

06_LTE Band 7_20M_QPSK_1RB_49Offset_Right Cheek_0mm_Ch21100

Communication System: UID 0, LTE-FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.938$ S/m; $\epsilon_r = 40.633$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2535 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x171x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.118 W/kg

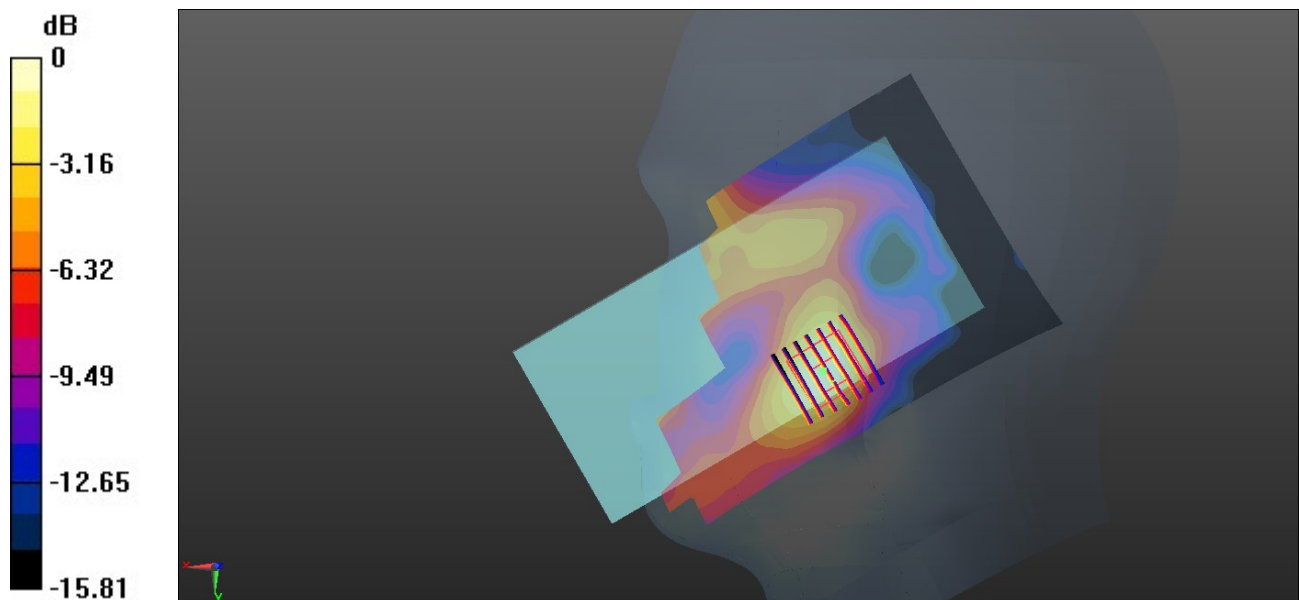
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 7.849 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.157 W/kg

SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.048 W/kg

Maximum value of SAR (measured) = 0.110 W/kg



0 dB = 0.110 W/kg = -9.59 dBW/kg

07_LTE Band 41_20M_QPSK_1RB_0Offset_Left Cheek_0mm_Ch40670

Communication System: UID 0, LTE-TDD (0); Frequency: 2598 MHz; Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: $f = 2598$ MHz; $\sigma = 1.983$ S/m; $\epsilon_r = 40.612$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2598 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x171x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.109 W/kg

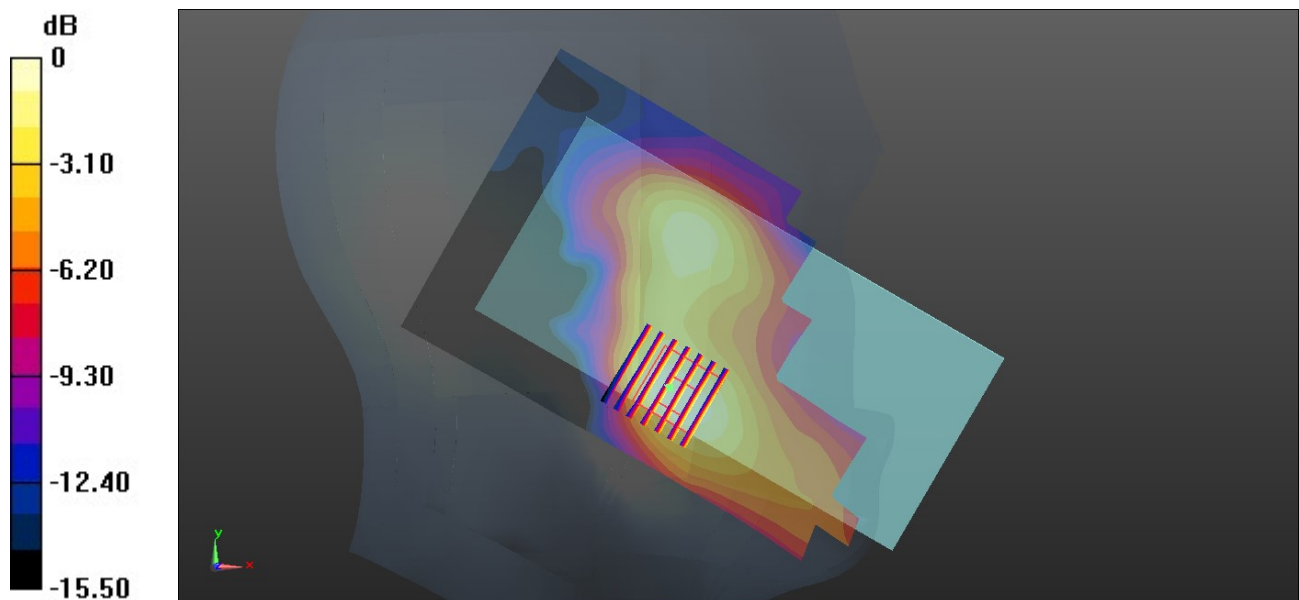
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 7.282 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.049 W/kg

Maximum value of SAR (measured) = 0.104 W/kg



0 dB = 0.104 W/kg = -9.83 dBW/kg

08_WLAN2.4GHz_802.11b 1Mbps_Left Tilted_0mm_Ch1

Communication System: UID 0, WLAN2.4GHz (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018

Medium: HSL_2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.842$ S/m; $\epsilon_r = 40.874$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2412 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.820 W/kg

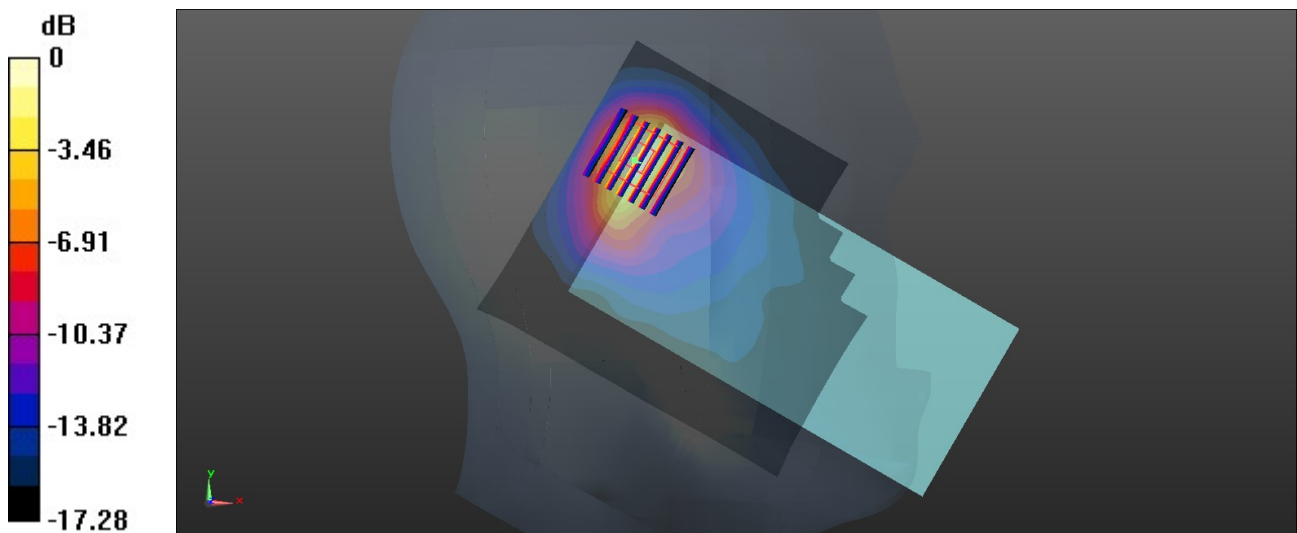
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.99 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.571 W/kg; SAR(10 g) = 0.237 W/kg

Maximum value of SAR (measured) = 0.801 W/kg



0 dB = 0.801 W/kg = -0.96 dBW/kg

09_Bluetooth_1Mbps_Left Tilted_0mm_Ch0

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.291

Medium: HSL_2450 Medium parameters used: $f = 2402$ MHz; $\sigma = 1.835$ S/m; $\epsilon_r = 40.92$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2402 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0793 W/kg

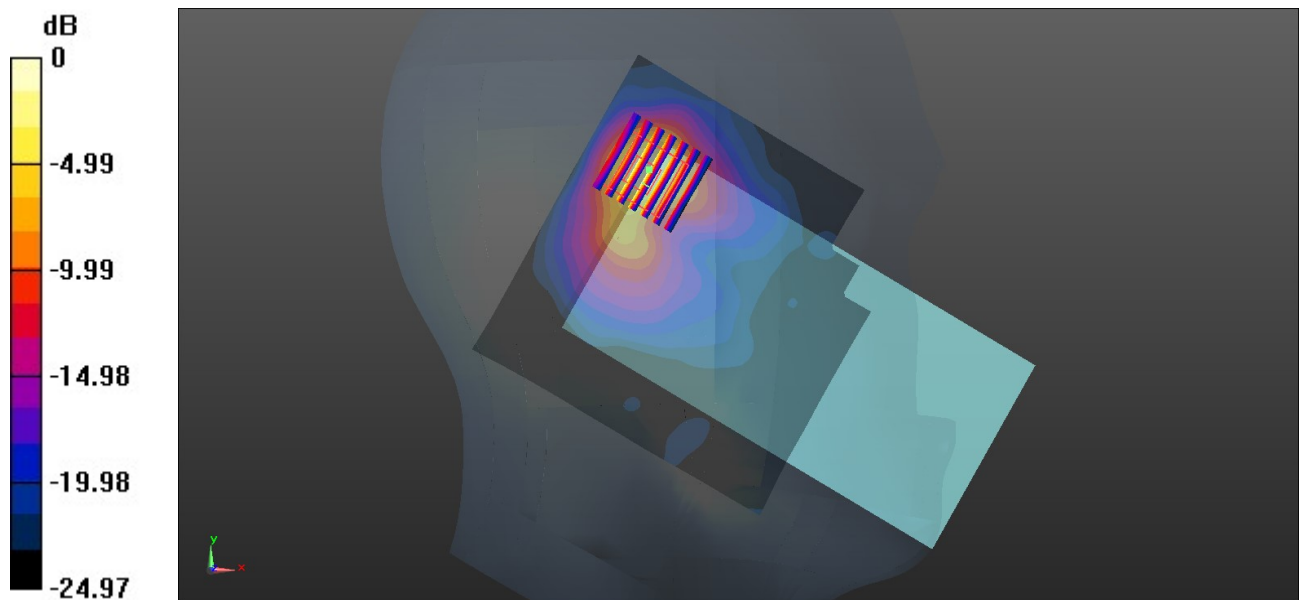
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.801 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.137 W/kg

SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.027 W/kg

Maximum value of SAR (measured) = 0.0844 W/kg



0 dB = 0.0844 W/kg = -10.74 dBW/kg

10_GSM850_GPRS (2 Tx slots)_Back_5mm_Ch251

Communication System: UID 0, GSM850 (0); Frequency: 848.8 MHz; Duty Cycle: 1:4.15

Medium: HSL_835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 42.422$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 848.8 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 0.961 W/kg

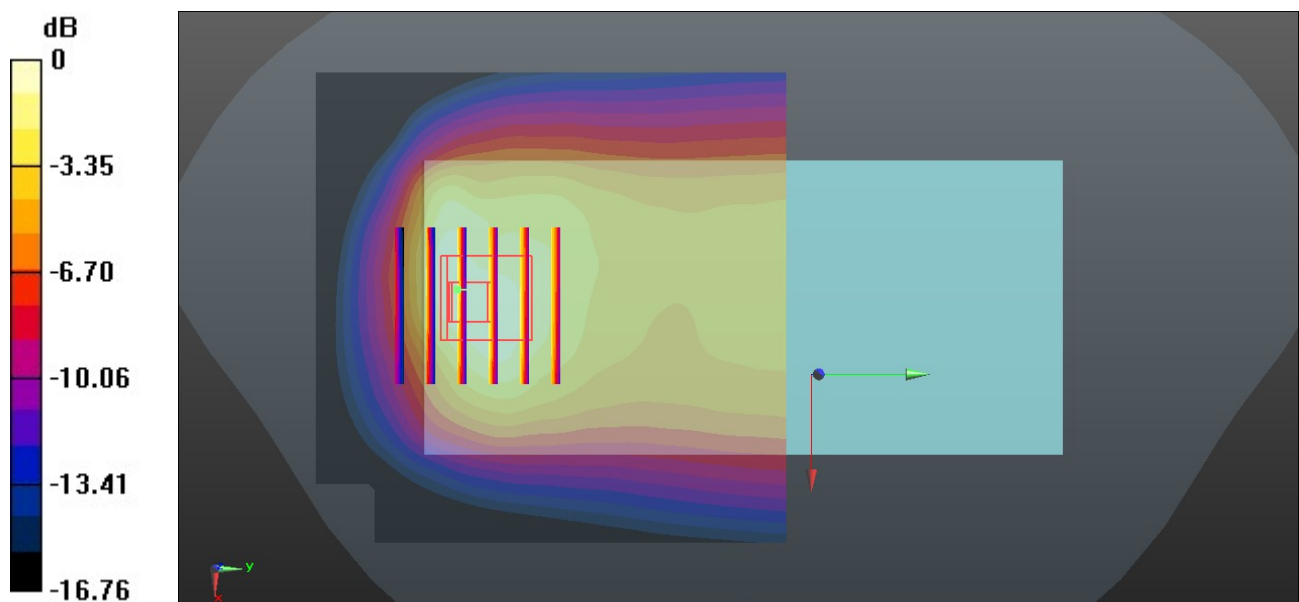
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 32.38 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.805 W/kg; SAR(10 g) = 0.469 W/kg

Maximum value of SAR (measured) = 0.987 W/kg



0 dB = 0.987 W/kg = -0.06 dBW/kg

11_GSM1900_GPRS (4 Tx slots)_Bottom Side_5mm_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: HSL_1900 Medium parameters used: $f = 1910$ MHz; $\sigma = 1.441$ S/m; $\epsilon_r = 40.072$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1909.8 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

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

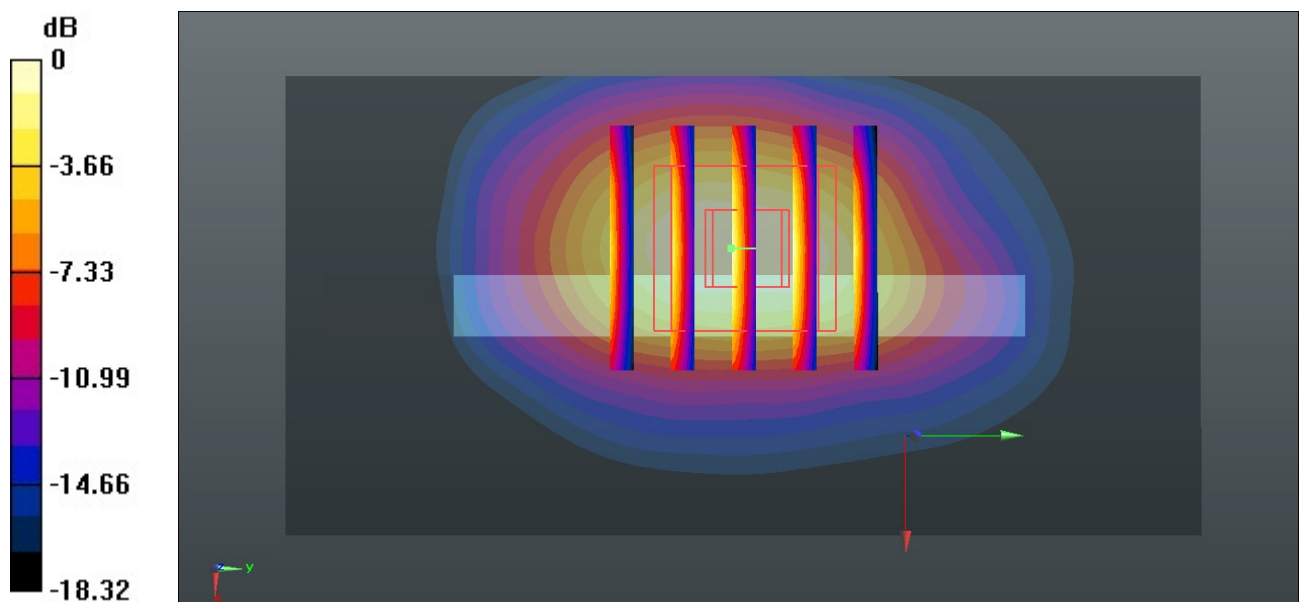
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.86 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 0.880 W/kg; SAR(10 g) = 0.449 W/kg

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



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

12_WCDMA II_RMC 12.2Kbps_Bottom Side_5mm_Ch9262

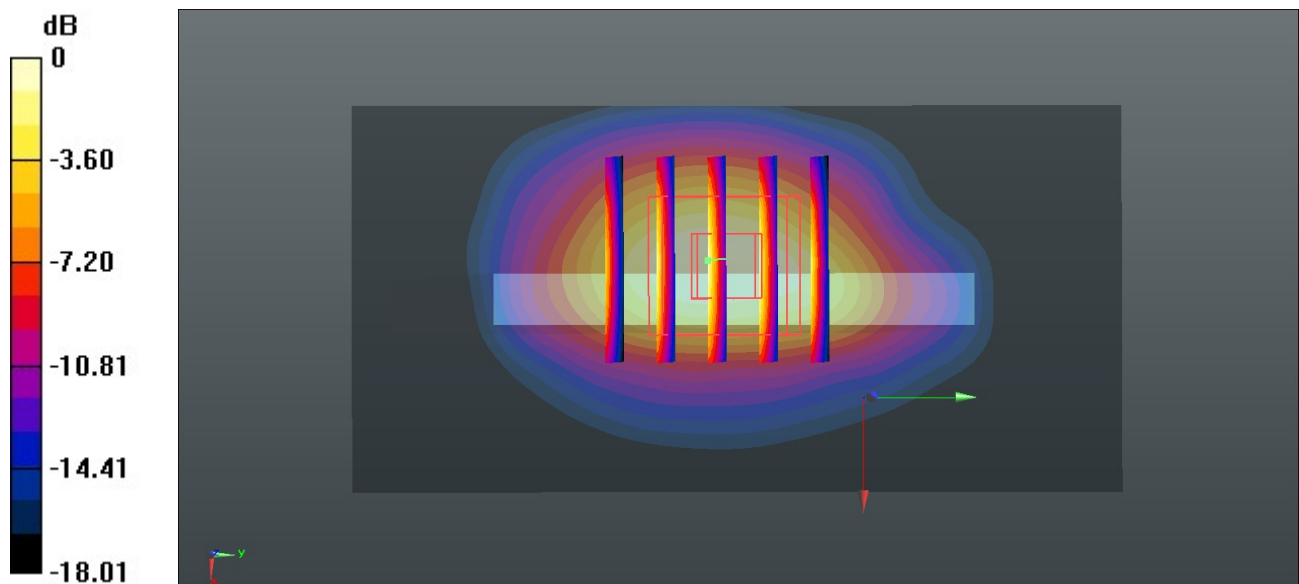
Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.407$ S/m; $\epsilon_r = 40.142$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1852.4 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.20 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.79 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.437 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

13_WCDMA V_RMC 12.2Kbps_Back_5mm_Ch4233

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

Medium: HSL_835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 42.425$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 846.6 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.946 W/kg

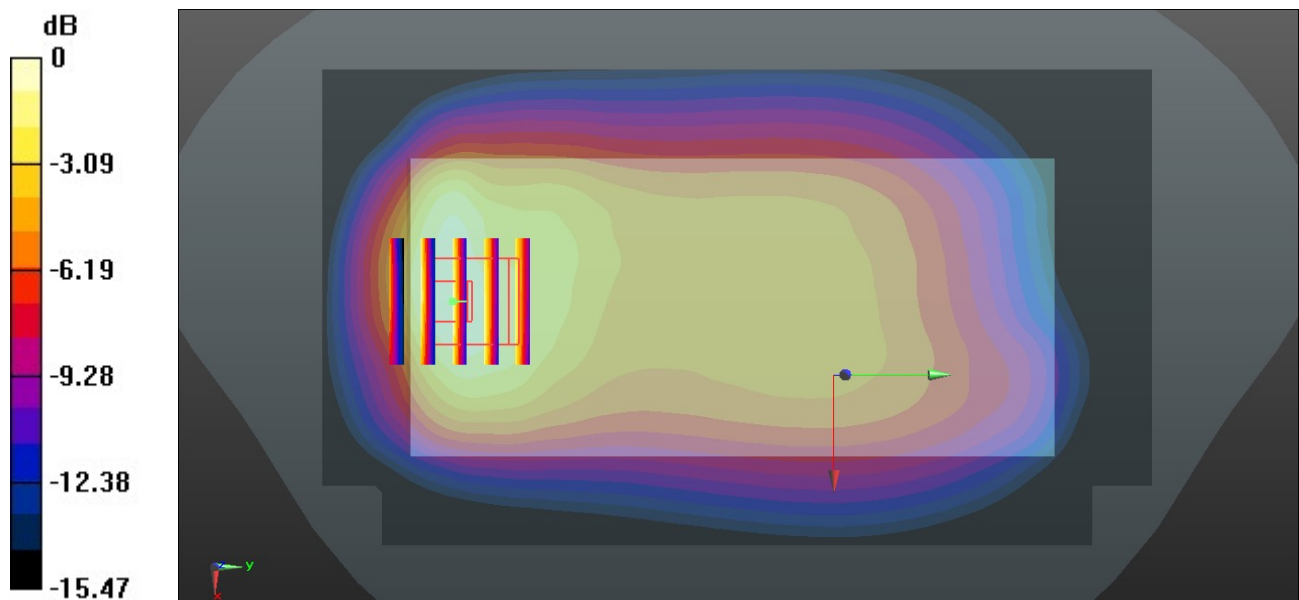
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.97 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.695 W/kg; SAR(10 g) = 0.410 W/kg

Maximum value of SAR (measured) = 0.846 W/kg



0 dB = 0.846 W/kg = -0.73 dBW/kg

14_LTE Band 5_10M_QPSK_1RB_0Offset_Back_5mm_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: HSL_835 Medium parameters used: $f = 836.5$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 42.449$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 836.5 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.646 W/kg

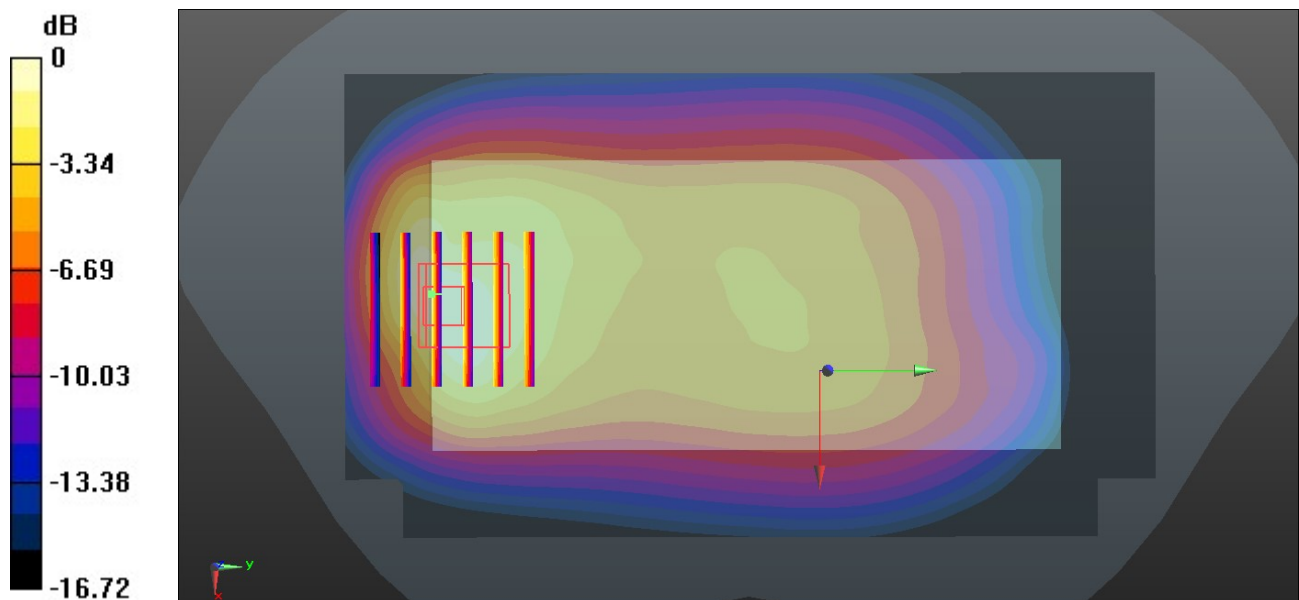
Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 27.83 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.570 W/kg; SAR(10 g) = 0.333 W/kg

Maximum value of SAR (measured) = 0.699 W/kg



0 dB = 0.699 W/kg = -1.56 dBW/kg

15_LTE Band 7_20M_QPSK_1RB_49Offset_Bottom Side_5mm_Ch21100

Communication System: UID 0, LTE-FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: HSL_2600 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.938$ S/m; $\epsilon_r = 40.633$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2535 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.30 W/kg

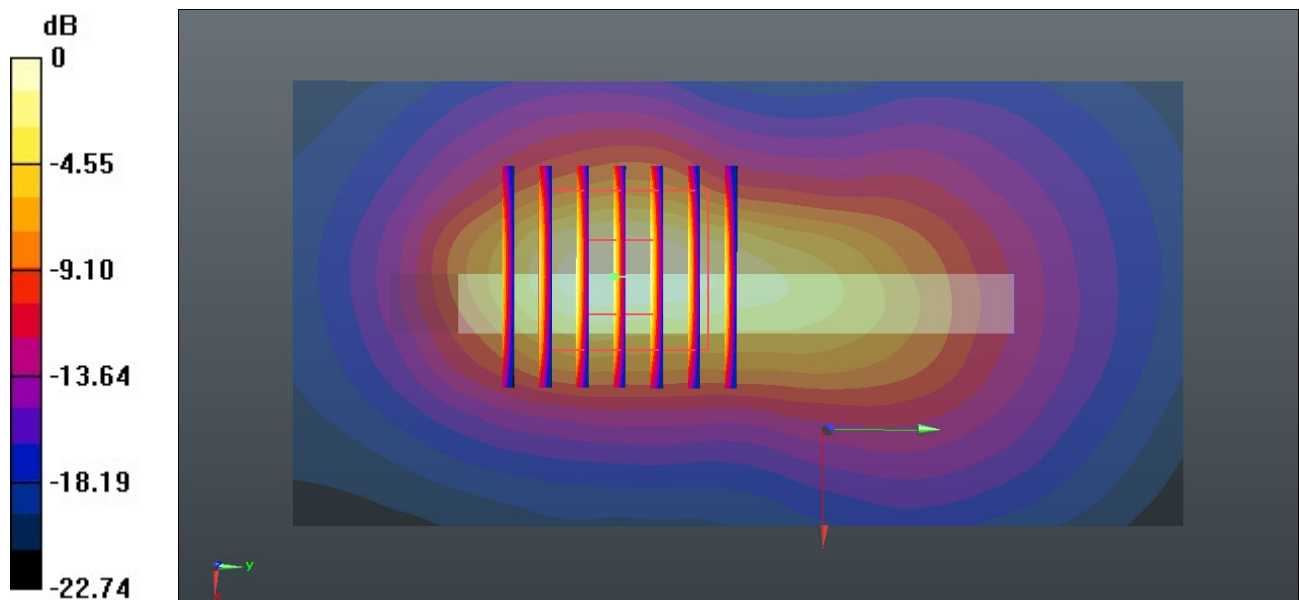
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.26 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 0.977 W/kg; SAR(10 g) = 0.427 W/kg

Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

16_LTE Band 41_20M_QPSK_1RB_0Offset_Bottom Side_5mm_Ch40140

Communication System: UID 0, LTE-TDD (0); Frequency: 2545 MHz; Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: $f = 2545$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 40.619$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2545 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

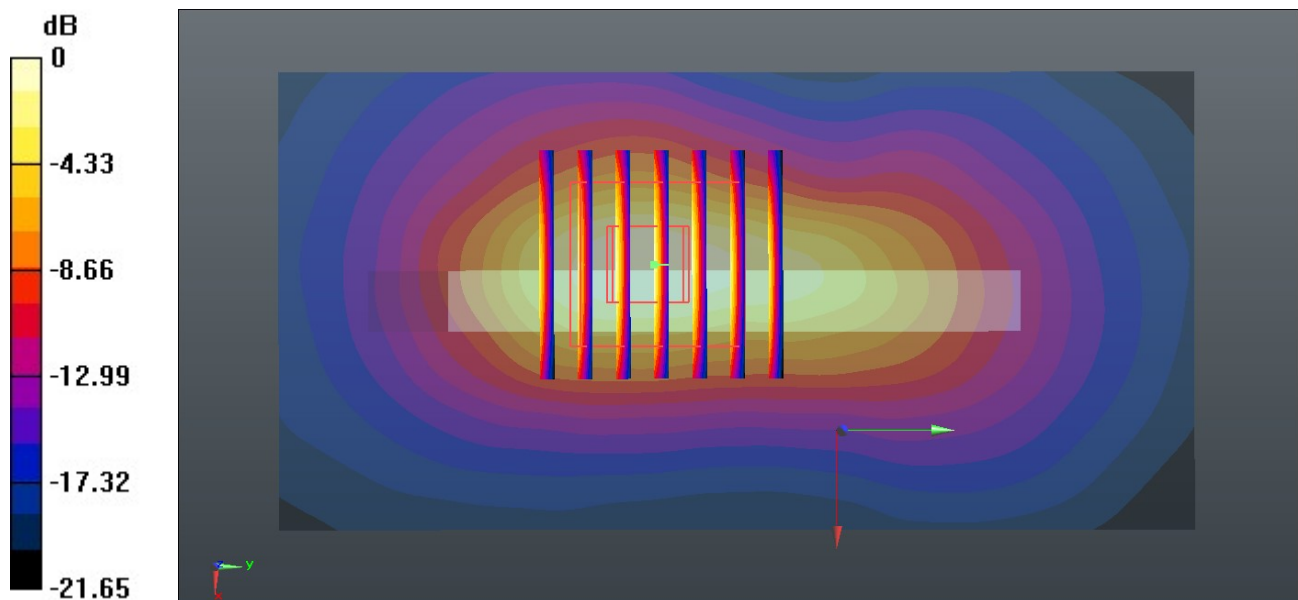
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.62 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.92 W/kg

SAR(1 g) = 0.929 W/kg; SAR(10 g) = 0.414 W/kg

Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

17_WLAN2.4GHz_802.11b 1Mbps_Top Side_5mm_Ch1

Communication System: UID 0, WLAN2.4GHz (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018

Medium: HSL_2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.842$ S/m; $\epsilon_r = 40.874$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2412 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.53 W/kg

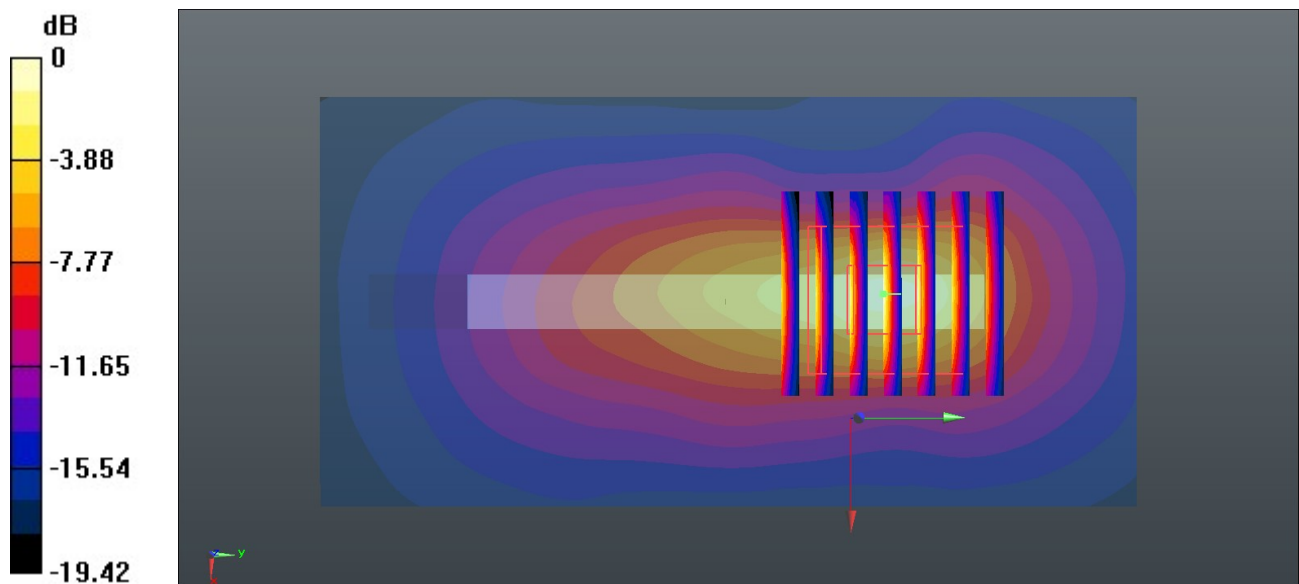
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.10 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 0.988 W/kg; SAR(10 g) = 0.417 W/kg

Maximum value of SAR (measured) = 1.82 W/kg



0 dB = 1.82 W/kg = 2.60 dBW/kg

18_Bluetooth_1Mbps_Back_5mm_Ch0

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.291

Medium: HSL_2450 Medium parameters used: $f = 2402$ MHz; $\sigma = 1.835$ S/m; $\epsilon_r = 40.92$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2402 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0623 W/kg

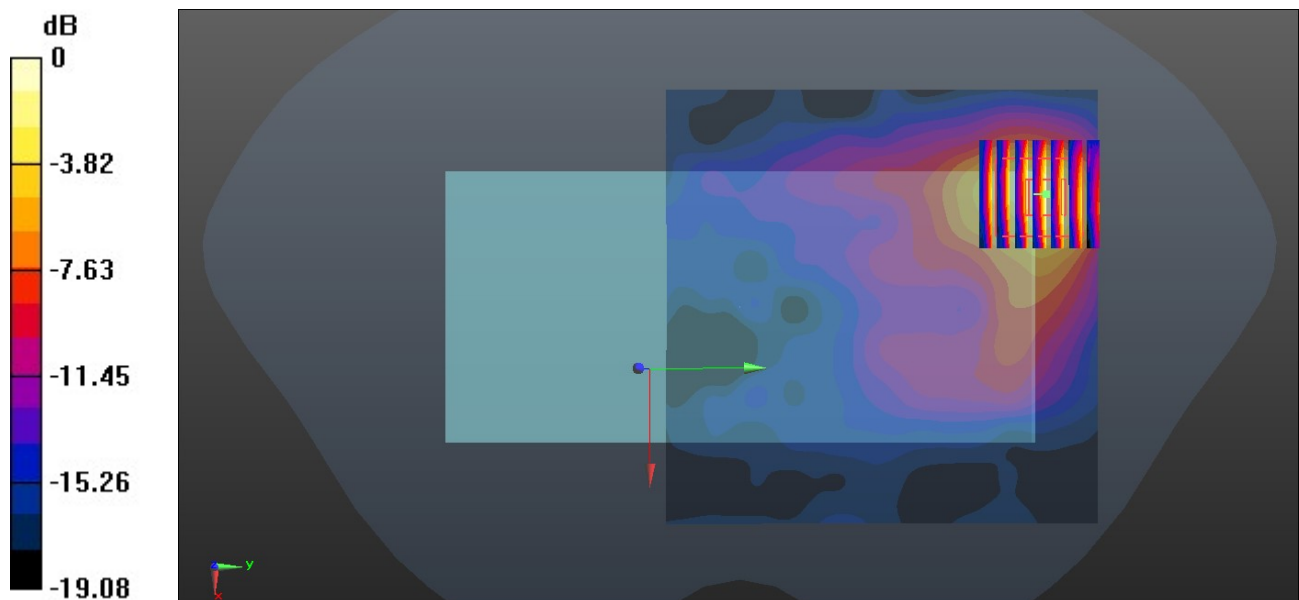
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.811 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.047 W/kg; SAR(10 g) = 0.021 W/kg

Maximum value of SAR (measured) = 0.0647 W/kg



19_GSM850_GPRS (2 Tx slots)_Back_5mm_Ch251

Communication System: UID 0, GSM850 (0); Frequency: 848.8 MHz; Duty Cycle: 1:4.15

Medium: HSL_835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 42.422$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 848.8 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 0.961 W/kg

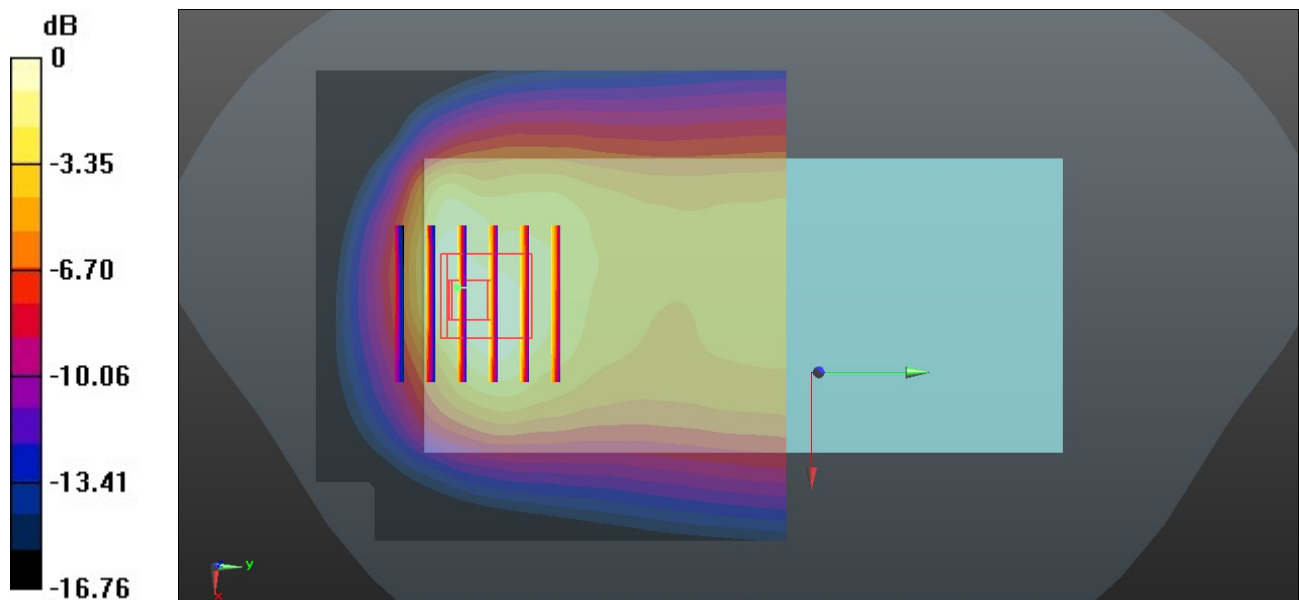
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 32.38 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.805 W/kg; SAR(10 g) = 0.469 W/kg

Maximum value of SAR (measured) = 0.987 W/kg



0 dB = 0.987 W/kg = -0.06 dBW/kg

20_GSM1900_GPRS (4 Tx slots)_Back_5mm_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: HSL_1900 Medium parameters used: $f = 1910$ MHz; $\sigma = 1.441$ S/m; $\epsilon_r = 40.072$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1909.8 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 0.861 W/kg

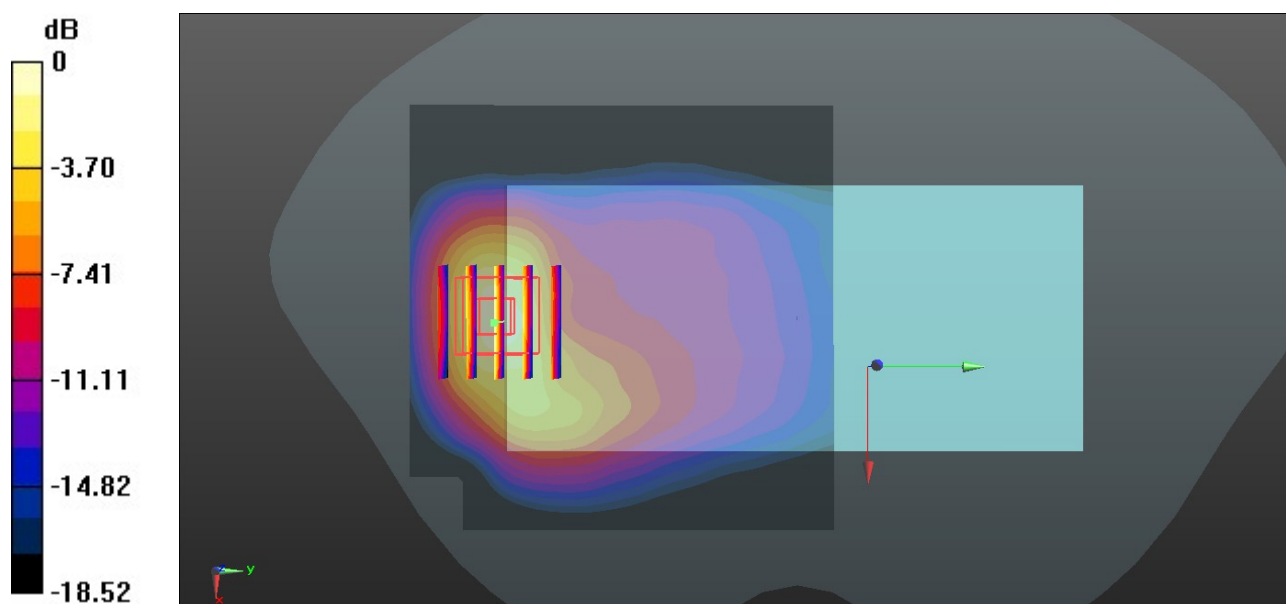
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.23 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.867 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.984 W/kg



0 dB = 0.984 W/kg = -0.07 dBW/kg

21_WCDMA II_RMC 12.2Kbps_Back_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; $\sigma = 1.441$ S/m; $\epsilon_r = 40.063$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1907.6 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

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

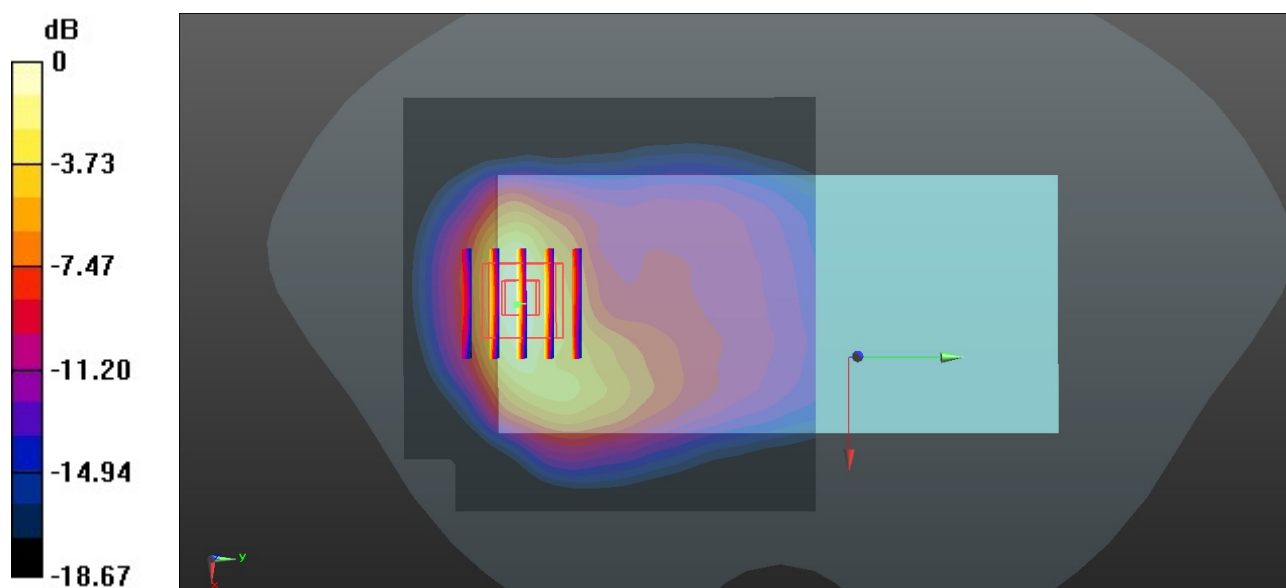
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.16 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.908 W/kg; SAR(10 g) = 0.471 W/kg

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



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

22_WCDMA V_RMC 12.2Kbps_Back_5mm_Ch4233

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

Medium: HSL_835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 42.425$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 846.6 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.946 W/kg

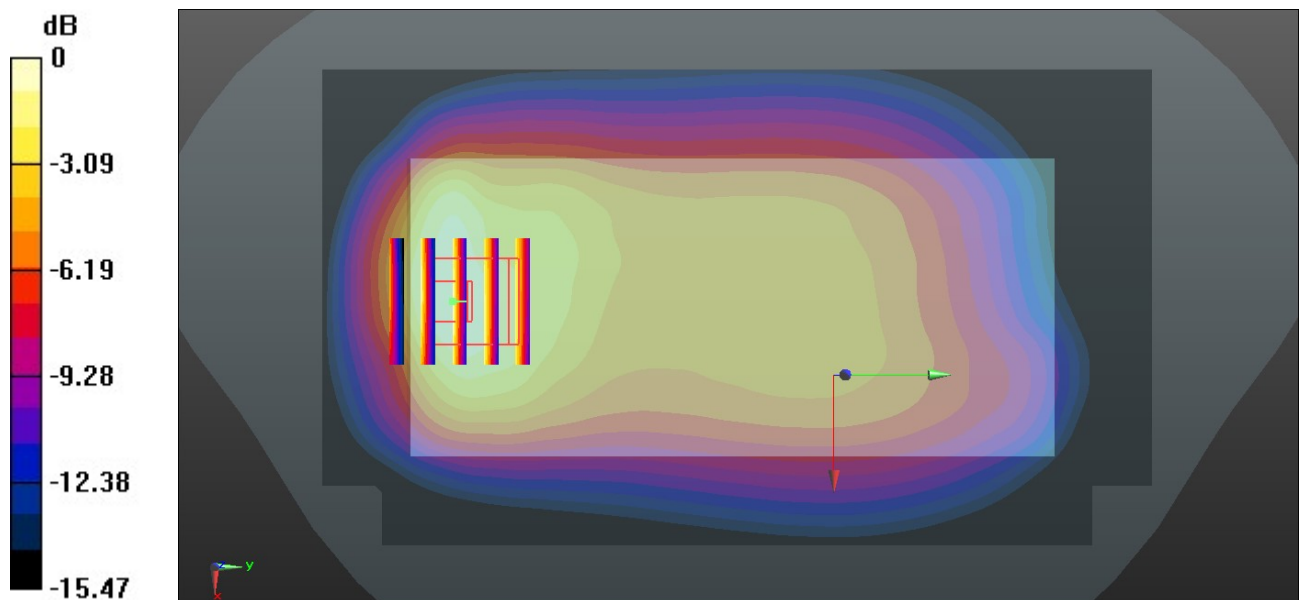
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.97 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.695 W/kg; SAR(10 g) = 0.410 W/kg

Maximum value of SAR (measured) = 0.846 W/kg



0 dB = 0.846 W/kg = -0.73 dBW/kg

23_LTE Band 5_10M_QPSK_1RB_0Offset_Back_5mm_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: HSL_835 Medium parameters used: $f = 836.5$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 42.449$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(10.21, 10.21, 10.21) @ 836.5 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x141x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.646 W/kg

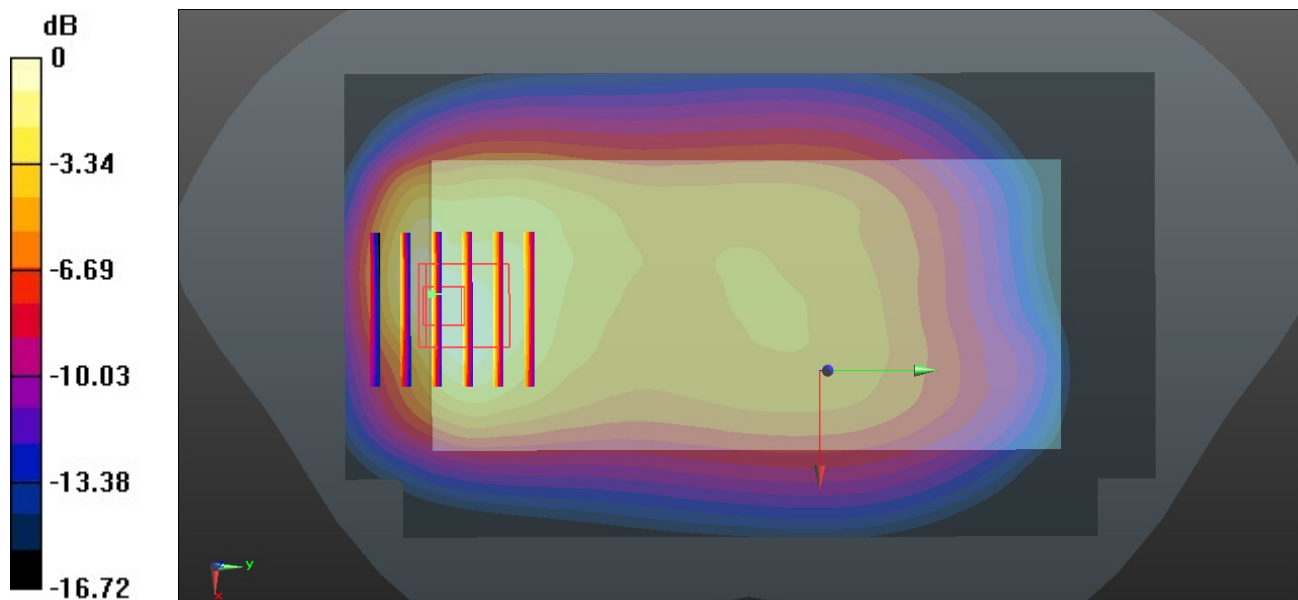
Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 27.83 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.570 W/kg; SAR(10 g) = 0.333 W/kg

Maximum value of SAR (measured) = 0.699 W/kg



0 dB = 0.699 W/kg = -1.56 dBW/kg

24_LTE Band 7_20M_QPSK_1RB_49Offset_Back_5mm_Ch21100

Communication System: UID 0, LTE-FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.938$ S/m; $\epsilon_r = 40.633$; $\rho = 1000$ kg/m³
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2535 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.00 W/kg

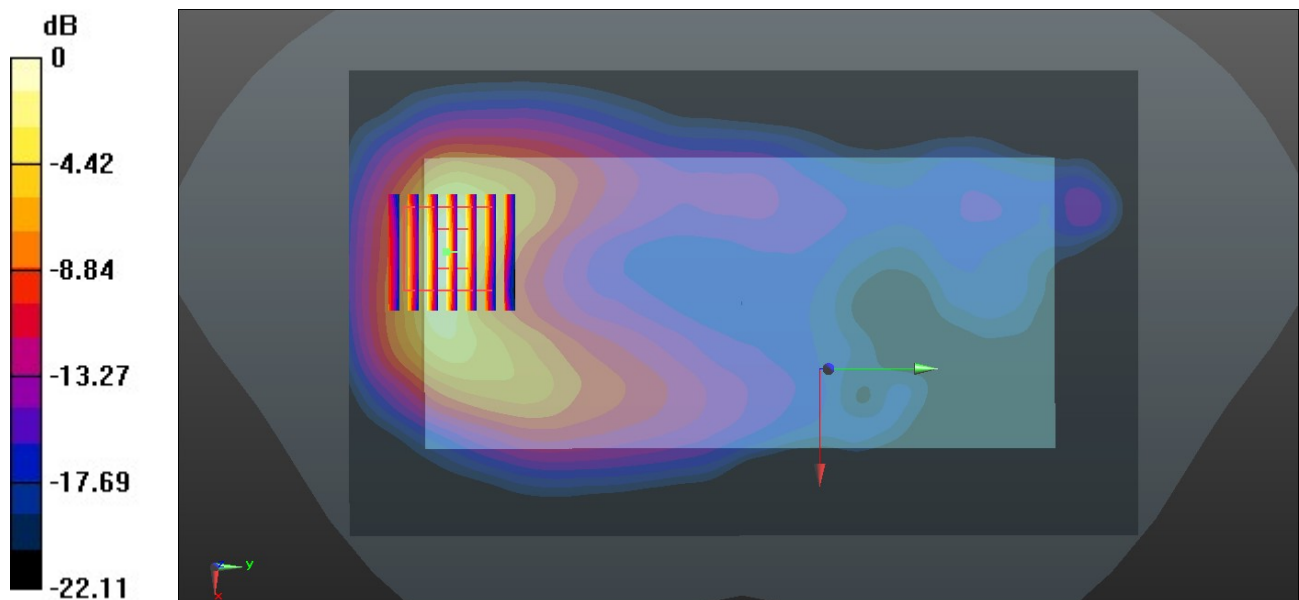
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.03 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.808 W/kg; SAR(10 g) = 0.365 W/kg

Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg = 0.33 dBW/kg

25_LTE Band 41_20M_QPSK_1RB_0Offset_Back_5mm_Ch40140

Communication System: UID 0, LTE-TDD (0); Frequency: 2545 MHz; Duty Cycle: 1:1.59

Medium: HSL_2600 Medium parameters used: $f = 2545$ MHz; $\sigma = 1.948$ S/m; $\epsilon_r = 40.619$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2545 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

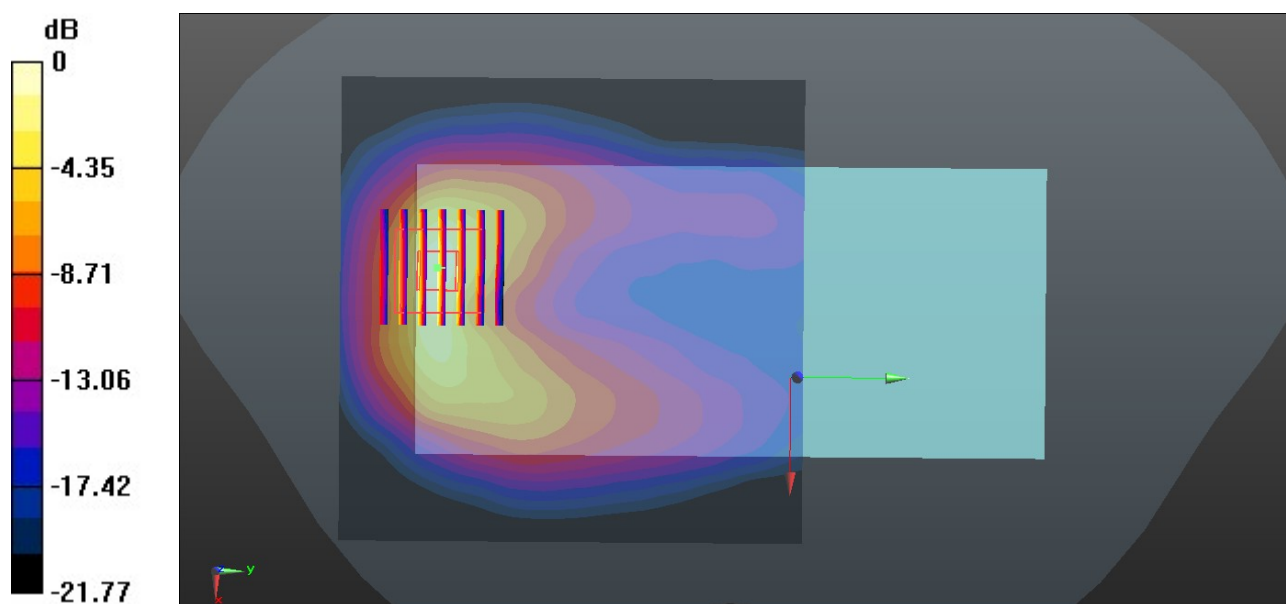
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.01 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.394 W/kg

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



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

26_WLAN2.4GHz_802.11b 1Mbps_Back_5mm_Ch1

Communication System: UID 0, WLAN2.4GHz (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018

Medium: HSL_2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.842$ S/m; $\epsilon_r = 40.874$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2412 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

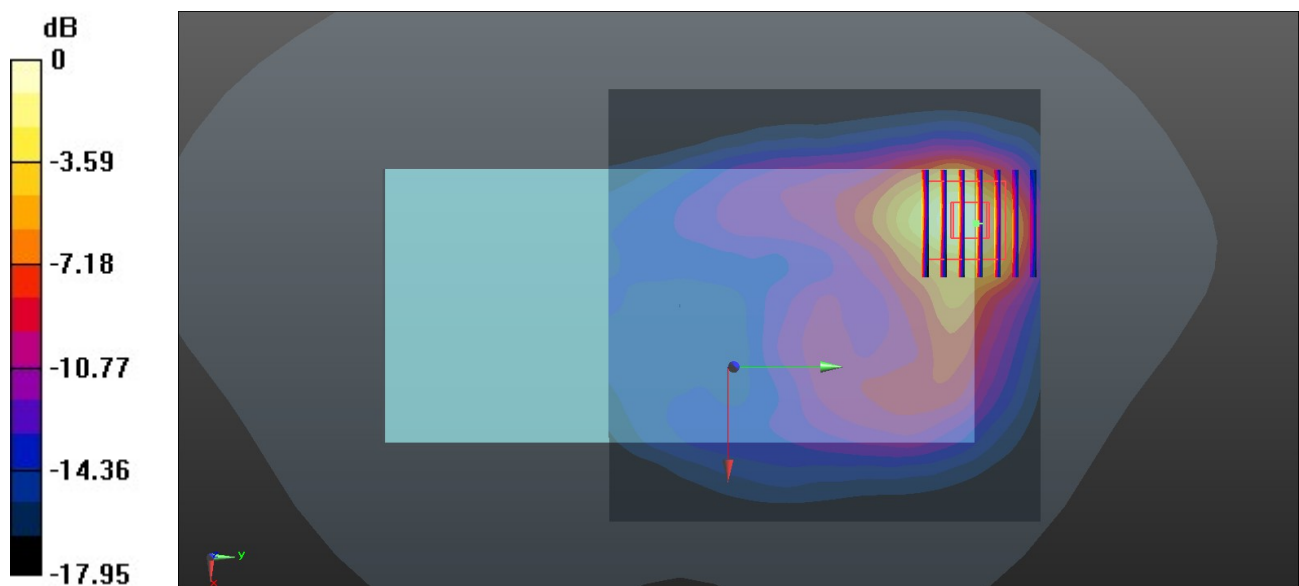
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.67 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.17 W/kg

SAR(1 g) = 0.855 W/kg; SAR(10 g) = 0.430 W/kg

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



0 dB = 1.31 W/kg = 1.17 dBW/kg

27_Bluetooth_1Mbps_Back_5mm_Ch0

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz; Duty Cycle: 1:1.291

Medium: HSL_2450 Medium parameters used: $f = 2402$ MHz; $\sigma = 1.835$ S/m; $\epsilon_r = 40.92$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2402 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0623 W/kg

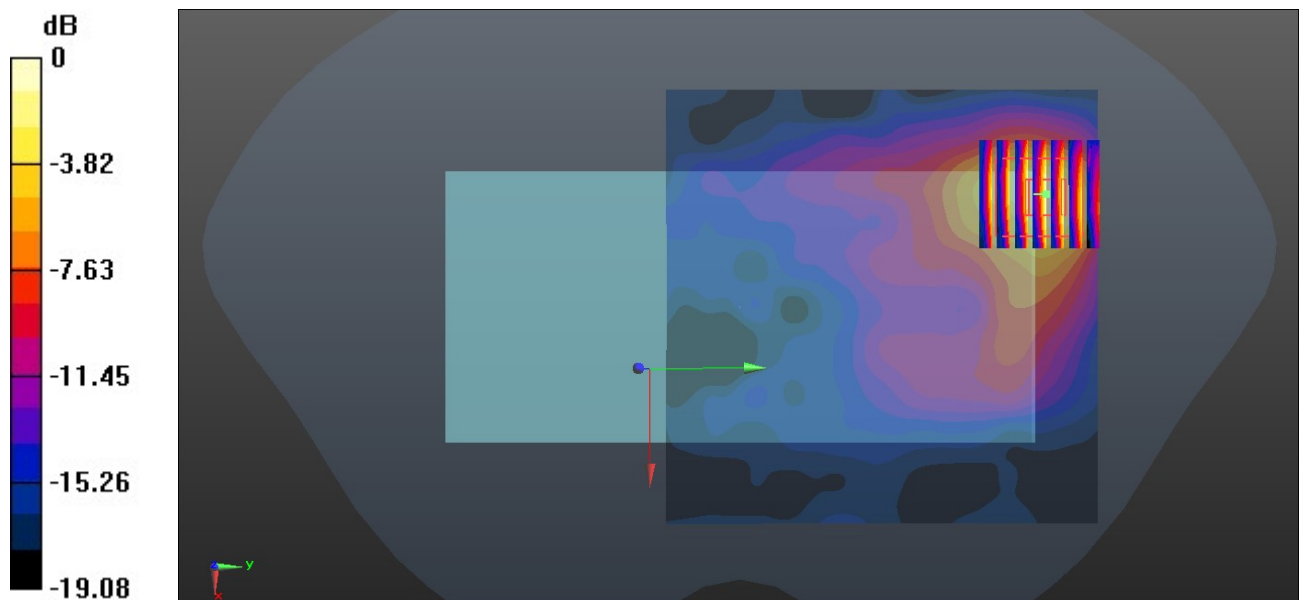
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.811 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.047 W/kg; SAR(10 g) = 0.021 W/kg

Maximum value of SAR (measured) = 0.0647 W/kg



28_GSM1900_GPRS (4 Tx slots)_Bottom Side_0mm_Ch512

Communication System: UID 0, PCS (0); Frequency: 1850.2 MHz; Duty Cycle: 1:2.08

Medium: HSL_1900 Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.405$ S/m; $\epsilon_r = 40.149$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1850.2 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 2.54 W/kg

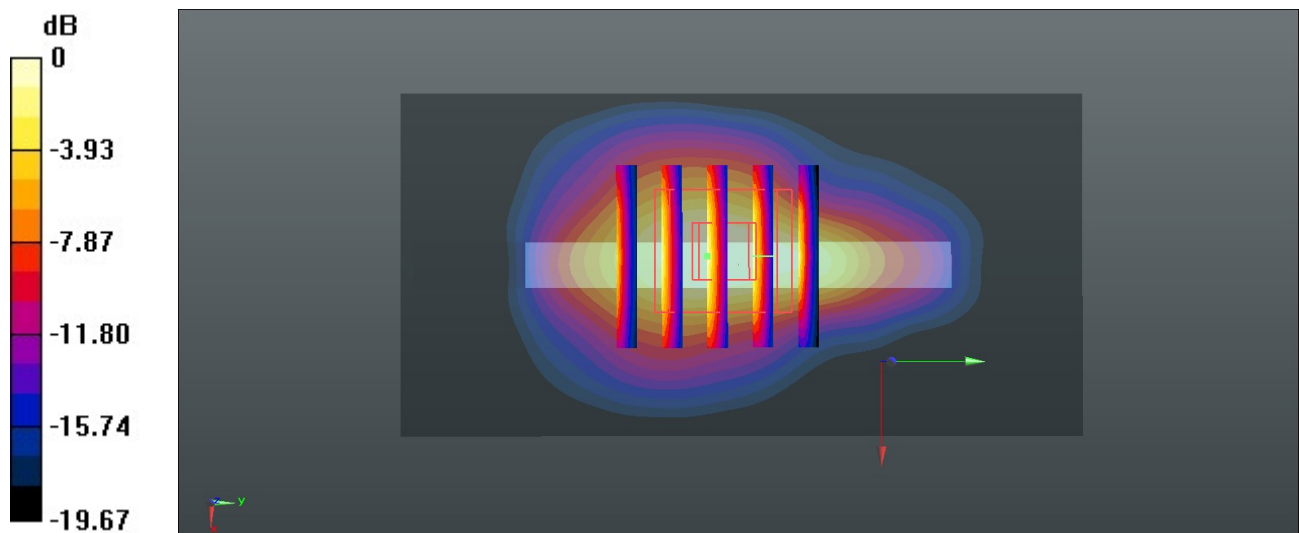
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 39.90 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.51 W/kg

SAR(1 g) = 1.68 W/kg; SAR(10 g) = 0.773 W/kg

Maximum value of SAR (measured) = 2.16 W/kg



0 dB = 2.16 W/kg = 3.34 dBW/kg

29_WCDMA II_RMC 12.2Kbps_Back_0mm_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: $f = 1908$ MHz; $\sigma = 1.441$ S/m; $\epsilon_r = 40.063$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8.46, 8.46, 8.46) @ 1907.6 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (81x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.61 W/kg

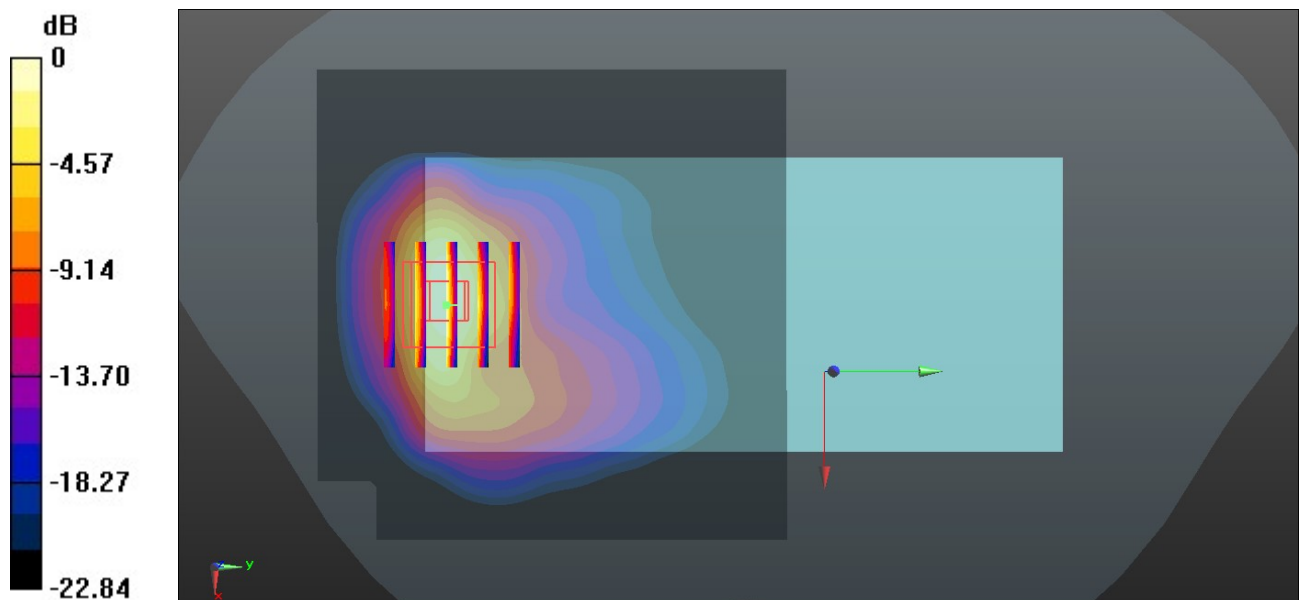
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.68 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 4.34 W/kg

SAR(1 g) = 2.14 W/kg; SAR(10 g) = 0.962 W/kg

Maximum value of SAR (measured) = 2.90 W/kg



0 dB = 2.90 W/kg = 4.62 dBW/kg

30_LTE Band 41_20M_QPSK_1RB_0Offset_Bottom Side_0mm_Ch40670

Communication System: UID 0, LTE-TDD (0); Frequency: 2598 MHz; Duty Cycle: 1:1.59

Medium: HSL_2600 Medium parameters used: $f = 2598$ MHz; $\sigma = 1.983$ S/m; $\epsilon_r = 40.612$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(7.71, 7.71, 7.71) @ 2598 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 4.43 W/kg

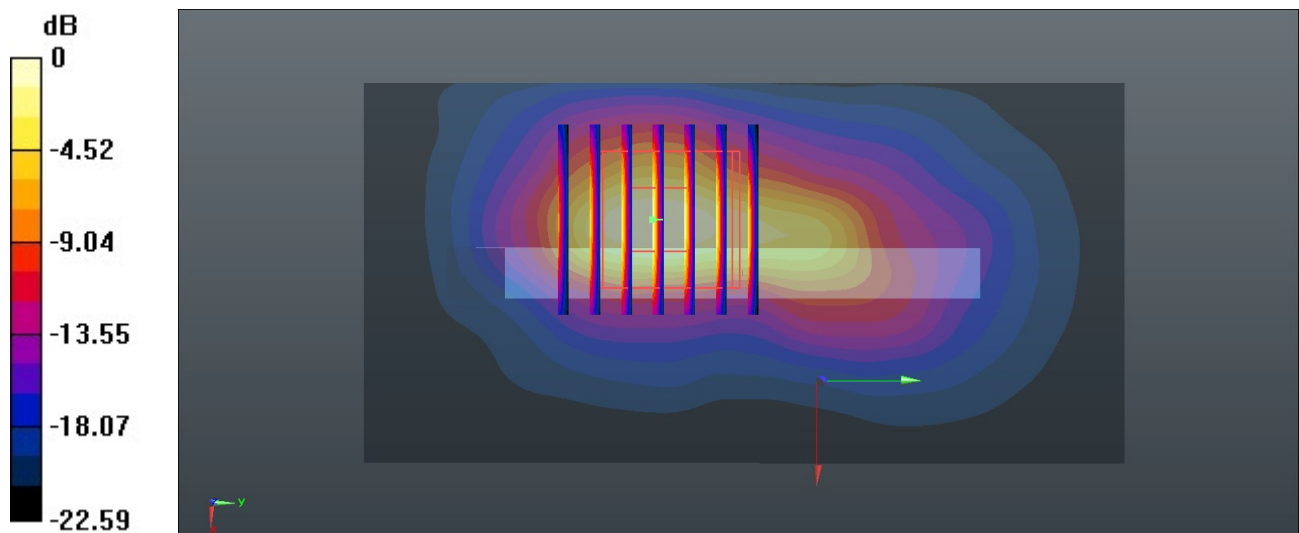
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 46.21 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 7.55 W/kg

SAR(1 g) = 3.04 W/kg; SAR(10 g) = 1.12 W/kg

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



0 dB = 4.39 W/kg = 6.42 dBW/kg

31_WLAN2.4GHz_802.11b 1Mbps_Back_0mm_Ch1

Communication System: UID 0, WLAN2.4GHz (0); Frequency: 2412 MHz; Duty Cycle: 1:1.018
Medium: HSL_2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.842$ S/m; $\epsilon_r = 40.874$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7627; ConvF(8, 8, 8) @ 2412 MHz; Calibrated: 2021.2.10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1649; Calibrated: 2021.2.3
- Phantom: SAM Twin Phantom; Type: SAM Twin; Serial: TP-1697
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (101x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 3.69 W/kg

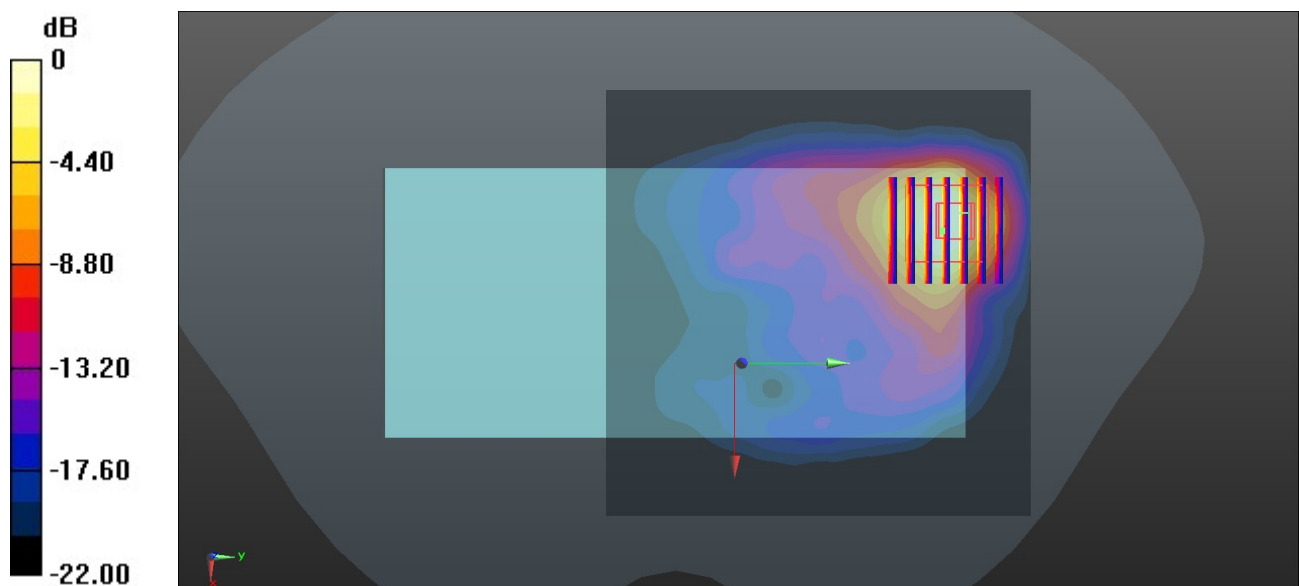
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 36.57 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 7.55 W/kg

SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.08 W/kg

Maximum value of SAR (measured) = 3.50 W/kg



0 dB = 3.50 W/kg = 5.44 dBW/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**

Certificate No: **D835V2-4d258_May20**

CALIBRATION CERTIFICATE

Object **D835V2 - SN:4d258**

Calibration procedure(s) **QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **May 07, 2020**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: BH9394 (20k)	31-Mar-20 (No. 217-03106)	Apr-21
Type-N mismatch combination	SN: 310982 / 06327	31-Mar-20 (No. 217-03104)	Apr-21
Reference Probe EX3DV4	SN: 7349	31-Dec-19 (No. EX3-7349_Dec19)	Dec-20
DAE4	SN: 601	27-Dec-19 (No. DAE4-601_Dec19)	Dec-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

Calibrated by: **Jeffrey Katzman** **Laboratory Technician**

Signature

Approved by: **Katja Pokovic** **Technical Manager**

Issued: May 7, 2020

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