Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.22

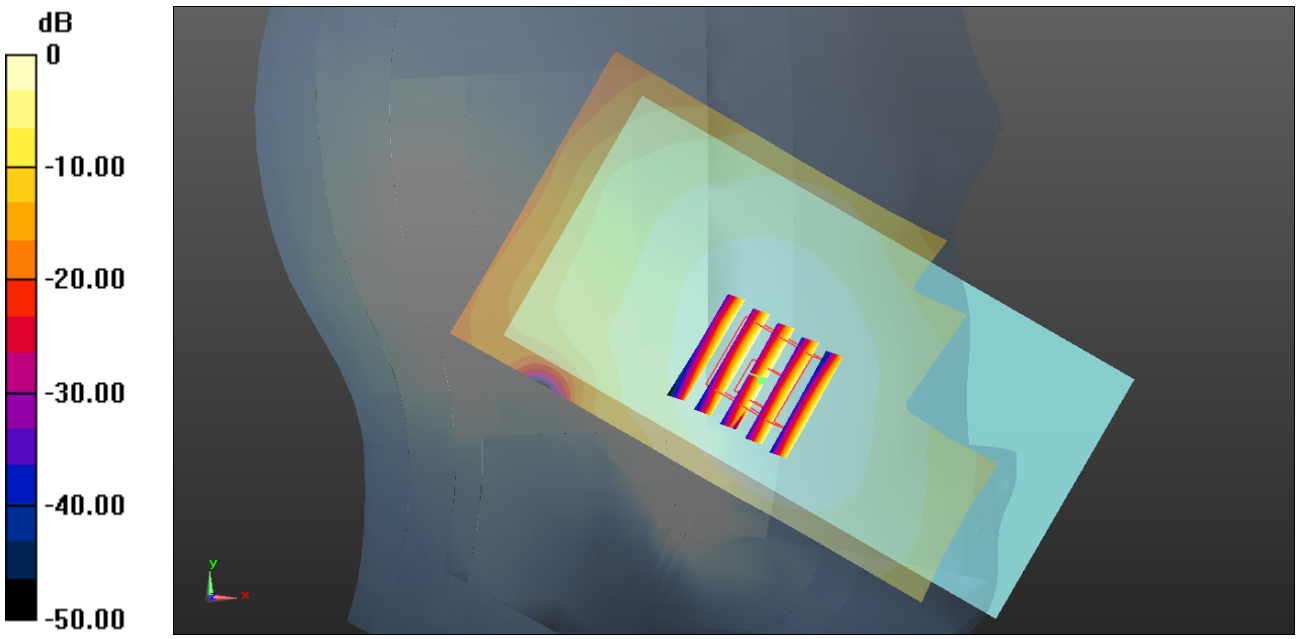
01_GSM850_GPRS 4 Tx slots_Left Cheek_0mm_Ch128

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 824.2 MHz;Duty Cycle: 1:2.08
Medium: HSL_850 Medium parameters used: f = 824.2 MHz; σ = 0.914 S/m; ε_r = 42.606; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(6.13, 6.13, 6.13); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch128/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.201 W/kg

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.22 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.266 W/kg
SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.139 W/kg
Maximum value of SAR (measured) = 0.199 W/kg



0 dB = 0.201 W/kg = -6.97 dBW/kg

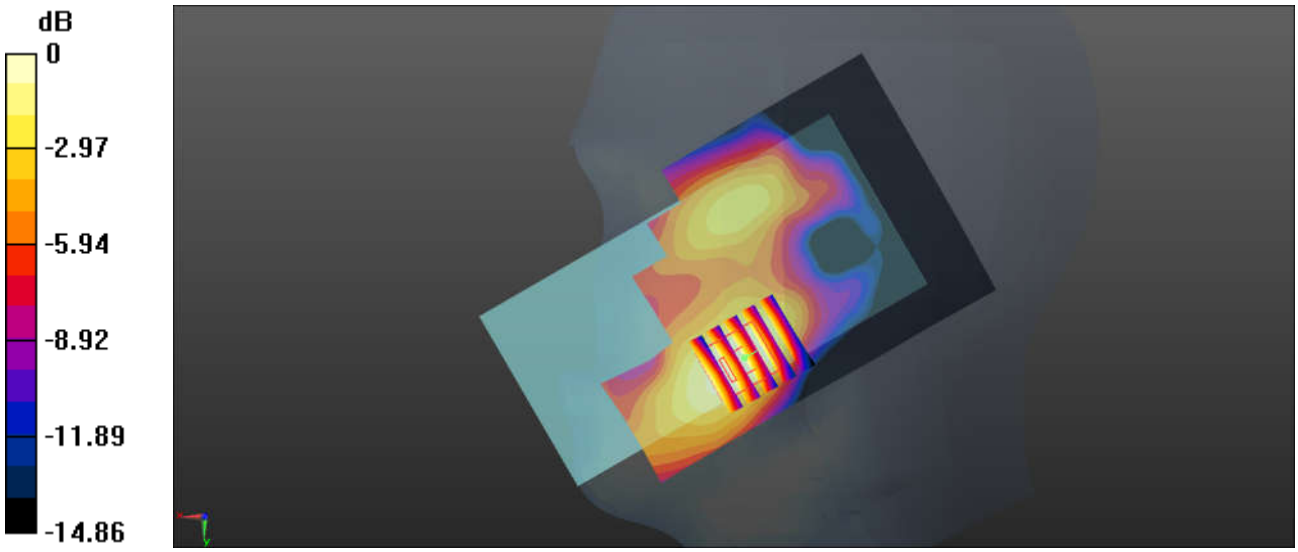
02_GSM1900_GPRS (4 Tx slots)_Right Cheek_0mm_Ch661

Communication System: UID 0, PCS (0); Frequency: 1880 MHz;Duty Cycle: 1:2.08
Medium: HSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.442 S/m; ε_r = 39.228; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch661/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0820 W/kg

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.777 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.0900 W/kg
SAR(1 g) = 0.063 W/kg; SAR(10 g) = 0.040 W/kg
Maximum value of SAR (measured) = 0.0804 W/kg



0 dB = 0.0804 W/kg = -10.95 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.22

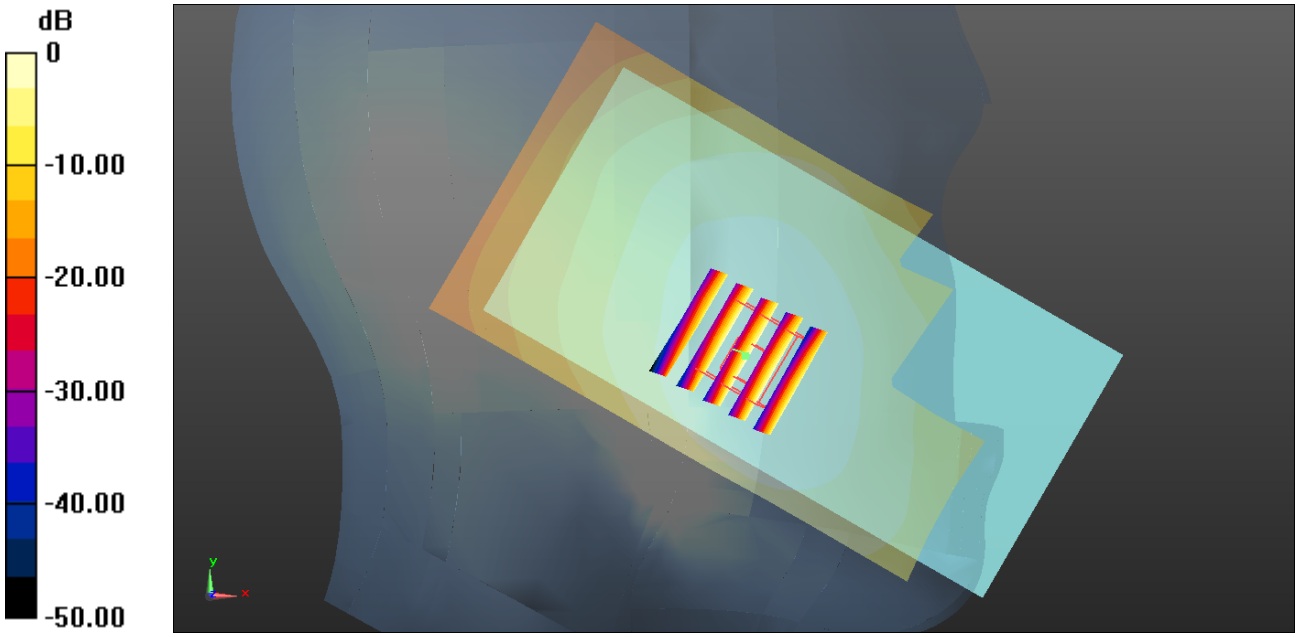
03_WCDMA Band V_RMC 12.2Kbps_Left Cheek_0mm_Ch4132

Communication System: UID 0, UMTS (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 826.4 MHz; σ = 0.917 S/m; ε_r =42.572; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(6.13, 6.13, 6.13); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4132/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.333 W/kg

Ch4132/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.55 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.379 W/kg
SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.227 W/kg
Maximum value of SAR (measured) = 0.325 W/kg



0 dB = 0.333 W/kg = -4.78 dBW/kg

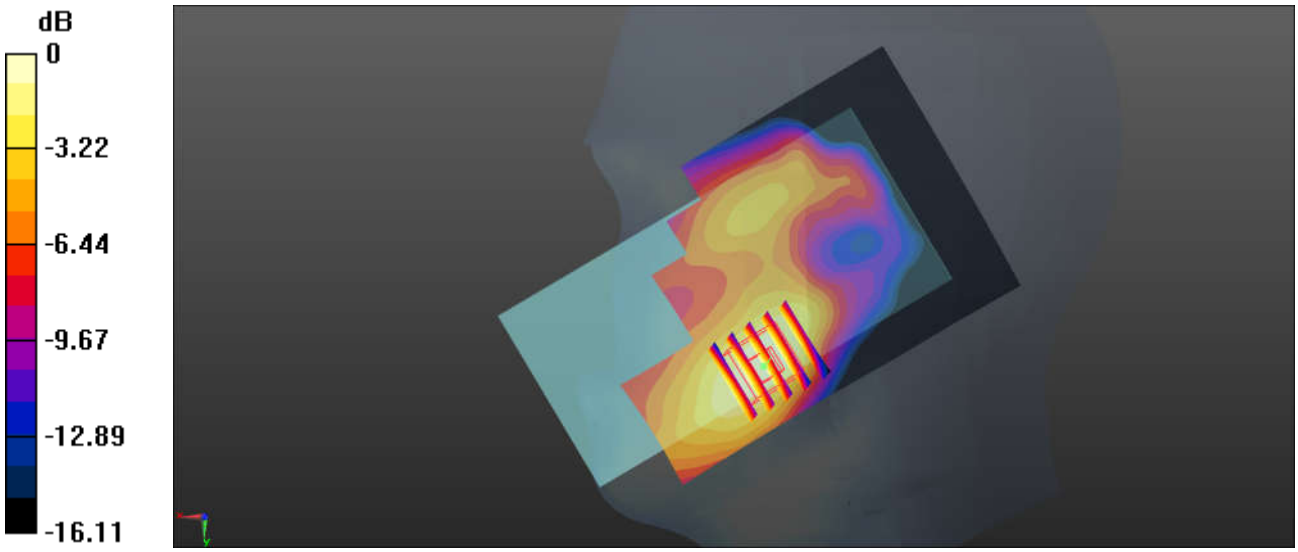
04_WCDMA Band II_RMC 12.2Kbps_Right Cheek_0mm_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1907.6 MHz; σ = 1.473 S/m; ε_r = 39.109; ρ = 1000$_{kg/m^3}$
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9538/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.160 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.79 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.179 W/kg
SAR(1 g) = 0.125 W/kg; SAR(10 g) = 0.079 W/kg
Maximum value of SAR (measured) = 0.165 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.22

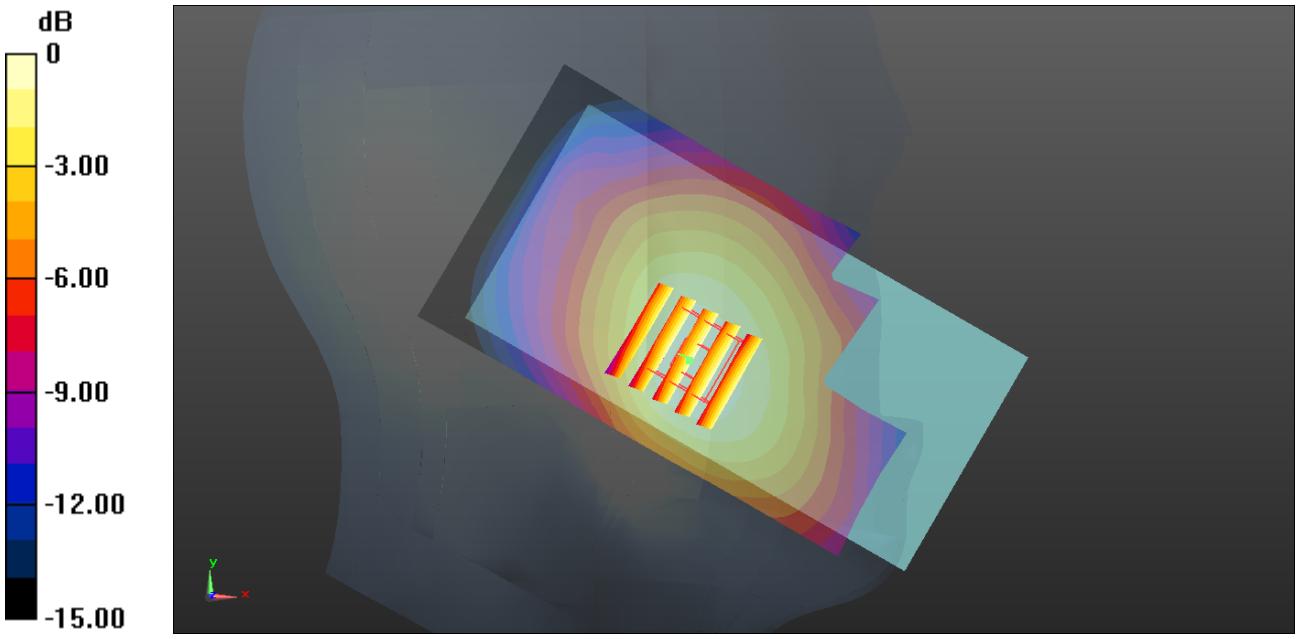
05_LTE Band 26_15M_QPSK_1RB_37Offset_Left Cheek_0mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used : f = 831.5 MHz; σ = 0.921 S/m; ε_r = 42.51; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(6.13, 6.13, 6.13); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.355 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.64 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.402 W/kg
SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.233 W/kg
Maximum value of SAR (measured) = 0.332 W/kg



0 dB = 0.355 W/kg = -4.50 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.22

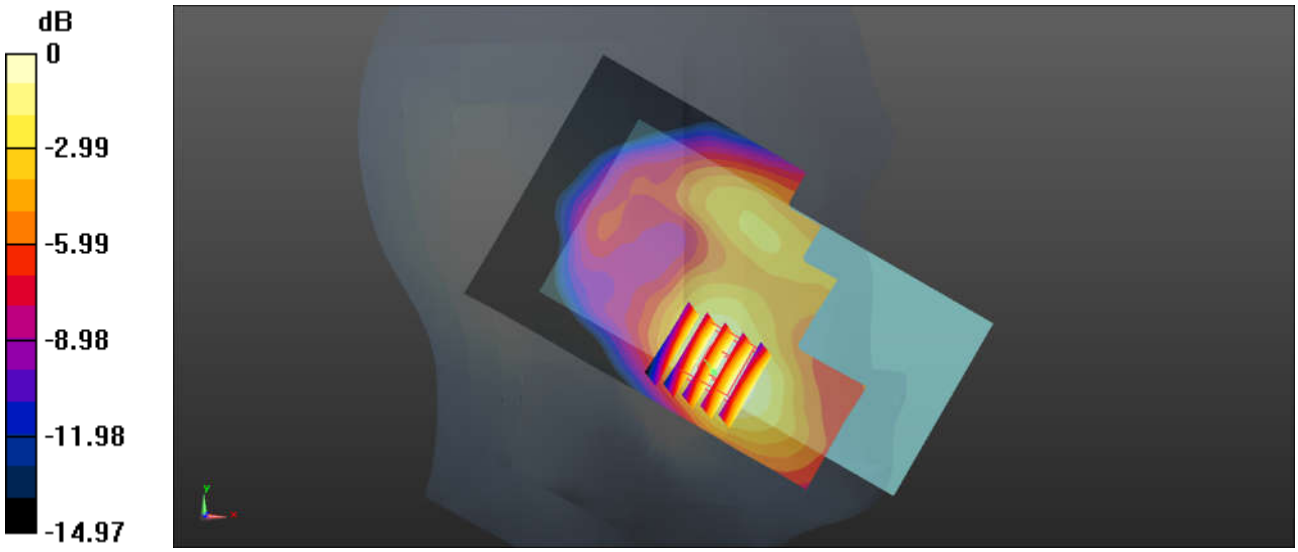
06_LTE Band 4_20M_QPSK_1RB_99Offset_Left Cheek_0mm_Ch20175

Communication System: UID 0, LTE-FDD (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1732.5 MHz; σ = 1.384 S/m; ε_r = 41.531; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(8.65, 8.65, 8.65); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- 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) = 0.200 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.06 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.204 W/kg
SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.099 W/kg
Maximum value of SAR (measured) = 0.181 W/kg



0 dB = 0.181 W/kg = -7.42 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.23

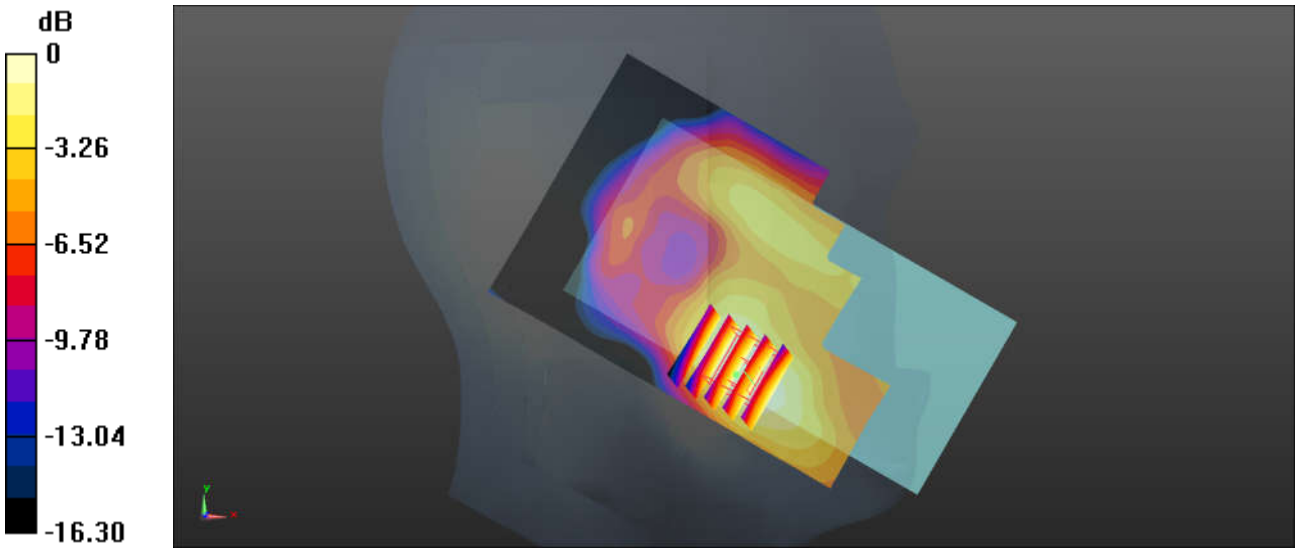
07_LTE Band 2_20M_QPSK_1RB_0Offset_Left Cheek_0mm_Ch18700

Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1860 MHz; σ = 1.423 S/m; ε_r = 39.302; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(8.41, 8.41, 8.41); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch18700/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.158 W/kg

Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.30 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.156 W/kg
SAR(1 g) = 0.106 W/kg; SAR(10 g) = 0.071 W/kg
Maximum value of SAR (measured) = 0.137 W/kg



0 dB = 0.137 W/kg = -8.63 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.23

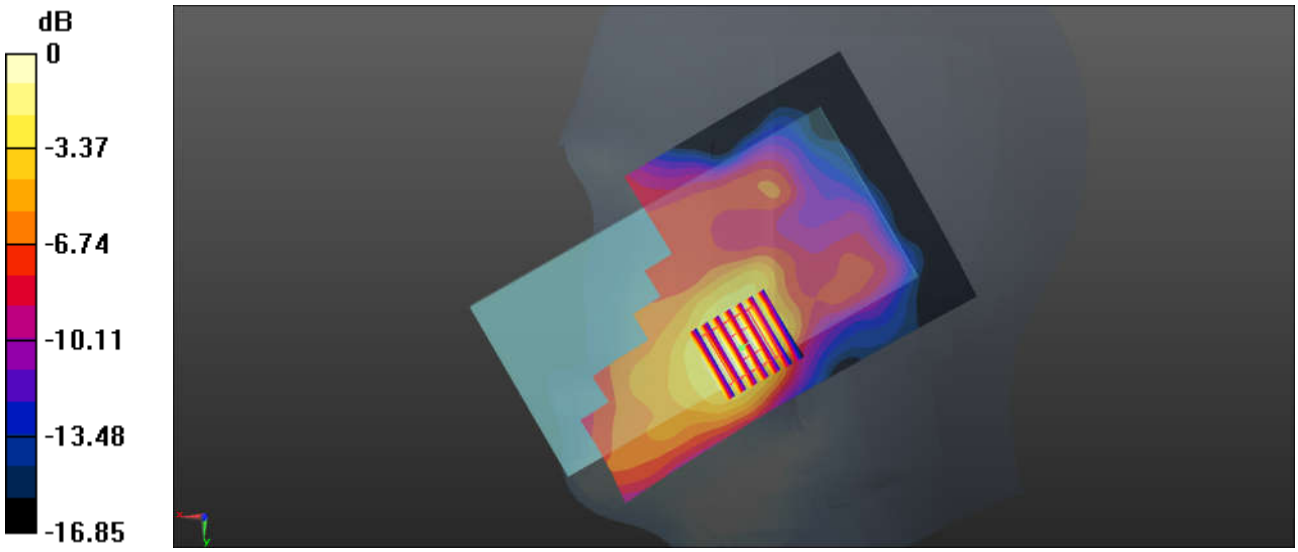
08_LTE Band 7_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2510 MHz; σ = 1.917 S/m; ε_r = 38.762; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.31, 7.31, 7.31); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20850/Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.587 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.722 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.712 W/kg
SAR(1 g) = 0.454 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 0.618 W/kg



0 dB = 0.618 W/kg = -2.09 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.23

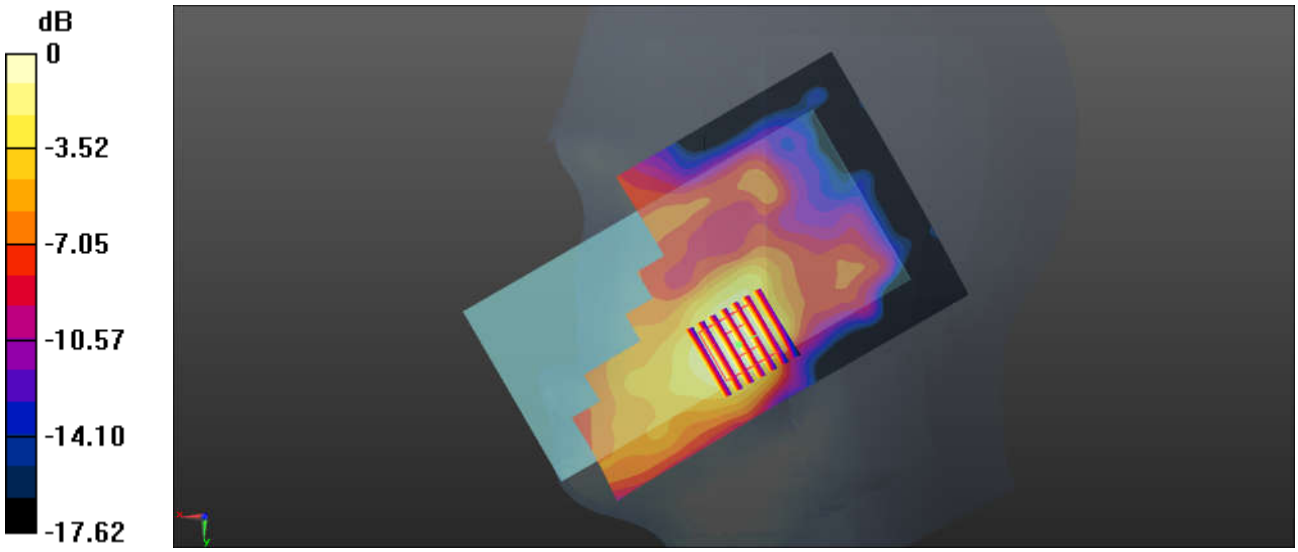
09_LTE Band 41_20M_QPSK_1RB_99Offset_Right Cheek_0mm_Ch40400

Communication System: UID 0, LTE-TDD (0); Frequency: 2571 MHz;Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: f = 2571 MHz; σ = 1.986 S/m; ε_r = 38.495; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.31, 7.31, 7.31); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch40400/Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.192 W/kg

Ch40400/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.586 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.190 W/kg
SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.071 W/kg
Maximum value of SAR (measured) = 0.166 W/kg



0 dB = 0.166 W/kg = -7.80 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

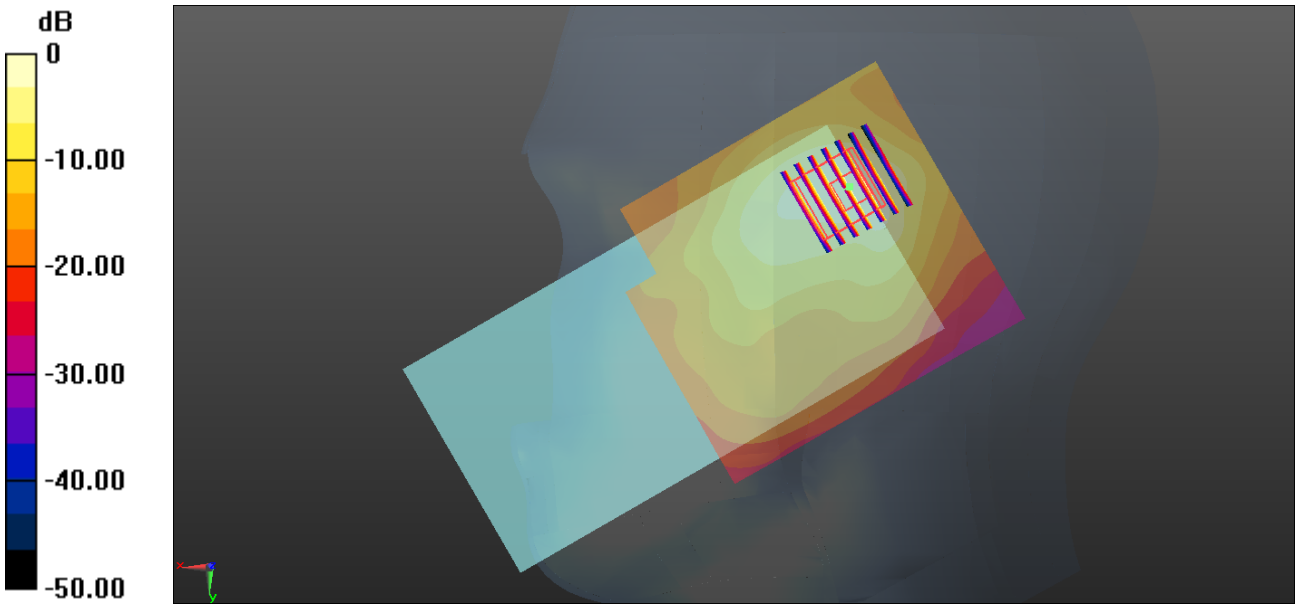
10_WLAN2.4GHz_802.11b 1Mbps_Right Cheek_0mm_Ant 1_Ch6

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1.015
Medium: HSL_2450 Medium parameters used: f = 2437 MHz; σ = 1.832 S/m; ε_r = 39.086; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.49, 7.49, 7.49); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch6/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.58 W/kg

Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.13 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 0.903 W/kg; SAR(10 g) = 0.489 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

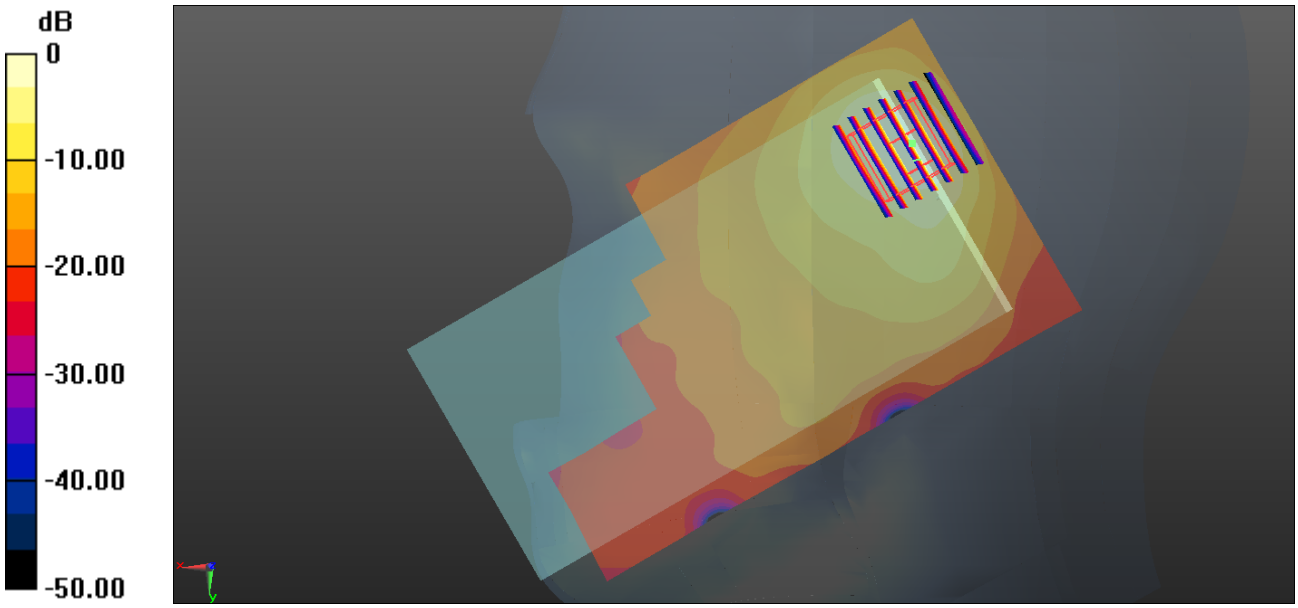
11_Bluetooth_DH5 1Mbps_Right Tilted_0mm_Ant 1_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.297
Medium: HSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.836 S/m; ε_r = 39.07; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.49, 7.49, 7.49); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch39/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.293 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.45 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.590 W/kg
SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.085 W/kg
Maximum value of SAR (measured) = 0.355 W/kg



0 dB = 0.293 W/kg = -5.33 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.24

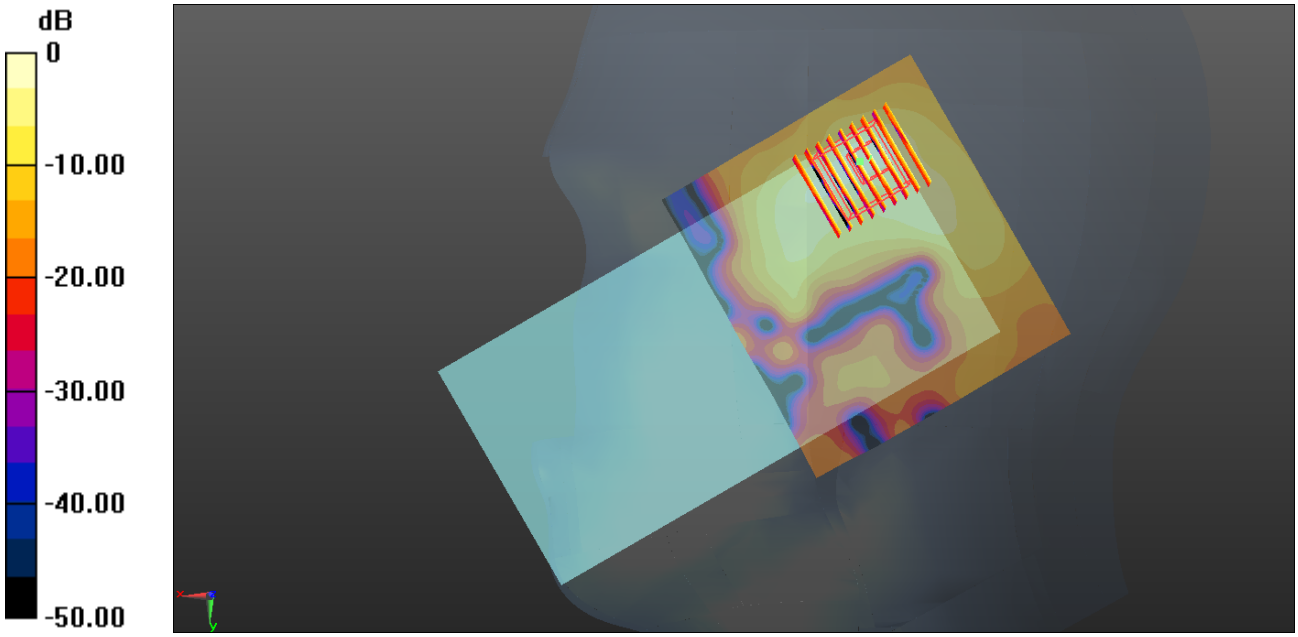
12_WLAN5.3GHz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch62

Communication System: UID 0, WIFI (0); Frequency: 5310 MHz;Duty Cycle: 1:1.163
Medium: HSL_5000 Medium parameters used: f = 5310 MHz; σ = 4.87 S/m; ε_r = 36.852; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch62/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.818 W/kg

Ch62/Zoom Scan (8x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 17.12 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 0.510 W/kg; SAR(10 g) = 0.145 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 0.818 W/kg = -0.87 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.24

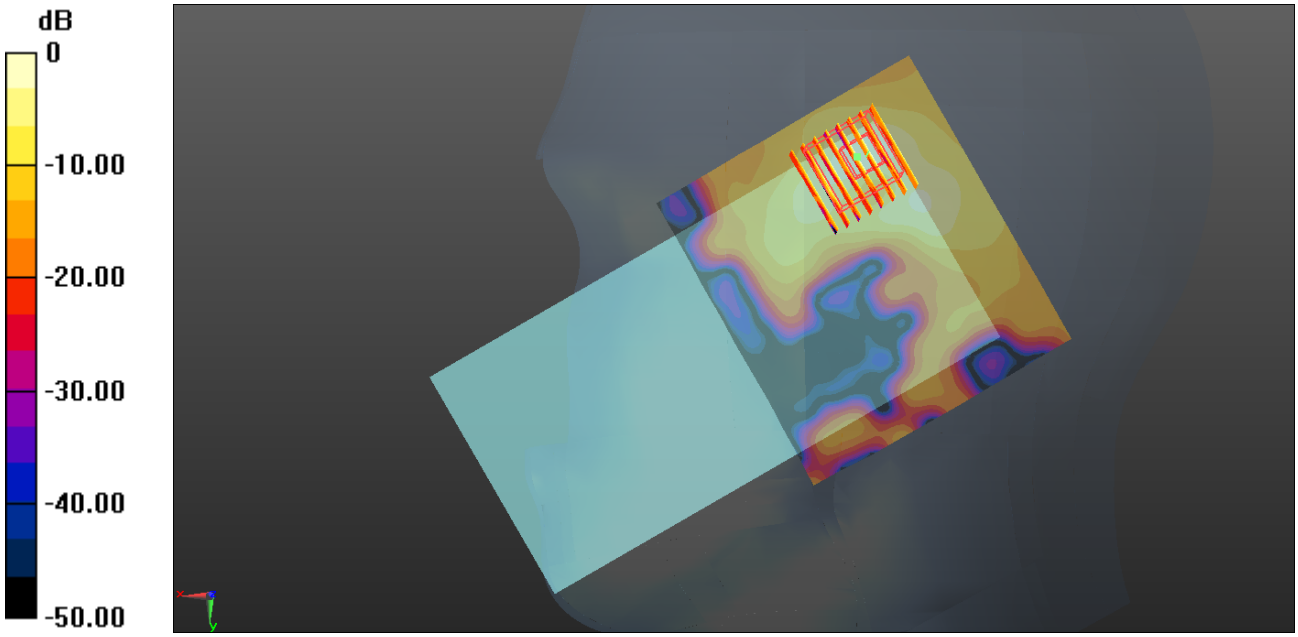
13_WLAN5.5GHz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch142

Communication System: UID 0, WIFI (0); Frequency: 5710 MHz;Duty Cycle: 1:1.163
Medium: HSL_5000 Medium parameters used: f = 5710 MHz; σ = 5.306 S/m; ε_r = 36.253; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.94, 4.94, 4.94); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch142/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.571 W/kg

Ch142/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.06 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.389 W/kg; SAR(10 g) = 0.104 W/kg
Maximum value of SAR (measured) = 1.05 W/kg



0 dB = 0.571 W/kg = -2.43 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.24

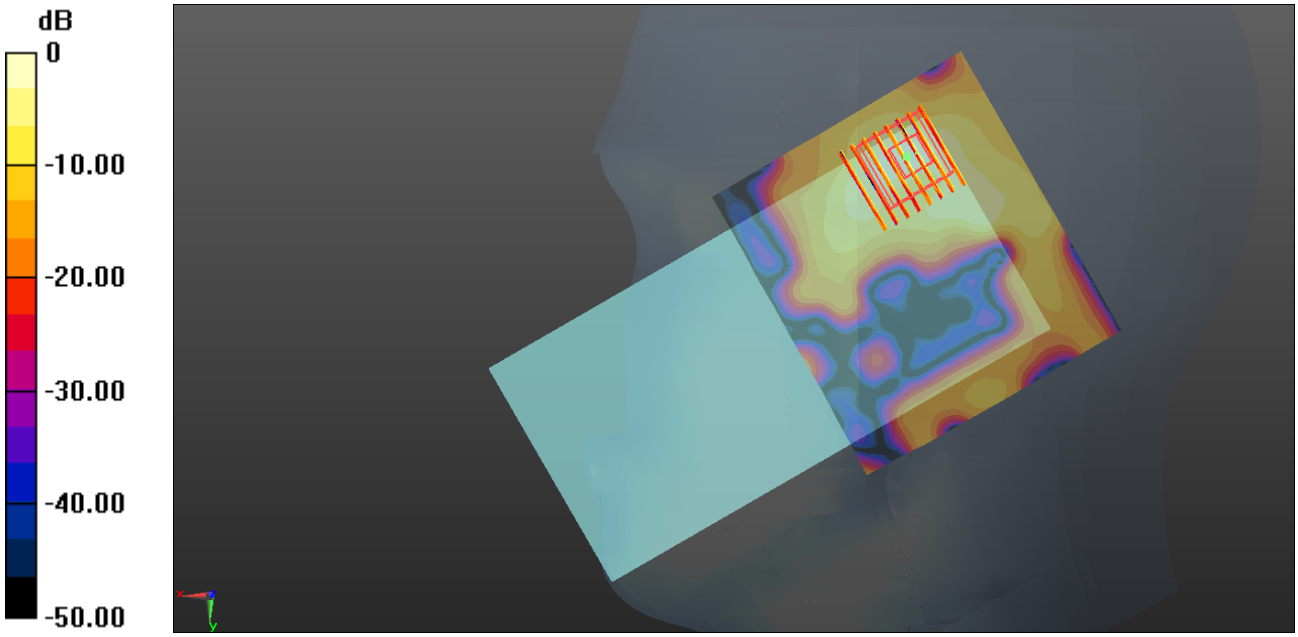
14_WLAN5.8GHz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch151

Communication System: UID 0, WIFI (0); Frequency: 5755 MHz;Duty Cycle: 1:1.163
Medium: HSL_5000 Medium parameters used: f = 5755 MHz; σ = 5.354 S/m; ε_r = 36.194; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.658 W/kg

Ch151/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.33 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.116 W/kg
Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 0.658 W/kg = -1.82 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

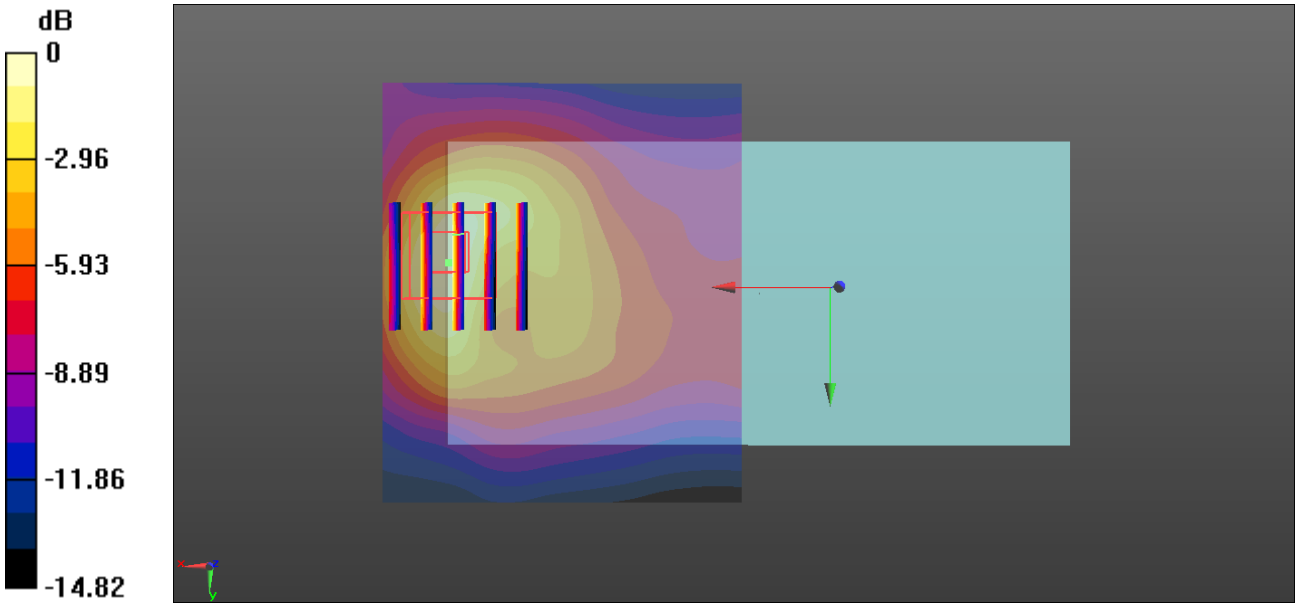
15_GSM850_GPRS (4Tx slots)_Back_5mm_Ch189

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 836.4 MHz;Duty Cycle: 1:2.08
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.985 S/m; ε_r = 54.249; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch189/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.89 W/kg

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.63 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 2.14 W/kg
SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.711 W/kg
Maximum value of SAR (measured) = 1.81 W/kg



0 dB = 1.89 W/kg = 2.76 dBW/kg

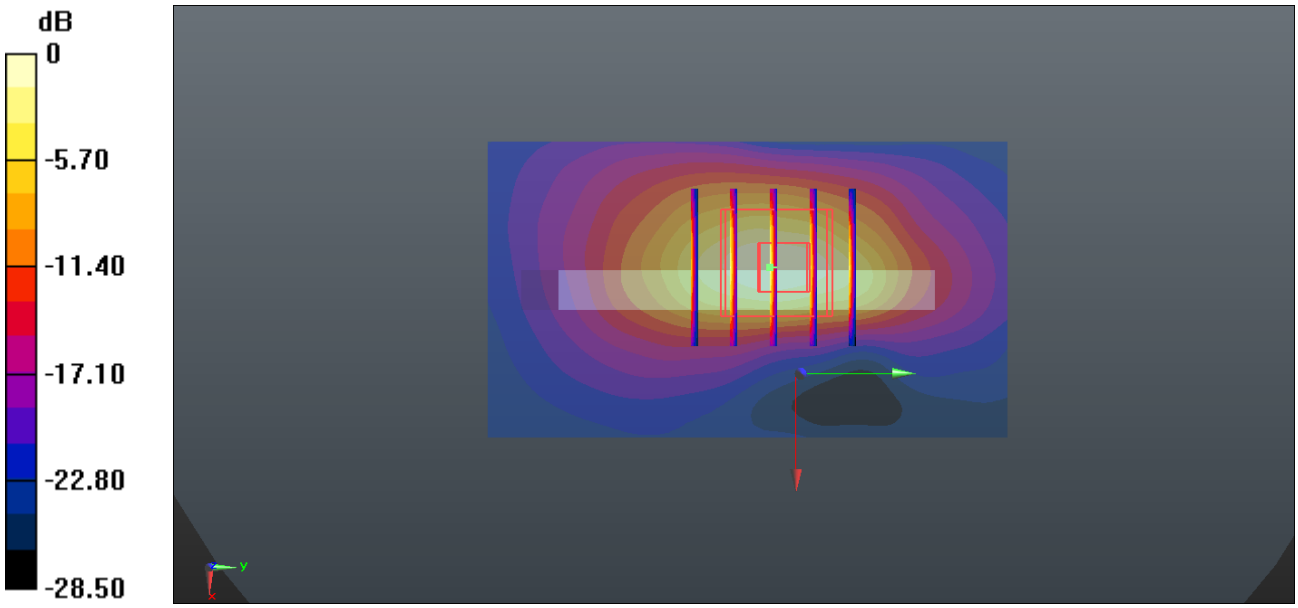
16_GSM1900_GPRS (4 Tx slots)_Bottom Side_5mm_Ch512

Communication System: UID 0, PCS (0); Frequency: 1850.2 MHz;Duty Cycle: 1:2.08
Medium: MSL_1900 Medium parameters used: f = 1850.2 MHz; σ = 1.482 S/m; ε_r = 53.974; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch512/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.88 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.14 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 2.31 W/kg
SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.546 W/kg
Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.88 W/kg = 2.74 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

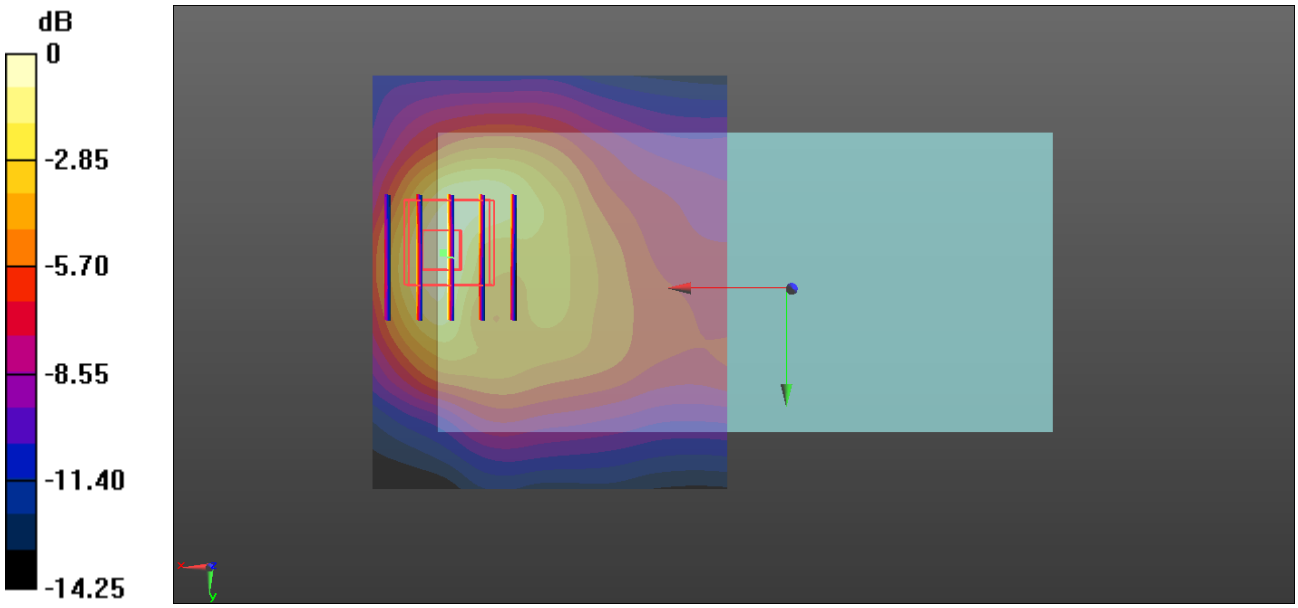
17_WCDMA Band V_RMC 12.2Kbps_Back_5mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.985 S/m; ε_r = 54.249; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4182/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.80 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.94 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.725 W/kg
Maximum value of SAR (measured) = 1.79 W/kg



0 dB = 1.80 W/kg = 2.55 dBW/kg

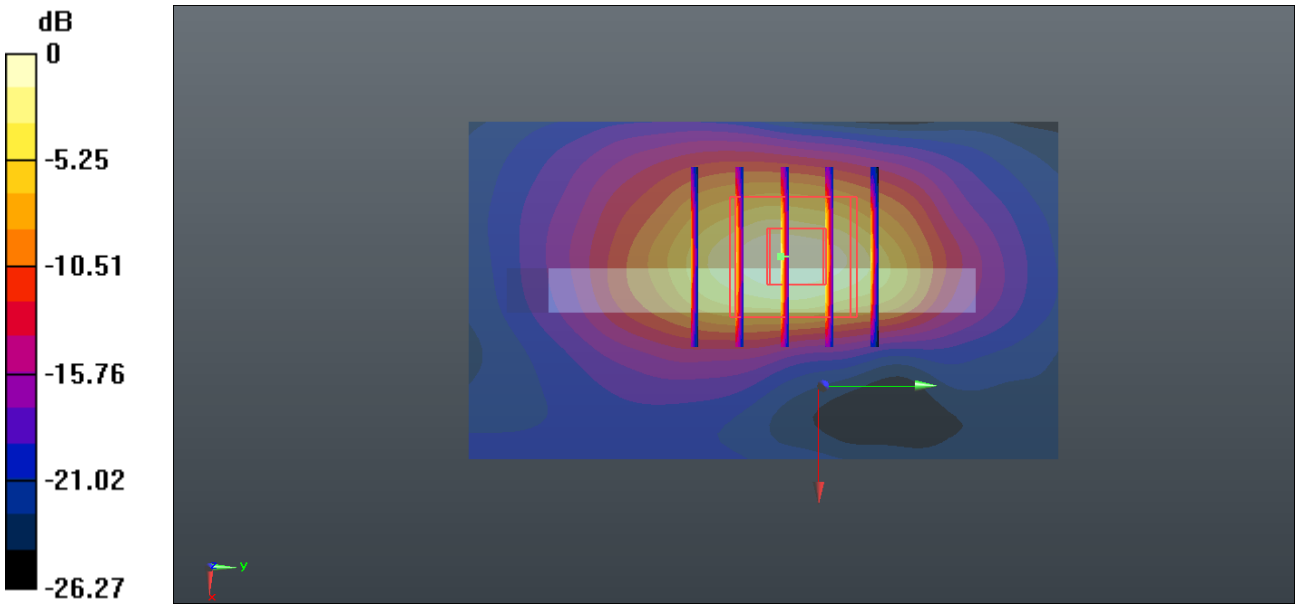
18_WCDMA Band II_RMC 12.2Kbps_Bottom Side_5mm_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1907.6 MHz; σ = 1.546 S/m; ε_r = 53.786; ρ = 1000kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch9538/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.00 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.91 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.60 W/kg
SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.584 W/kg
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 2.00 W/kg = 3.01 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

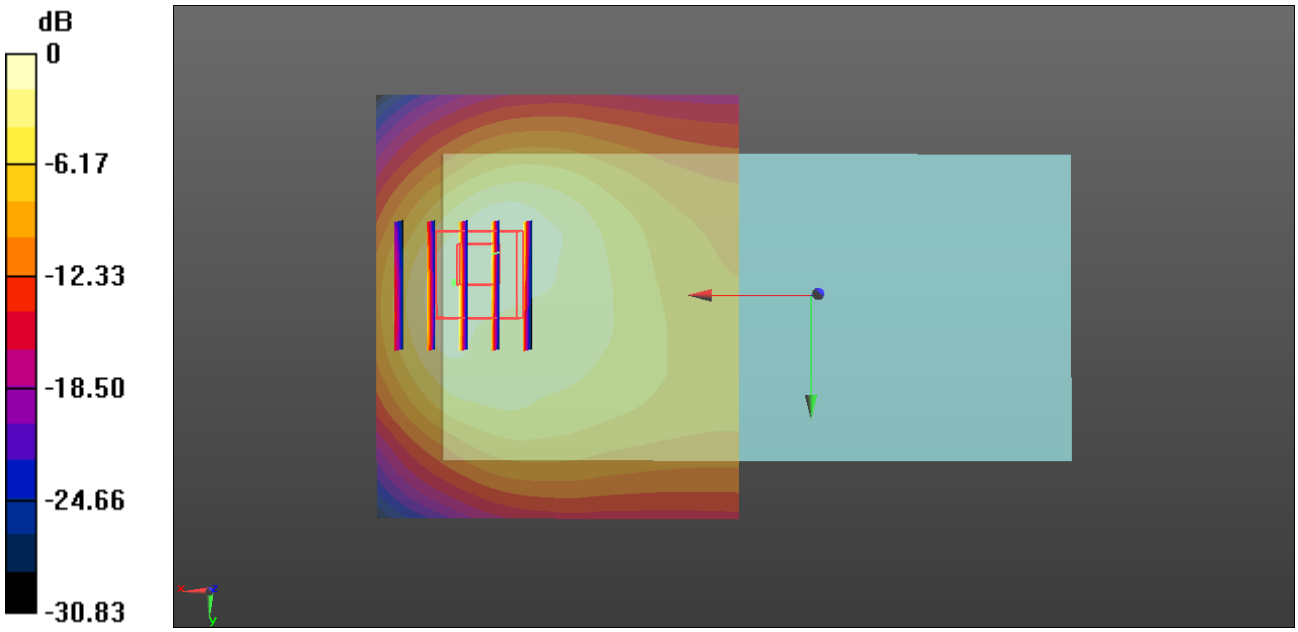
19_LTE Band 26_15M_QPSK_1RB_37Offset_Back_5mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 831.5 MHz; σ = 0.98 S/m; ε_r = 54.299; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.59 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.73 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.46 W/kg
SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.656 W/kg
Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.8

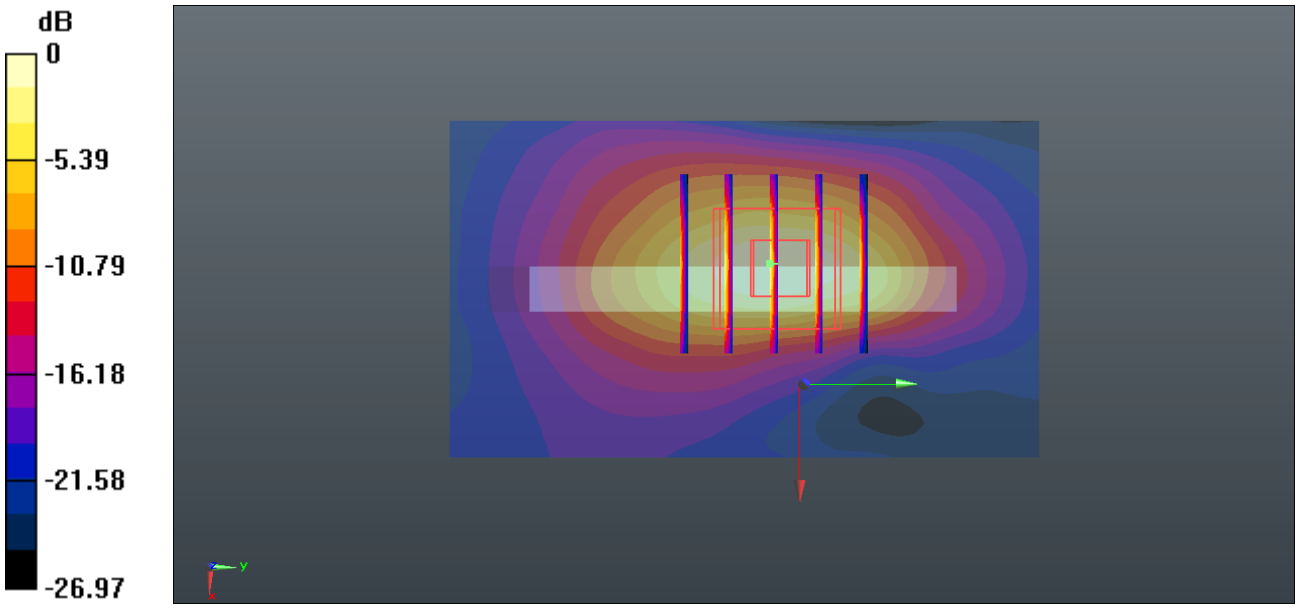
20_LTE Band 4_20M_QPSK_1RB_99Offset_Bottom Side_5mm_Ch20175

Communication System: UID 0, LTE-FDD (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1732.5 MHz; σ = 1.47 S/m; ε_r = 54.126; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.82, 4.82, 4.82); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20175/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.61 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.52 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.16 W/kg
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.535 W/kg
Maximum value of SAR (measured) = 1.45 W/kg



0 dB = 1.61 W/kg = 2.07 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.12

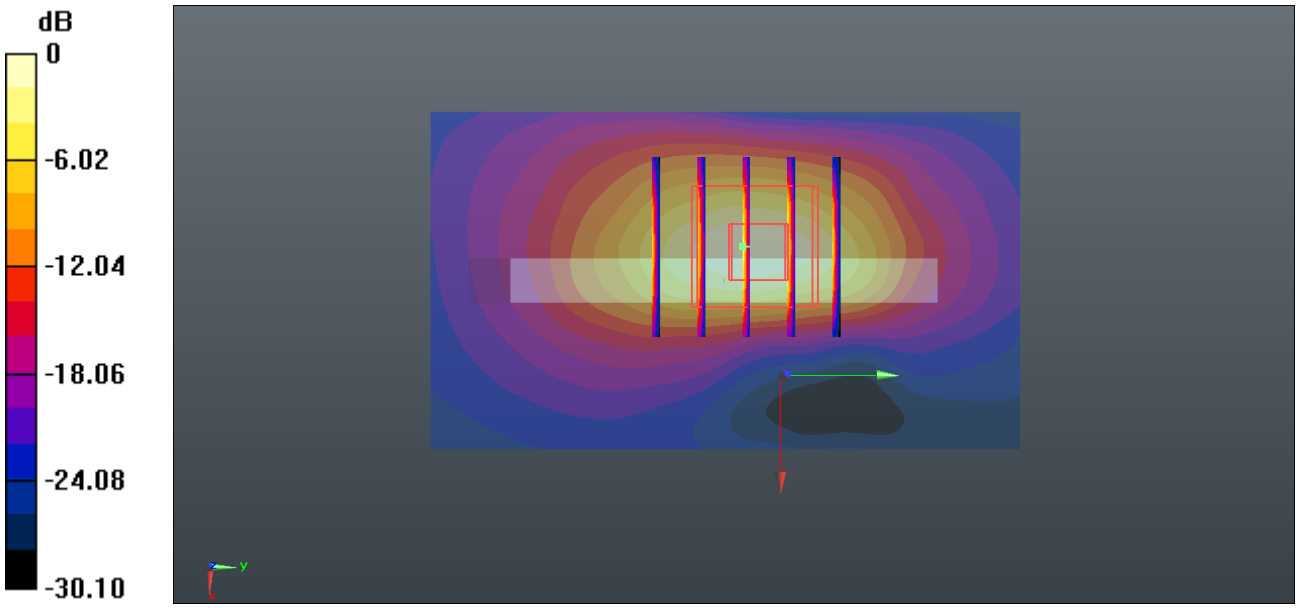
21_LTE Band 2_20M_QPSK_1RB_0Offset_Bottom Side_5mm_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.537 S/m; ε_r = 53.815; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch19100/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.85 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.62 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.36 W/kg
SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.538 W/kg
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.85 W/kg = 2.67 dBW/kg

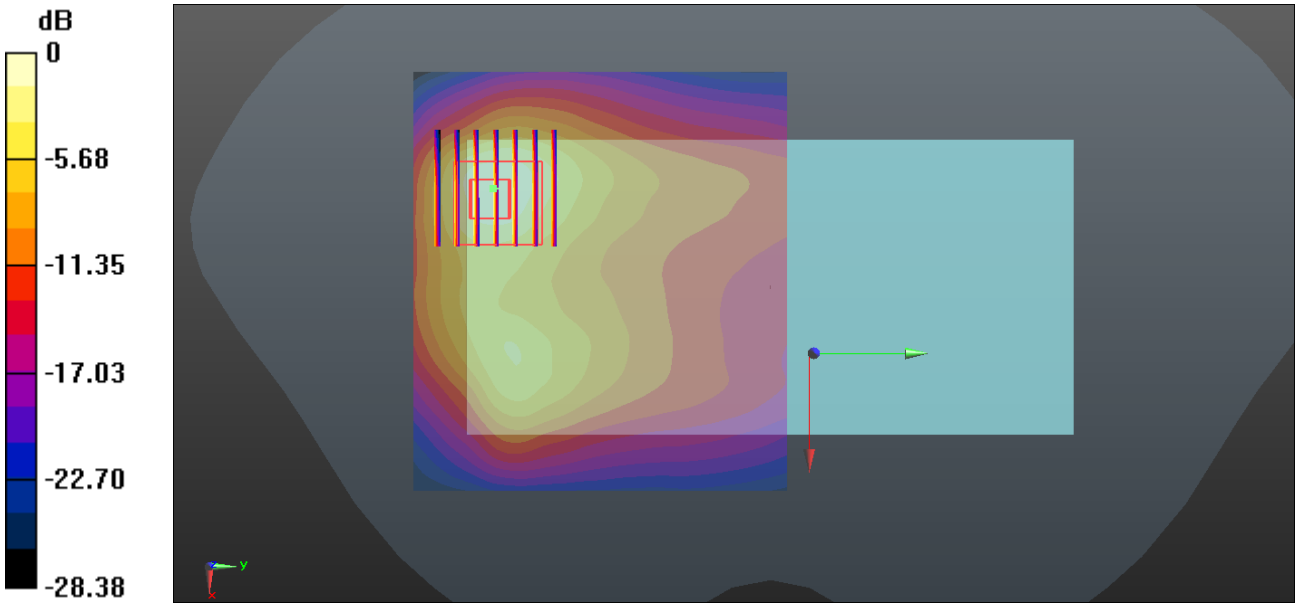
22_LTE Band 7_20M_QPSK_100RB_0Offset_Back_5mm_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2510 MHz; σ = 2.094 S/m; ε_r = 51.571; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20850/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.95 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.18 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.95 W/kg
SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.583 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.95 W/kg = 2.90 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.15

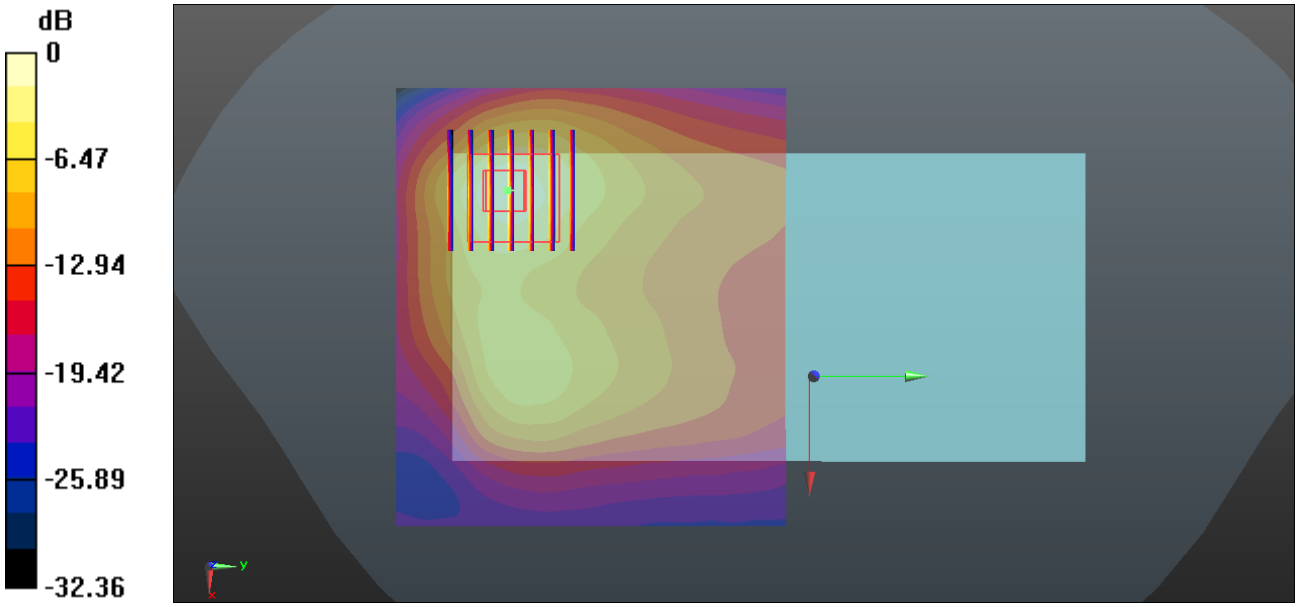
23_LTE Band 41_20M_QPSK_50RB_50Offset_Back_5mm_Ch41140

Communication System: UID 0, LTE-TDD (0); Frequency: 2645 MHz;Duty Cycle: 1:1.59
Medium: MSL_2600 Medium parameters used: f = 2645 MHz; σ = 2.287 S/m; ε_r = 51.047; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch41140/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.80 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.31 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 2.85 W/kg
SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.80 W/kg = 2.55 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

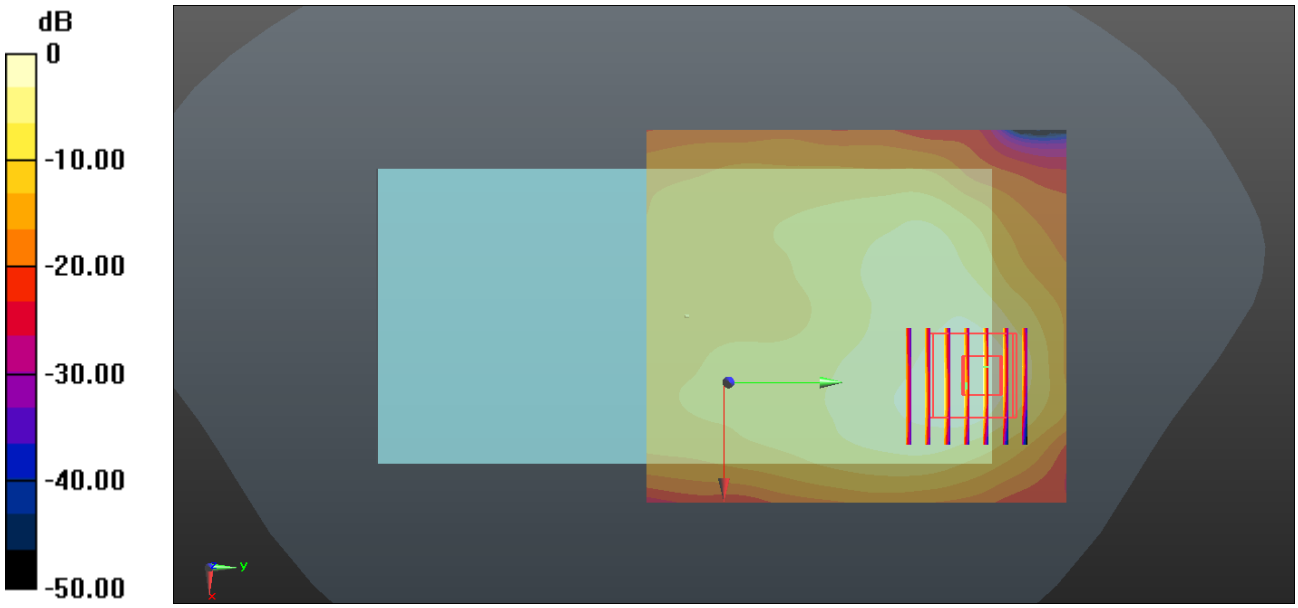
24_WLAN2.4GHz_802.11b 1Mbps_Back_5mm_Ant 1_Ch1

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.015
Medium: MSL_2450 Medium parameters used: f = 2412 MHz; σ = 1.96 S/m; ε_r = 51.948; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.53, 7.53, 7.53); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch1/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.727 W/kg

Ch1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.80 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.819 W/kg
SAR(1 g) = 0.448 W/kg; SAR(10 g) = 0.232 W/kg
Maximum value of SAR (measured) = 0.686 W/kg



0 dB = 0.727 W/kg = -1.38 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

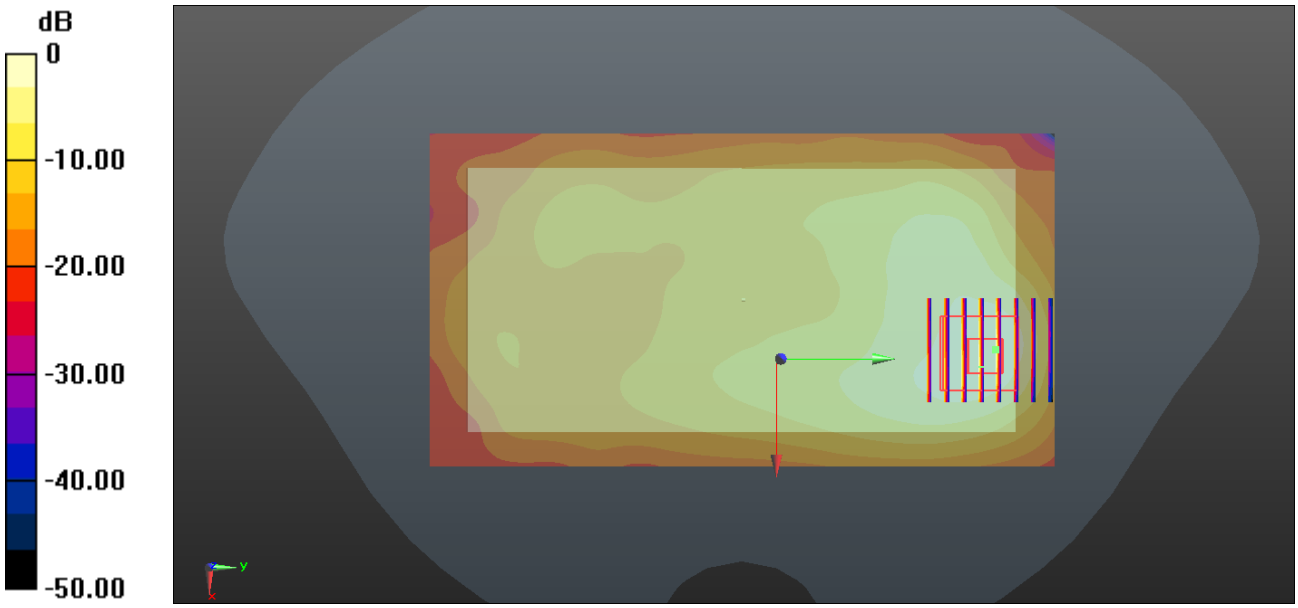
25_Bluetooth_DH5 1Mbps_Back_5mm_Ant 1_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.297
Medium: MSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.996 S/m; ε_r = 51.837; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.53, 7.53, 7.53); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch39/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.195 W/kg

Ch39/Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.94 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.295 W/kg
SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.195 W/kg = -7.10 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

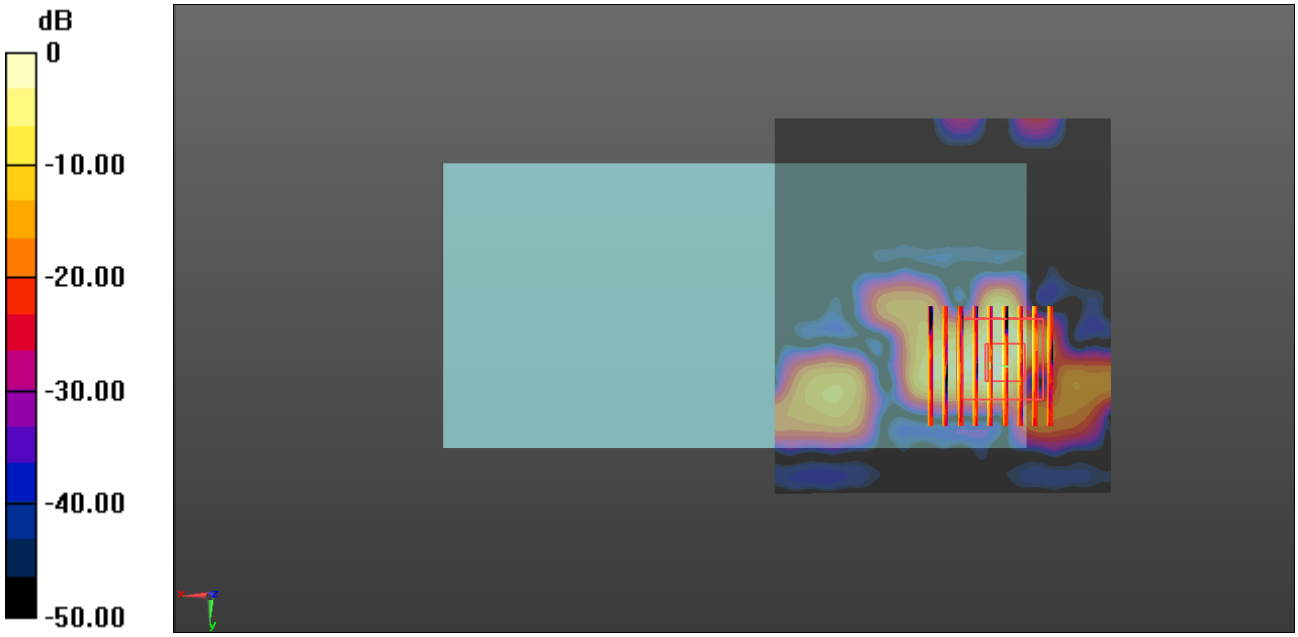
26_WLAN5.2GHz_802.11n-HT40 MCS0_Back_5mm_Ch46

Communication System: UID 0, WIFI (0); Frequency: 5230 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5230 MHz; σ = 5.524 S/m; ε_r = 47.351; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.4, 4.4, 4.4); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch46/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.77 W/kg

Ch46/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.91 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 2.96 W/kg
SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.185 W/kg
Maximum value of SAR (measured) = 1.72 W/kg



0 dB = 1.77 W/kg = 2.48 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

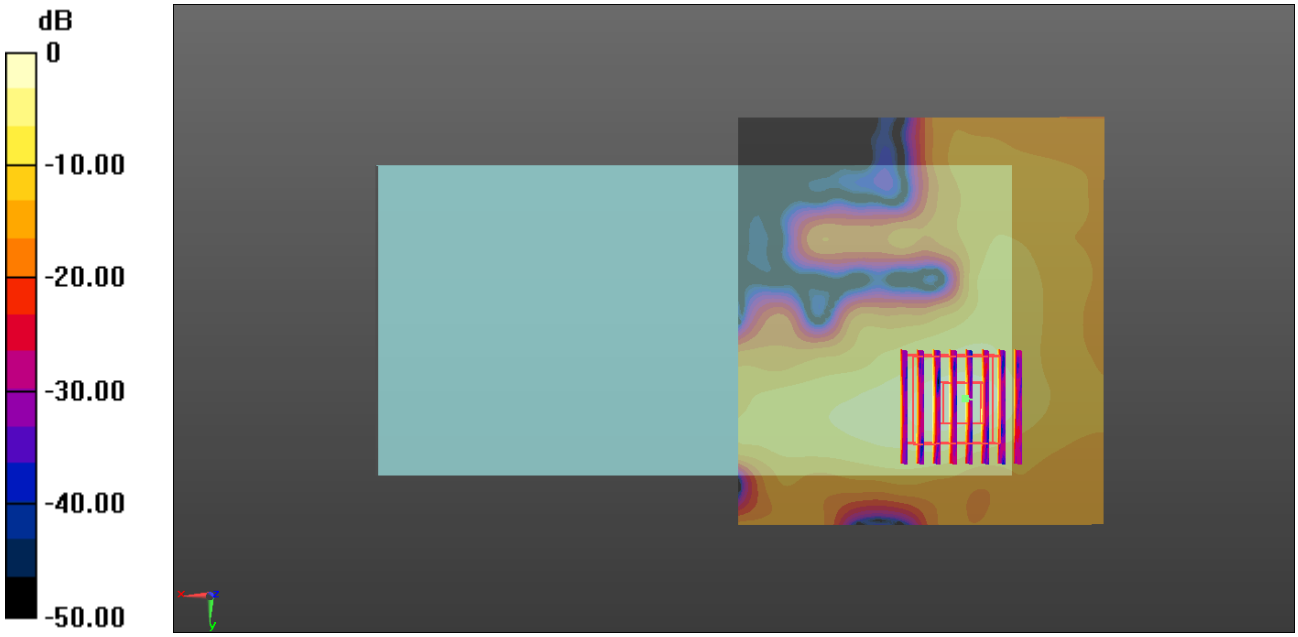
27_WLAN5.8GHz_802.11n-HT40 MCS0_Back_5mm_Ch151

Communication System: UID 0, WIFI (0); Frequency: 5755 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5755 MHz; σ = 6.229 S/m; ε_r = 46.458; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.31, 4.31, 4.31); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.906 W/kg

Ch151/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.43 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 0.683 W/kg; SAR(10 g) = 0.190 W/kg
Maximum value of SAR (measured) = 1.95 W/kg



0 dB = 0.906 W/kg = -0.43 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

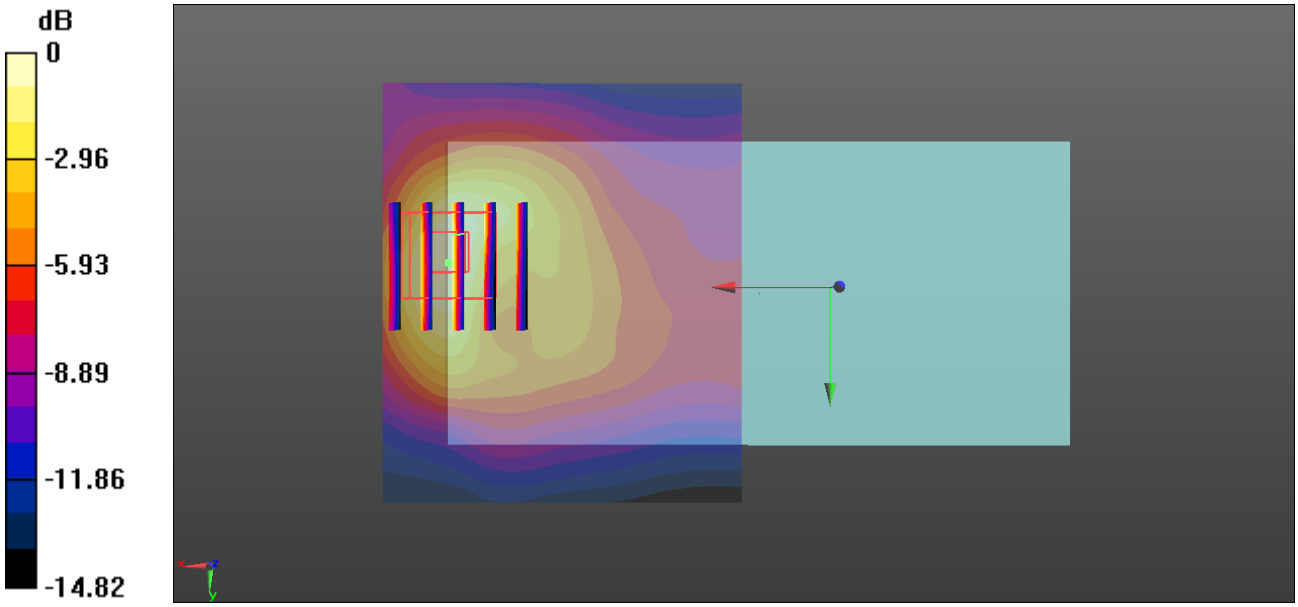
28_GSM850_GPRS (4Tx slots)_Back_5mm_Ch189

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 836.4 MHz;Duty Cycle: 1:2.08
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.985 S/m; ε_r = 54.249; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch189/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.89 W/kg

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.63 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 2.14 W/kg
SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.711 W/kg
Maximum value of SAR (measured) = 1.81 W/kg



0 dB = 1.89 W/kg = 2.76 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.12

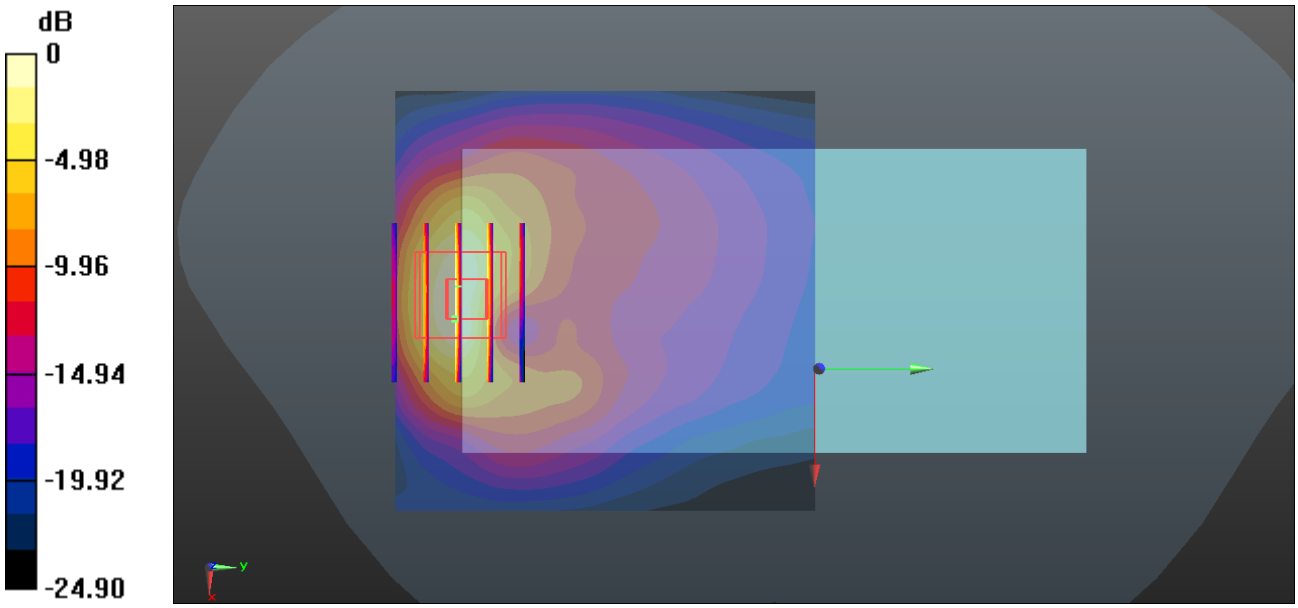
29_GSM1900_GPRS (4 Tx slots)_Back_5mm_Ch661

Communication System: UID 0, PCS (0); Frequency: 1880 MHz;Duty Cycle: 1:2.08
Medium: MSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.514 S/m; ε_r = 53.87; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch661/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.42 W/kg

Ch661/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.20 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.57 W/kg
SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.599 W/kg
Maximum value of SAR (measured) = 1.49 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

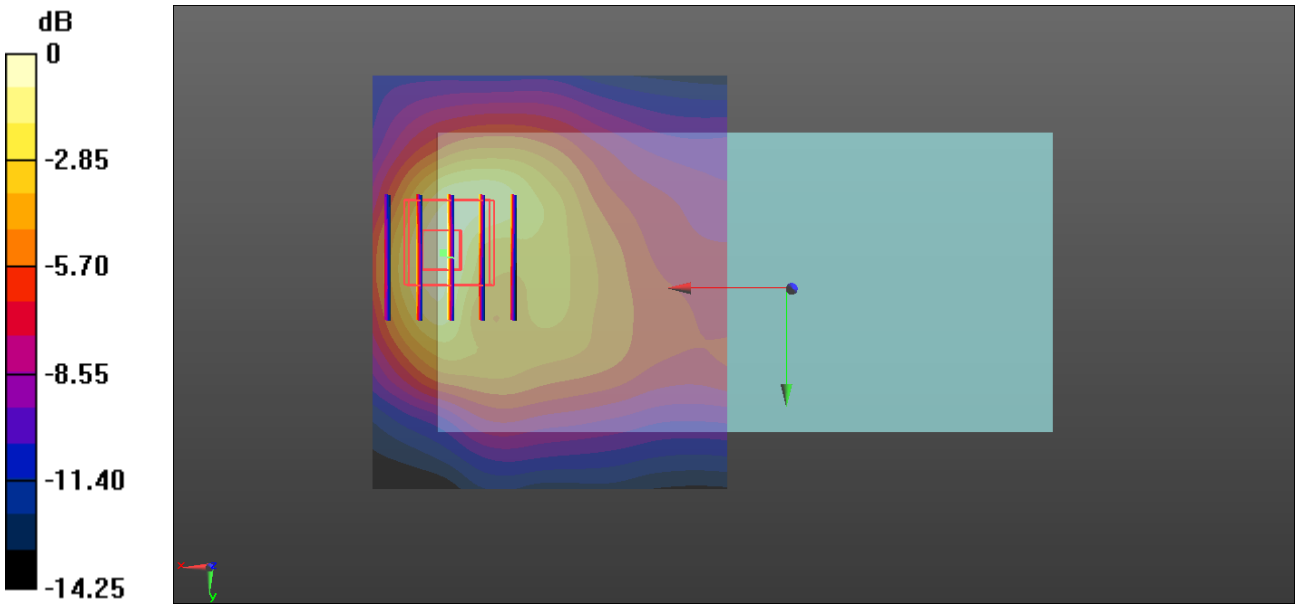
30_WCDMA Band V_RMC 12.2Kbps_Back_5mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.985 S/m; ε_r = 54.249; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4182/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.80 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.94 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.725 W/kg
Maximum value of SAR (measured) = 1.79 W/kg



0 dB = 1.80 W/kg = 2.55 dBW/kg

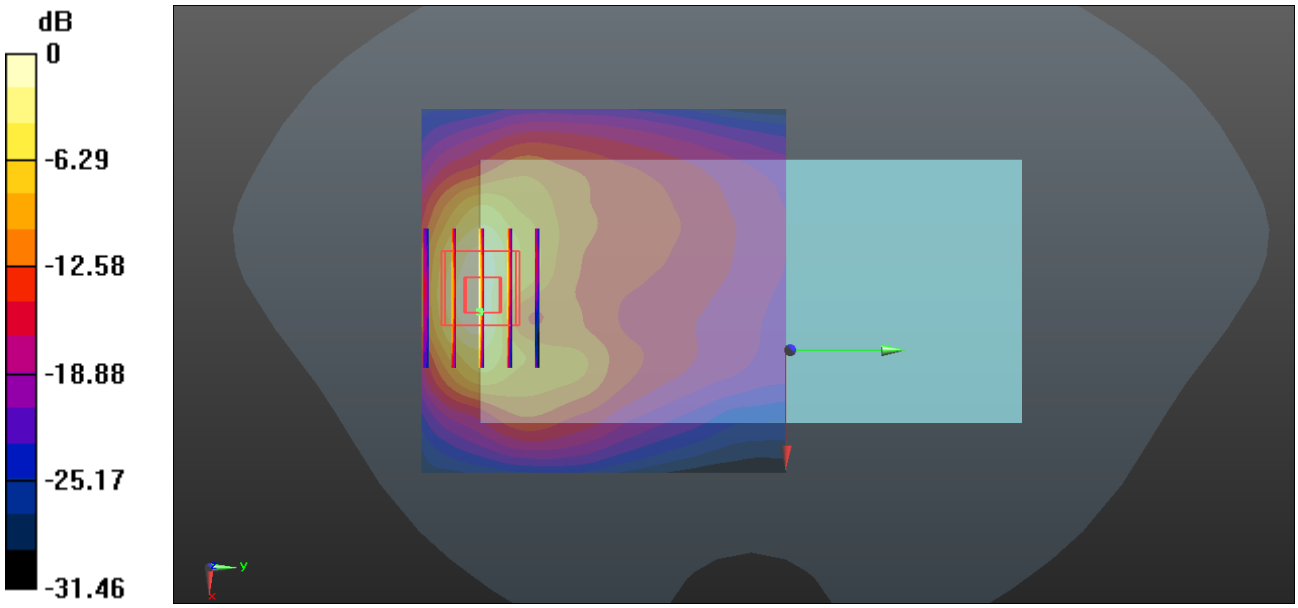
31_WCDMA Band II_RMC 12.2Kbps_Back_5mm_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1907.6 MHz; σ = 1.546 S/m; ε_r = 53.786; ρ = 1000kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch9538/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.87 W/kg

Ch9538/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.74 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.86 W/kg
SAR(1 g) = 1.38 W/kg; SAR(10 g) = 0.636 W/kg
Maximum value of SAR (measured) = 1.89 W/kg



0 dB = 1.87 W/kg = 2.72 dBW/kg

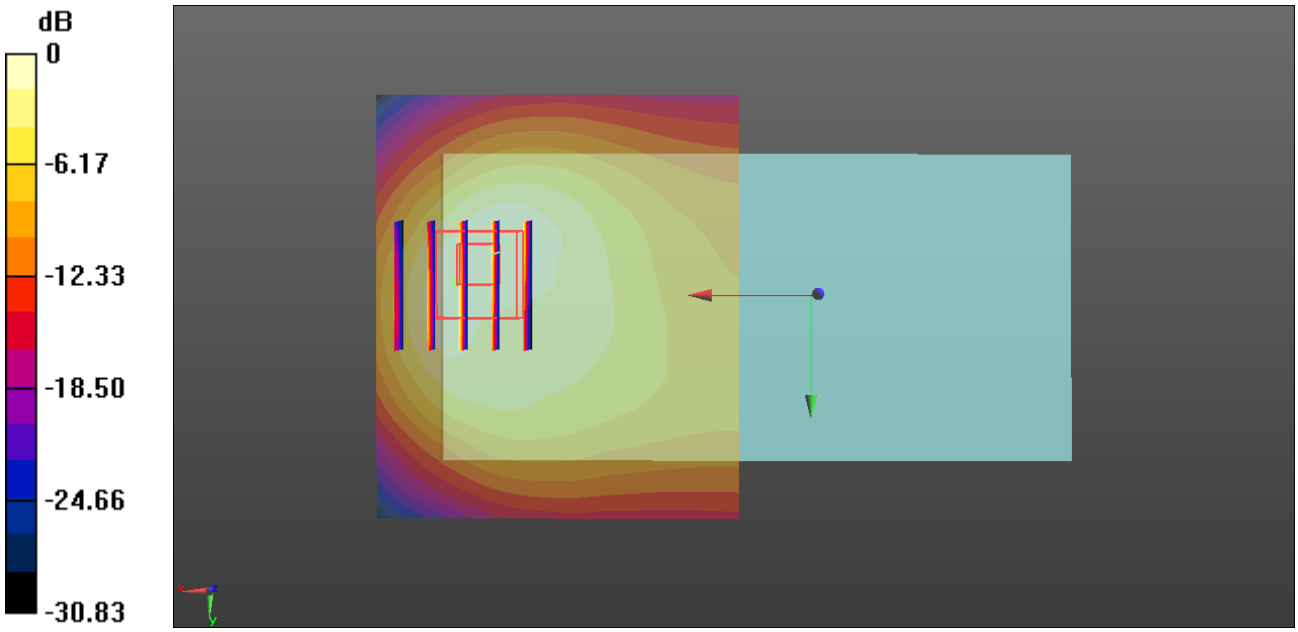
32_LTE Band 26_15M_QPSK_1RB_37Offset_Back_5mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 831.5 MHz; σ = 0.98 S/m; ε_r = 54.299; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.59 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 44.73 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.46 W/kg
SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.656 W/kg
Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

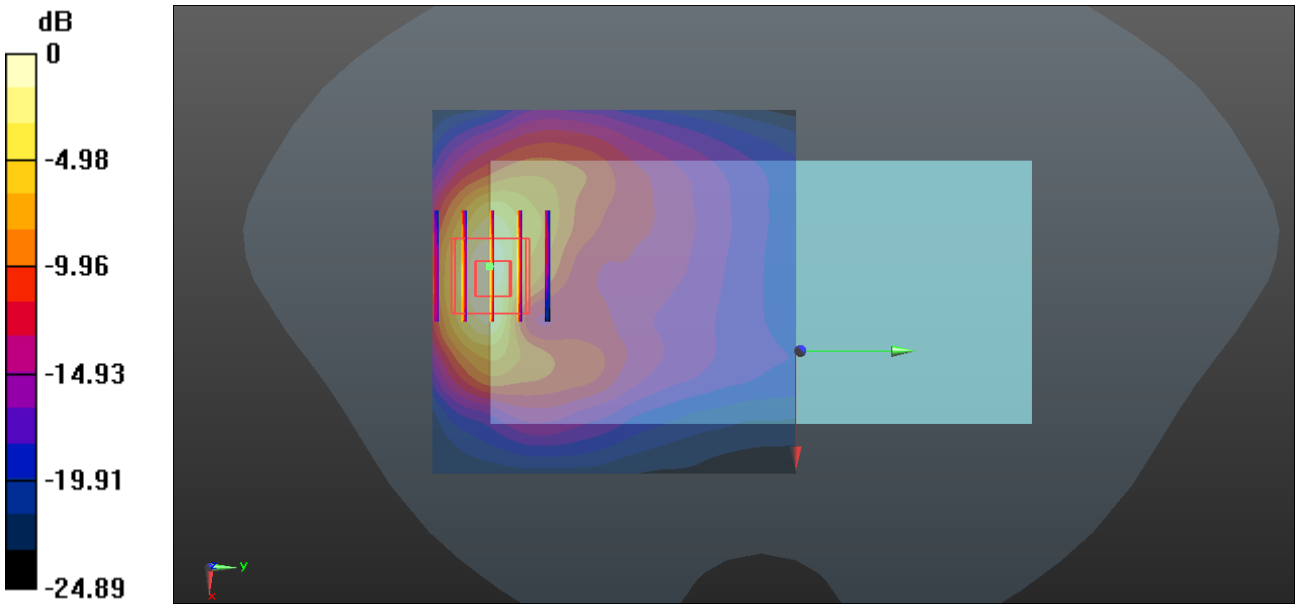
33_LTE Band 4_20M_QPSK_1RB_99Offset_Back_5mm_Ch20175

Communication System: UID 0, LTE-FDD (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1732.5 MHz; σ = 1.47 S/m; ε_r = 54.126; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.82, 4.82, 4.82); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20175/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.65 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.491 W/kg
Maximum value of SAR (measured) = 1.22 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

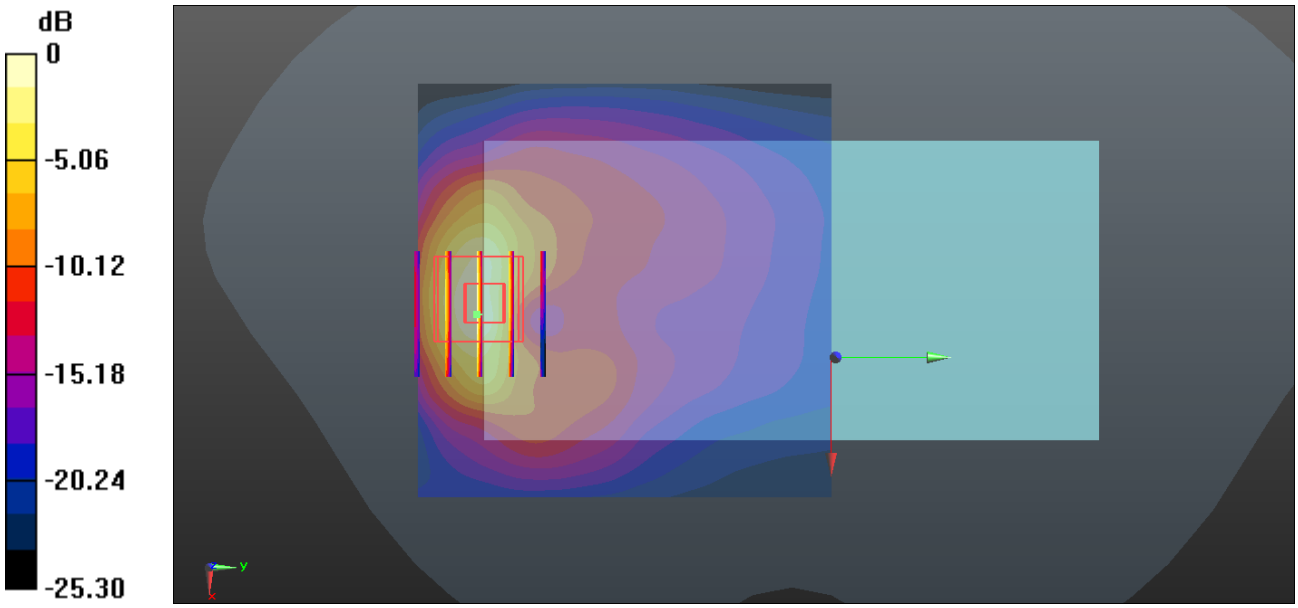
34_LTE Band 2_20M_QPSK_1RB_0Offset_Back_5mm_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.537 S/m; ε_r = 53.815; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch19100/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.52 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.31 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.42 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.556 W/kg
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.15

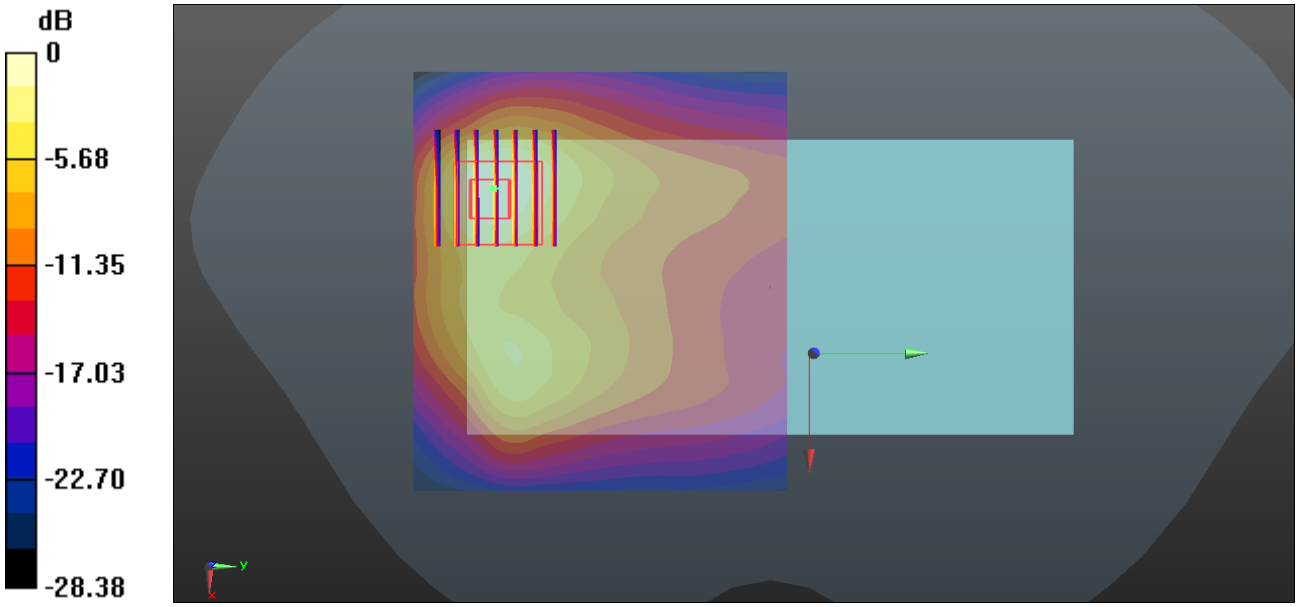
35_LTE Band 7_20M_QPSK_100RB_0Offset_Back_5mm_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2510 MHz; σ = 2.094 S/m; ε_r = 51.571; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20850/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.95 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.18 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.95 W/kg
SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.583 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.95 W/kg = 2.90 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.15

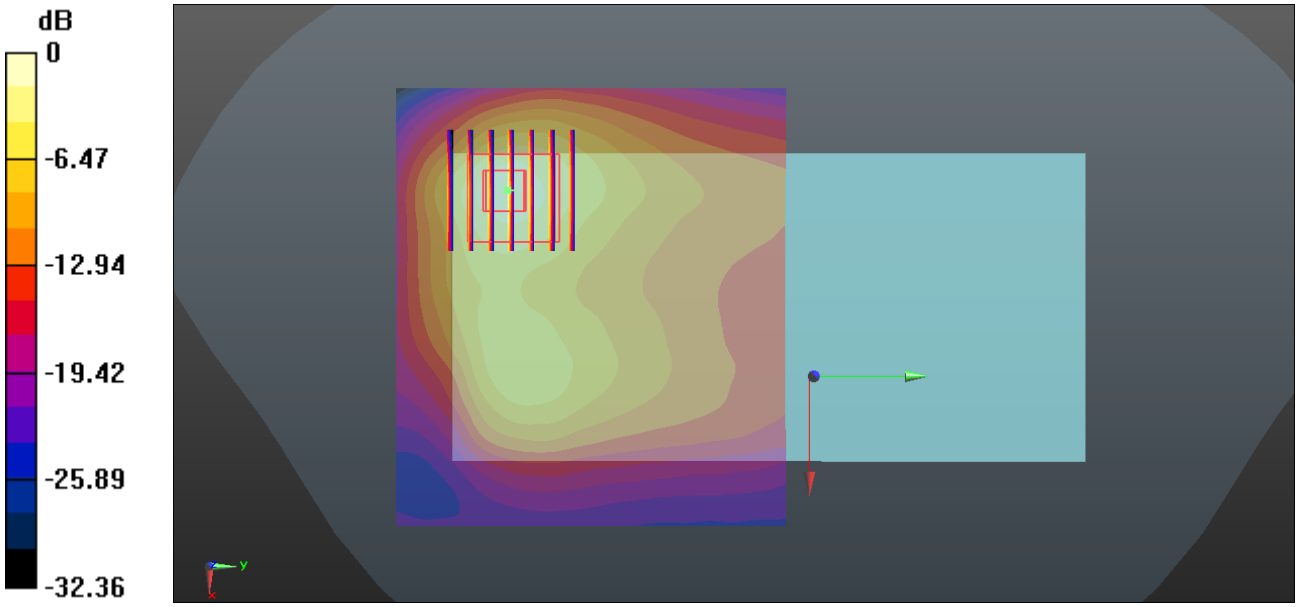
36_LTE Band 41_20M_QPSK_50RB_50Offset_Back_5mm_Ch41140

Communication System: UID 0, LTE-TDD (0); Frequency: 2645 MHz;Duty Cycle: 1:1.59
Medium: MSL_2600 Medium parameters used: f = 2645 MHz; σ = 2.287 S/m; ε_r = 51.047; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch41140/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.80 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.31 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 2.85 W/kg
SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.80 W/kg = 2.55 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

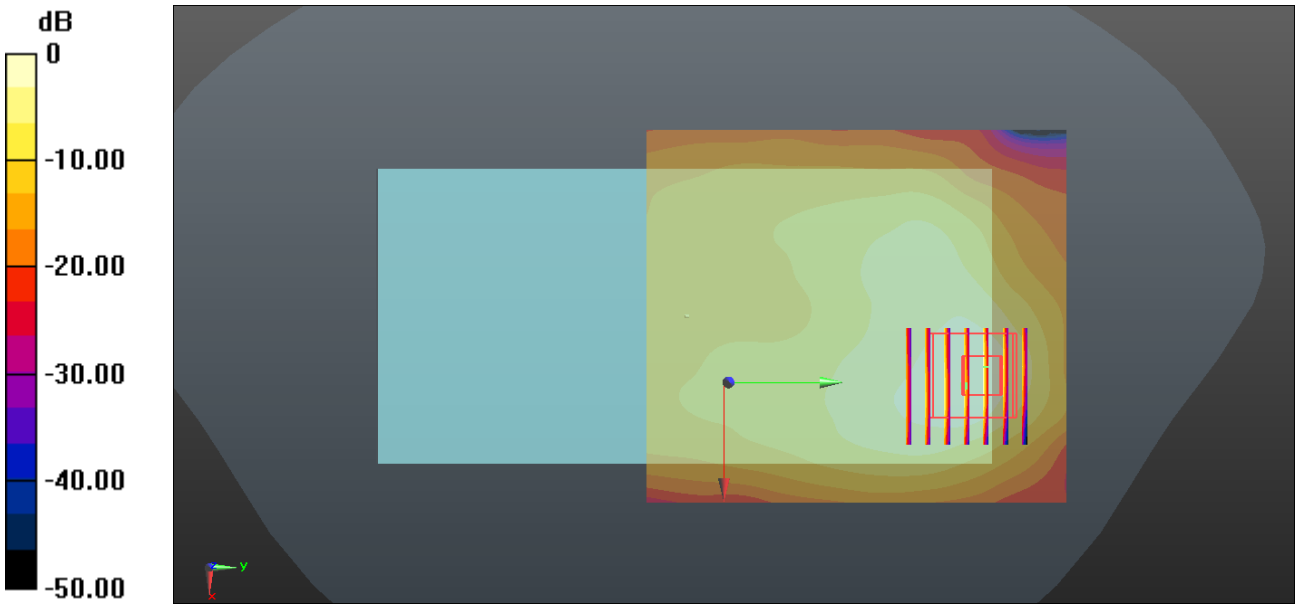
37_WLAN2.4GHz_802.11b 1Mbps_Back_5mm_Ant 1_Ch1

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.015
Medium: MSL_2450 Medium parameters used: f = 2412 MHz; σ = 1.96 S/m; ε_r = 51.948; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.53, 7.53, 7.53); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch1/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.727 W/kg

Ch1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.80 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.819 W/kg
SAR(1 g) = 0.448 W/kg; SAR(10 g) = 0.232 W/kg
Maximum value of SAR (measured) = 0.686 W/kg



0 dB = 0.727 W/kg = -1.38 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.27

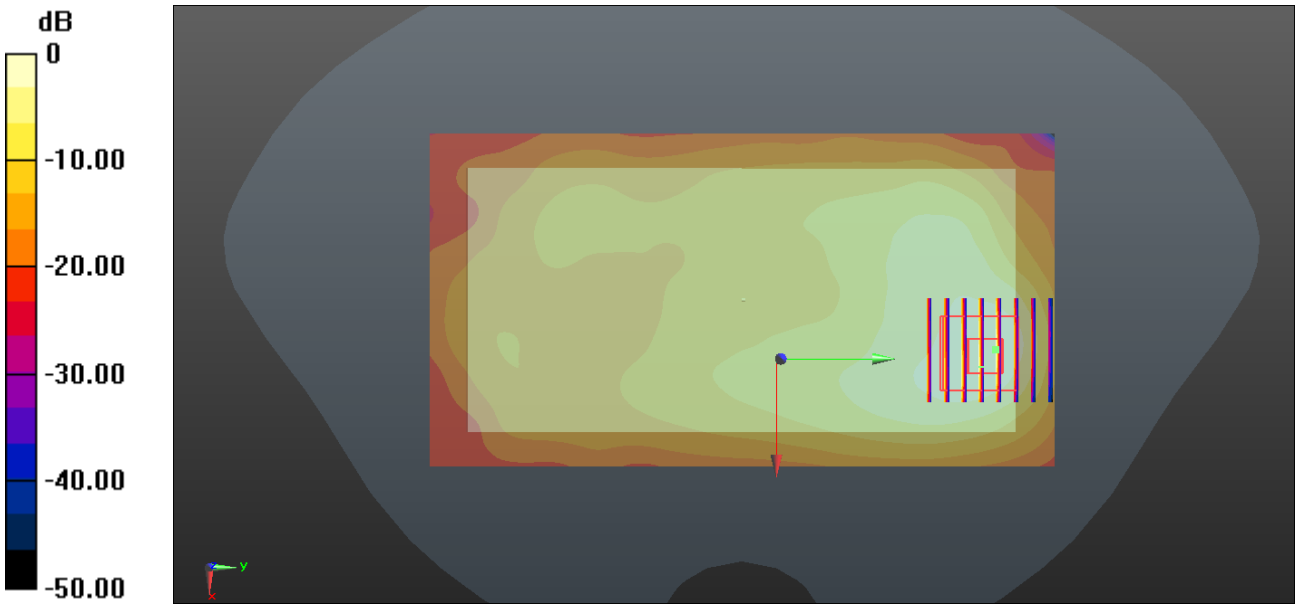
38_Bluetooth_DH5 1Mbps_Back_5mm_Ant 1_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.297
Medium: MSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.996 S/m; ε_r = 51.837; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(7.53, 7.53, 7.53); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch39/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.195 W/kg

Ch39/Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.94 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.295 W/kg
SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.195 W/kg = -7.10 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

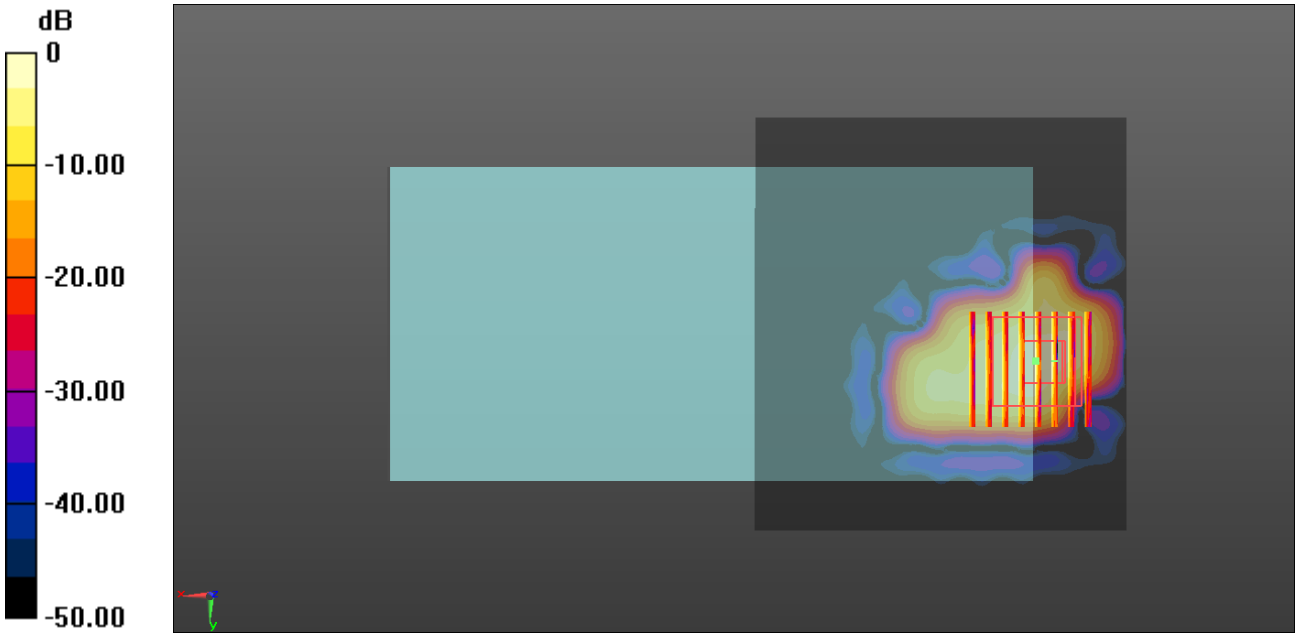
39_WLAN5.3GHz_802.11n-HT40 MCS0_Back_5mm_Ch62

Communication System: UID 0, WIFI (0); Frequency: 5310 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5310 MHz; σ = 5.624 S/m; ε_r = 47.221; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.4, 4.4, 4.4); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch62/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Ch62/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.22 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.35 W/kg
SAR(1 g) = 0.706 W/kg; SAR(10 g) = 0.203 W/kg
Maximum value of SAR (measured) = 1.91 W/kg



0 dB = 1.35 W/kg = 1.30 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

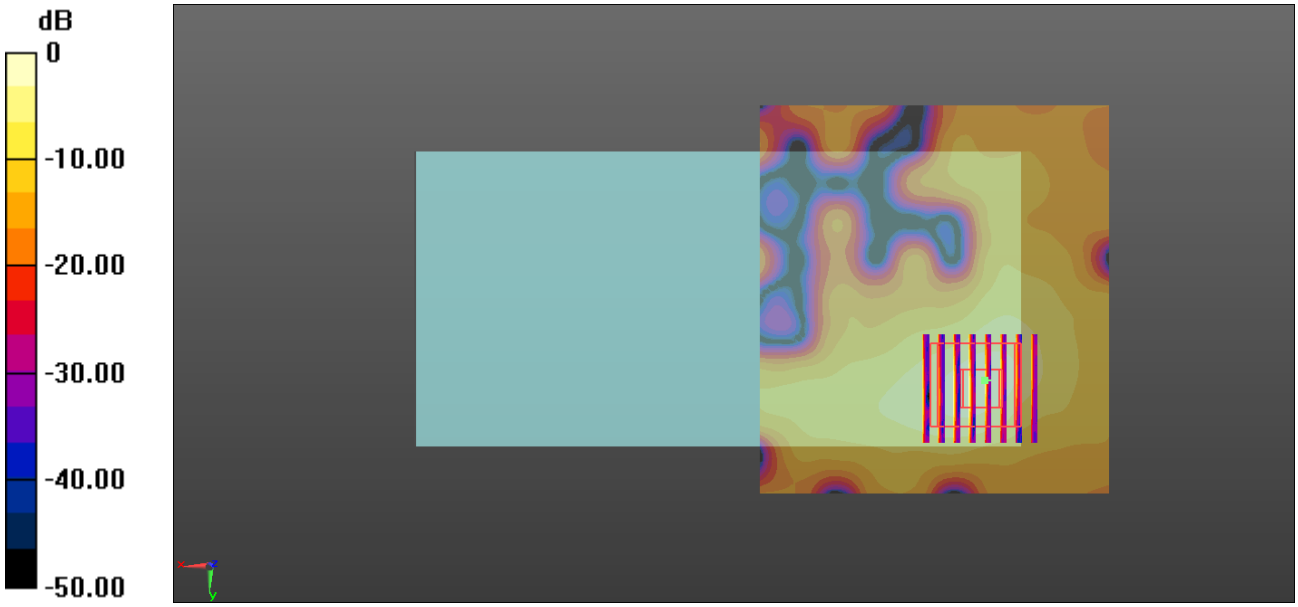
40_WLAN5.5GHz_802.11n-HT40 MCS0_Back_5mm_Ch102

Communication System: UID 0, WIFI (0); Frequency: 5510 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5510 MHz; σ = 5.885 S/m; ε_r = 46.881; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(3.76, 3.76, 3.76); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch102/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Ch102/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 21.33 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.94 W/kg
SAR(1 g) = 0.760 W/kg; SAR(10 g) = 0.212 W/kg
Maximum value of SAR (measured) = 2.05 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

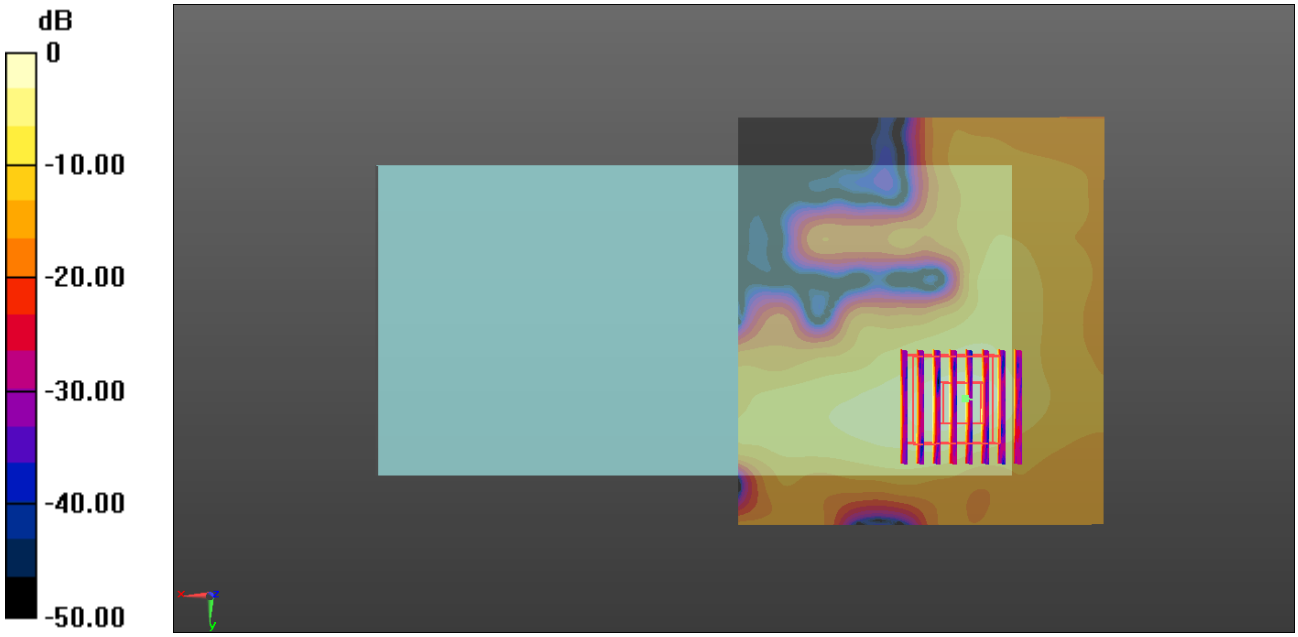
41_WLAN5.8GHz_802.11n-HT40 MCS0_Back_5mm_Ch151

Communication System: UID 0, WIFI (0); Frequency: 5755 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5755 MHz; σ = 6.229 S/m; ε_r = 46.458; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.31, 4.31, 4.31); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.906 W/kg

Ch151/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.43 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 0.683 W/kg; SAR(10 g) = 0.190 W/kg
Maximum value of SAR (measured) = 1.95 W/kg



0 dB = 0.906 W/kg = -0.43 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

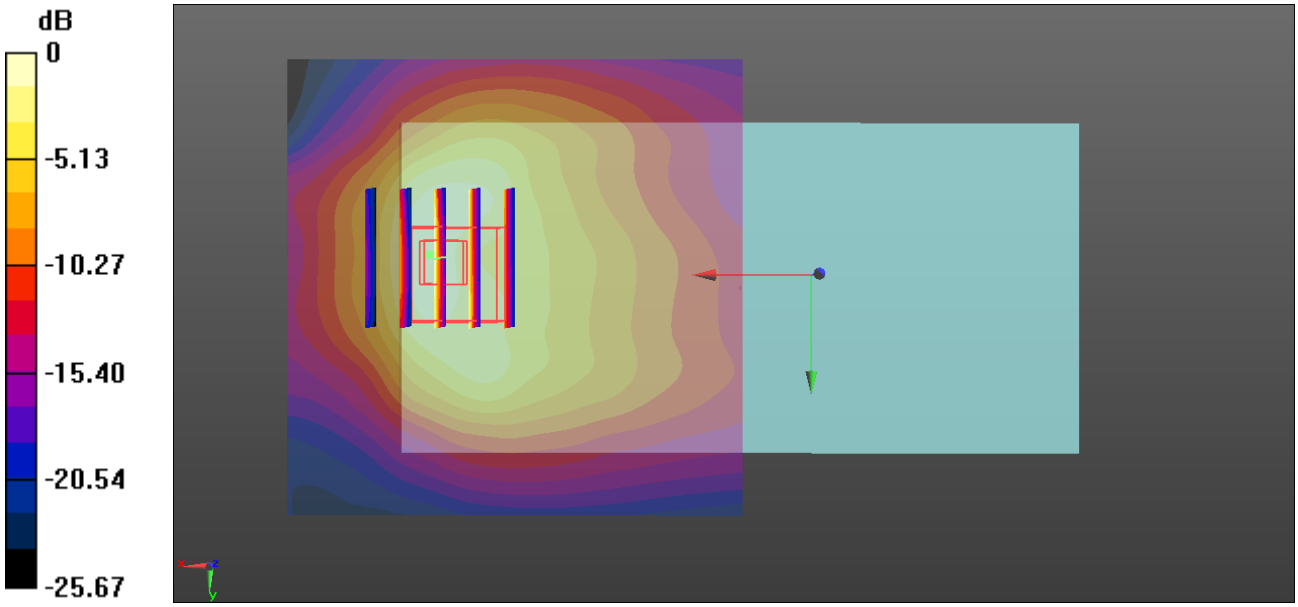
42_GSM850_GPRS (4Tx slots)_Back_0mm_Ch128

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 824.2 MHz;Duty Cycle: 1:2.08
Medium: MSL_850 Medium parameters used: f = 824.2 MHz; σ = 0.914 S/m; ε_r = 54.606; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch128/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.41 W/kg

Ch128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 65.20 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 5.18 W/kg
SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.54 W/kg
Maximum value of SAR (measured) = 4.33 W/kg



0 dB = 3.41 W/kg = 5.33 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.12

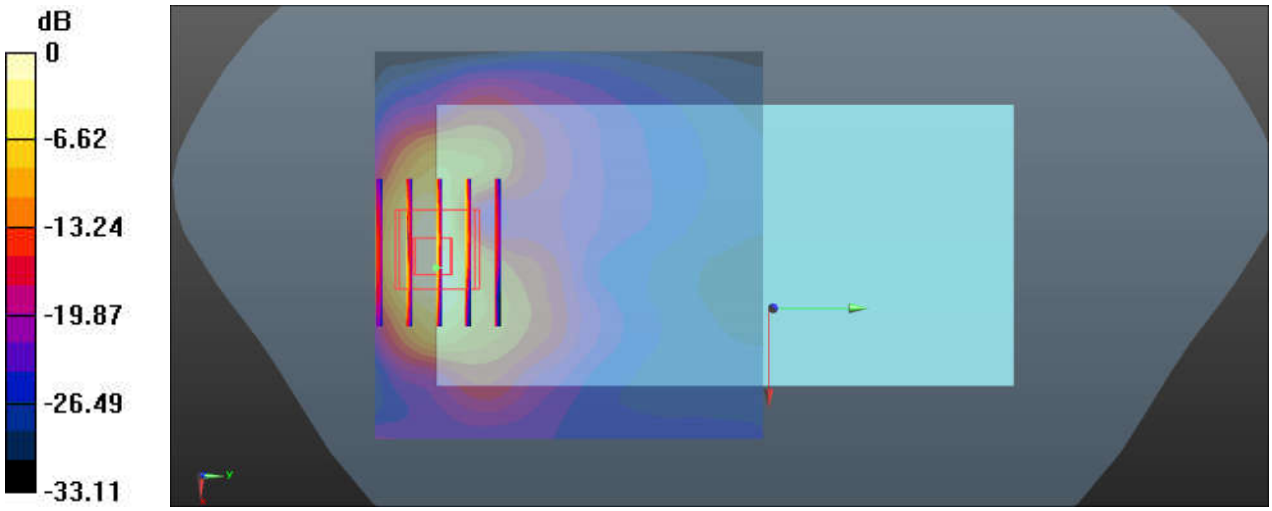
43_GSM1900_GPRS (4 Tx slots)_Back_0mm_Ch512

Communication System: UID 0, PCS (0); Frequency: 1850.2 MHz;Duty Cycle: 1:2.08
Medium: MSL_1900 Medium parameters used: f = 1850.2 MHz; σ = 1.482 S/m; ε_r = 53.974; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.11 (7439)

Ch512/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.33 W/kg

Ch512/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 84.84 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 13.5 W/kg
SAR(1 g) = 6.81 W/kg; SAR(10 g) = 2.84 W/kg
Maximum value of SAR (measured) = 9.89 W/kg



0 dB = 9.33 W/kg = 9.70 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

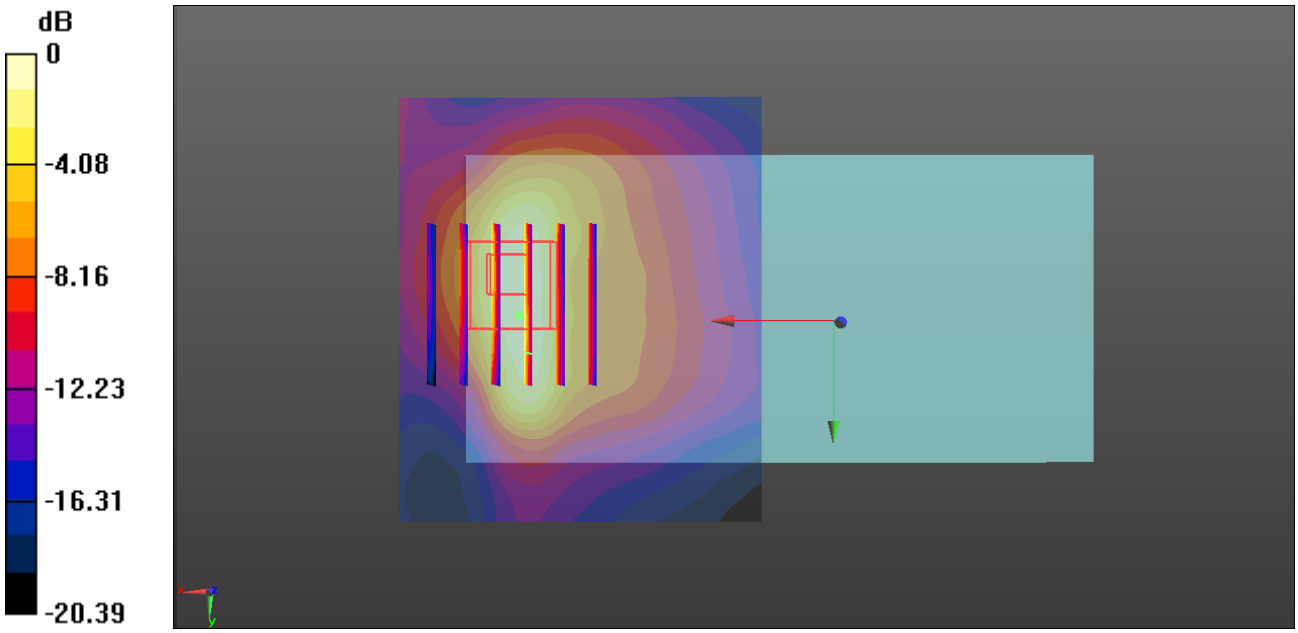
44_WCDMA Band V_RMC 12.2Kbps_Back_0mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.985 S/m; ε_r = 54.249; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4182/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 7.45 W/kg

Ch4182/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 85.65 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 8.02 W/kg
SAR(1 g) = 4 W/kg; SAR(10 g) = 2.26 W/kg
Maximum value of SAR (measured) = 6.91 W/kg



0 dB = 7.45 W/kg = 8.72 dBW/kg

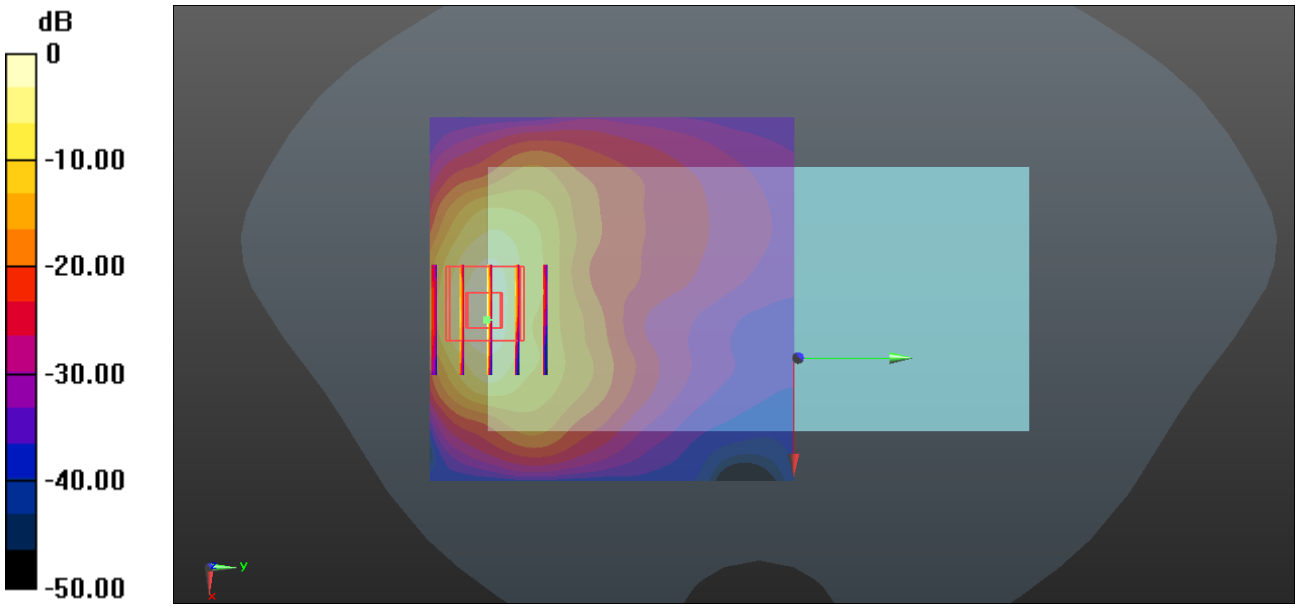
45_WCDMA Band II_RMC 12.2Kbps_Back_0mm_Ch9400

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.514 S/m; ε_r = 53.87; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch9400/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.28 W/kg

Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 80.04 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.2 W/kg
SAR(1 g) = 6.14 W/kg; SAR(10 g) = 2.61 W/kg
Maximum value of SAR (measured) = 8.99 W/kg



0 dB = 9.28 W/kg = 9.68 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.19

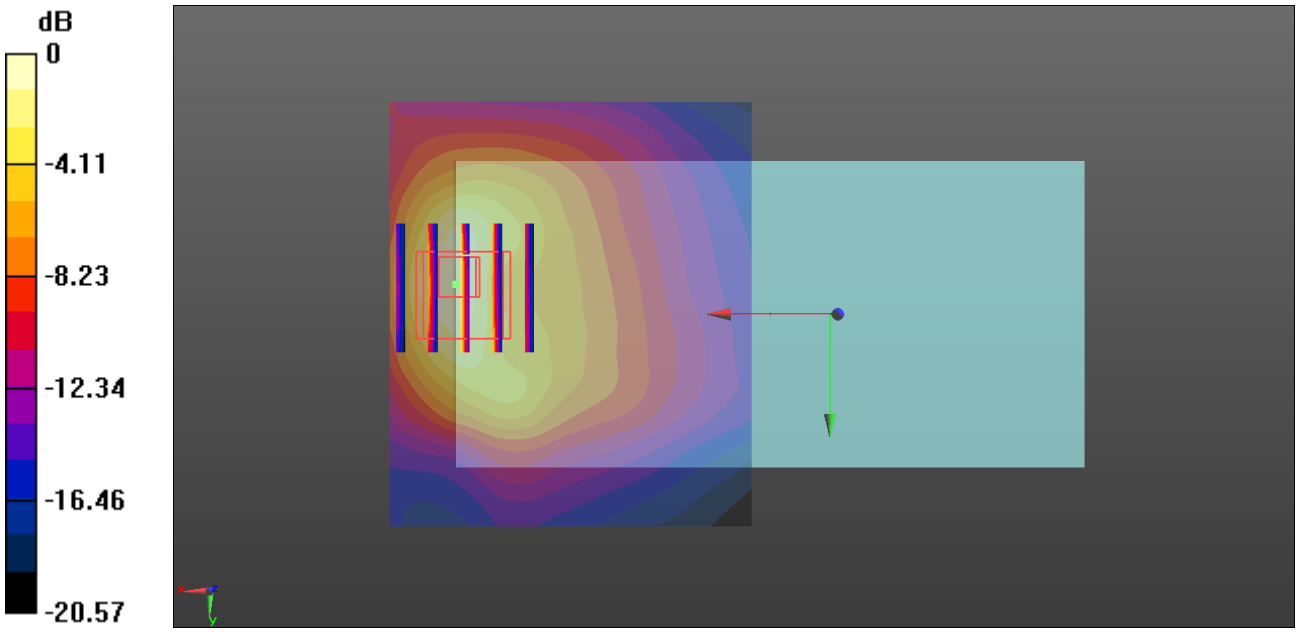
46_LTE Band 26_15M_QPSK_1RB_37Offset_Back_0mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 831.5 MHz; σ = 0.98 S/m; ε_r = 54.299; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.49, 9.49, 9.49); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.30 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 79.67 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 7.41 W/kg
SAR(1 g) = 3.59 W/kg; SAR(10 g) = 1.93 W/kg
Maximum value of SAR (measured) = 6.18 W/kg



0 dB = 5.30 W/kg = 7.24 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.8

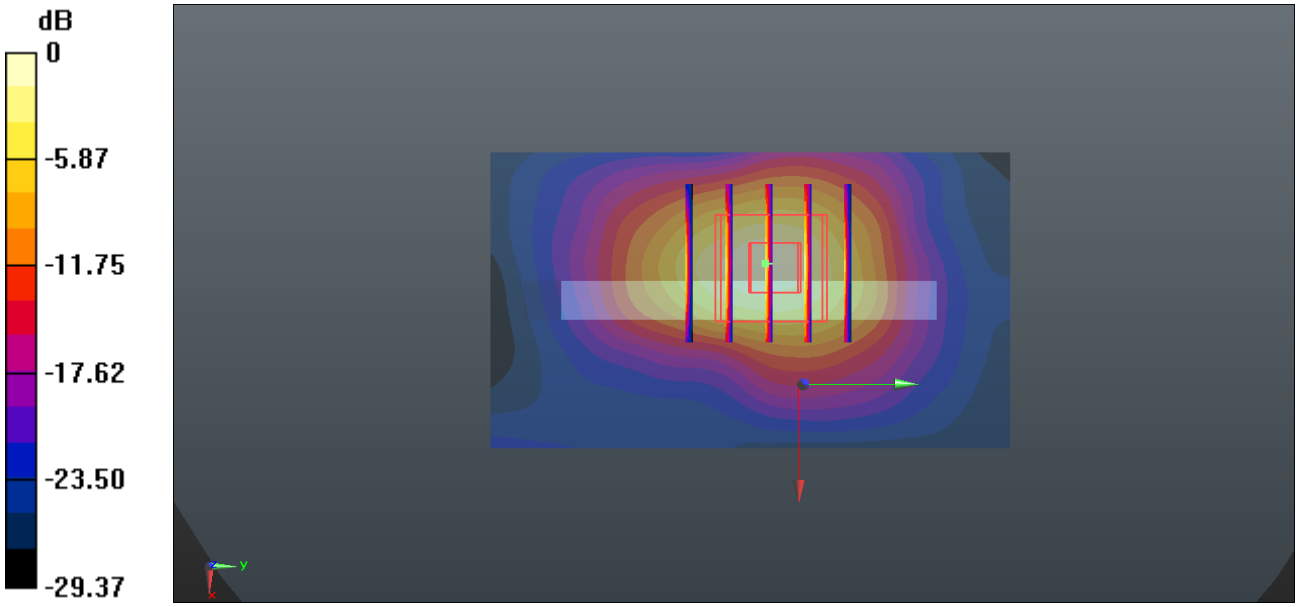
47_LTE Band 4_20M_QPSK_100RB_0Offset_Bottom Side_0mm_Ch20175

Communication System: UID 0, LTE-FDD (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1732.5 MHz; σ = 1.47 S/m; ε_r = 54.126; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.82, 4.82, 4.82); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20175/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 7.56 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 73.96 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 11.7 W/kg
SAR(1 g) = 5.38 W/kg; SAR(10 g) = 2.38 W/kg
Maximum value of SAR (measured) = 7.55 W/kg



0 dB = 7.56 W/kg = 8.79 dBW/kg

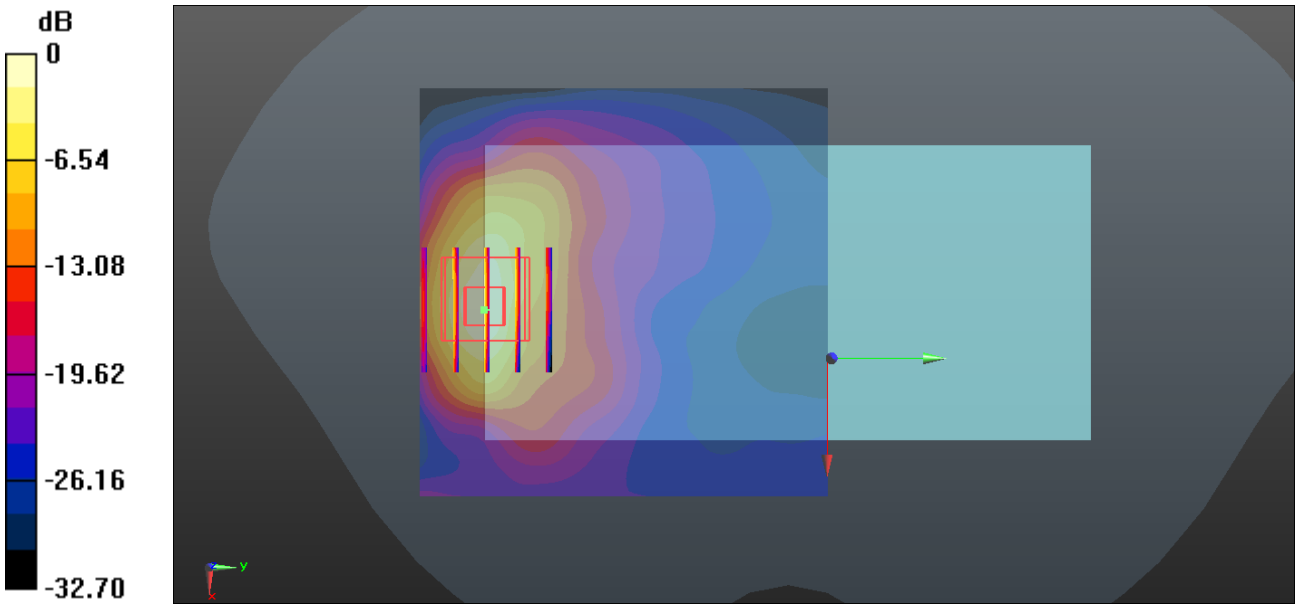
48_LTE Band 2_20M_QPSK_1RB_0Offset_Back_0mm_Ch18900

Communication System: UID 0, LTE-FDD (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.514 S/m; ε_r = 53.87; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.71, 4.71, 4.71); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch18900/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 8.01 W/kg

Ch18900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 75.54 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 11.9 W/kg
SAR(1 g) = 5.48 W/kg; SAR(10 g) = 2.37 W/kg
Maximum value of SAR (measured) = 8.09 W/kg



0 dB = 8.01 W/kg = 9.04 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.15

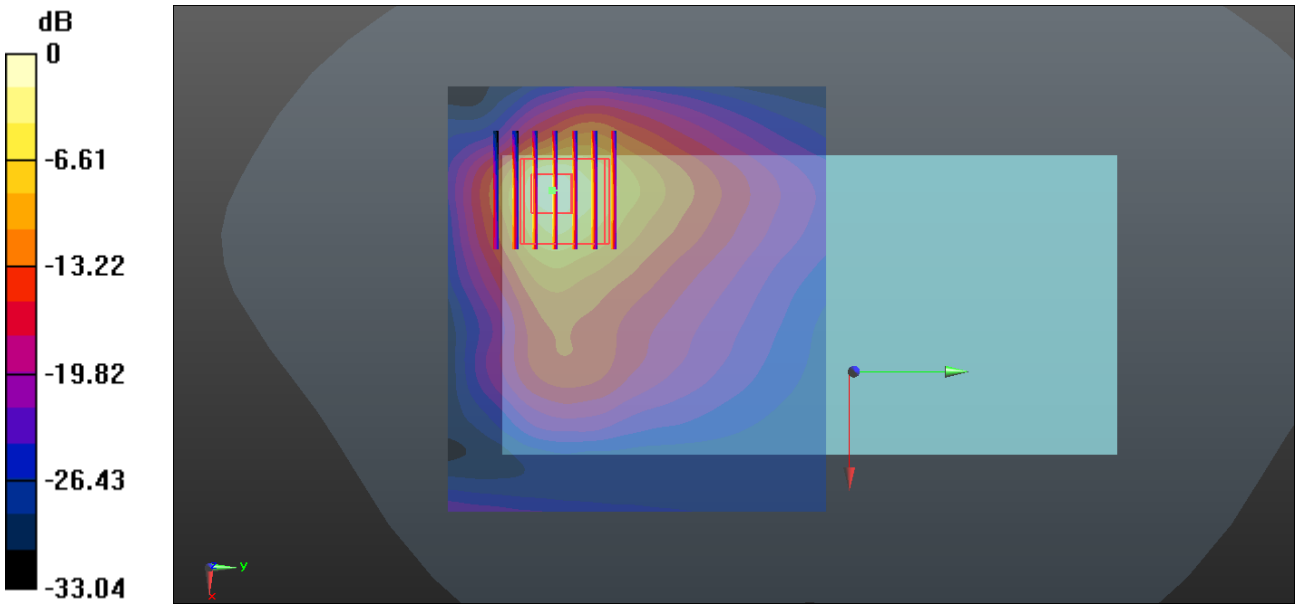
49_LTE Band 7_20M_QPSK_1RB_0Offset_Back_0mm_Ch211100

Communication System: UID 0, LTE-FDD (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2535 MHz; σ = 2.129 S/m; ε_r = 51.472; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch21100/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 12.9 W/kg

Ch21100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 72.01 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 21.3 W/kg
SAR(1 g) = 7.02 W/kg; SAR(10 g) = 2.59 W/kg
Maximum value of SAR (measured) = 10.4 W/kg



0 dB = 12.9 W/kg = 11.11 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.15

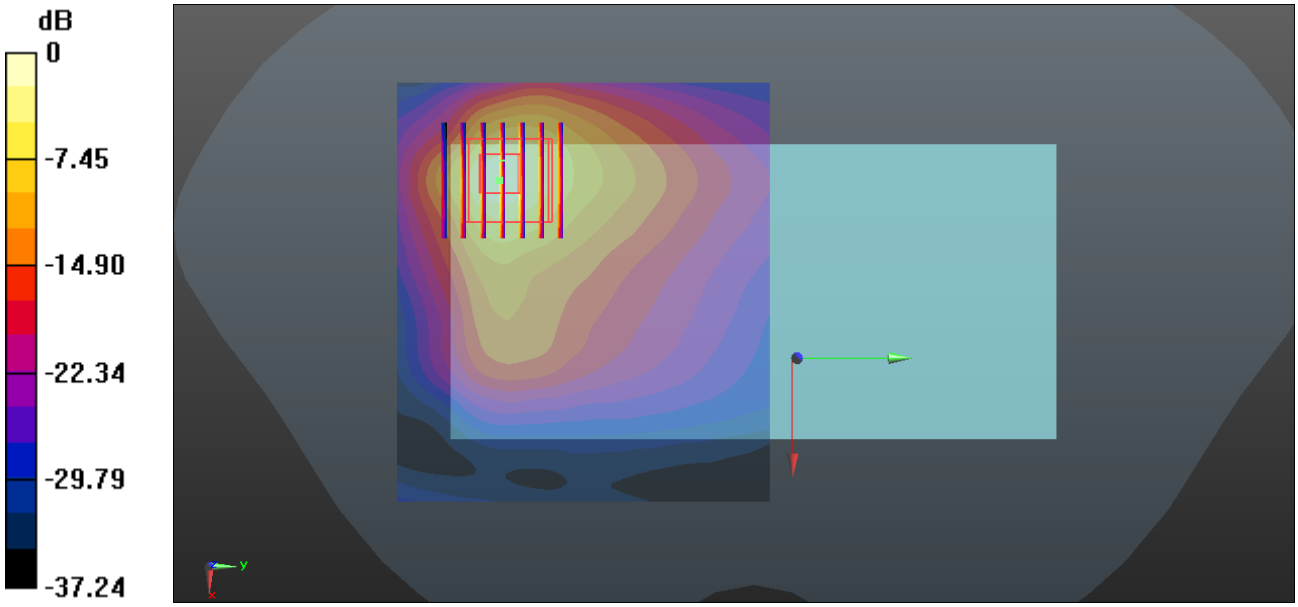
50_LTE Band 41_20M_QPSK_1RB_99Offset_Back_0mm_Ch40400

Communication System: UID 0, LTE-TDD (0); Frequency: 2571 MHz;Duty Cycle: 1:1.59
Medium: MSL_2600 Medium parameters used: f = 2571 MHz; σ = 2.18 S/m; ε_r = 51.339; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.41, 4.41, 4.41); Calibrated: 2018.7.19;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch40400/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 14.1 W/kg

Ch40400/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 75.51 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 27.3 W/kg
SAR(1 g) = 8.83 W/kg; SAR(10 g) = 3.29 W/kg
Maximum value of SAR (measured) = 12.3 W/kg



0 dB = 14.1 W/kg = 11.49 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

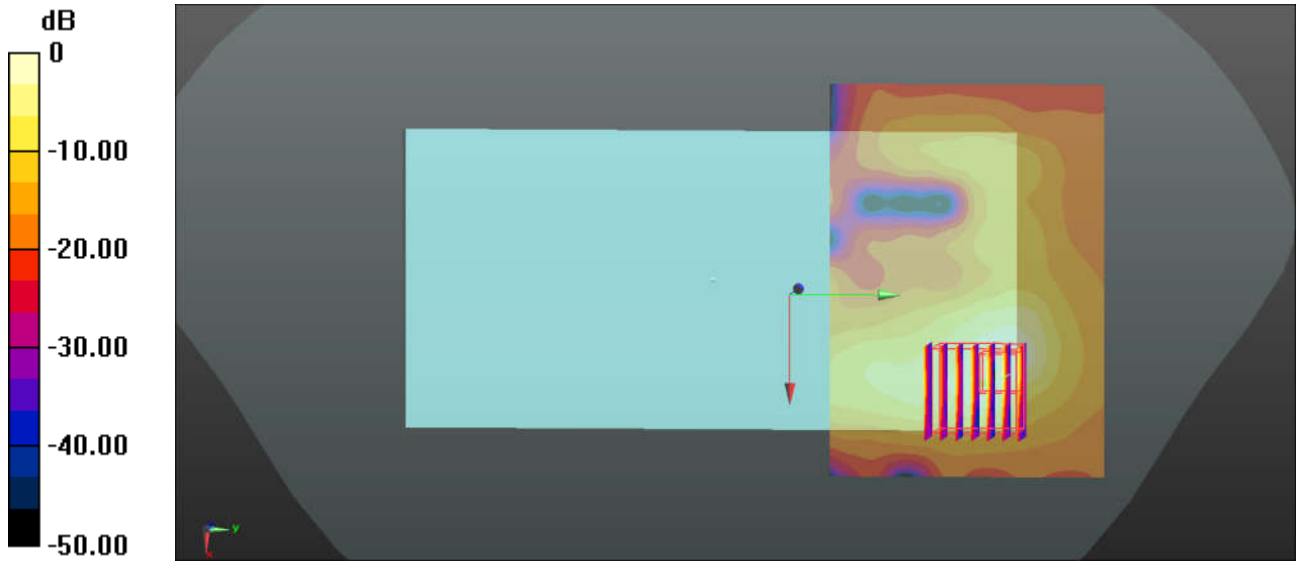
51_WLAN5.3GHz_802.11n-HT40 MCS0_Back_0mm_Ch62

Communication System: UID 0, 802.11n (0); Frequency: 5310 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5310 MHz; σ = 5.624 S/m; ε_r = 47.221; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.4, 4.4, 4.4); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch62/Area Scan (101x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 3.23 W/kg

Ch62/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 29.79 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 10.5 W/kg
SAR(1 g) = 1.87 W/kg; SAR(10 g) = 0.418 W/kg
Maximum value of SAR (measured) = 5.92 W/kg



0 dB = 3.23 W/kg = 5.09 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.9.25

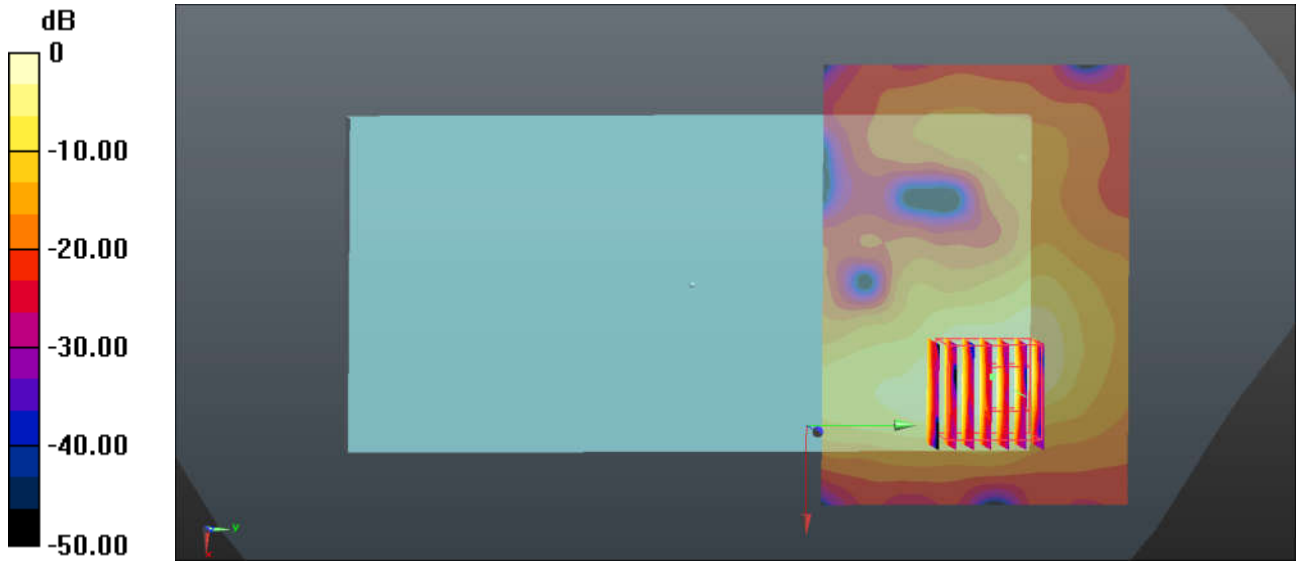
52_WLAN5.5GHz_802.11n-HT40 MCS0_Back_0mm_Ch142

Communication System: UID 0, 802.11n (0); Frequency: 5710 MHz;Duty Cycle: 1:1.163
Medium: MSL_5000 Medium parameters used: f = 5710 MHz; σ = 6.165 S/m; ε_r = 46.534; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(3.76, 3.76, 3.76); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch142/Area Scan (101x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 3.92 W/kg

Ch142/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 29.00 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 12.1 W/kg
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 0.428 W/kg
Maximum value of SAR (measured) = 5.82 W/kg



0 dB = 3.92 W/kg = 5.93 dBW/kg