

System Check_Body_5600MHz_160924**DUT: D5GHzV2 - SN:1113**

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL_5000_160924 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.849$ S/m; $\epsilon_r = 47.666$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.65, 3.65, 3.65); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical SurfaceDetection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

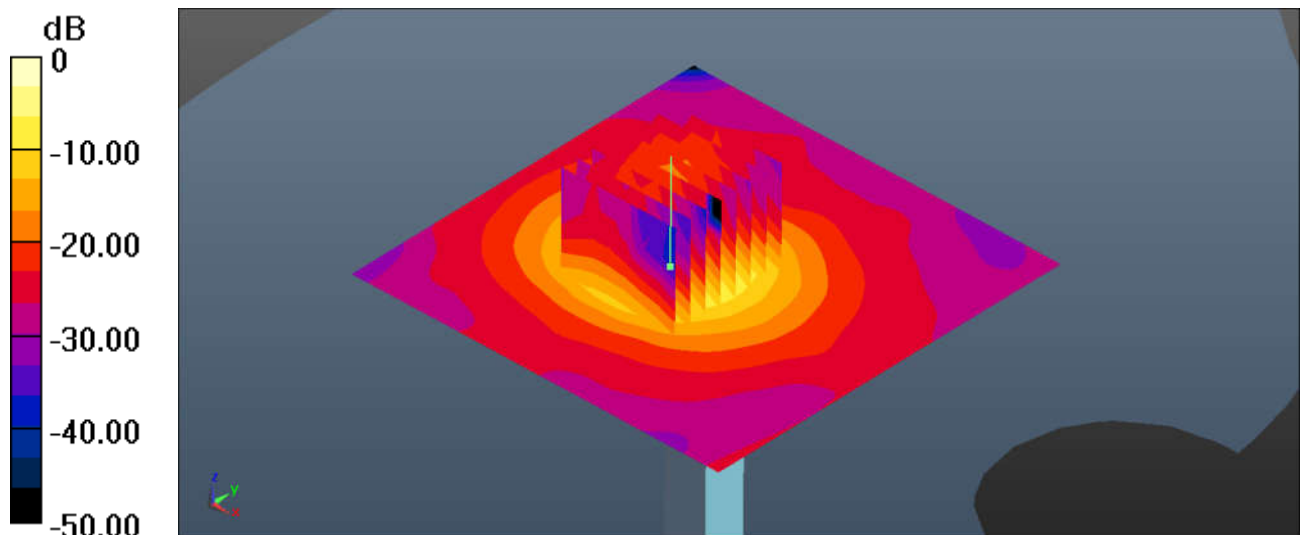
Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 32.94 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.31 W/kg

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



0 dB = 19.9 W/kg = 12.99 dBW/kg

System Check_Body_5750MHz_160925**DUT: D5GHzV2 - SN:1113**

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

Medium: MSL_5000_160925 Medium parameters used: $f = 5750$ MHz; $\sigma = 6.058$ S/m; $\epsilon_r = 47.348$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.77, 3.77, 3.77); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical SurfaceDetection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

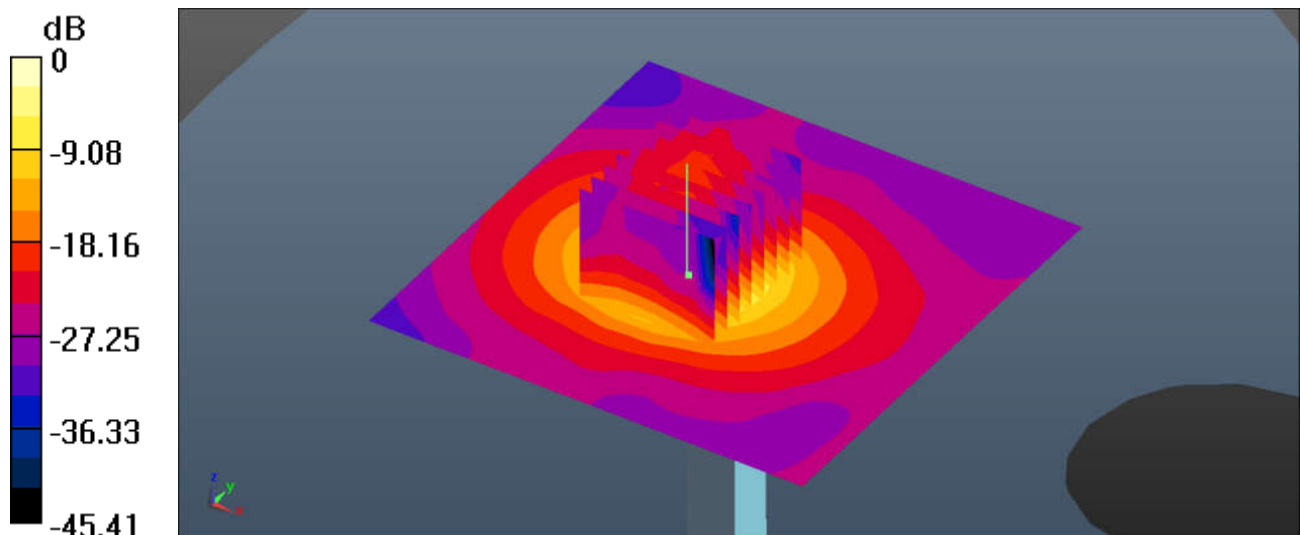
Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 31.00 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 7.38 W/kg; SAR(10 g) = 2.13 W/kg

Maximum value of SAR (measured) = 18.9 W/kg



0 dB = 18.9 W/kg = 12.76 dBW/kg

System Check_Body_5750MHz_161009**DUT: D5GHzV2 - SN:1113**

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MSL_5000_161009 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.228$ S/m; $\epsilon_r = 47.321$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.77, 3.77, 3.77); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 16.4 W/kg

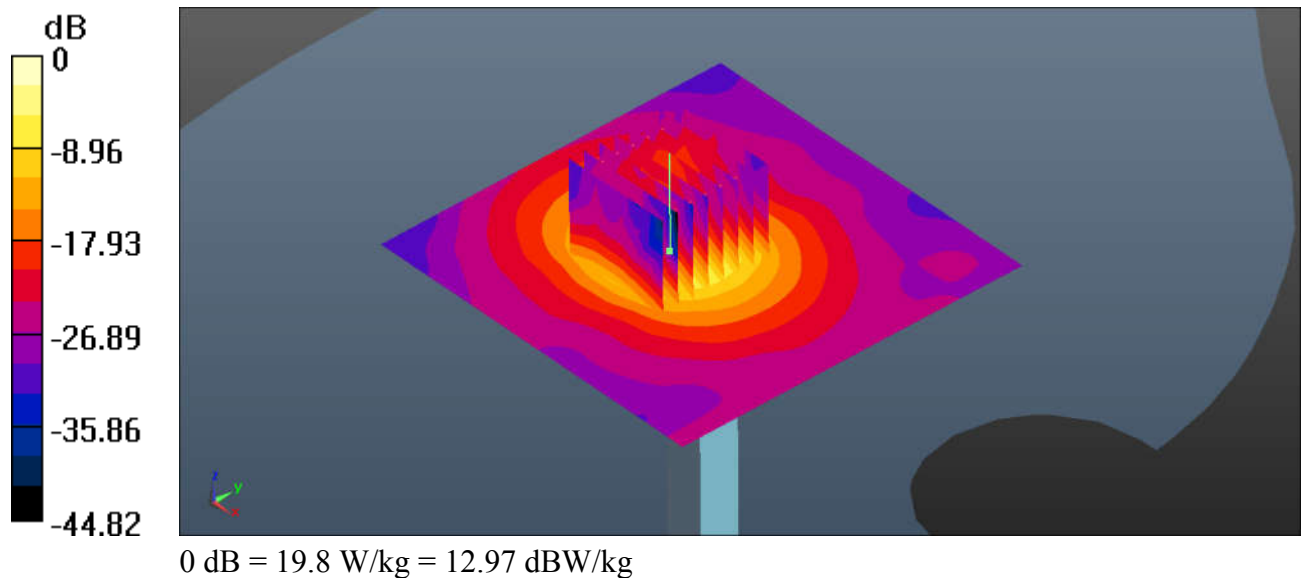
Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 31.27 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 30.9 W/kg

SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.22 W/kg

Maximum value of SAR (measured) = 19.8 W/kg





Appendix B. Plots of High SAR Measurement

The plots are shown as follows.

01_GSM850_GPRS 3 Tx Slots_Right Cheek_0mm_Ch128

Communication System: UID 0, GPRS/EDGE (3 Tx slots) (0); Frequency: 824.2 MHz; Duty Cycle: 1:2.77

Medium: HSL_850_160915 Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.916$ S/m; $\epsilon_r = 41.116$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.1, 10.1, 10.1); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch128/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.18 W/kg

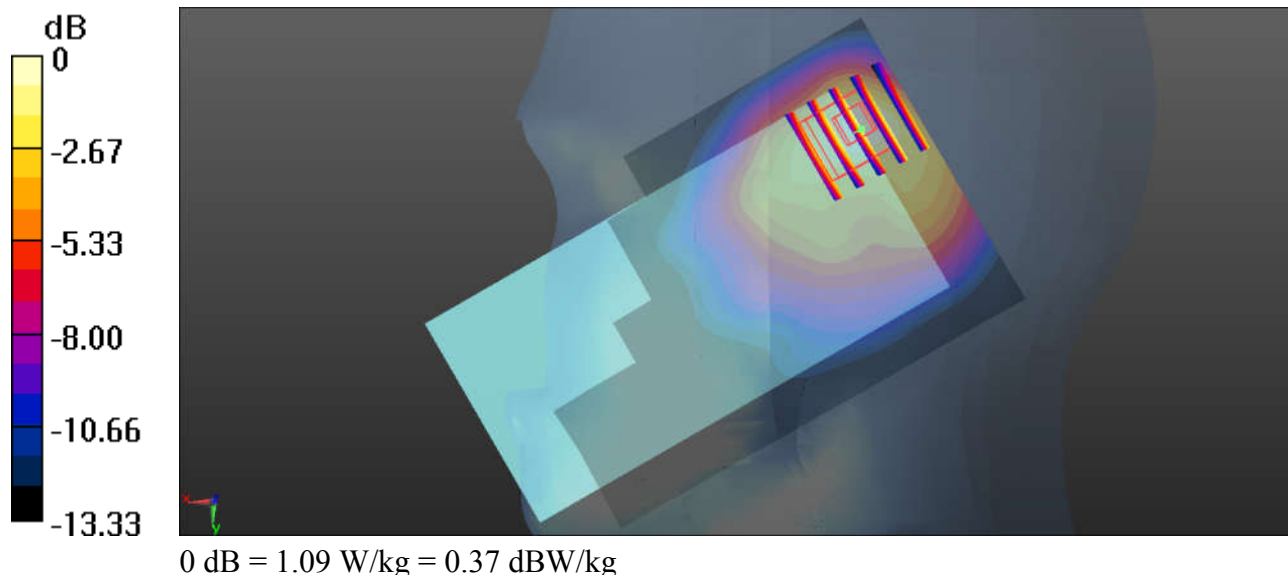
Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.92 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.823 W/kg; SAR(10 g) = 0.485 W/kg

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



02_GSM 1900_GPRS 3 Tx slots_Right Cheek_0mm_Ch810

Communication System: UID 0, GPRS/EDGE (3 Tx slots) (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.77

Medium: HSL_1900_160915 Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.907$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.85, 7.85, 7.85); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch810/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.857 W/kg

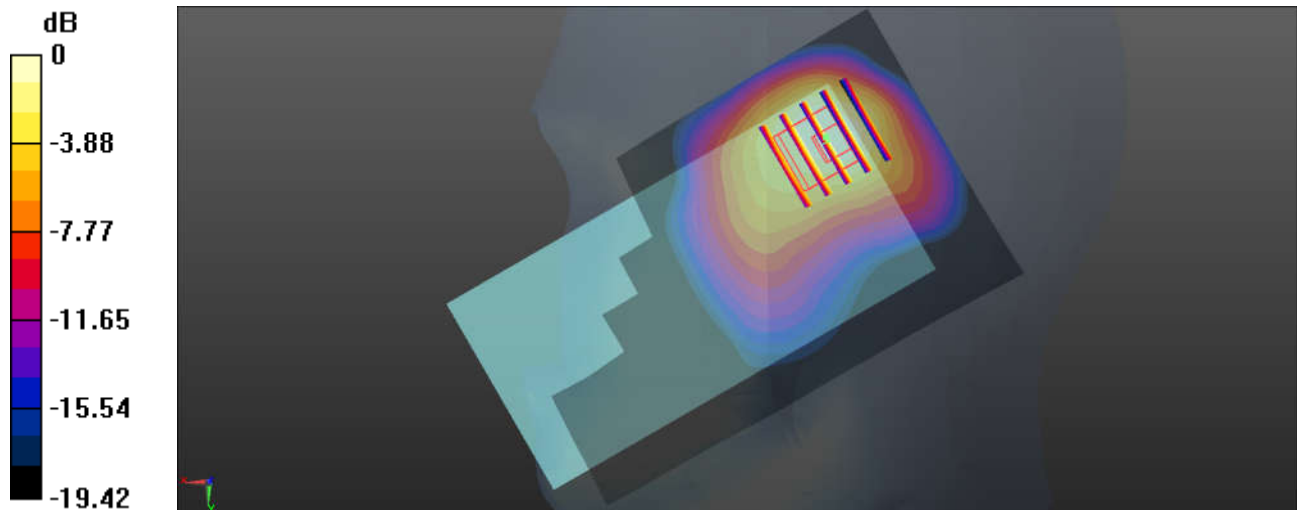
Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.62 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.377 W/kg

Maximum value of SAR (measured) = 0.857 W/kg



0 dB = 0.857 W/kg = -0.67 dBW/kg

03_WCDMA Band V_RMC12.2Kbps_Right Cheek_0mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL_850_160915 Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.927$ S/m; $\epsilon_r = 40.96$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.1, 10.1, 10.1); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4182/Area Scan (71x121x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.10 W/kg

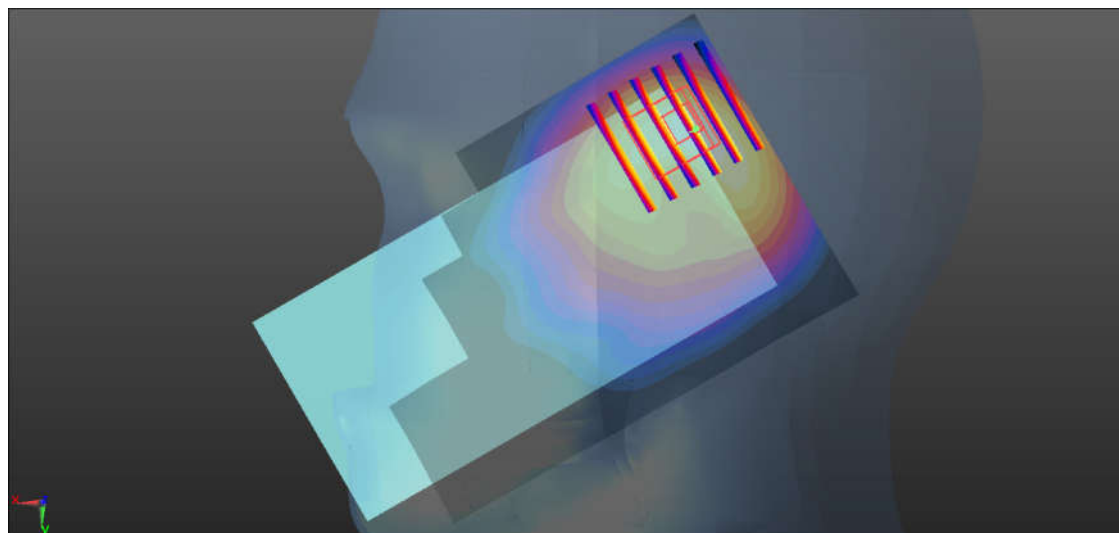
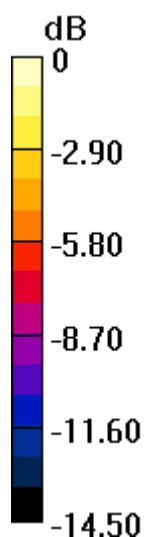
Ch4182/Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 17.33 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.828 W/kg; SAR(10 g) = 0.479 W/kg

Maximum value of SAR (measured) = 1.10 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg

04_WCDMA Band IV_RMC 12.2Kbps_Right Cheek_0mm_Ch1513

Communication System: UID 0, UMTS (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL_1750_160913 Medium parameters used: $f = 1752$ MHz; $\sigma = 1.379$ S/m; $\epsilon_r = 41.526$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(8, 8, 8); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1513/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

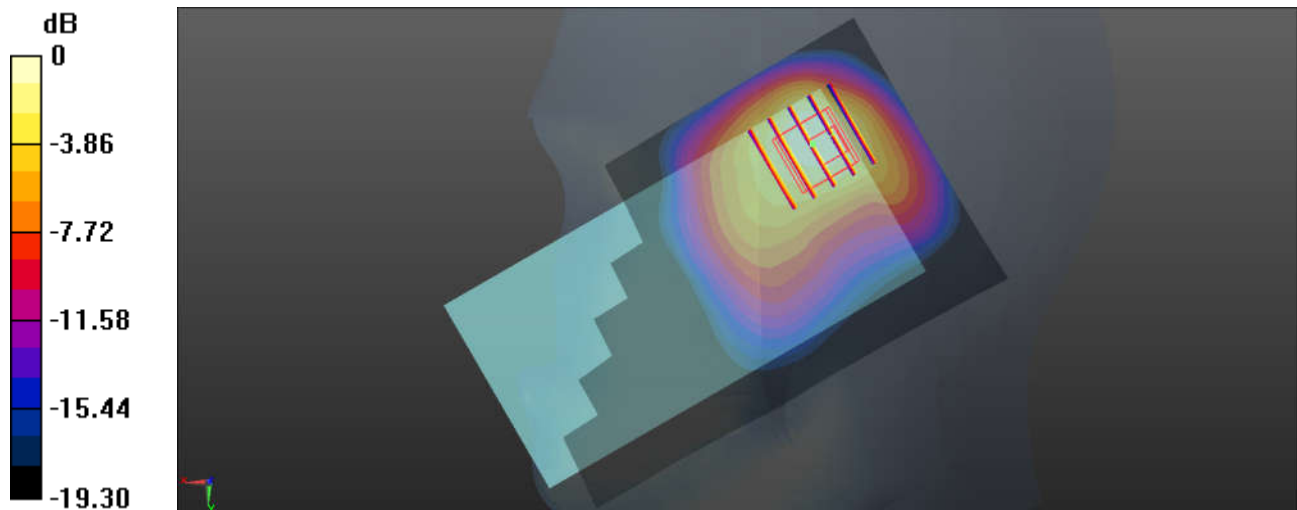
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.27 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.96 W/kg; SAR(10 g) = 0.561 W/kg

Maximum value of SAR (measured) = 1.38 W/kg



0 dB = 1.38 W/kg = 1.40 dBW/kg

05_WCDMA Band II_RMC 12.2Kbps_Right Cheek_0mm_Ch9538

Communication System: UID 0, UMTS (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: HSL_1900_160915 Medium parameters used: $f = 1907.6$ MHz; $\sigma = 1.419$ S/m; $\epsilon_r = 38.914$;

$\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.85, 7.85, 7.85); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9538/Area Scan (71x121x1): Interpolated grid: $dx = 1.500$ mm, $dy = 1.500$ mm

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

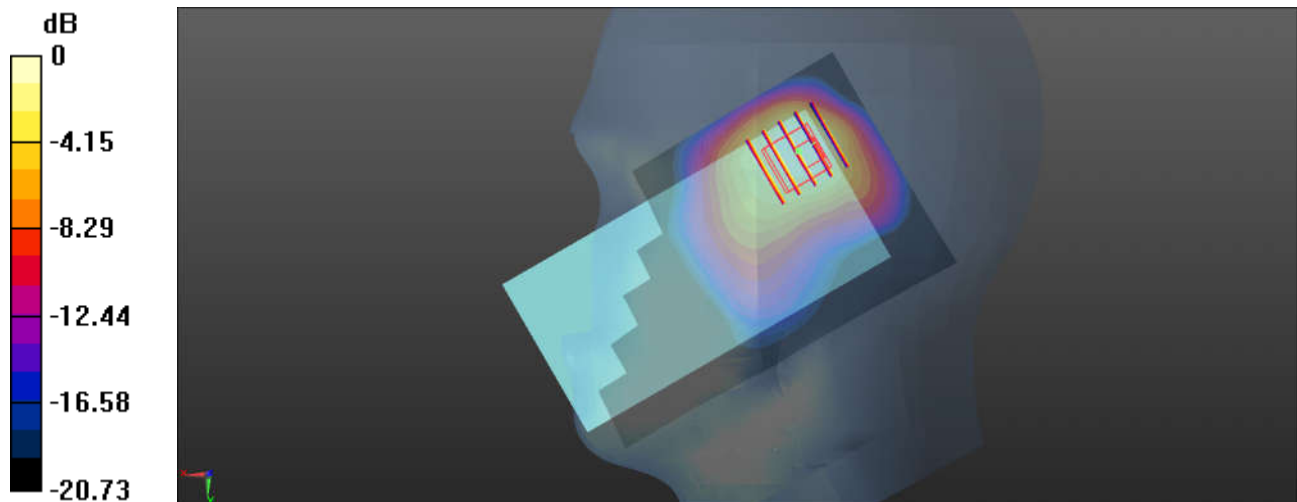
Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx = 8$ mm, $dy = 8$ mm, $dz = 5$ mm

Reference Value = 14.62 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.707 W/kg; SAR(10 g) = 0.403 W/kg

Maximum value of SAR (measured) = 0.953 W/kg



0 dB = 0.953 W/kg = -0.21 dBW/kg

06_LTE Band 12_10M_QPSK_1RB_25Offset_Right Cheek_10mm_Ch23095

Communication System: UID 0, FDD_LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: HSL_750_160915 Medium parameters used: $f = 707.5$ MHz; $\sigma = 0.859$ S/m; $\epsilon_r = 42.025$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.52, 10.52, 10.52); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23095/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.24 W/kg

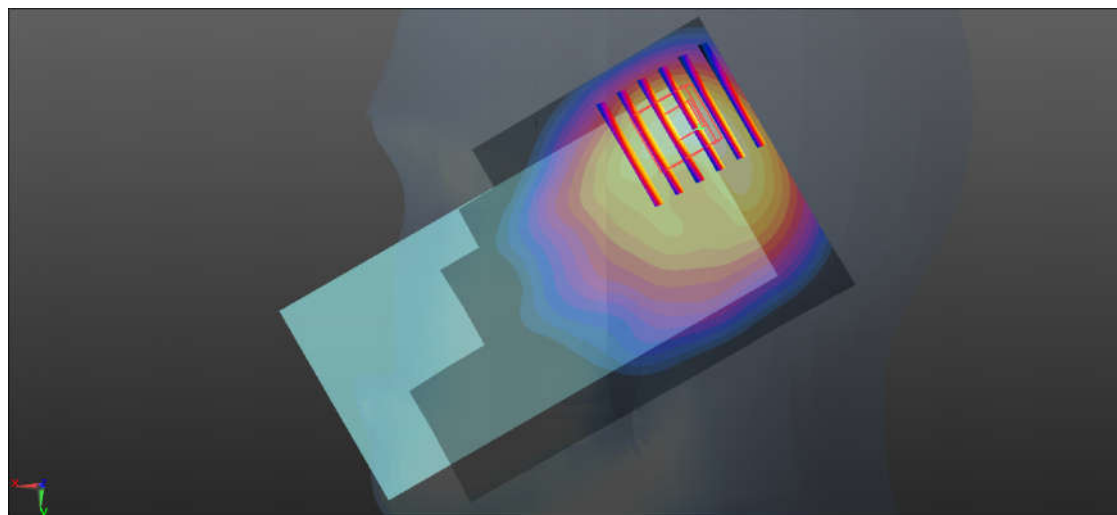
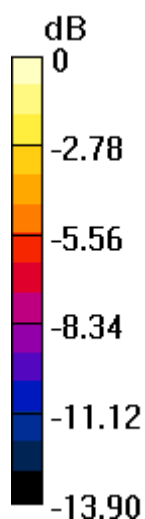
Ch23095/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.18 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.65 W/kg

SAR(1 g) = 0.917 W/kg; SAR(10 g) = 0.521 W/kg

Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

07_LTE Band 5_10M_QPSK_1RB_25Offset_Right Cheek_10mm_Ch20525

Communication System: UID 0, FDD_LTE (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: HSL_850_160915 Medium parameters used: $f = 836.5$ MHz; $\sigma = 0.927$ S/m; $\epsilon_r = 40.959$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.1, 10.1, 10.1); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.15 W/kg

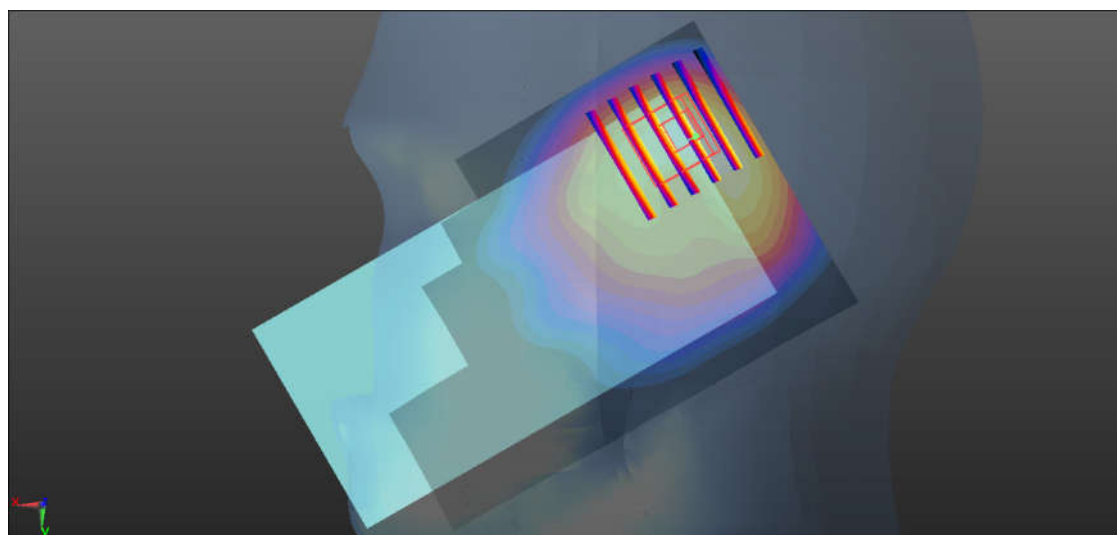
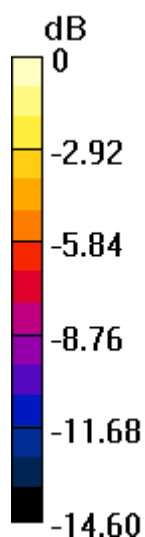
Ch20525/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.33 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.864 W/kg; SAR(10 g) = 0.496 W/kg

Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

08_LTE Band 4_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch20175

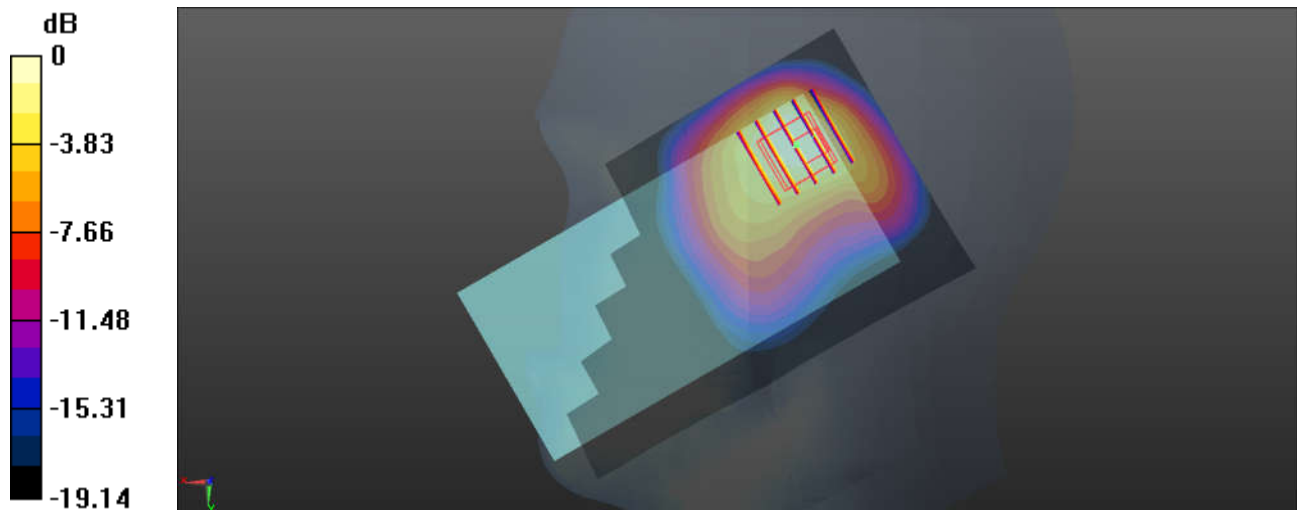
Communication System: UID 0, FDD_LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium: HSL_1750_160913 Medium parameters used: $f = 1732.5$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 41.634$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(8, 8, 8); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.37 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.43 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 0.993 W/kg; SAR(10 g) = 0.578 W/kg
Maximum value of SAR (measured) = 1.36 W/kg



0 dB = 1.36 W/kg = 1.34 dBW/kg

09_LTE Band 2_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch18900

Communication System: UID 0, FDD_LTE (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL_1900_160915 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.048$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.85, 7.85, 7.85); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18900/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.39 W/kg

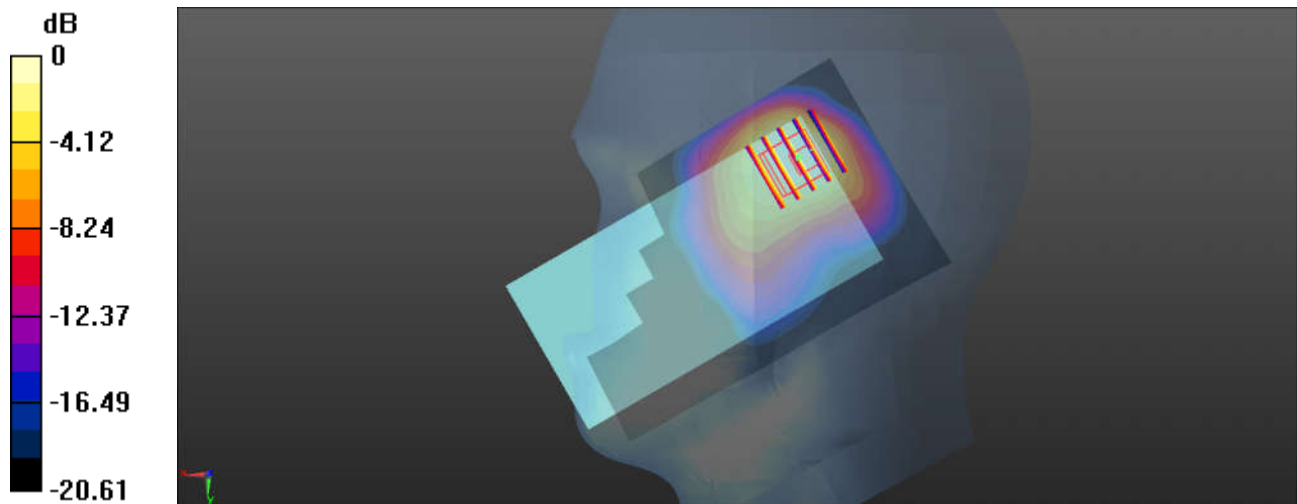
Ch18900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.59 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.506 W/kg

Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

10_LTE Band 30_10M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch27710

Communication System: UID 0, FDD_LTE (0); Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: HSL_2300_160916 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.703$ S/m; $\epsilon_r = 38.742$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.44, 7.44, 7.44); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch27710/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

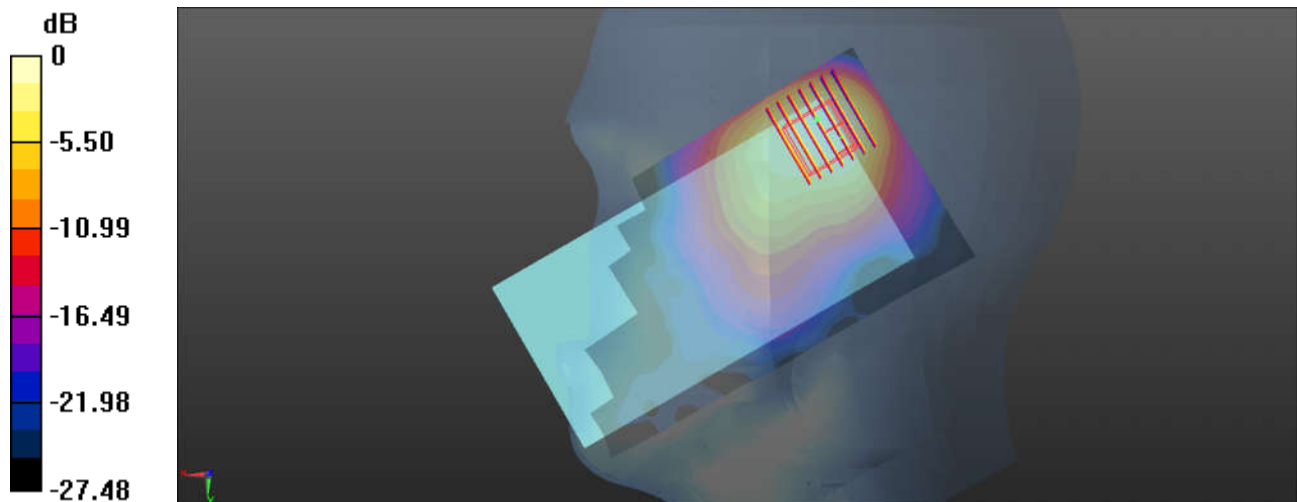
Ch27710/Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.96 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 0.825 W/kg; SAR(10 g) = 0.435 W/kg

Maximum value of SAR (measured) = 1.36 W/kg



0 dB = 1.36 W/kg = 1.34 dBW/kg

11_LTE Band 7_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch21350

Communication System: UID 0, FDD_LTE (0); Frequency: 2560 MHz; Duty Cycle: 1:1

Medium: HSL_2600_160916 Medium parameters used: $f = 2560$ MHz; $\sigma = 1.944$ S/m; $\epsilon_r = 38.479$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.08, 7.08, 7.08); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21350/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.60 W/kg

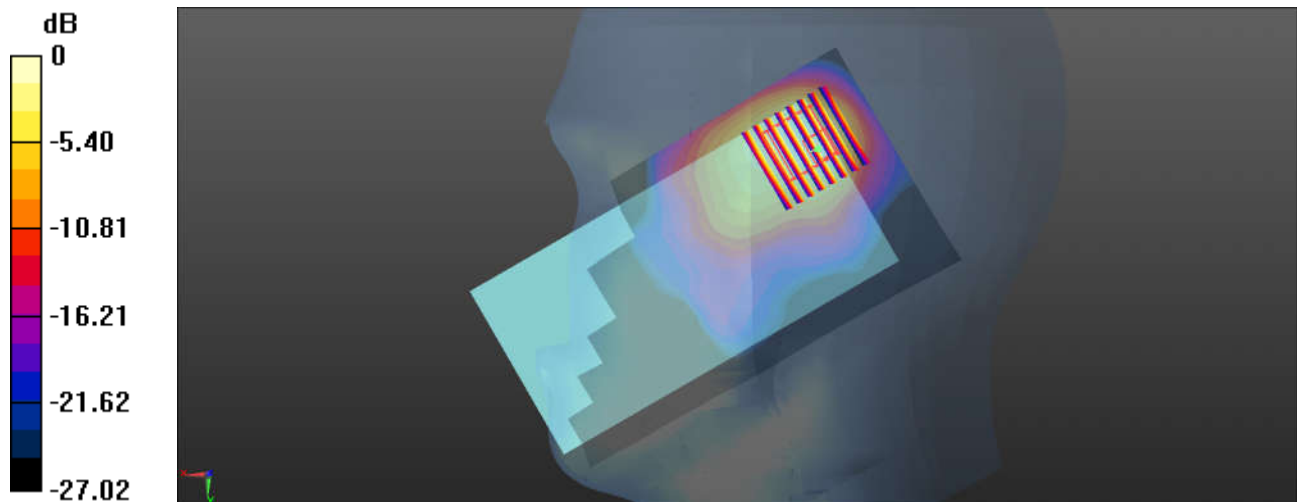
Ch21350/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.47 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.30 W/kg

SAR(1 g) = 0.893 W/kg; SAR(10 g) = 0.439 W/kg

Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

12_LTE Band 38_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch38000

Communication System: UID 0, TDD_LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.59

Medium: HSL_2600_160916 Medium parameters used: $f = 2595$ MHz; $\sigma = 1.975$ S/m; $\epsilon_r = 38.275$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.08, 7.08, 7.08); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch38000/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

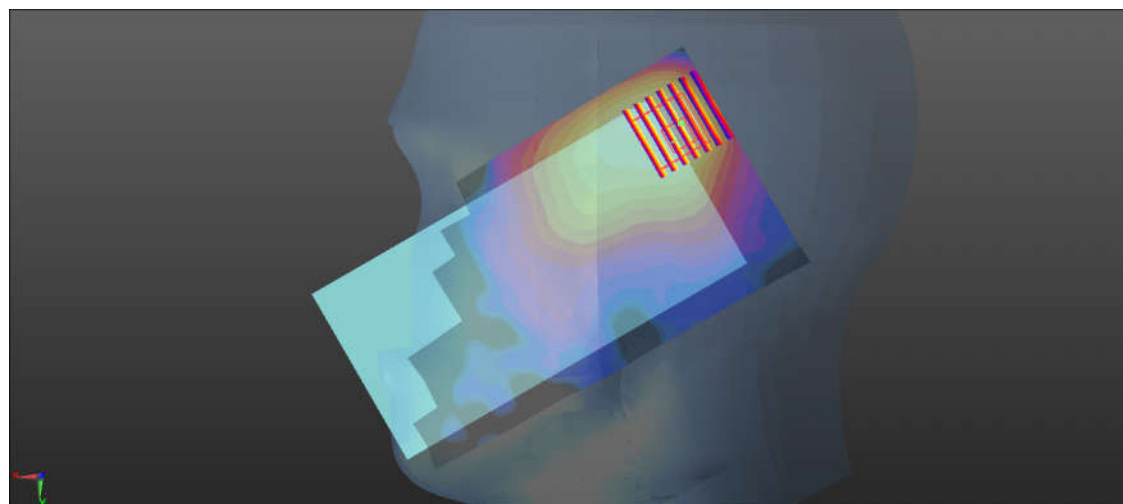
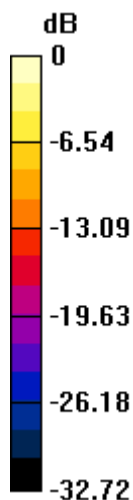
Ch38000/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.48 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 2.11 W/kg

SAR(1 g) = 0.775 W/kg; SAR(10 g) = 0.335 W/kg

Maximum value of SAR (measured) = 1.34 W/kg



0 dB = 1.34 W/kg = 1.27 dBW/kg

13_WLAN2.4GHz_802.11b 1Mbps _Left Cheek_0mm_Ant 1_Ch1

Communication System: UID 0, WIFI (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL_2450_160925 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.777$ S/m; $\epsilon_r = 39.338$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.19, 7.19, 7.19); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1/Area Scan (91x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.549 W/kg

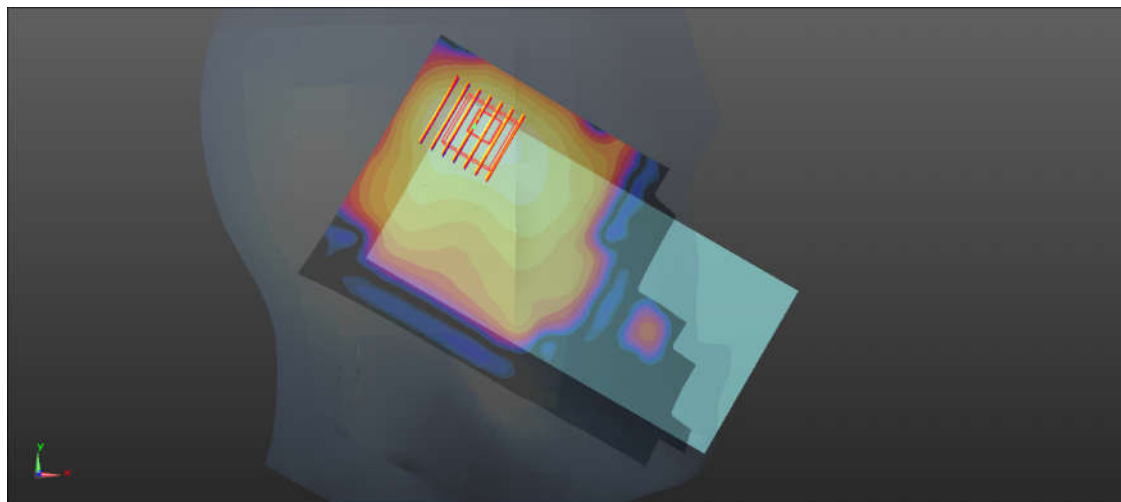
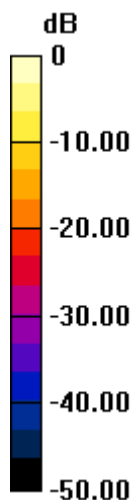
Ch1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.764 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.739 W/kg

SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 0.507 W/kg



0 dB = 0.549 W/kg = -2.60 dBW/kg

14_WLAN5.3GHz_802.11a 6Mbps_Left Cheek_0mm_Ant 1_Ch56

Communication System: UID 0, WIFI (0); Frequency: 5280 MHz; Duty Cycle: 1:1.049

Medium: HSL_5000_160925 Medium parameters used: $f = 5280$ MHz; $\sigma = 4.88$ S/m; $\epsilon_r = 35.39$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.15, 5.15, 5.15); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch56/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.708 W/kg

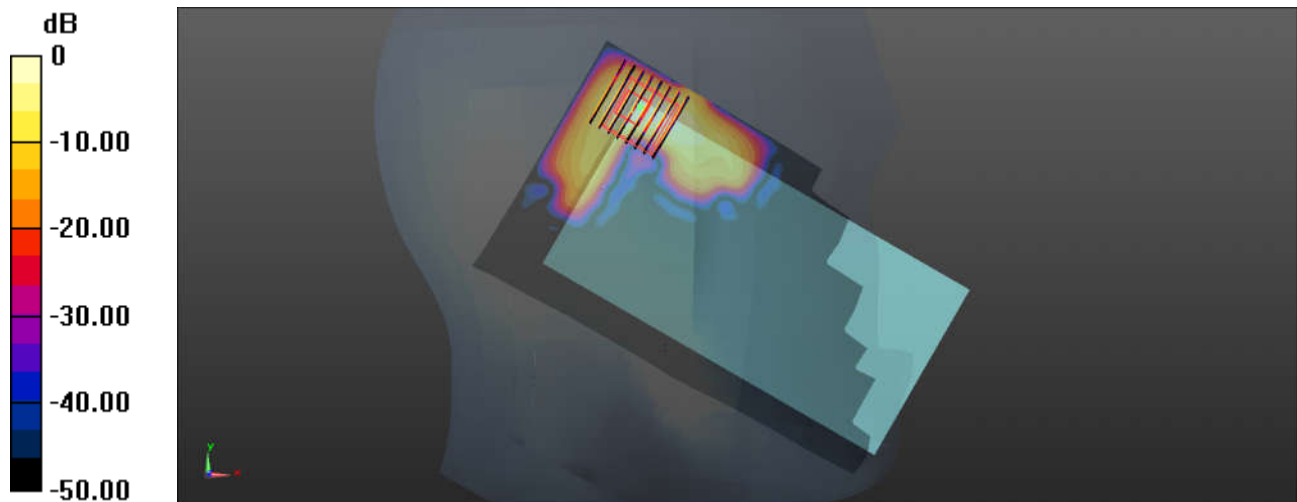
Ch56/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 1.248 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.212 W/kg; SAR(10 g) = 0.062 W/kg

Maximum value of SAR (measured) = 0.559 W/kg



0 dB = 0.708 W/kg = -1.50 dBW/kg

15_WLAN5.5GHz_802.11a 6Mbps_Left Cheek_0mm_Ant 1_Ch116

Communication System: UID 0, WIFI (0); Frequency: 5580 MHz; Duty Cycle: 1:1.049

Medium: HSL_5000_160925 Medium parameters used: $f = 5580$ MHz; $\sigma = 5.183$ S/m; $\epsilon_r = 34.82$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(4.7, 4.7, 4.7); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch116/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

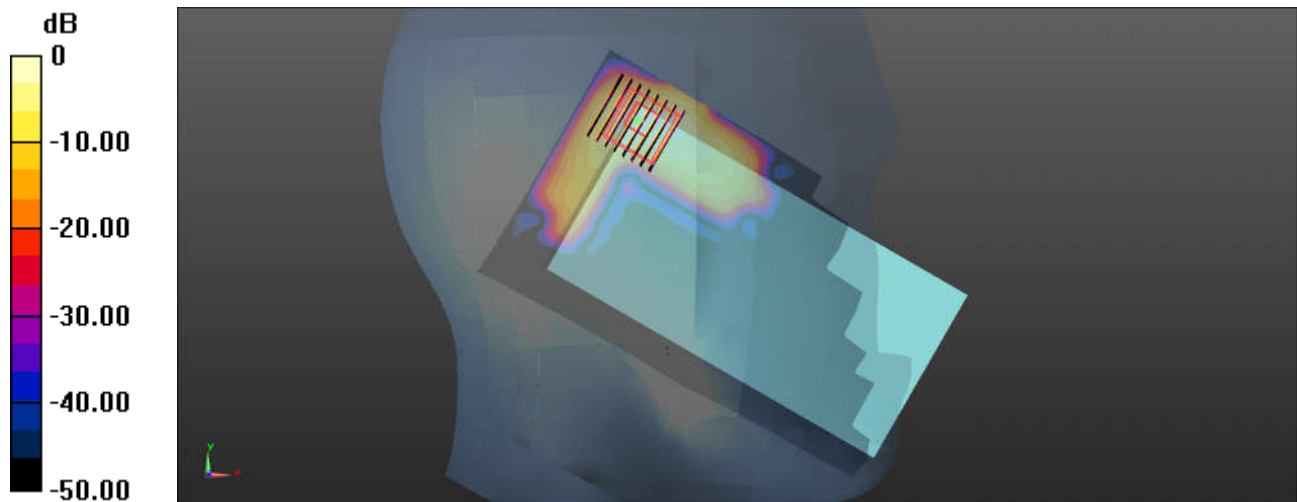
Ch116/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 2.886 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.354 W/kg; SAR(10 g) = 0.112 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 1.05 W/kg = 0.21 dBW/kg

16_WLAN5.8GHz_802.11a 6Mbps_Left Cheek_0mm_Ant 1_Ch165

Communication System: UID 0, WIFI (0); Frequency: 5825 MHz; Duty Cycle: 1:1.049

Medium: HSL_5000_160926 Medium parameters used: $f = 5825$ MHz; $\sigma = 5.421$ S/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5, 5, 5); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch165/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.963 W/kg

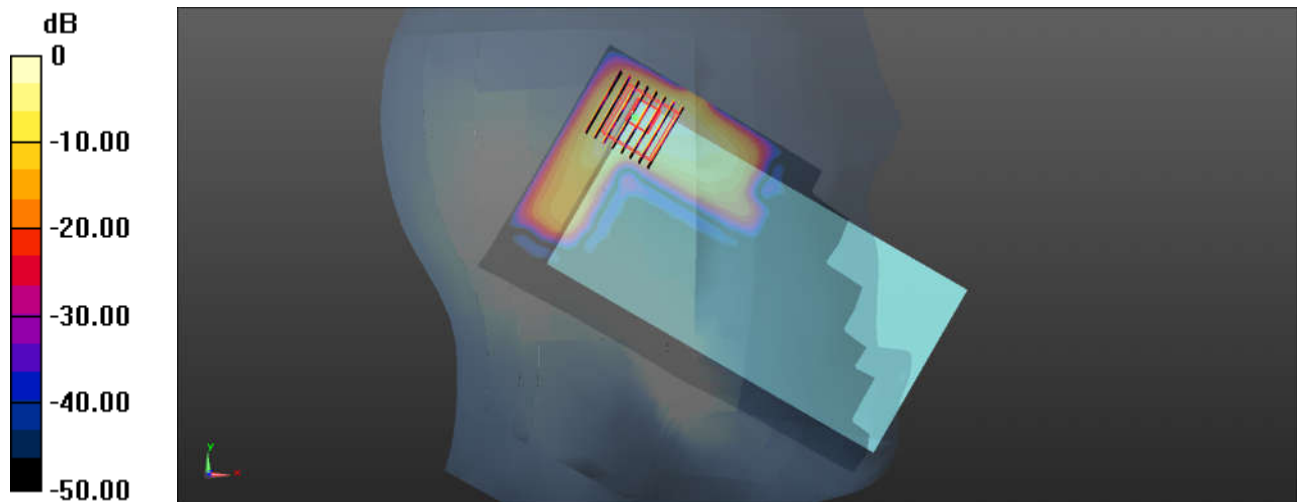
Ch165/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.8590 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.111 W/kg

Maximum value of SAR (measured) = 0.889 W/kg



0 dB = 0.963 W/kg = -0.16 dBW/kg

17_WLAN5.3GHz_802.11ac-VHT40 MCS0_Right Cheek_0mm_Ant 1+2_Ch54

Communication System: UID 0, WIFI (0); Frequency: 5270 MHz; Duty Cycle: 1:1.115

Medium: HSL_5000_160925 Medium parameters used: $f = 5270$ MHz; $\sigma = 4.87$ S/m; $\epsilon_r = 35.404$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.15, 5.15, 5.15); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch54/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.958 W/kg

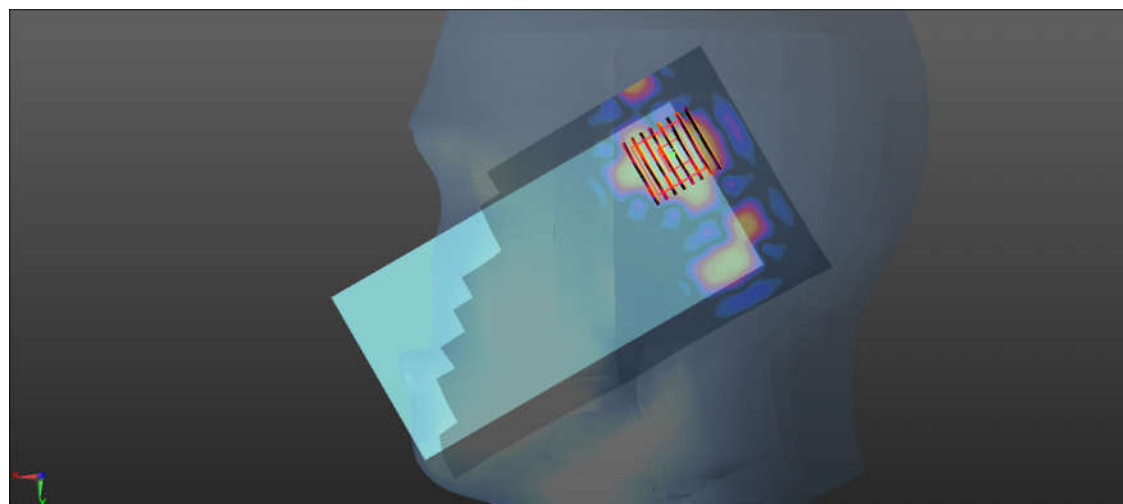
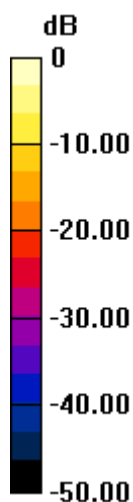
Ch54/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 4.209 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.230 W/kg; SAR(10 g) = 0.054 W/kg

Maximum value of SAR (measured) = 0.710 W/kg



0 dB = 0.958 W/kg = -0.19 dBW/kg

18_WLAN5.5GHz_802.11ac-VHT40 MCS0_Right Cheek_0mm_Ant 1+2_Ch110

Communication System: UID 0, WIFI (0); Frequency: 5550 MHz; Duty Cycle: 1:1.115

Medium: HSL_5000_160925 Medium parameters used: $f = 5550$ MHz; $\sigma = 5.15$ S/m; $\epsilon_r = 34.884$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(4.7, 4.7, 4.7); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch110/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

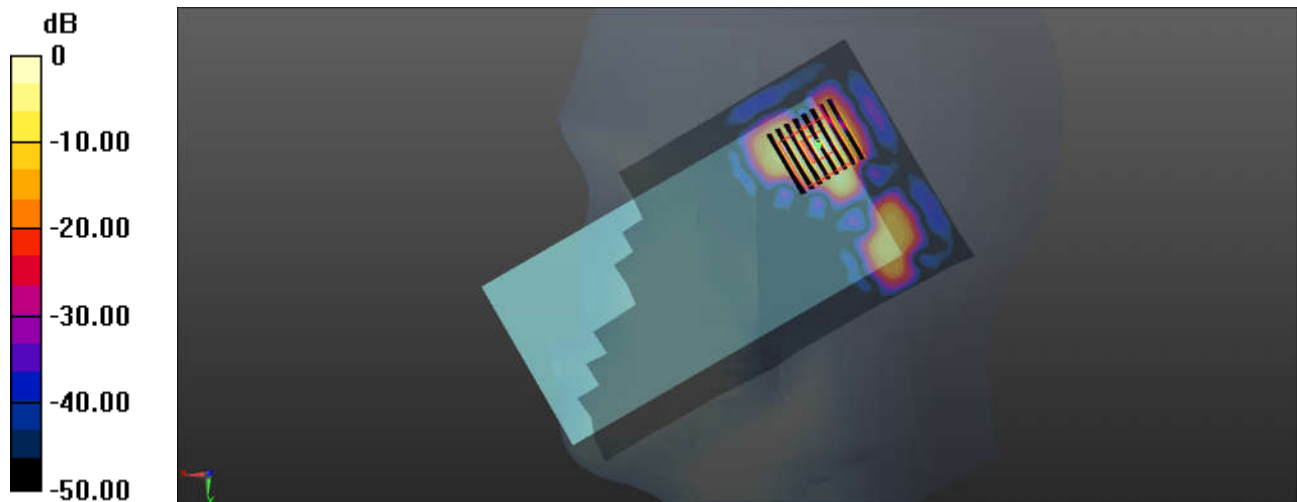
Ch110/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 6.411 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.43 W/kg

SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.062 W/kg

Maximum value of SAR (measured) = 0.773 W/kg



0 dB = 1.05 W/kg = 0.21 dBW/kg

19_WLAN5.8GHz_802.11ac-VHT40 MCS0_Right Cheek_0mm_Ant 1+2_Ch151

Communication System: UID 0, WIFI (0); Frequency: 5755 MHz; Duty Cycle: 1:1.115

Medium: HSL_5000_160926 Medium parameters used: $f = 5755$ MHz; $\sigma = 5.368$ S/m; $\epsilon_r = 34.539$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5, 5, 5); Calibrated: 2016.5.25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch151/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.891 W/kg

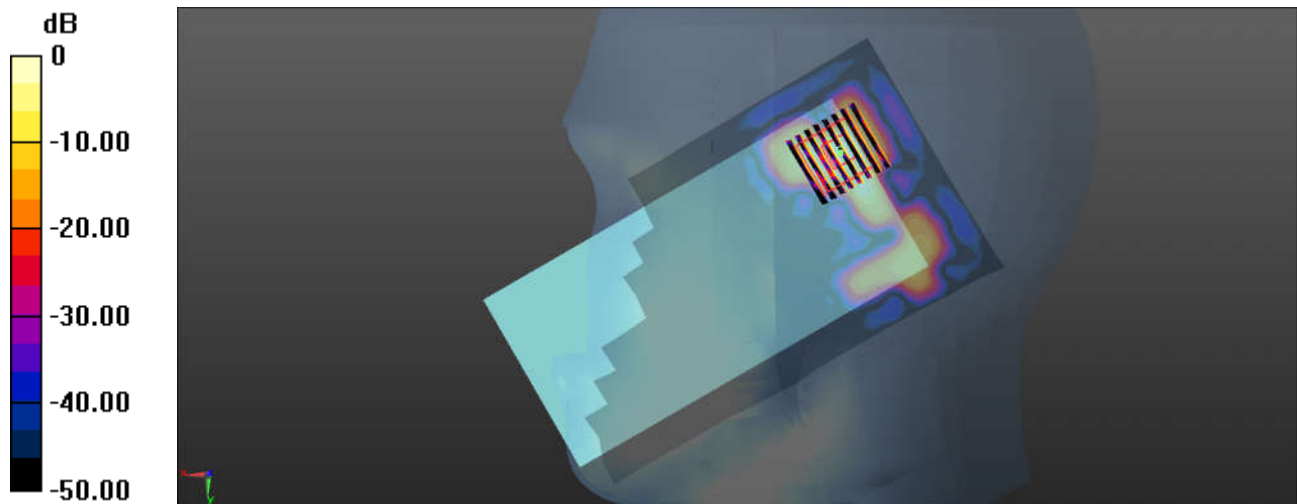
Ch151/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 9.198 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.061 W/kg

Maximum value of SAR (measured) = 0.764 W/kg



0 dB = 0.891 W/kg = -0.50 dBW/kg

20_GSM 850_GPRS 3 Tx slots_Back_10mm_Ch251

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

Medium: MSL_850_160914 Medium parameters used: $f = 848.8$ MHz; $\sigma = 1.012$ S/m; $\epsilon_r = 56.337$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.17, 10.17, 10.17); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch251/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.556 W/kg

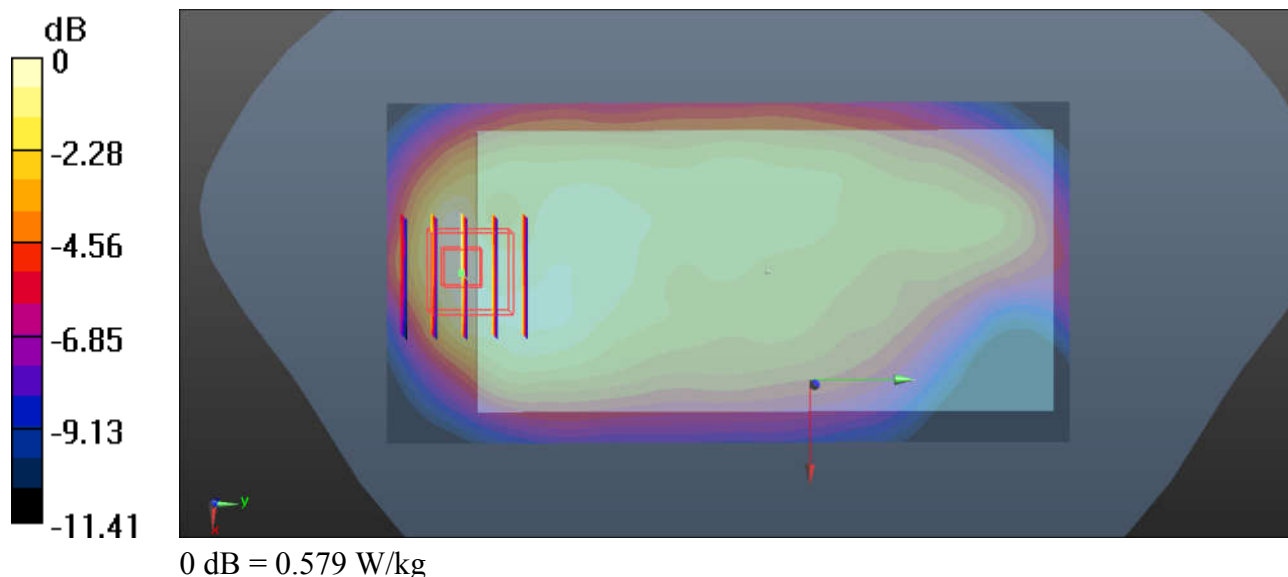
Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.42 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.628 W/kg

SAR(1 g) = 0.466 W/kg; SAR(10 g) = 0.302 W/kg

Maximum value of SAR (measured) = 0.579 W/kg



21_GSM 1900_GPRS 3 Tx slots_Back_10mm_Ch512

Communication System: UID 0, GPRS/EDGE (3 Tx slots) (0); Frequency: 1850.2 MHz; Duty Cycle: 1:2.77

Medium: MSL_1900_160915 Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.489$ S/m;

$\epsilon_r = 54.866$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.55, 7.55, 7.55); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch512/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.614 W/kg

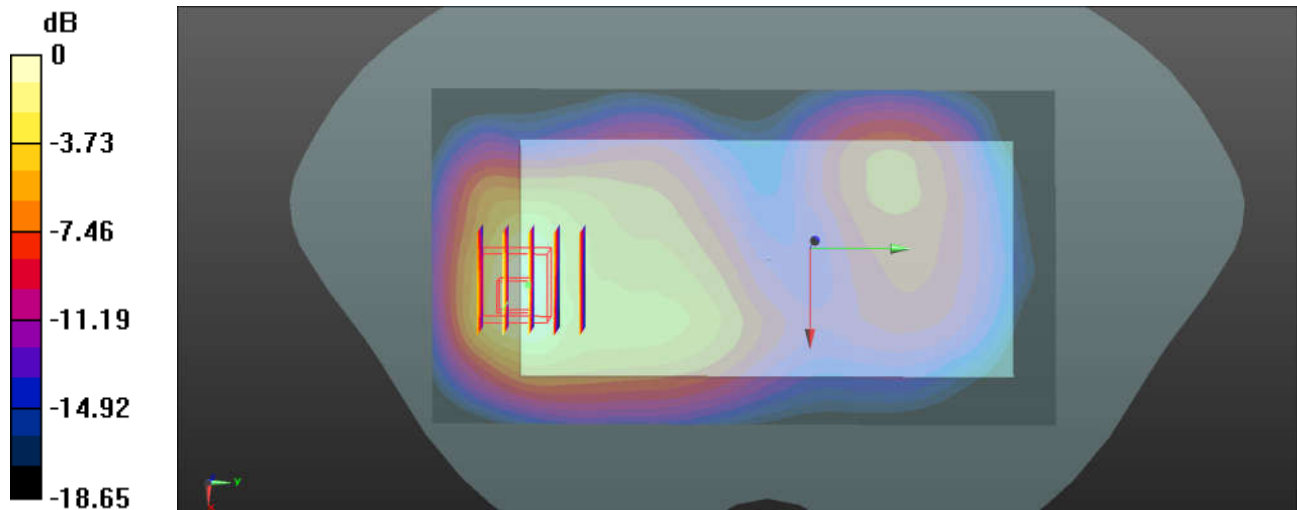
Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.554 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.940 W/kg

SAR(1 g) = 0.511 W/kg; SAR(10 g) = 0.260 W/kg

Maximum value of SAR (measured) = 0.648 W/kg



0 dB = 0.648 W/kg = -1.88 dBW/kg

22_WCDMA BandV_RMC 12.2Kbps_Right Side_10mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: MSL_850_160914 Medium parameters used: $f = 836.4$ MHz; $\sigma = 1$ S/m; $\epsilon = 56.462$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.17, 10.17, 10.17); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4182/Area Scan (31x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.448 W/kg

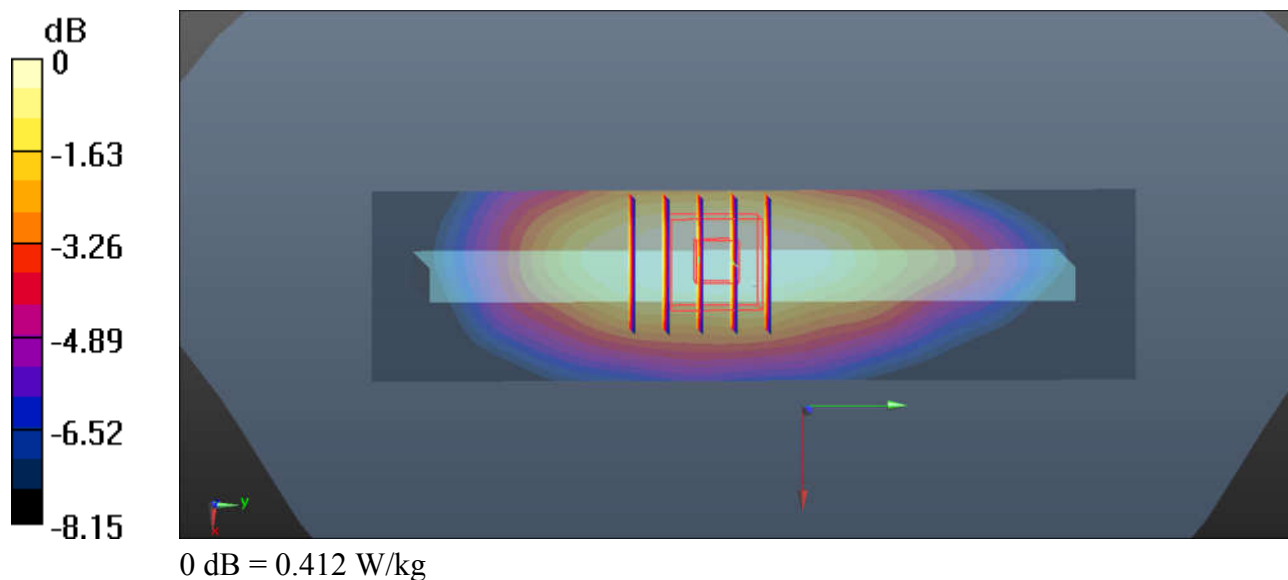
Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.72 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.442 W/kg

SAR(1 g) = 0.362 W/kg; SAR(10 g) = 0.258 W/kg

Maximum value of SAR (measured) = 0.412 W/kg



23_WCDMA Band IV_RMC 12.2Kbps_Bottom Side_10mm_Ch1513

Communication System: UID 0, UMTS (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL_1750_160915 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.502$ S/m; $\epsilon_r = 53.457$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1513/Area Scan (31x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.29 W/kg

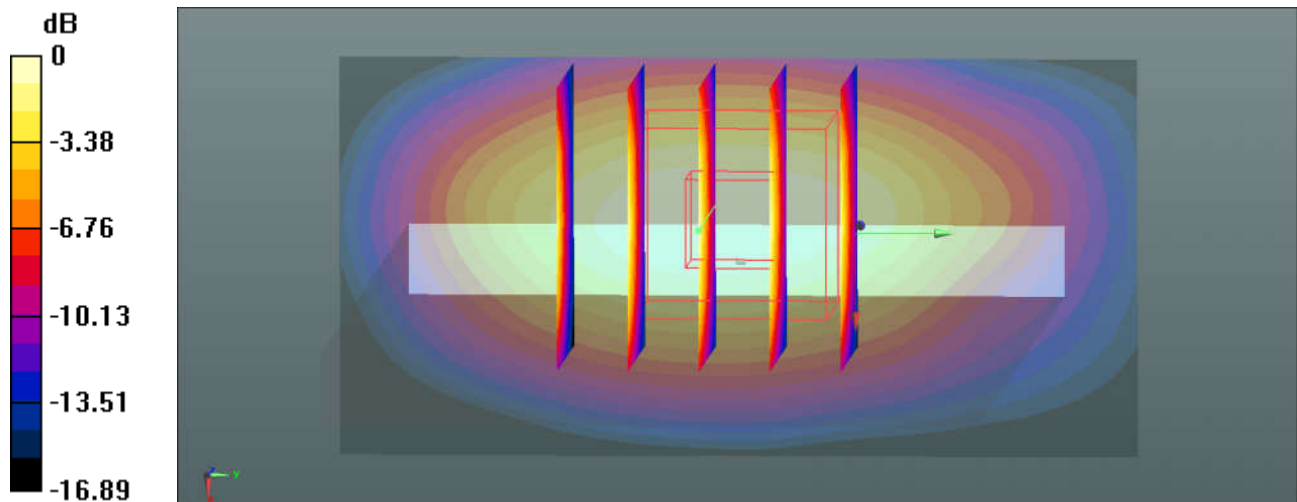
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.04 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.942 W/kg; SAR(10 g) = 0.526 W/kg

Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg = 1.00 dBW/kg

24_WCDMA Band II_RMC 12.2Kbps_Back_10mm_Ch9262

Communication System: UID 0, UMTS (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: MSL_1900_160915 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.492$ S/m; $\epsilon_r = 54.858$; ρ

$= 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.55, 7.55, 7.55); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9262/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.880 W/kg

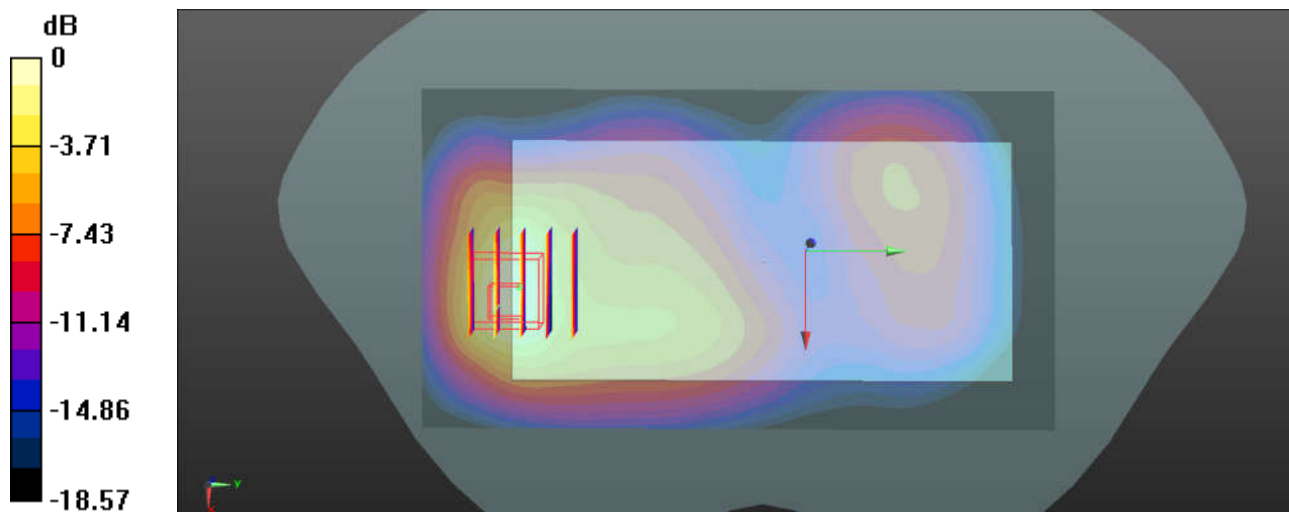
Ch9262/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 6.908 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.724 W/kg; SAR(10 g) = 0.367 W/kg

Maximum value of SAR (measured) = 0.916 W/kg



0 dB = 0.916 W/kg = -0.38 dBW/kg

25_LTE Band 12_10M_QPSK_1RB_25Offset_Back_10mm_Ch23095

Communication System: UID 0, FDD_LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: MSL_750_160914 Medium parameters used: $f = 707.5$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 56.647$; ρ

$= 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.22, 10.22, 10.22); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23095/Area Scan (61x121x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.498 W/kg

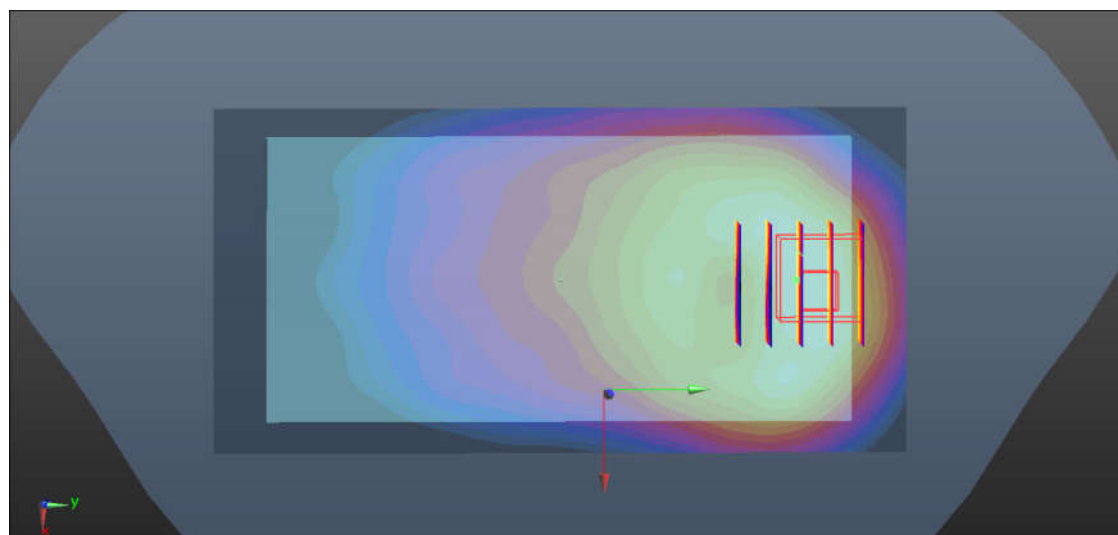
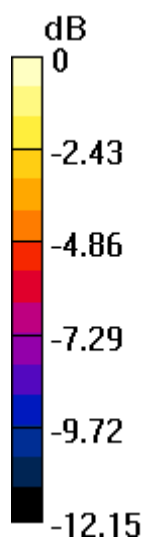
Ch23095/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.87 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.607 W/kg

SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 0.496 W/kg



0 dB = 0.496 W/kg = -3.05 dBW/kg

26_LTE Band 5_10M_QPSK_1RB_25Offset_Back_10mm_Ch20525

Communication System: UID 0, FDD_LTE (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: MSL_835_160914 Medium parameters used: $f = 836.5$ MHz; $\sigma = 1$ S/m; $\epsilon_r = 56.461$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.17, 10.17, 10.17); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.449 W/kg

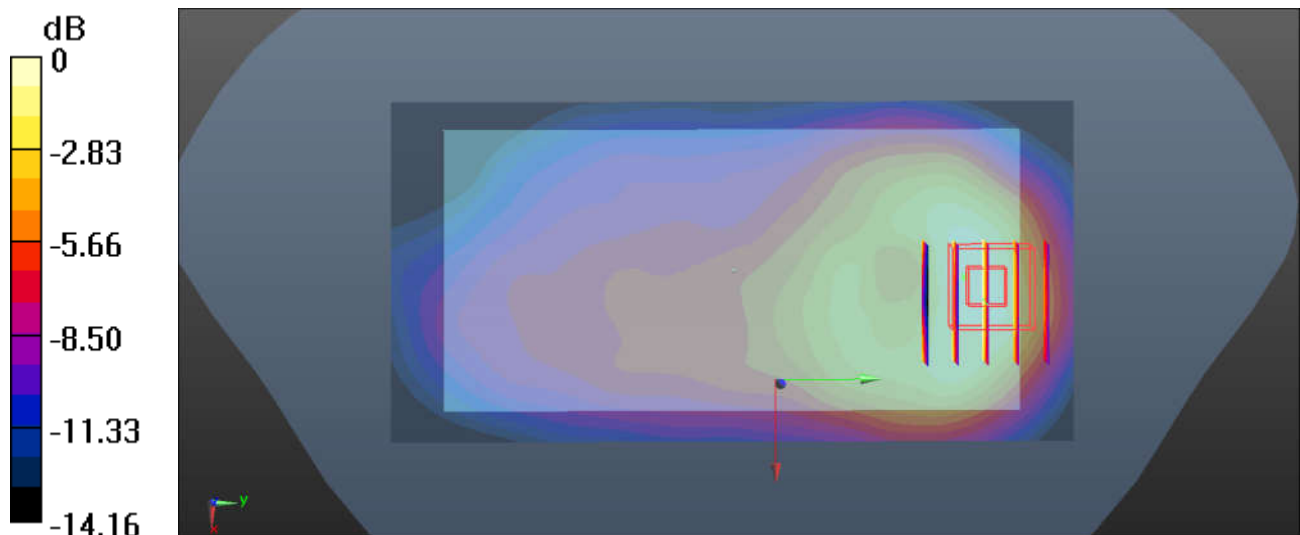
Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.46 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.534 W/kg

SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.226 W/kg

Maximum value of SAR (measured) = 0.474 W/kg



0 dB = 0.474 W/kg = -3.24 dBW/kg

27_LTE Band 4_20M_QPSK_1RB_0Offset_Bottom Side_10mm_Ch20175

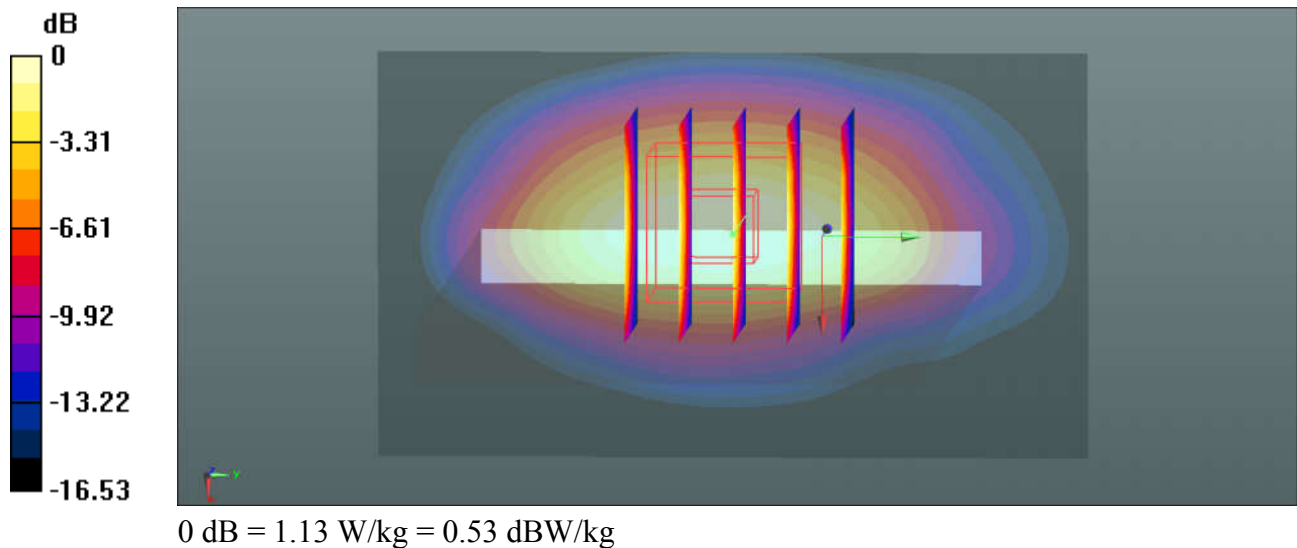
Communication System: UID 0, FDD_LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
 Medium: MSL_1750_160915 Medium parameters used: $f = 1732.5$ MHz; $\sigma = 1.48$ S/m; $\epsilon_r = 53.491$; $\rho = 1000$ kg/m³
 Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 1.27 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 26.81 V/m; Power Drift = 0.16 dB
 Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.848 W/kg; SAR(10 g) = 0.474 W/kg
 Maximum value of SAR (measured) = 1.13 W/kg



28_LTE Band 2_20M_QPSK_1RB_0Offset_Bottom Side_10mm_Ch18700

Communication System: UID 0, FDD_LTE (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: MSL_1900_160915 Medium parameters used: $f = 1860$ MHz; $\sigma = 1.502$ S/m; $\epsilon_r = 54.832$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.55, 7.55, 7.55); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18700/Area Scan (41x81x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

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

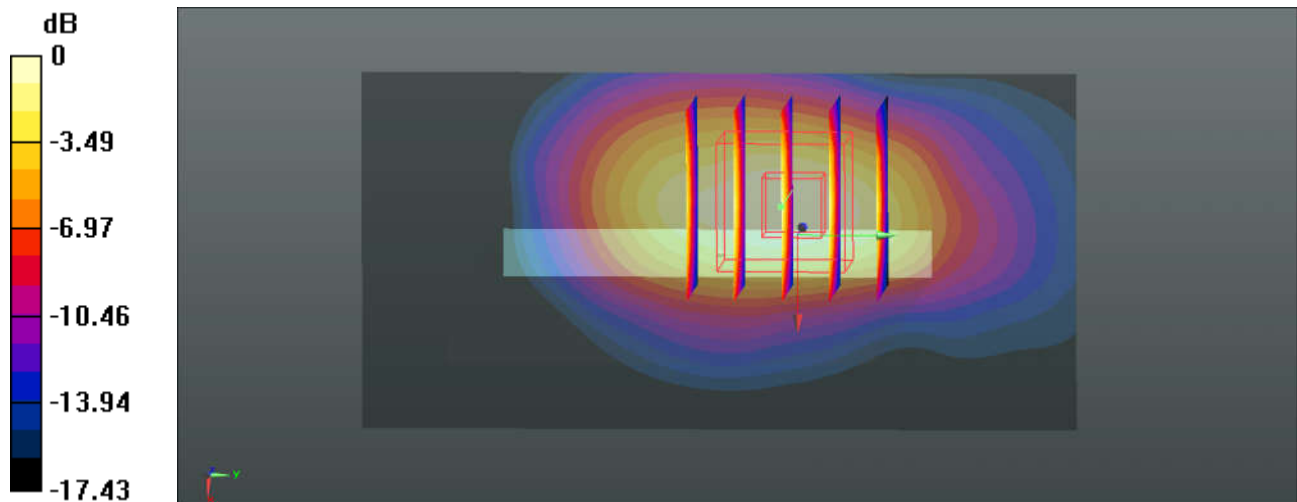
Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 23.37 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.554 W/kg

Maximum value of SAR (measured) = 1.37 W/kg



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

29_LTE Band 30_10M_QPSK_1RB_0Offset_Back_10mm_Ch27710

Communication System: UID 0, FDD_LTE (0); Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: MSL_2300_160917 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.776$ S/m; $\epsilon_r = 53.042$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.31, 7.31, 7.31); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch27710/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.957 W/kg

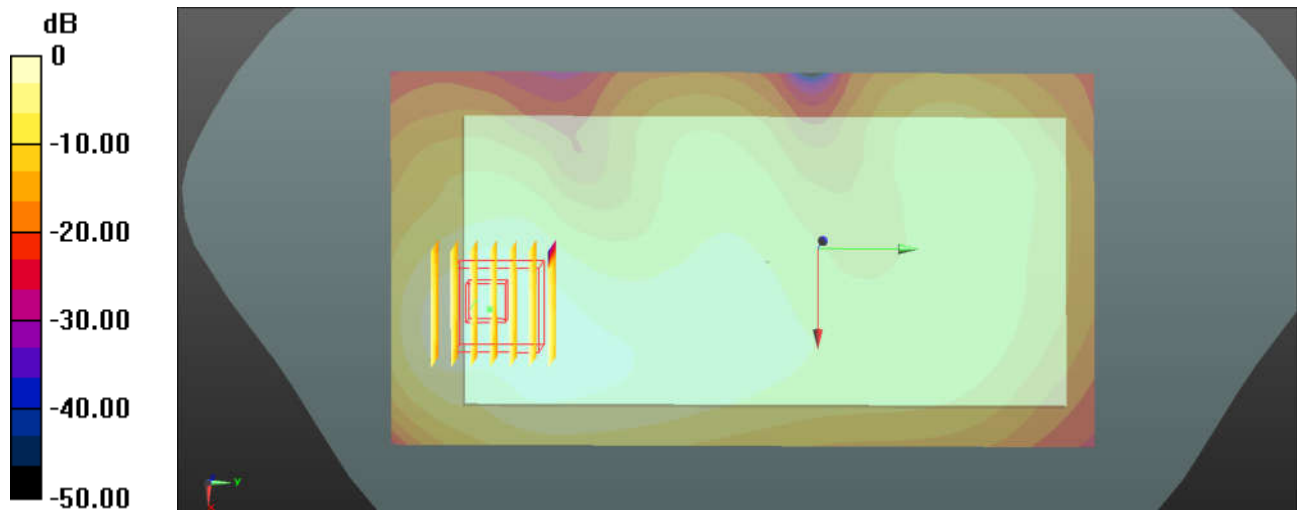
Ch27710/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.79 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.684 W/kg; SAR(10 g) = 0.387 W/kg

Maximum value of SAR (measured) = 0.931 W/kg



0 dB = 0.931 W/kg = -0.31 dBW/kg

30_LTE Band 7_20M_QPSK_1RB_0Offset_Back_10mm_Ch21100

Communication System: UID 0, FDD_LTE (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: MSL_2600_160917 Medium parameters used: $f = 2535$ MHz; $\sigma = 2.069$ S/m; $\epsilon_r = 53.113$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.13, 7.13, 7.13); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21100/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.697 W/kg

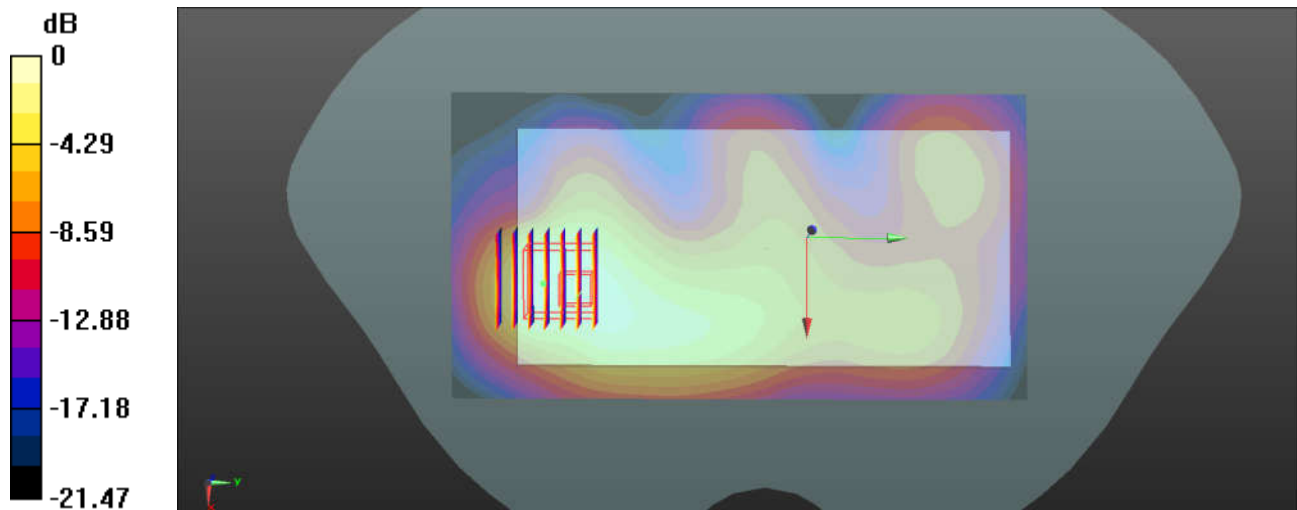
Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.365 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.841 W/kg

SAR(1 g) = 0.454 W/kg; SAR(10 g) = 0.237 W/kg

Maximum value of SAR (measured) = 0.637 W/kg



0 dB = 0.637 W/kg = -1.96 dBW/kg

31_LTE Band 38_20M_QPSK_1RB_0Offset_Back_10mm_Ch38000

Communication System: UID 0, TDD_LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.59

Medium: MSL_2600_160917 Medium parameters used: $f = 2595$ MHz; $\sigma = 2.128$ S/m; $\epsilon_r = 52.936$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.13, 7.13, 7.13); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch38000/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.287 W/kg

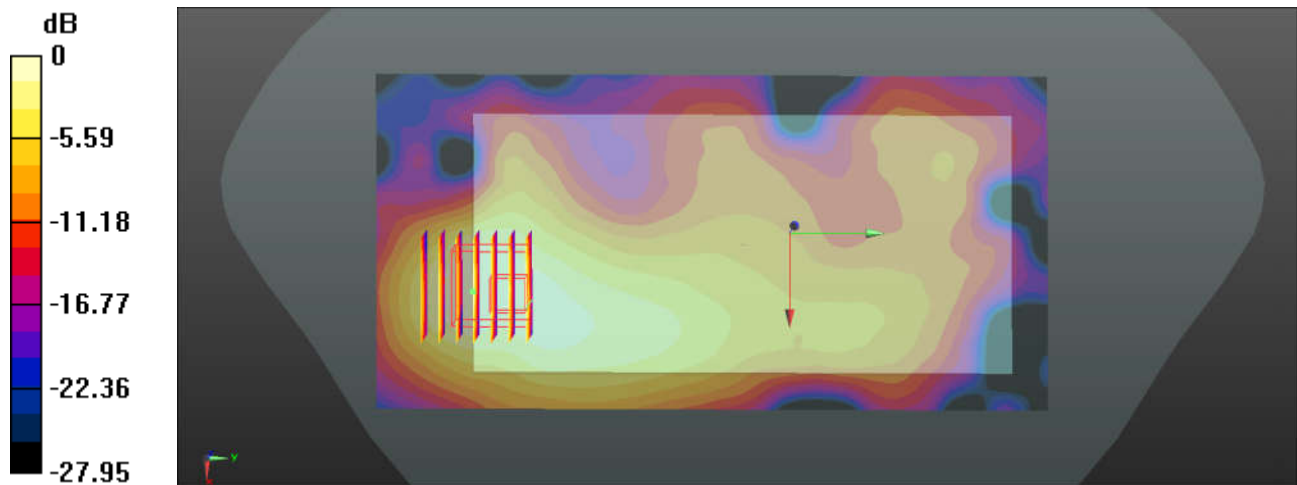
Ch38000/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.385 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.361 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.093 W/kg

Maximum value of SAR (measured) = 0.263 W/kg



0 dB = 0.263 W/kg = -5.80 dBW/kg

32_WLAN2.4GHz_802.11b 1Mbps_Back_10mm_Ant 1_Ch1

Communication System: UID 0, WIFI (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL_2450_160927 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.955$ S/m; $\epsilon_r = 52.715$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(7.45, 7.45, 7.45); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1/Area Scan (81x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.295 W/kg

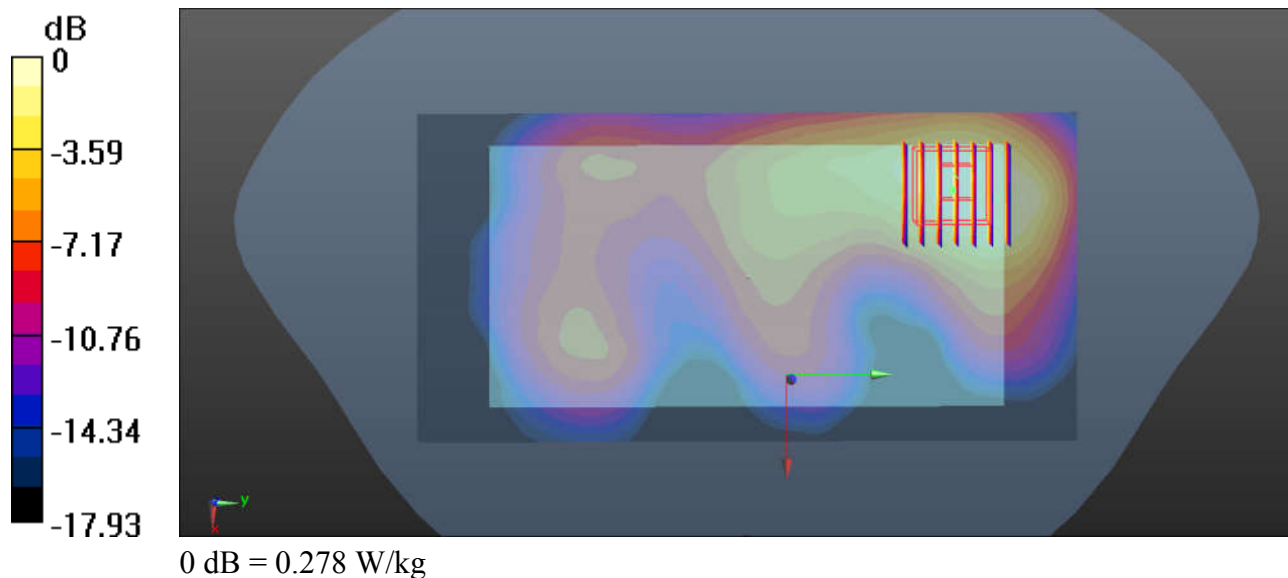
Ch1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.024 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.202 W/kg; SAR(10 g) = 0.112 W/kg

Maximum value of SAR (measured) = 0.278 W/kg



37_WCDMA Band V_RMC 12.2Kbps_Back_10mm_Ch4233

Communication System: UID 0, UMTS (0); Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: MSL_850_160914 Medium parameters used: $f = 847$ MHz; $\sigma = 1.01$ S/m; $\epsilon_r = 56.358$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(10.17, 10.17, 10.17); Calibrated: 2015.11.27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4233/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.438 W/kg

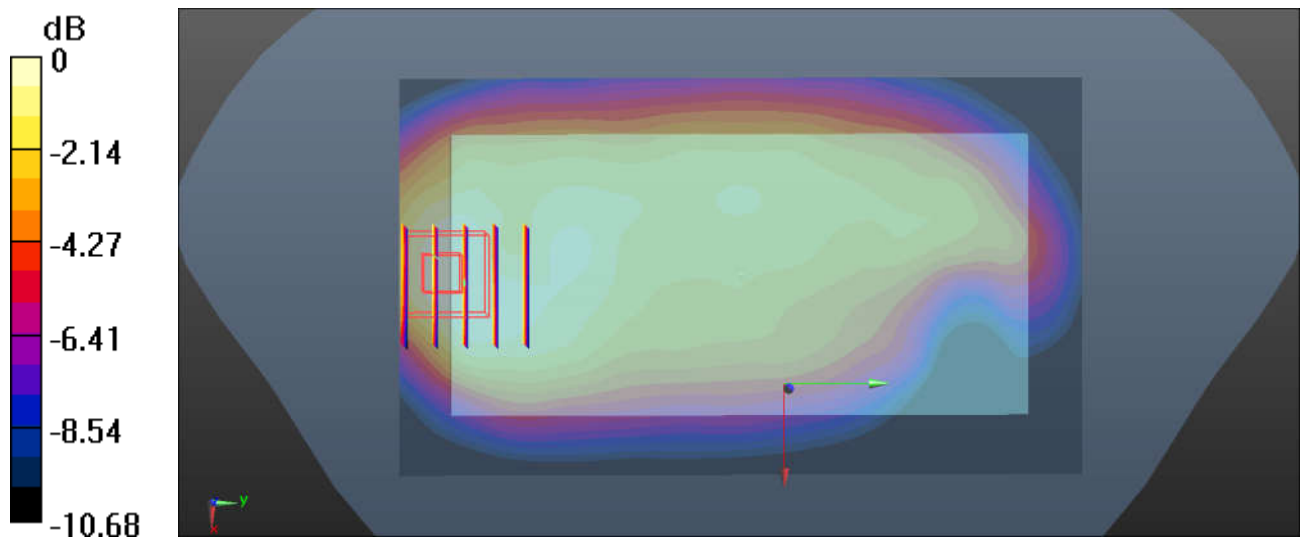
Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.70 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.220 W/kg

Maximum value of SAR (measured) = 0.401 W/kg



0 dB = 0.401 W/kg = -3.97 dBW/kg

38_WCDMA Band IV_RMC 12.2Kbps_Back_10mm_Ch1312

Communication System: UID 0, UMTS (0); Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: MSL_1750_160915 Medium parameters used: $f = 1712.4$ MHz; $\sigma = 1.456$ S/m; $\epsilon_r = 53.539$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1312/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.23 W/kg

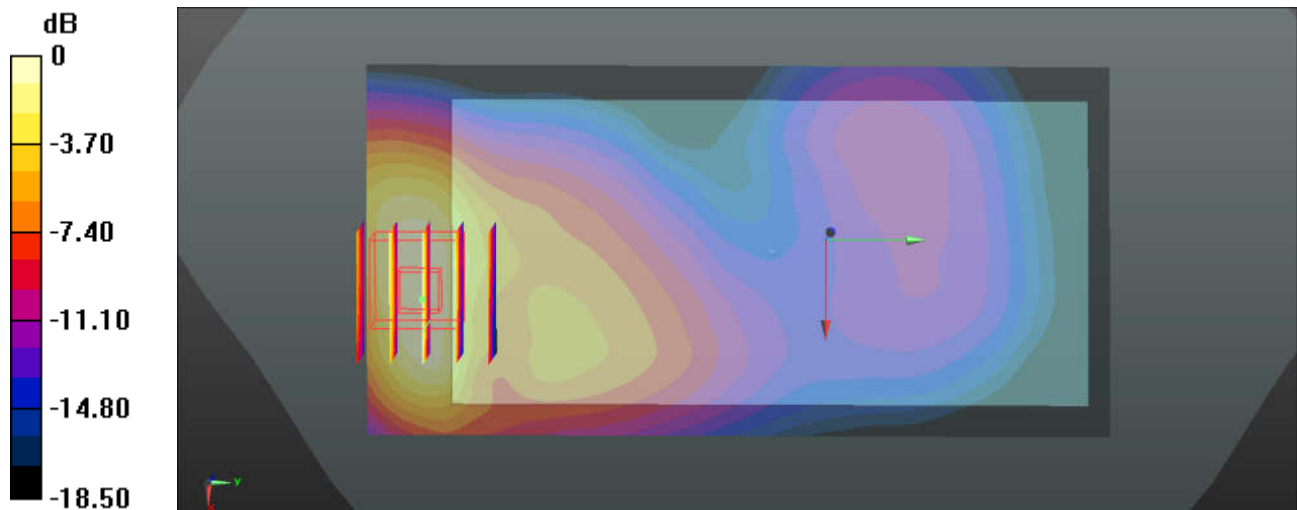
Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.788 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.900 W/kg; SAR(10 g) = 0.516 W/kg

Maximum value of SAR (measured) = 1.21 W/kg



0 dB = 1.21 W/kg = 0.83 dBW/kg

39_LTE Band 4_20M_QPSK_1RB_0Offset_Back_10mm_Ch20175

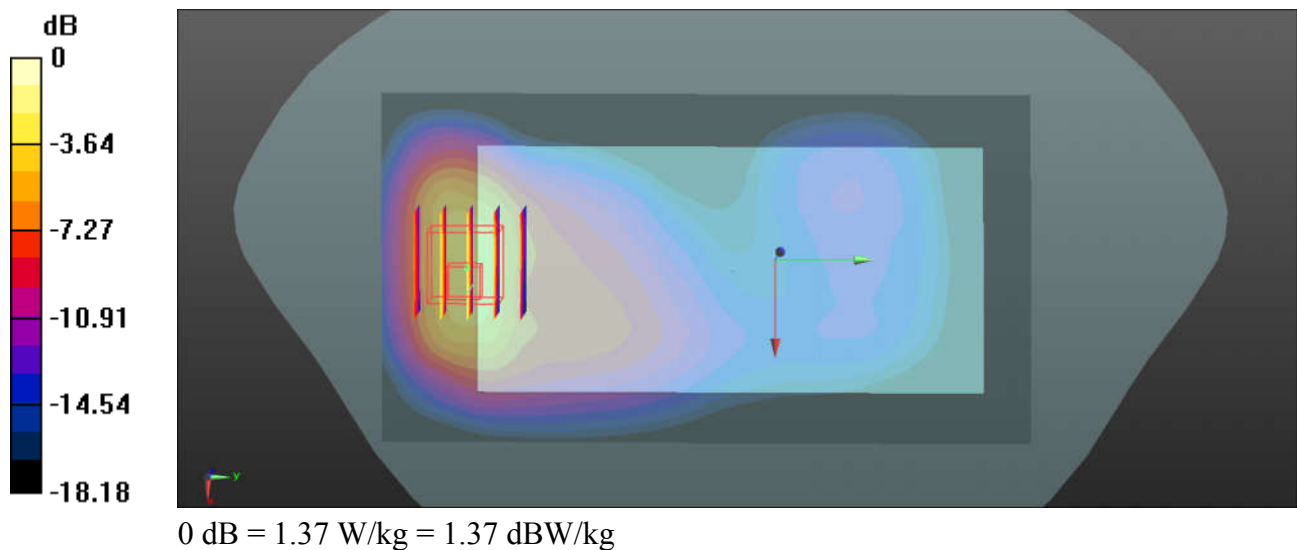
Communication System: UID 0, FDD_LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium: MSL_1750_160915 Medium parameters used: $f = 1732.5$ MHz; $\sigma = 1.48$ S/m; $\epsilon_r = 53.491$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.28 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.862 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 1.000 W/kg; SAR(10 g) = 0.570 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



40_LTE Band 2_20M_QPSK_50RB_0Offset_Back_10mm_Ch19100

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

Medium: MSL_1900_160915 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.55$ S/m; $\epsilon_r = 54.72$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.55, 7.55, 7.55); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch19100/Area Scan (71x121x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.16 W/kg

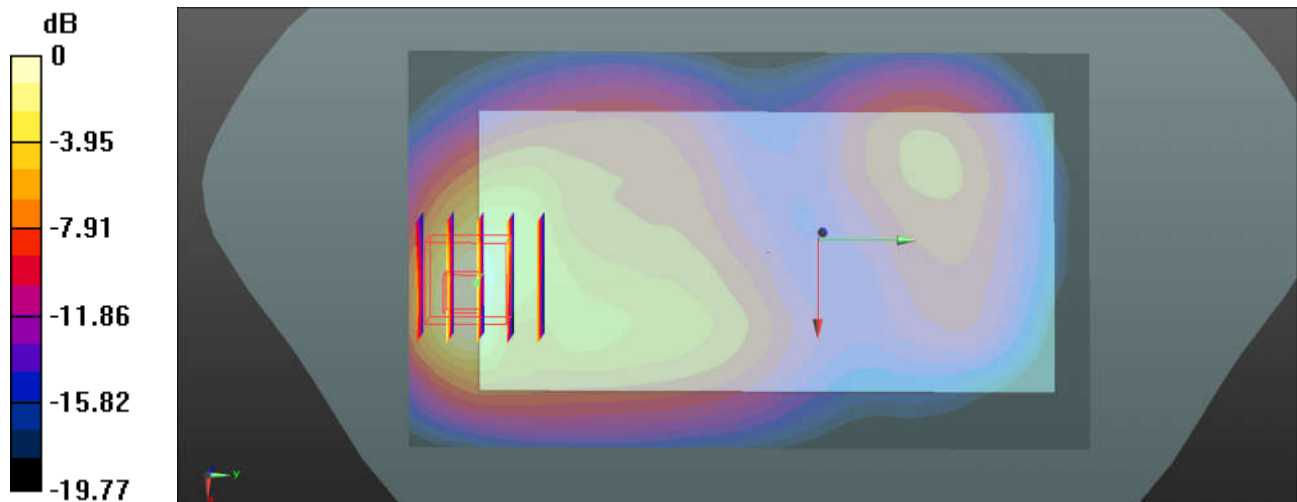
Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 7.592 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.989 W/kg; SAR(10 g) = 0.487 W/kg

Maximum value of SAR (measured) = 1.158 W/kg



0 dB = 1.16 W/kg = -0.67 dBW/kg

41_WLAN 5.3GHz_802.11a 6Mbps_Front_10mm_Ant 1_Ch52

Communication System: UID 0, WIFI (0); Frequency: 5260 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_160924 Medium parameters used: $f = 5260$ MHz; $\sigma = 5.367$ S/m; $\epsilon_r = 48.431$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(4.25, 4.25, 4.25); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch52/Area Scan (101x171x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.203 W/kg

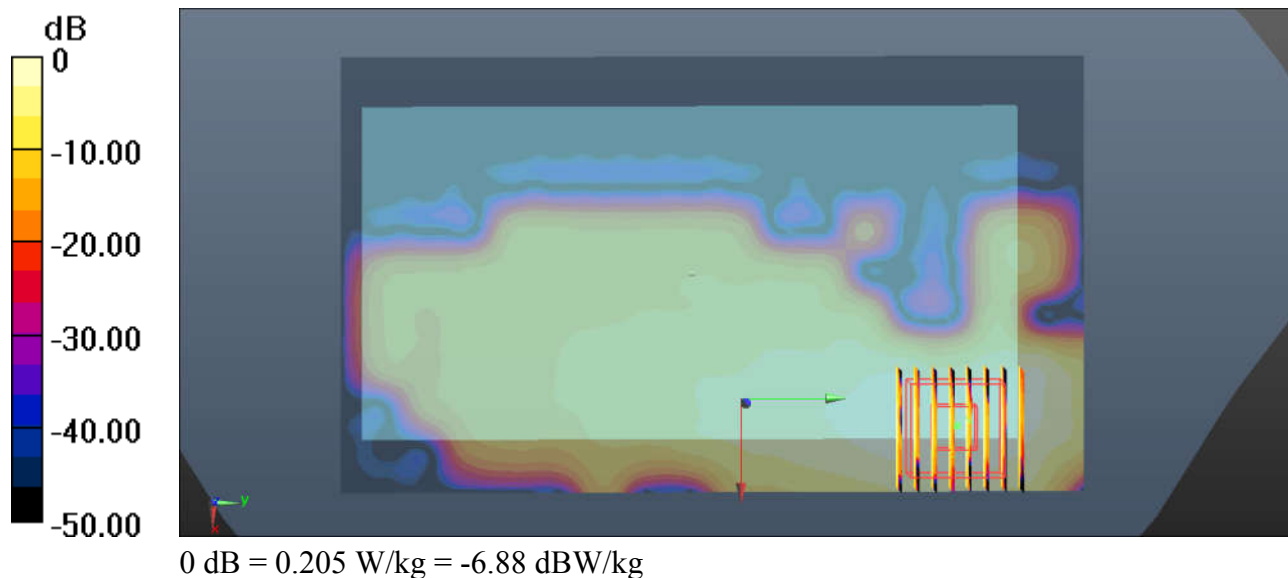
Ch52/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 1.511 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.106 W/kg; SAR(10 g) = 0.038 W/kg

Maximum value of SAR (measured) = 0.205 W/kg



42_WLAN 5.5GHz_802.11a 6Mbps_Front_10mm_Ant 1_Ch116

Communication System: UID 0, WIFI (0); Frequency: 5580 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_160924 Medium parameters used: $f = 5580$ MHz; $\sigma = 5.82$ S/m; $\epsilon_r = 47.709$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.65, 3.65, 3.65); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch116/Area Scan (101x171x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.325 W/kg

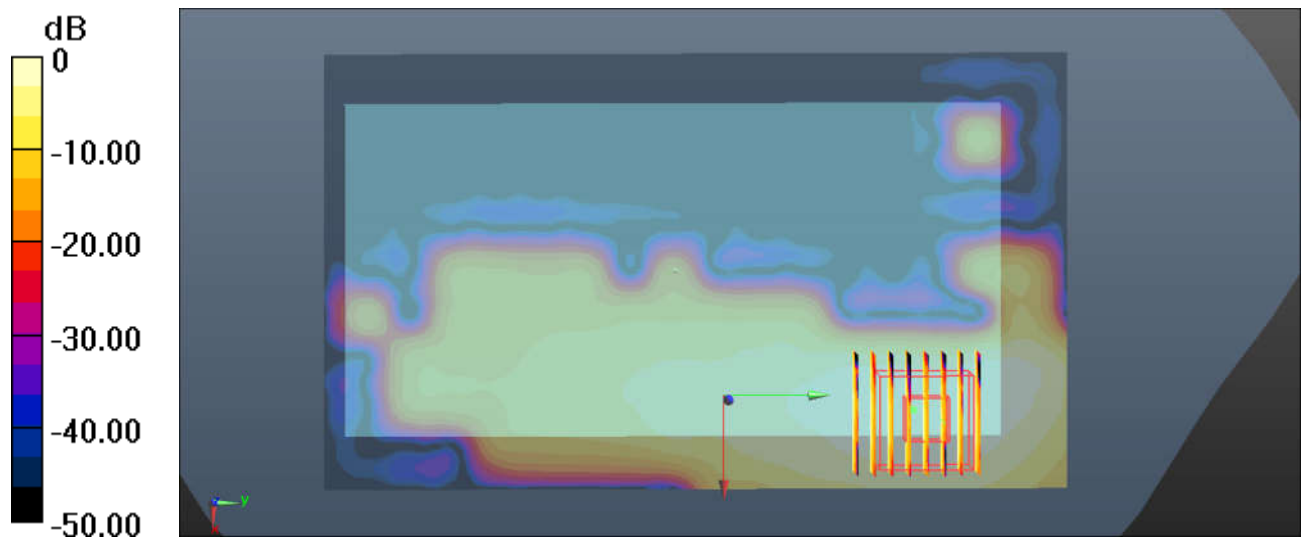
Ch116/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0.6710 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.382 W/kg

SAR(1 g) = 0.158 W/kg; SAR(10 g) = 0.059 W/kg

Maximum value of SAR (measured) = 0.312 W/kg



0 dB = 0.312 W/kg = -5.06 dBW/kg

43_WLAN 5.8GHz_802.11a 6Mbps_Front_10mm_Ant 1_Ch165

Communication System: UID 0, WIFI (0); Frequency: 5825 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_160925 Medium parameters used: $f = 5825$ MHz; $\sigma = 6.153$ S/m; $\epsilon_r = 47.051$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.77, 3.77, 3.77); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch165/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.266 W/kg

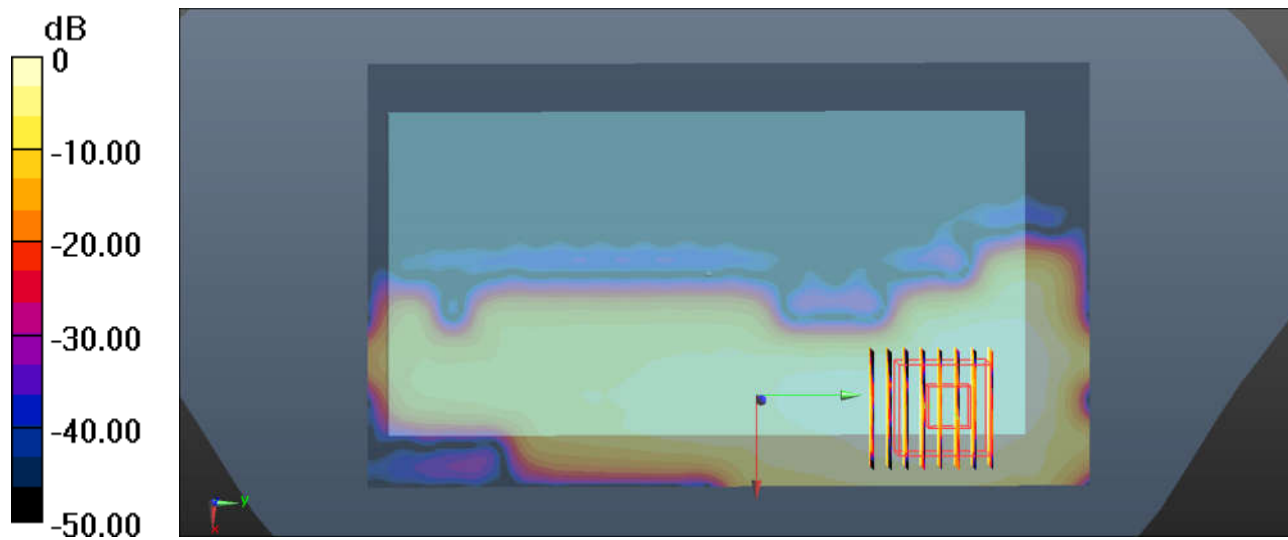
Ch165/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.350 W/kg

SAR(1 g) = 0.122 W/kg; SAR(10 g) = 0.045 W/kg

Maximum value of SAR (measured) = 0.256 W/kg



44_WLAN 5.3GHz_802.11ac-VHT40 MCS0_Front_10mm_Ant 1+2_Ch54

Communication System: UID 0, WIFI (0); Frequency: 5270 MHz; Duty Cycle: 1:1.115

Medium: MSL_5000_160924 Medium parameters used: $f = 5270$ MHz; $\sigma = 5.379$ S/m; $\epsilon_r = 48.403$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(4.25, 4.25, 4.25); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch54/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.402 W/kg

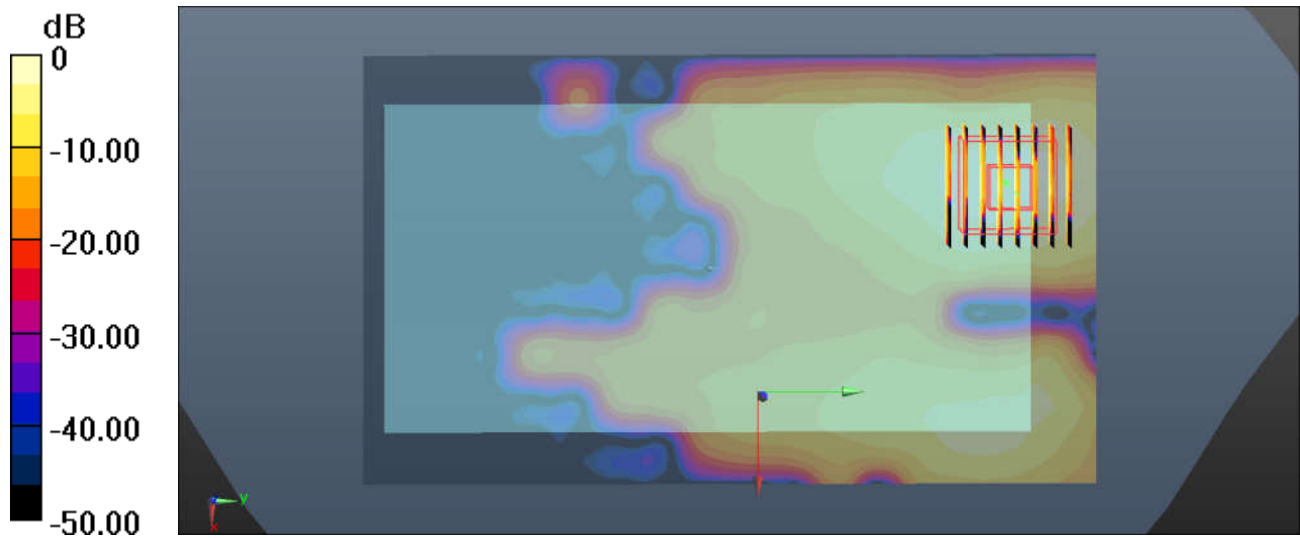
Ch54/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.8560 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.493 W/kg

SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.065 W/kg

Maximum value of SAR (measured) = 0.395 W/kg



0 dB = 0.395 W/kg = -4.03 dBW/kg

45_WLAN 5.5GHz_802.11ac-VHT40 MCS0_Front_10mm_Ant 1+2_Ch110

Communication System: UID 0, WIFI (0); Frequency: 5550 MHz; Duty Cycle: 1:1.115

Medium: MSL_5000_160924 Medium parameters used: $f = 5550$ MHz; $\sigma = 5.776$ S/m; $\epsilon_r = 47.775$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.65, 3.65, 3.65); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch110/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.331 W/kg

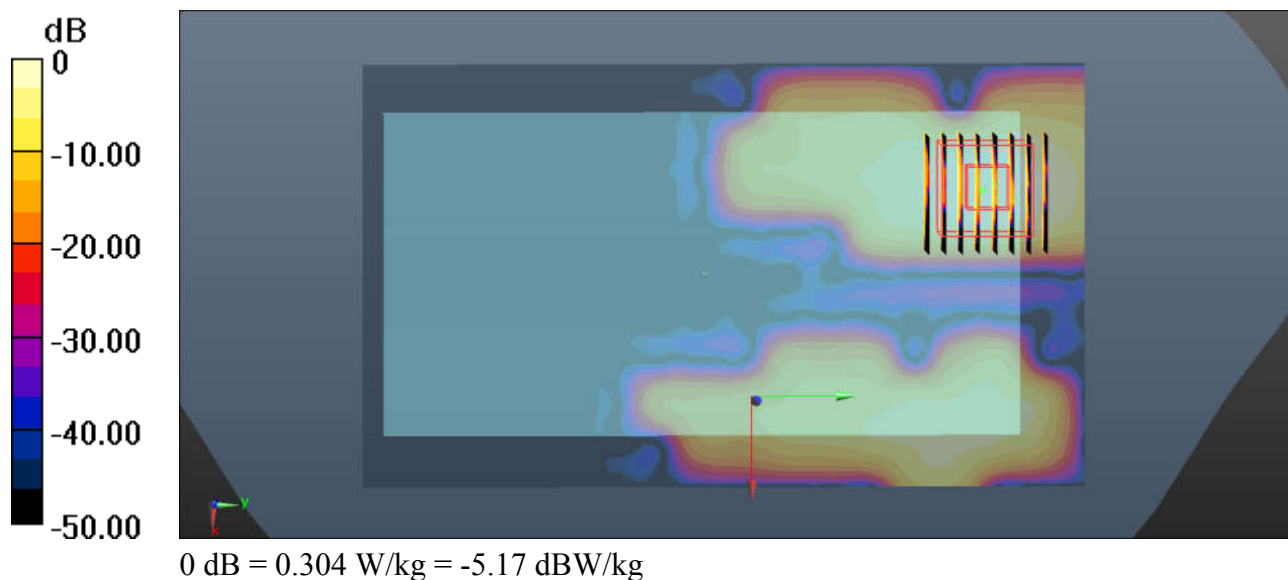
Ch110/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.043 W/kg

Maximum value of SAR (measured) = 0.304 W/kg



46_Bluetooth_1Mbps_1Mbps_Back_10mm_Ant 1_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz; Duty Cycle: 1:1.2

Medium: MSL_2450_160927 Medium parameters used: $f = 2441$ MHz; $\sigma = 1.995$ S/m; $\epsilon_r = 52.613$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(7.45, 7.45, 7.45); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch39/Area Scan (81x161x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.0357 W/kg

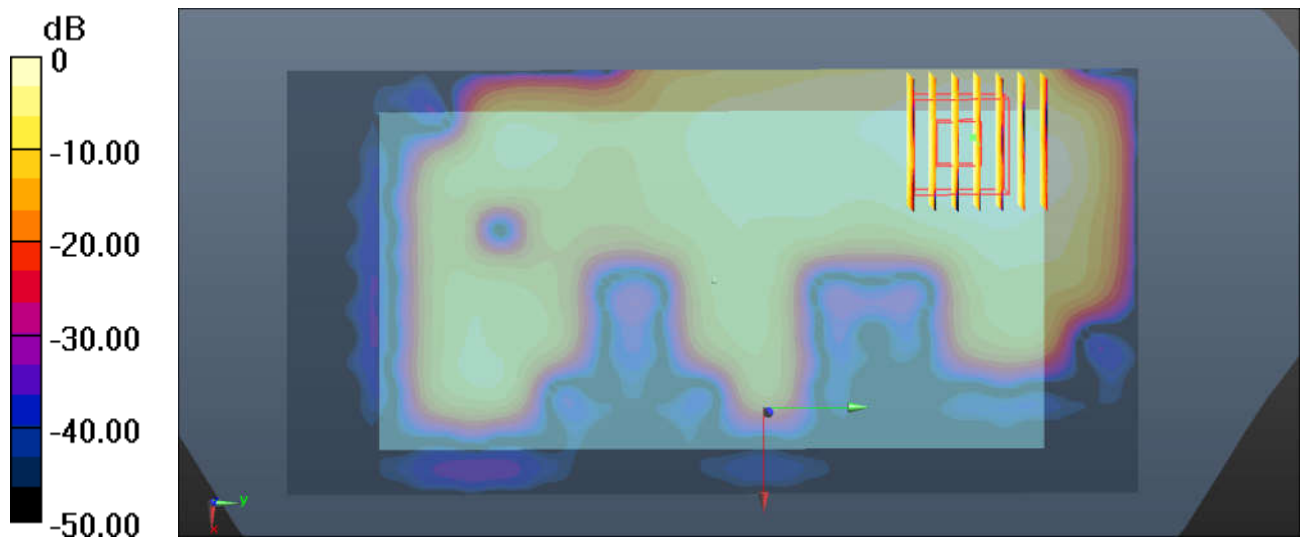
Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 1.264 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.0440 W/kg

SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.012 W/kg

Maximum value of SAR (measured) = 0.0378 W/kg



0 dB = 0.0378 W/kg = -14.23 dBW/kg

47_WCDMA Band IV_RMC 12.2Kbps_Bottom Side_0mm_Ch1513

Communication System: UID 0, UMTS (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL_1750_160915 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.502$ S/m; $\epsilon_r = 53.457$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1513/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

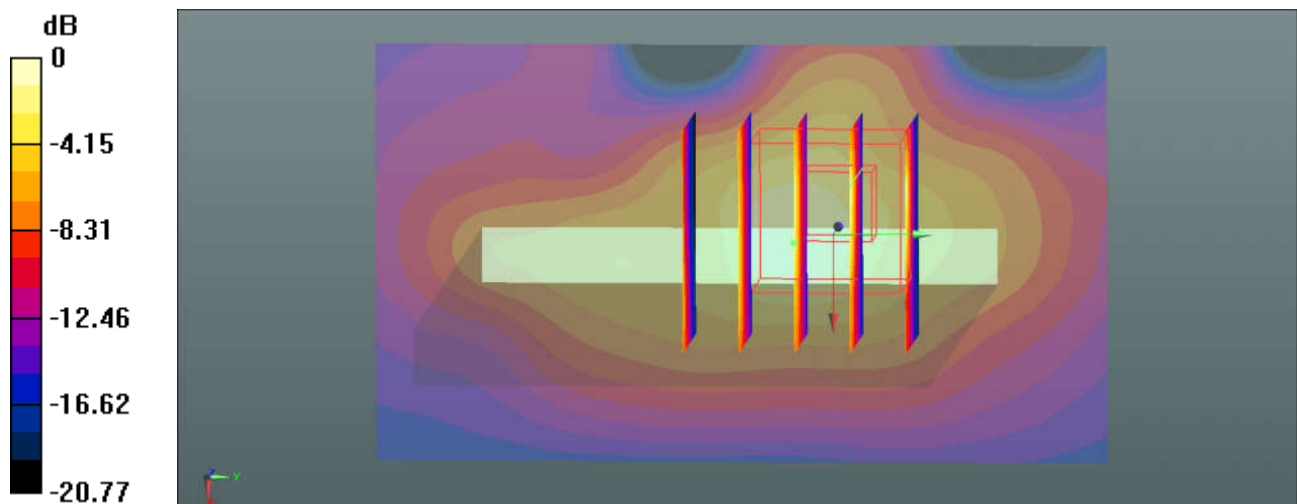
Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.6220 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.470 W/kg

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



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

48_LTE Band 4_20M_QPSK_1RB_0Offset_Bottom Side_0mm_Ch20175

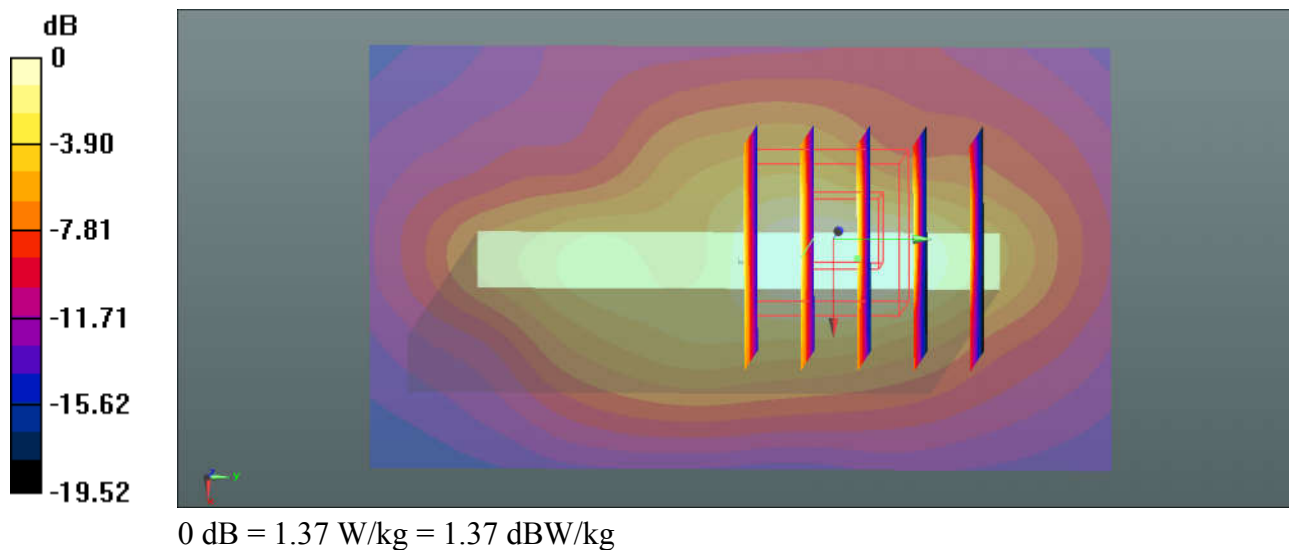
Communication System: UID 0, FDD_LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium: MSL_1750_160915 Medium parameters used: $f = 1732.5$ MHz; $\sigma = 1.48$ S/m; $\epsilon_r = 53.491$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.81, 7.81, 7.81); Calibrated: 2016.5.25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2016.5.18
- Phantom: SAM2; Type: SAM; Serial: TP-1477
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20175/Area Scan (41x71x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 1.44 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 25.12 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.15 W/kg
SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.455 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



49_WLAN 5.3GHz_802.11a 6Mbps_Front_0mm_Ant 1_Ch60

Communication System: UID 0, WIFI (0); Frequency: 5300 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_160924 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.418$ S/m; $\epsilon_r = 48.319$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(4.25, 4.25, 4.25); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch60/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.34 W/kg

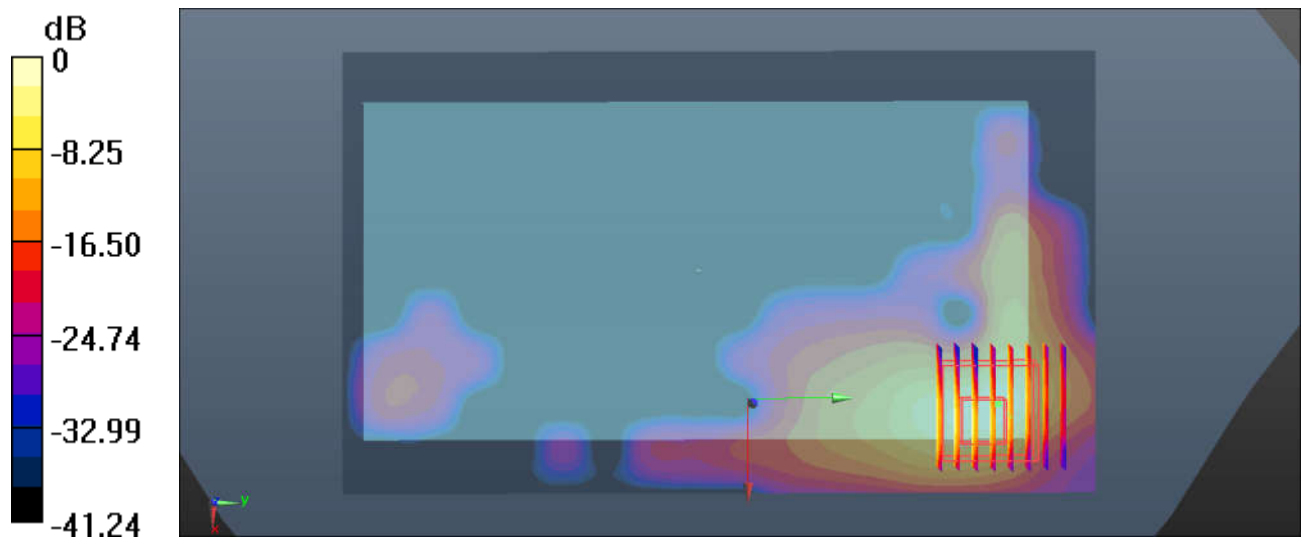
Ch60/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 9.09 W/kg

SAR(1 g) = 2.28 W/kg; SAR(10 g) = 0.719 W/kg

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



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

50_WLAN 5.5GHz_802.11a 6Mbps_Front_0mm_Ch144

Communication System: UID 0, WIFI (0); Frequency: 5720 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_160924 Medium parameters used: $f = 5720$ MHz; $\sigma = 6.02$ S/m; $\epsilon_r = 47.405$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.65, 3.65, 3.65); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch144/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.12 W/kg

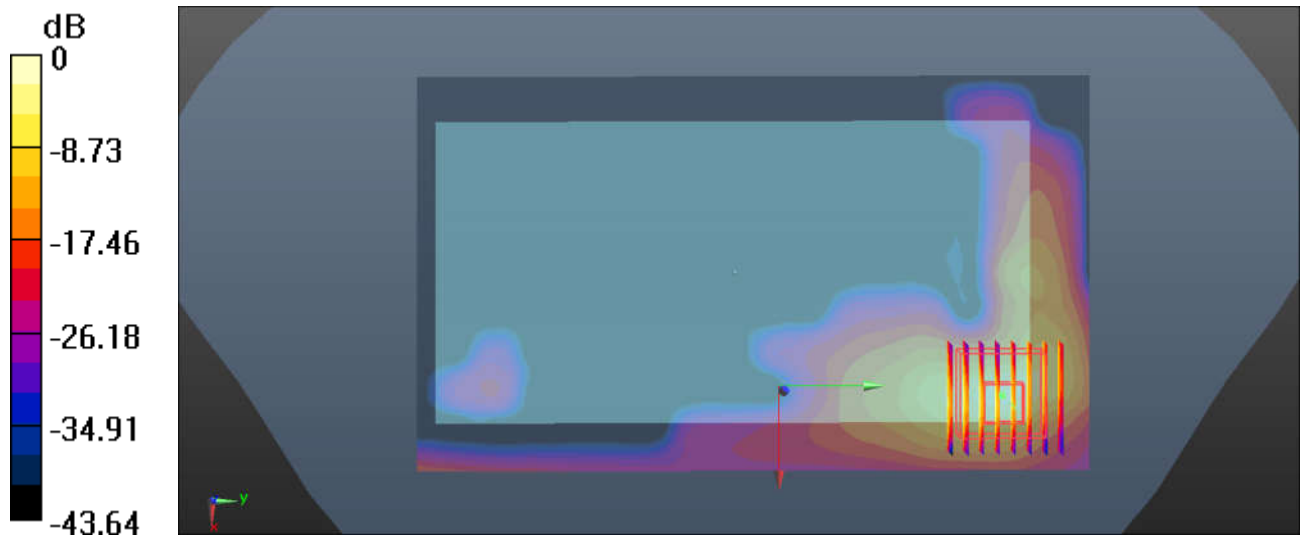
Ch144/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 13.4 W/kg

SAR(1 g) = 3.11 W/kg; SAR(10 g) = 0.960 W/kg

Maximum value of SAR (measured) = 9.10 W/kg



0 dB = 9.10 W/kg = 9.59 dBW/kg

51_WLAN 5.8GHz_ 802.11a 6Mbps_Front_0mm_Ant 1_Ch157

Communication System: UID 0, WIFI (0); Frequency: 5785 MHz; Duty Cycle: 1:1.049

Medium: MSL_5000_161009 Medium parameters used: $f = 5785$ MHz; $\sigma = 6.214$ S/m; $\epsilon_r = 47.373$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.77, 3.77, 3.77); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch157/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 9.93 W/kg

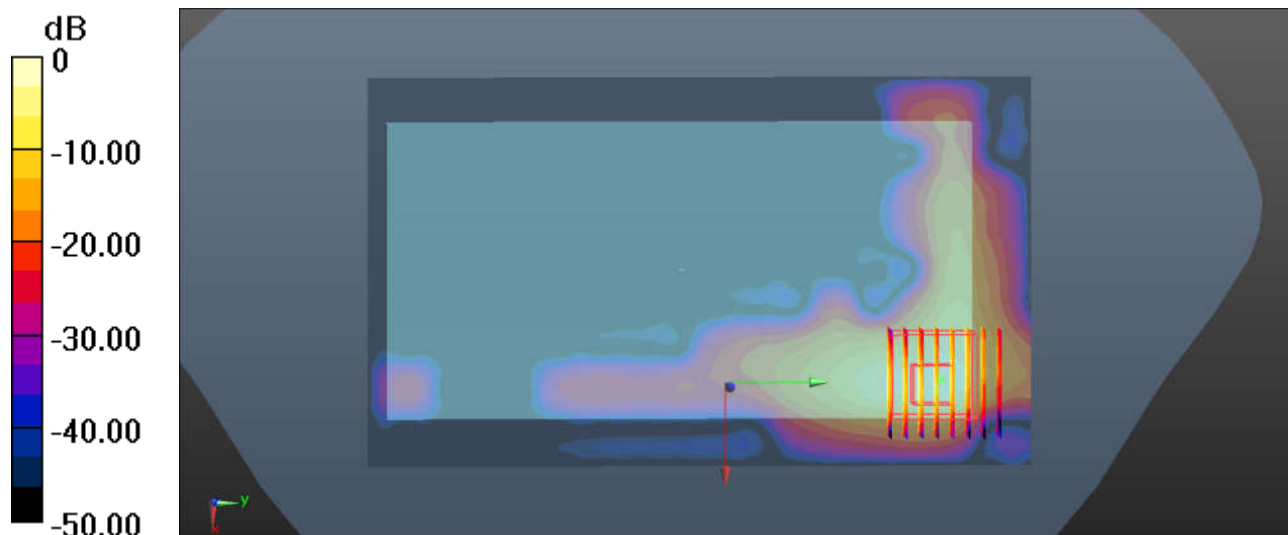
Ch157/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 11.4 W/kg

SAR(1 g) = 2.7 W/kg; SAR(10 g) = 0.863 W/kg

Maximum value of SAR (measured) = 7.67 W/kg



0 dB = 7.67 W/kg = 8.85 dBW/kg

52_WLAN 5.3GHz_802.11ac-VHT40 MCS0_Front_0mm_Ant1+2_Ch54

Communication System: UID 0, WIFI (0); Frequency: 5270 MHz; Duty Cycle: 1:1.115

Medium: MSL_5000_160924 Medium parameters used: $f = 5270$ MHz; $\sigma = 5.379$ S/m; $\epsilon_r = 48.403$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(4.25, 4.25, 4.25); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch54/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 6.44 W/kg

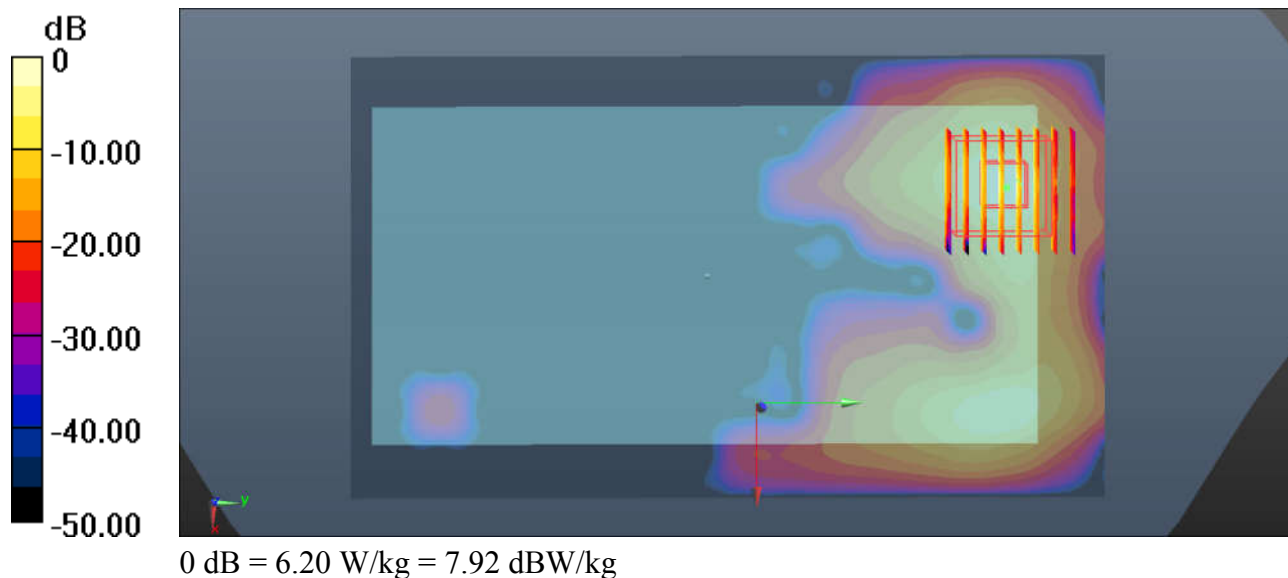
Ch54/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 9.39 W/kg

SAR(1 g) = 2.2 W/kg; SAR(10 g) = 0.573 W/kg

Maximum value of SAR (measured) = 6.20 W/kg



53_WLAN 5.5GHz_802.11ac-VHT40 MCS0_Front_0mm_Ant 1+2_Ch110

Communication System: UID 0, WIFI (0); Frequency: 5550 MHz; Duty Cycle: 1:1.115

Medium: MSL_5000_160924 Medium parameters used: $f = 5550$ MHz; $\sigma = 5.776$ S/m; $\epsilon_r = 47.775$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.65, 3.65, 3.65); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch110/Area Scan (101x171x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 6.15 W/kg

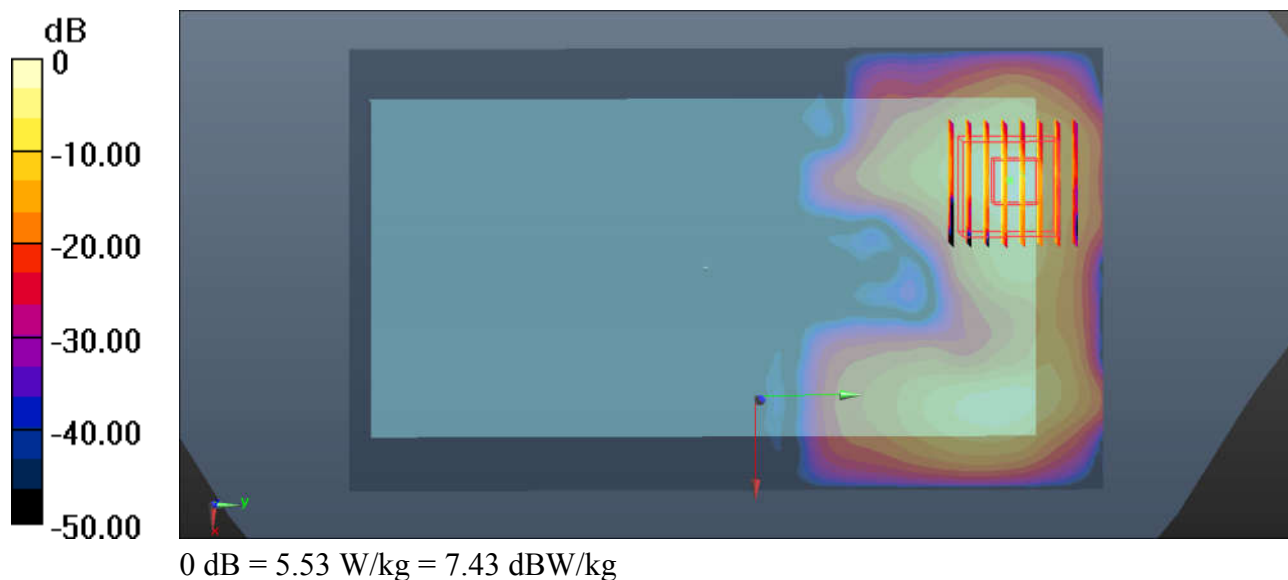
Ch110/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 0 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 7.99 W/kg

SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.516 W/kg

Maximum value of SAR (measured) = 5.53 W/kg



54_WLAN 5.8GHz_802.11ac-VHT40 MCS0_Front_0mm_Ant 1+2_Ch159

Communication System: UID 0, WIFI (0); Frequency: 5795 MHz; Duty Cycle: 1:1.115

Medium: MSL_5000_161009 Medium parameters used: $f = 5795$ MHz; $\sigma = 6.223$ S/m; $\epsilon_r = 47.338$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3954; ConvF(3.77, 3.77, 3.77); Calibrated: 2015.11.27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2016.4.4
- Phantom: SAM1; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch159/Area Scan (101x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.52 W/kg

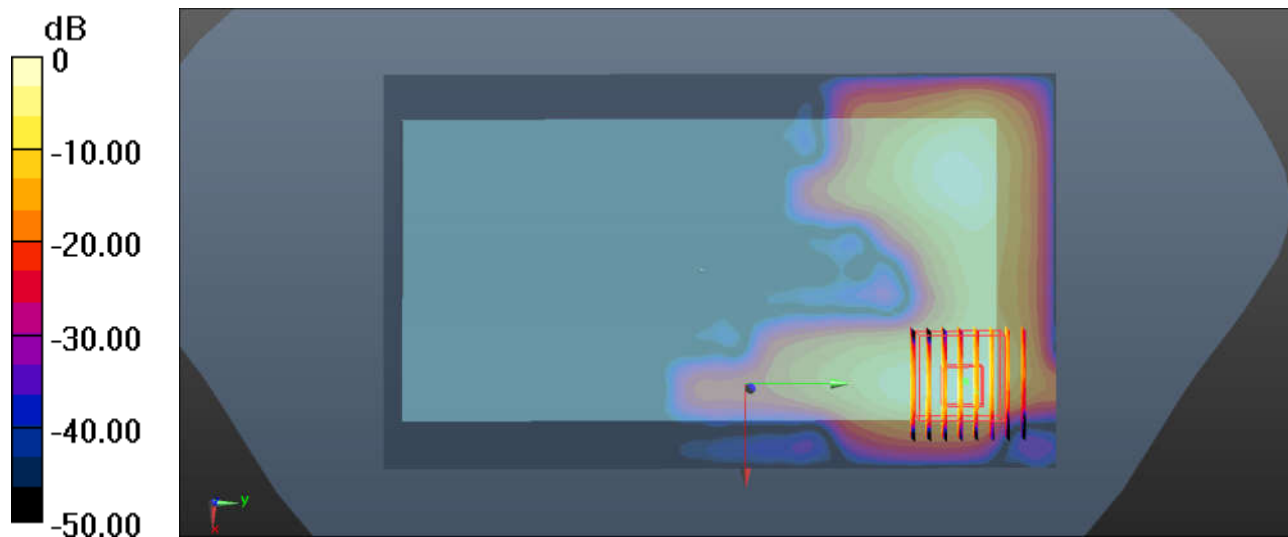
Ch159/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 6.30 W/kg

SAR(1 g) = 1.47 W/kg; SAR(10 g) = 0.475 W/kg

Maximum value of SAR (measured) = 4.11 W/kg





Appendix C. DASY Calibration Certificate

The DASY calibration certificates are shown as follows.



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

Accreditation No.: **SCS 0108**

Client **Sporton-KS (Auden)**

Certificate No: **D750V3-1065_Nov15**

CALIBRATION CERTIFICATE

Object **D750V3 - SN: 1065**

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

Calibration date: **November 24, 2015**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	US37292783	07-Oct-15 (No. 217-02222)	Oct-16
Power sensor HP 8481A	MY41092317	07-Oct-15 (No. 217-02223)	Oct-16
Reference 20 dB Attenuator	SN: 5058 (20k)	01-Apr-15 (No. 217-02131)	Mar-16
Type-N mismatch combination	SN: 5047.2 / 06327	01-Apr-15 (No. 217-02134)	Mar-16
Reference Probe EX3DV4	SN: 7349	30-Dec-14 (No. EX3-7349_Dec14)	Dec-15
DAE4	SN: 601	17-Aug-15 (No. DAE4-601_Aug15)	Aug-16
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100972	15-Jun-15 (in house check Jun-15)	In house check: Jun-18
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Calibrated by: **Claudio Leubler** Name: **Claudio Leubler** Function: **Laboratory Technician**

Approved by: **Katja Pokovic** Technical Manager

Signature

Issued: November 24, 2015

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



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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

Glossary:

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

Calibration is Performed According to the Following Standards:

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

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

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

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

Measurement Conditions

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

DASY Version	DASY5	V52.8.8
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
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	42.8 $\pm$ 6 %	0.90 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.07 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.25 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.38 W/kg $\pm$ 16.5 % (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	55.9 $\pm$ 6 %	0.97 mho/m $\pm$ 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.23 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	8.86 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.48 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	5.89 W/kg $\pm$ 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.4 Ω - 2.1 j Ω
Return Loss	- 28.3 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	49.1 Ω - 3.9 j Ω
Return Loss	- 27.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.032 ns
----------------------------------	----------

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

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

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

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	May 10, 2012

DASY5 Validation Report for Head TSL

Date: 24.11.2015

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1065

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

Medium parameters used: $f = 750$ MHz; $\sigma = 0.9$ S/m; $\epsilon_r = 42.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.1, 10.1, 10.1); Calibrated: 30.12.2014;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 17.08.2015
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

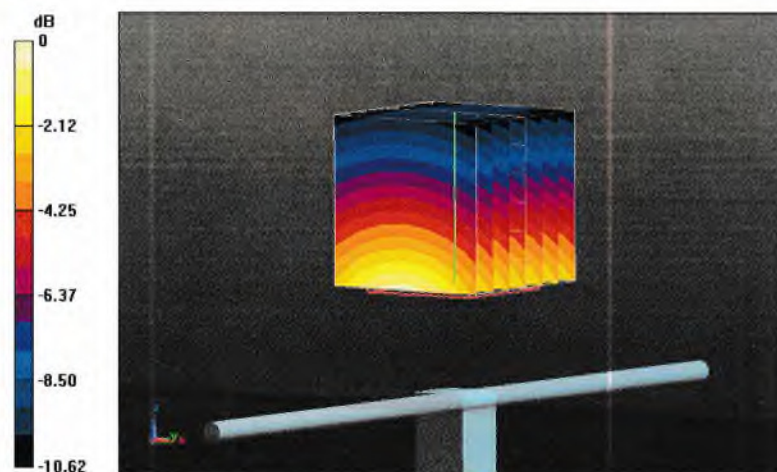
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.14 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 3.09 W/kg

SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.35 W/kg

Maximum value of SAR (measured) = 2.74 W/kg

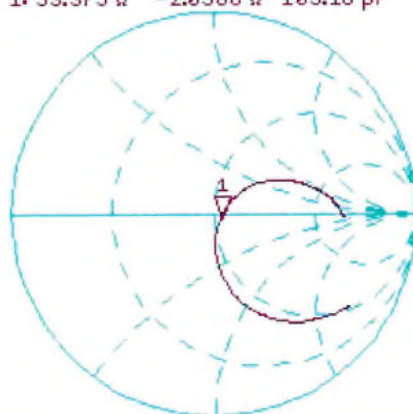


0 dB = 2.74 W/kg = 4.38 dBW/kg

Impedance Measurement Plot for Head TSL

24 Nov 2015 15:38:55
 [CH1] S11 1 U FS 1: 53.375 Ω -2.0566 Ω 103.18 pF 750.000 000 MHz

*
 De1
 CA



Avg
 16
 H1d



DASY5 Validation Report for Body TSL

Date: 24.11.2015

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN: 1065

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

Medium parameters used: $f = 750$ MHz; $\sigma = 0.97$ S/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.61, 9.61, 9.61); Calibrated: 30.12.2014;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 17.08.2015
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

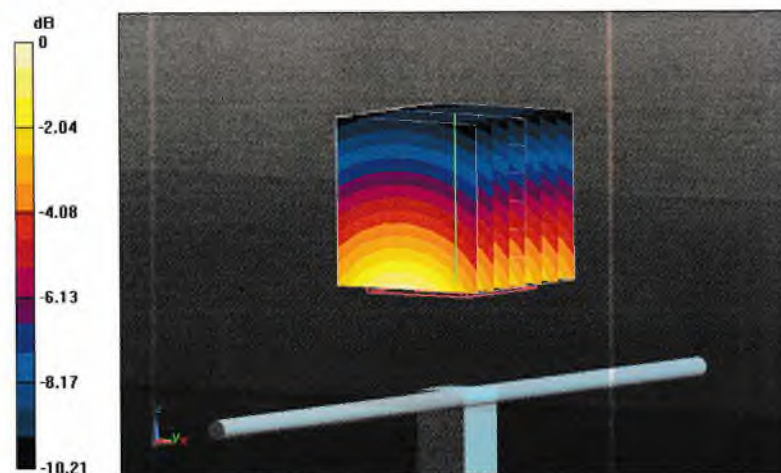
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.13 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 3.29 W/kg

SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.48 W/kg

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



0 dB = 2.94 W/kg = 4.68 dBW/kg

Impedance Measurement Plot for Body TSL

