Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.26

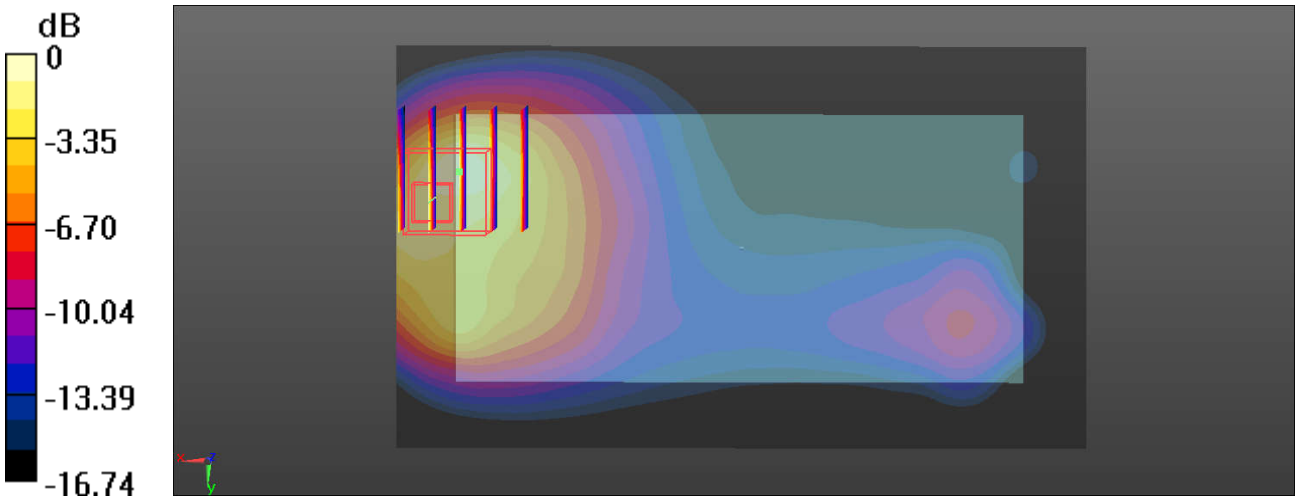
50_WCDMA V_RMC12.2Kbps_Back_0mm_WPC_Off_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL_835 Medium parameters used : f = 836.4 MHz; σ = 0.974 S/m; ε_r = 55.149; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch4182/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.20 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.67 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 4.12 W/kg
SAR(1 g) = 1.98 W/kg; SAR(10 g) = 1.07 W/kg
Maximum value of SAR (measured) = 3.08 W/kg



0 dB = 3.08 W/kg = 4.89 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.25

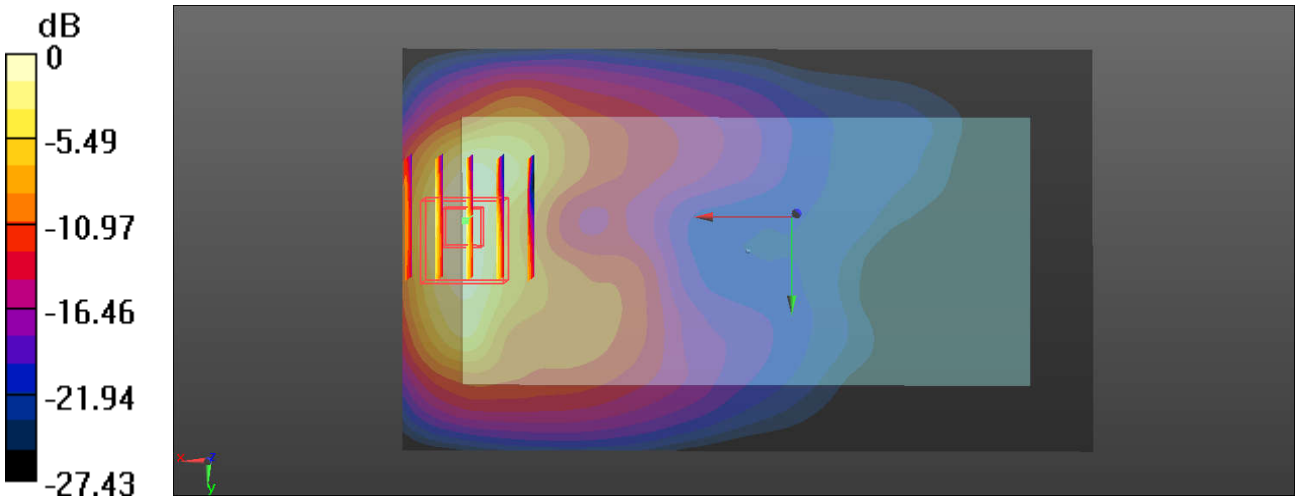
51_WCDMA II_RMC12.2Kbps_Back_0mm_WPC_Extremity On_Ch9262

Communication System: UID 0, UMTS (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used : f = 1852.4 MHz; σ = 1.448 S/m; ε_r = 52.95; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.82, 7.82, 7.82); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch9262/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 4.64 W/kg

Ch9262/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.517 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 5.12 W/kg
SAR(1 g) = 2.7 W/kg; SAR(10 g) = 1.32 W/kg
Maximum value of SAR (measured) = 4.12 W/kg



0 dB = 4.12 W/kg = 6.15 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.26

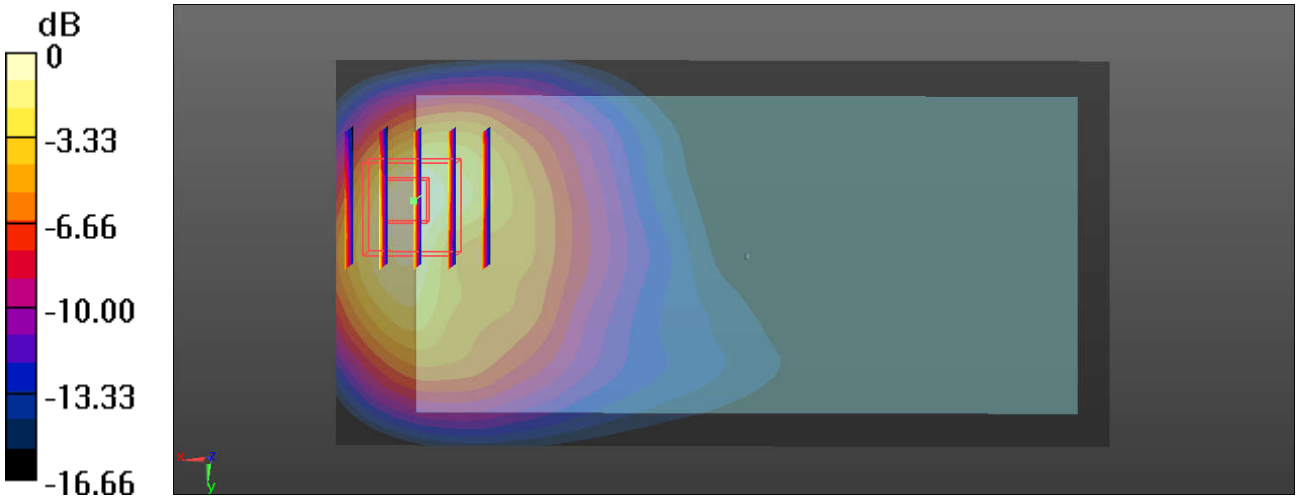
52_CDMA2000 BC0_RTAP153.6bps_Back_0mm_WPC_Off_Ch777

Communication System: UID 0, CDMA2000 (0); Frequency: 848.31 MHz;Duty Cycle: 1:1
Medium: MSL_835 Medium parameters used : f = 848.31 MHz; σ = 0.985 S/m; ε_r = 55.029; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch777/Area Scan (121x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 4.77 W/kg

Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.881 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 5.50 W/kg
SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.28 W/kg
Maximum value of SAR (measured) = 4.34 W/kg



0 dB = 4.34 W/kg = 6.37 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.25

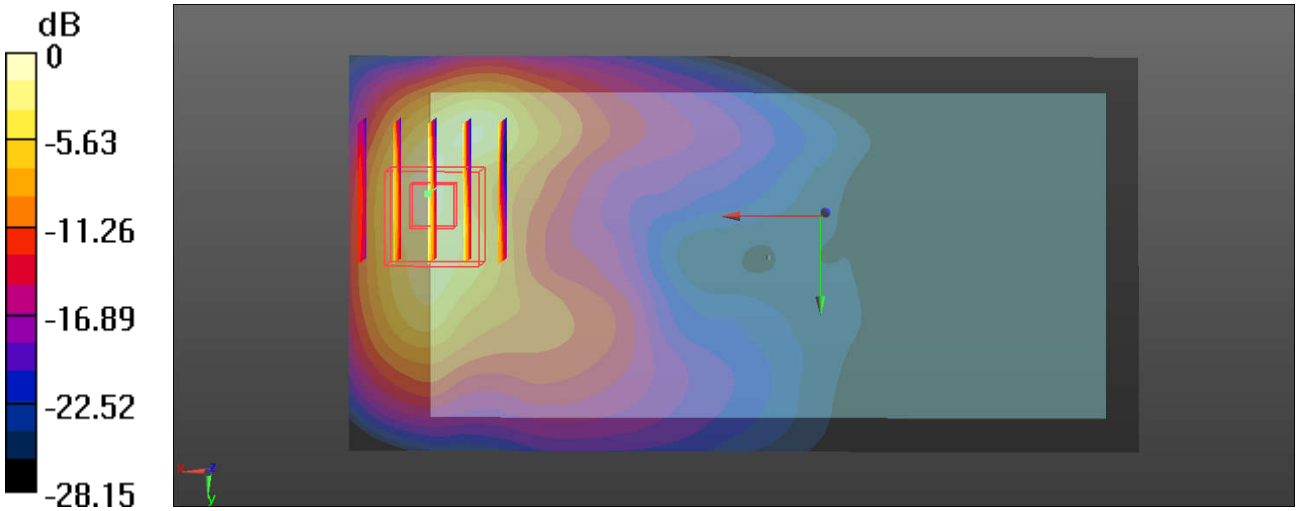
53_CDMA2000 BC1_RTAP153.6bps_Back_0mm_WPC_Extremity On_Ch1175

Communication System: UID 0, CDMA2000 (0); Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1908.75 MHz; σ = 1.524 S/m; ε_r = 52.799; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.82, 7.82, 7.82); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch1175/Area Scan (121x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.41 W/kg

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.214 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 4.54 W/kg
SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.04 W/kg
Maximum value of SAR (measured) = 3.86 W/kg



0 dB = 3.86 W/kg = 5.87 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.20

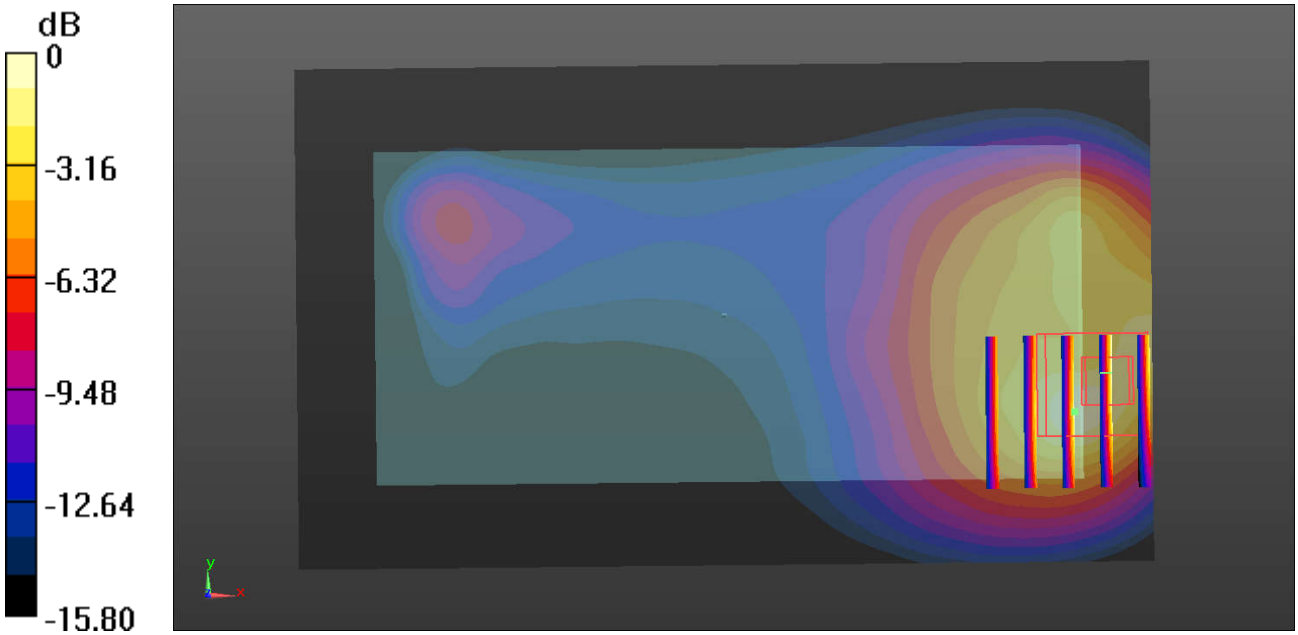
54_LTE Band 13_10M_QPSK_1RB_0Offset_Back_0mm_WPC_Off_Ch23230

Communication System: UID 0, FDD_LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium: MSL_750 Medium parameters used: f = 782 MHz; σ = 1 S/m; ε_r = 56.35; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(9.7, 9.7, 9.7); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM1; Type: SAM; Serial: TP-1164
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch23230/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.84 W/kg

Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.14 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 3.85 W/kg
SAR(1 g) = 1.84 W/kg; SAR(10 g) = 0.988 W/kg
Maximum value of SAR (measured) = 2.87 W/kg



0 dB = 2.87 W/kg = 4.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.26

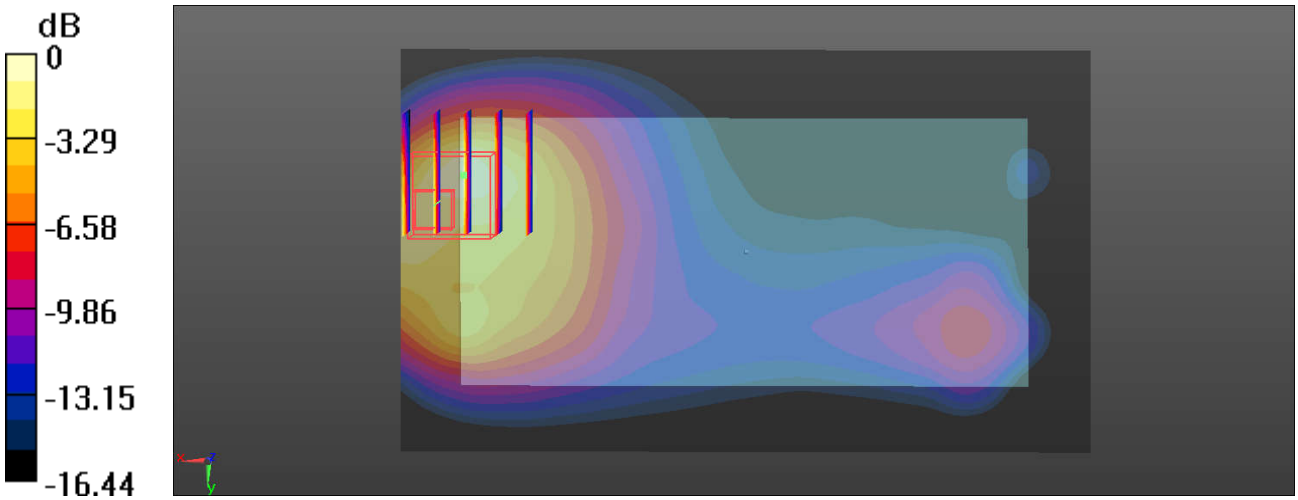
55_LTE Band 5_10M_QPSK_1RB_25Offset_Back_0mm_WPC_Off_Ch20525

Communication System: UID 0, FDD_LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL_835 Medium parameters used : f = 836.5 MHz; σ = 0.974 S/m; ε_r = 55.148; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch20525/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.57 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.15 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 3.33 W/kg
SAR(1 g) = 1.63 W/kg; SAR(10 g) = 0.878 W/kg
Maximum value of SAR (measured) = 2.51 W/kg



0 dB = 2.51 W/kg = 4.00 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.25

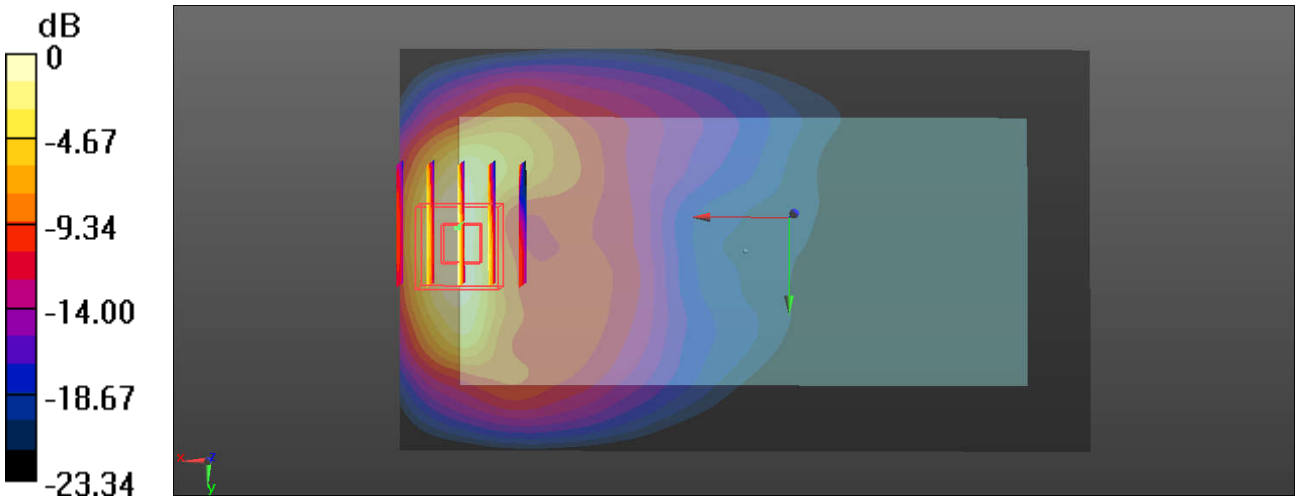
56_LTE Band 66_20M_QPSK_50RB_0Offset_Back_0mm_WPC_Extremity On_Ch132072

Communication System: UID 0, FDD_LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1720 MHz; σ = 1.413 S/m; ε_r = 54.8; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(8.15, 8.15, 8.15); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch132072/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.79 W/kg

Ch132072/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.728 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 4.31 W/kg
SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 3.43 W/kg



0 dB = 3.43 W/kg = 5.35 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.25

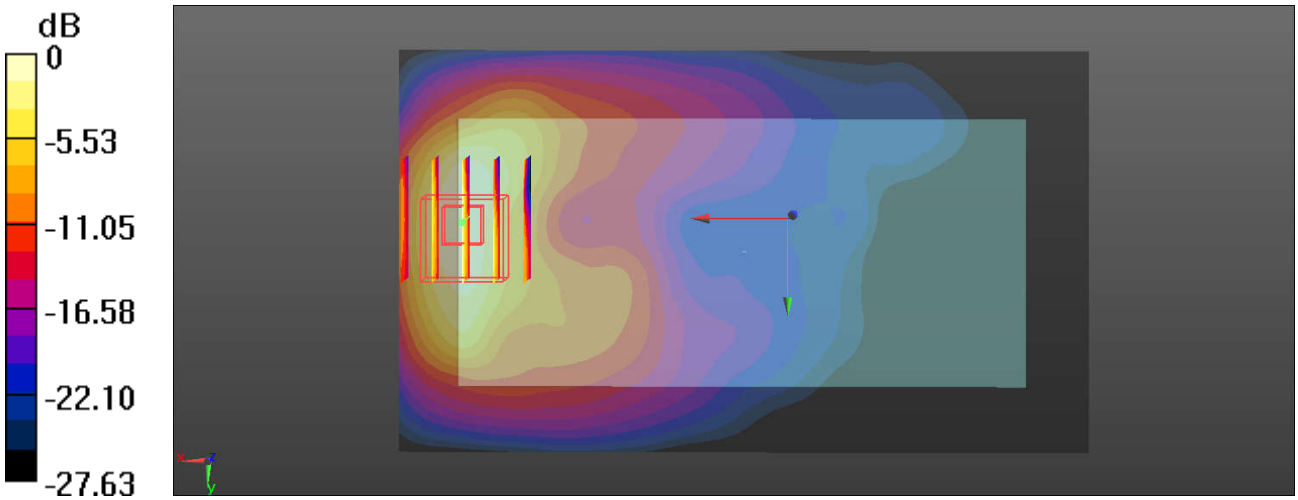
57_LTE Band 2_20M_QPSK_50RB_0Offset_Back_0mm_WPC_Extremity On_Ch18700

Communication System: UID 0, FDD_LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1860 MHz; σ = 1.458 S/m; ε_r = 52.922; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.82, 7.82, 7.82); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- 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) = 4.55 W/kg

Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.697 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 5.06 W/kg
SAR(1 g) = 2.73 W/kg; SAR(10 g) = 1.35 W/kg
Maximum value of SAR (measured) = 4.11 W/kg



0 dB = 4.11 W/kg = 6.14 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.24

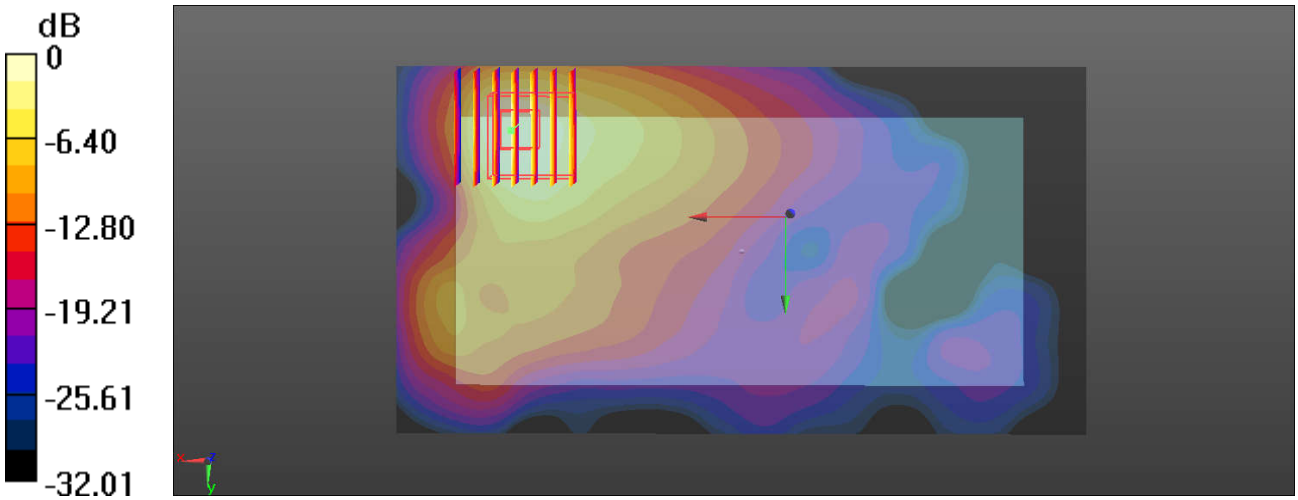
58_LTE Band 7_20M_QPSK_50RB_0Offset_Back_0mm_WPC_Extremity On_Ch21350

Communication System: UID 0, FDD_LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2560 MHz; σ = 2.129 S/m; ε_r = 53.033; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.38, 7.38, 7.38); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch21350/Area Scan (81x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 5.57 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.517 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 5.93 W/kg
SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 4.06 W/kg



0 dB = 4.06 W/kg = 6.09 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.24

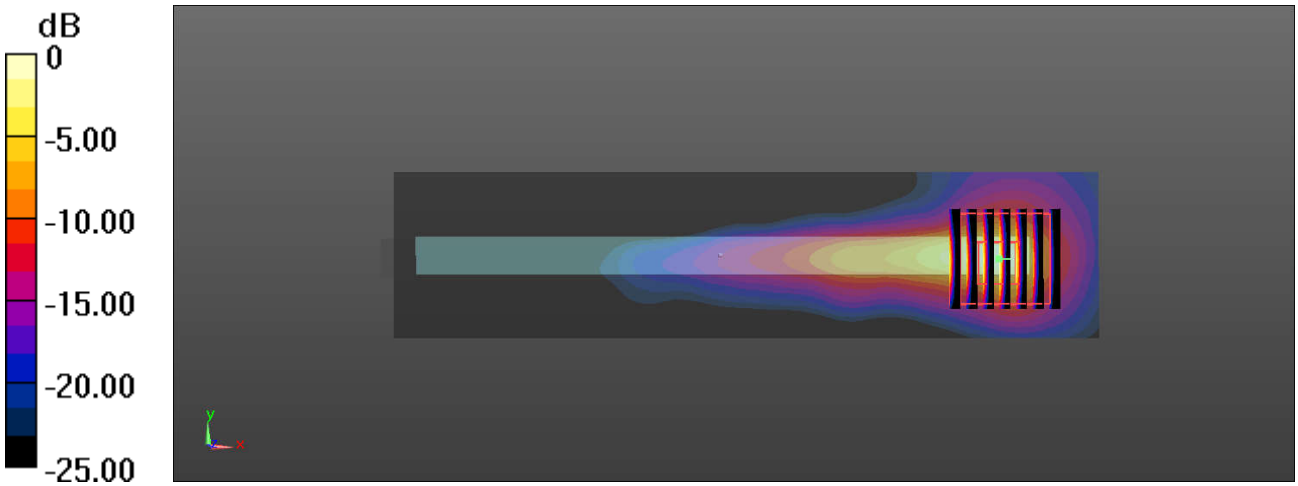
59_WLAN5GHz_Band2 802.11a 6Mbps_Left Side_0mm_Ant 1_WPC_Off_Ch60

Communication System: UID 0, WIFI (0); Frequency: 5300 MHz;Duty Cycle: 1:1.018
Medium: MSL_5000 Medium parameters used: f = 5300 MHz; σ = 5.566 S/m; ε_r = 47.864; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

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: SAM3; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch60/Area Scan (41x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 11.3 W/kg

Ch60/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.976 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 28.5 W/kg
SAR(1 g) = 5 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 12.2 W/kg



0 dB = 12.2 W/kg = 10.86 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.6.24

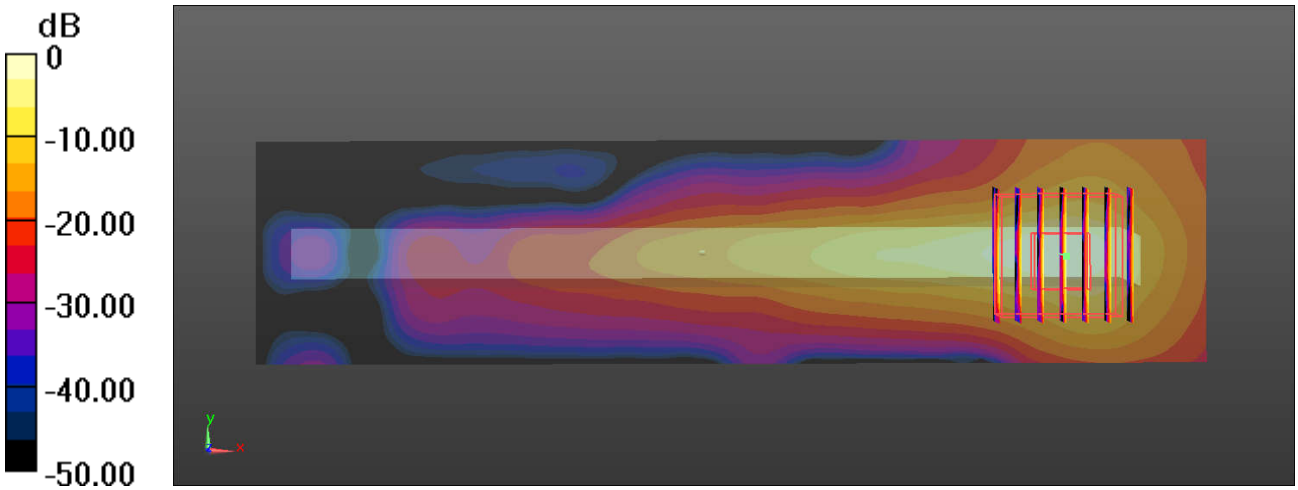
60_WLAN5GHz_Band3 802.11a 6Mbps_Left Side_0mm_Ant 1_WPC_Off_Ch116

Communication System: UID 0, WIFI (0); Frequency: 5580 MHz;Duty Cycle: 1:1.018
Medium: MSL_5000 Medium parameters used: f = 5580 MHz; σ = 5.927 S/m; ε_r = 47.406; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(3.98, 3.98, 3.98); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM3; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch116/Area Scan (41x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 10.8 W/kg

Ch116/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.775 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 29.9 W/kg
SAR(1 g) = 4.84 W/kg; SAR(10 g) = 1.06 W/kg
Maximum value of SAR (measured) = 11.9 W/kg



0 dB = 11.9 W/kg = 10.76 dBW/kg