Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/2

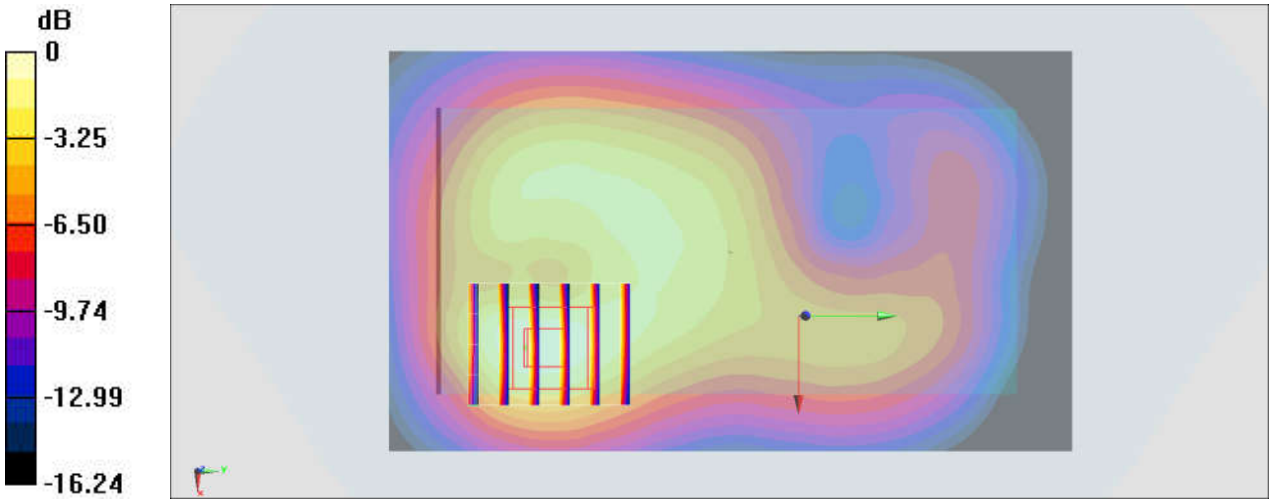
#37_LTE Band 2_20M_QPSK_1_0_Back_10mm_Ch19100

Communication System: LTE ; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900_170802 Medium parameters used: f = 1900 MHz; σ = 1.524 S/m; ε_r = 54.088; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(4.72, 4.72, 4.72); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1477
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.774 W/kg

Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.02 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.642 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (measured) = 0.777 W/kg



0 dB = 0.777 W/kg = -1.10 dBW/kg

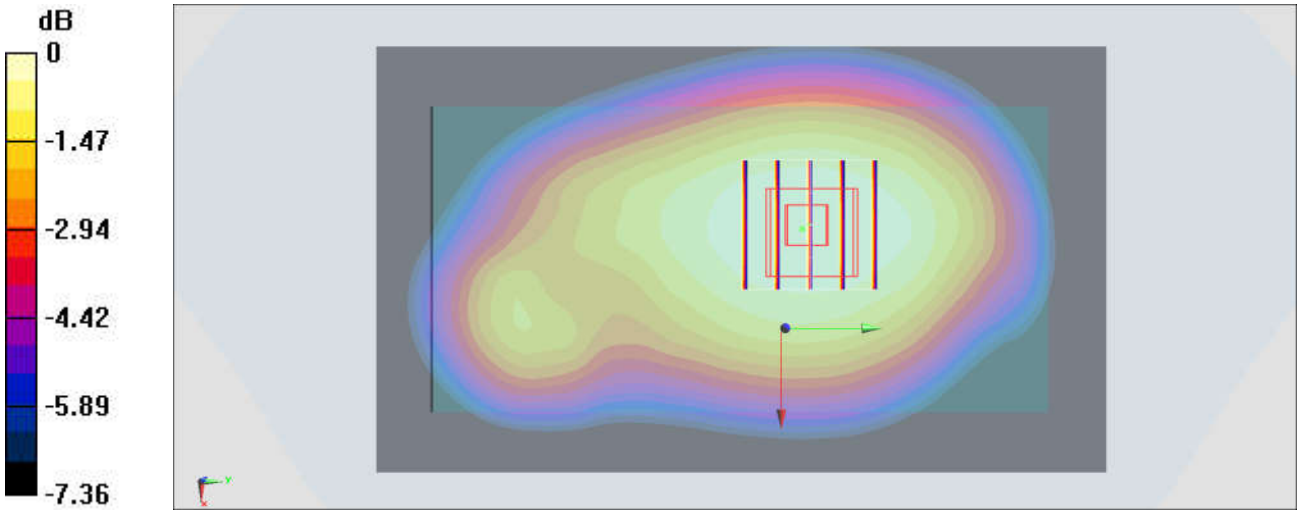
#38_LTE Band 5_10M_QPSK_1_0_Back_10mm_Ch20525

Communication System: LTE ; Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL_850_170804 Medium parameters used: f = 836.5 MHz; σ = 0.96 S/m; ε_r = 55.485; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(6.05, 6.05, 6.05); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1477
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.394 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.99 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.439 W/kg
SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.284 W/kg
Maximum value of SAR (measured) = 0.394 W/kg



0 dB = 0.394 W/kg = -4.05 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/3

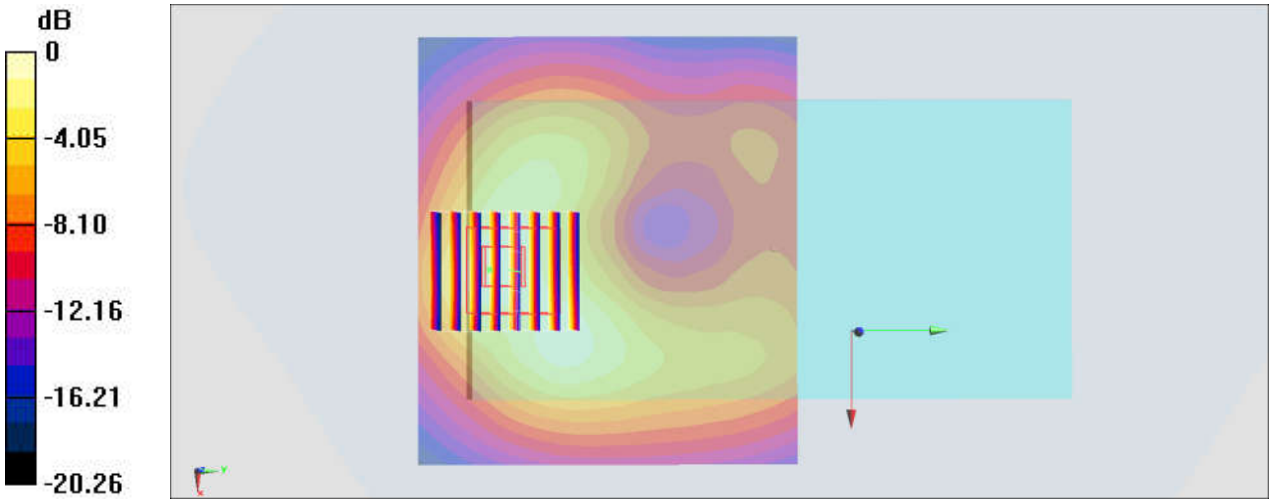
#39_LTE Band 7_20M_QPSK_1_0_Front_10mm_Ch21100

Communication System: LTE ; Frequency: 2535 MHz;Duty Cycle: 1:1
Medium: MSL_2600_170803 Medium parameters used : f = 2535 MHz; σ = 2.07 S/m; ε_r = 53.181; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.3 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(4.17, 4.17, 4.17); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Right; Type: SAM; Serial: TP:1479
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.968 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.35 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.805 W/kg; SAR(10 g) = 0.420 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

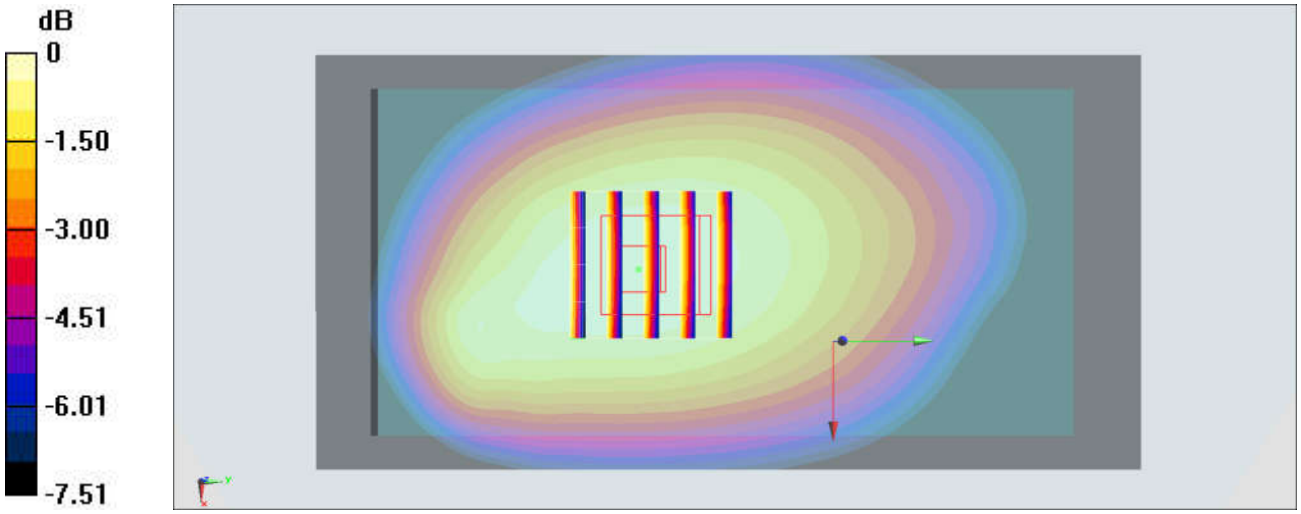
#40 _LTE Band 12_10M_QPSK_1_0_Back _10mm_Ch23095

Communication System: LTE ; Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium: MSL_750_170805 Medium parameters used : f = 707.5 MHz; σ = 0.932 S/m; ε_r = 54.955; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(6.31, 6.31, 6.31); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1477
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.285 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.19 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.333 W/kg
SAR(1 g) = 0.264 W/kg; SAR(10 g) = 0.206 W/kg
Maximum value of SAR (measured) = 0.288 W/kg



0 dB = 0.288 W/kg = -5.41 dBW/kg

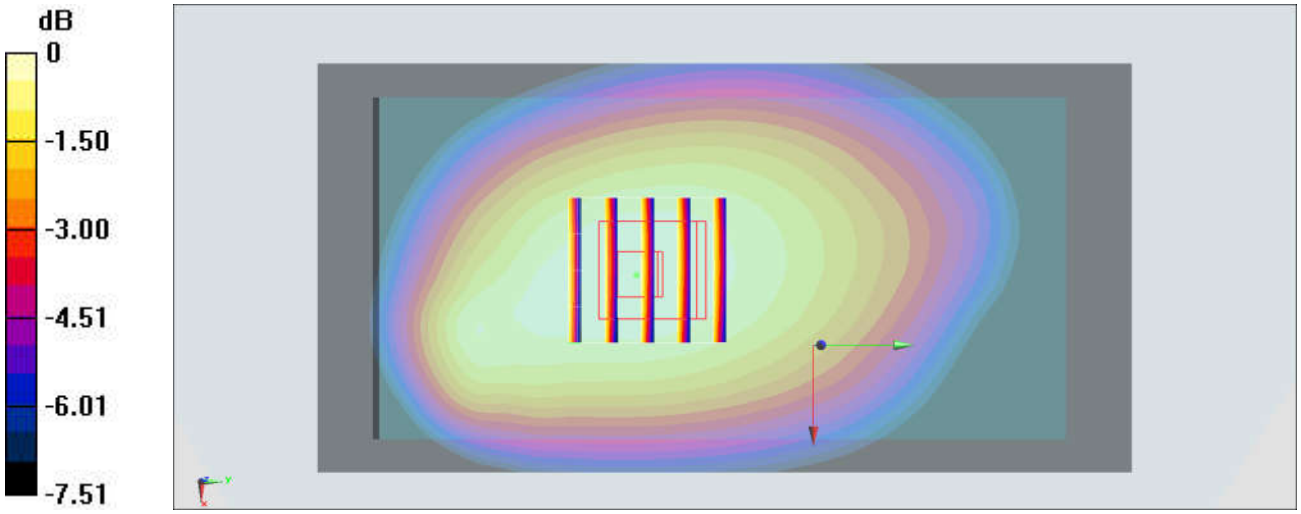
#41_LTE Band 13_10M_QPSK_1_0_Back _10mm_Ch23230

Communication System: LTE ; Frequency: 782 MHz;Duty Cycle: 1:1
Medium: MSL_750_170805 Medium parameters used: f = 782 MHz; σ = 1.002 S/m; ε_r = 54.248; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(6.31, 6.31, 6.31); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1477
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.307 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.19 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.358 W/kg
SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.221 W/kg
Maximum value of SAR (measured) = 0.309 W/kg



0 dB = 0.309 W/kg = -5.10 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/7

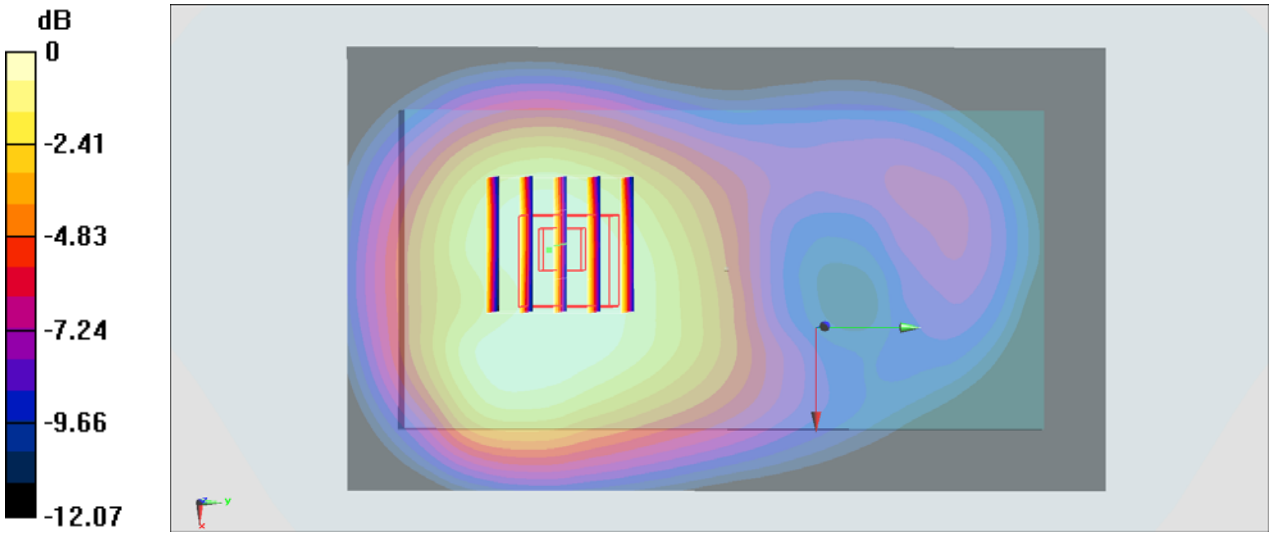
#42_LTE Band 66_20M_QPSK_1_0_Back_10mm_Ch132072

Communication System: LTE ; Frequency: 1720 MHz;Duty Cycle: 1:1
Medium: MSL_1750_170807 Medium parameters used: f = 1720 MHz; σ = 1.456 S/m; ε_r = 54.486; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(4.95, 4.95, 4.95); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1431
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.639 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.40 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.787 W/kg
SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.369 W/kg
Maximum value of SAR (measured) = 0.627 W/kg



0 dB = 0.627 W/kg = -2.03 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/9

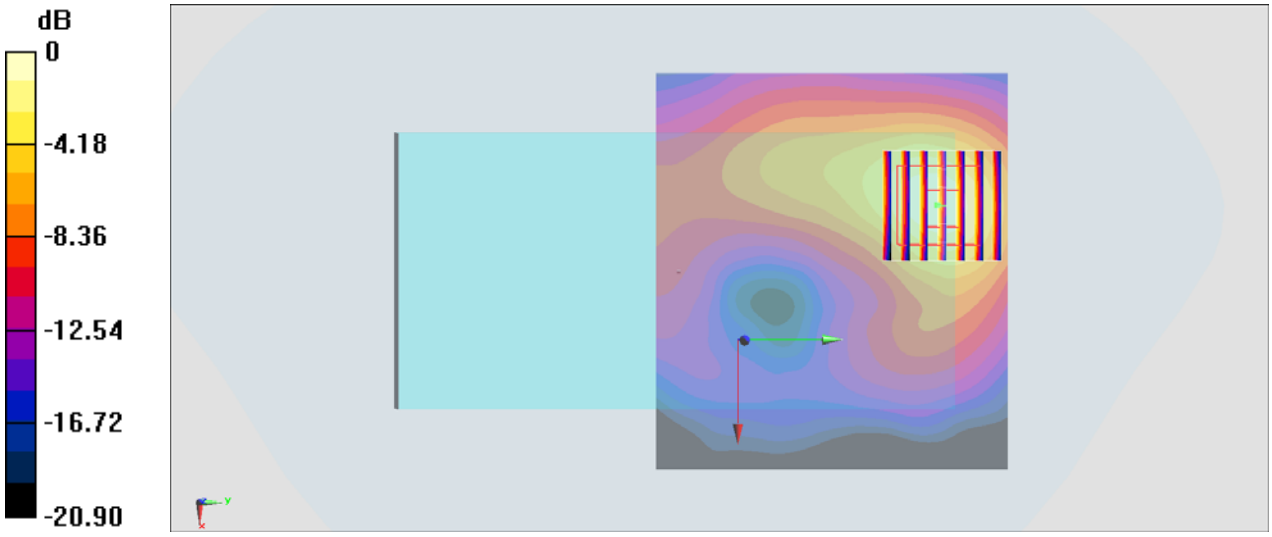
#43_WLAN2.4GHz_802.11b 1Mbps_Back_10mm_Ch11

Communication System: 802.11b ; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_170809 Medium parameters used: f = 2462 MHz; σ = 2.009 S/m; ε_r = 53.07; ρ = 1000 kg/m^3
Ambient Temperature：23.7 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3169; ConvF(4.28, 4.28, 4.28); Calibrated: 2017/5/11;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2016/11/17
- Phantom: SAM-Right; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.385 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.664 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.570 W/kg
SAR(1 g) = 0.310 W/kg; SAR(10 g) = 0.155 W/kg
Maximum value of SAR (measured) = 0.395 W/kg



0 dB = 0.395 W/kg = -4.03 dBW/kg

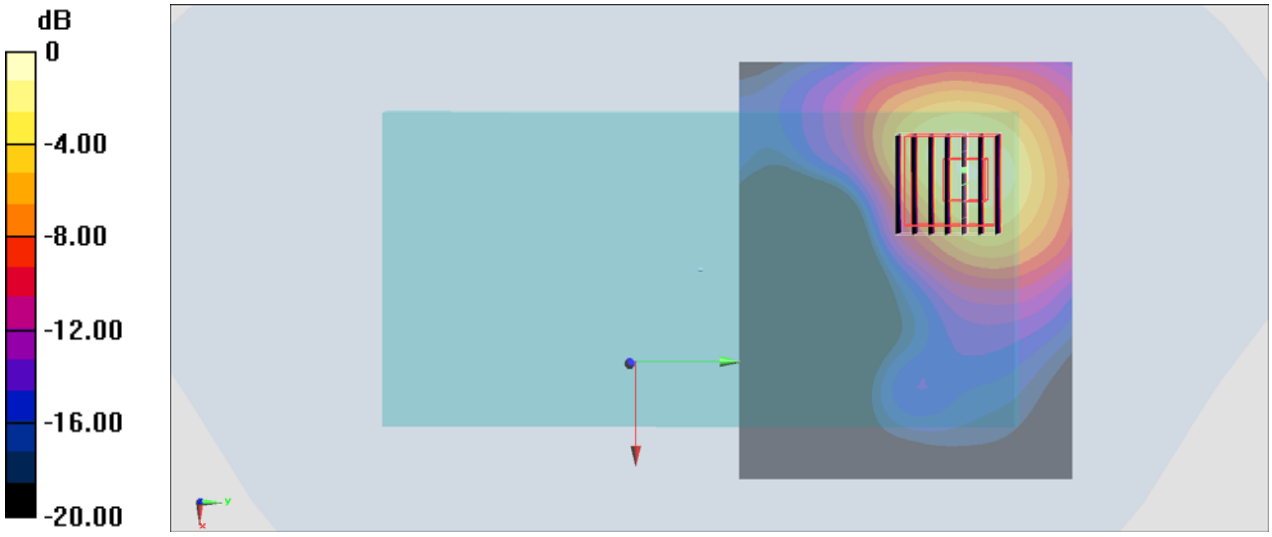
#44_WLAN5GHz_802.11a 6Mbps_Back_10mm_Ch56

Communication System: 802.11a; Frequency: 5280 MHz;Duty Cycle: 1:1.029
Medium: MSL_5G_170811 Medium parameters used: f = 5280 MHz; σ = 5.575 S/m; ε_r = 46.925; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3976; ConvF(4.87, 4.87, 4.87); Calibrated: 2017/2/21;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2017/2/16
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1431
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (101x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.55 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.41 W/kg
SAR(1 g) = 0.696 W/kg; SAR(10 g) = 0.242 W/kg
Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/11

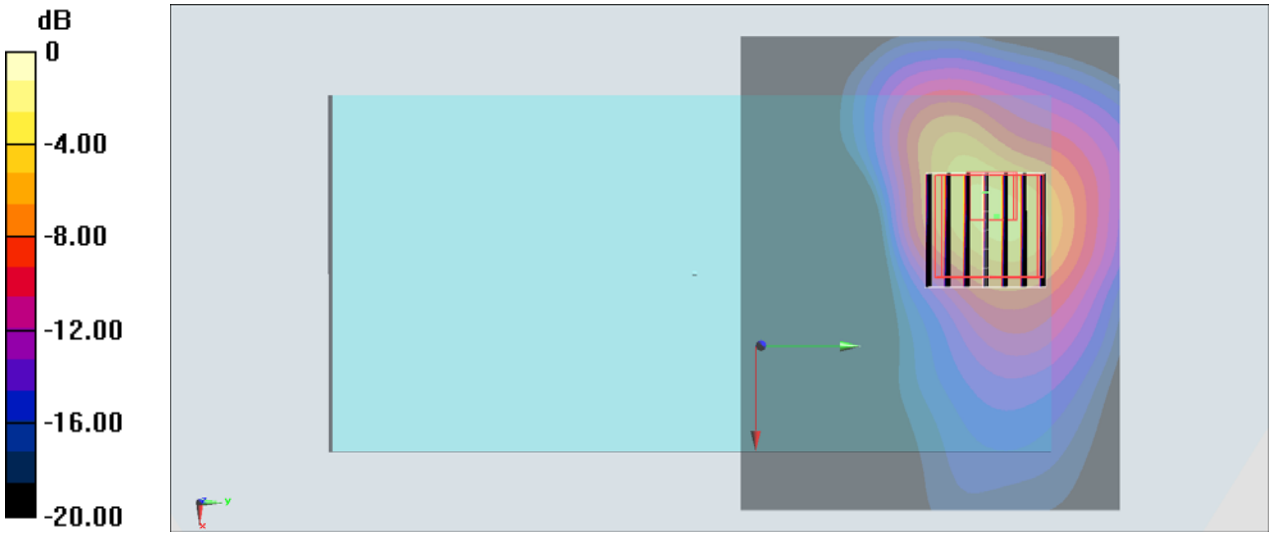
#45_WLAN5GHz_802.11a 6Mbps_Back_10mm_Ch100

Communication System: 802.11a; Frequency: 5500 MHz;Duty Cycle: 1:1.029
Medium: MSL_5G_170811 Medium parameters used: f = 5500 MHz; σ = 5.863 S/m; ε_r = 46.501; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3976; ConvF(4.03, 4.03, 4.03); Calibrated: 2017/2/21;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2017/2/16
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1431
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (101x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.579 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.136 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 2.09 W/kg
SAR(1 g) = 0.561 W/kg; SAR(10 g) = 0.147 W/kg
Maximum value of SAR (measured) = 1.27 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/11

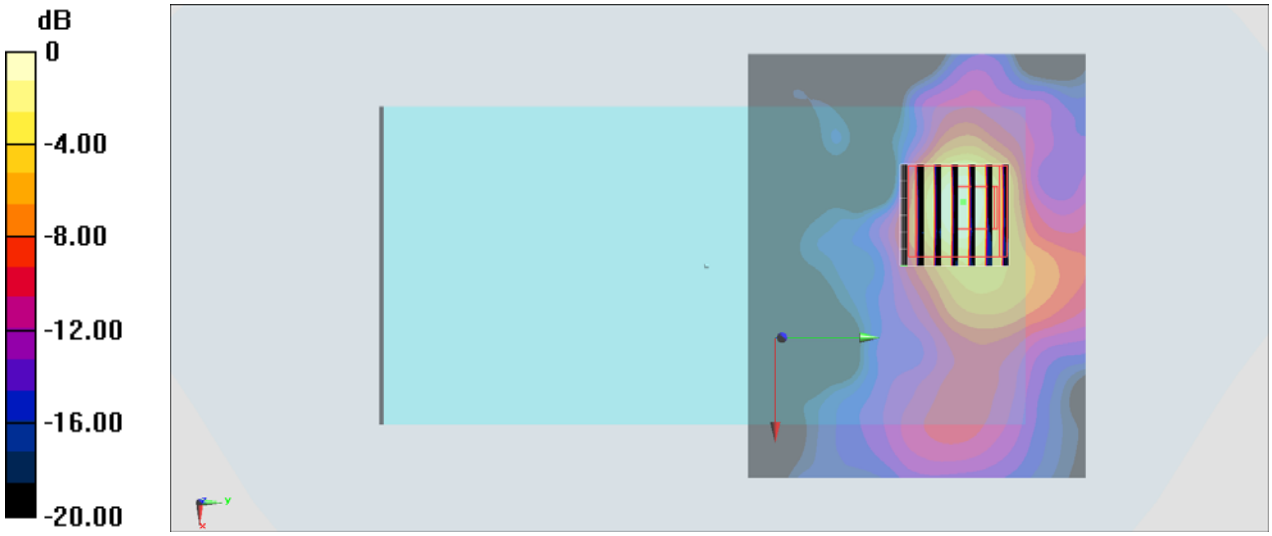
#46_WLAN5GHz_802.11a 6Mbps_Back_10mm_Ch149

Communication System: 802.11a ; Frequency: 5745 MHz;Duty Cycle: 1:1.029
Medium: MSL_5G_170811 Medium parameters used: f = 5745 MHz; σ = 6.176 S/m; ε_r = 46.004; ρ = 1000 kg/m^3
Ambient Temperature：23.8 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3976; ConvF(4.33, 4.33, 4.33); Calibrated: 2017/2/21;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2017/2/16
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1431
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (101x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.770 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.380 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 2.45 W/kg
SAR(1 g) = 0.282 W/kg; SAR(10 g) = 0.074 W/kg
Maximum value of SAR (measured) = 0.688 W/kg



0 dB = 0.688 W/kg = -1.62 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2017/8/11

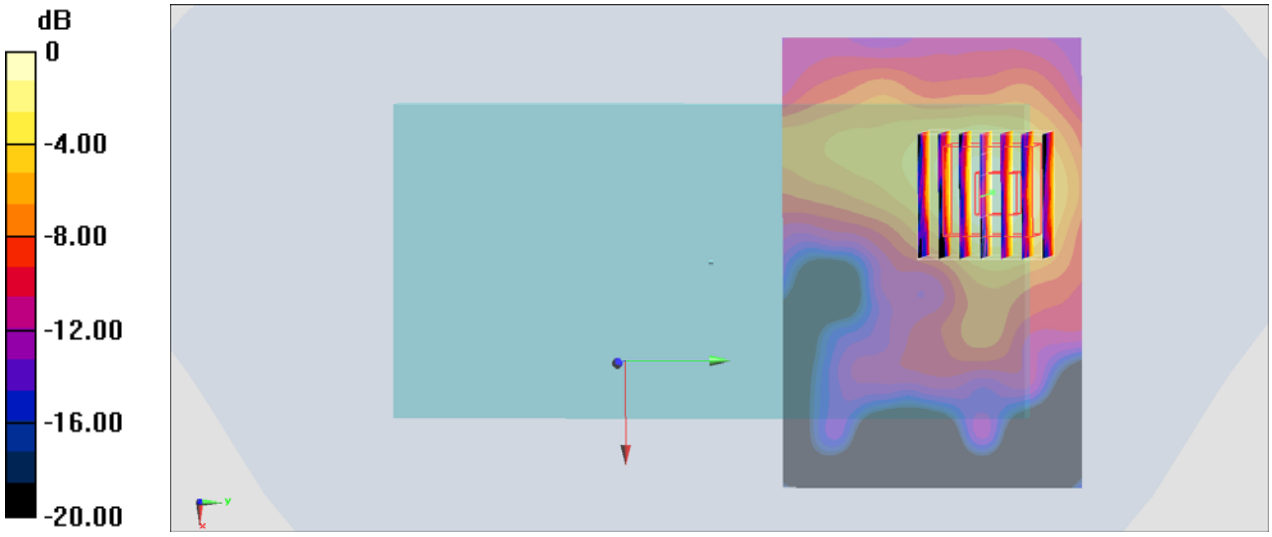
#47_Bluetooth_1Mbps_Back_10mm_Ch39

Communication System: Bluetooth; Frequency: 2441 MHz;Duty Cycle: 1:1.31
Medium: MSL_2450_170811 Medium parameters used : f = 2441 MHz; σ = 1.946 S/m; ε_r = 53.768; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃； Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3976; ConvF(7.93, 7.93, 7.93); Calibrated: 2017/2/21;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2017/2/16
- Phantom: SAM_Left; Type: QD000P40CD; Serial: TP:1431
- Measurement SW: DASY52, Version 52.8 (8);SEMCAD X Version 14.6.10 (7373)

Area Scan (91x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0309 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.614 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.0350 W/kg
SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.00855 W/kg
Maximum value of SAR (measured) = 0.0289 W/kg



0 dB = 0.0289 W/kg = -15.39 dBW/kg