

GSM 850-Body

Communication System: UID 0, Generic GPRS(TDMA, GMSK, TN 0-1-2) (0); Frequency: 824.2 MHz; Duty Cycle: 1:2.66993

Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.964 \text{ S/m}$; $\epsilon_r = 55.449$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

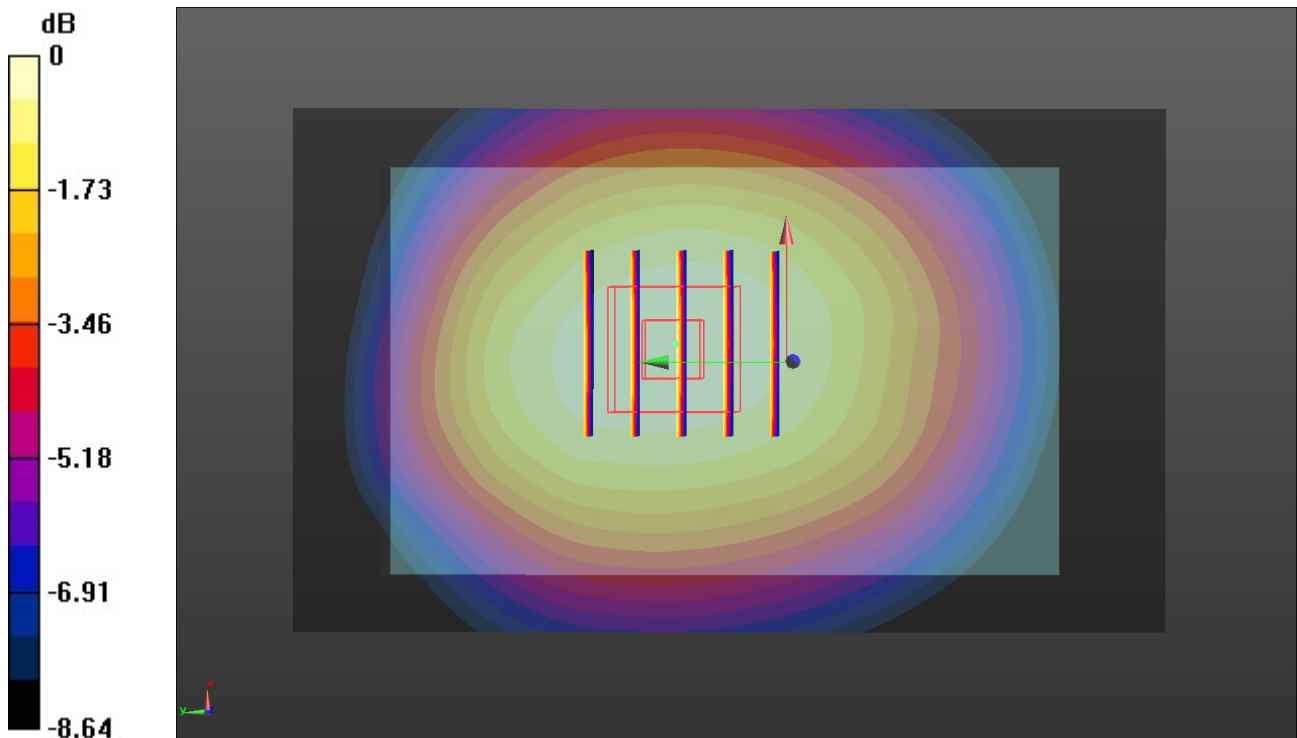
Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.46, 10.46, 10.46) @ 824.2 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 128/Area Scan (61x101x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.471 W/kg

Rear/CH 128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 22.13 V/m; Power Drift = 0.04 dB
 Peak SAR (extrapolated) = 0.544 W/kg
SAR(1 g) = 0.370 W/kg; SAR(10 g) = 0.272 W/kg
 Maximum value of SAR (measured) = 0.472 W/kg



0 dB = 0.472 W/kg = -3.26 dBW/kg

Appendix A: SAR Test Data Plots

Test Laboratory: Huatongwei International Inspection Co., Ltd., SAR Lab

Date: 6/14/2019

GSM 1900-Body

Communication System: UID 0, Generic GPRS(TDMA, GMSK, TN 0-1-2) (0); Frequency: 1850.2 MHz; Duty Cycle: 1:2.66993

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.517$ S/m; $\epsilon_r = 53.775$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C; Liquid Temperature: 21.9°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.38, 8.38, 8.38) @ 1850.2 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 512/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.355 W/kg

Rear/CH 512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

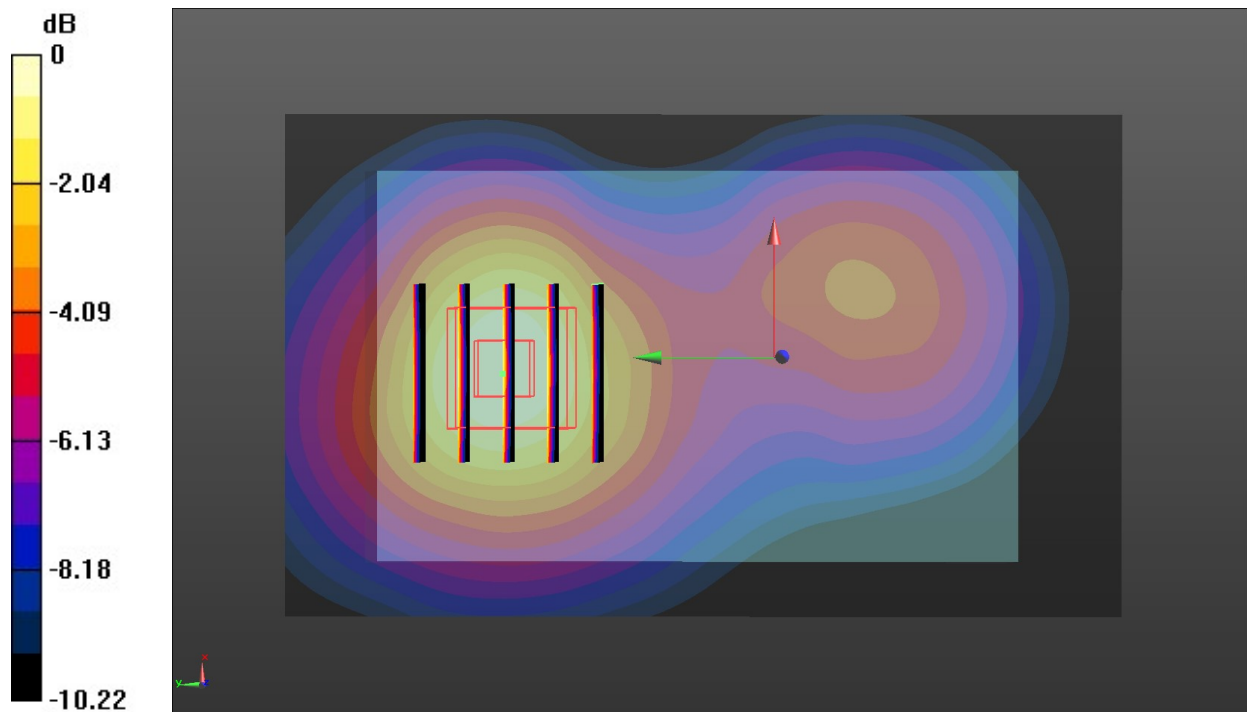
Reference Value = 8.363 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.144 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.350 W/kg



0 dB = 0.350 W/kg = -4.56 dBW/kg

WCDMA Band II-Body

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

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.557$ S/m; $\epsilon_r = 53.715$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C; Liquid Temperature: 22.0°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.38, 8.38, 8.38) @ 1907.6 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 9538/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.348 W/kg

Rear/CH 9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

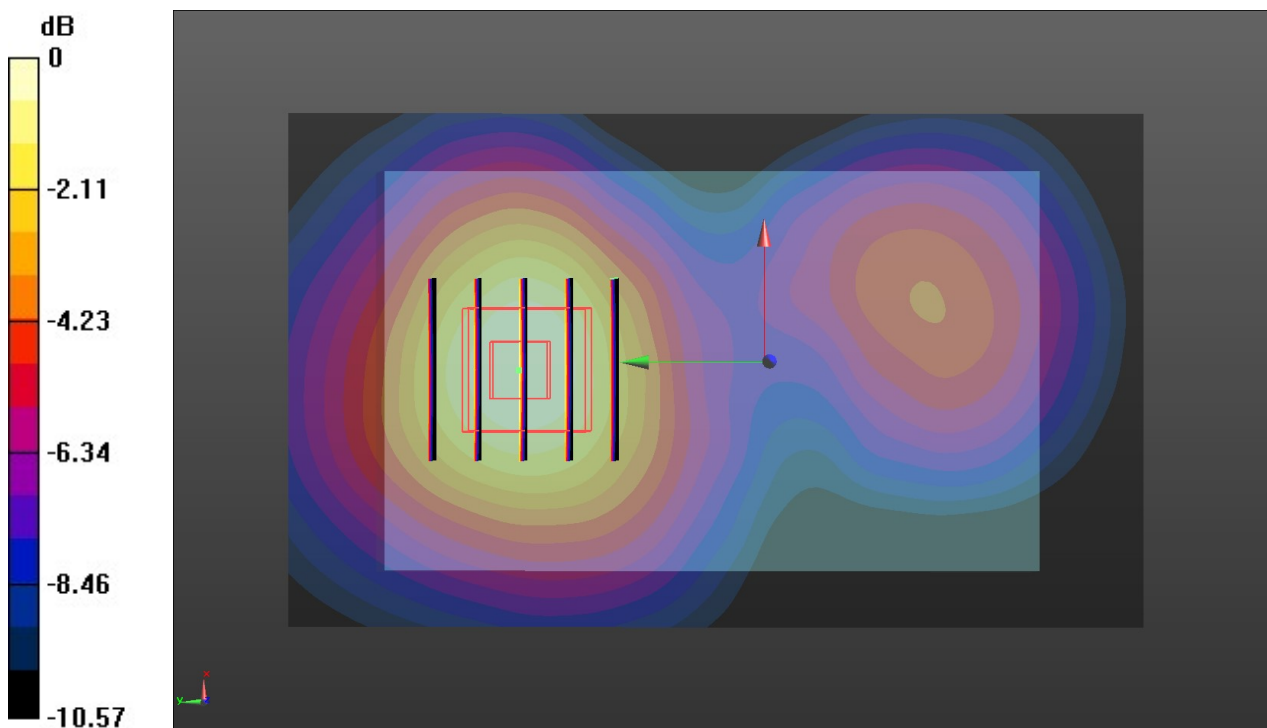
Reference Value = 6.919 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.407 W/kg

SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.142 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.338 W/kg



0 dB = 0.338 W/kg = -4.71 dBW/kg

WCDMA Band IV-Body

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

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.444$ S/m; $\epsilon_r = 53.892$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C; Liquid Temperature: 21.9°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.51, 8.51, 8.51) @ 1752.6 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Front/CH 1513/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.910 W/kg

Front/CH 1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

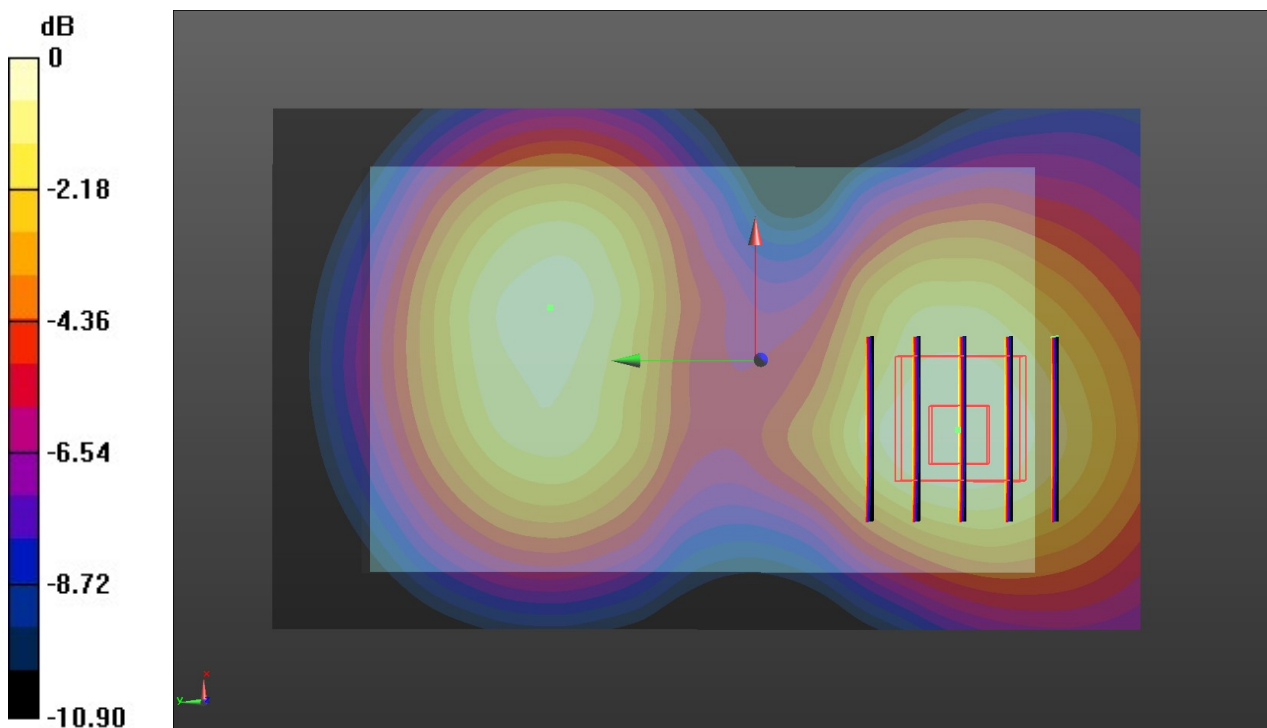
Reference Value = 13.54 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.380 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.862 W/kg



0 dB = 0.862 W/kg = -0.64 dBW/kg

WCDMA Band V-Body

Communication System: UID 0, Generic UMTS (0); Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 55.439$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.46, 10.46, 10.46) @ 826.4 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 4132/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.213 W/kg

Rear/CH 4132/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

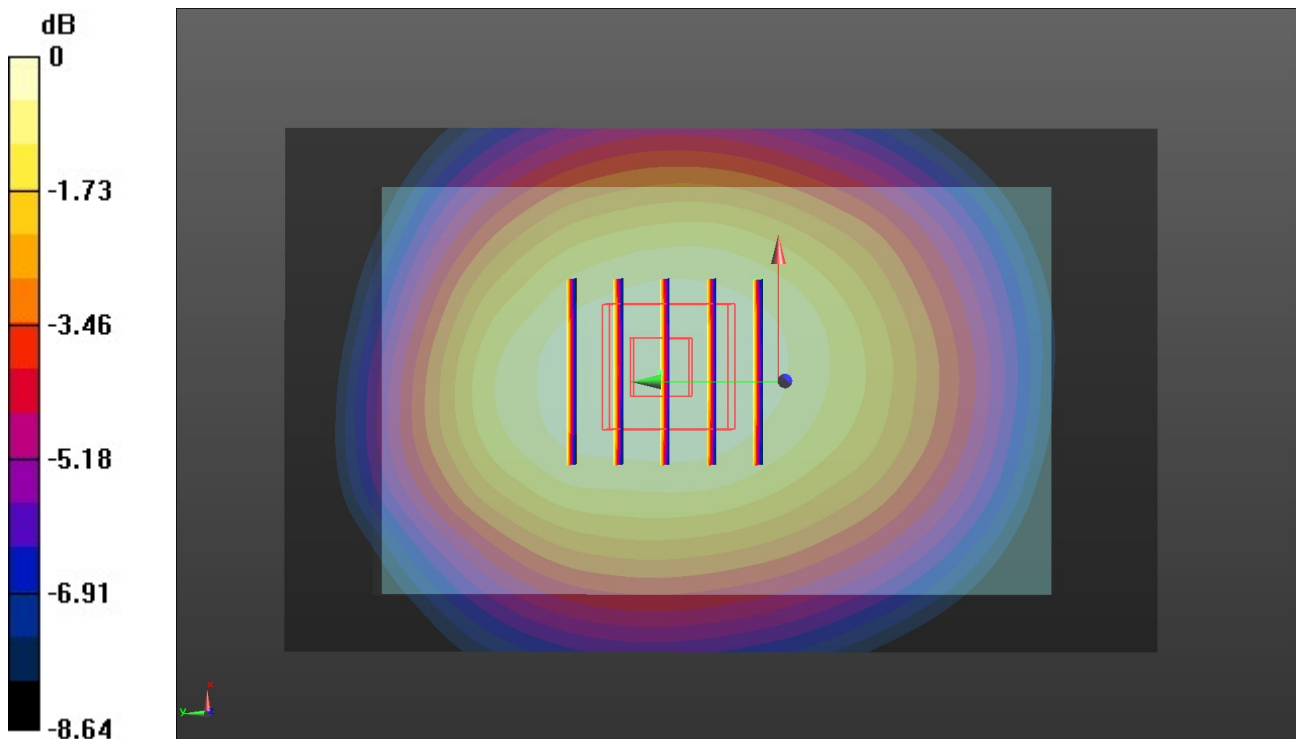
Reference Value = 15.06 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.237 W/kg

SAR(1 g) = 0.161 W/kg; SAR(10 g) = 0.119 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.206 W/kg



0 dB = 0.206 W/kg = -6.86 dBW/kg

LTE Band 2-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.524$ S/m; $\epsilon_r = 53.764$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 21.9°C; Liquid Temperature: 21.7°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.38, 8.38, 8.38) @ 1860 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 18700/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 0.242 W/kg

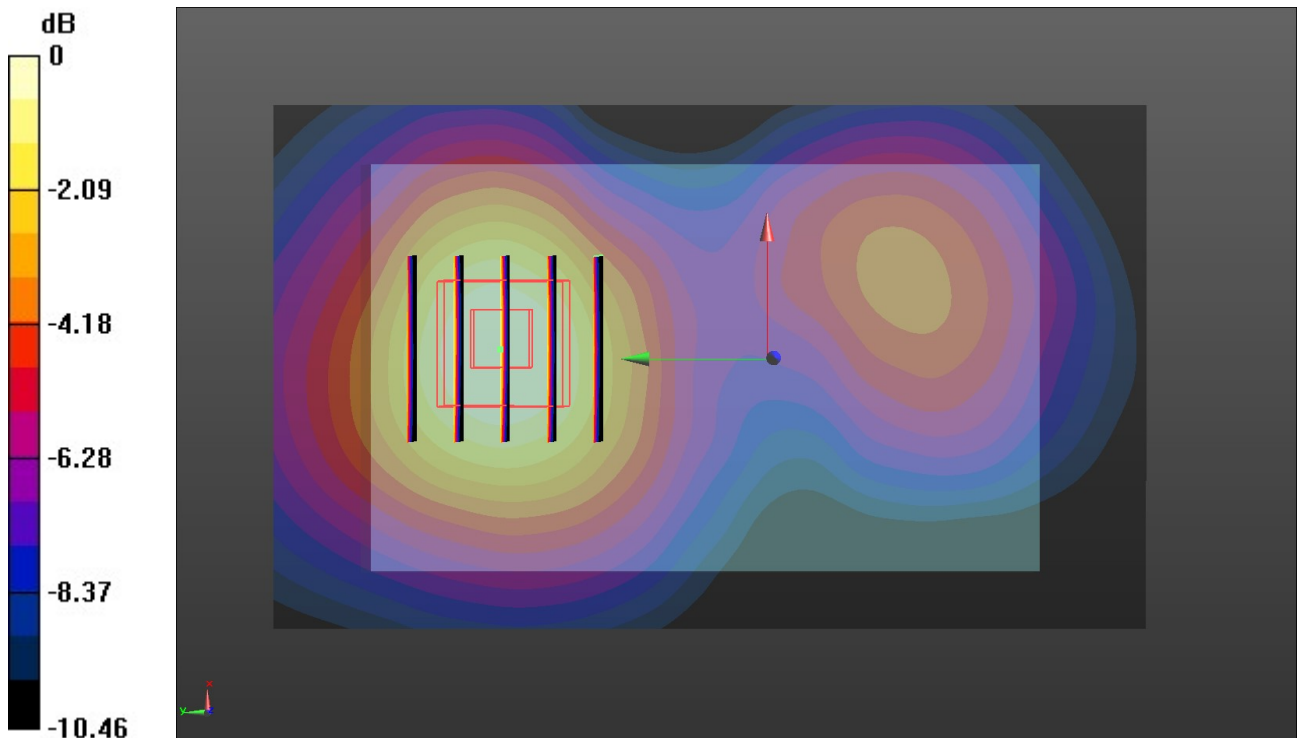
Rear/CH 18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.770 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.275 W/kg

SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.095 W/kg

Maximum value of SAR (measured) = 0.227 W/kg



0 dB = 0.227 W/kg = -6.44 dBW/kg

LTE Band 4-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1745 \text{ MHz}$; $\sigma = 1.434 \text{ S/m}$; $\epsilon_r = 53.883$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 22.1°C ; Liquid Temperature: 21.9°C ;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.51, 8.51, 8.51) @ 1745 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 20300/Area Scan (61x101x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.106 W/kg

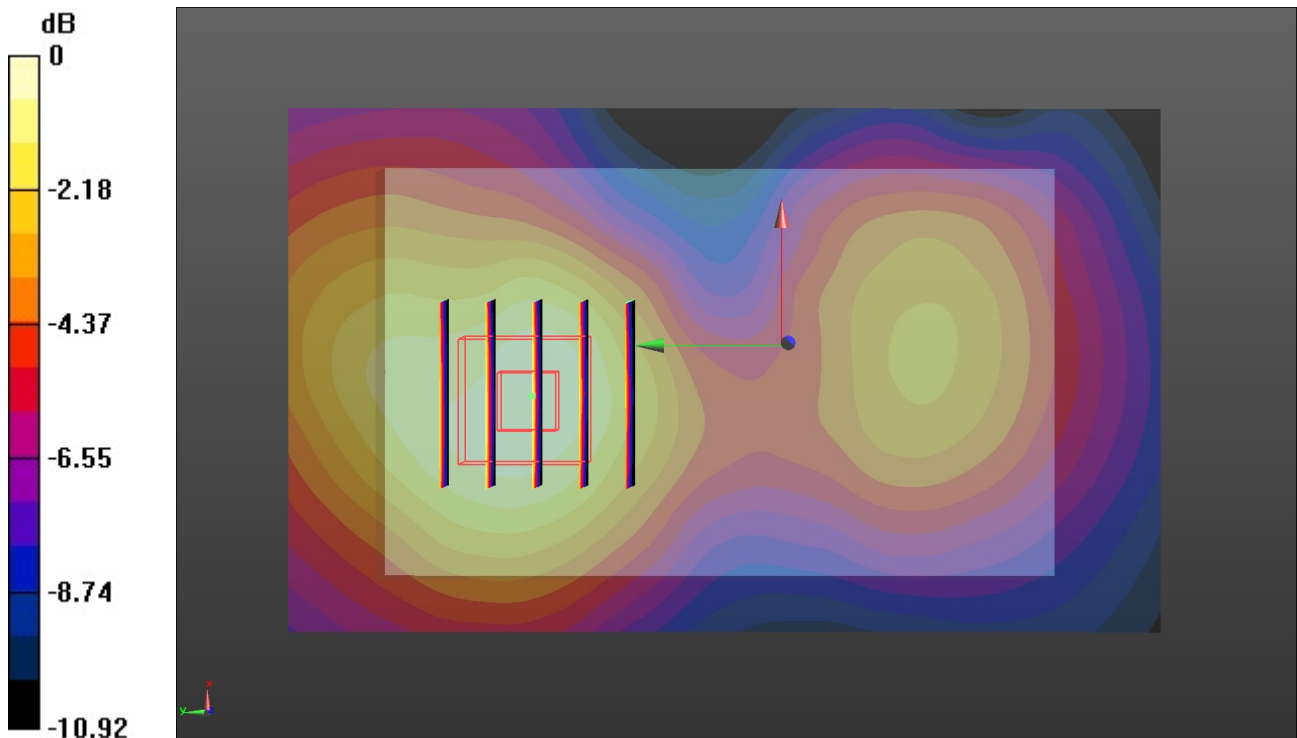
Rear/CH 20300/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.562 V/m ; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.124 W/kg

SAR(1 g) = 0.070 W/kg ; SAR(10 g) = 0.044 W/kg

Maximum value of SAR (measured) = 0.102 W/kg



0 dB = 0.102 W/kg = -9.91 dBW/kg

LTE Band 5-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 55.399$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 Ambient Temperature: 22.1°C; Liquid Temperature: 21.8°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.46, 10.46, 10.46) @ 836.5 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 20525/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.125 W/kg

Rear/CH 20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

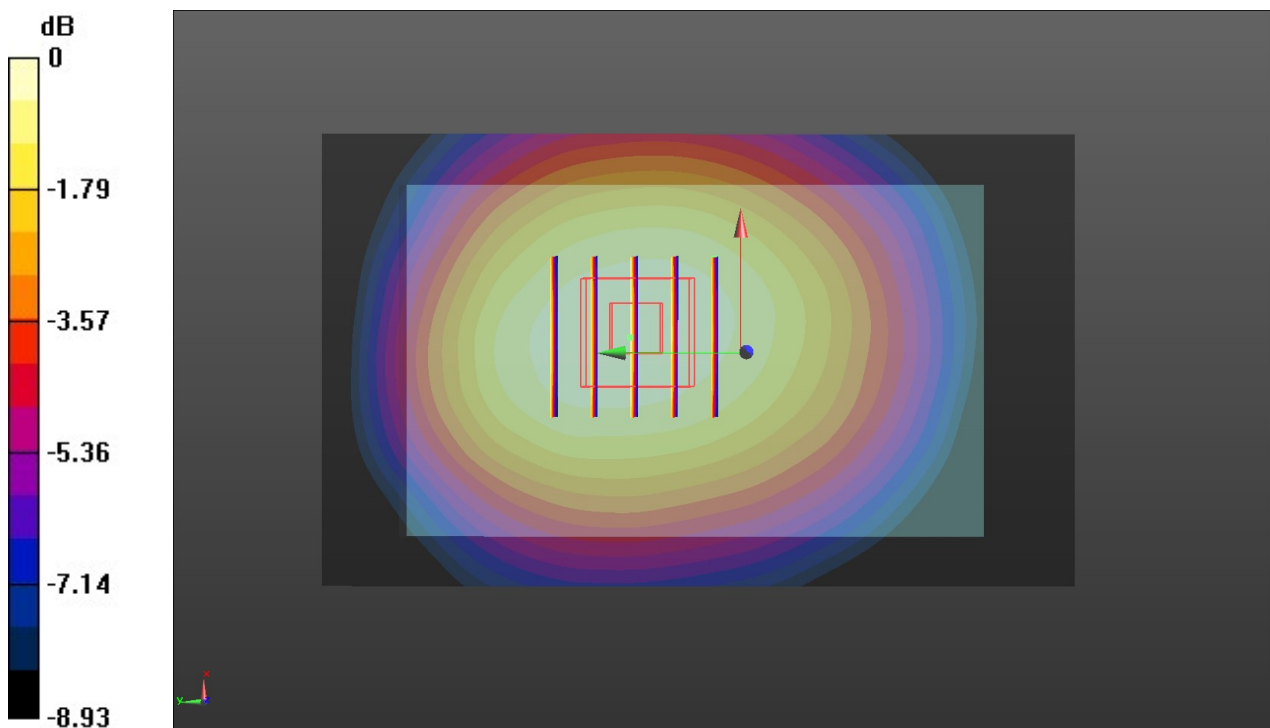
Reference Value = 11.32 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.144 W/kg

SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.071 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.124 W/kg



0 dB = 0.124 W/kg = -9.07 dBW/kg

LTE Band 7-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2560$ MHz; $\sigma = 2.109$ S/m; $\epsilon_r = 52.848$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2°C; Liquid Temperature: 22.0°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(7.69, 7.69, 7.69) @ 2560 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 21300/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.981 W/kg

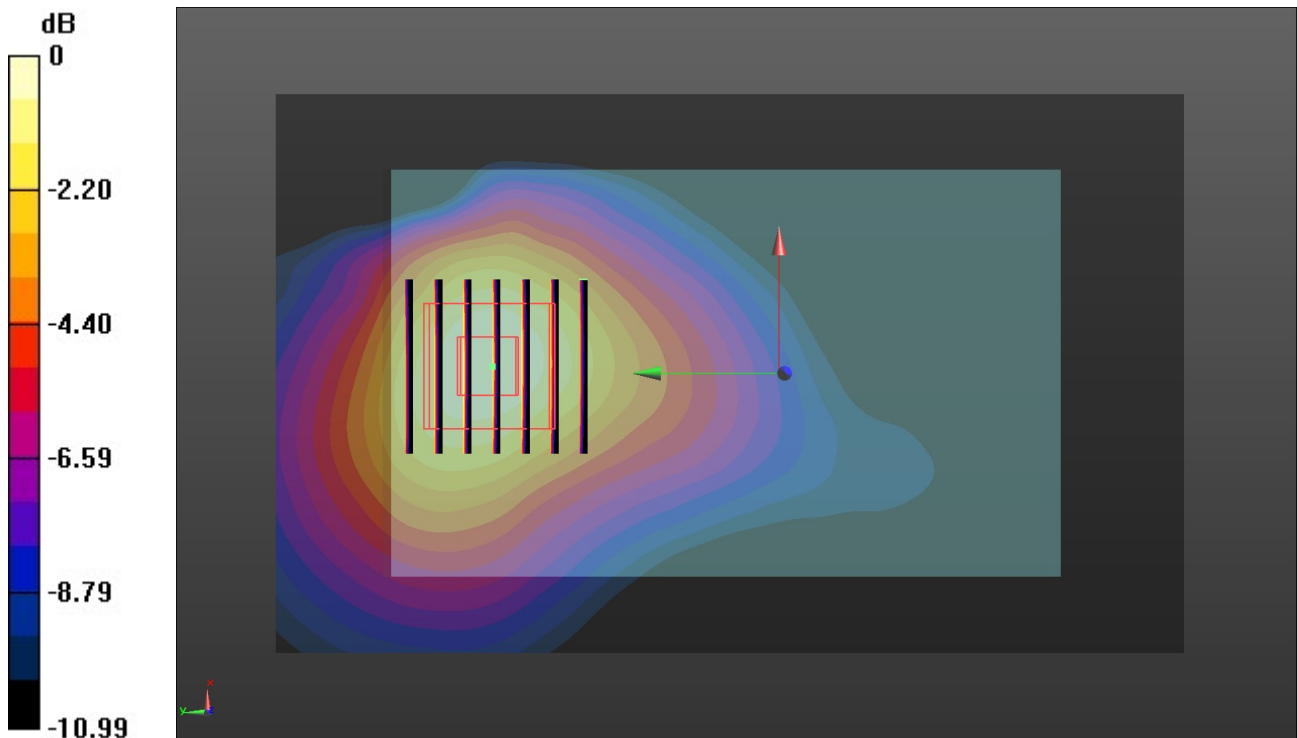
Rear/CH 21300/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.7110 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.625 W/kg; SAR(10 g) = 0.340 W/kg

Maximum value of SAR (measured) = 0.952 W/kg



0 dB = 0.952 W/kg = -0.21 dBW/kg

LTE Band 12-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 704 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 704$ MHz; $\sigma = 0.917$ S/m; $\epsilon_r = 55.746$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 Ambient Temperature: 21.8°C; Liquid Temperature: 21.5°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.81, 10.81, 10.81) @ 704 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 23060/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.00713 W/kg

Rear/CH 23060/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

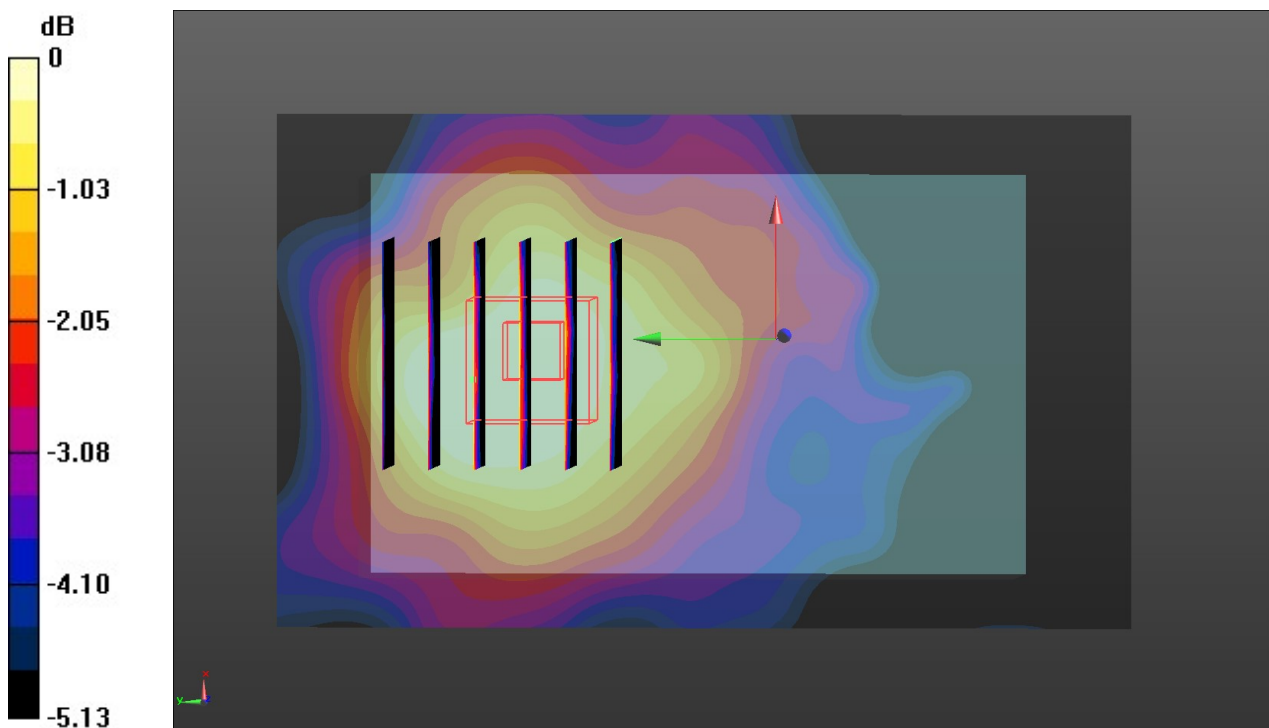
Reference Value = 2.065 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.00769 W/kg

SAR(1 g) = 0.00477 W/kg; SAR(10 g) = 0.00359 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.00637 W/kg



0 dB = 0.00637 W/kg = -21.96 dBW/kg

LTE Band 17-Body

Communication System: UID 0, Generic LTE-FDD (0); Frequency: 710 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 710 \text{ MHz}$; $\sigma = 0.919 \text{ S/m}$; $\epsilon_r = 55.736$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature: 21.9°C ; Liquid Temperature: 21.7°C ;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.81, 10.81, 10.81) @ 710 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 23790/Area Scan (61x101x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.00551 W/kg

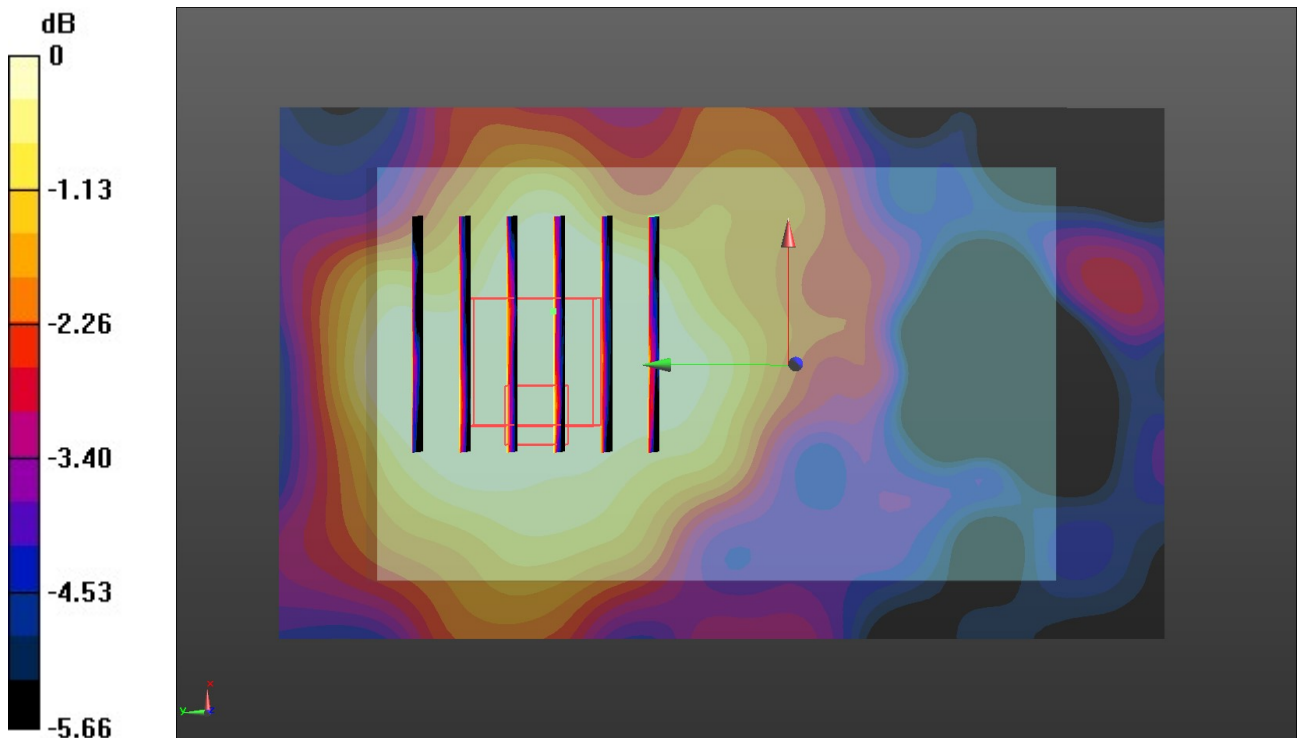
Rear/CH 23790/Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.811 V/m ; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.00571 W/kg

SAR(1 g) = 0.00344 W/kg ; SAR(10 g) = 0.00264 W/kg

Maximum value of SAR (measured) = 0.00466 W/kg



0 dB = 0.00466 W/kg = -23.32 dBW/kg

LTE Band 41-Body

Communication System: UID 0, Generic LTE-TDD (0); Frequency: 2645 MHz; Duty Cycle: 1:1.57979

Medium parameters used: $f = 2645$ MHz; $\sigma = 2.192$ S/m; $\epsilon_r = 52.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.0°C; Liquid Temperature: 21.8°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(7.69, 7.69, 7.69) @ 2645 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Rear/CH 41140/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.332 W/kg

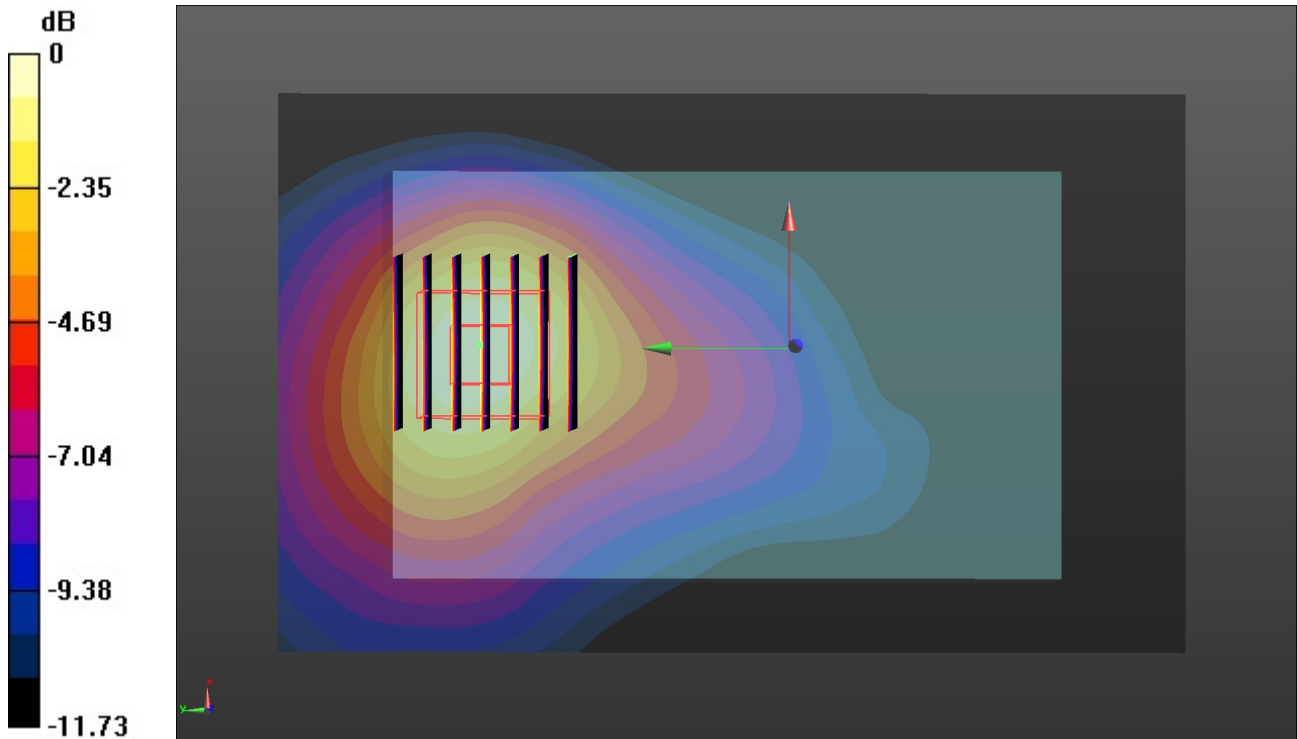
Rear/CH 41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.658 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.407 W/kg

SAR(1 g) = 0.209 W/kg; SAR(10 g) = 0.112 W/kg

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



0 dB = 0.325 W/kg = -4.88 dBW/kg

WiFi 2.4G-Body

Communication System: UID 0, Generic WIFI (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.991$ S/m; $\epsilon_r = 53.023$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.9°C; Liquid Temperature: 21.7°C;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8, 8, 8) @ 2437 MHz; Calibrated: 3/25/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/19/2019
- Phantom: ELI V8.0 ; Type: QD OVA 004 AA ; Serial: 2078
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Front/CH 6/Area Scan (81x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.0101 W/kg

Front/CH 6/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

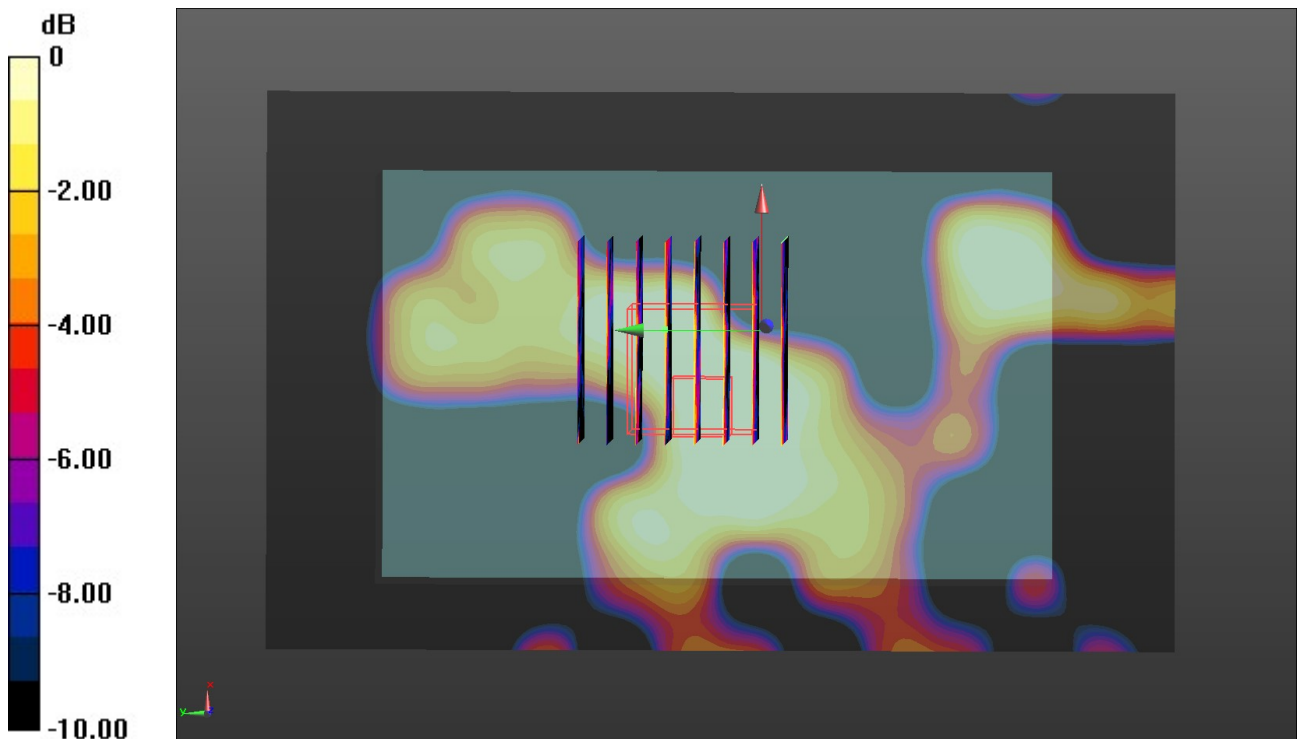
Reference Value = 1.550 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.0140 W/kg

SAR(1 g) = 0.0036 W/kg; SAR(10 g) = 0.00133 W/kg

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.00758 W/kg



0 dB = 0.00758 W/kg = -21.20 dBW/kg