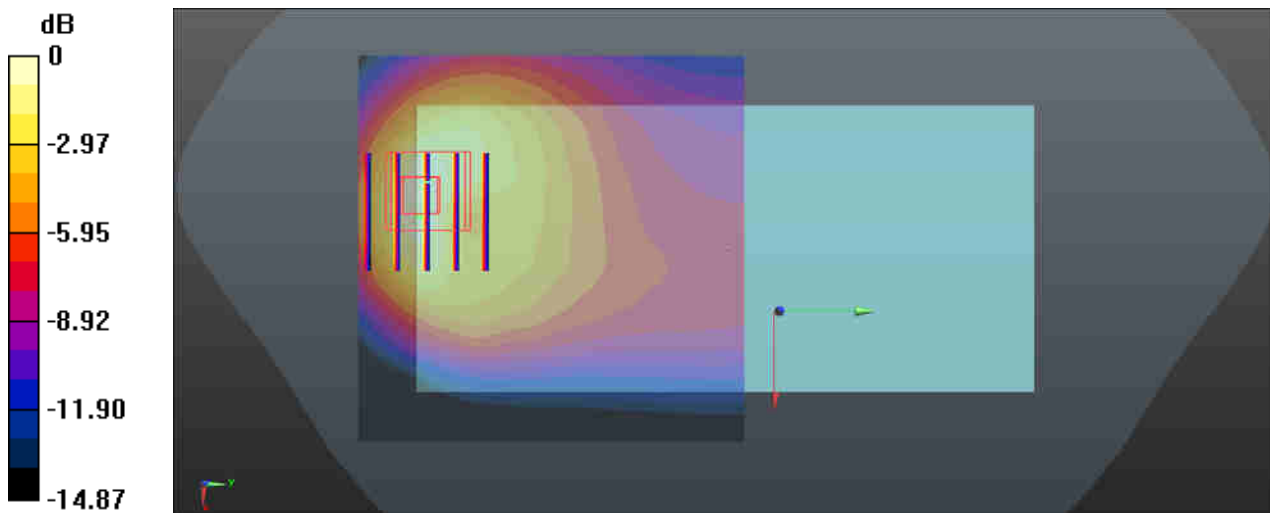
Communication System: UID 0, CDMA (0); Frequency: 823.1 MHz; Duty Cycle: 1:1  
 Medium: HSL\_835 Medium parameters used:  $f = 823.1 \text{ MHz}$ ;  $\sigma = 0.894 \text{ S/m}$ ;  $\epsilon_r = 42.356$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

**DASY5 Configuration:**

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) = 1.34 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 17.35 V/m; Power Drift = -0.04 dB  
 Peak SAR (extrapolated) = 2.11 W/kg  
**SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.562 W/kg**  
 Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

### 29\_CDMA2000 BC1\_RTAP 153.6Kbps\_Bottom Side\_5mm\_Ch1175

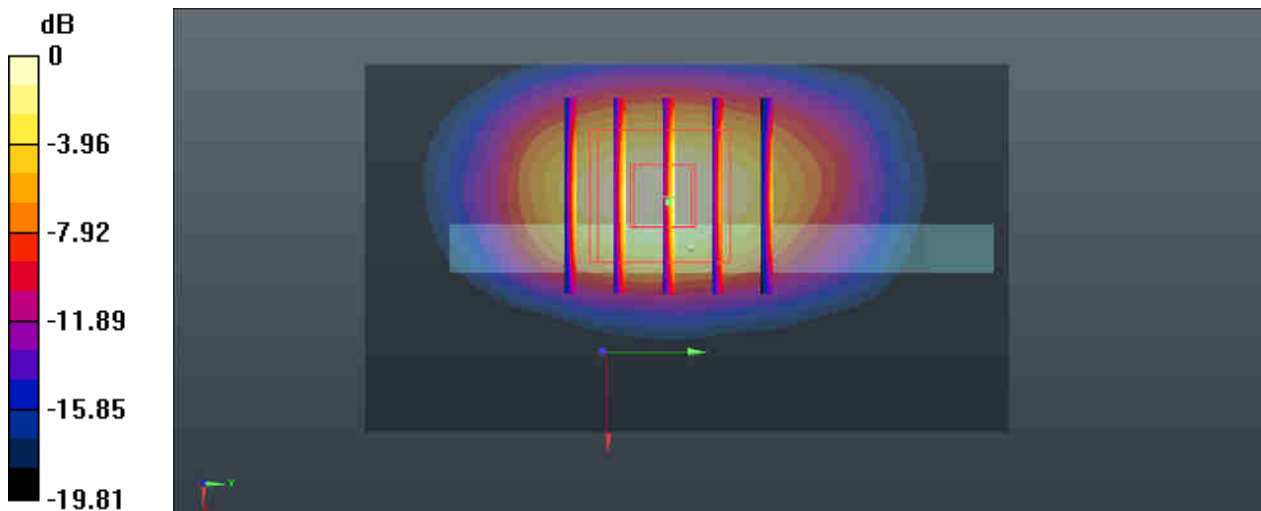
Communication System: UID 0, CDMA (0); Frequency: 1908.75 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1909$  MHz;  $\sigma = 1.382$  S/m;  $\epsilon_r = 39.696$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (41x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.84 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 25.31 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 2.41 W/kg  
**SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.623 W/kg**  
Maximum value of SAR (measured) = 1.67 W/kg



0 dB = 1.67 W/kg = 2.23 dBW/kg

### 30\_LTE Band 7\_20M\_QPSK\_50RB\_0Offset\_Back\_5mm\_Ch21350

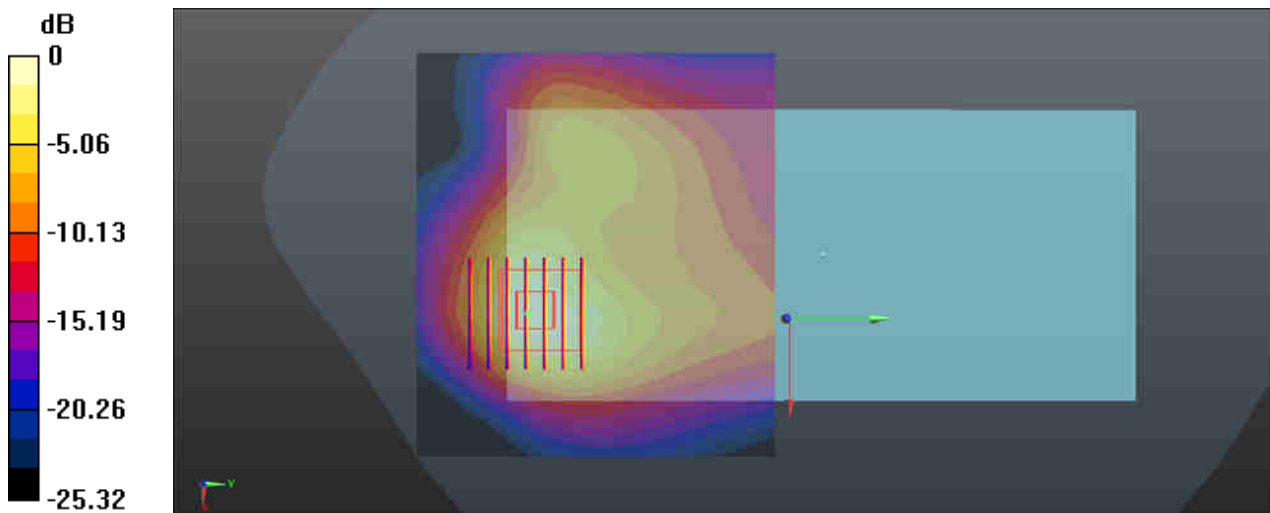
Communication System: UID 0, LTE-FDD (0); Frequency: 2560 MHz; Duty Cycle: 1:1  
Medium: HSL\_2600 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 1.997$  S/m;  $\epsilon_r = 38.093$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x81x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm  
Maximum value of SAR (interpolated) = 1.63 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 7.055 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 2.52 W/kg  
**SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.562 W/kg**  
Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

### 31\_LTE Band 12\_20M\_QPSK\_1RB\_0Offset\_Back\_5mm\_Ch23095

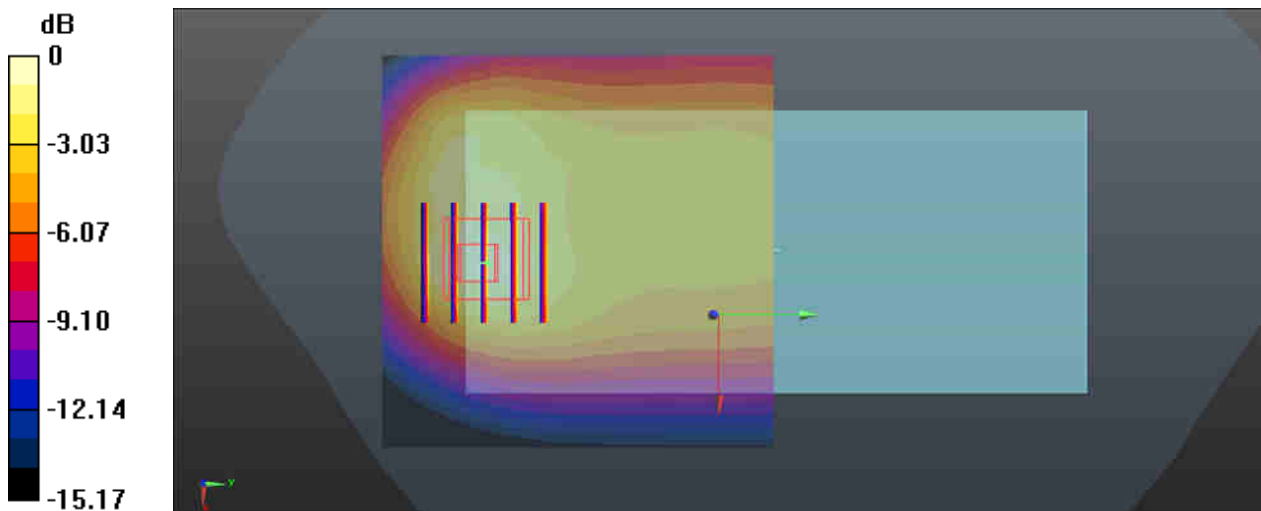
Communication System: UID 0, LTE-FDD (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.853$  S/m;  $\epsilon_r = 42.278$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.14 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 25.57 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 2.08 W/kg  
**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.552 W/kg**  
Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

### 32\_LTE Band 13\_20M\_QPSK\_1RB\_0Offset\_Front\_5mm\_Ch23230

Communication System: UID 0, LTE-FDD (0); Frequency: 782 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 41.304$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.3 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

#### Area Scan (71x71x1): Interpolated grid: $dx=1.500 \text{ mm}$ , $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $1.38 \text{ W/kg}$

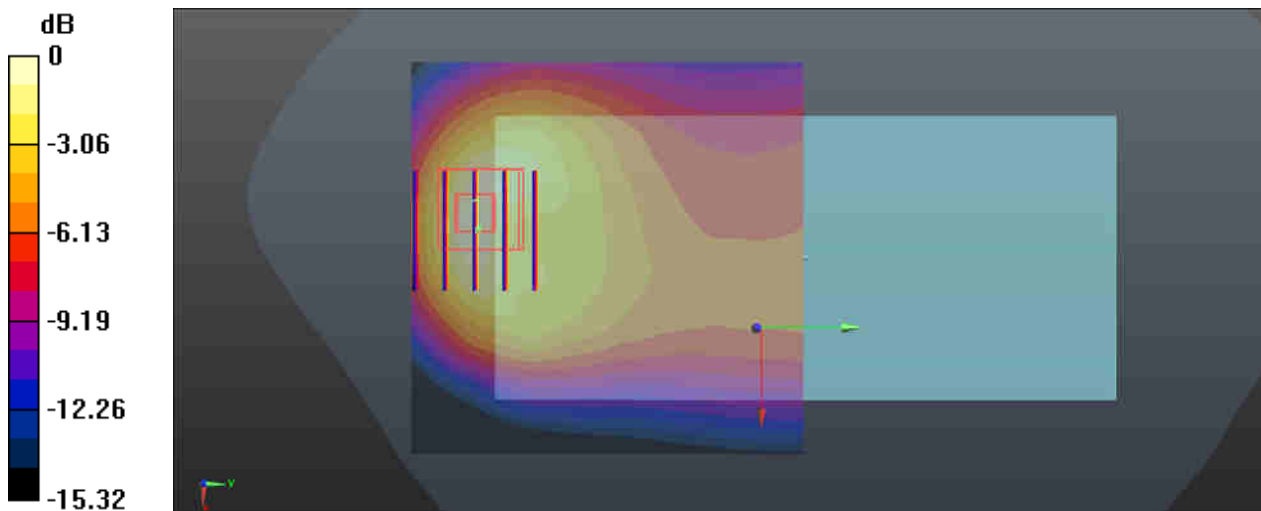
#### Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$ , $dy=8\text{mm}$ , $dz=5\text{mm}$

Reference Value =  $20.20 \text{ V/m}$ ; Power Drift =  $-0.06 \text{ dB}$

Peak SAR (extrapolated) =  $2.18 \text{ W/kg}$

**SAR(1 g) =  $1.05 \text{ W/kg}$ ; SAR(10 g) =  $0.562 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.38 \text{ W/kg}$



0 dB =  $1.38 \text{ W/kg}$  =  $1.40 \text{ dBW/kg}$

### 33\_LTE Band 25\_20M\_QPSK\_50RB\_0Offset\_Front\_5mm\_Ch26340

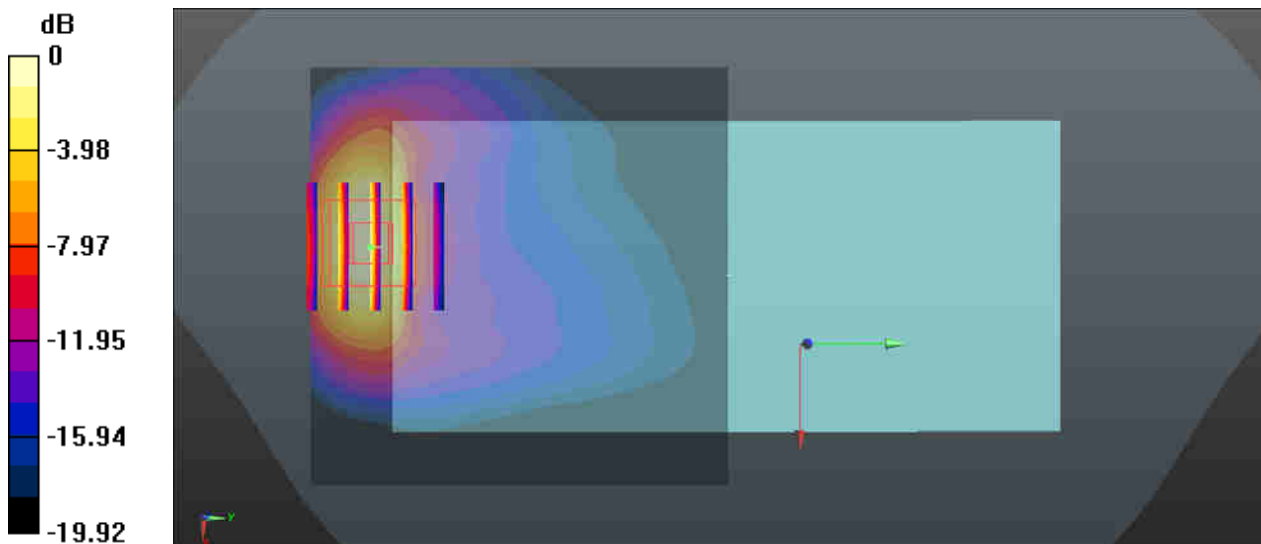
Communication System: UID 0, LTE-FDD (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.804$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 1.56 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
Reference Value = 3.475 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 2.23 W/kg  
**SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.579 W/kg**  
Maximum value of SAR (measured) = 1.55 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

### 34\_LTE Band 26\_15M\_QPSK\_1RB\_0Offset\_Front\_5mm\_Ch26865

Communication System: UID 0, LTE-FDD (0); Frequency: 831.5 MHz;Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.902$  S/m;  $\epsilon_r = 42.257$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type:SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.45 W/kg

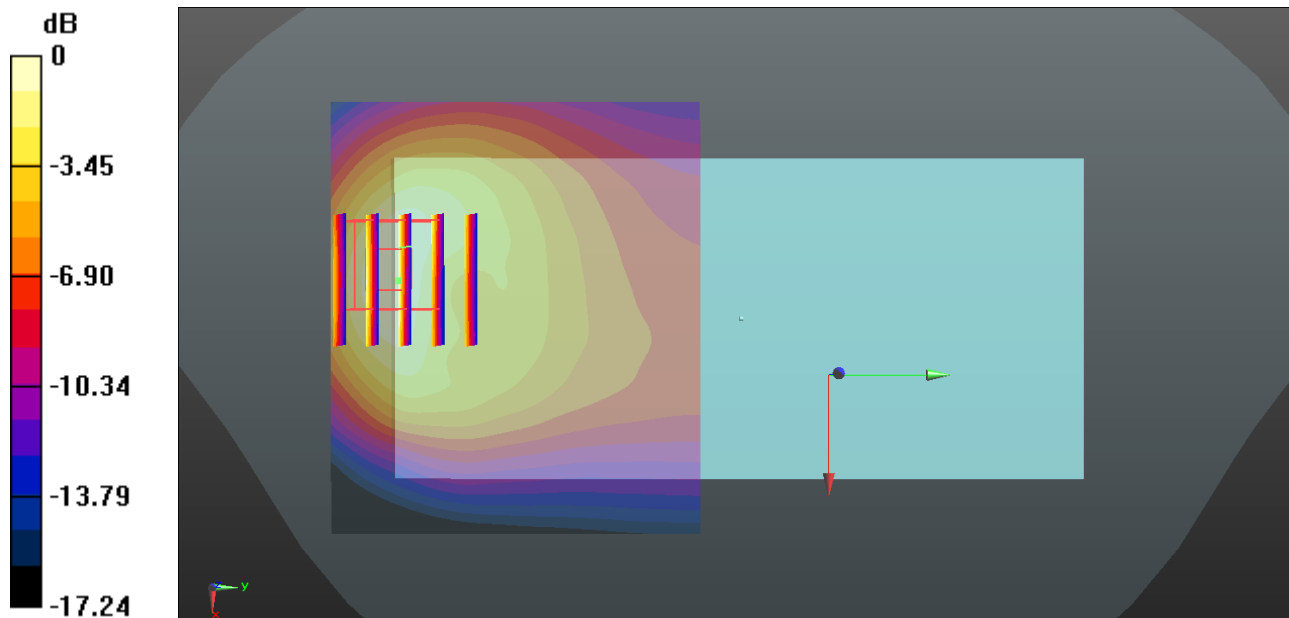
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.01 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.29 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.595 W/kg**

Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg = 1.49 dBW/kg

### 35\_LTE Band 66\_20M\_QPSK\_50RB\_0Offset\_Bottom Side\_5mm\_Ch132572

Communication System: UID 0, LTE-FDD (0); Frequency: 1770 MHz; Duty Cycle: 1:1  
Medium: HSL 1750 Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.379$  S/m;  $\epsilon_r = 38.98$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (41x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.57 W/kg

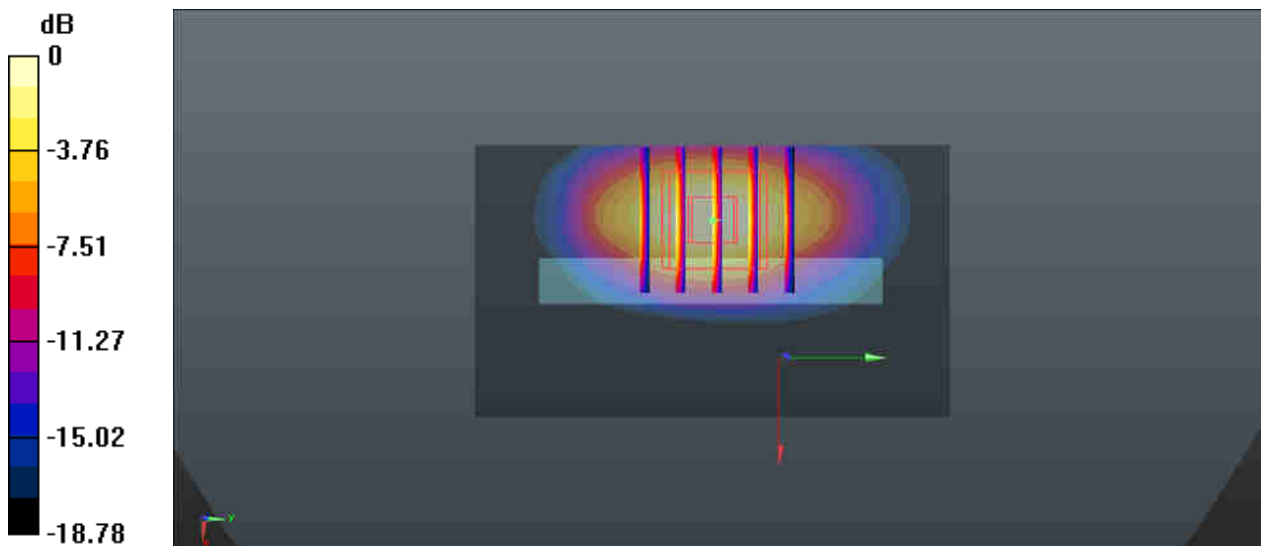
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.28 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.03 W/kg

**SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.532 W/kg**

Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

### 36\_LTE Band 71\_20M\_QPSK\_1RB\_0Offset\_Back\_5mm\_Ch133322

Communication System: UID 0, LTE-FDD (0); Frequency: 683 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 683 \text{ MHz}$ ;  $\sigma = 0.849 \text{ S/m}$ ;  $\epsilon = 42.656$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.772 W/kg

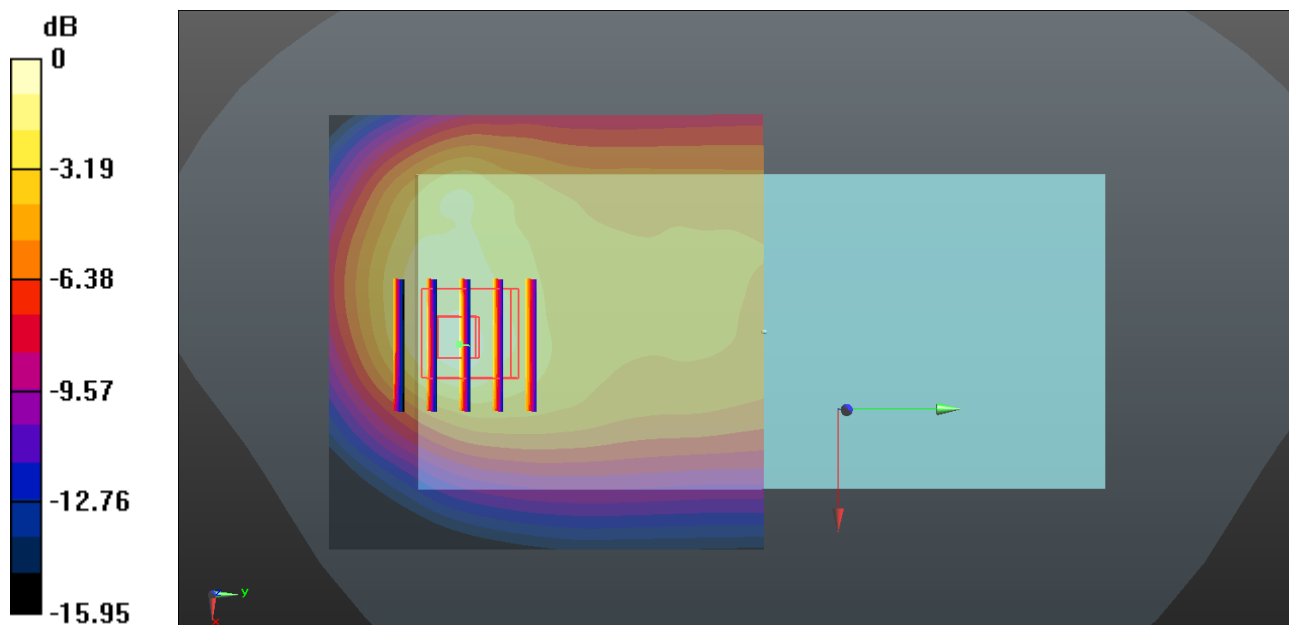
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 19.54 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.39 W/kg

**SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.351 W/kg**

Maximum value of SAR (measured) = 0.849 W/kg



0 dB = 0.849 W/kg = -0.71 dBW/kg

### 37\_LTE Band 41\_20M\_QPSK\_50RB\_0Offset\_Back\_5mm\_Ch40185

Communication System: UID 0, LTE-TDD (0); Frequency: 2549.5 MHz; Duty Cycle: 1:59  
Medium: HSL 2600 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.980$  S/m;  $\epsilon_r = 38.256$ ;  $\rho = 1000$  kg/m<sup>3</sup>

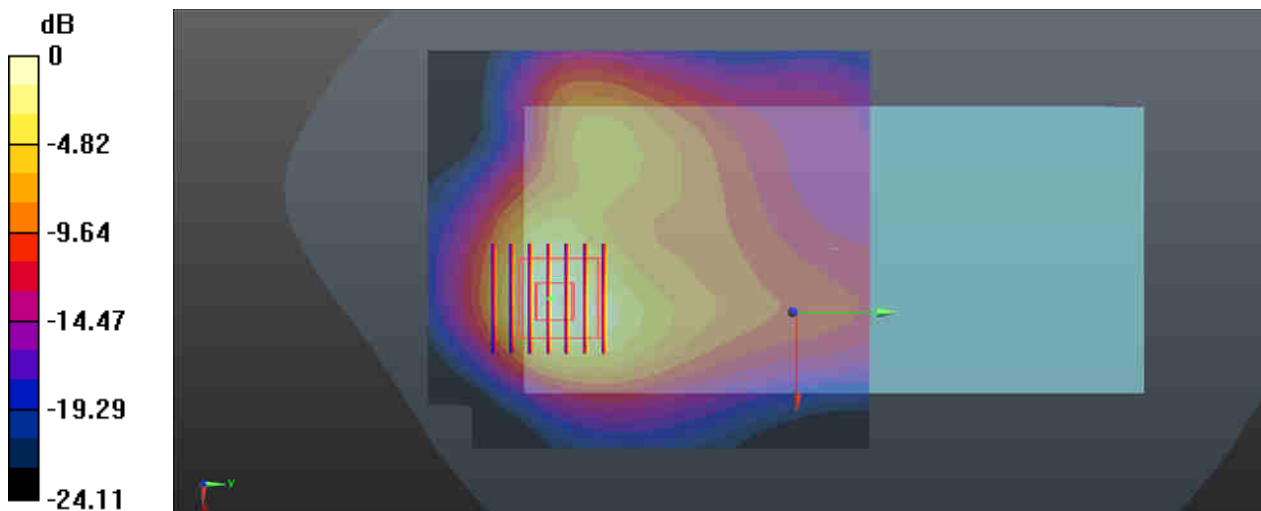
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 1.74 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 7.533 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 2.69 W/kg  
**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.609 W/kg**  
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.66 W/kg = 2.20 dBW/kg

### 38\_WLAN2.4GHz\_802.11b 1Mbps\_Top Side\_5mm\_Ch1

Communication System: UID 0, WIFI2.4G (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018  
Medium: HSL\_2450 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.823$  S/m;  $\epsilon_r = 39.064$ ;  $\rho = 1000$  kg/m<sup>3</sup>

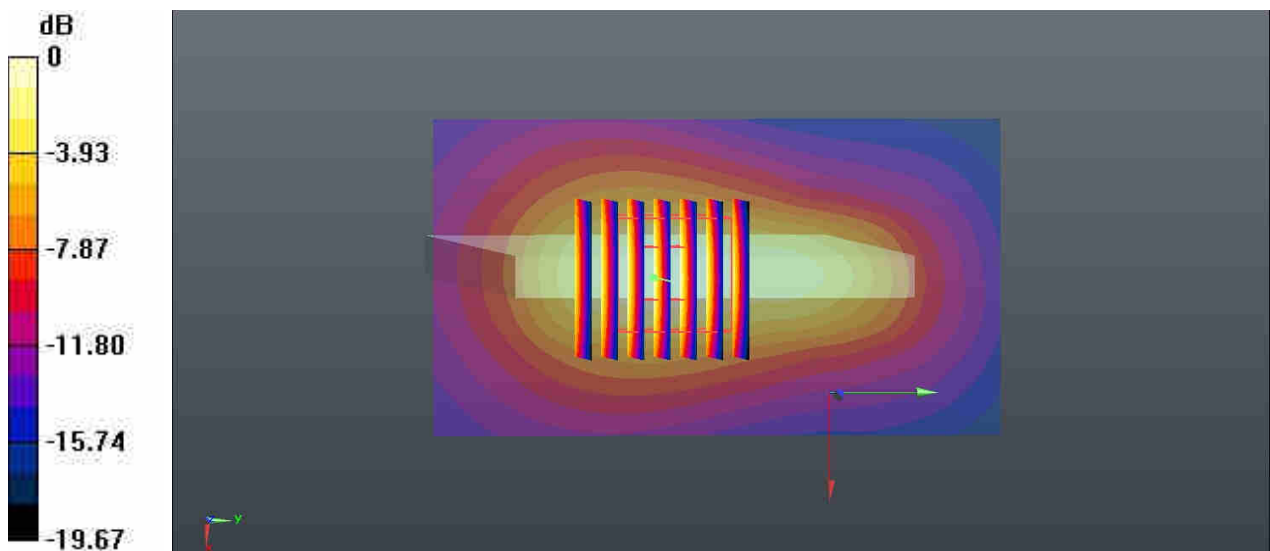
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.6, 7.6, 7.6); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (51x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 1.26 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 27.26 V/m; Power Drift = -0.05 dB  
Peak SAR (extrapolated) = 1.57 W/kg  
**SAR(1 g) = 0.759 W/kg; SAR(10 g) = 0.316 W/kg**  
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 1.56 dBW/kg

### 39\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_5mm\_Ch46

Communication System: UID 0, WLAN5G (0); Frequency: 5230 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5230$  MHz;  $\sigma = 4.569$  S/m;  $\epsilon_r = 36.451$ ;  $\rho = 1000$  kg/m<sup>3</sup>

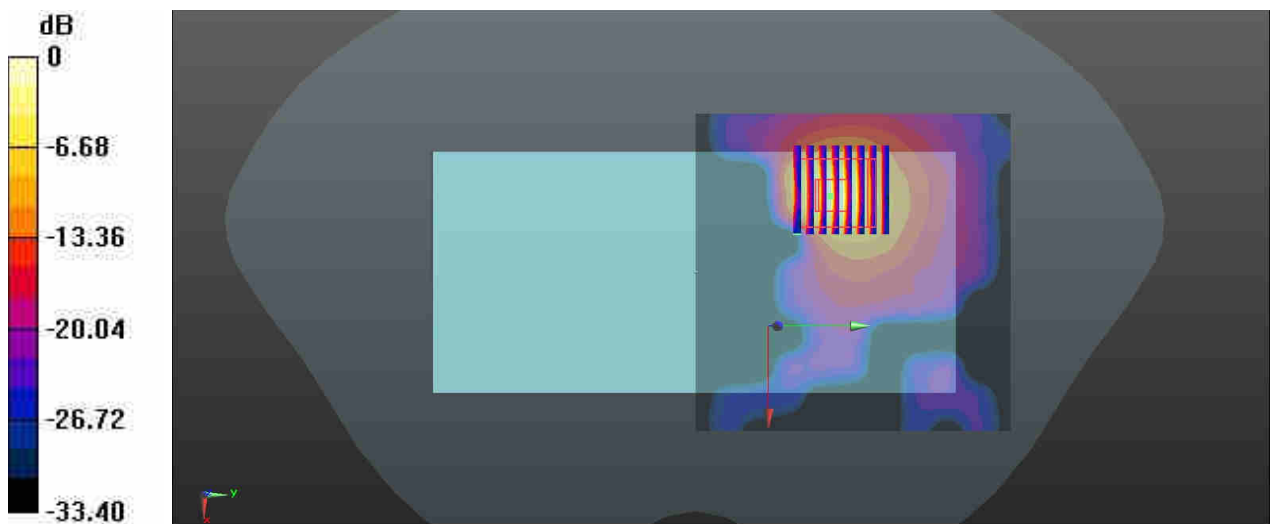
Ambient Temperature : 23.4 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.04, 5.04, 5.04); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 2.13 W/kg

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 0.9320 V/m; Power Drift = -0.05 dB  
Peak SAR (extrapolated) = 3.30 W/kg  
**SAR(1 g) = 0.857 W/kg; SAR(10 g) = 0.232 W/kg**  
Maximum value of SAR (measured) = 2.12 W/kg



0 dB = 2.12 W/kg = 3.26 dBW/kg

### 40\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_5mm\_Ch159

Communication System: UID 0, WLAN5G (0); Frequency: 5795 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5795$  MHz;  $\sigma = 5.207$  S/m;  $\epsilon_r = 35.516$ ;  $\rho = 1000$  kg/m<sup>3</sup>

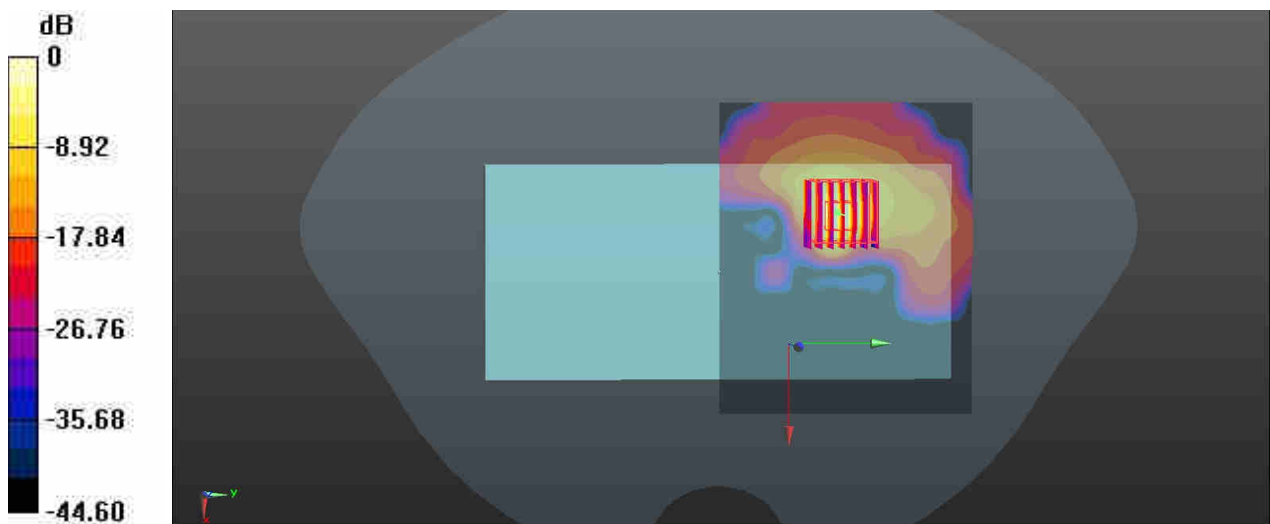
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.67, 4.67, 4.67); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (111x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 3.74 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 0.1990 V/m; Power Drift = -0.09 dB  
Peak SAR (extrapolated) = 4.88 W/kg  
**SAR(1 g) = 0.976 W/kg; SAR(10 g) = 0.257 W/kg**  
Maximum value of SAR (measured) = 2.91 W/kg



0 dB = 2.91 W/kg = 4.32 dBW/kg

### 41\_Bluetooth\_1Mbps\_Top Side\_5mm\_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1.301  
Medium: HSL\_2450 Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.857$  S/m;  $\epsilon_r = 38.950$ ;  $\rho = 1000$  kg/m<sup>3</sup>

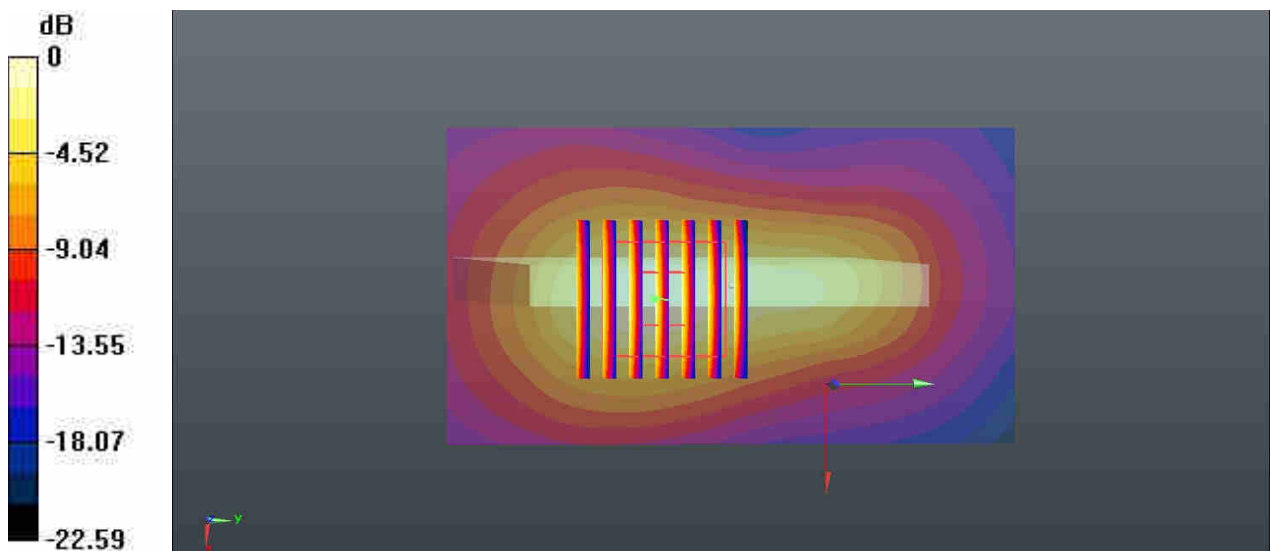
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.6, 7.6, 7.6); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (51x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 0.241 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 9.899 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 0.298 W/kg  
**SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.071 W/kg**  
Maximum value of SAR (measured) = 0.239 W/kg



0 dB = 0.239 W/kg = -6.22 dBW/kg

### 42\_GSM850\_GPRS 2 Tx slot\_Front\_5mm\_Ch128

Communication System: UID 0, GSM850 (0); Frequency: 824.2 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_835 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.895$  S/m;  $\epsilon_r = 42.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

#### Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.926 W/kg

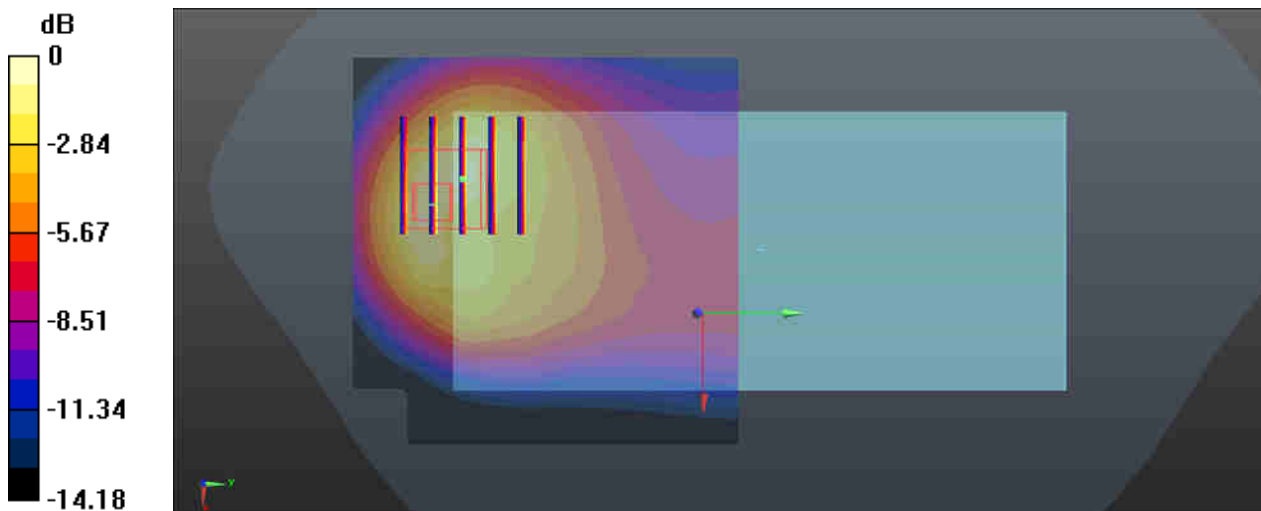
#### Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.99 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.71 W/kg

**SAR(1 g) = 0.847 W/kg; SAR(10 g) = 0.452 W/kg**

Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

### 43\_GSM1900\_GPRS 2 Tx slot\_Front\_5mm\_Ch661

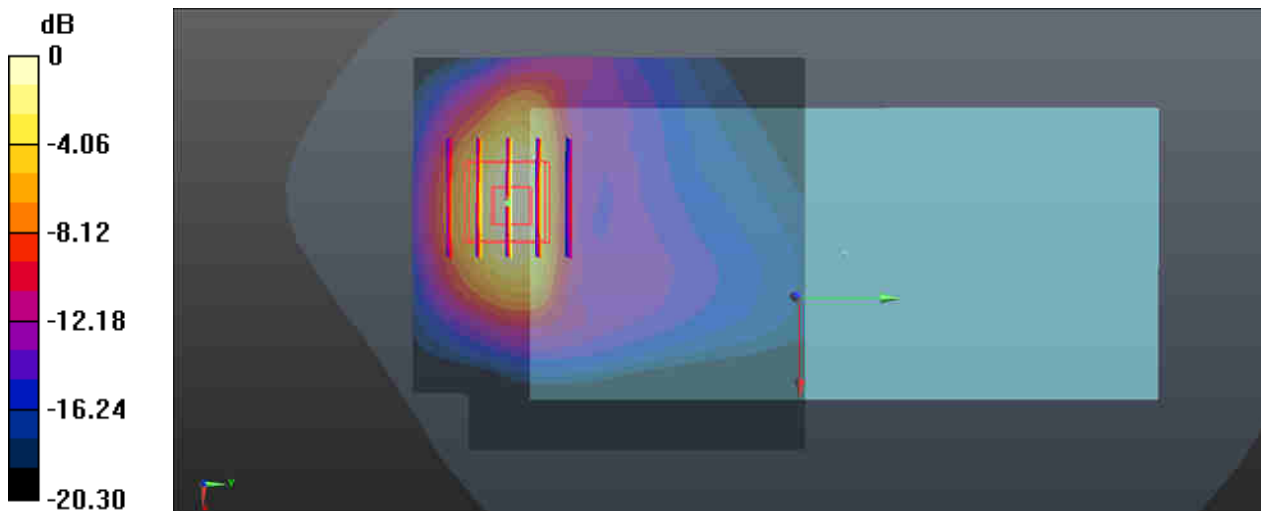
Communication System: UID 0, PCS (0); Frequency: 1880 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.804$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.22 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.216 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 1.62 W/kg  
**SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.448 W/kg**  
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

### 44\_WCDMA II\_RMC 12.2Kbps\_Back\_23mm\_Ch9538

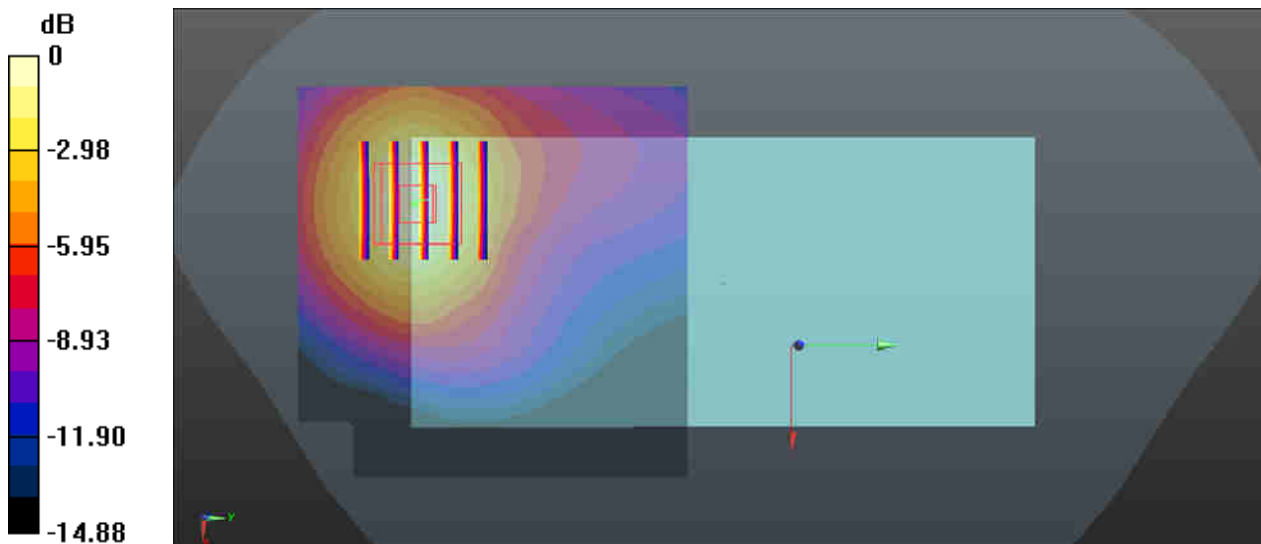
Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.381$  S/m;  $\epsilon_r = 39.699$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.15 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 6.622 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 1.52 W/kg  
**SAR(1 g) = 0.943 W/kg; SAR(10 g) = 0.598 W/kg**  
Maximum value of SAR (measured) = 1.17 W/kg



0 dB = 1.17 W/kg = 0.68 dBW/kg

### 45\_WCDMA IV\_RMC 12.2Kbps\_Front\_5mm\_Ch1413

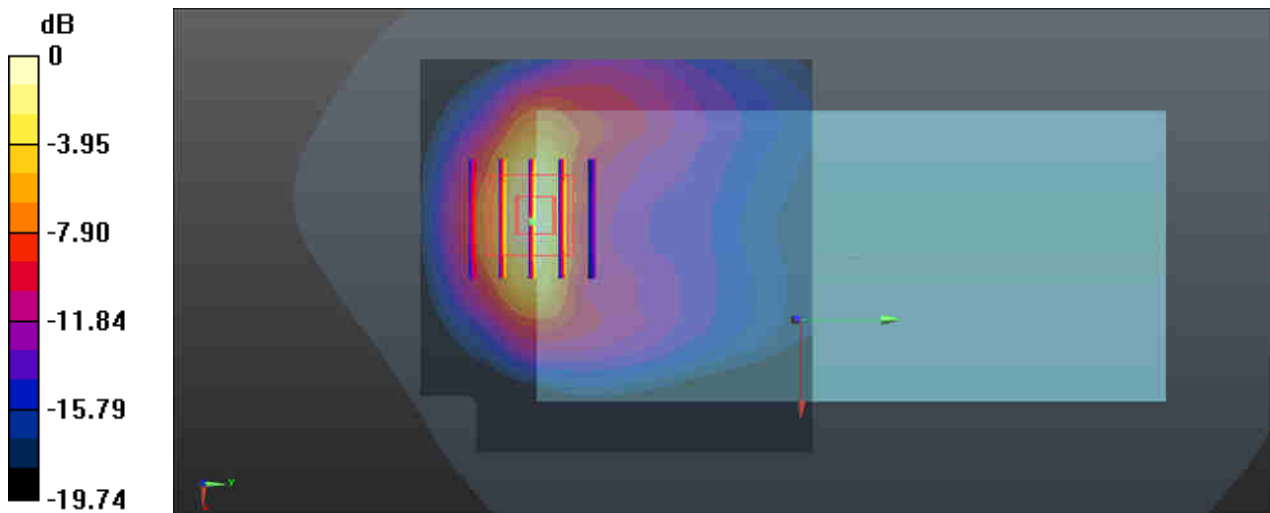
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 39.127$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.37 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.539 V/m; Power Drift = -0.06 dB  
Peak SAR (extrapolated) = 2.09 W/kg  
**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.544 W/kg**  
Maximum value of SAR (measured) = 1.42 W/kg



0 dB = 1.42 W/kg = 1.52 dBW/kg

### 46\_WCDMA V\_RMC 12.2Kbps\_Front\_5mm\_Ch4233

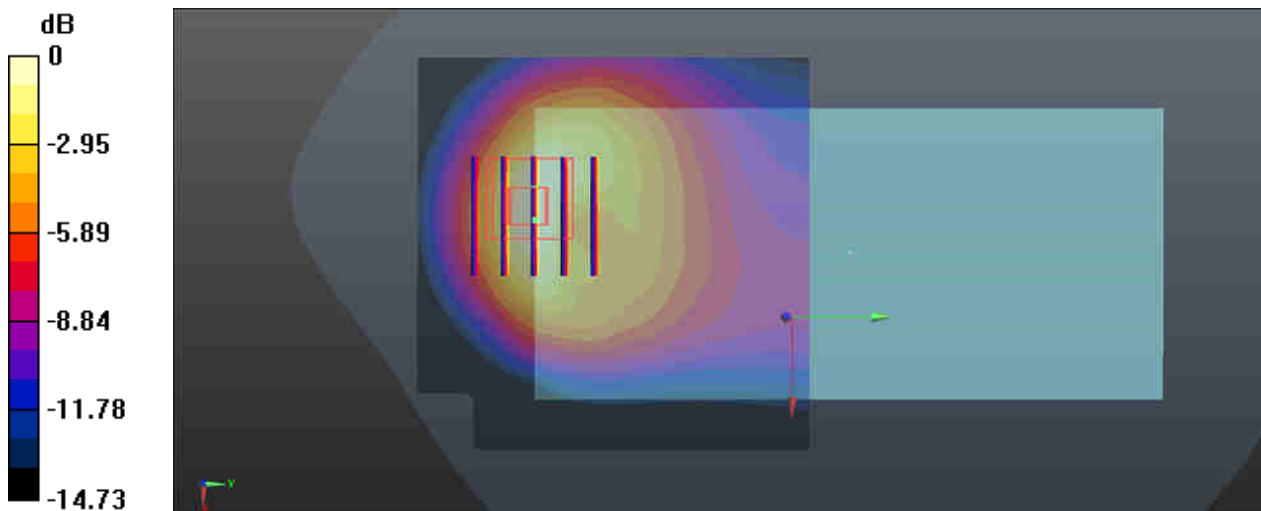
Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 847 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 42.081$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.1 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.7 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $1.53 \text{ W/kg}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $15.39 \text{ V/m}$ ; Power Drift =  $0.06 \text{ dB}$   
Peak SAR (extrapolated) =  $2.44 \text{ W/kg}$   
**SAR(1 g) =  $1.18 \text{ W/kg}$ ; SAR(10 g) =  $0.608 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $1.52 \text{ W/kg}$



0 dB =  $1.52 \text{ W/kg} = 1.82 \text{ dBW/kg}$

**47\_CDMA2000 BC0\_RC3 SO32 (F+SCH)\_Front\_5mm\_Ch777**

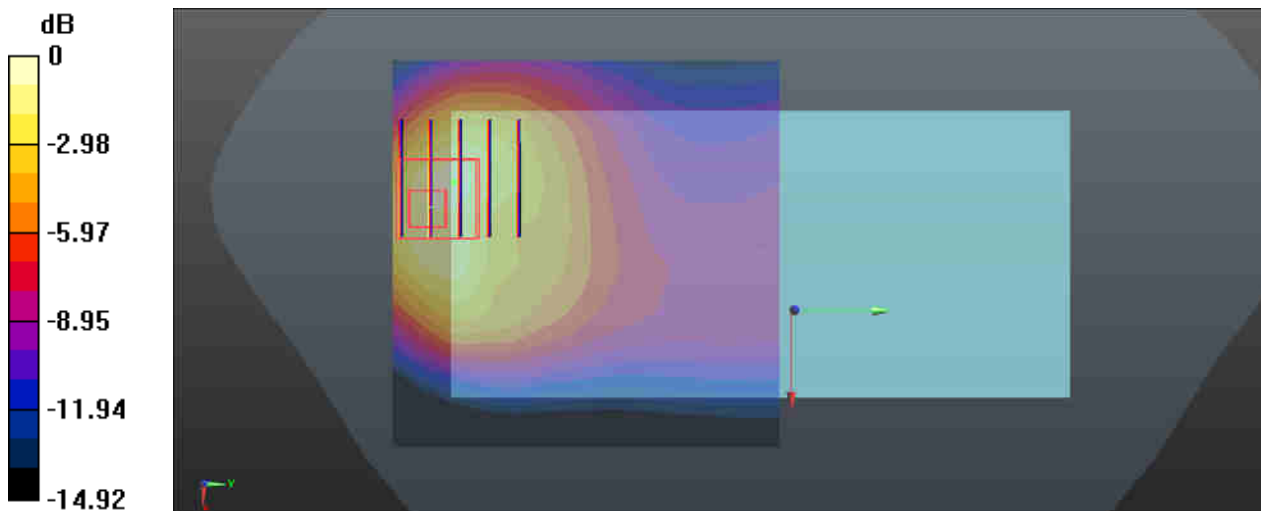
Communication System: UID 0, CDMA (0); Frequency: 848.31 MHz;Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 42.072$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.35 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.10 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 2.24 W/kg  
**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.587 W/kg**  
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg = 1.67 dBW/kg

### 48\_CDMA2000 BC10\_RC3 SO32 (F+SCH) \_Front\_5mm\_Ch580

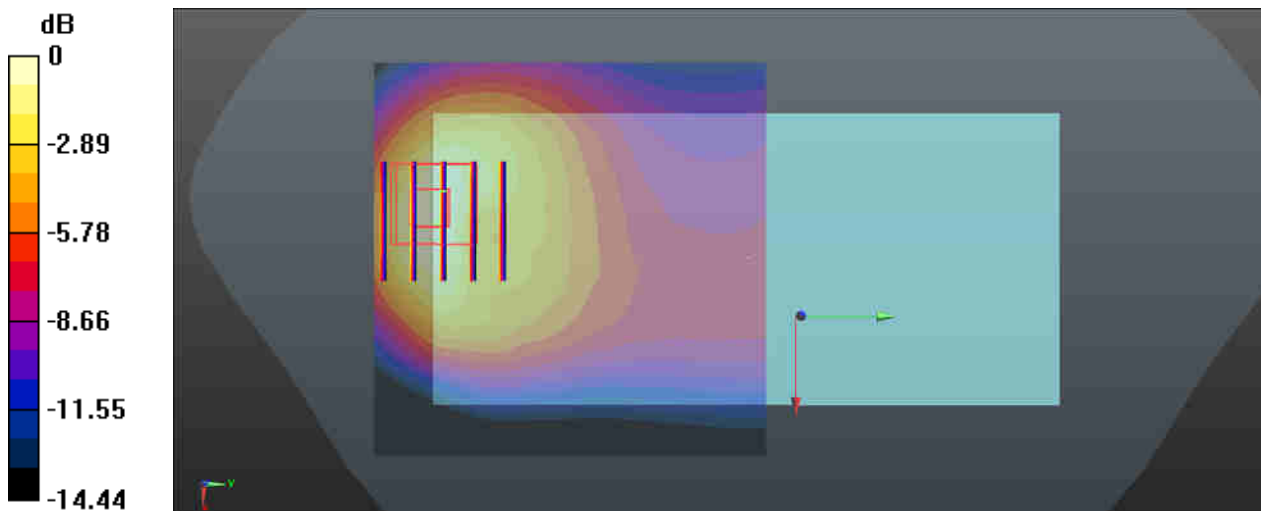
Communication System: UID 0, CDMA (0); Frequency: 820.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 820.5$  MHz;  $\sigma = 0.892$  S/m;  $\epsilon_r = 42.388$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.32 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 16.69 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 2.05 W/kg  
**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.532 W/kg**  
Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

### 49\_CDMA2000 BC1\_RC3 SO32 (F+SCH)\_Front\_5mm\_Ch600

Communication System: UID 0, CDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.804$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

#### Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.59 W/kg

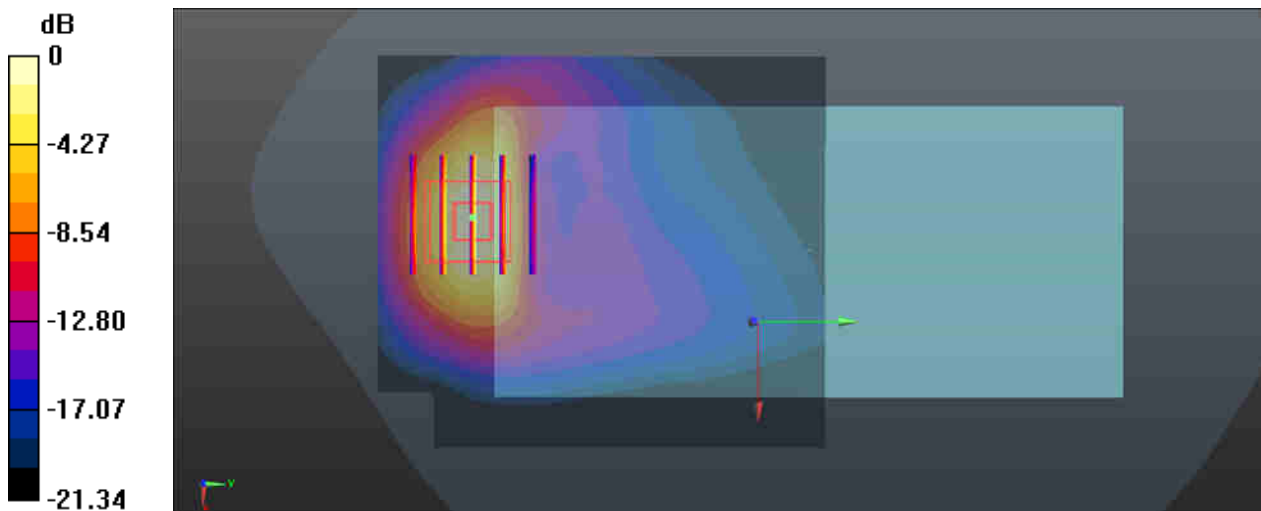
#### Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.570 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.22 W/kg

**SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.582 W/kg**

Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

### 50\_LTE Band 7\_20M\_QPSK\_50RB\_0Offset\_Back\_5mm\_Ch21350

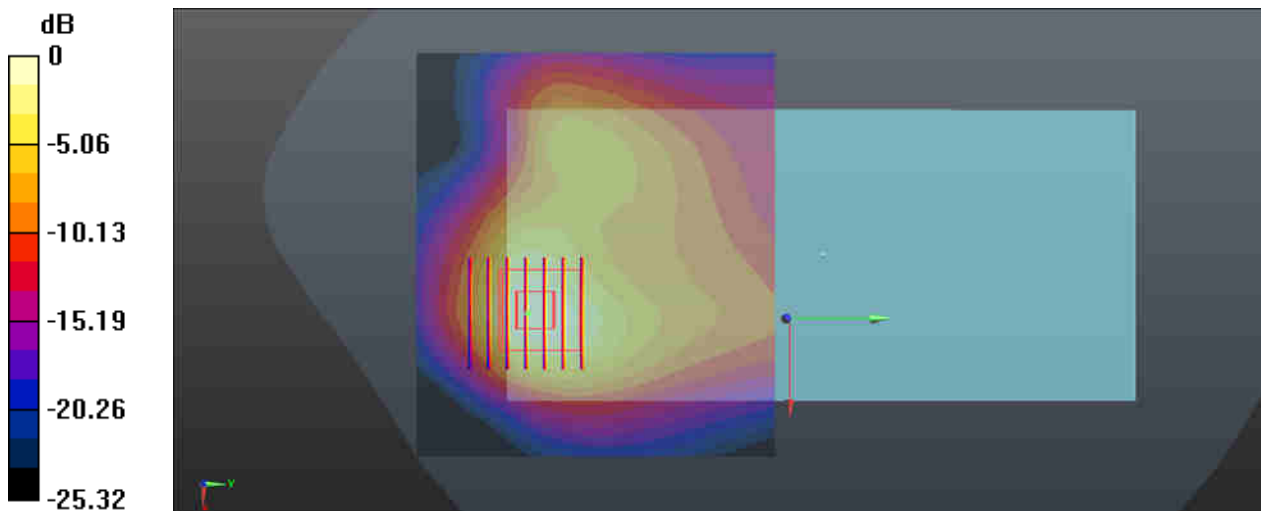
Communication System: UID 0, LTE-FDD (0); Frequency: 2560 MHz; Duty Cycle: 1:1  
Medium: HSL\_2600 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 1.997$  S/m;  $\epsilon_r = 38.093$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 1.63 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 7.055 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 2.52 W/kg  
**SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.562 W/kg**  
Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

**51\_LTE Band 12\_20M\_QPSK\_1RB\_0Offset\_Back\_5mm\_Ch23095**

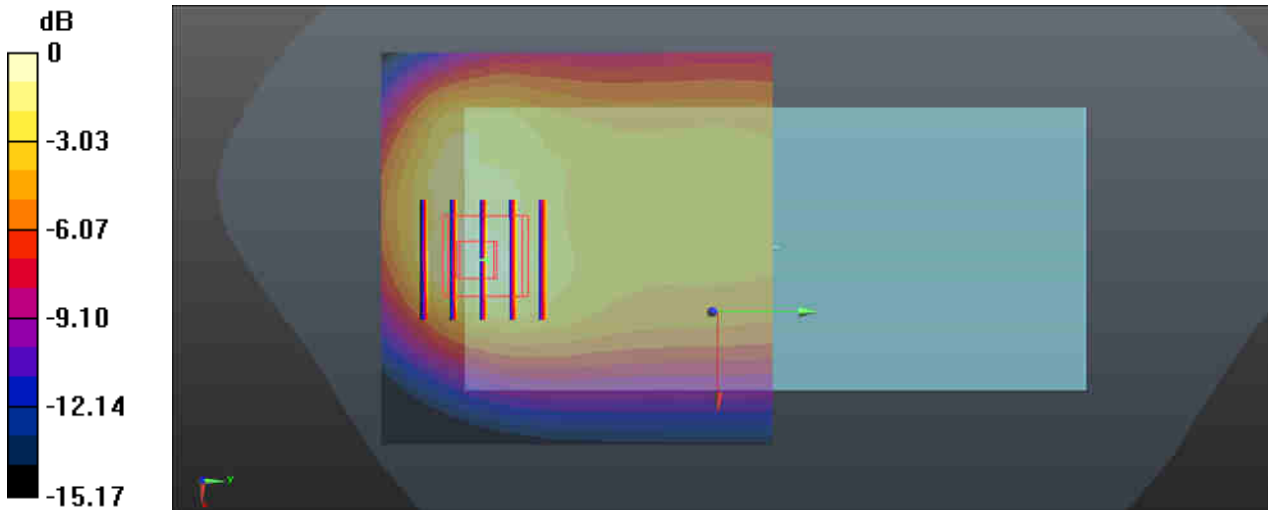
Communication System: UID 0, LTE-FDD (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
 Medium: HSL\_750 Medium parameters used:  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.853 \text{ S/m}$ ;  $\epsilon_r = 42.278$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

**DASY5 Configuration:**

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) = 1.14 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 25.57 V/m; Power Drift = 0.05 dB  
 Peak SAR (extrapolated) = 2.08 W/kg  
**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.552 W/kg**  
 Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

### 52\_LTE Band 13\_20M\_QPSK\_1RB\_0Offset\_Front\_5mm\_Ch23230

Communication System: UID 0, LTE-FDD (0); Frequency: 782 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 41.304$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.3 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $1.38 \text{ W/kg}$

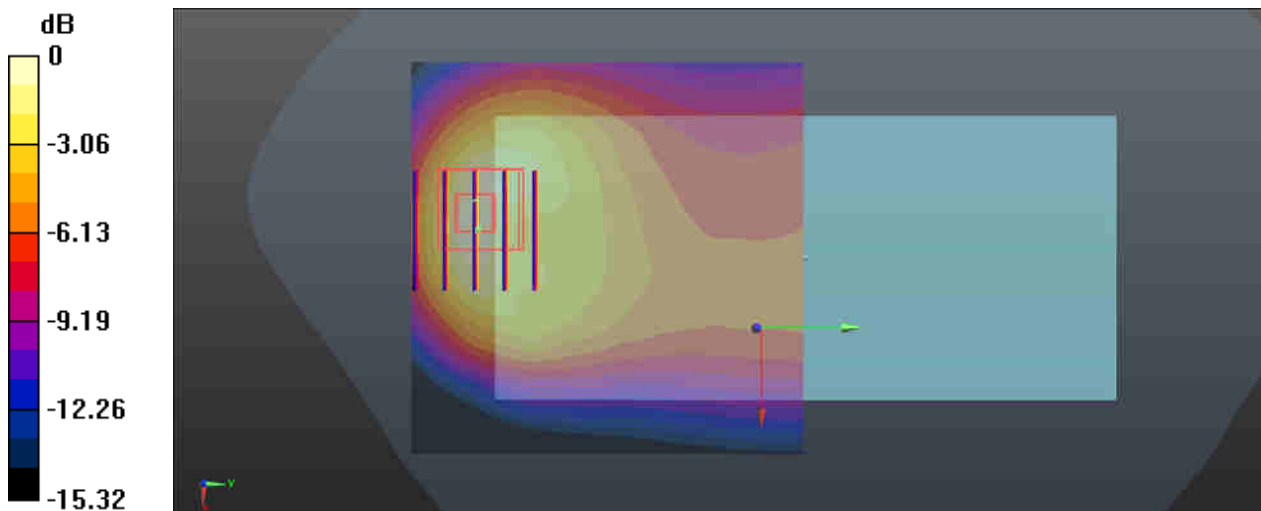
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $20.20 \text{ V/m}$ ; Power Drift =  $-0.06 \text{ dB}$

Peak SAR (extrapolated) =  $2.18 \text{ W/kg}$

**SAR(1 g) =  $1.05 \text{ W/kg}$ ; SAR(10 g) =  $0.562 \text{ W/kg}$**

Maximum value of SAR (measured) =  $1.38 \text{ W/kg}$



0 dB =  $1.38 \text{ W/kg}$  =  $1.40 \text{ dBW/kg}$

### 53\_LTE Band 25\_20M\_QPSK\_50RB\_0Offset\_Front\_5mm\_Ch26340

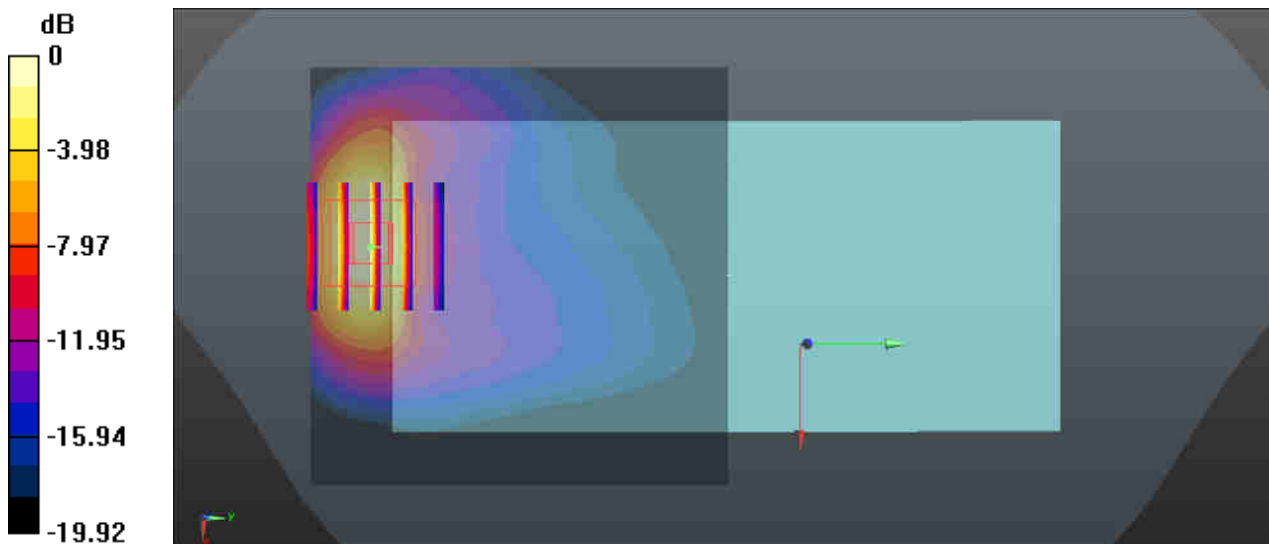
Communication System: UID 0, LTE-FDD (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 39.804$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.56 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.475 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 2.23 W/kg  
**SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.579 W/kg**  
Maximum value of SAR (measured) = 1.55 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

### 54\_LTE Band 26\_15M\_QPSK\_1RB\_0Offset\_Front\_5mm\_Ch26865

Communication System: UID 0, LTE-FDD (0); Frequency: 831.5 MHz;Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.902$  S/m;  $\epsilon_r = 42.257$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type:SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.45 W/kg

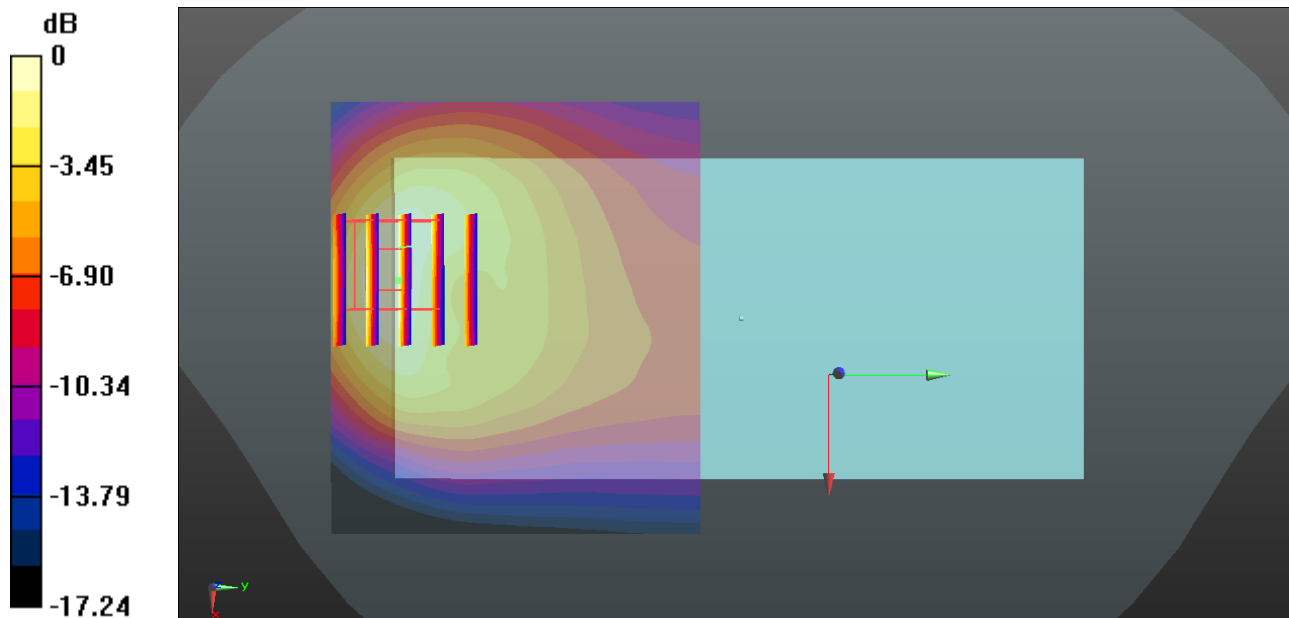
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.01 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.29 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.595 W/kg**

Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg = 1.49 dBW/kg

**55\_LTE Band 66\_20M\_QPSK\_50RB\_0Offset\_Front\_5mm\_Ch132322**

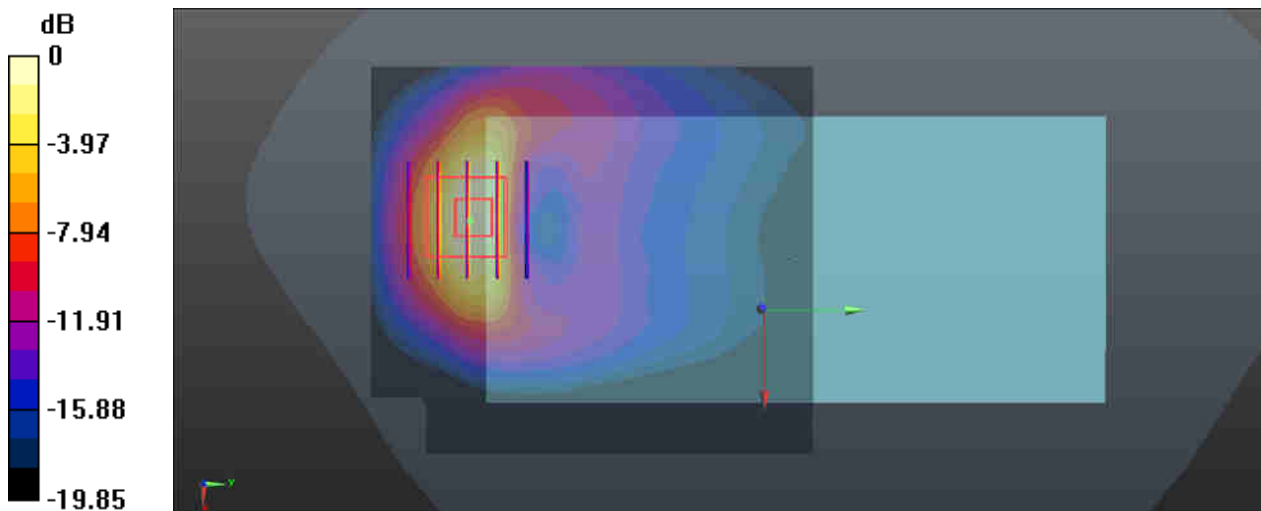
Communication System: UID 0, LTE-FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.355$  S/m;  $\epsilon_r = 39.074$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.52 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 3.341 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 2.11 W/kg  
**SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.531 W/kg**  
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

### 56\_LTE Band 71\_20M\_QPSK\_1RB\_0Offset\_Back\_5mm\_Ch133322

Communication System: UID 0, LTE-FDD (0); Frequency: 683 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 683 \text{ MHz}$ ;  $\sigma = 0.849 \text{ S/m}$ ;  $\epsilon = 42.656$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.772 W/kg

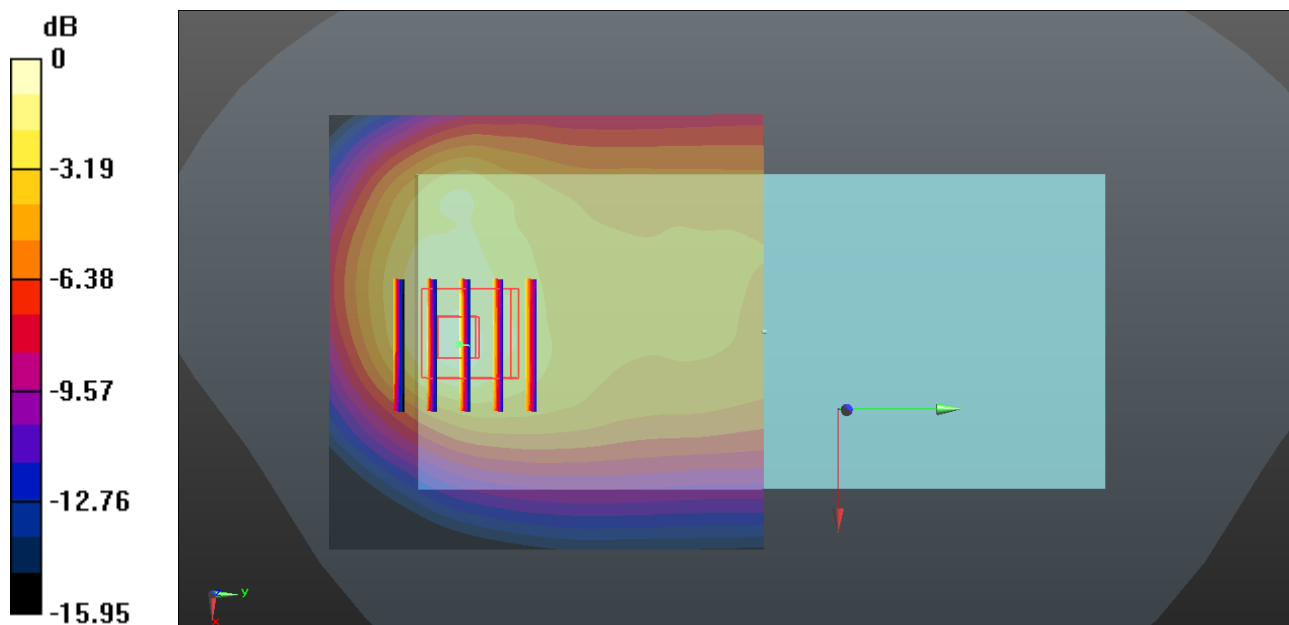
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 19.54 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.39 W/kg

**SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.351 W/kg**

Maximum value of SAR (measured) = 0.849 W/kg



0 dB = 0.849 W/kg = -0.71 dBW/kg

**57\_LTE Band 41\_20M\_QPSK\_50RB\_0Offset\_Back\_5mm\_Ch40185**

Communication System: UID 0, LTE-TDD (0); Frequency: 2549.5 MHz; Duty Cycle: 1:59  
Medium: HSL 2600 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.980$  S/m;  $\epsilon_r = 38.256$ ;  $\rho = 1000$  kg/m<sup>3</sup>

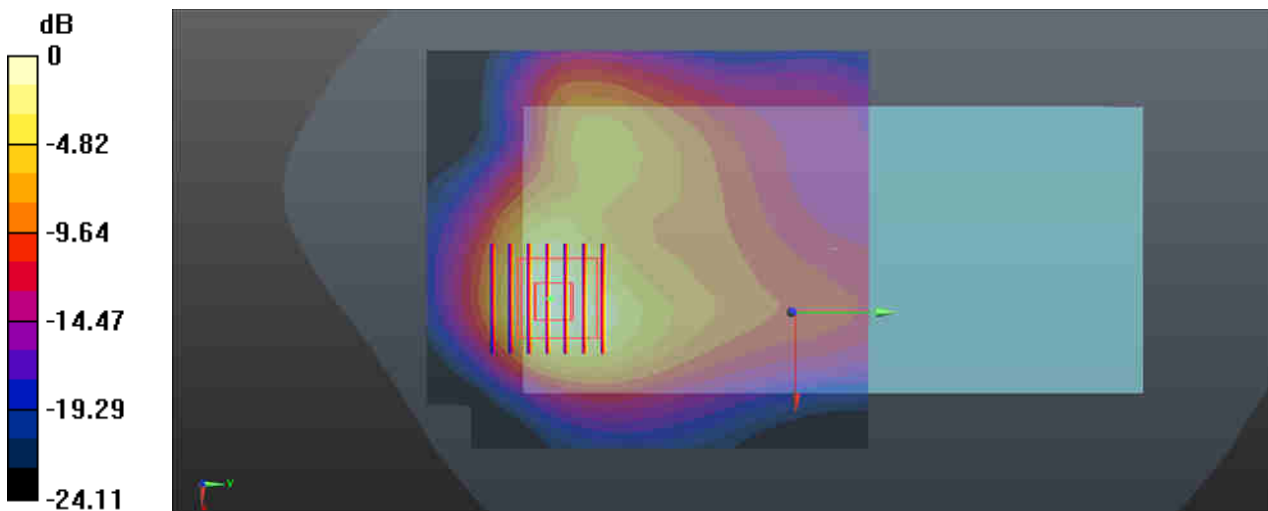
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

**DASY5 Configuration:**

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 1.74 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 7.533 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 2.69 W/kg  
**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.609 W/kg**  
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.66 W/kg = 2.20 dBW/kg

### 58\_WLAN2.4GHz\_802.11b 1Mbps\_Back\_5mm\_Ch1

Communication System: UID 0, WIFI2.4G (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018  
Medium: HSL\_2450 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.823$  S/m;  $\epsilon_r = 39.064$ ;  $\rho = 1000$  kg/m<sup>3</sup>

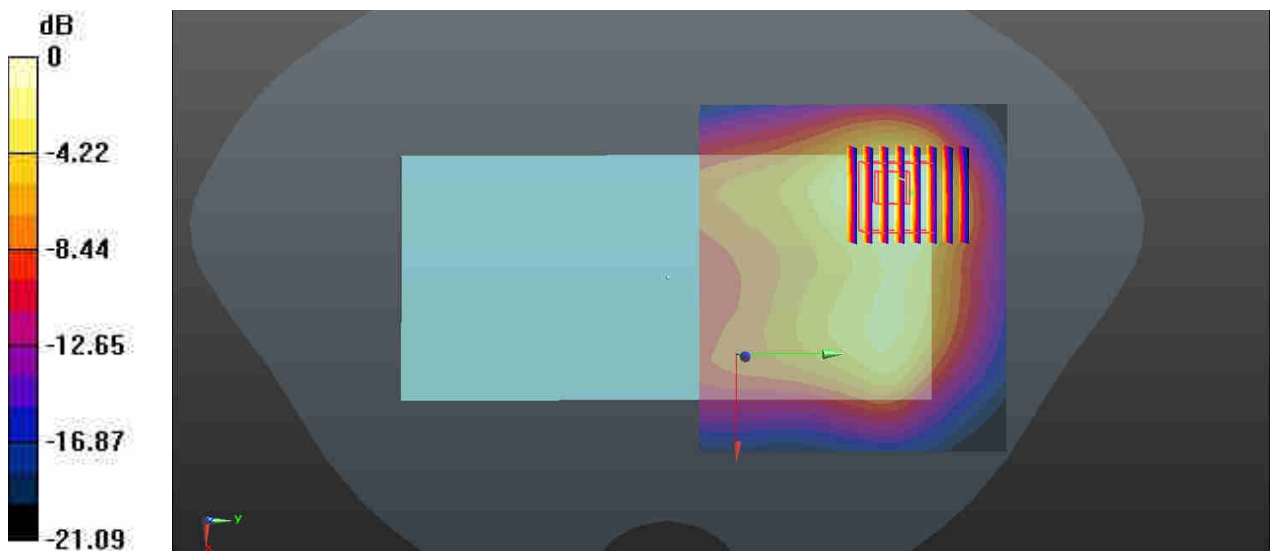
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.6, 7.6, 7.6); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 1.10 W/kg

**Zoom Scan (7x8x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 7.688 V/m; Power Drift = 0.13 dB  
Peak SAR (extrapolated) = 1.28 W/kg  
**SAR(1 g) = 0.541 W/kg; SAR(10 g) = 0.226 W/kg**  
Maximum value of SAR (measured) = 1.05 W/kg



0 dB = 1.05 W/kg = 0.41 dBW/kg

### 79\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_23mm\_Ch46

Communication System: UID 0, WLAN5G (0); Frequency: 5230 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5230$  MHz;  $\sigma = 4.569$  S/m;  $\epsilon_r = 36.451$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.04, 5.04, 5.04); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 2.04 W/kg

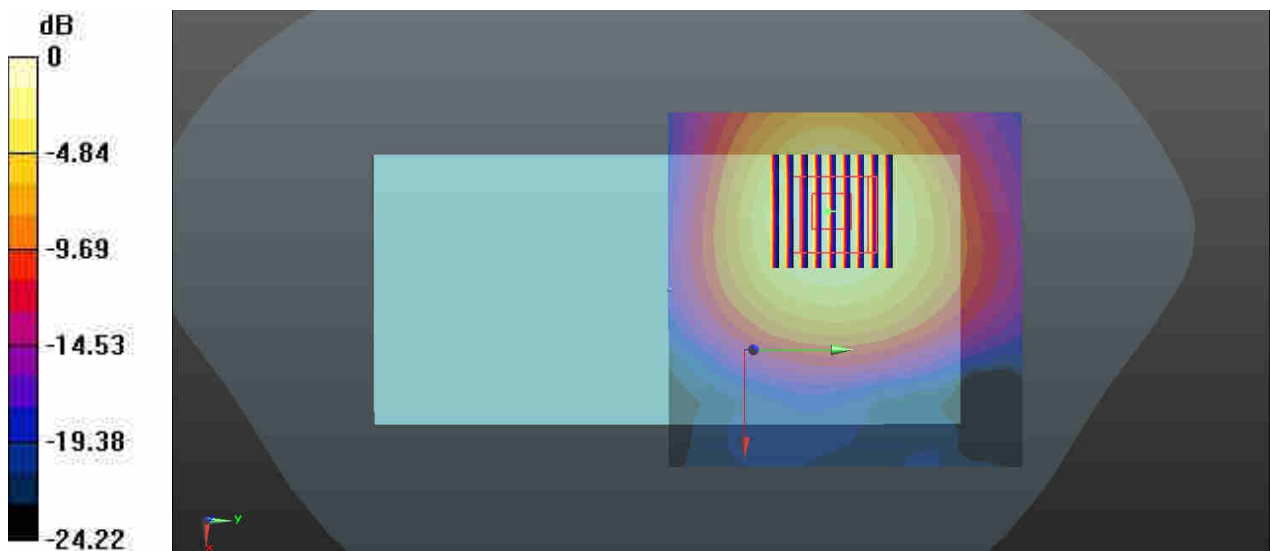
**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 3.307 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.07 W/kg

**SAR(1 g) = 0.995 W/kg; SAR(10 g) = 0.438 W/kg**

Maximum value of SAR (measured) = 2.03 W/kg



0 dB = 2.03 W/kg = 3.07 dBW/kg

### 59\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_23mm\_Ch54

Communication System: UID 0, WLAN5G (0); Frequency: 5270 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5270$  MHz;  $\sigma = 4.623$  S/m;  $\epsilon_r = 36.391$ ;  $\rho = 1000$  kg/m<sup>3</sup>

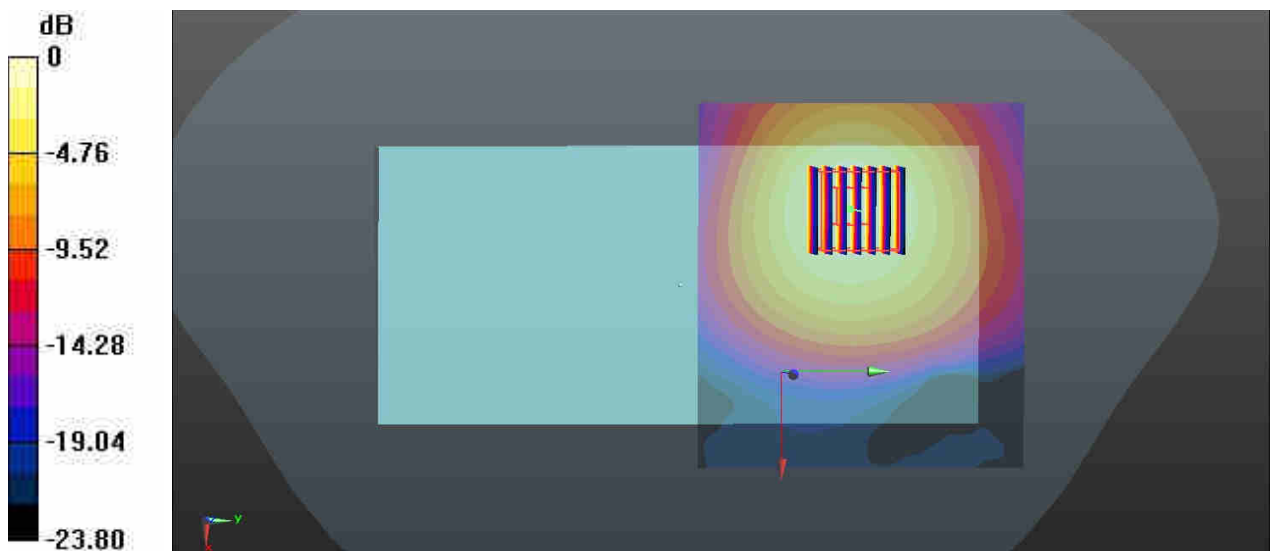
Ambient Temperature : 23.4 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.04, 5.04, 5.04); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 2.40 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 3.653 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 3.68 W/kg  
**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.515 W/kg**  
Maximum value of SAR (measured) = 2.41 W/kg



0 dB = 2.41 W/kg = 3.82 dBW/kg

### 60\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_23mm\_Ch134

Communication System: UID 0, WLAN5G (0); Frequency: 5670 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5670$  MHz;  $\sigma = 5.075$  S/m;  $\epsilon_r = 35.726$ ;  $\rho = 1000$  kg/m<sup>3</sup>

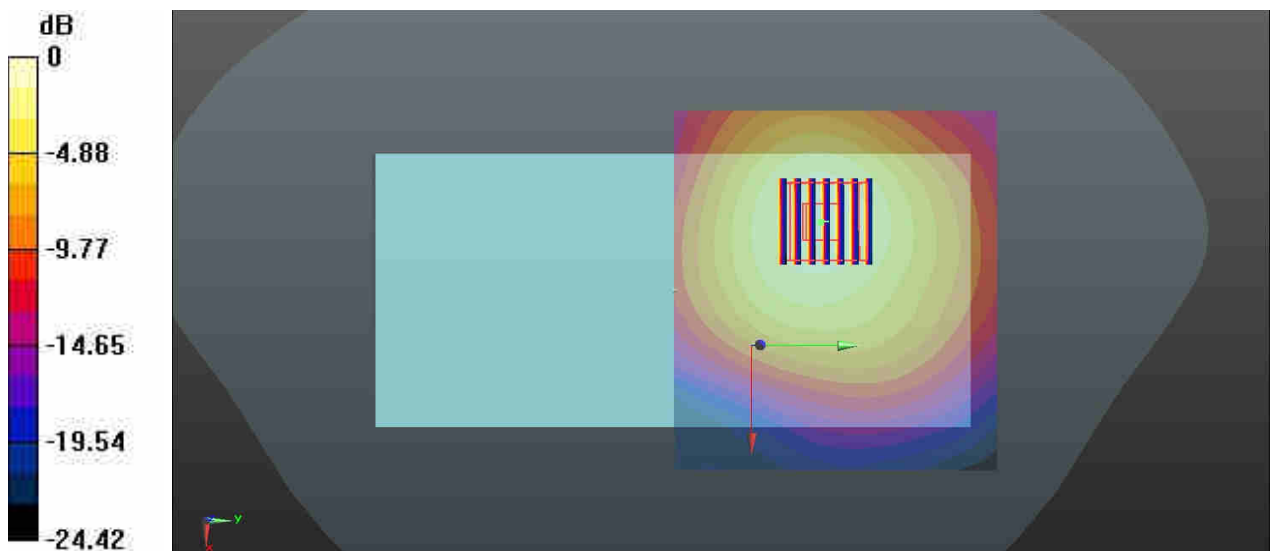
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.9 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.76, 4.76, 4.76); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 2.45 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 6.833 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 4.03 W/kg  
**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.496 W/kg**  
Maximum value of SAR (measured) = 2.45 W/kg



0 dB = 2.45 W/kg = 3.89 dBW/kg

### 61\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_23mm\_Ch151

Communication System: UID 0, WLAN5G (0); Frequency: 5755 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5755$  MHz;  $\sigma = 5.169$  S/m;  $\epsilon_r = 35.557$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.67, 4.67, 4.67); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (111x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 3.04 W/kg

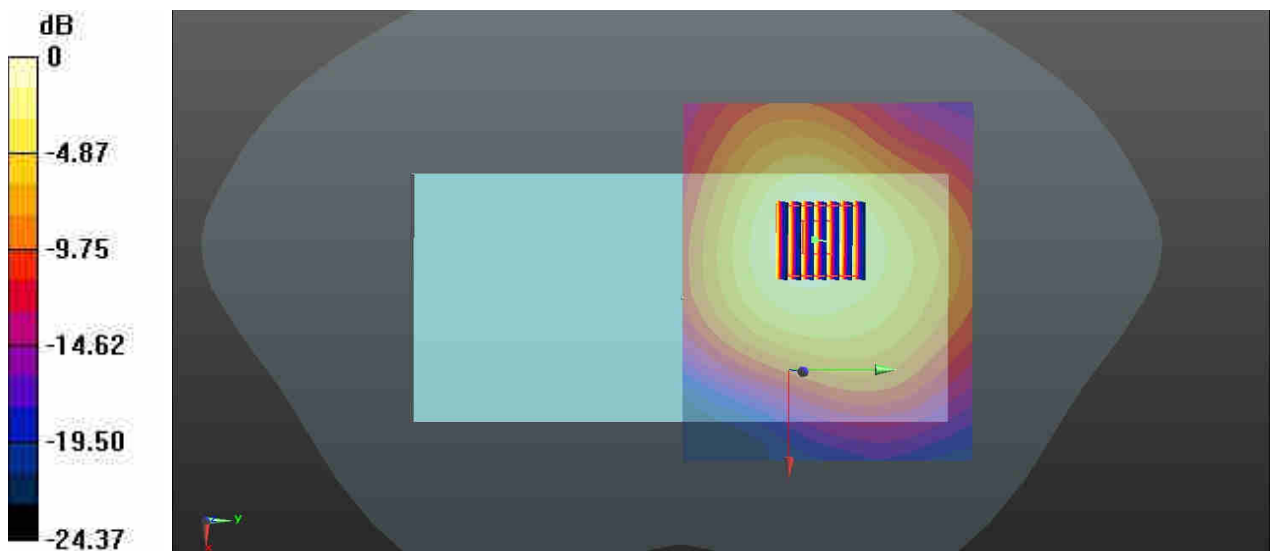
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 7.369 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 4.81 W/kg

**SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.566 W/kg**

Maximum value of SAR (measured) = 2.82 W/kg



0 dB = 2.82 W/kg = 4.50 dBW/kg

### 62\_Bluetooth\_1Mbps\_Back\_5mm\_Ch0

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.301  
 Medium: HSL\_2450 Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.811$  S/m;  $\epsilon_r = 39.11$ ;  $\rho = 1000$  kg/m<sup>3</sup>

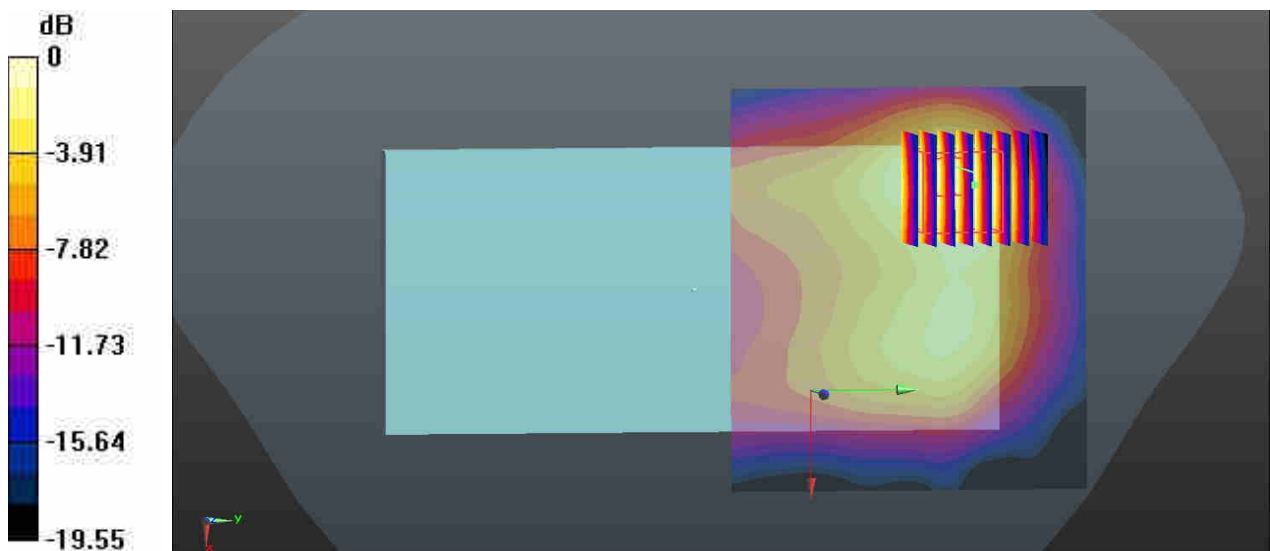
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(7.6, 7.6, 7.6); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
 Maximum value of SAR (interpolated) = 0.182 W/kg

**Zoom Scan (7x8x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 2.838 V/m; Power Drift = 0.15 dB  
 Peak SAR (extrapolated) = 0.213 W/kg  
**SAR(1 g) = 0.100 W/kg; SAR(10 g) = 0.053 W/kg**  
 Maximum value of SAR (measured) = 0.165 W/kg



0 dB = 0.165 W/kg = -7.83 dBW/kg

### 63\_GSM850\_GPRS 2 Tx slot\_Front\_0mm\_Ch128

Communication System: UID 0, GSM850 (0); Frequency: 824.2 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_850 Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.895$  S/m;  $\epsilon_r = 42.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.926 W/kg

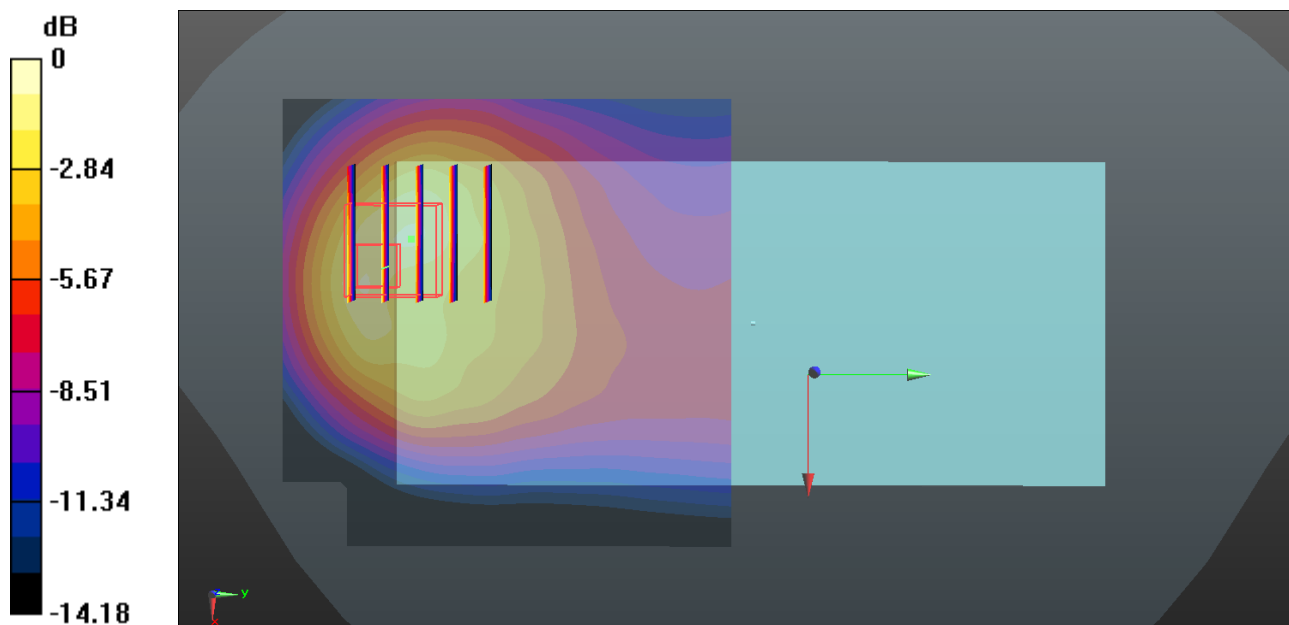
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.99 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.71 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.586 W/kg**

Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

### 64\_GSM1900\_GPRS 2 Tx slot\_Front\_0mm\_Ch512

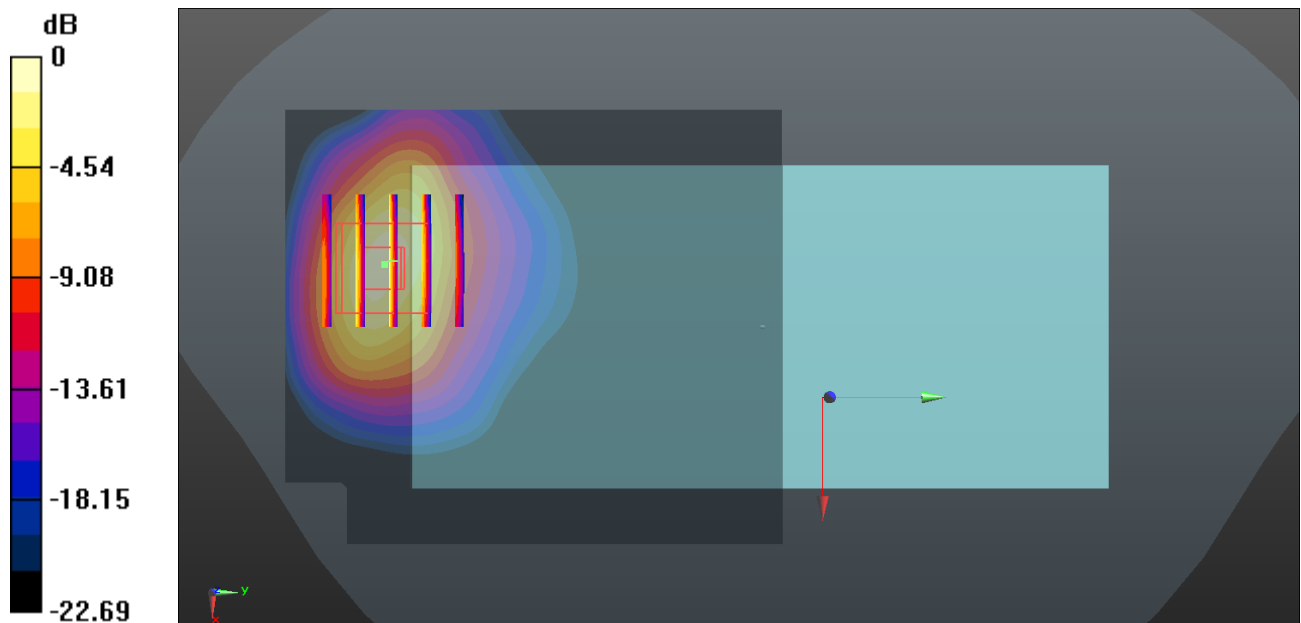
Communication System: UID 0, PCS (0); Frequency: 1850.2 MHz; Duty Cycle: 1:4.15  
Medium: HSL\_1900 Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.323$  S/m;  $\epsilon_r = 39.902$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 4.84 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 0 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 8.58 W/kg  
**SAR(1 g) = 4.22 W/kg; SAR(10 g) = 1.99 W/kg**  
Maximum value of SAR (measured) = 5.56 W/kg



0 dB = 5.56 W/kg = 7.45 dBW/kg

### 65\_WCDMA II\_RMC 12.2Kbps\_Front\_0mm\_Ch9262

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.333$  S/m;  $\epsilon_r = 39.896$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

#### Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 6.22 W/kg

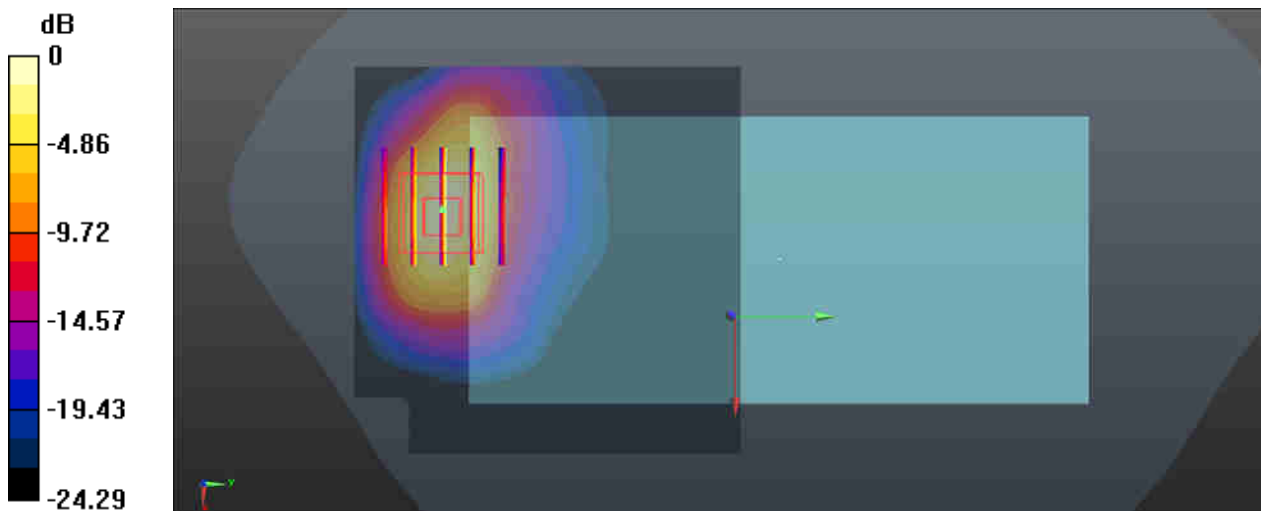
#### Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.6980 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 11.3 W/kg

**SAR(1 g) = 5.45 W/kg; SAR(10 g) = 2.49 W/kg**

Maximum value of SAR (measured) = 7.55 W/kg



0 dB = 7.55 W/kg = 8.78 dBW/kg

### 66\_WCDMA IV\_RMC 12.2Kbps\_Back\_0mm\_Ch1413

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 39.127$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 7.03 W/kg

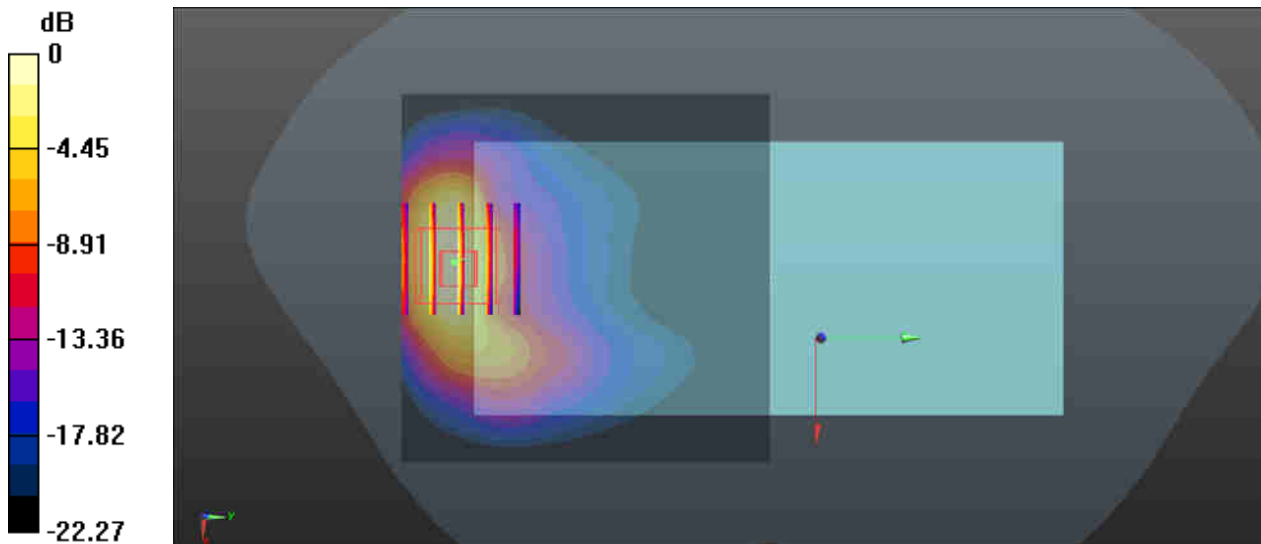
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.789 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 10.5 W/kg

**SAR(1 g) = 5.49 W/kg; SAR(10 g) = 2.68 W/kg**

Maximum value of SAR (measured) = 6.96 W/kg



0 dB = 6.96 W/kg = 8.43 dBW/kg

### 67\_WCDMA V\_RMC 12.2Kbps\_Front\_0mm\_Ch4132

Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium: HSL\_850 Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.897$  S/m;  $\epsilon_r = 42.321$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 6.39 W/kg

**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) = 11.6 W/kg

**SAR(1 g) = 4.21 W/kg; SAR(10 g) = 2.03 W/kg**

Maximum value of SAR (measured) = 5.38 W/kg

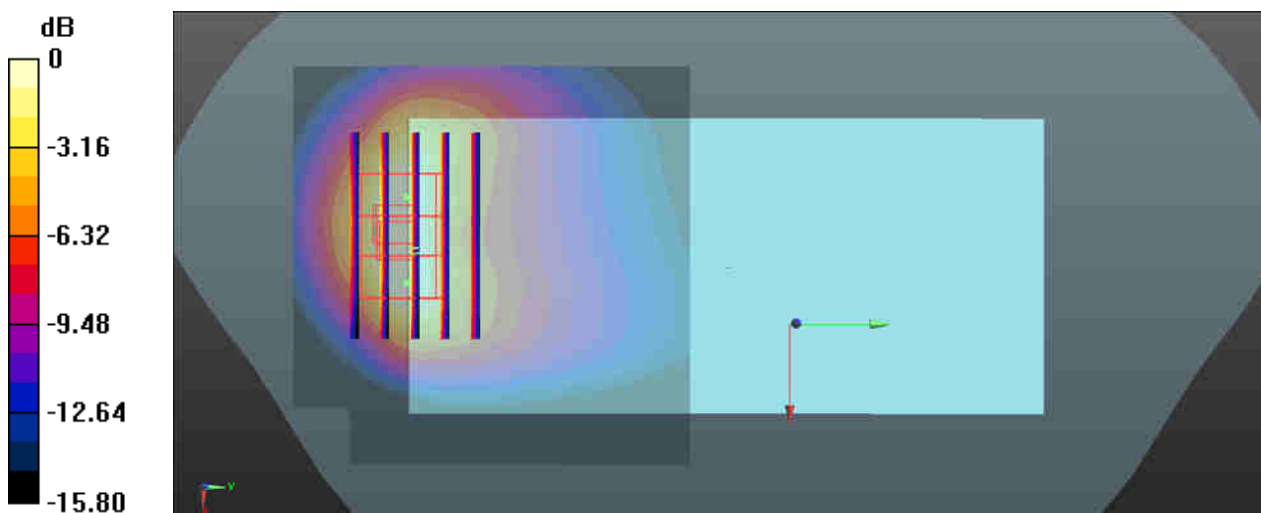
**Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 4.15 W/kg; SAR(10 g) = 2.03 W/kg**

Maximum value of SAR (measured) = 5.46 W/kg



0 dB = 5.46 W/kg = 7.37 dBW/kg

### 68\_CDMA2000 BC0\_RTAP 153.6Kbps\_Front\_0mm\_Ch777

Communication System: UID 0, CDMA (0); Frequency: 848.31 MHz; Duty Cycle: 1:1  
Medium: HSL\_835 Medium parameters used:  $f = 848.31$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 42.072$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 4.39 W/kg

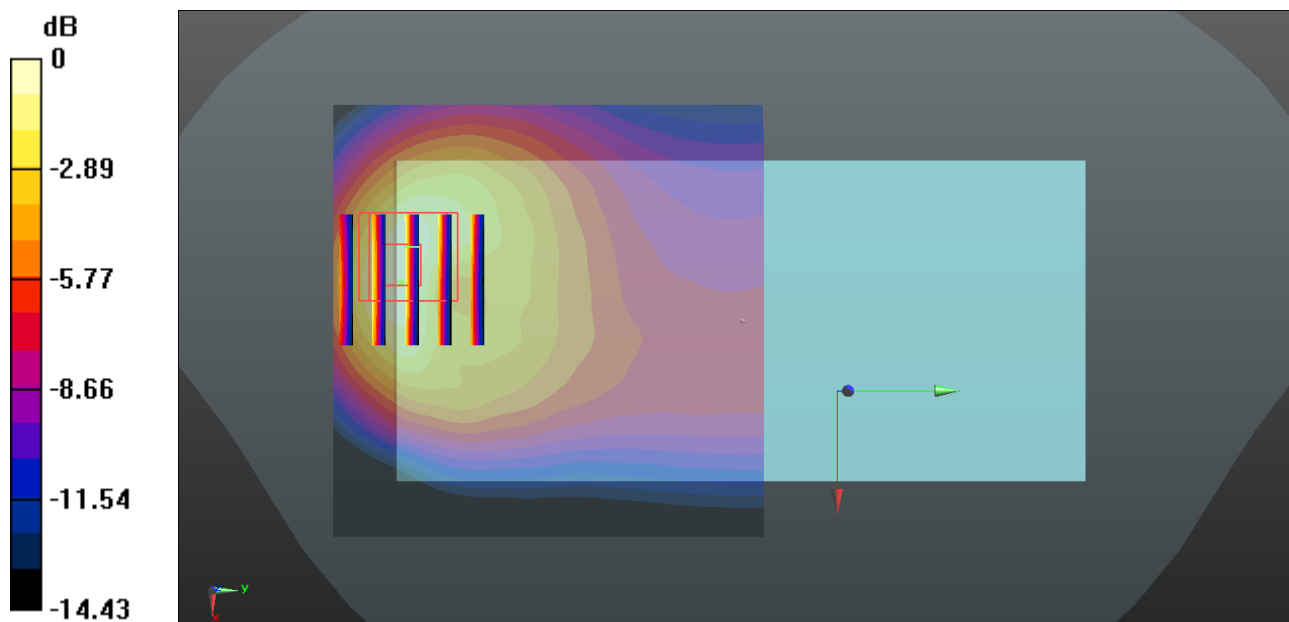
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.50 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 6.72 W/kg

**SAR(1 g) = 3.36 W/kg; SAR(10 g) = 1.77 W/kg**

Maximum value of SAR (measured) = 4.30 W/kg



0 dB = 4.30 W/kg = 6.33 dBW/kg

### 69\_CDMA2000 BC10\_RTAP 153.6Kbps\_Front\_0mm\_Ch476

Communication System: UID 0, CDMA (0); Frequency: 817.9 MHz; Duty Cycle: 1:1  
Medium: HSL\_850 Medium parameters used:  $f = 818 \text{ MHz}$ ;  $\sigma = 0.889 \text{ S/m}$ ;  $\epsilon_r = 42.431$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 5.10 W/kg

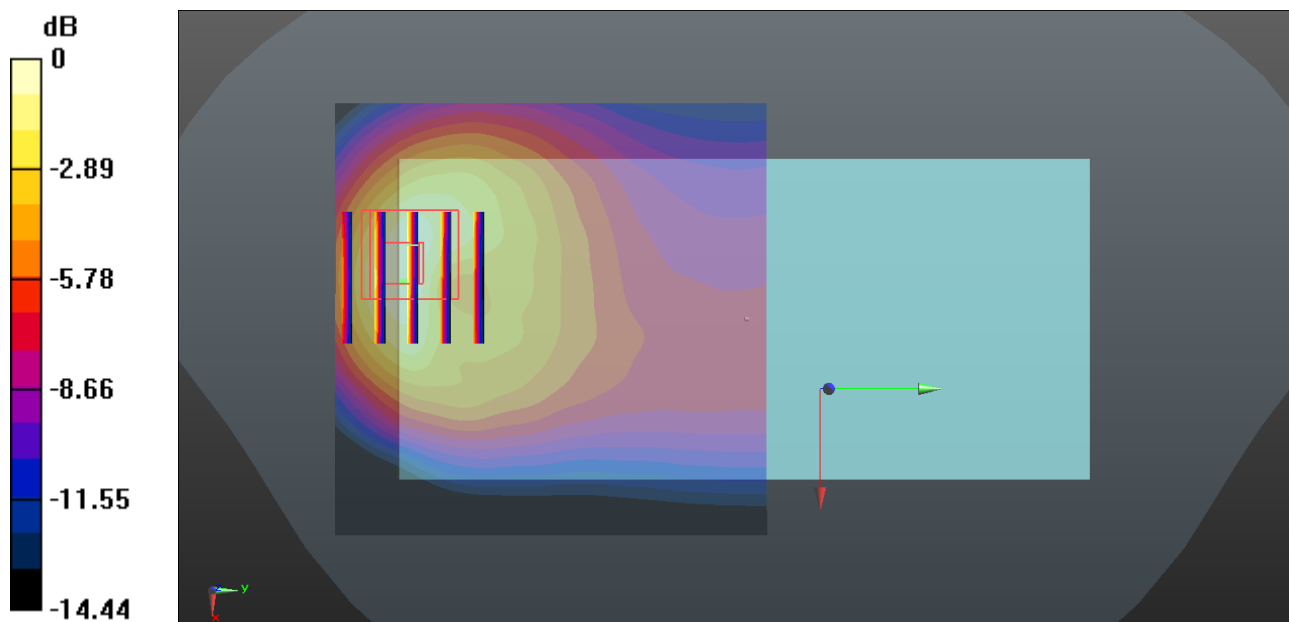
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 17.41 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.13 W/kg

**SAR(1 g) = 3.93 W/kg; SAR(10 g) = 2.06 W/kg**

Maximum value of SAR (measured) = 5.03 W/kg



0 dB = 5.03 W/kg = 7.02 dBW/kg

**70\_CDMA2000 BC1\_RTAP 153.6Kbps\_Front\_0mm\_Ch25**

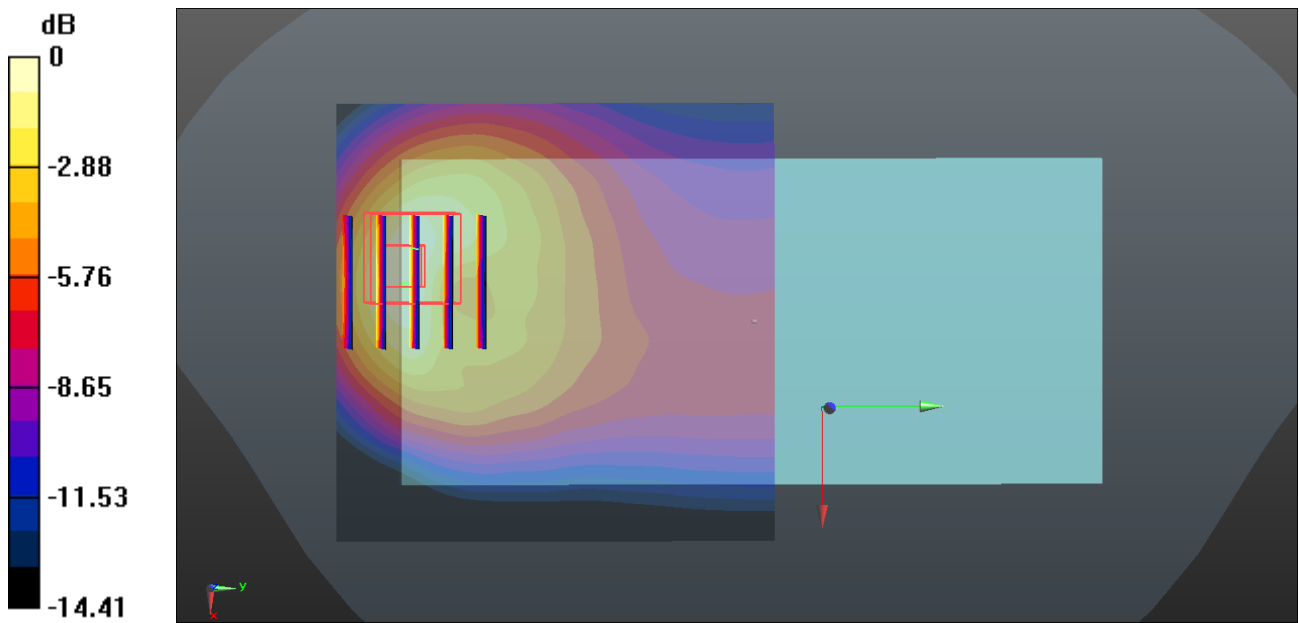
Communication System: UID 0, CDMA (0); Frequency: 1851.25 MHz; Duty Cycle: 1:1  
 Medium: HSL\_1900 Medium parameters used:  $f = 1851.25$  MHz;  $\sigma = 1.331$  S/m;  $\epsilon_r = 39.899$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

**DASY5 Configuration:**

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Maximum value of SAR (interpolated) = 7.56 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 19.06 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 3.75 W/kg  
**SAR(1 g) = 5.79 W/kg; SAR(10 g) = 3.06 W/kg**  
 Maximum value of SAR (measured) = 7.44 W/kg



0 dB = 7.44 W/kg = 8.72 dBW/kg

### 71\_LTE Band 7\_20M\_QPSK\_1RB\_0Offset\_Front\_0mm\_Ch20850

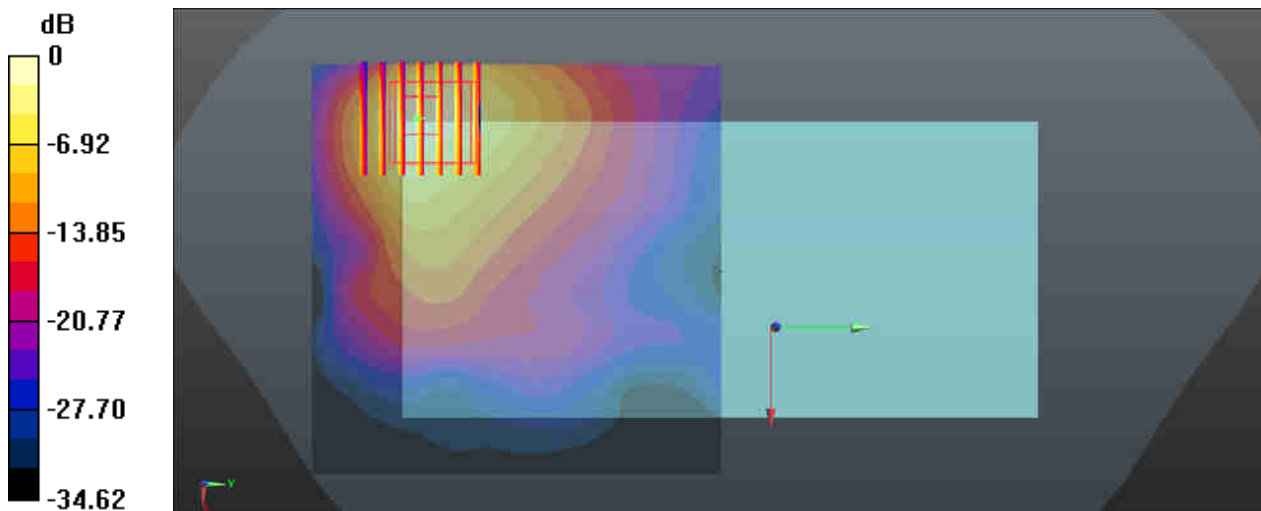
Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz; Duty Cycle: 1:1  
Medium: HSL\_2600 Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.938$  S/m;  $\epsilon_r = 38.307$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 9.25 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 2.347 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 14.6 W/kg  
**SAR(1 g) = 5.69 W/kg; SAR(10 g) = 2.36 W/kg**  
Maximum value of SAR (measured) = 7.88 W/kg



0 dB = 7.88 W/kg = 8.97 dBW/kg

### 81\_LTE Band 12\_10M\_QPSK\_1RB\_0Offset\_Back\_0mm\_Ch23095

Communication System: UID 0, LTE-FDD (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 707.5$  MHz;  $\sigma = 0.853$  S/m;  $\epsilon_r = 42.278$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.14 W/kg

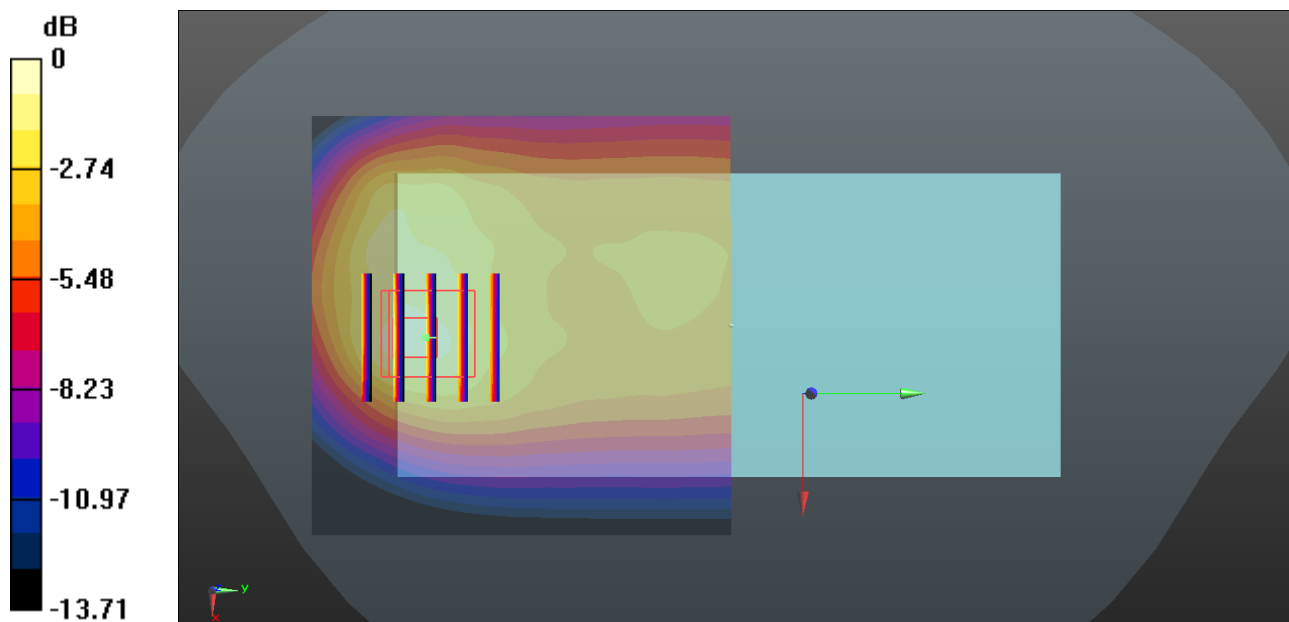
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.57 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.88 W/kg

**SAR(1 g) = 1.71 W/kg; SAR(10 g) = 0.902 W/kg**

Maximum value of SAR (measured) = 2.27 W/kg



0 dB = 2.27 W/kg = 2.04 dBW/kg

### 82\_LTE Band 13\_10M\_QPSK\_1RB\_0Offset\_Front\_0mm\_Ch23230

Communication System: UID 0, LTE-FDD (0); Frequency: 782 MHz; Duty Cycle: 1:1  
Medium: HSL\_750 Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 41.304$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.44, 6.44, 6.44); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x71x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.18 W/kg

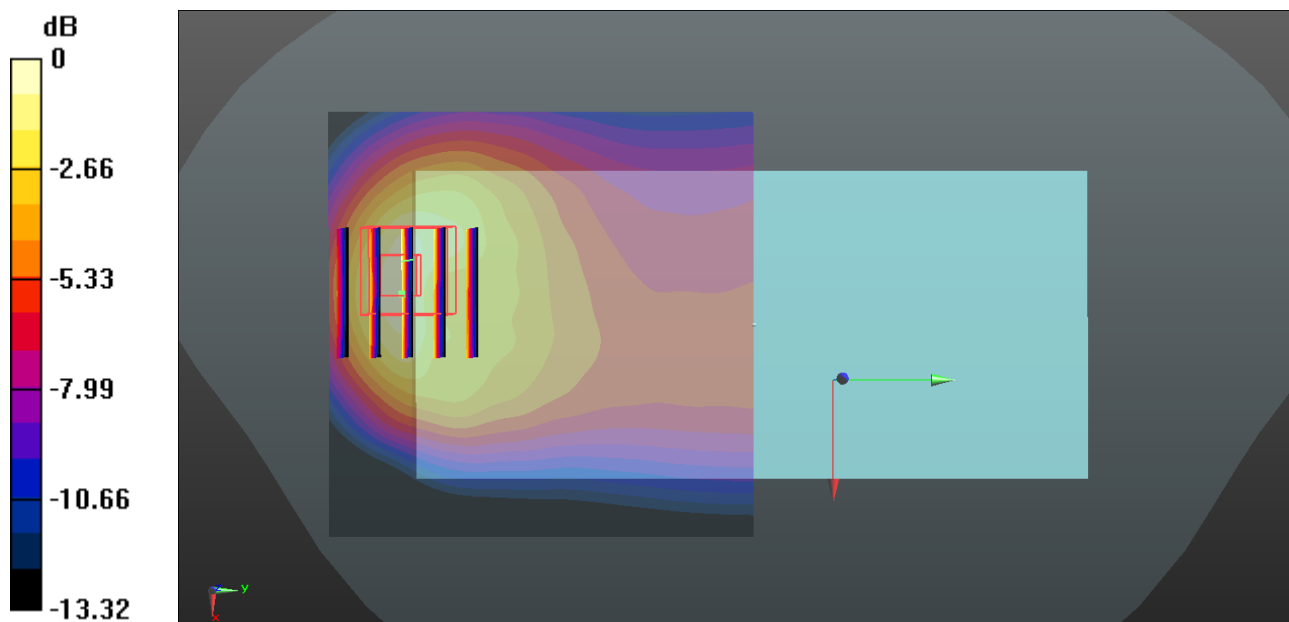
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 20.20 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.58 W/kg

**SAR(1 g) = 1.55 W/kg; SAR(10 g) = 0.845 W/kg**

Maximum value of SAR (measured) = 2.15 W/kg



0 dB = 2.18 W/kg = 2.60 dBW/kg

### 72\_LTE Band 25\_20M\_QPSK\_50RB\_0Offset\_Front\_0mm\_Ch26140

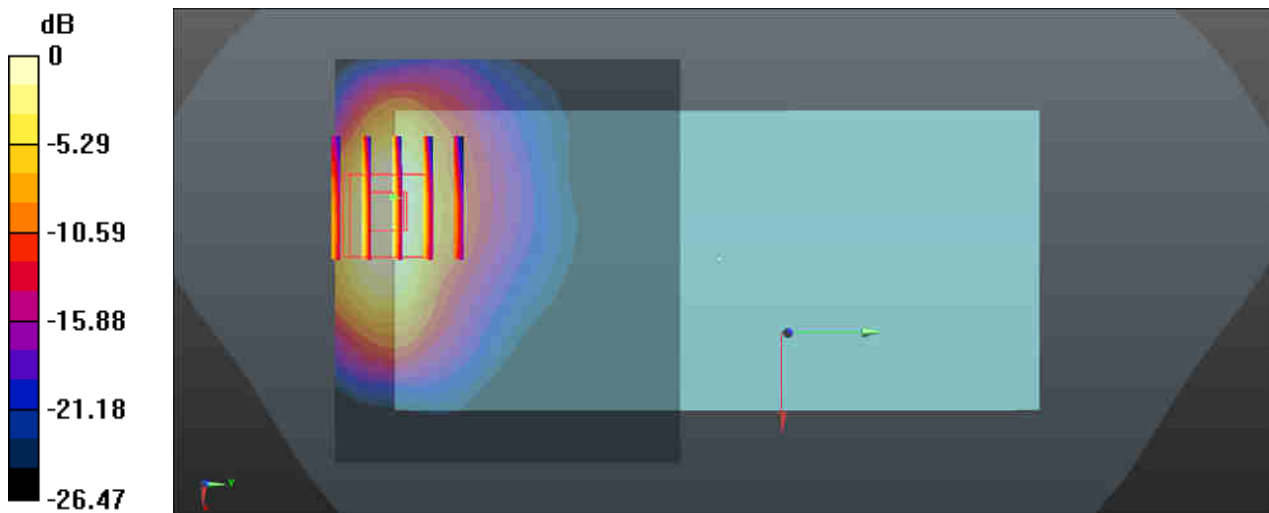
Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz; Duty Cycle: 1:1  
Medium: HSL\_1900 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.336$  S/m;  $\epsilon_r = 39.877$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.16, 5.16, 5.16); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 9.16 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 0 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 13.6 W/kg  
**SAR(1 g) = 5.99 W/kg; SAR(10 g) = 2.78 W/kg**  
Maximum value of SAR (measured) = 8.17 W/kg



0 dB = 8.17 W/kg = 9.12 dBW/kg

### 73\_LTE Band 26\_15M\_QPSK\_1RB\_0Offset\_Front\_0mm\_Ch26865

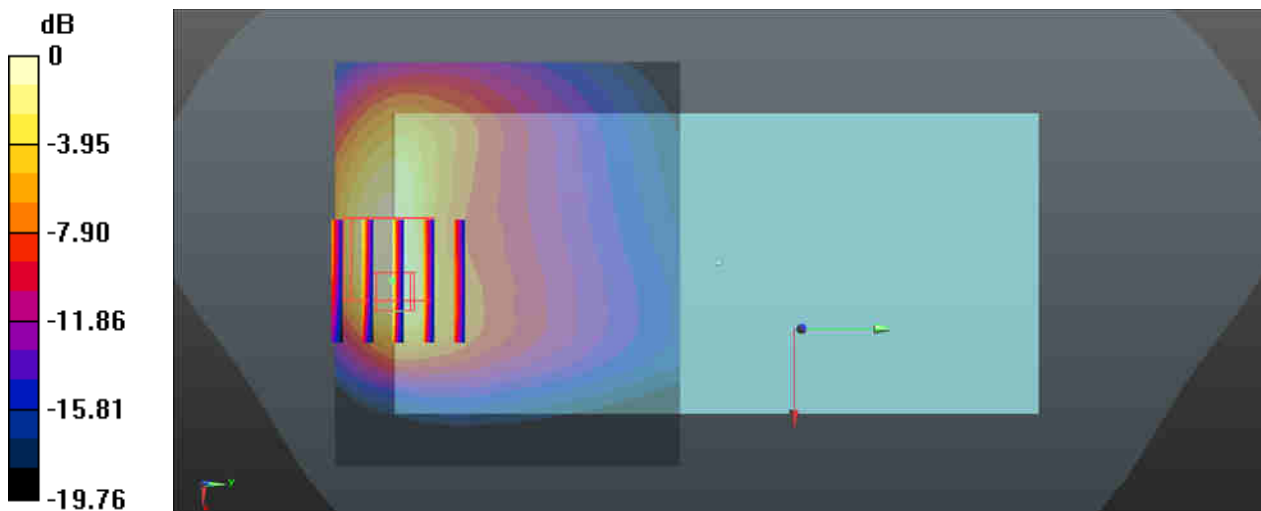
Communication System: UID 0, LTE-FDD (0); Frequency: 831.5 MHz; Duty Cycle: 1:1  
Medium: HSL\_850 Medium parameters used:  $f = 831.5$  MHz;  $\sigma = 0.902$  S/m;  $\epsilon_r = 42.257$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(6.25, 6.25, 6.25); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (71x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 8.22 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 11.96 V/m; Power Drift = 0.15 dB  
Peak SAR (extrapolated) = 18.3 W/kg  
**SAR(1 g) = 5.1 W/kg; SAR(10 g) = 2.3 W/kg**  
Maximum value of SAR (measured) = 7.80 W/kg



0 dB = 7.80 W/kg = 8.92 dBW/kg

### 74\_LTE Band 66\_20M\_QPSK\_50RB\_0Offset\_Front\_0mm\_Ch132322

Communication System: UID 0, LTE-FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750 Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.355$  S/m;  $\epsilon_r = 39.074$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

#### DASY5 Configuration:

- Probe: ES3DV3 - SN3279; ConvF(5.4, 5.4, 5.4); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 8.71 W/kg

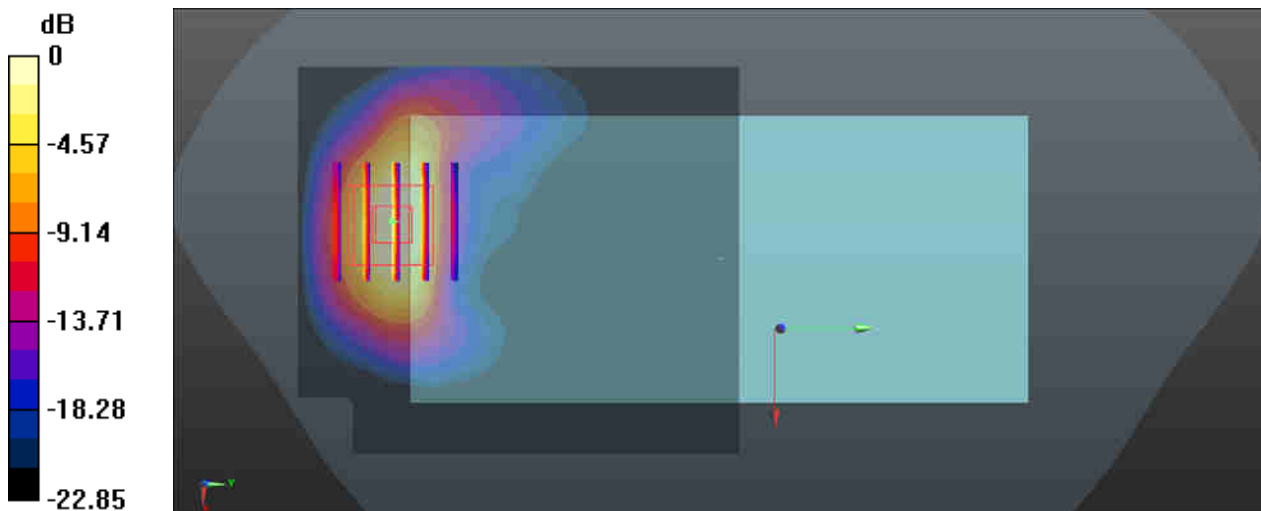
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.2920 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 12.1 W/kg

**SAR(1 g) = 5.84 W/kg; SAR(10 g) = 2.64 W/kg**

Maximum value of SAR (measured) = 8.12 W/kg



0 dB = 8.12 W/kg = 9.10 dBW/kg

**75\_LTE Band 41\_20M\_QPSK\_1RB\_0Offset\_Front\_0mm\_Ch40185**

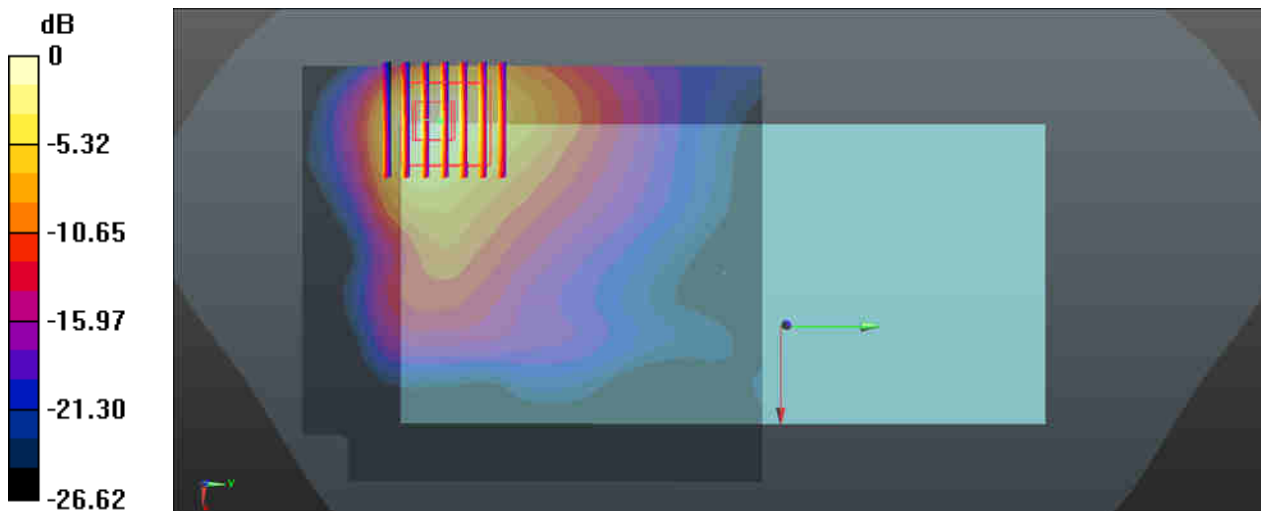
Communication System: UID 0, LTE-TDD (0); Frequency: 2549.5 MHz; Duty Cycle: 1:59  
Medium: HSL 2600 Medium parameters used:  $f = 2549.5$  MHz;  $\sigma = 1.98$  S/m;  $\epsilon_r = 38.256$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

**DASY5 Configuration:**

- Probe: ES3DV3 - SN3279; ConvF(4.54, 4.54, 4.54); Calibrated: 2020.6.2
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 2020.7.7
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (91x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 9.48 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 3.328 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 16.6 W/kg  
**SAR(1 g) = 6.66 W/kg; SAR(10 g) = 2.55 W/kg**  
Maximum value of SAR (measured) = 8.89 W/kg



0 dB = 8.89 W/kg = 9.49 dBW/kg

### 80\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_0mm\_Ch46

Communication System: UID 0, WLAN5G (0); Frequency: 5230 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5230$  MHz;  $\sigma = 4.569$  S/m;  $\epsilon_r = 36.451$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 ; Liquid Temperature : 22.8

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.04, 5.04, 5.04); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

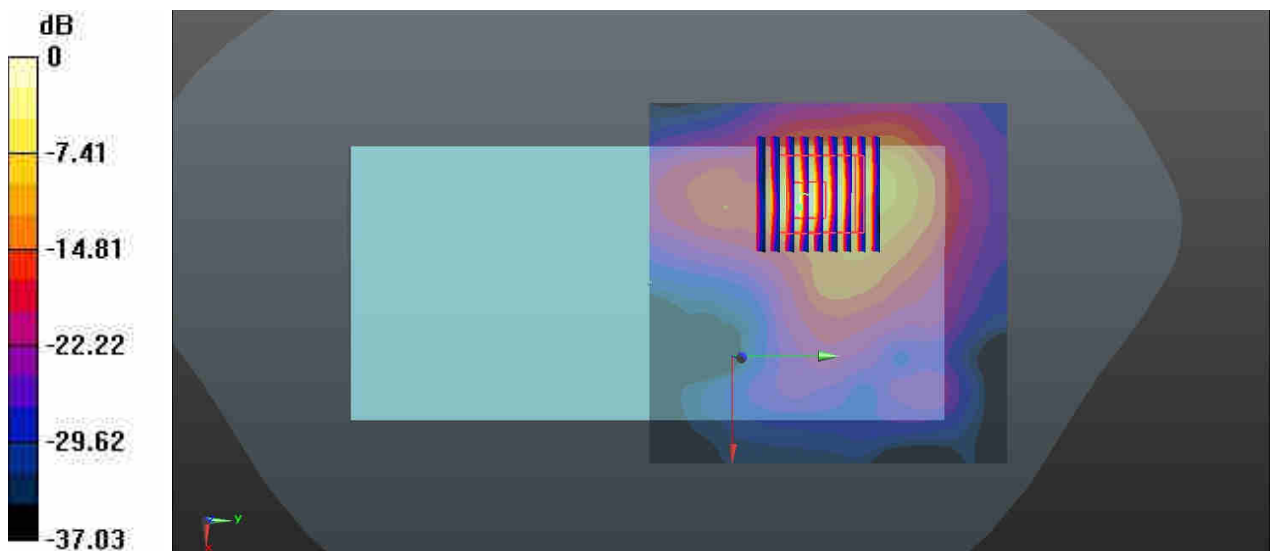
**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.379 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 35.6 W/kg

**SAR(1 g) = 7.51 W/kg; SAR(10 g) = 1.81 W/kg**

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



0 dB = 20.1 W/kg = 13.03 dBW/kg

### 76\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_0mm\_Ch54

Communication System: UID 0, WLAN5G (0); Frequency: 5270 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5270$  MHz;  $\sigma = 4.623$  S/m;  $\epsilon_r = 36.391$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.8 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(5.04, 5.04, 5.04); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 29.0 W/kg

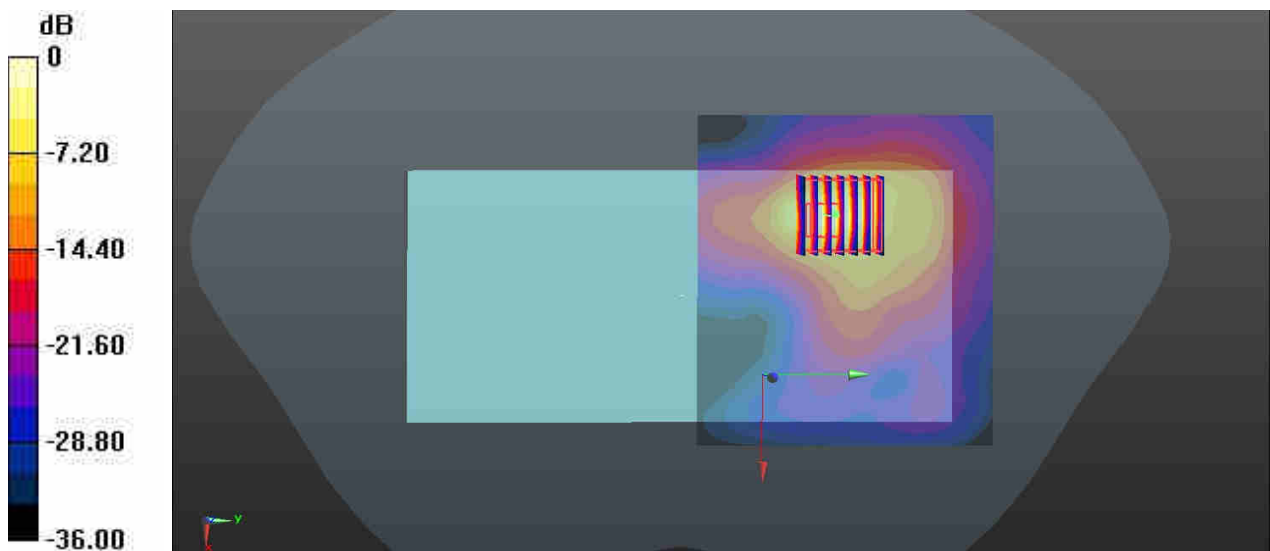
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.514 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 48.8 W/kg

**SAR(1 g) = 9.81 W/kg; SAR(10 g) = 2.44 W/kg**

Maximum value of SAR (measured) = 26.9 W/kg



0 dB = 26.9 W/kg = 14.30 dBW/kg

**77\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_0mm\_Ch134**

Communication System: UID 0, WLAN5G (0); Frequency: 5670 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5670$  MHz;  $\sigma = 5.075$  S/m;  $\epsilon_r = 35.726$ ;  $\rho = 1000$  kg/m<sup>3</sup>

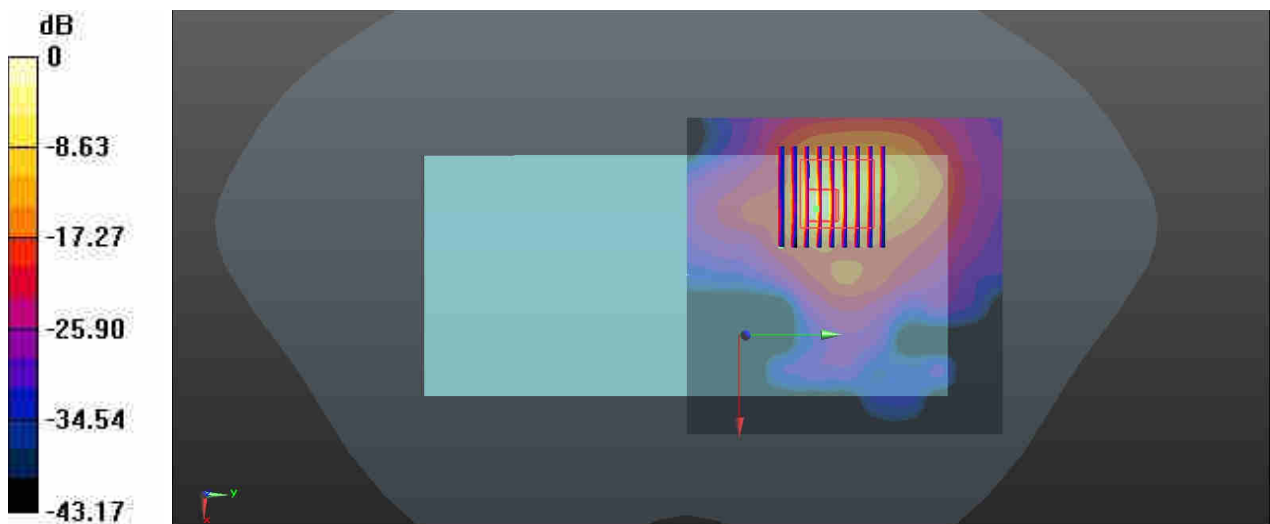
Ambient Temperature : 23.3 ; Liquid Temperature : 22.9

DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.76, 4.76, 4.76); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 25.8 W/kg

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 1.726 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 63.6 W/kg  
**SAR(1 g) = 10.1 W/kg; SAR(10 g) = 2.21 W/kg**  
Maximum value of SAR (measured) = 29.5 W/kg



0 dB = 29.5 W/kg = 14.70 dBW/kg

### 78\_WLAN5GHz\_802.11n-HT40 MCS0\_Back\_0mm\_Ch151

Communication System: UID 0, WLAN5G (0); Frequency: 5755 MHz; Duty Cycle: 1:1.041  
Medium: HSL\_5000 Medium parameters used:  $f = 5755$  MHz;  $\sigma = 5.169$  S/m;  $\epsilon_r = 35.557$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3935; ConvF(4.67, 4.67, 4.67); Calibrated: 2020.5.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2020.4.28
- Phantom: SAM1; Type: SAM; Serial: TP-1753
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Area Scan (111x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 29.4 W/kg

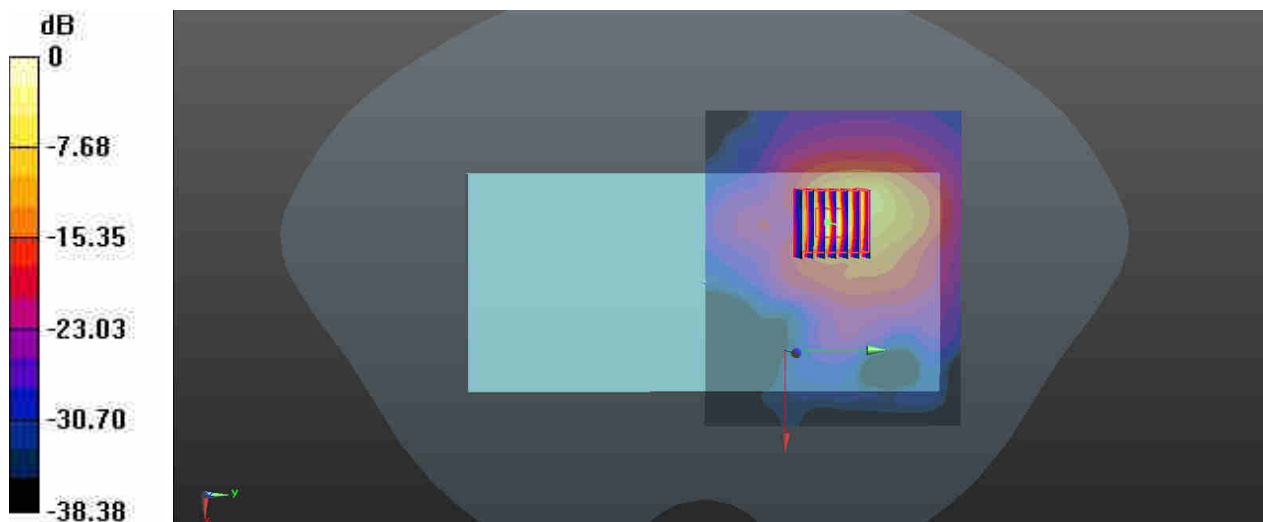
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.351 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 77.7 W/kg

**SAR(1 g) = 11.1 W/kg; SAR(10 g) = 2.53 W/kg**

Maximum value of SAR (measured) = 35.3 W/kg



0 dB = 35.3 W/kg = 15.48 dBW/kg



**Appendix C. DAS Y Calibration Certificate**

The DAS Y calibration certificates are shown as follows



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校准  
CALIBRATION  
CNAS L0570

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E-mail: cttl@chinattl.com http://www.chinattl.cn

Client **Sporton**

Certificate No: **Z19-60081**

## CALIBRATION CERTIFICATE

Object: **D750V3 - SN: 1087**

Calibration Procedure(s): **FF-Z11-003-01**  
**Calibration Procedures for dipole validation kits**

Calibration date: **March 27, 2019**

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(Calibrated by, Certificate No.) | Scheduled Calibration |
|-------------------------|------------|--|-----------------------|
| Power Meter NRP2        | 106277     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Power sensor NRP8S      | 104291     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Reference Probe EX3DV4  | SN 3617    | 31-Jan-19(SPEAG,No.EX3-3617_Jan19)       | Jan-20                |
| DAE4                    | SN 1331    | 06-Feb-19(SPEAG,No.DAE4-1331_Feb19)      | Feb-20                |
| Secondary Standards     | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 23-Jan-19 (CTTL, No.J19X00336)           | Jan-20                |
| NetworkAnalyzer E5071C  | MY46110673 | 24-Jan-19 (CTTL, No.J19X00547)           | Jan-20                |

|                | Name        | Function           | Signature |
|----------------|-------------|--------------------|-----------|
| Calibrated by: | Zhao Jing   | SAR Test Engineer  |           |
| Reviewed by:   | Lin Hao     | SAR Test Engineer  |           |
| Approved by:   | QI Dianyuan | SAR Project Leader |           |

Issued: March 29, 2019

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



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### Glossary:

|       |  |
|-------|--|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| 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, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, 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%.



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### Measurement Conditions

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

|                              |                          |              |
|------------------------------|--------------------------|--------------|
| DASY Version                 | DASY52                   | 52.10.2.1495 |
| Extrapolation                | Advanced Extrapolation   |              |
| Phantom                      | Triple Flat Phantom 5.1C |              |
| Distance Dipole Center - TSL | 15 mm                    | with Spacer  |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm        |              |
| Frequency                    | 750 MHz $\pm$ 1 MHz      |              |

### Head TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 41.9           | 0.89 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 43.0 $\pm$ 6 % | 0.90 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | <1.0 °C             | ---            | ---                  |

### SAR result with Head TSL

|  |                    |                              |
|--|--------------------|------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Head TSL   | Condition          |                              |
| SAR measured                                   | 250 mW input power | 2.10 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 8.36 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Head TSL | Condition          |                              |
| SAR measured                                   | 250 mW input power | 1.42 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 5.65 W/kg $\pm$ 18.7 % (k=2) |

### Body TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 55.5           | 0.96 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 56.9 $\pm$ 6 % | 0.94 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | <1.0 °C             | ---            | ---                  |

### SAR result with Body TSL

|  |                    |                              |
|--|--------------------|------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Body TSL   | Condition          |                              |
| SAR measured                                   | 250 mW input power | 2.09 W/kg                    |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 8.58 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Body TSL | Condition          |                              |
| SAR measured                                   | 250 mW input power | 1.41 W/kg                    |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 5.75 W/kg $\pm$ 18.7 % (k=2) |



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## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

|                                      |               |
|--------------------------------------|---------------|
| Impedance, transformed to feed point | 52.4Ω- 2.59jΩ |
| Return Loss                          | - 29.3dB      |

### Antenna Parameters with Body TSL

|                                      |               |
|--------------------------------------|---------------|
| Impedance, transformed to feed point | 51.6Ω- 3.86jΩ |
| Return Loss                          | - 27.7dB      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 0.898 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 |
|-----------------|-------|

### DASY5 Validation Report for Head TSL

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

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

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

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.903$  S/m;  $\epsilon_r = 43.01$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(10.03, 10.03, 10.03) @ 750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

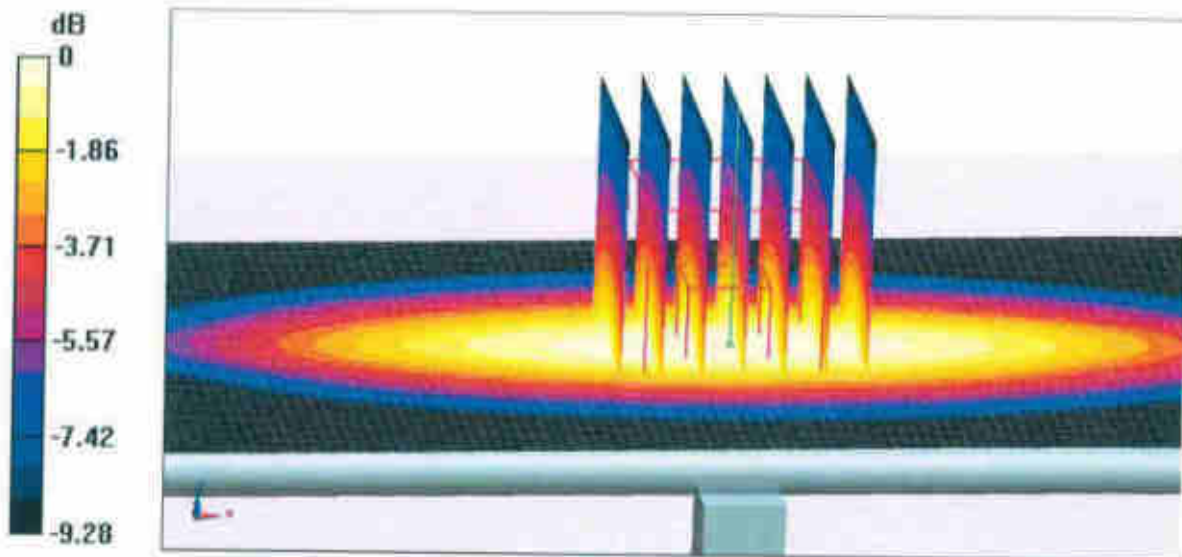
**Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.05 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.00 W/kg

SAR(1 g) = 2.1 W/kg; SAR(10 g) = 1.42 W/kg

Maximum value of SAR (measured) = 2.72 W/kg

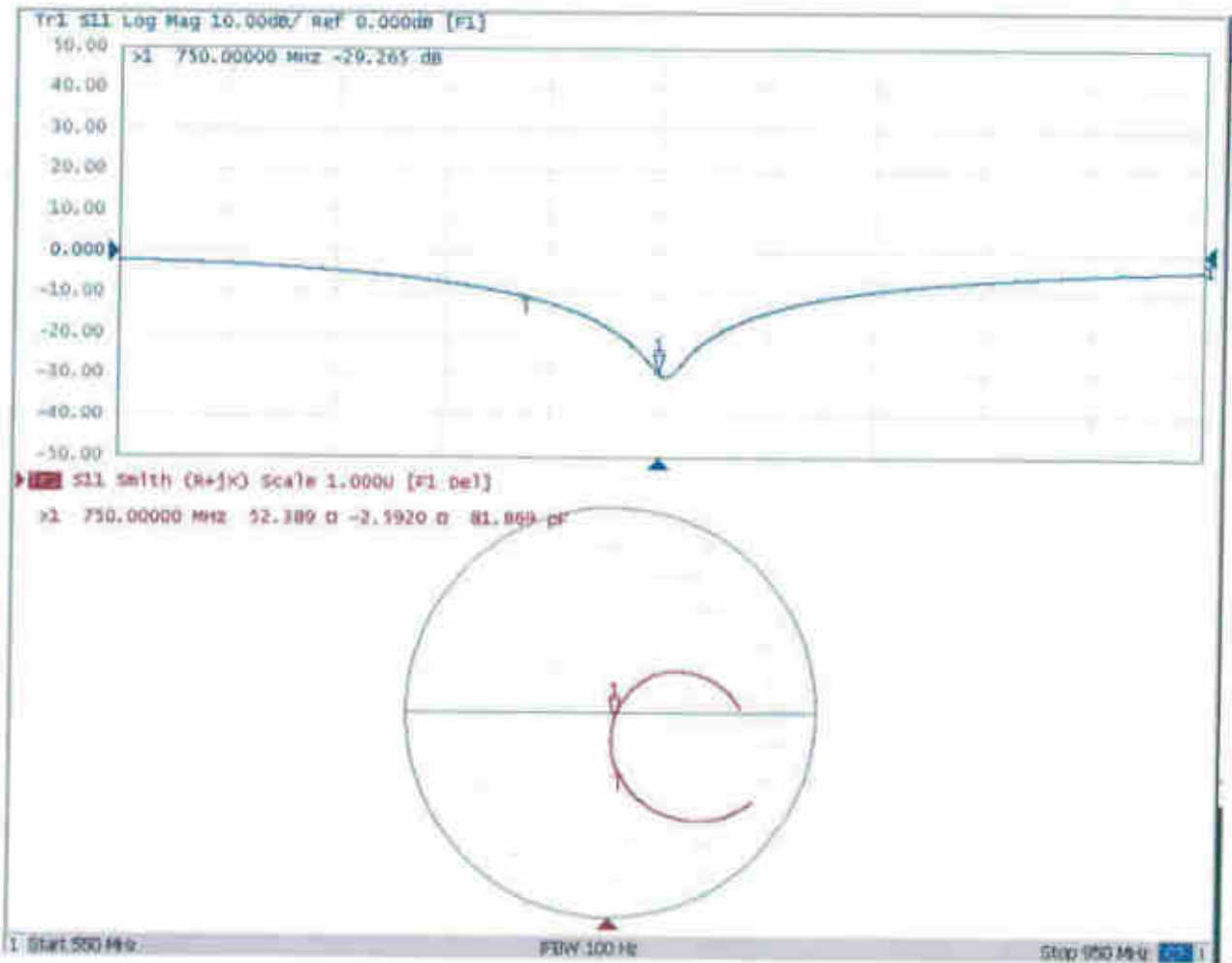


0 dB = 2.72 W/kg = 4.35 dBW/kg



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### Impedance Measurement Plot for Head TSL





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### DASY5 Validation Report for Body TSL

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

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

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

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.935$  S/m;  $\epsilon_r = 56.85$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(9.85, 9.85, 9.85) @ 750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

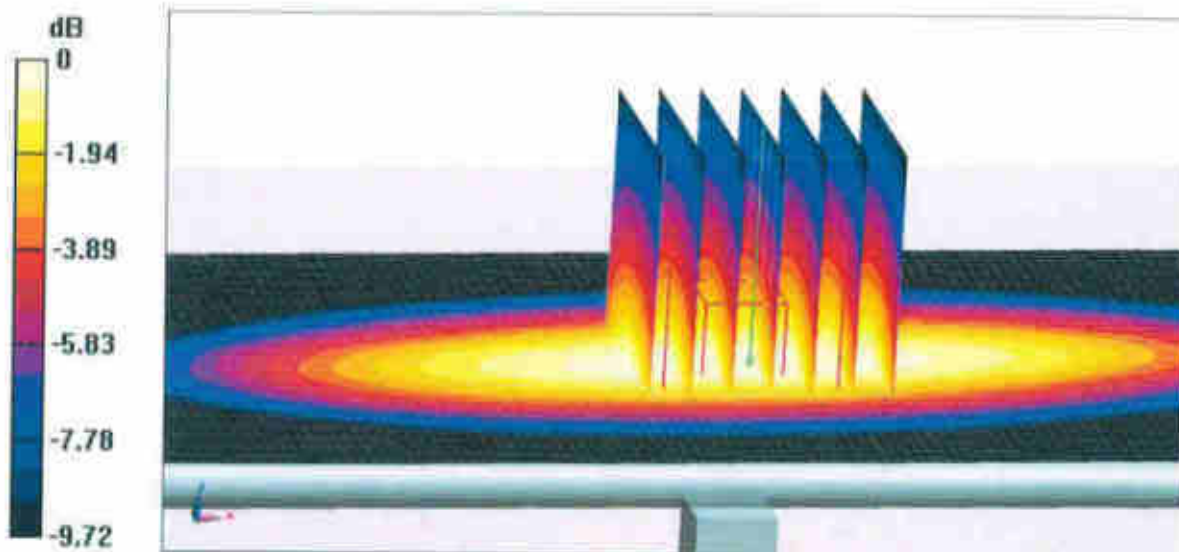
**Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.71 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.08 W/kg

**SAR(1 g) = 2.09 W/kg; SAR(10 g) = 1.41 W/kg**

Maximum value of SAR (measured) = 2.75 W/kg

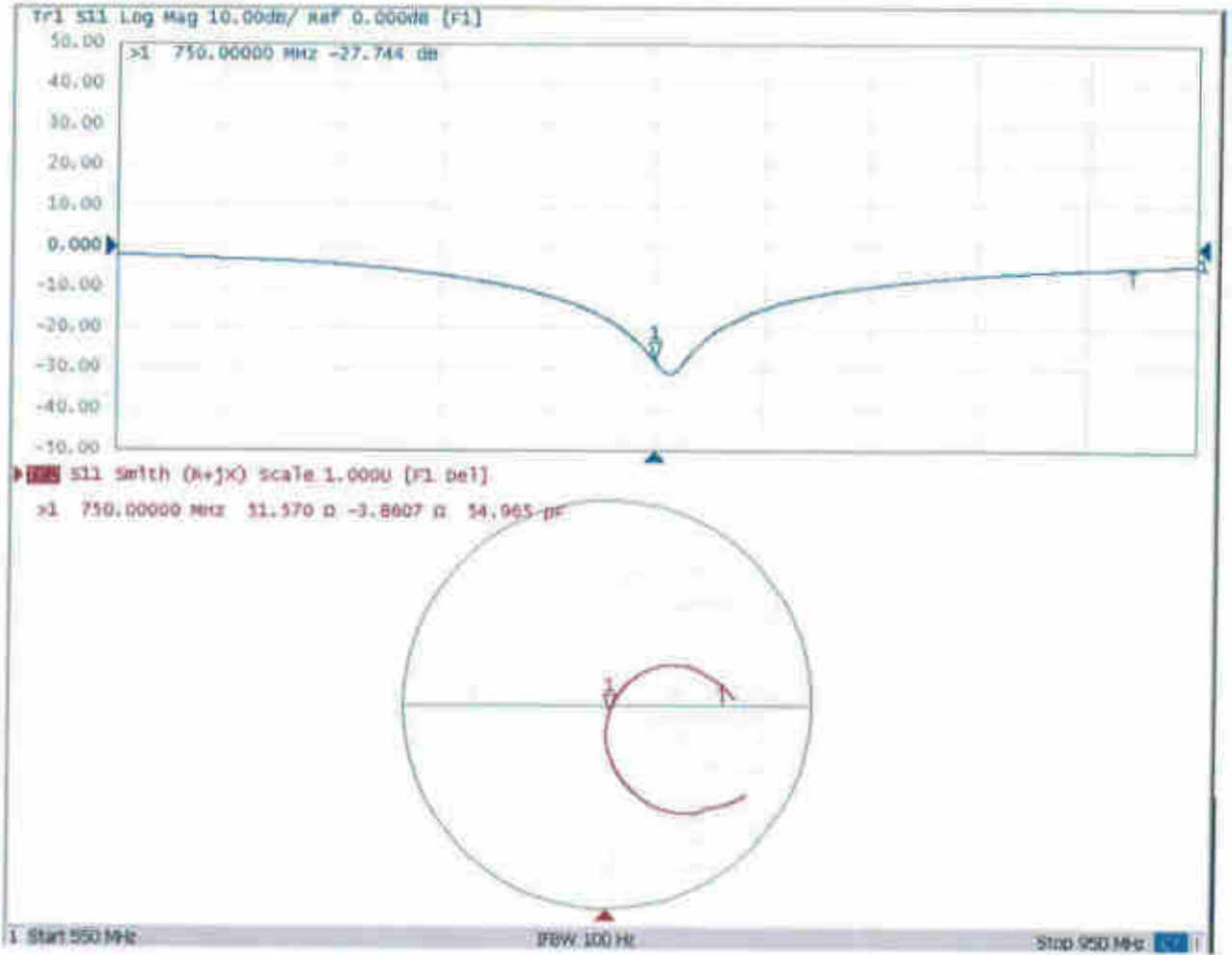


**0 dB = 2.75 W/kg = 4.39 dBW/kg**



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### Impedance Measurement Plot for Body TSL





## D750V3, Serial No. 1087 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss ( $< -20\text{dB}$ , within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

750V3 – serial no. 1087

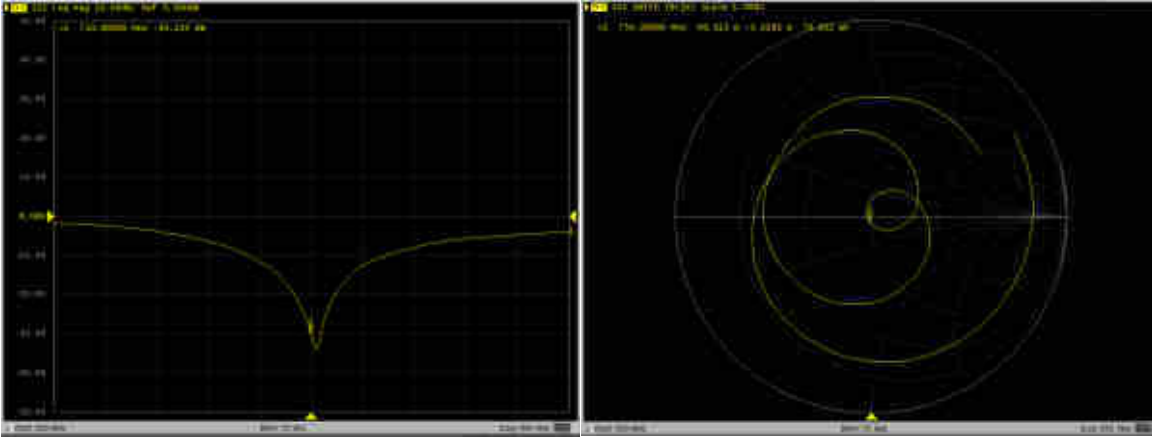
| 750V3 – serial no. 1087 |                  |           |                      |             |                           |             |                  |           |                      |             |                           |             |
|-------------------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|
|                         | 750 Head         |           |                      |             |                           |             | 750 Body         |           |                      |             |                           |             |
| Date of Measurement     | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) |
| 2019.3.27               | -29.3            |           | 52.4                 |             | -2.6                      |             | -27.7            |           | 51.6                 |             | -3.9                      |             |
| 2020.3.26               | -30.2            | -0.03     | 49.5                 | 2.88        | -3.0                      | 0.44        | 26.6             | 1.96      | 54.896               | -3.33       | 0.45                      | -4.31       |

### <Justification of the extended calibration>

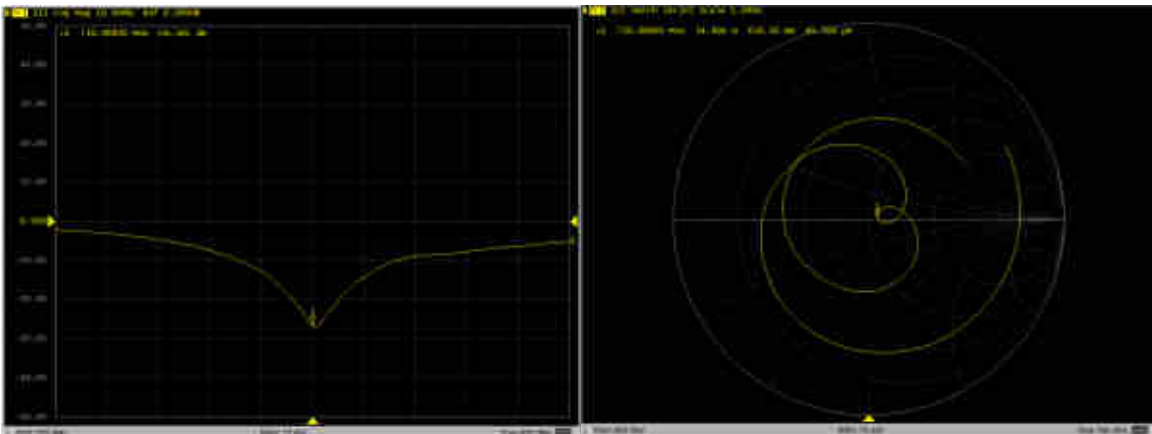
The return loss is  $< -20\text{dB}$ , within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D750V3, serial no. 1087

750MHz – Head



750MHz – Body





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Client **Sporton**

Certificate No: **Z19-60082**

## CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d151**

Calibration Procedure(s) **FF-Z11-003-01**  
**Calibration Procedures for dipole validation kits**

Calibration date: **March 27, 2019**

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(Calibrated by, Certificate No.) | Scheduled Calibration |
|-------------------------|------------|--|-----------------------|
| Power Meter NRP2        | 106277     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Power sensor NRP8S      | 104291     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Reference Probe EX3DV4  | SN 3617    | 31-Jan-19(SPEAG,No.EX3-3617_Jan19)       | Jan-20                |
| DAE4                    | SN 1331    | 06-Feb-19(SPEAG,No.DAE4-1331_Feb19)      | Feb-20                |
| Secondary Standards     | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 23-Jan-19 (CTTL, No.J19X00336)           | Jan-20                |
| NetworkAnalyzer E5071C  | MY46110673 | 24-Jan-19 (CTTL, No.J19X00547)           | Jan-20                |

|                | Name        | Function           | Signature |
|----------------|-------------|--------------------|-----------|
| Calibrated by: | Zhao Jing   | SAR Test Engineer  |           |
| Reviewed by:   | Lin Hao     | SAR Test Engineer  |           |
| Approved by:   | Qi Dianyuan | SAR Project Leader |           |

Issued: March 30, 2019

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### Glossary:

|       |  |
|-------|--|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| 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, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, 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%.



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### Measurement Conditions

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

|                              |                          |              |
|------------------------------|--------------------------|--------------|
| DASY Version                 | DASY52                   | 52.10.2.1495 |
| Extrapolation                | Advanced Extrapolation   |              |
| Phantom                      | Triple Flat Phantom 5.1C |              |
| Distance Dipole Center - TSL | 15 mm                    | with Spacer  |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm        |              |
| Frequency                    | 835 MHz $\pm$ 1 MHz      |              |

### Head TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 41.5           | 0.90 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 42.7 $\pm$ 6 % | 0.93 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | <1.0 °C             | ---            | ---                  |

### SAR result with Head TSL

|  |                    |                              |
|--|--------------------|------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Head TSL   | Condition          |                              |
| SAR measured                                   | 250 mW input power | 2.36 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 9.30 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Head TSL | Condition          |                              |
| SAR measured                                   | 250 mW input power | 1.56 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 6.16 W/kg $\pm$ 18.7 % (k=2) |

### Body TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 55.2           | 0.97 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 56.7 $\pm$ 6 % | 0.94 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | <1.0 °C             | ---            | ---                  |

### SAR result with Body TSL

|  |                    |                               |
|--|--------------------|-------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Body TSL   | Condition          |                               |
| SAR measured                                   | 250 mW input power | 2.32 W/kg                     |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 9.53 W /kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Body TSL | Condition          |                               |
| SAR measured                                   | 250 mW input power | 1.52 W/kg                     |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 6.20 W/kg $\pm$ 18.7 % (k=2)  |



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## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

|                                      |               |
|--------------------------------------|---------------|
| Impedance, transformed to feed point | 50.8Ω- 3.28jΩ |
| Return Loss                          | - 29.5dB      |

### Antenna Parameters with Body TSL

|                                      |               |
|--------------------------------------|---------------|
| Impedance, transformed to feed point | 46.7Ω- 3.98jΩ |
| Return Loss                          | - 25.5dB      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.253 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 |
|-----------------|-------|



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**DASY5 Validation Report for Head TSL**

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d151**

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.925$  S/m;  $\epsilon_r = 42.68$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(9.75, 9.75, 9.75) @ 835 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

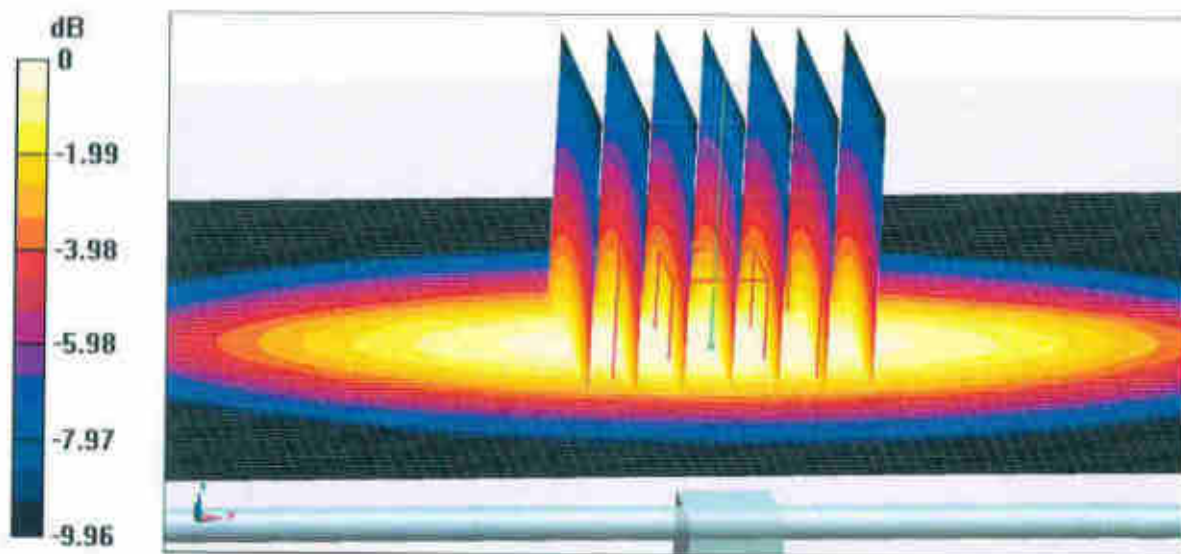
**Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.34 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.55 W/kg

**SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.56 W/kg**

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

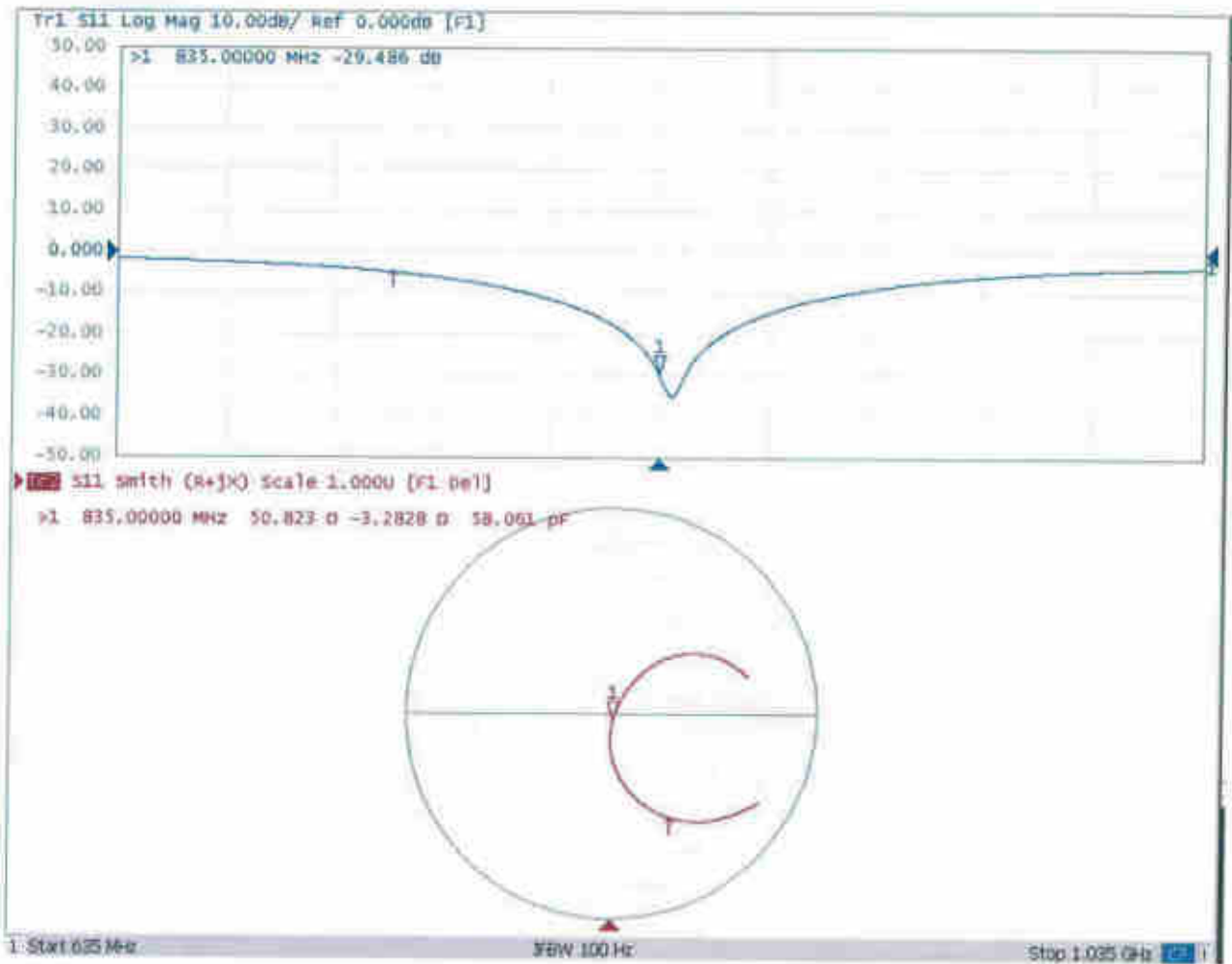


0 dB = 3.14 W/kg = 4.97 dBW/kg



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### Impedance Measurement Plot for Head TSL





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### DASY5 Validation Report for Body TSL

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d151**

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.944$  S/m;  $\epsilon_r = 56.66$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(9.61, 9.61, 9.61) @ 835 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

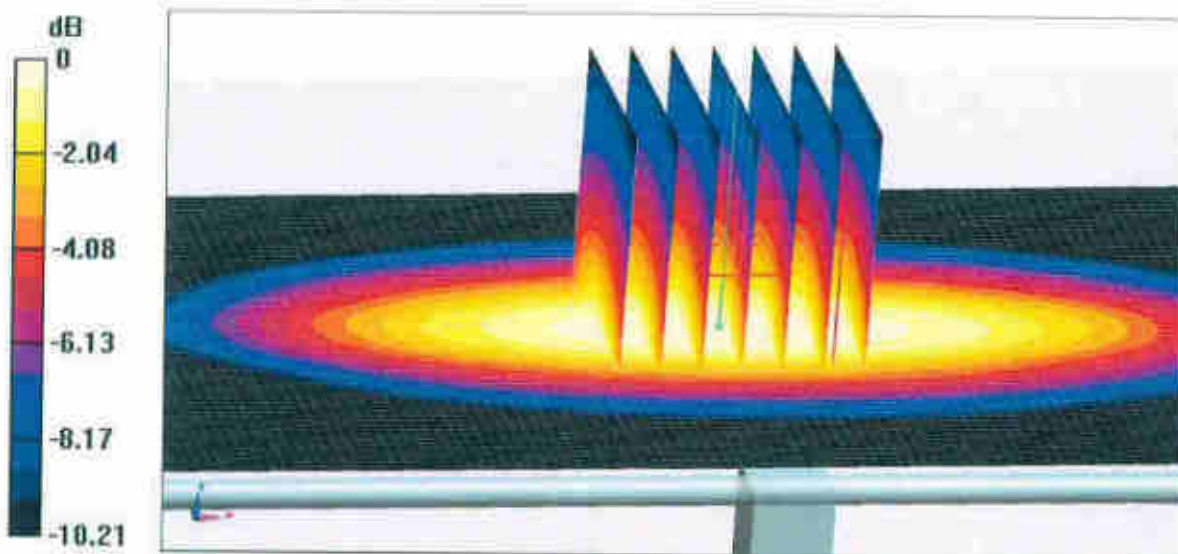
**Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.03 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.53 W/kg

SAR(1 g) = 2.32 W/kg; SAR(10 g) = 1.52 W/kg

Maximum value of SAR (measured) = 3.12 W/kg

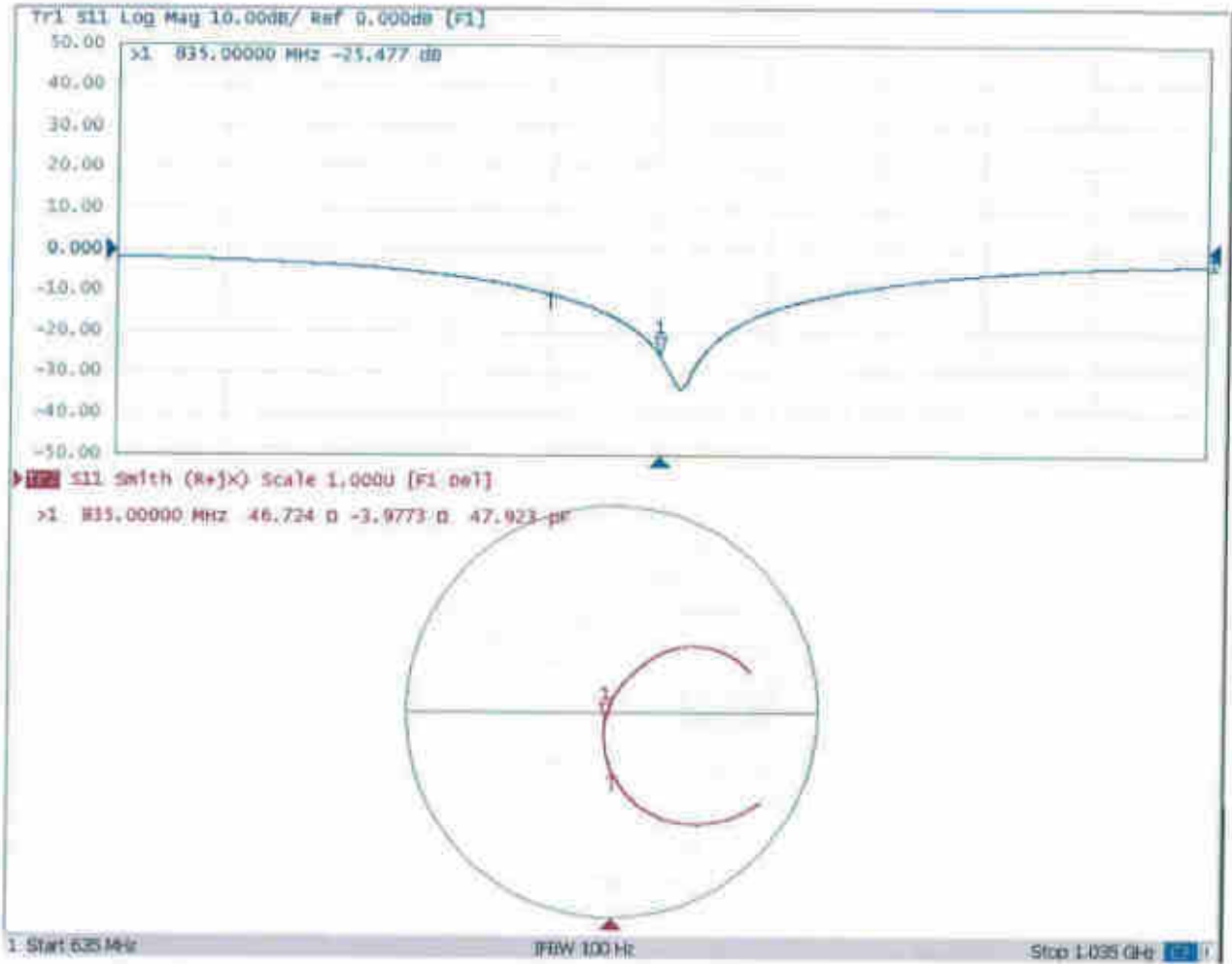


0 dB = 3.12 W/kg = 4.94 dBW/kg



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### Impedance Measurement Plot for Body TSL





## D835V2, Serial No. 4d151 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss ( $< -20\text{dB}$ , within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

835V2 – serial no. 4d151

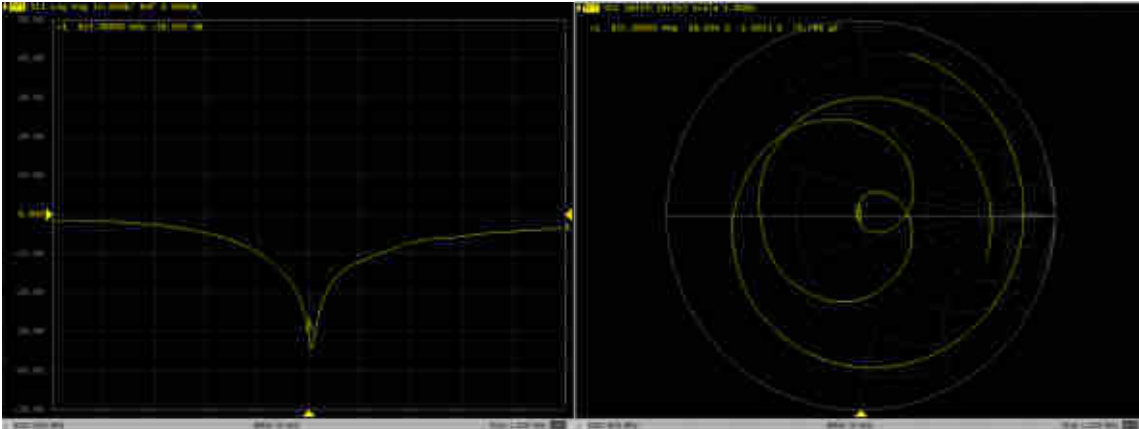
| 835V2 – serial no. 4d151 |                  |           |                      |             |                           |             |                  |           |                      |             |                           |             |
|--------------------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|
|                          | 835 Head         |           |                      |             |                           |             | 835 Body         |           |                      |             |                           |             |
| Date of Measurement      | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) |
| 2019.3.27                | -29.3            |           | 52.4                 |             | -2.6                      |             | -27.7            |           | 51.6                 |             | -3.9                      |             |
| 2020.3.26                | -30.7            | -0.05     | 49.0                 | 3.44        | -2.7                      | 0.10        | -24.9            | 0.10      | 50.6                 | 0.94        | -5.7                      | 1.84        |

### <Justification of the extended calibration>

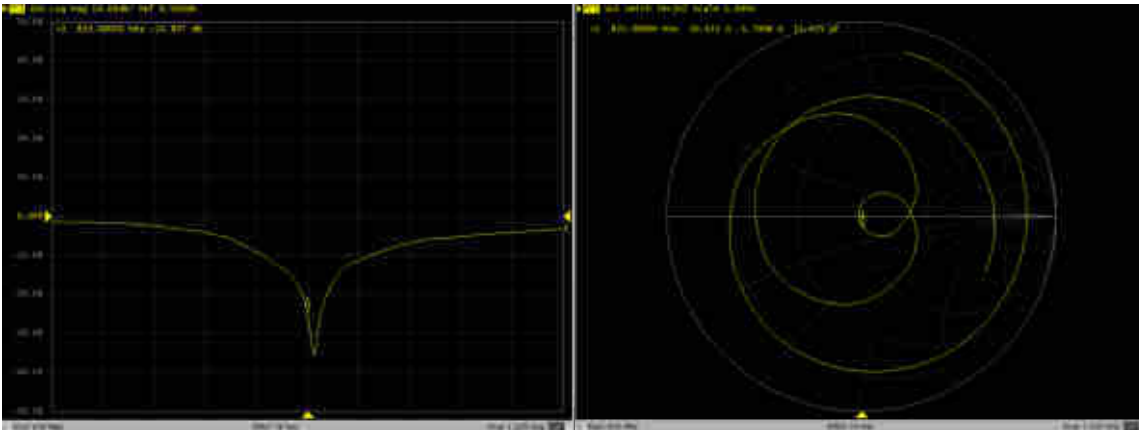
The return loss is  $< -20\text{dB}$ , within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D835V2, serial no. 4d151

835MHz – Head



835MHz – Body





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Client **Sporton**

Certificate No: **Z19-60084**

## CALIBRATION CERTIFICATE

Object: **D1750V2 - SN: 1090**

Calibration Procedure(s): **FF-Z11-003-01**  
**Calibration Procedures for dipole validation kits**

Calibration date: **March 27, 2019**

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards       | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|-------------------------|------------|--|-----------------------|
| Power Meter NRP2        | 106277     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Power sensor NRP8S      | 104291     | 20-Aug-18 (CTTL, No.J18X06862)           | Aug-19                |
| Reference Probe EX3DV4  | SN 3617    | 31-Jan-19(SPEAG,No.EX3-3617_Jan19)       | Jan-20                |
| DAE4                    | SN 1331    | 06-Feb-19(SPEAG,No.DAE4-1331_Feb19)      | Feb-20                |
| Secondary Standards     | ID #       | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
| Signal Generator E4438C | MY49071430 | 23-Jan-19 (CTTL, No.J19X00336)           | Jan-20                |
| NetworkAnalyzer E5071C  | MY46110673 | 24-Jan-19 (CTTL, No.J19X00547)           | Jan-20                |

|                | Name        | Function           | Signature |
|----------------|-------------|--------------------|-----------|
| Calibrated by: | Zhao Jing   | SAR Test Engineer  |           |
| Reviewed by:   | Lin Hao     | SAR Test Engineer  |           |
| Approved by:   | Qi Dianyuan | SAR Project Leader |           |

Issued: March 29, 2019

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#### Glossary:

|       |  |
|-------|--|
| TSL   | tissue simulating liquid                   |
| ConvF | sensitivity in TSL / NORM <sub>x,y,z</sub> |
| 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, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, 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%.



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## Measurement Conditions

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

|                              |                          |              |
|------------------------------|--------------------------|--------------|
| DASY Version                 | DASY52                   | 52.10.2.1495 |
| Extrapolation                | Advanced Extrapolation   |              |
| Phantom                      | Triple Flat Phantom 5.1C |              |
| Distance Dipole Center - TSL | 10 mm                    | with Spacer  |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm        |              |
| Frequency                    | 1750 MHz $\pm$ 1 MHz     |              |

## Head TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 40.1           | 1.37 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 41.3 $\pm$ 6 % | 1.37 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | <1.0 °C             | ---            | ---                  |

## SAR result with Head TSL

|  |                    |                              |
|--|--------------------|------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Head TSL   | Condition          |                              |
| SAR measured                                   | 250 mW input power | 9.04 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 36.4 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Head TSL | Condition          |                              |
| SAR measured                                   | 250 mW input power | 4.79 W/kg                    |
| SAR for nominal Head TSL parameters            | normalized to 1W   | 19.2 W/kg $\pm$ 18.7 % (k=2) |

## Body TSL parameters

The following parameters and calculations were applied.

|   | Temperature         | Permittivity   | Conductivity         |
|---|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 53.4           | 1.49 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 55.0 $\pm$ 6 % | 1.45 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | <1.0 °C             | ---            | ---                  |

## SAR result with Body TSL

|  |                    |                              |
|--|--------------------|------------------------------|
| SAR averaged over 1 $cm^3$ (1 g) of Body TSL   | Condition          |                              |
| SAR measured                                   | 250 mW input power | 9.21 W/kg                    |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 37.7 W/kg $\pm$ 18.8 % (k=2) |
| SAR averaged over 10 $cm^3$ (10 g) of Body TSL | Condition          |                              |
| SAR measured                                   | 250 mW input power | 4.89 W/kg                    |
| SAR for nominal Body TSL parameters            | normalized to 1W   | 19.9 W/kg $\pm$ 18.7 % (k=2) |



## Appendix (Additional assessments outside the scope of CNAS L0570)

### Antenna Parameters with Head TSL

|                                      |                |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 47.5Ω- 2.34 jΩ |
| Return Loss                          | - 29.2 dB      |

### Antenna Parameters with Body TSL

|                                      |                |
|--------------------------------------|----------------|
| Impedance, transformed to feed point | 43.9Ω- 2.19 jΩ |
| Return Loss                          | - 23.2 dB      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.085 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 |
|-----------------|-------|



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### DASY5 Validation Report for Head TSL

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN: 1090**

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.37$  S/m;  $\epsilon_r = 41.27$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(8.38, 8.38, 8.38) @ 1750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**System Performance Check/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:**

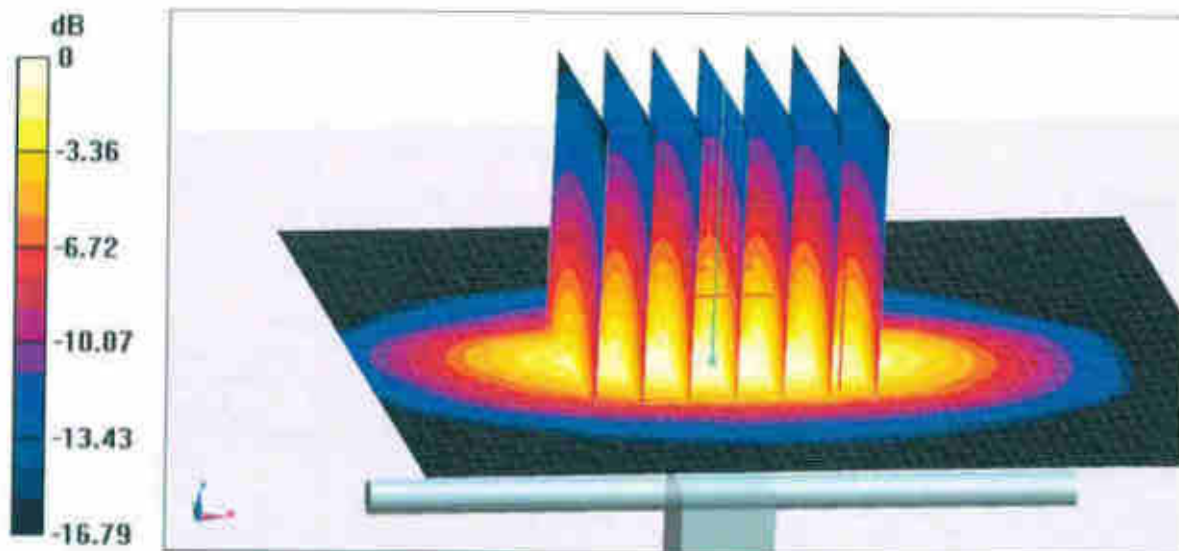
$dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 89.03 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 17.1 W/kg

**SAR(1 g) = 9.04 W/kg; SAR(10 g) = 4.79 W/kg**

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

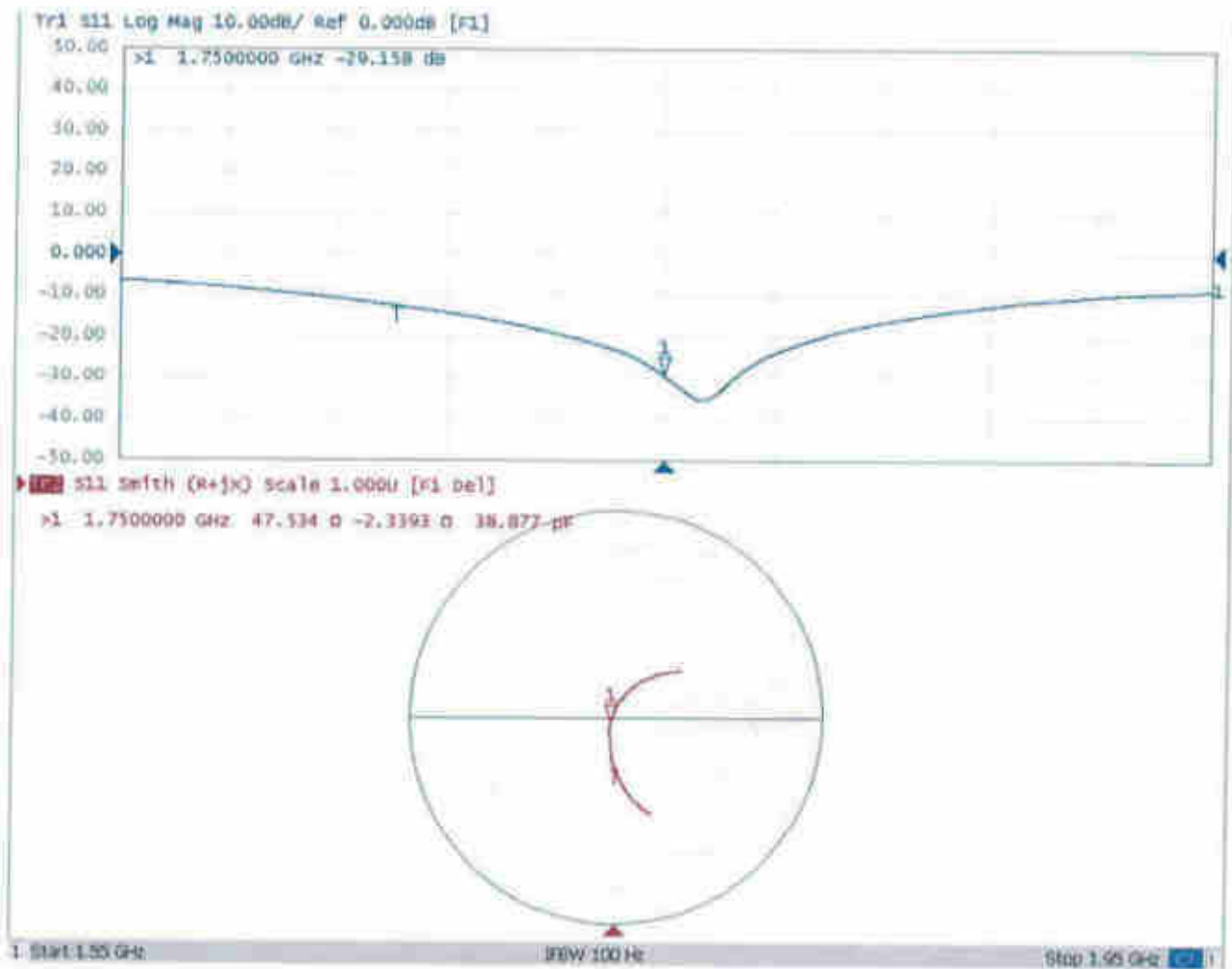


0 dB = 14.2 W/kg = 11.52 dBW/kg



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com http://www.chinattl.cn

### Impedance Measurement Plot for Head TSL





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### DASY5 Validation Report for Body TSL

Date: 03.26.2019

Test Laboratory: CTTL, Beijing, China

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN: 1090**

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.449$  S/m;  $\epsilon_r = 54.97$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3617; ConvF(8.03, 8.03, 8.03) @ 1750 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1331; Calibrated: 2/6/2019
- Phantom: MFP\_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

**System Performance Check/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:**

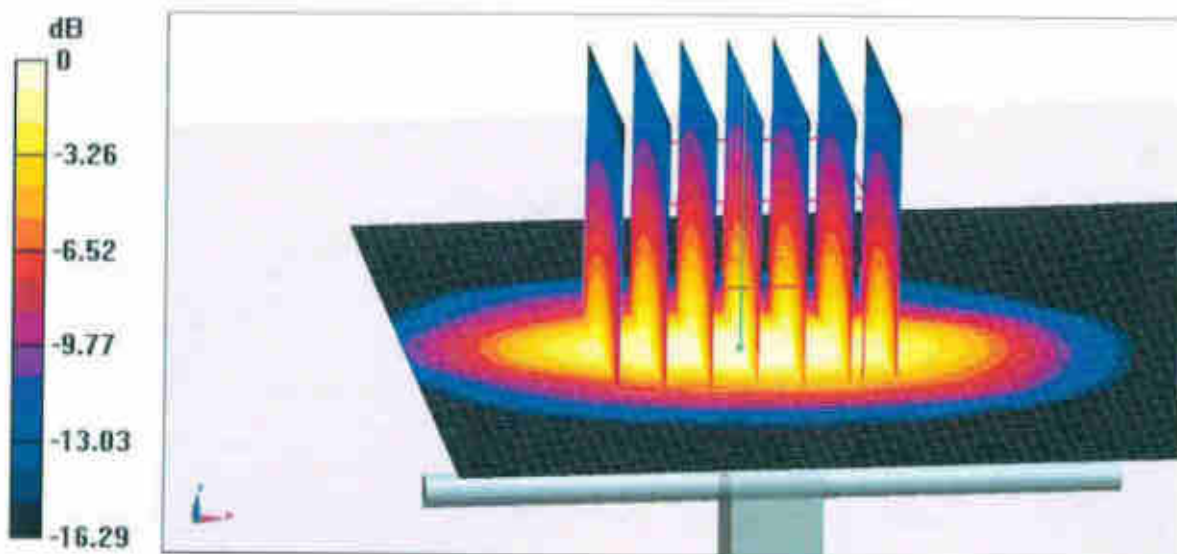
$dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 93.13 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 16.8 W/kg

**SAR(1 g) = 9.21 W/kg; SAR(10 g) = 4.89 W/kg**

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

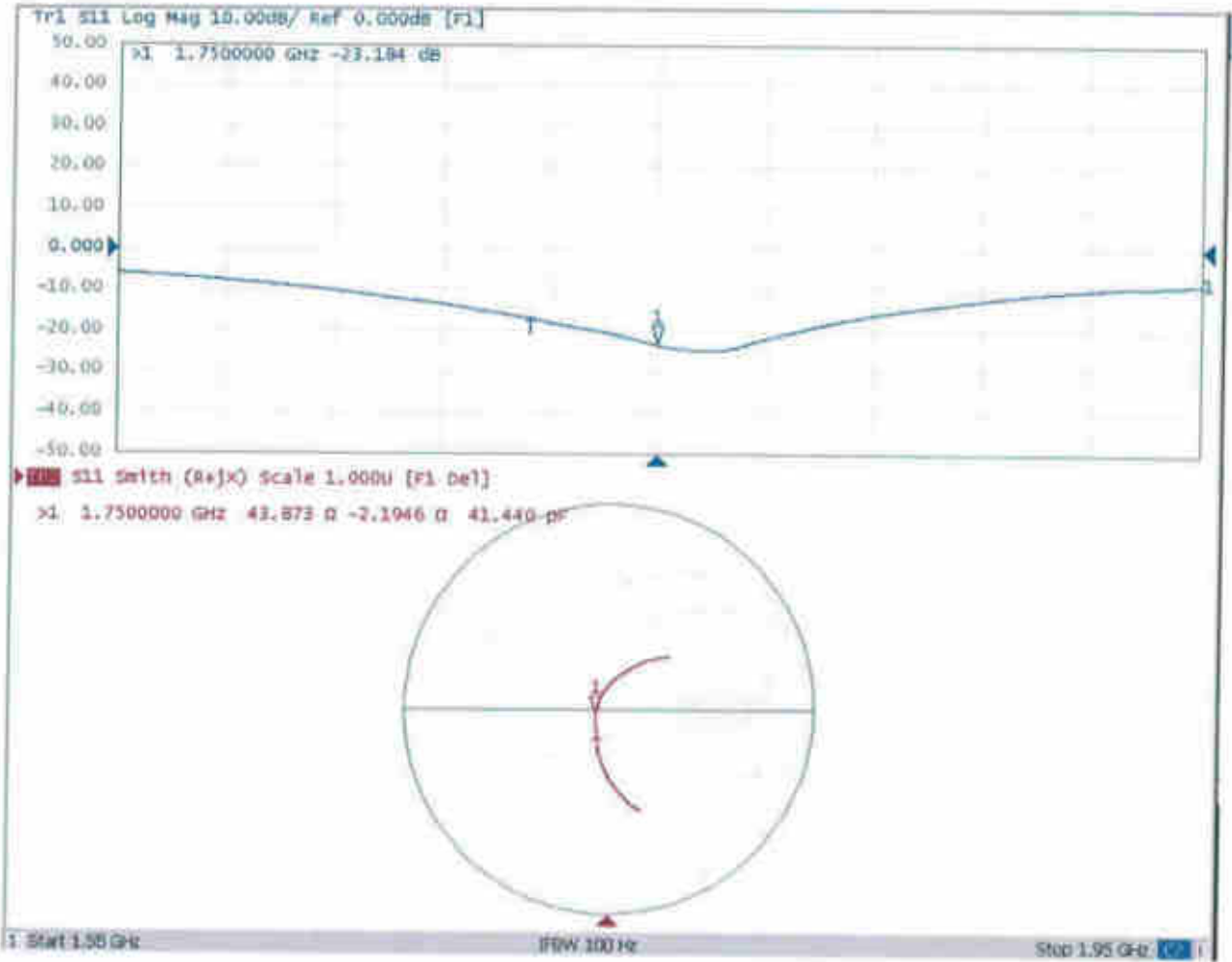


0 dB = 14.2 W/kg = 11.52 dBW/kg



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### Impedance Measurement Plot for Body TSL





## D1750V2, Serial No. 1090 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss ( $< -20\text{dB}$ , within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

1750V2 – serial no. 1090

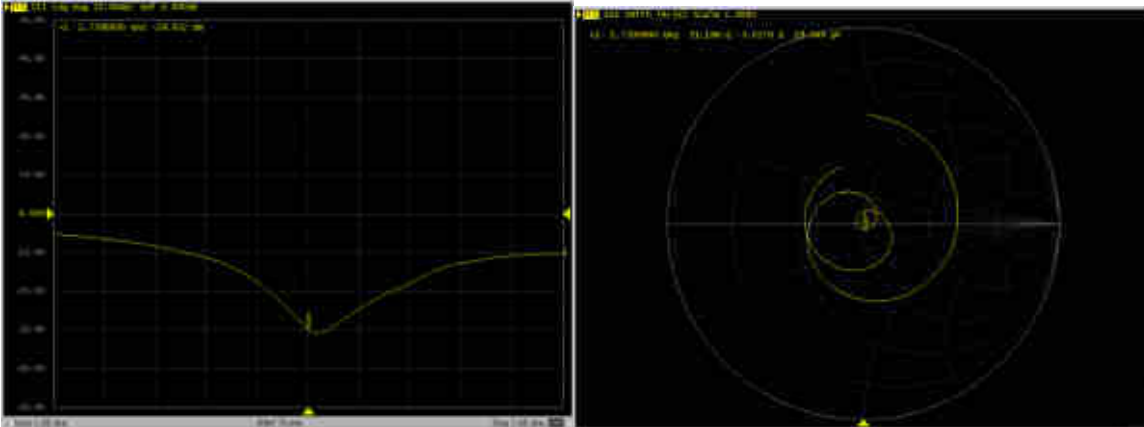
| 1750V2 – serial no. 1090 |                  |           |                      |             |                           |             |                  |           |                      |             |                           |             |
|--------------------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|------------------|-----------|----------------------|-------------|---------------------------|-------------|
|                          | 1750 Head        |           |                      |             |                           |             | 1750 Body        |           |                      |             |                           |             |
| Date of Measurement      | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) | Return-Loss (dB) | Delta (%) | Real Impedance (ohm) | Delta (ohm) | Imaginary Impedance (ohm) | Delta (ohm) |
| 2019.3.27                | -29.2            |           | 47.5                 |             | -2.3                      |             | -23.2            |           | 43.9                 |             | -2.2                      |             |
| 2020.3.26                | -29.8            | -0.02     | 51.2                 | -3.66       | -3.0                      | 0.70        | -25.0            | -0.08     | 45.1                 | -1.22       | -2.17                     | -0.02       |

### <Justification of the extended calibration>

The return loss is  $< -20\text{dB}$ , within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D1750V2, serial no. 1090

1750MHz – Head



1750MHz – Body

