Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.10

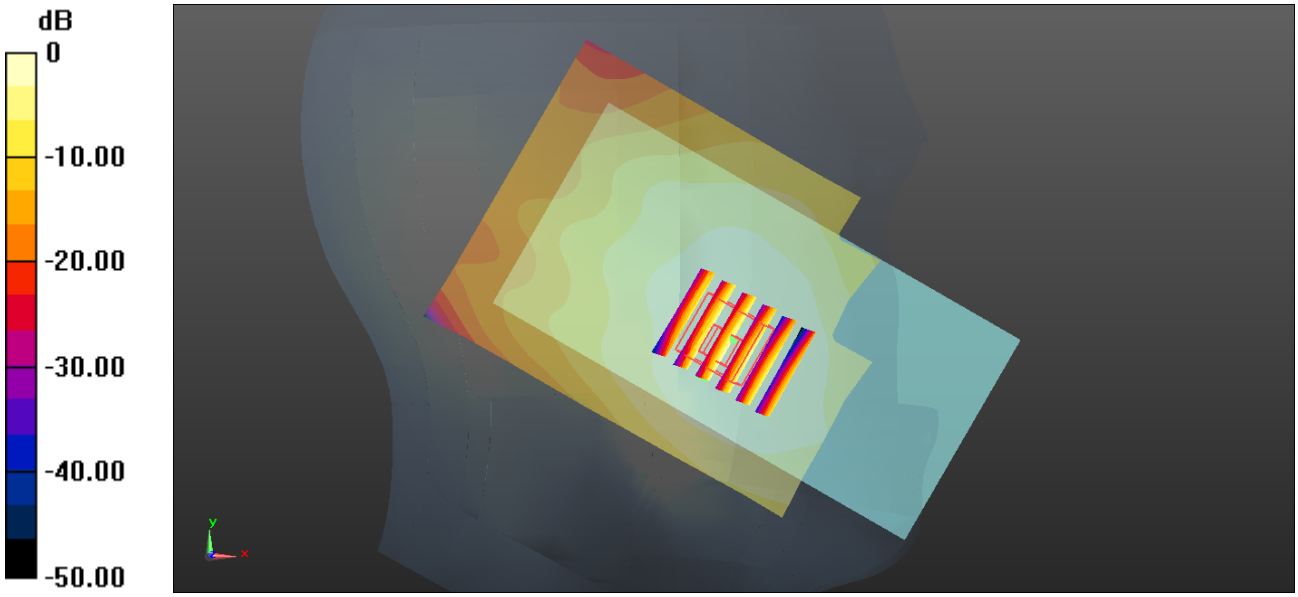
01_GSM850_GPRS 4 Tx slots_Left Cheek_0mm_Ch128

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 824.2 MHz;Duty Cycle: 1:2.08
Medium: HSL_835 Medium parameters used: f = 824.2 MHz; σ = 0.904 S/m; ε_r = 42.893; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- 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 (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.247 W/kg

Ch128/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.72 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.281 W/kg
SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.173 W/kg
Maximum value of SAR (measured) = 0.247 W/kg



0 dB = 0.247 W/kg = -6.07 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.16

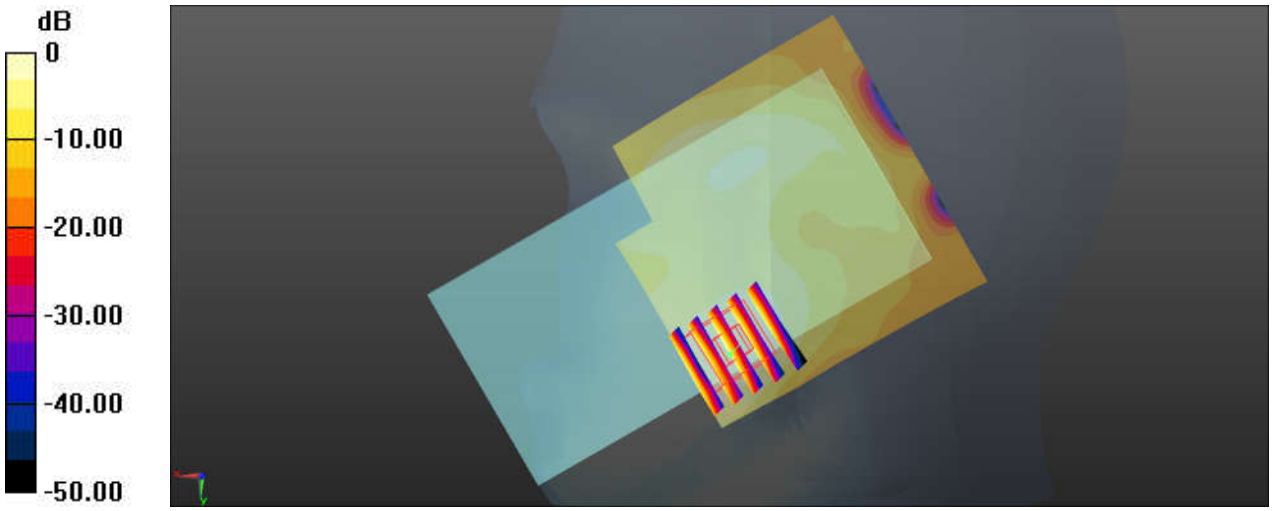
02_GSM1900_GPRS (4Tx slots)_Right Cheek_0mm_Ch512

Communication System: UID 0, PCS (0); Frequency: 1850.2 MHz;Duty Cycle: 1:2.08
Medium: HSL_1900 Medium parameters used: f = 1850.2 MHz; σ = 1.374 S/m; ε_r = 41.32; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); 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) = 0.0913 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.442 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.108 W/kg
SAR(1 g) = 0.064 W/kg; SAR(10 g) = 0.039 W/kg
Maximum value of SAR (measured) = 0.0891 W/kg



0 dB = 0.0913 W/kg = -10.40 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.10

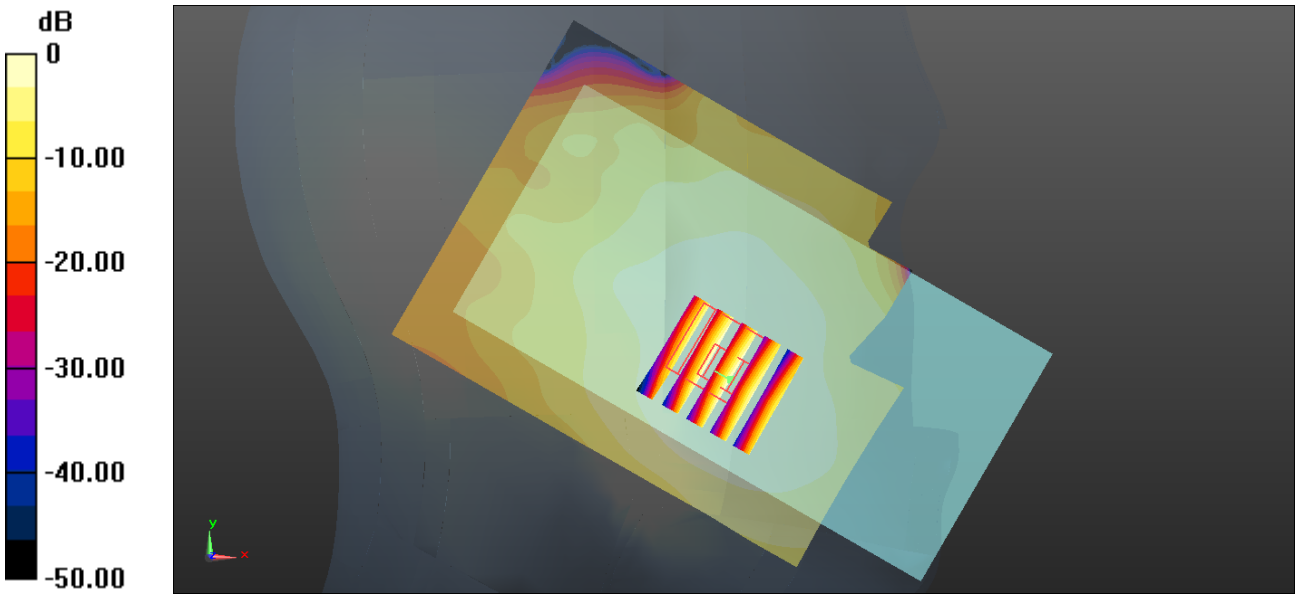
03_WCDMA V_RMC12.2Kbps_Left Cheek_0mm_Ch4132

Communication System: UID 0, UMTS (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 826.4 MHz; σ = 0.906 S/m; ε_r = 42.868; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- 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)

Ch4132/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.321 W/kg

Ch4132/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.00 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.326 W/kg
SAR(1 g) = 0.288 W/kg; SAR(10 g) = 0.236 W/kg
Maximum value of SAR (measured) = 0.314 W/kg



0 dB = 0.321 W/kg = -4.93 dBW/kg

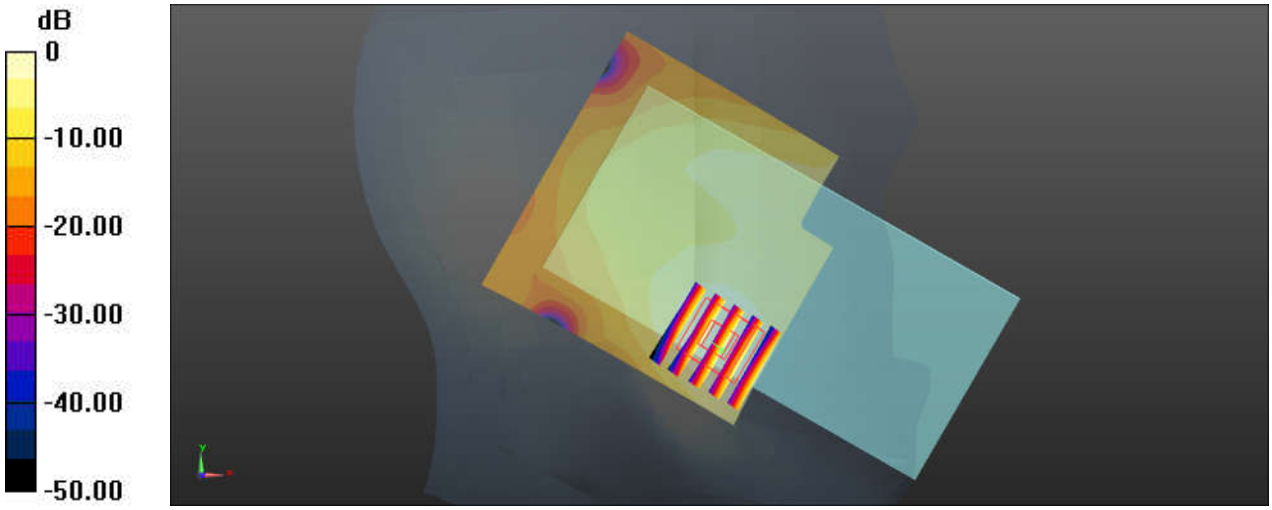
04_WCDMA IV_RMC 12.2Kbps_Left Cheek_0mm_Ch1513

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1752.6 MHz; σ = 1.407 S/m; ε_r = 41.467; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.79, 7.79, 7.79); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1513/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.154 W/kg

Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.57 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.174 W/kg
SAR(1 g) = 0.106 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.143 W/kg



0 dB = 0.154 W/kg = -8.12 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.16

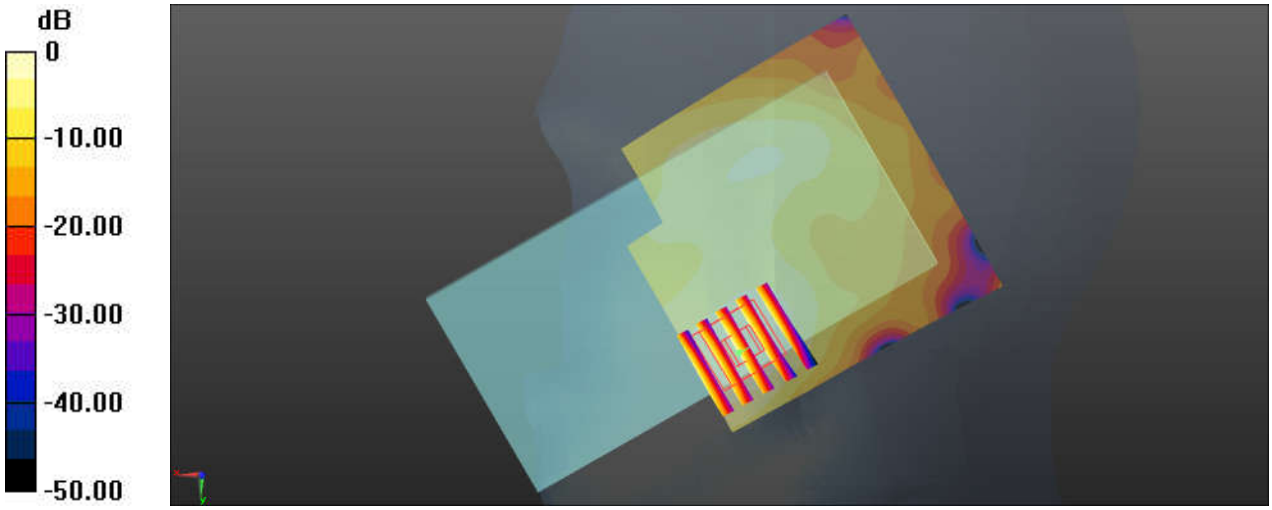
05_WCDMA II_RMC 12.2Kbps_Right Cheek_0mm_Ch9538

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 = 1.437 S/m; ε_r = 41.069; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9538/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.184 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.13 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.079 W/kg
Maximum value of SAR (measured) = 0.196 W/kg



0 dB = 0.184 W/kg = -7.35 dBW/kg

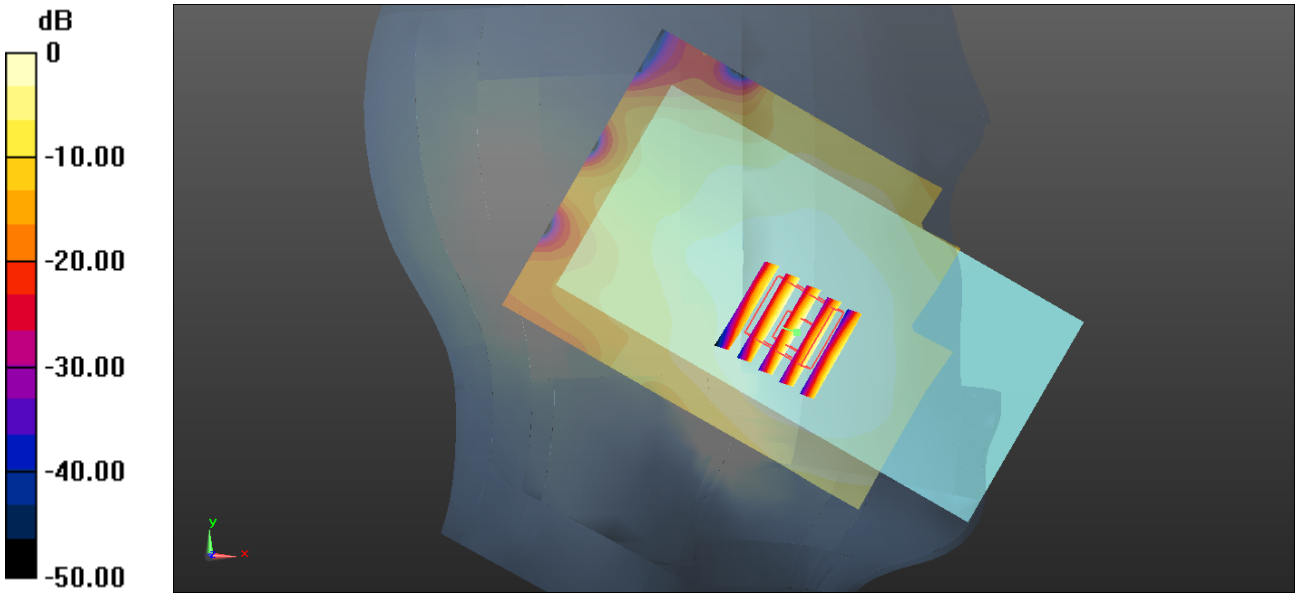
06_LTE Band 26_15M_QPSK_1RB_37Offset_Left Cheek_0mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 831.5 MHz; σ = 0.911 S/m; ε_r = 42.808; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.2, 10.2, 10.2); Calibrated: 2018.1.31;
- 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 (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.277 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.88 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.289 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.204 W/kg
Maximum value of SAR (measured) = 0.279 W/kg



0 dB = 0.277 W/kg = -5.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.14

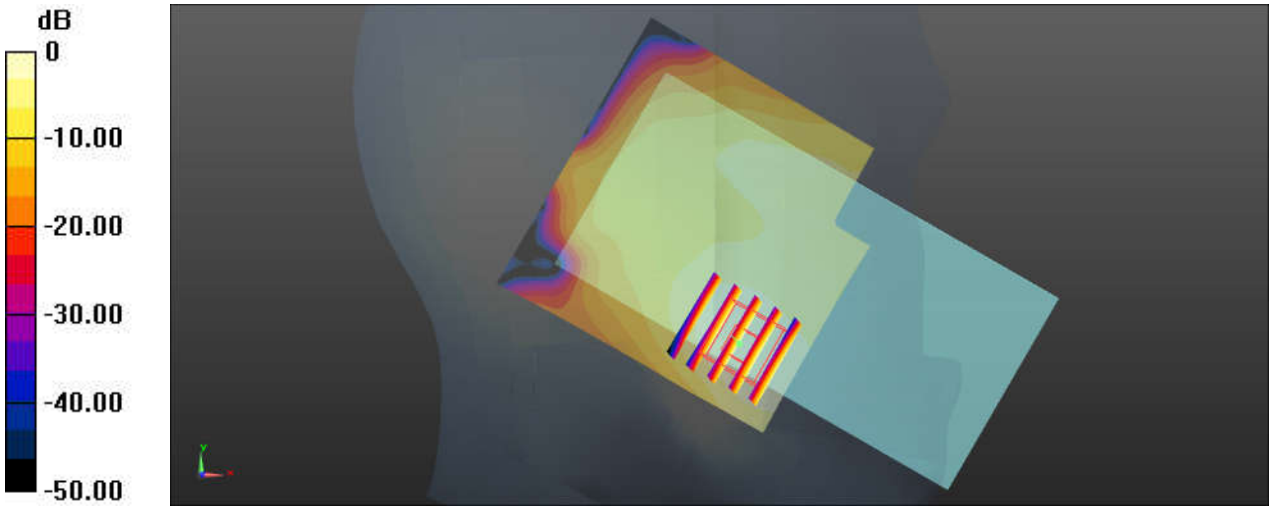
07_LTE Band 4_20M_QPSK_1RB_99Offset_Left Cheek_0mm_Ch20175

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 = 1.385 S/m; ε_r = 41.53; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.79, 7.79, 7.79); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20175/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.199 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.10 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.221 W/kg
SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.085 W/kg
Maximum value of SAR (measured) = 0.186 W/kg



0 dB = 0.199 W/kg = -7.01 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.16

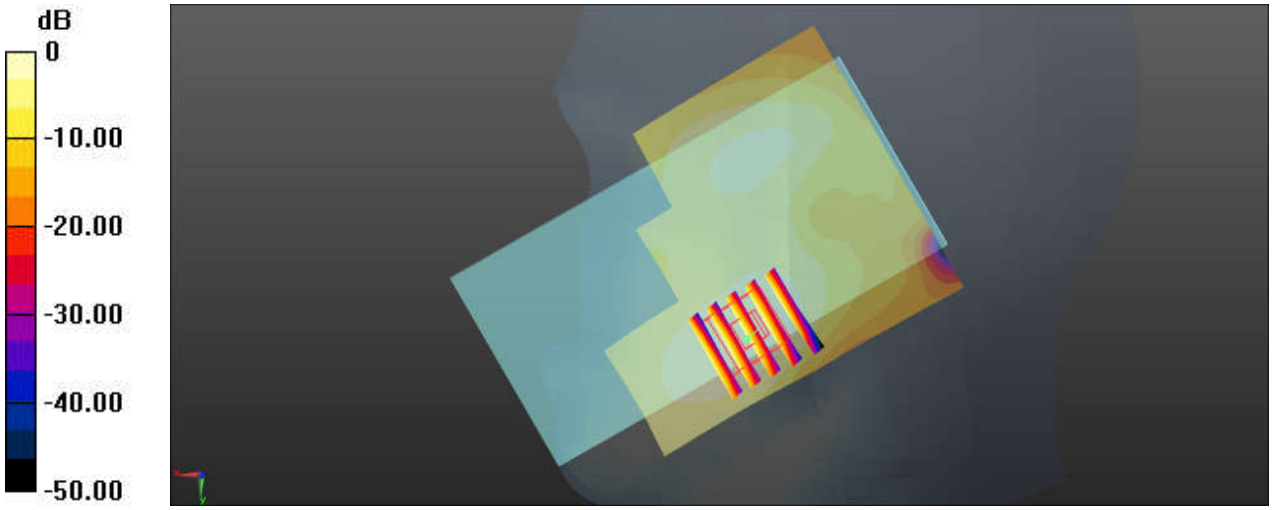
08_LTE Band 2_20M_QPSK_1RB_0Offset_Right Cheek_5mm_Ch18700

Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1860 MHz; σ = 1.386 S/m; ε_r = 41.292; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch18700/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.156 W/kg

Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.98 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.184 W/kg
SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.069 W/kg
Maximum value of SAR (measured) = 0.157 W/kg



0 dB = 0.156 W/kg = -8.07 dBW/kg

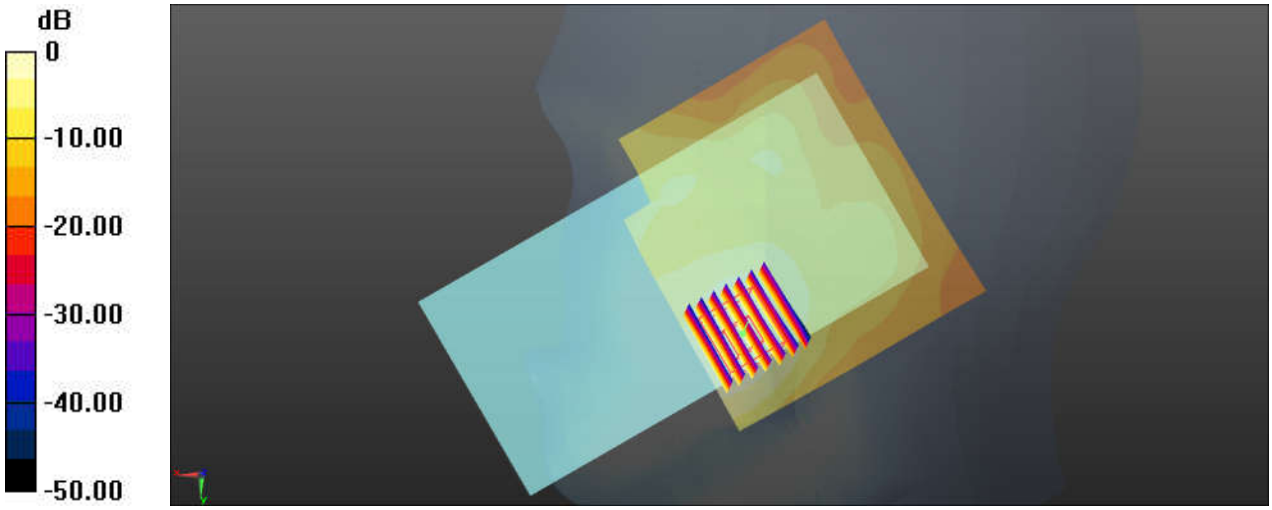
09_LTE Band 7_20M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch20850

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：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.45, 4.45, 4.45); Calibrated: 2018.7.19
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20850/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.429 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.14 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.644 W/kg
SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.182 W/kg
Maximum value of SAR (measured) = 0.424 W/kg



0 dB = 0.429 W/kg = -3.68 dBW/kg

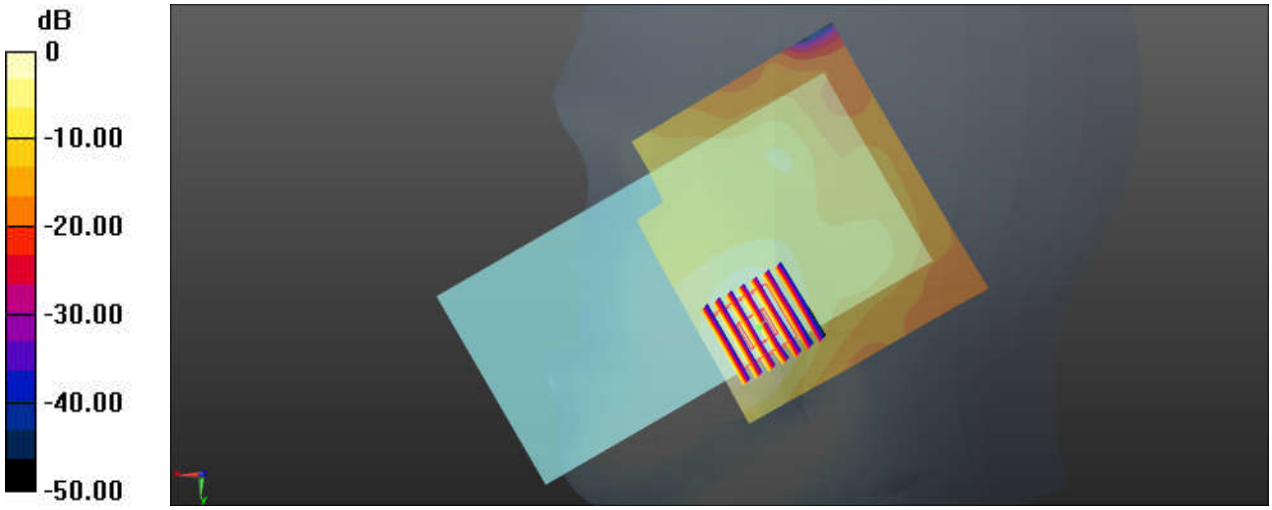
10_LTE Band 41_20M_QPSK_1RB_99Offset_Right Cheek_0mm_Ch40400

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：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3088; ConvF(4.45, 4.45, 4.45); Calibrated: 2018.7.19
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch40400/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.295 W/kg

Ch40400/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.17 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.425 W/kg
SAR(1 g) = 0.226 W/kg; SAR(10 g) = 0.116 W/kg
Maximum value of SAR (measured) = 0.280 W/kg



0 dB = 0.295 W/kg = -5.30 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.22

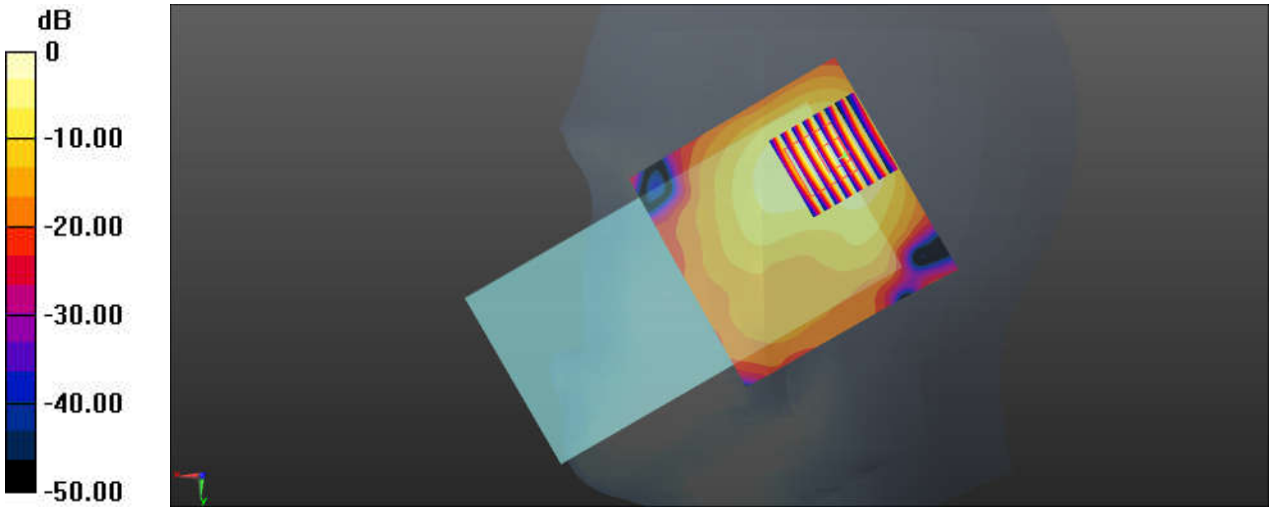
11_WLAN 2.4GHz _802.11b 1Mbps_Right Cheek_0mm_Ch11

Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1.028
Medium: HSL_2450 Medium parameters used: f = 2462 MHz; σ = 1.861 S/m; ε_r = 38.951; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.08, 7.08, 7.08); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch11/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.747 W/kg

Ch11/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.09 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.764 W/kg



0 dB = 0.747 W/kg = -1.27 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.22

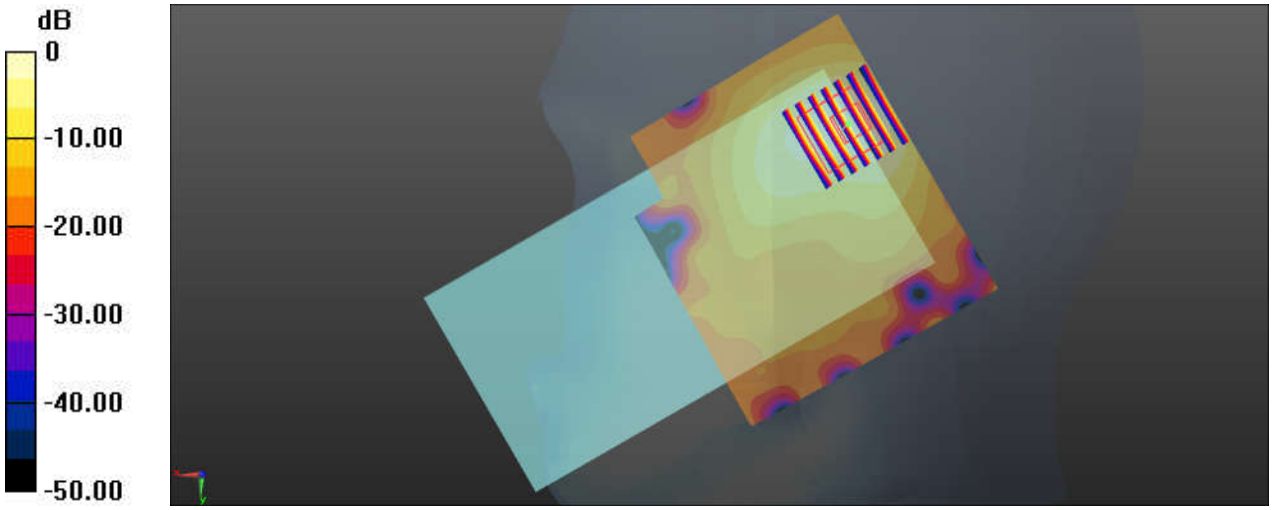
12_Bluetooth _DH5 1Mbps_Right Cheek_0mm_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.298
Medium: HSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.838 S/m; ε_r = 39.049; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.08, 7.08, 7.08); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch39/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.256 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.23 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.399 W/kg
SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.090 W/kg
Maximum value of SAR (measured) = 0.234 W/kg



0 dB = 0.256 W/kg = -5.92 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.22

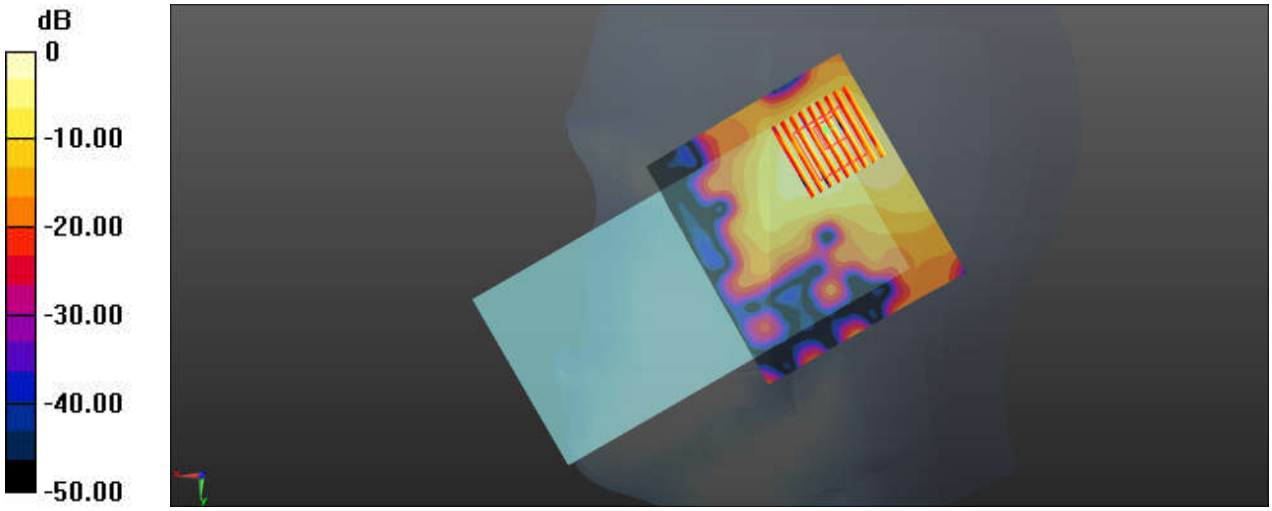
13_WLAN5GHzz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch54

Communication System: UID 0, 802.11n (0); Frequency: 5270 MHz;Duty Cycle: 1:1.134
Medium: HSL_5000 Medium parameters used: f = 5270 MHz; σ = 4.878 S/m; ε_r = 37.082; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch54/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.22 W/kg

Ch54/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 17.85 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.15 W/kg
SAR(1 g) = 0.539 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 1.30 W/kg



0 dB = 1.22 W/kg = 0.86 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.22

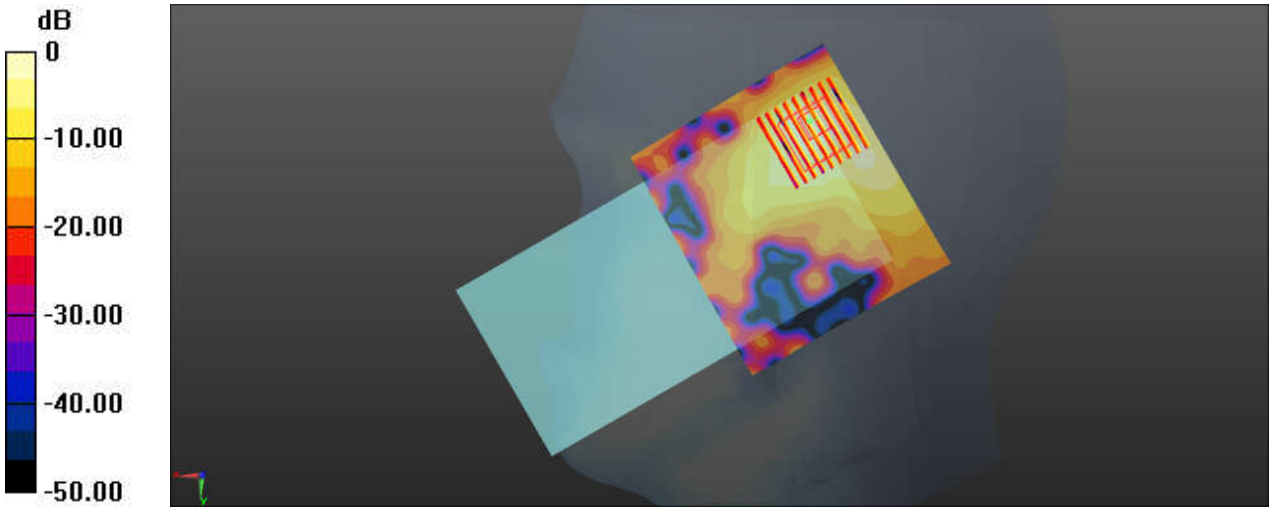
14_WLAN5GHzz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch134

Communication System: UID 0, 802.11n (0); Frequency: 5670 MHz;Duty Cycle: 1:1.134
Medium: HSL_5000 Medium parameters used: f = 5670 MHz; σ = 5.287 S/m; ε_r = 36.481; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch134/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Ch134/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 17.17 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.25 W/kg
SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.159 W/kg
Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.24 W/kg = 0.93 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.22

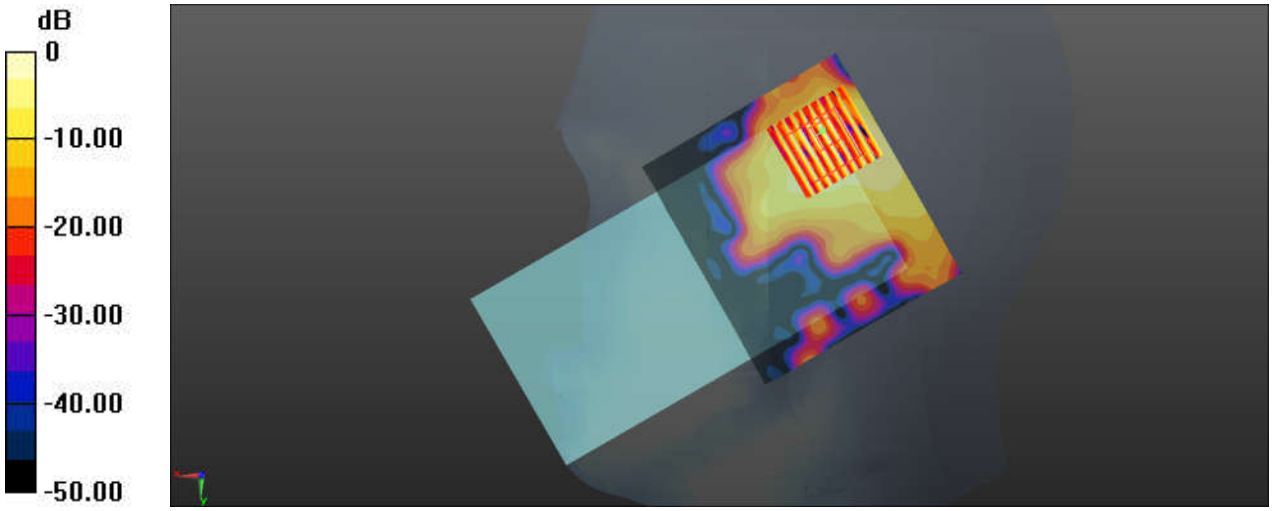
15_WLAN5GHzz_802.11n-HT40 MCS0_Right Cheek_0mm_Ch151

Communication System: UID 0, 802.11n (0); Frequency: 5755 MHz;Duty Cycle: 1:1.134
Medium: HSL_5000 Medium parameters used: f = 5755 MHz; σ = 5.368 S/m; ε_r = 36.358; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.05 W/kg

Ch151/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.49 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.78 W/kg
SAR(1 g) = 0.390 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.998 W/kg



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

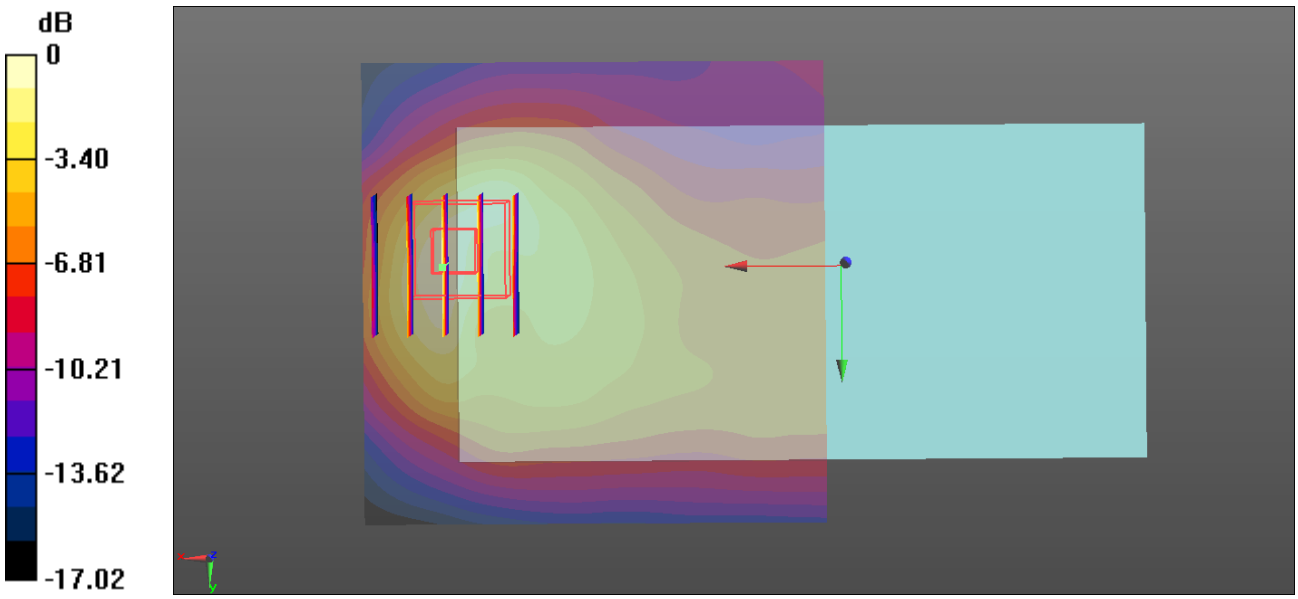
16_GSM850_GPRS 4 Tx slots_Back_5mm_Ch251

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium: MSL_850 Medium parameters used: f = 848.8 MHz; σ = 0.999 S/m; ε_r = 56.388; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch251/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.29 W/kg

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.61 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.620 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

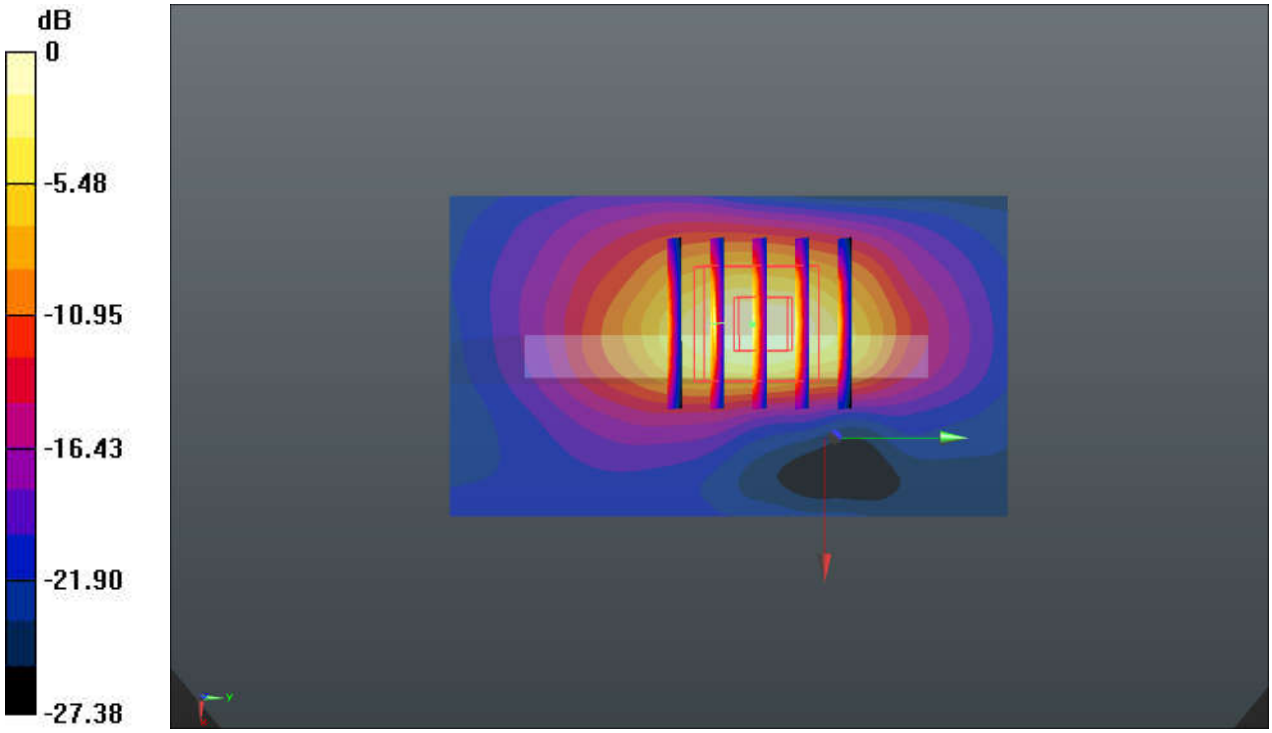
17_GSM1900_GPRS (4Tx slots)_Bottom Side_5mm_Hotspot On_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.08
Medium: MSL_1900 Medium parameters used: f = 1909.8 MHz; σ = 1.549 S/m; ε_r = 53.422; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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)

Ch810/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.51 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.37 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.08 W/kg
SAR(1 g) = 0.986 W/kg; SAR(10 g) = 0.464 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.9

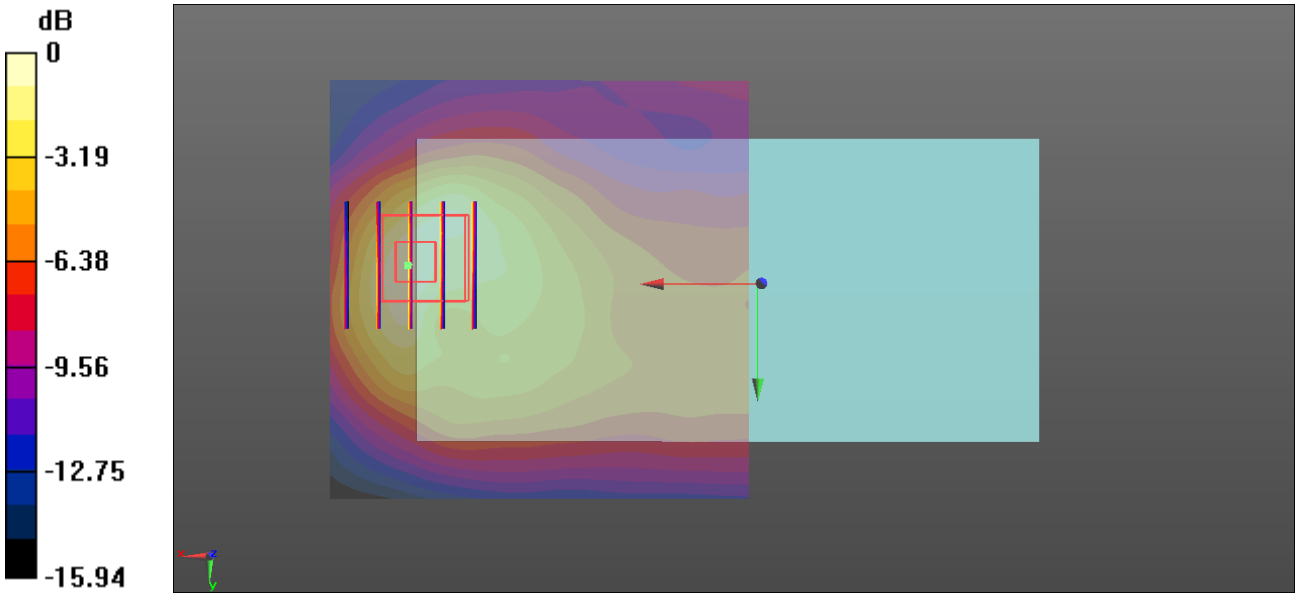
18_WCDMA V_RMC 12.2Kbps_Back_5mm_Ch4233

Communication System: UID 0, UMTS (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 846.6 MHz; σ = 0.997 S/m; ε_r = 56.409; ρ = $1000_{kg/m^3}$
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4233/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.24 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.675 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

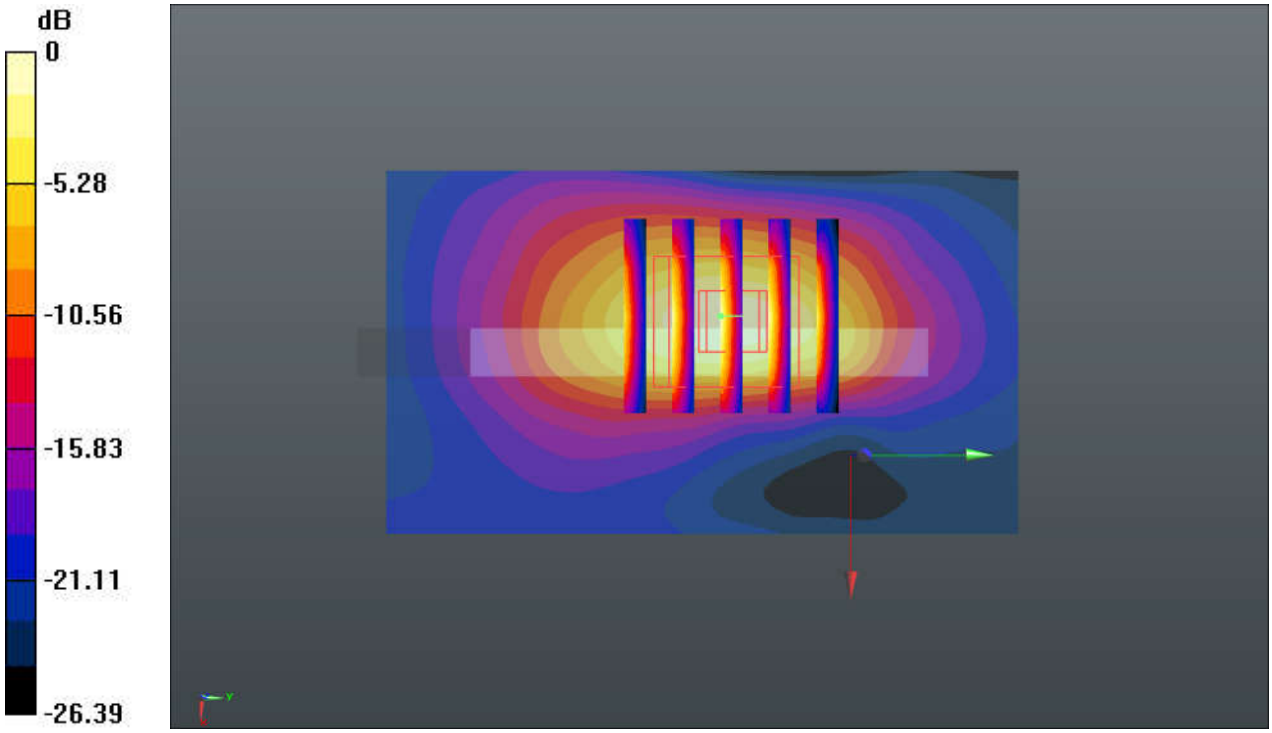
19_WCDMA IV_RMC 12.2Kbps_Bottom Side_5mm_Hotspot On_Ch1513

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1752.6 MHz; σ = 1.493 S/m; ε_r = 54.732; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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)

Ch1513/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.90 W/kg

Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.64 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.37 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.576 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.90 W/kg = 2.79 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

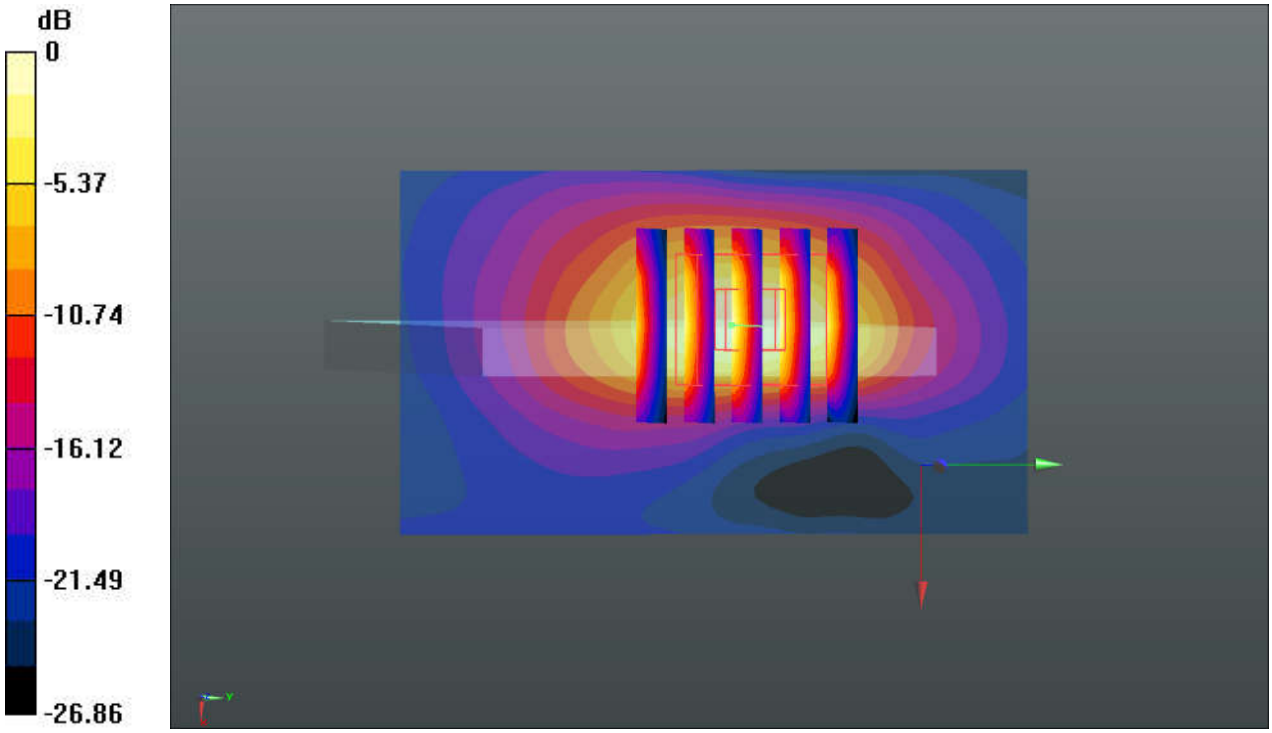
20_WCDMA II_RMC 12.2Kbps_Bottom Sidek_5mm_Hotspot On_Ch9400

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 = 53.566; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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)

Ch9400/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.70 W/kg

Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.60 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.22 W/kg
SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.499 W/kg
Maximum value of SAR (measured) = 1.42 W/kg



0 dB = 1.70 W/kg = 2.30 dBW/kg

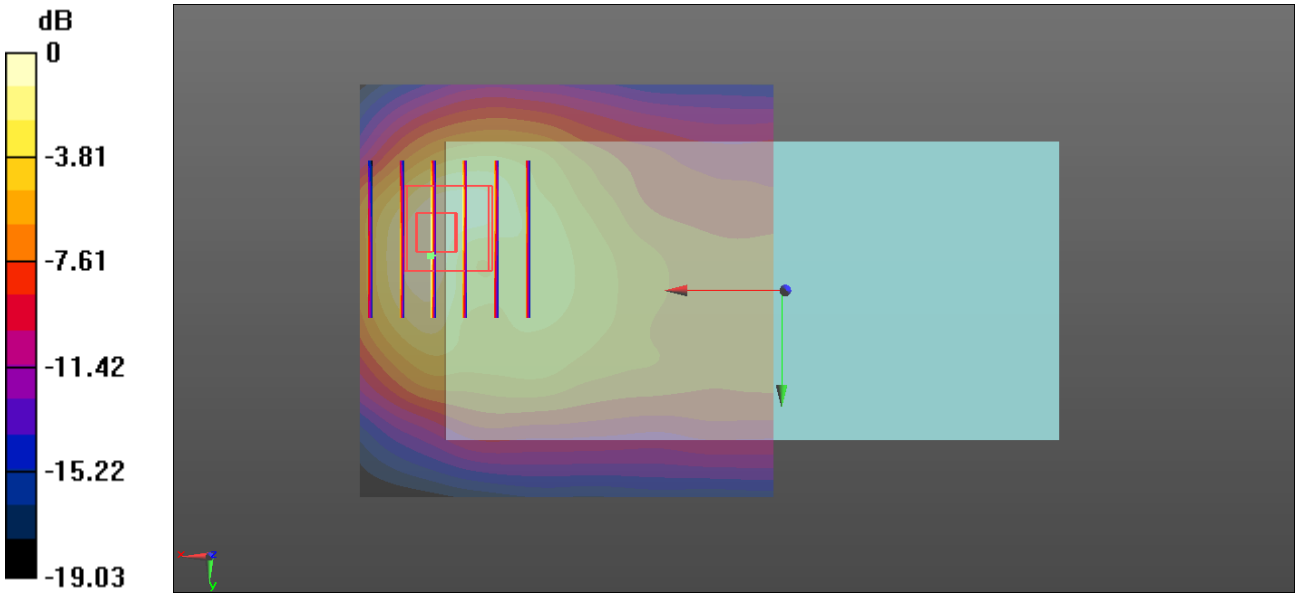
21_LTE Band 26_15M_QPSK_1RB_37Offset_Back_5mm_Ch26865

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 = 0.981 S/m; ε_r = 56.535; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Ch26865/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.66 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.608 W/kg
Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

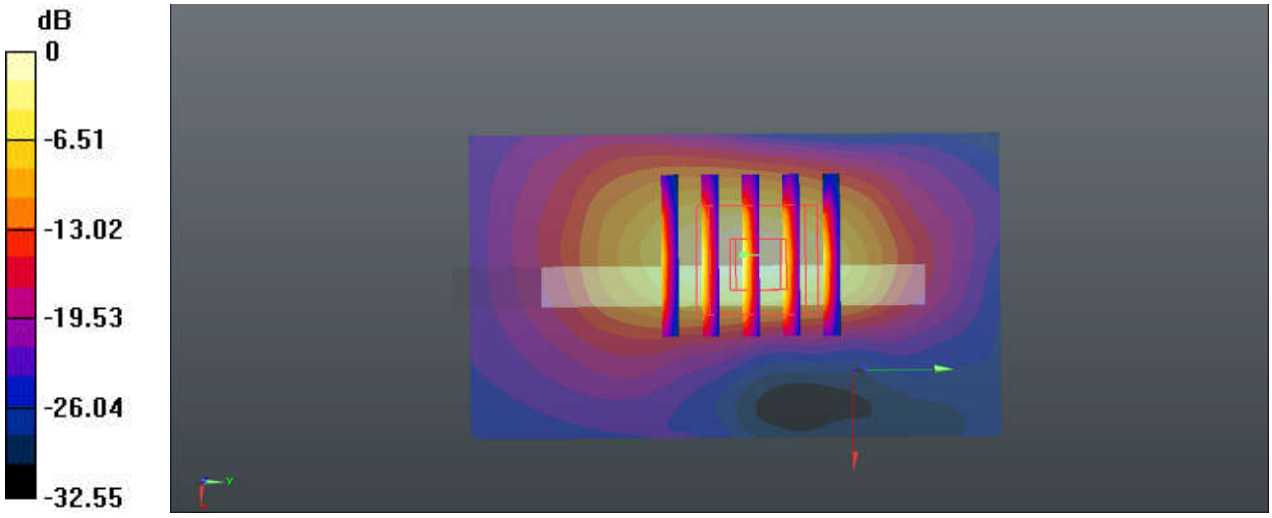
22_LTE Band 4_20M_QPSK_1RB_99Offset_Bottom Side_5mm_Hotspot On_Ch20175

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 = 1.471 S/m; ε_r = 54.773; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20175/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.67 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.32 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.428 W/kg
Maximum value of SAR (measured) = 1.40 W/kg



0 dB = 1.67 W/kg = 2.23 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

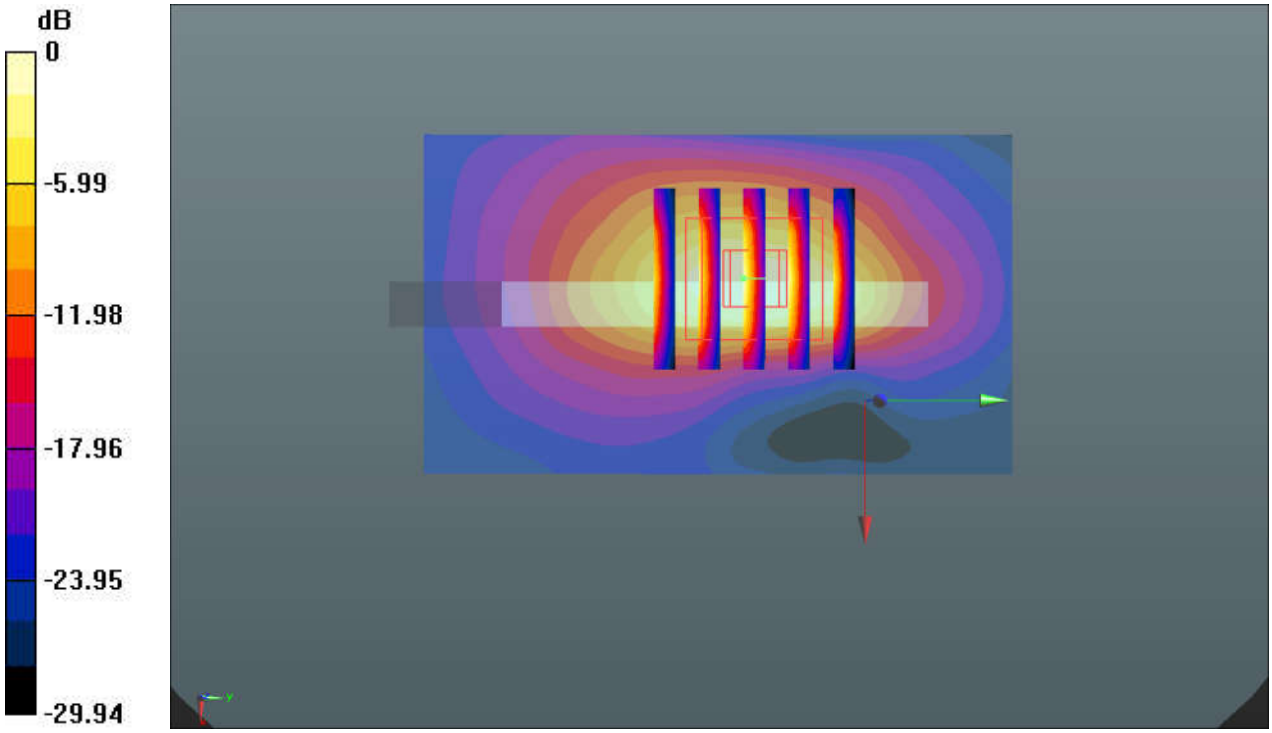
23_LTE Band 2_20M_QPSK_1RB_0Offset_Bottom Side_5mm_Hotspot On_Ch19100

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 = 53.469; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch19100/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.90 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.463 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

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

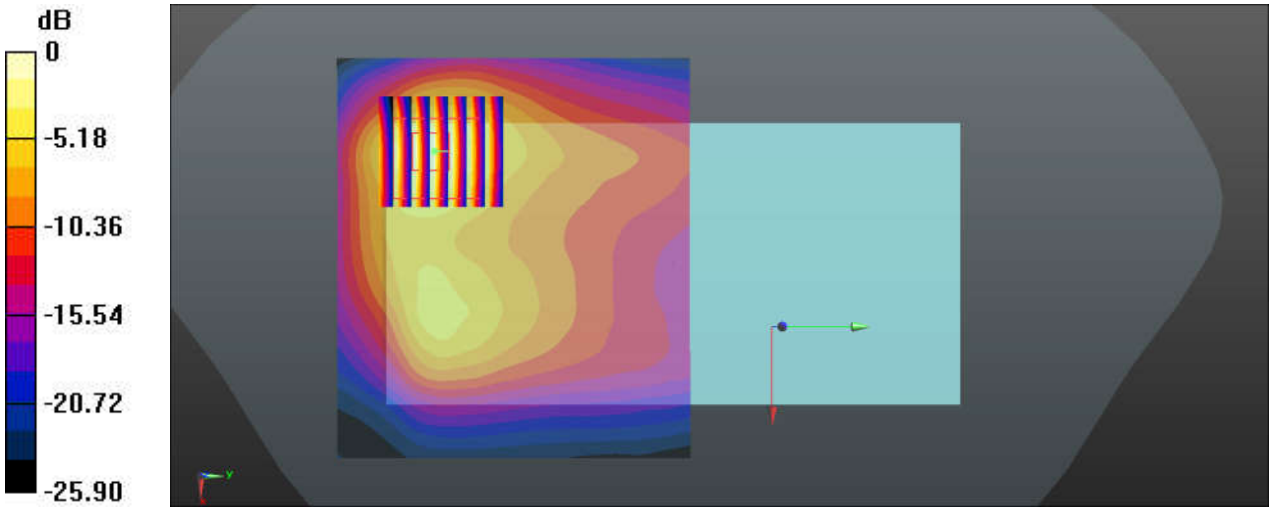
24_LTE Band 7_20M_QPSK_1RB_0Offset_Back_5mm_Hotspot On_Ch21350

Communication System: UID 0, LTE-FDD (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2560 MHz; σ = 2.173 S/m; ε_r = 52.578; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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 14.6.11 (7439)

Ch21350/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.58 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.62 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.51 W/kg
SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.471 W/kg
Maximum value of SAR (measured) = 1.42 W/kg



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

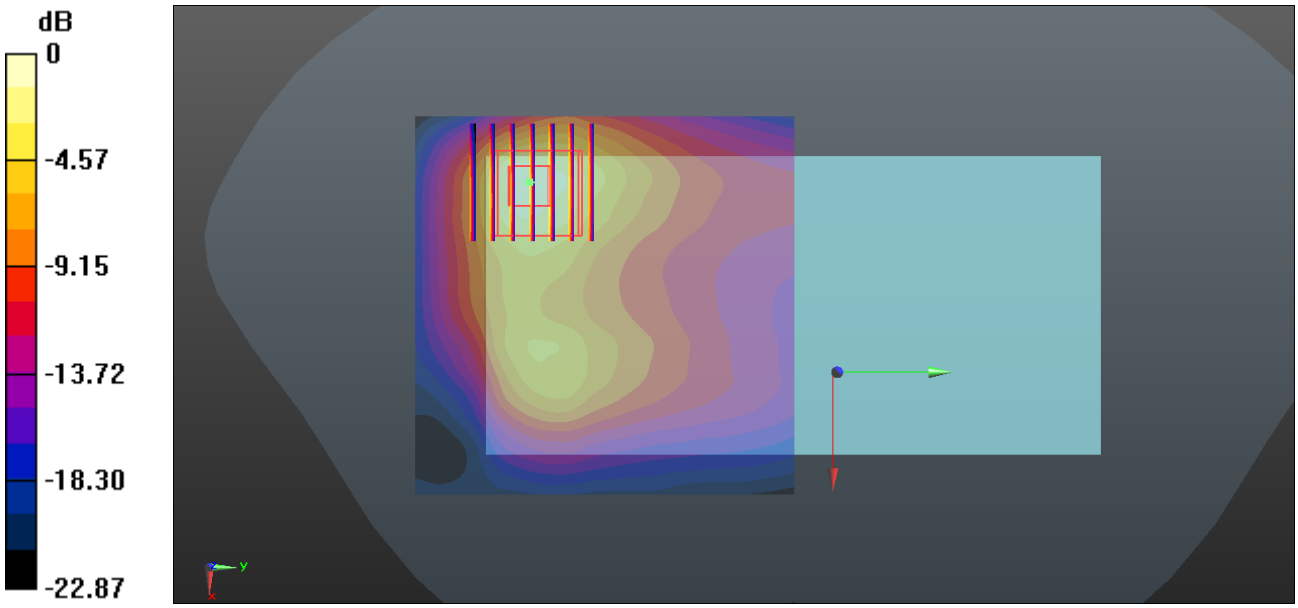
25_LTE Band 41_20M_QPSK_1RB_99Offset_Back_5mm_Hotspot On_Ch41140

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 = 2.293 S/m; ε_r = 52.245; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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 (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.72 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.19 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.85 W/kg
SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 1.72 W/kg = 2.36 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

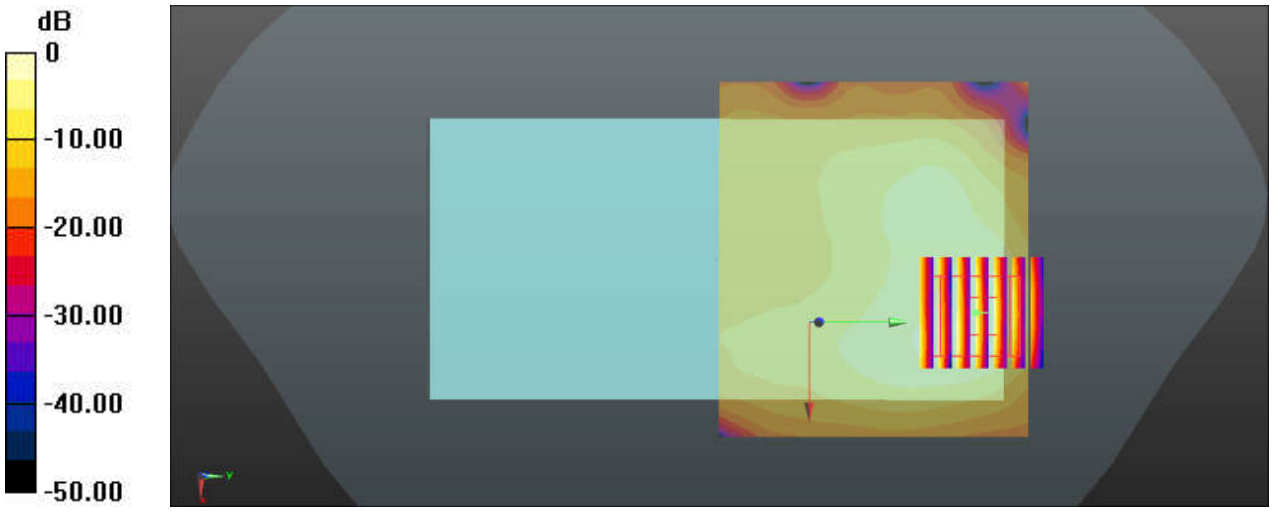
26_WLAN 2.4GHz _802.11b 1Mbps_Back_5mm_Ch11

Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1.028
Medium: MSL_2450 Medium parameters used: f = 2462 MHz; σ = 2.038 S/m; ε_r = 52.98; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.42, 7.42, 7.42); Calibrated: 2018.5.31
- 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 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch11/Area Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.406 W/kg

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.81 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.640 W/kg
SAR(1 g) = 0.298 W/kg; SAR(10 g) = 0.138 W/kg
Maximum value of SAR (measured) = 0.381 W/kg



0 dB = 0.406 W/kg = -3.91 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

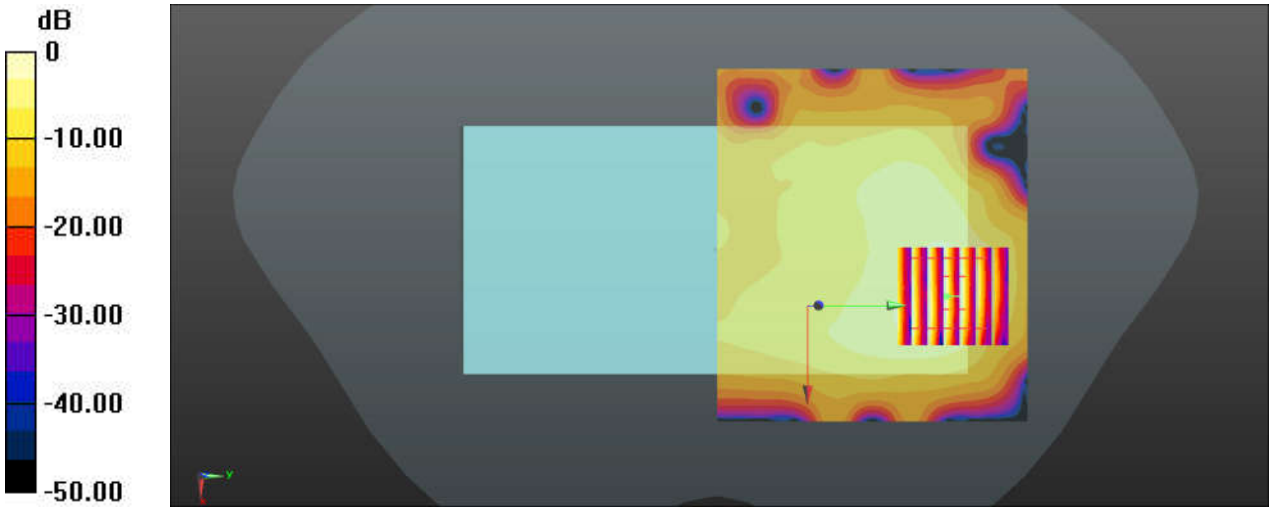
27_Bluetooth _DH5 1Mbps_Back_5mm_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.298
Medium: MSL_2450 Medium parameters used: f = 2441 MHz; σ = 2.009 S/m; ε_r = 53.074; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.42, 7.42, 7.42); Calibrated: 2018.5.31
- 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 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch39/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.148 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.324 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.139 W/kg



0 dB = 0.148 W/kg = -8.30 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

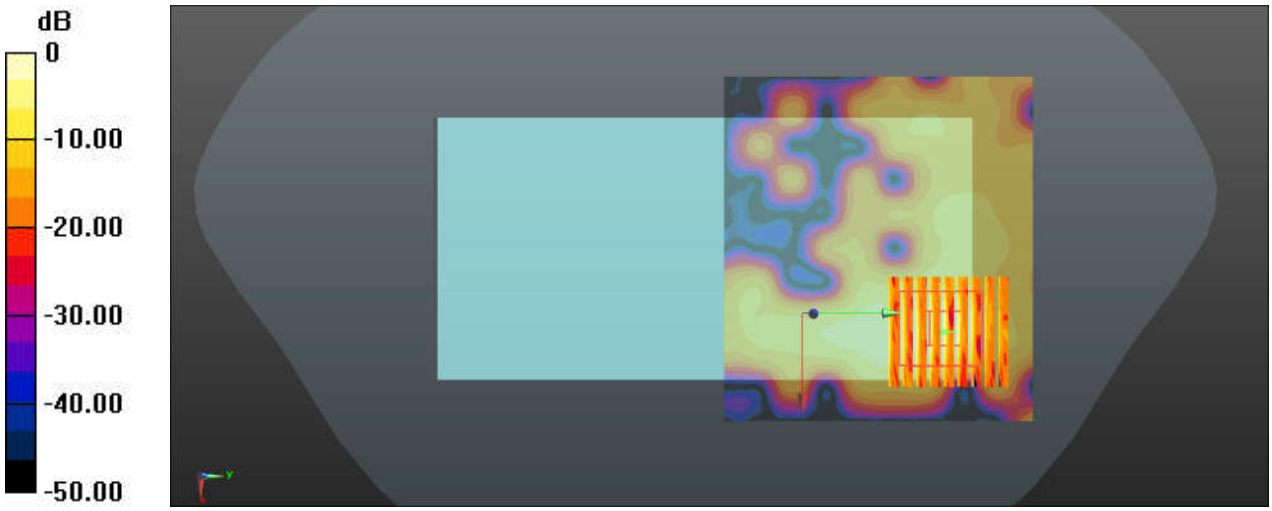
28_WLAN5GHz_802.11n-HT40 MCS0_Back_5mm_Ch46

Communication System: UID 0, 802.11n (0); Frequency: 5230 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5230 MHz; σ = 5.477 S/m; ε_r = 47.979; 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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch46/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.604 W/kg

Ch46/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 11.44 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.384 W/kg; SAR(10 g) = 0.107 W/kg
Maximum value of SAR (measured) = 0.639 W/kg



0 dB = 0.604 W/kg = -2.19 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

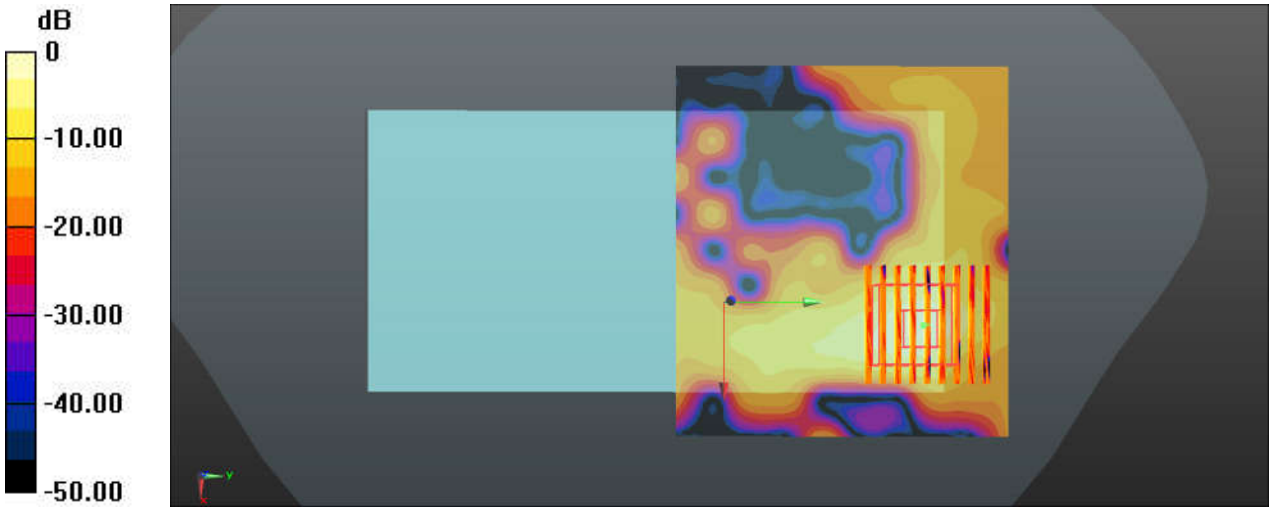
29_WLAN5GHz_802.11n-HT40 MCS0_Back_5mm_Ch151

Communication System: UID 0, 802.11n (0); Frequency: 5755 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5755 MHz; σ = 6.162 S/m; ε_r = 47.107; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.910 W/kg

Ch151/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 12.68 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.20 W/kg
SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.150 W/kg
Maximum value of SAR (measured) = 0.898 W/kg



0 dB = 0.910 W/kg = -0.41 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.9

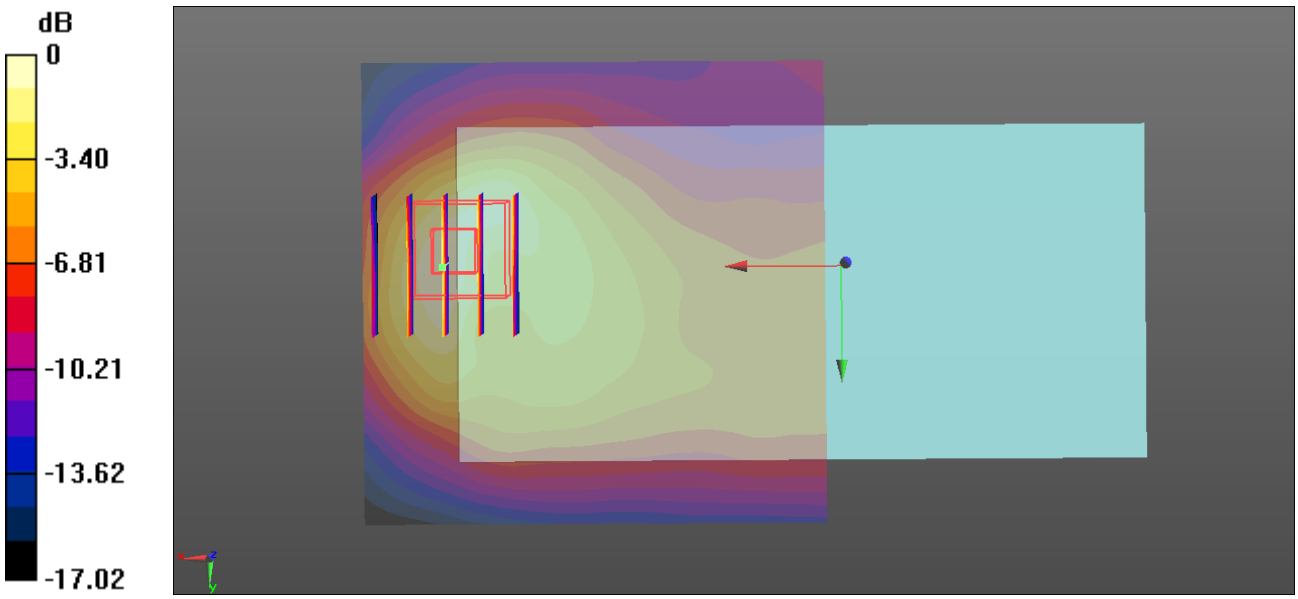
30_GSM850_GPRS 4 Tx slots_Back_5mm_Ch251

Communication System: UID 0, GPRS/EDGE (4 Tx slots) (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium: MSL_835 Medium parameters used: f = 848.8 MHz; σ = 0.999 S/m; ε_r = 56.388; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch251/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.29 W/kg

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.61 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.620 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

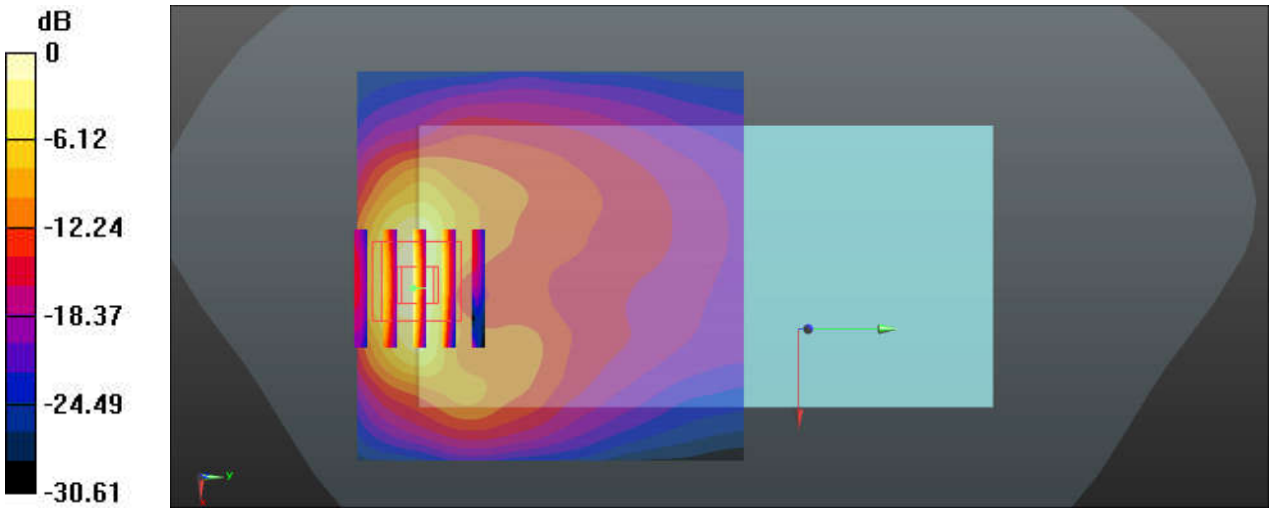
31_GSM1900_GPRS (4Tx slots)_Back_5mm_Sensor On_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.08
Medium: MSL_1900 Medium parameters used: f = 1909.8 MHz; σ = 1.549 S/m; ε_r = 53.422; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch810/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.76 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.16 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.23 W/kg
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.521 W/kg
Maximum value of SAR (measured) = 1.77 W/kg



0 dB = 1.76 W/kg = 2.46 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.9

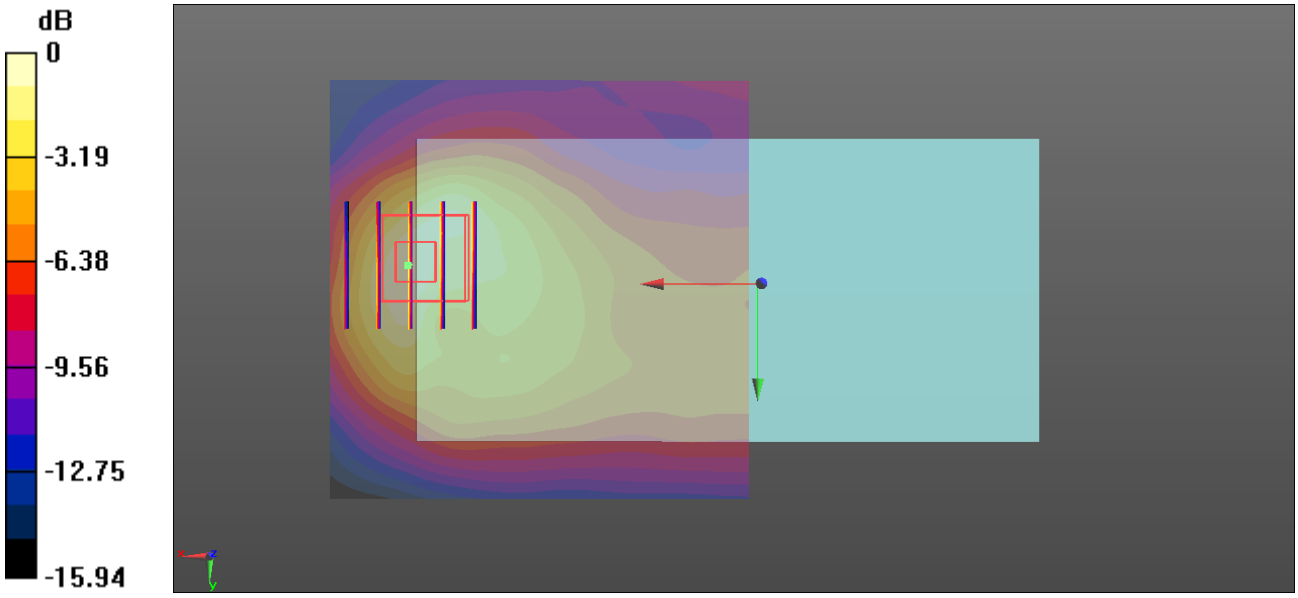
32_WCDMA V_RMC 12.2Kbps_Back_5mm_Ch4233

Communication System: UID 0, UMTS (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: MSL_835 Medium parameters used: f = 846.6 MHz; σ = 0.997 S/m; ε_r = 56.409; ρ = $1000_{kg/m^3}$
Ambient Temperature：23.3 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4233/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.24 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.675 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

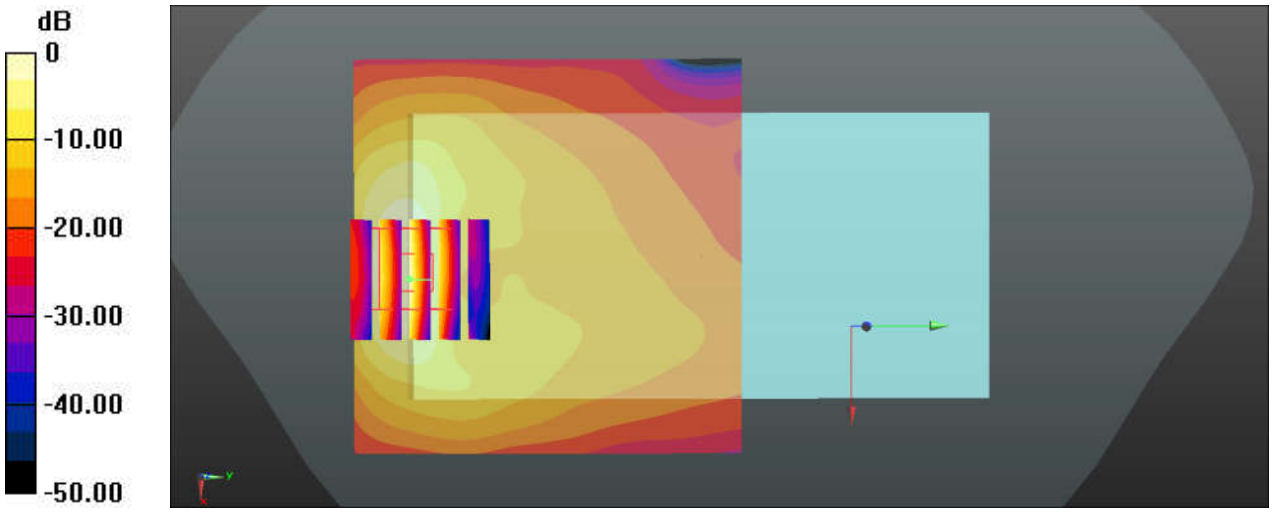
33_WCDMA IV_RMC 12.2Kbps_Back_5mm_Headset_Sensor On_Ch1513

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1752.6 MHz; σ = 1.493 S/m; ε_r = 54.732; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1513/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.70 W/kg

Ch1513/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.10 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 2.39 W/kg
SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.642 W/kg
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.70 W/kg = 2.30 dBW/kg

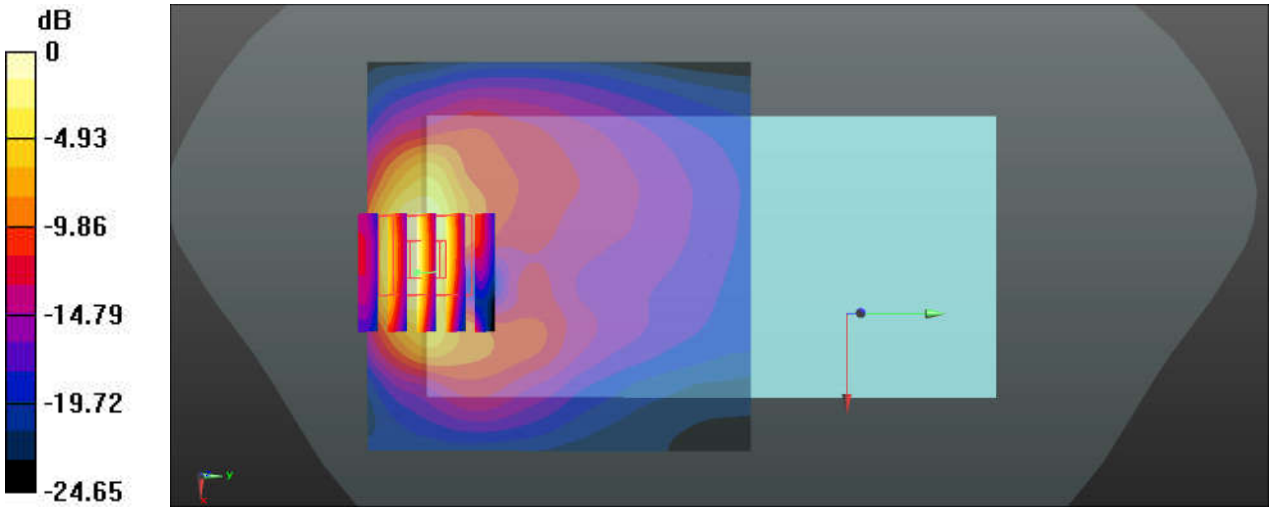
34_WCDMA II_RMC 12.2Kbps_Back_5mm_Sensor On_Ch9538

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 = 1.547 S/m; ε_r = 53.432; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9538/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.60 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.05 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.71 W/kg
SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.609 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

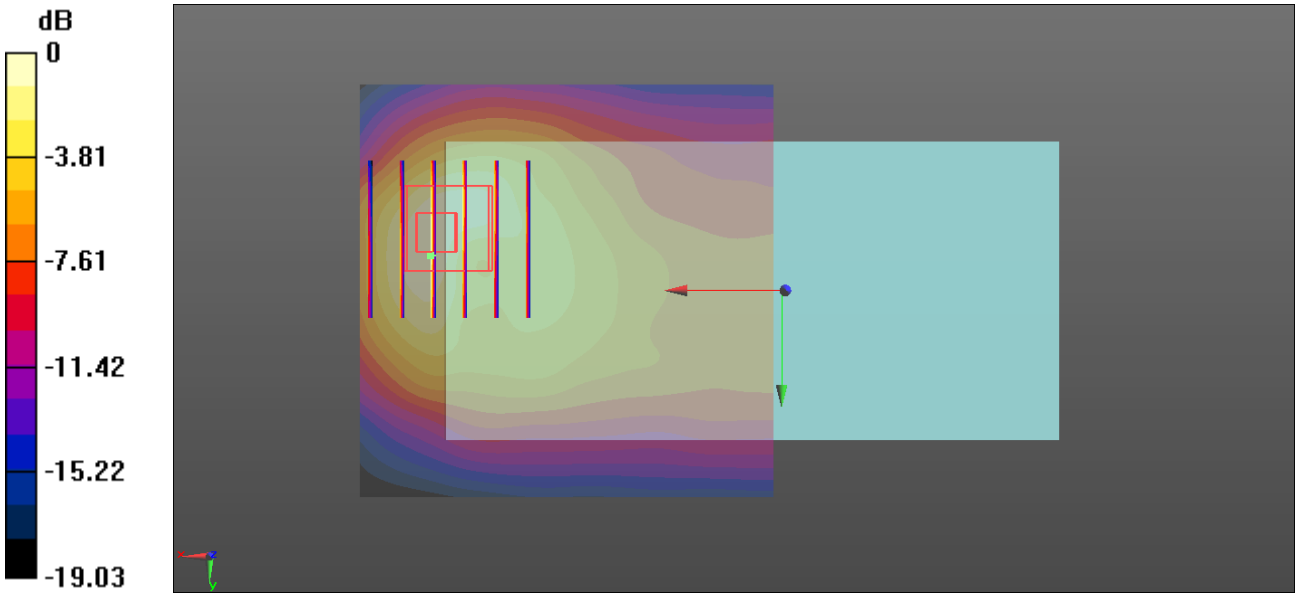
35_LTE Band 26_15M_QPSK_1RB_37Offset_Back_5mm_Ch26865

Communication System: UID 0, FDD_LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL_835 Medium parameters used: f = 831.5 MHz; σ = 0.981 S/m; ε_r = 56.535; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3954; ConvF(10.02, 10.02, 10.02); Calibrated: 2018.1.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2018.5.28
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch26865/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Ch26865/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.66 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.608 W/kg
Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

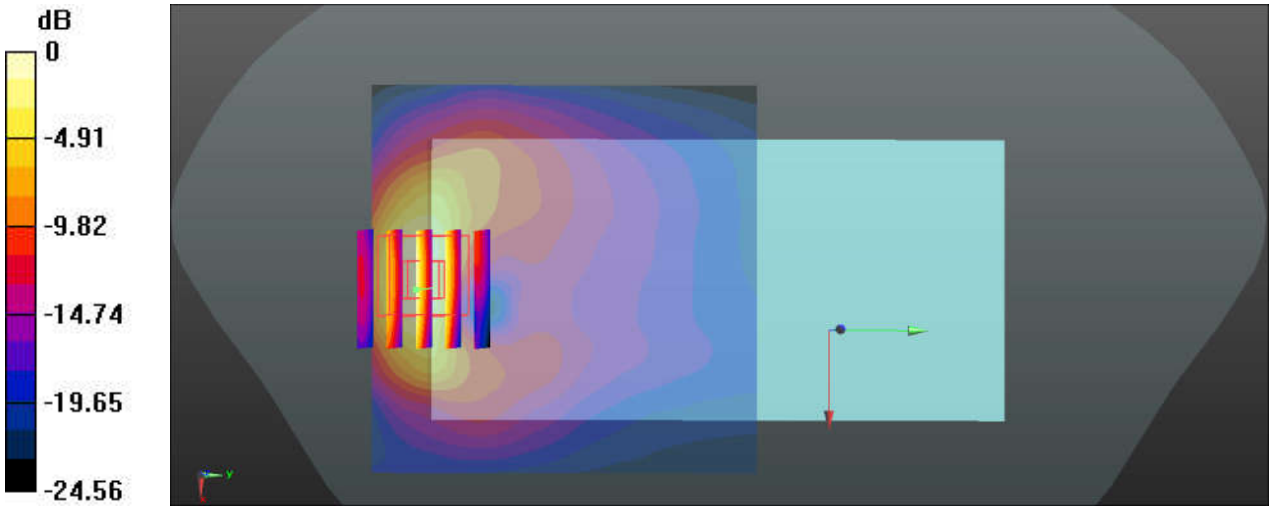
36_LTE Band 4_20M_QPSK_1RB_99Offset_Back_5mm_Sensor On_Ch20175

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 = 1.471 S/m; ε_r = 54.773; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20175/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.25 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.39 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.490 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

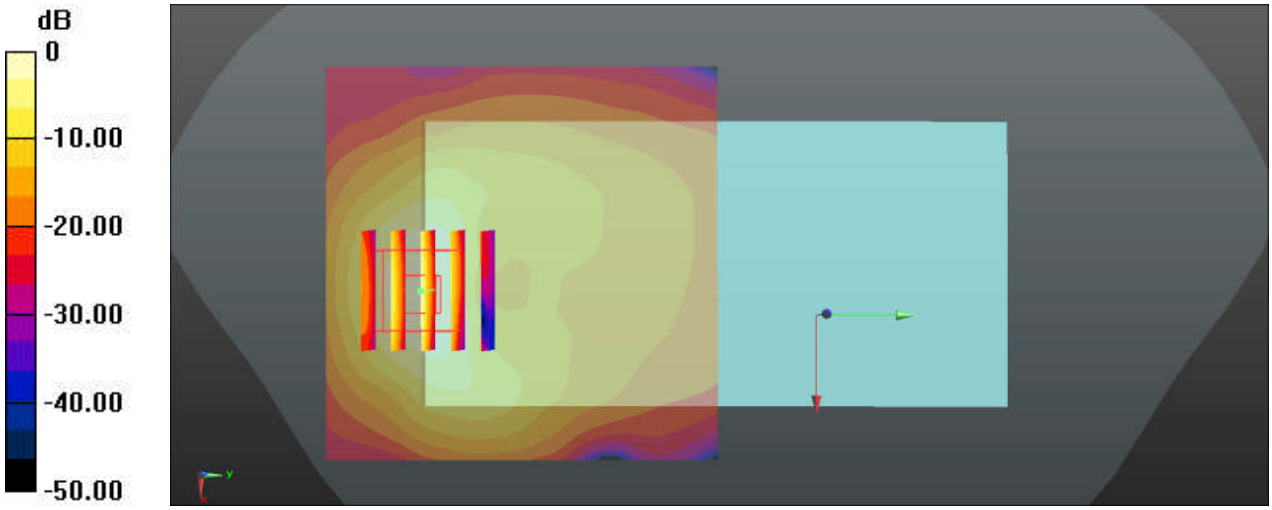
37_LTE Band 2_20M_QPSK_1RB_0Offset_Back_5mm_Sensor On_Ch19100

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 = 53.469; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch19100/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.51 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.34 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.41 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.556 W/kg
Maximum value of SAR (measured) = 2.01 W/kg



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

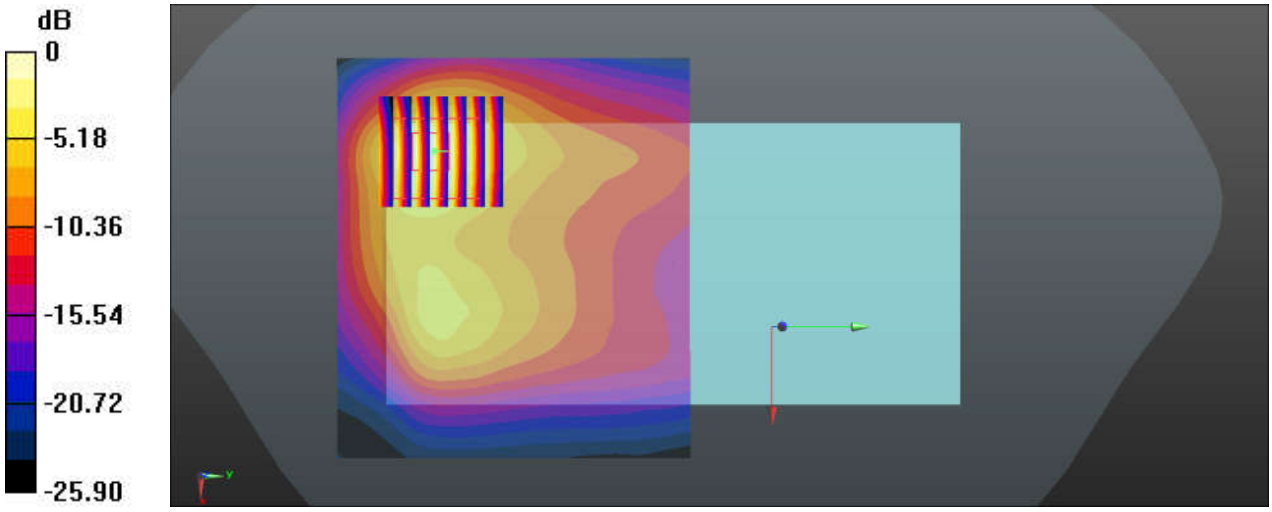
38_LTE Band 7_20M_QPSK_1RB_0Offset_Back_5mm_Sensor On_Ch21350

Communication System: UID 0, LTE-FDD (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2560 MHz; σ = 2.173 S/m; ε_r = 52.578; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch21350/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.58 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.62 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.51 W/kg
SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.471 W/kg
Maximum value of SAR (measured) = 1.42 W/kg



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

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

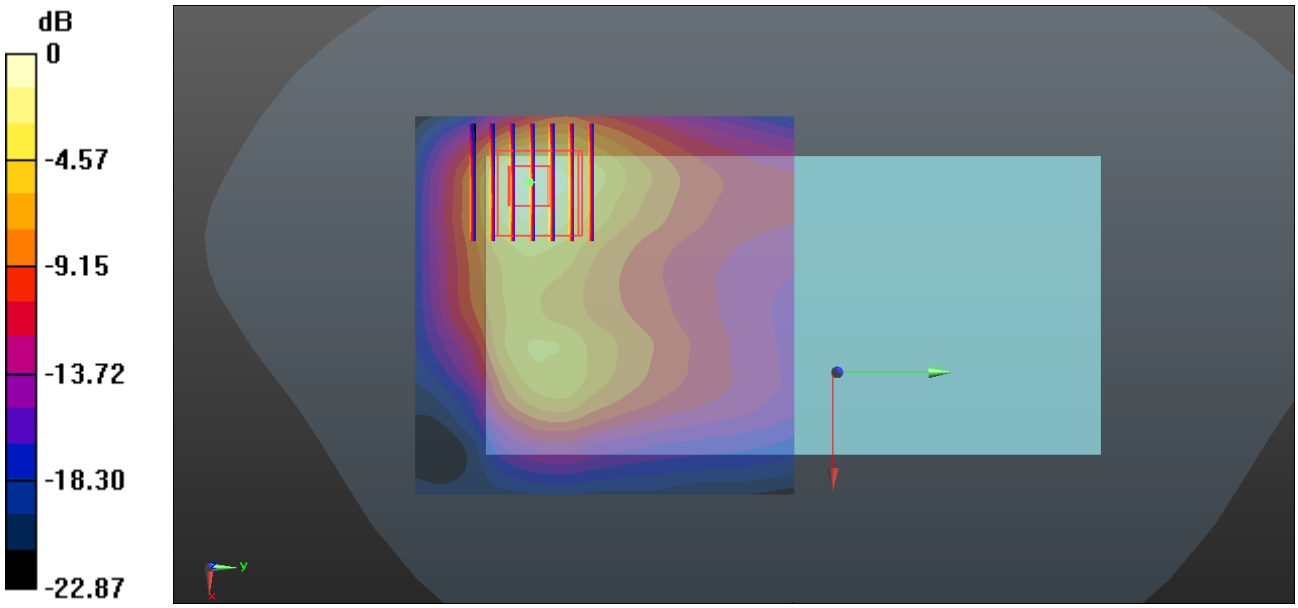
39_LTE Band 41_20M_QPSK_1RB_99Offset_Back_5mm_Sensor On_Ch41140

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 = 2.293 S/m; ε_r = 52.245; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch41140/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.72 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.19 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.85 W/kg
SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 1.72 W/kg = 2.36 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

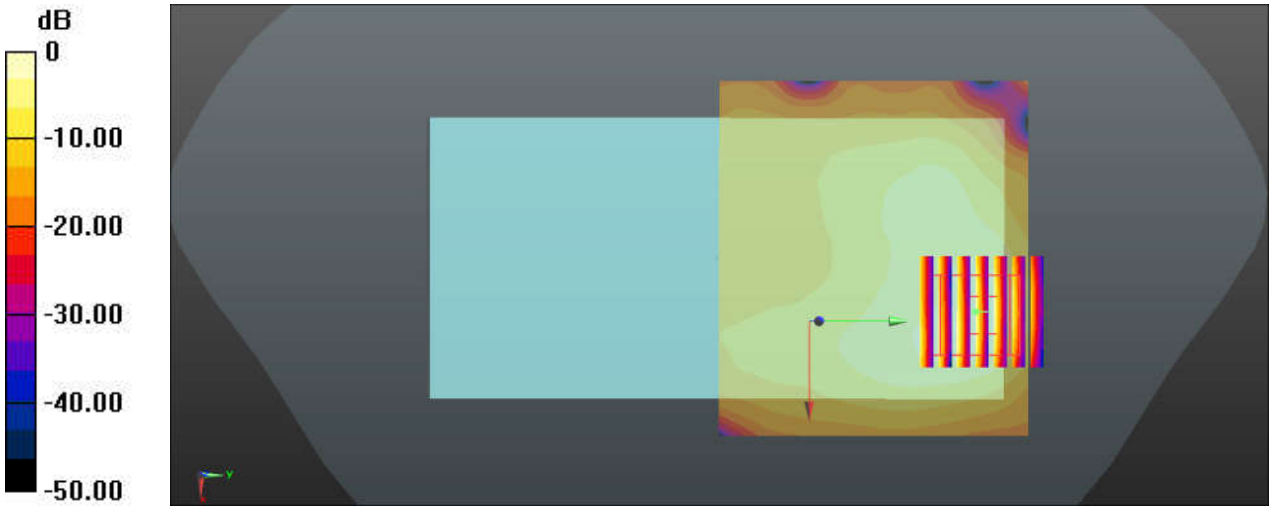
40_WLAN 2.4GHz _802.11b 1Mbps_Back_5mm_Ch11

Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1.028
Medium: MSL_2450 Medium parameters used: f = 2462 MHz; σ = 2.038 S/m; ε_r = 52.98; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.42, 7.42, 7.42); Calibrated: 2018.5.31
- 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 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch11/Area Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.406 W/kg

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.81 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.640 W/kg
SAR(1 g) = 0.298 W/kg; SAR(10 g) = 0.138 W/kg
Maximum value of SAR (measured) = 0.381 W/kg



0 dB = 0.406 W/kg = -3.91 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

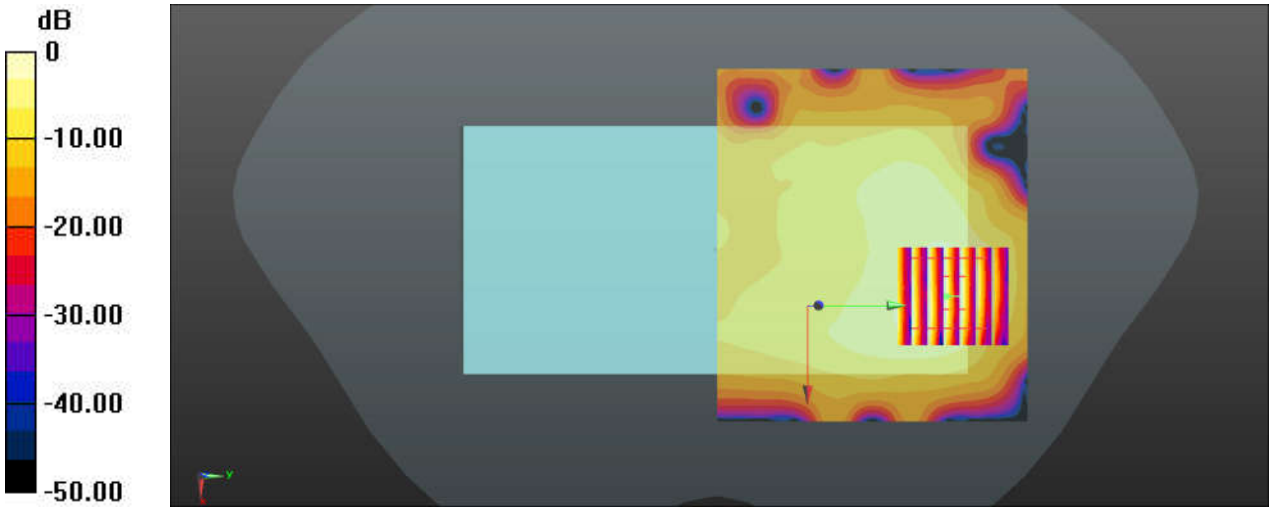
41_Bluetooth _DH5 1Mbps_Back_5mm_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.297
Medium: MSL_2450 Medium parameters used: f = 2441 MHz; σ = 2.009 S/m; ε_r = 53.074; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.42, 7.42, 7.42); Calibrated: 2018.5.31
- 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 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch39/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.148 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.324 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.139 W/kg



0 dB = 0.148 W/kg = -8.30 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

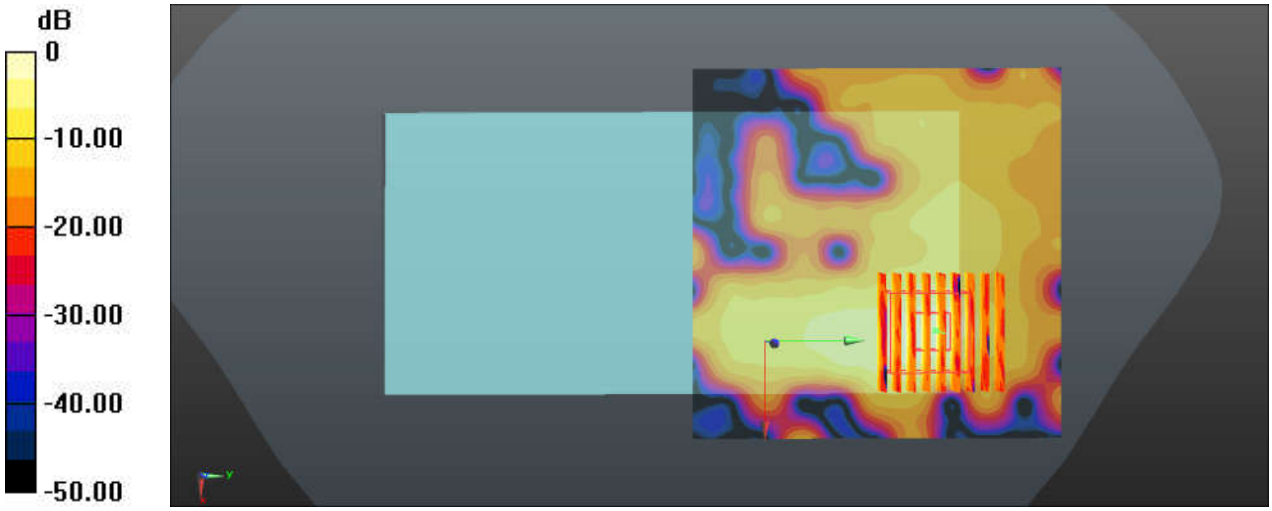
42_WLAN5GHzz_802.11n-HT40 MCS0_Back_5mm_Ch54

Communication System: UID 0, 802.11n (0); Frequency: 5270 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5270 MHz; σ = 5.528 S/m; ε_r = 47.922; 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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch54/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.660 W/kg

Ch54/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 13.10 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.134 W/kg
Maximum value of SAR (measured) = 0.859 W/kg



0 dB = 0.660 W/kg = -1.80 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

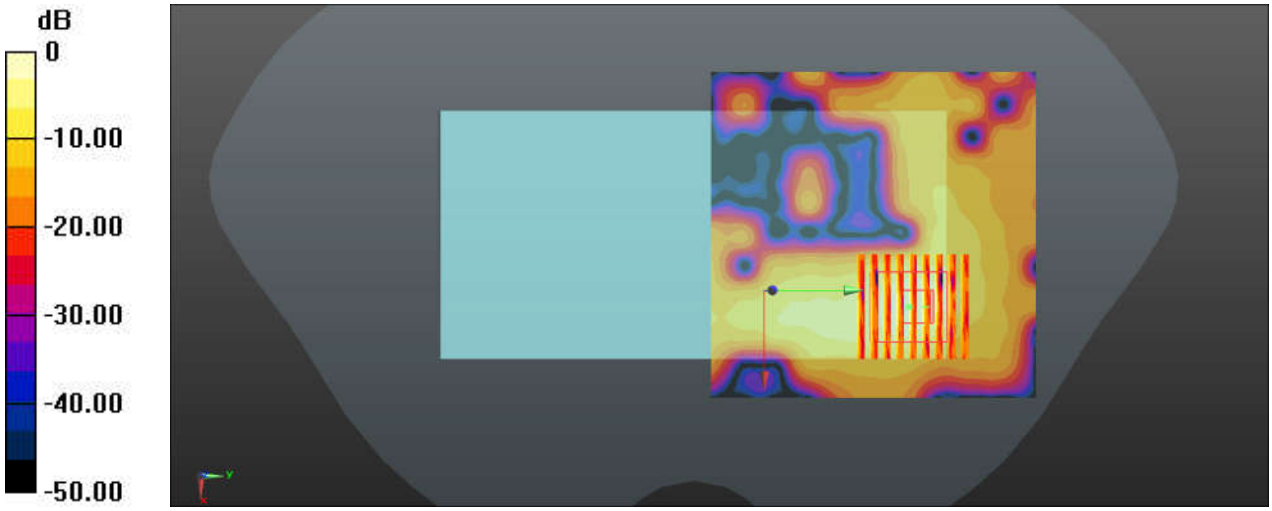
43_WLAN5GHzz_802.11n-HT40 MCS0_Back_5mm_Ch126

Communication System: UID 0, 802.11n (0); Frequency: 5630 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5630 MHz; σ = 5.995 S/m; ε_r = 47.322; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch126/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.860 W/kg

Ch126/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 13.48 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.53 W/kg
SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.178 W/kg
Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 0.860 W/kg = -0.66 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

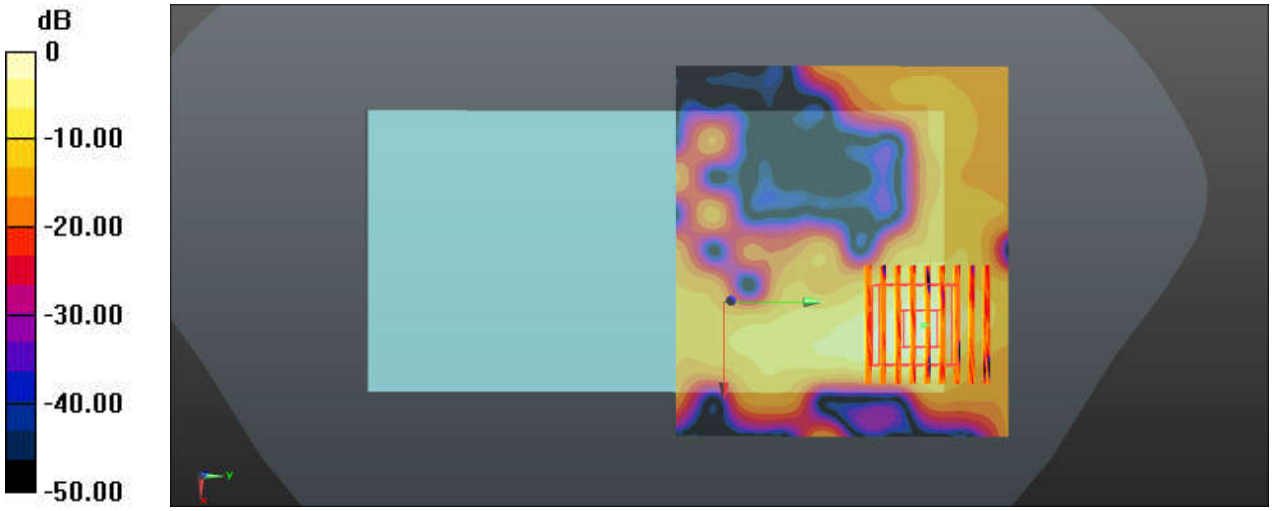
44_WLAN5GHzz_802.11n-HT40 MCS0_Back_5mm_Ch151

Communication System: UID 0, 802.11n (0); Frequency: 5755 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5755 MHz; σ = 6.162 S/m; ε_r = 47.107; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch151/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.910 W/kg

Ch151/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 12.68 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.20 W/kg
SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.150 W/kg
Maximum value of SAR (measured) = 0.898 W/kg



0 dB = 0.910 W/kg = -0.41 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

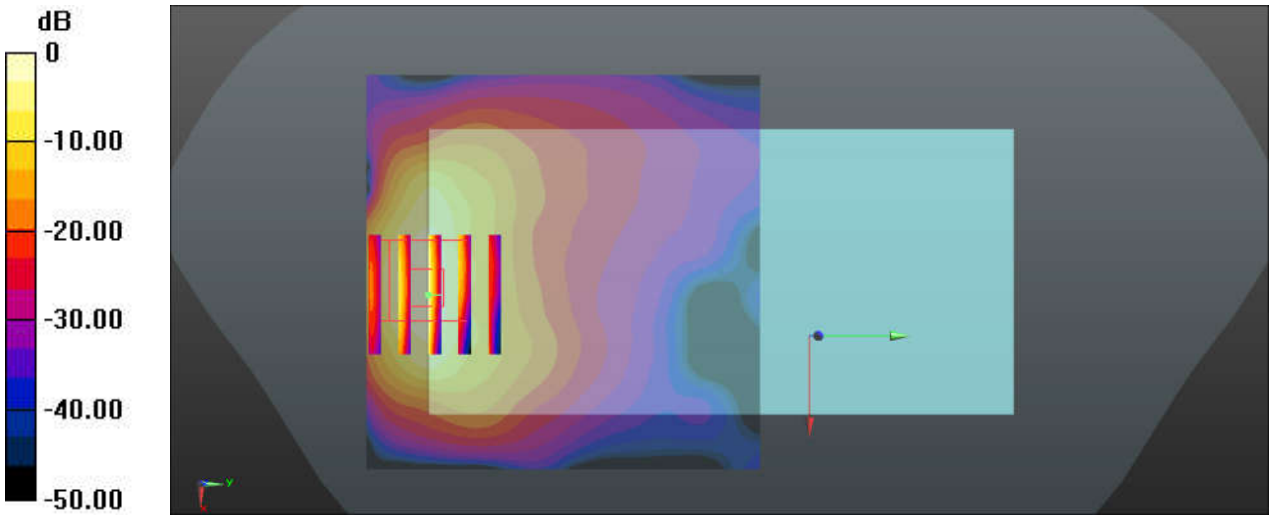
45_GSM1900_GPRS (4Tx slots)_Back_0mm_Extremity On_Ch512

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 = 1.479 S/m; ε_r = 53.659; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); 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) = 13.4 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 97.48 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 6.8 W/kg; SAR(10 g) = 2.84 W/kg
Maximum value of SAR (measured) = 12.9 W/kg



0 dB = 13.4 W/kg = 11.27 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

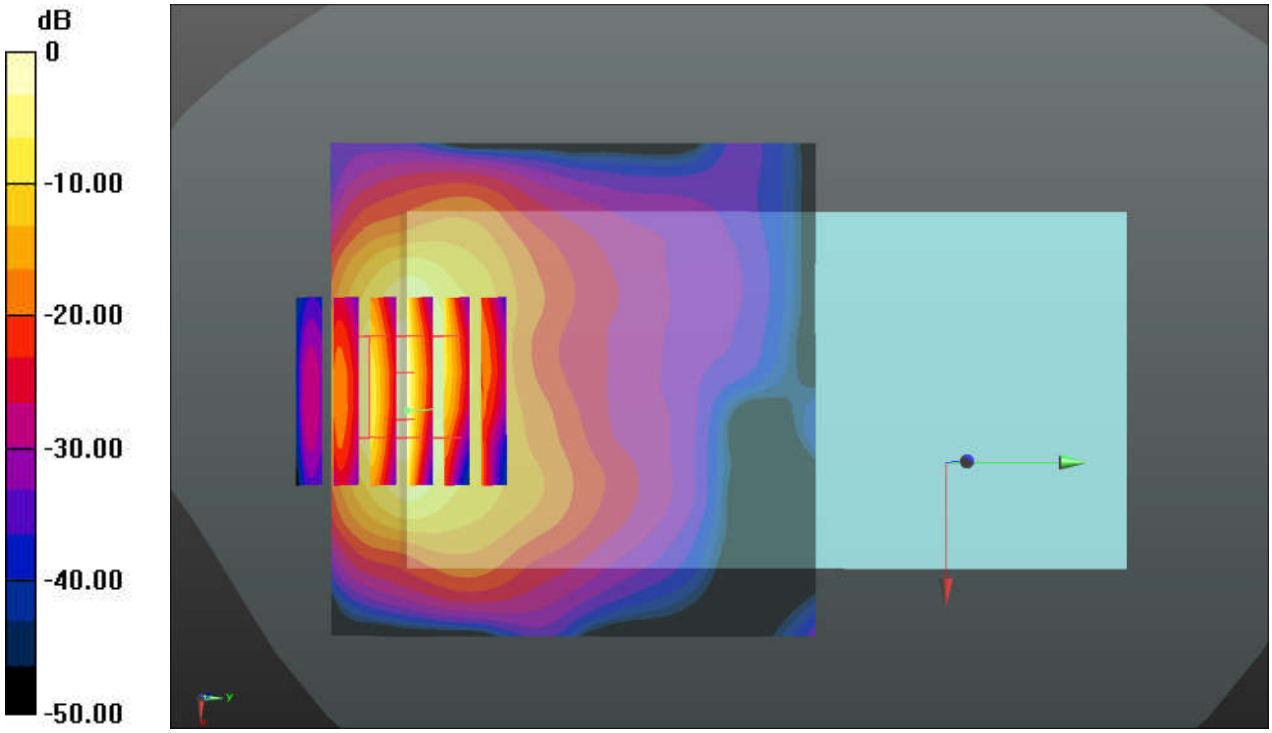
46_WCDMA IV_RMC 12.2Kbps_Back_0mm_Extremity On_Ch1513

Communication System: UID 0, WCDMA (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1752.6 MHz; σ = 1.493 S/m; ε_r = 54.732; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1513/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 12.6 W/kg

Ch1513/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 97.90 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 6.95 W/kg; SAR(10 g) = 2.98 W/kg
Maximum value of SAR (measured) = 13.1 W/kg



0 dB = 12.6 W/kg = 11.00 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

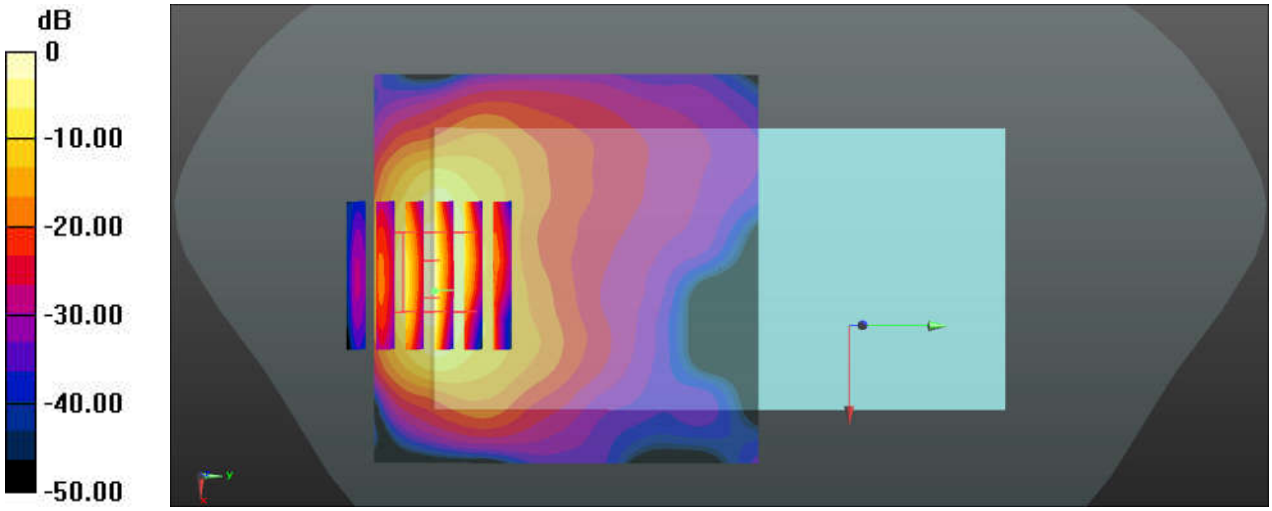
47_WCDMA II_RMC 12.2Kbps_Back_0mm_Extremity On_Ch9262

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1852.4 MHz; σ = 1.482 S/m; ε_r = 53.653; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9262/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 11.7 W/kg

Ch9262/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 93.36 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 14.5 W/kg
SAR(1 g) = 6.12 W/kg; SAR(10 g) = 2.53 W/kg
Maximum value of SAR (measured) = 11.8 W/kg



0 dB = 11.7 W/kg = 10.68 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

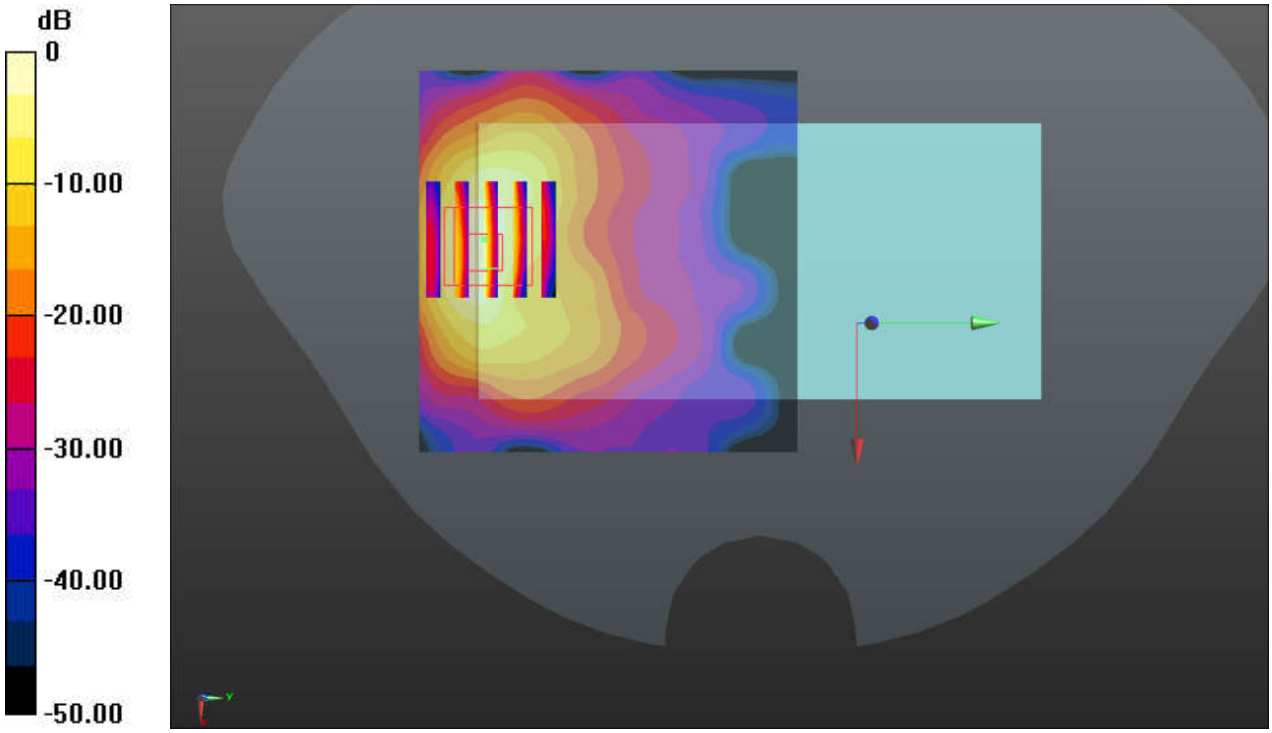
48_LTE Band 4_20M_QPSK_1RB_99Offset_Back_0mm_Extremity On_Ch20175

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 = 1.471 S/m; ε_r = 54.773; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.41, 7.41, 7.41); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20175/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 8.11 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 84.05 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 11.8 W/kg
SAR(1 g) = 5.47 W/kg; SAR(10 g) = 2.43 W/kg
Maximum value of SAR (measured) = 9.93 W/kg



0 dB = 8.11 W/kg = 9.09 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.17

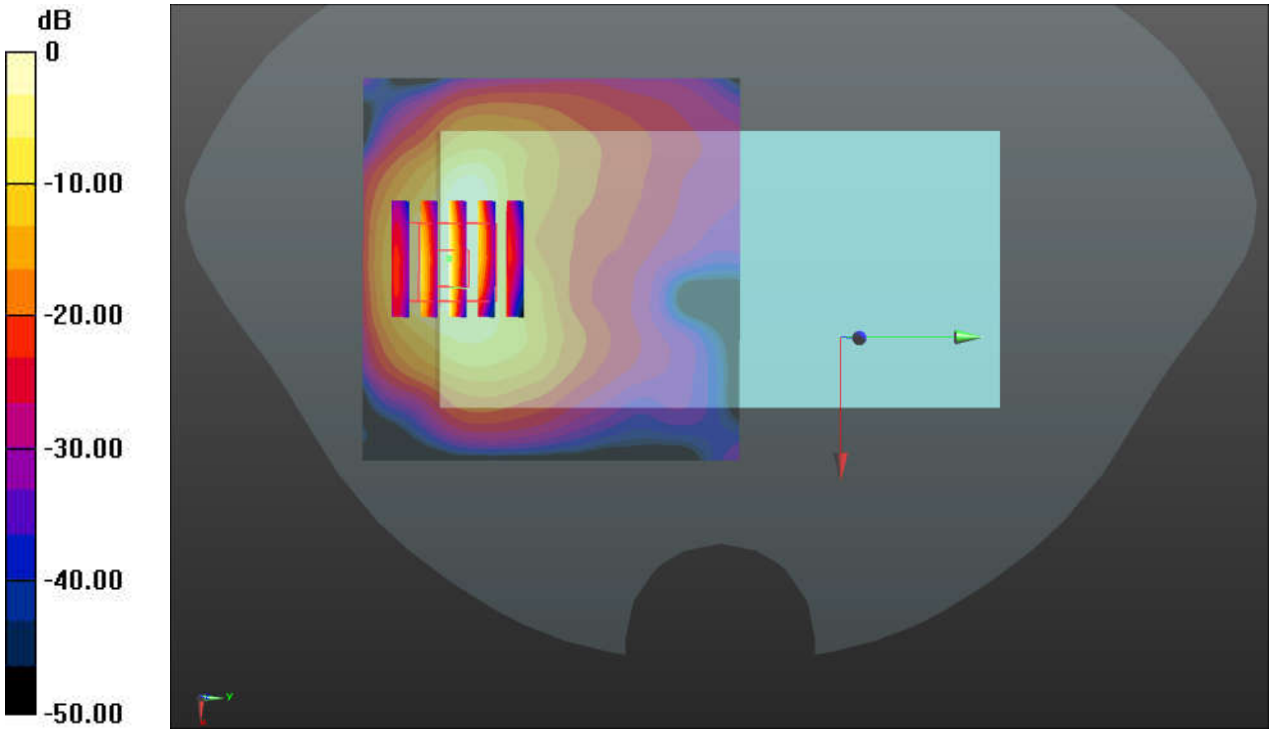
49_LTE Band 2_20M_QPSK_50RB_0Offset_Back_0mm_Extremity On_Ch18700

Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1860 MHz; σ = 1.492 S/m; ε_r = 53.636; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.07, 7.07, 7.07); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch18700/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 6.33 W/kg

Ch18700/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 88.05 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.2 W/kg
SAR(1 g) = 5.71 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 10.8 W/kg



0 dB = 6.33 W/kg = 8.01 dBW/kg

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

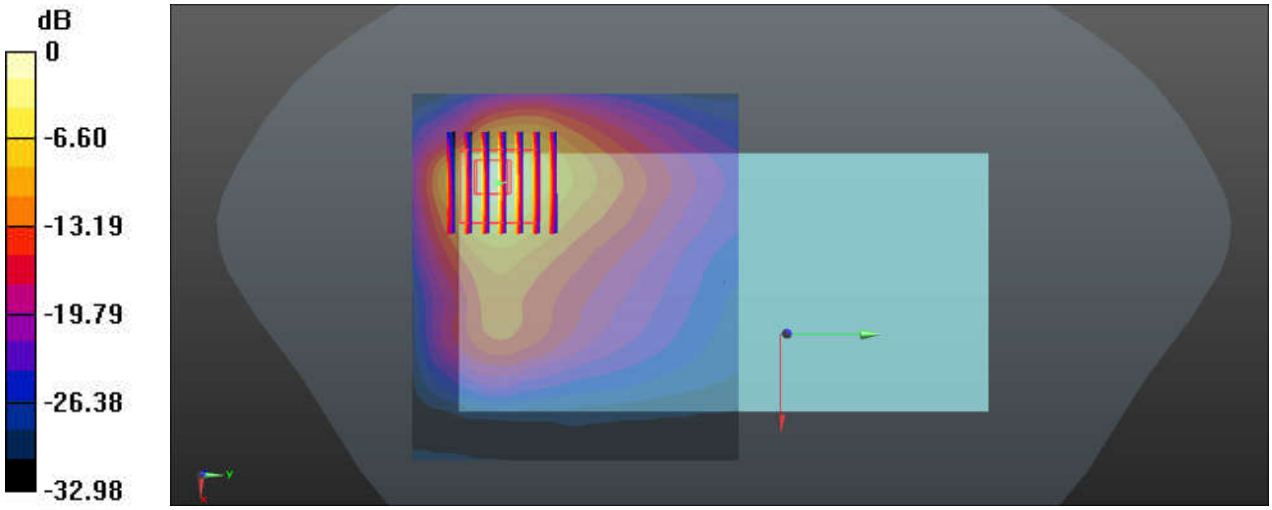
50_LTE Band 7_20M_QPSK_1RB_0Offset_Back_0mm_Extremity On_Ch21350

Communication System: UID 0, LTE-FDD (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2560 MHz; σ = 2.173 S/m; ε_r = 52.578; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (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 14.6.11 (7439)

Ch21350/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 8.43 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.31 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 5.36 W/kg; SAR(10 g) = 1.99 W/kg
Maximum value of SAR (measured) = 6.95 W/kg



0 dB = 8.43 W/kg = 9.26 dBW/kg

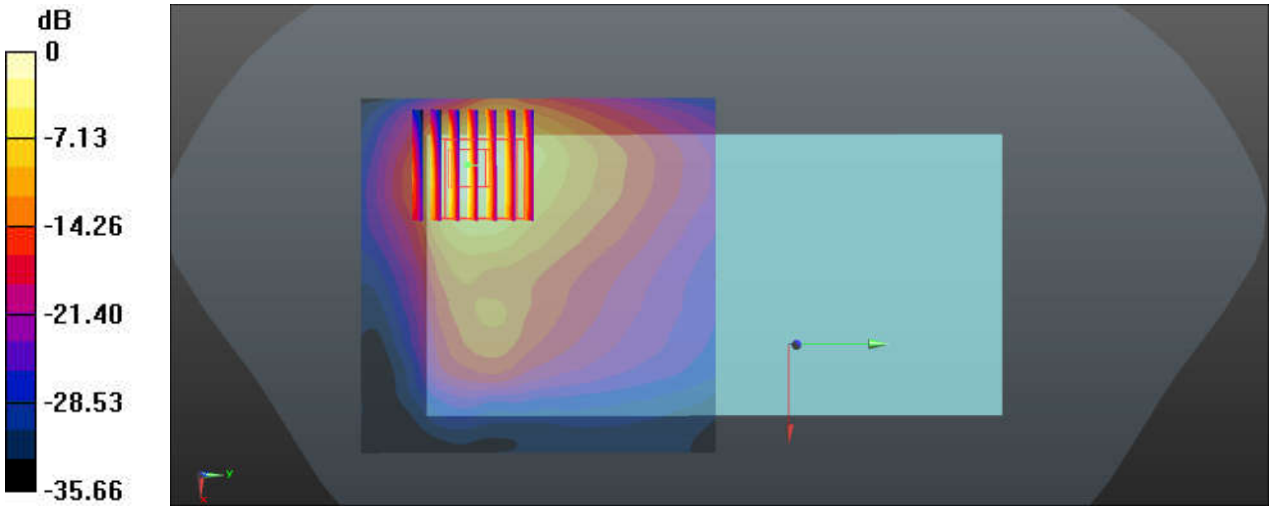
51_LTE Band 41_20M_QPSK_1RB_99Offset_Back_0mm_Extremity On_Ch40670

Communication System: UID 0, LTE-TDD (0); Frequency: 2598 MHz;Duty Cycle: 1:1.59
Medium: MSL_2600 Medium parameters used: f = 2598 MHz; σ = 2.228 S/m; ε_r = 52.434; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(6.7, 6.7, 6.7); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1305; Calibrated: 2018.5.11
- Phantom: SAM2; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch40670/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 14.5 W/kg

Ch40670/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.77 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 21.9 W/kg
SAR(1 g) = 7.36 W/kg; SAR(10 g) = 2.79 W/kg
Maximum value of SAR (measured) = 15.2 W/kg



0 dB = 14.5 W/kg = 11.61 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

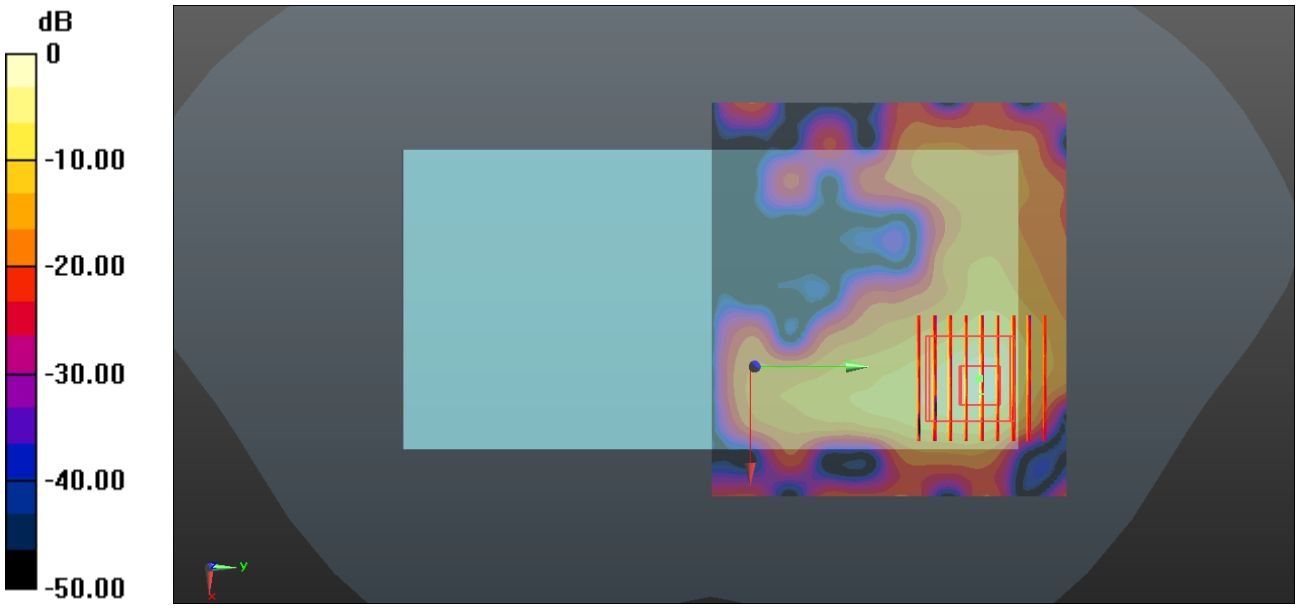
52_WLAN5GHzz_802.11n-HT40 MCS0_Back_0mm_Ch54

Communication System: UID 0, 802.11n (0); Frequency: 5270 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5270 MHz; σ = 5.528 S/m; ε_r = 47.922; 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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.10 (7372)

Ch54/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.67 W/kg

Ch54/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.94 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 8.49 W/kg
SAR(1 g) = 1.42 W/kg; SAR(10 g) = 0.342 W/kg
Maximum value of SAR (measured) = 2.31 W/kg



0 dB = 2.67 W/kg = 4.27 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018.10.23

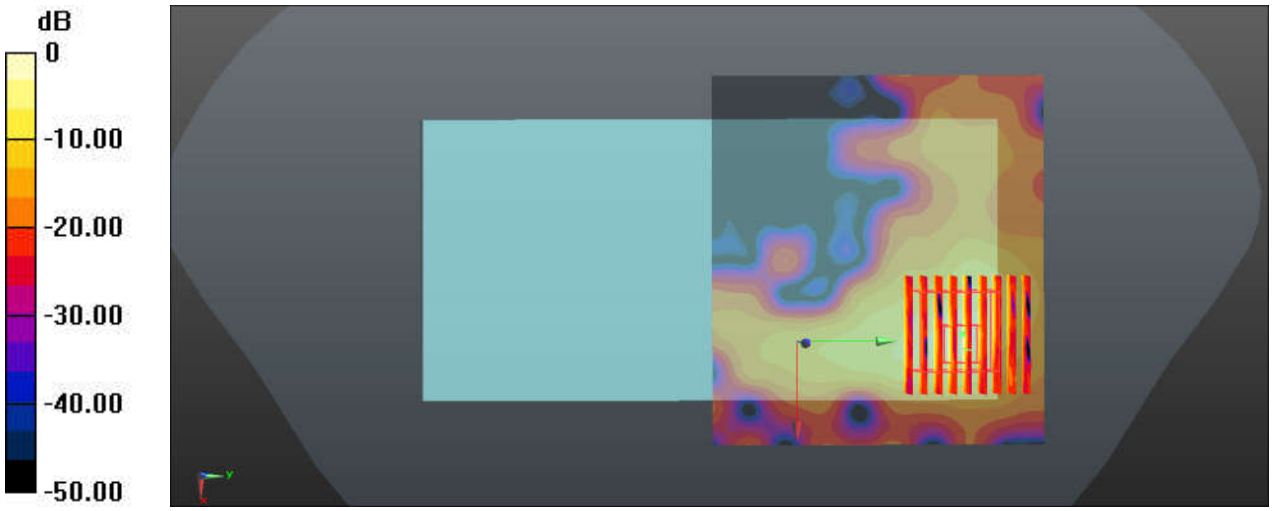
53_WLAN5GHzz_802.11n-HT40 MCS0_Back_0mm_Ch134

Communication System: UID 0, 802.11n (0); Frequency: 5670 MHz;Duty Cycle: 1:1.134
Medium: MSL_5000 Medium parameters used: f = 5670 MHz; σ = 6.054 S/m; ε_r = 47.246; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

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 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch134/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.62 W/kg

Ch134/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 20.74 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 9.53 W/kg
SAR(1 g) = 1.51 W/kg; SAR(10 g) = 0.379 W/kg
Maximum value of SAR (measured) = 2.57 W/kg



0 dB = 2.62 W/kg = 4.18 dBW/kg