16.3 Body-Worn Accessory Exposure Conditions

<Top Antenna>

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN 1g SAR (W/kg)	3 5GHz WLAN 1g SAR (W/kg)	4 Bluetooth Ant 1 Estimated 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
GSM	GSM850	Front	0.539	0.371	0.517	0.032	0.91	1.09
		Back	0.602	0.371	0.316	0.040	0.97	0.96
	GSM1900	Front	0.153	0.371	0.517	0.032	0.52	0.70
		Back	0.163	0.371	0.316	0.040	0.53	0.52
WCDMA	Band V	Front	0.268	0.371	0.517	0.032	0.64	0.82
		Back	0.388	0.371	0.316	0.040	0.76	0.74
	Band IV	Front	0.426	0.371	0.517	0.032	0.80	0.98
		Back	0.494	0.371	0.316	0.040	0.87	0.85
	Band II	Front	0.416	0.371	0.517	0.032	0.79	0.97
		Back	0.502	0.371	0.316	0.040	0.87	0.86
LTE	Band 5	Front	0.491	0.371	0.517	0.032	0.86	1.04
		Back	0.656	0.371	0.316	0.040	1.03	1.01
	Band 4	Front	0.336	0.371	0.517	0.032	0.71	0.89
		Back	0.394	0.371	0.316	0.040	0.77	0.75
	Band 2	Front	0.315	0.371	0.517	0.032	0.69	0.86
		Back	0.365	0.371	0.316	0.040	0.74	0.72
	Band 7	Front	0.743	0.371	0.517	0.032	1.11	1.29
		Back	0.832	0.371	0.316	0.040	1.20	1.19
	Band 38	Front	0.431	0.371	0.517	0.032	0.80	0.98
		Back	0.488	0.371	0.316	0.040	0.86	0.84

<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)		
GSM	GSM850	Front	0.219	0.371	0.517	0.032	0.59	0.77
		Back	0.278	0.371	0.316	0.040	0.65	0.63
	GSM1900	Front	0.489	0.371	0.517	0.032	0.86	1.04
		Back	0.668	0.371	0.316	0.040	1.04	1.02
WCDMA	Band V	Front	0.268	0.371	0.517	0.032	0.64	0.82
		Back	0.388	0.371	0.316	0.040	0.76	0.74
	Band IV	Front	0.734	0.371	0.517	0.032	1.11	1.28
		Back	0.952	0.371	0.316	0.040	1.32	1.31
	Band II	Front	0.811	0.371	0.517	0.032	1.18	1.36
		Back	1.085	0.371	0.316	0.040	1.46	1.44
LTE	Band 5	Front	0.277	0.371	0.517	0.032	0.65	0.83
		Back	0.353	0.371	0.316	0.040	0.72	0.71
	Band 4	Front	0.684	0.371	0.517	0.032	1.06	1.23
		Back	0.917	0.371	0.316	0.040	1.29	1.27
	Band 2	Front	0.777	0.371	0.517	0.032	1.15	1.33
		Back	1.084	0.371	0.316	0.040	1.46	1.44
	Band 7	Front	0.522	0.371	0.517	0.032	0.89	1.07
		Back	0.893	0.371	0.316	0.040	1.26	1.25
	Band 38	Front	0.466	0.371	0.517	0.032	0.84	1.02
		Back	0.696	0.371	0.316	0.040	1.07	1.05

Test Engineer： Nick Hu

17. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg. Therefore, the measurement uncertainty table is not required in this report.

18. References

[1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4] SPEAG DASY System Handbook

[5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[6] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.

[7] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

[8] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[9] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

[10] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[11] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[12] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[14] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

Appendix A. Plots of System Performance Check

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.17

System Check_Head_835MHz

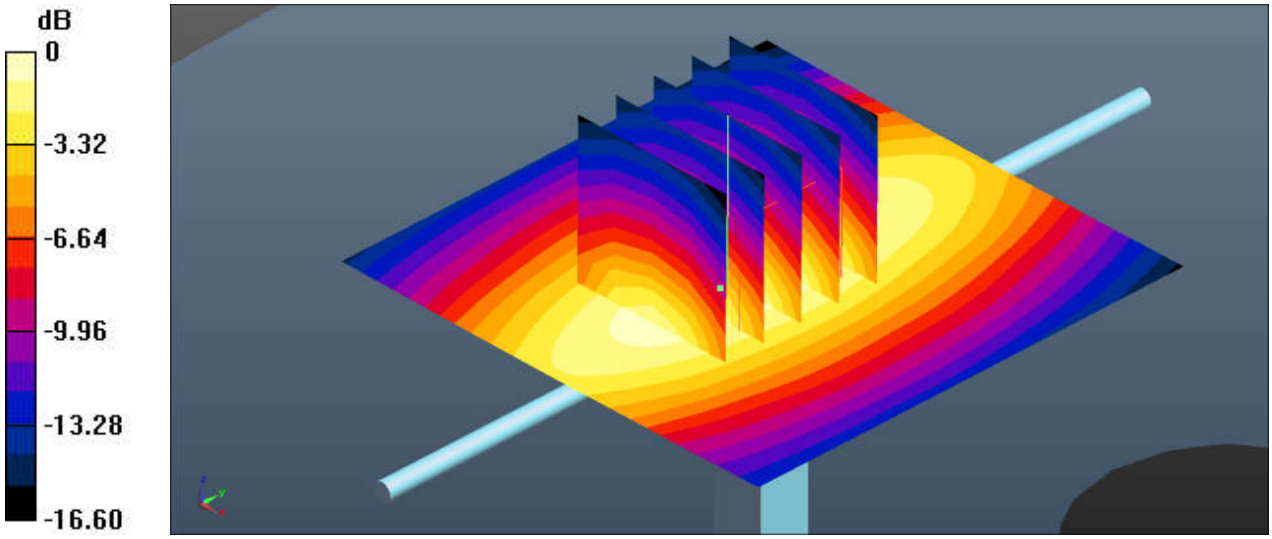
DUT: D835V2 - SN:4d051

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 835 MHz; σ = 0.915 S/m; ε_r = 41.269; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.47, 6.47, 6.47); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.68 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 51.87 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 2.78 W/kg
SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 2.63 W/kg



0 dB = 2.68 W/kg = 4.28 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

System Check_Head_1750MHz

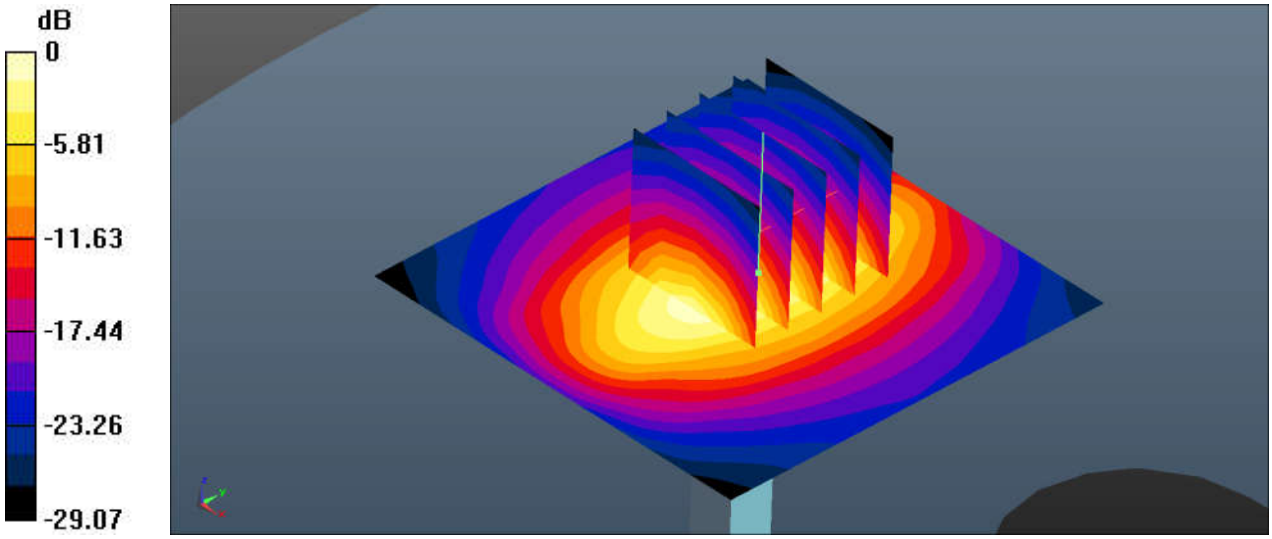
DUT: D1750V2 - SN:1090

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1750 MHz; σ = 1.346 S/m; ε_r = 40.238; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.4, 5.4, 5.4); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 84.23 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 8.79 W/kg; SAR(10 g) = 4.6 W/kg
Maximum value of SAR (measured) = 12.7 W/kg



0 dB = 13.0 W/kg = 11.14 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

System Check_Head_1900MHz

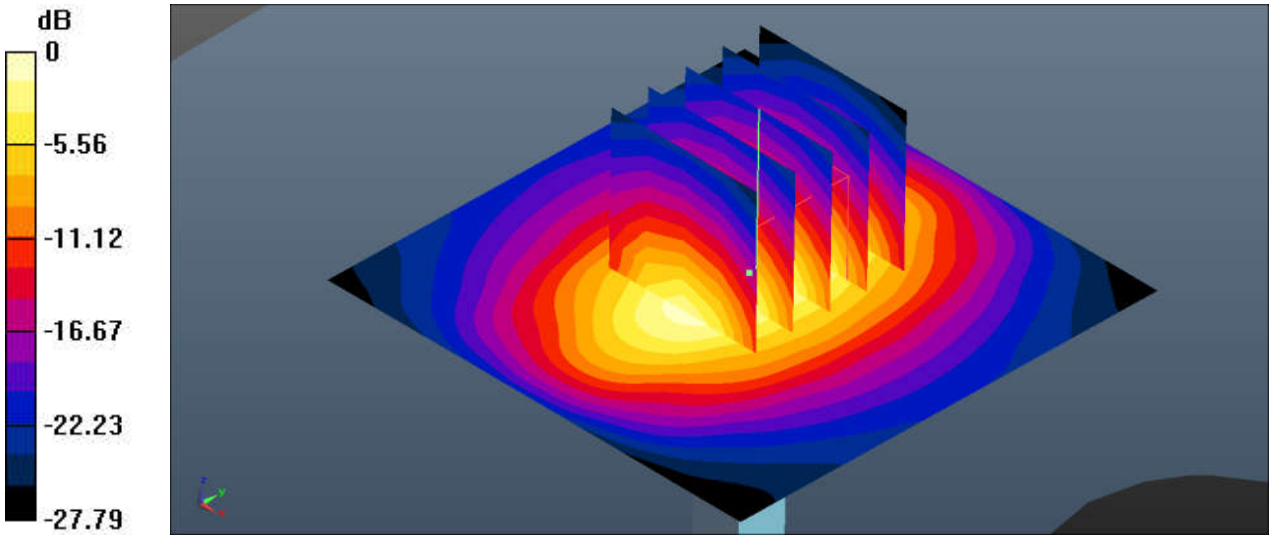
DUT: D1900V2 - SN:5d170

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.428 S/m; ε_r = 41.104; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.19, 5.19, 5.19); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 12.5 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 86.62 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 9.18 W/kg; SAR(10 g) = 4.79 W/kg
Maximum value of SAR (measured) = 12.2 W/kg



0 dB = 12.5 W/kg = 10.97 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.27

System Check_Head_2450MHz

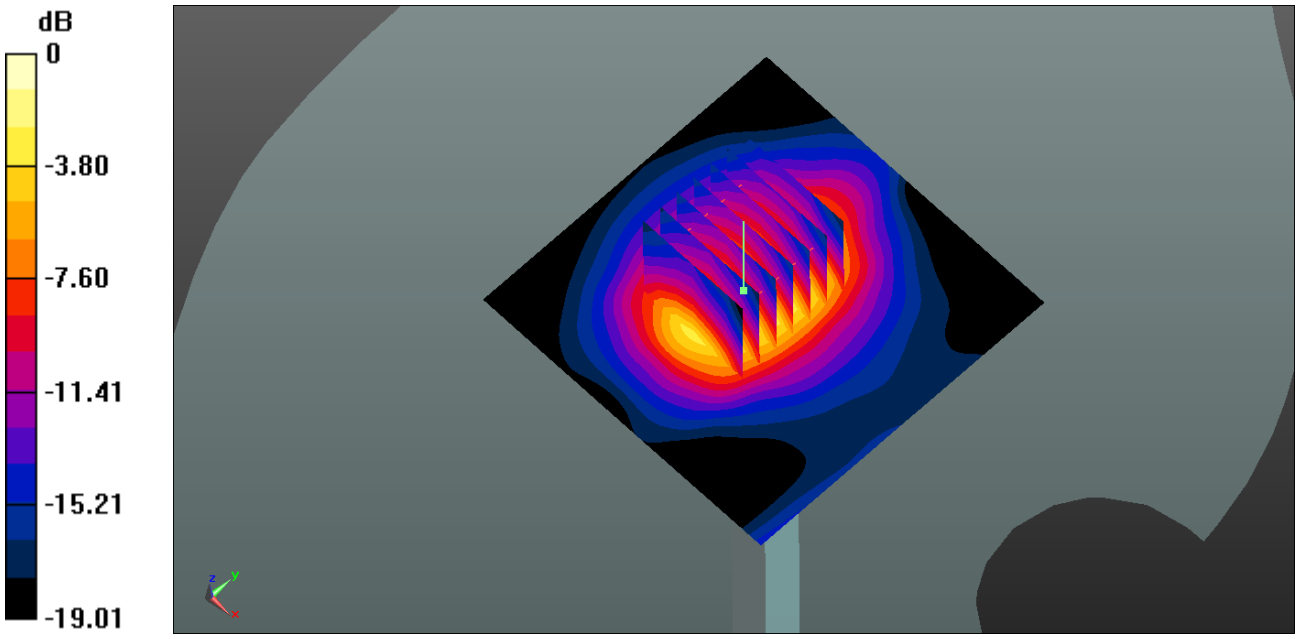
DUT: D2450V2 - SN:908

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2450 MHz; σ = 1.824 S/m; ε_r = 38.12; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.56, 7.56, 7.56); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 19.4 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 81.56 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 22.5 W/kg
SAR(1 g) = 12.2 W/kg; SAR(10 g) = 6.01 W/kg
Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.7 W/kg = 12.48 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

System Check_Head_2600MHz

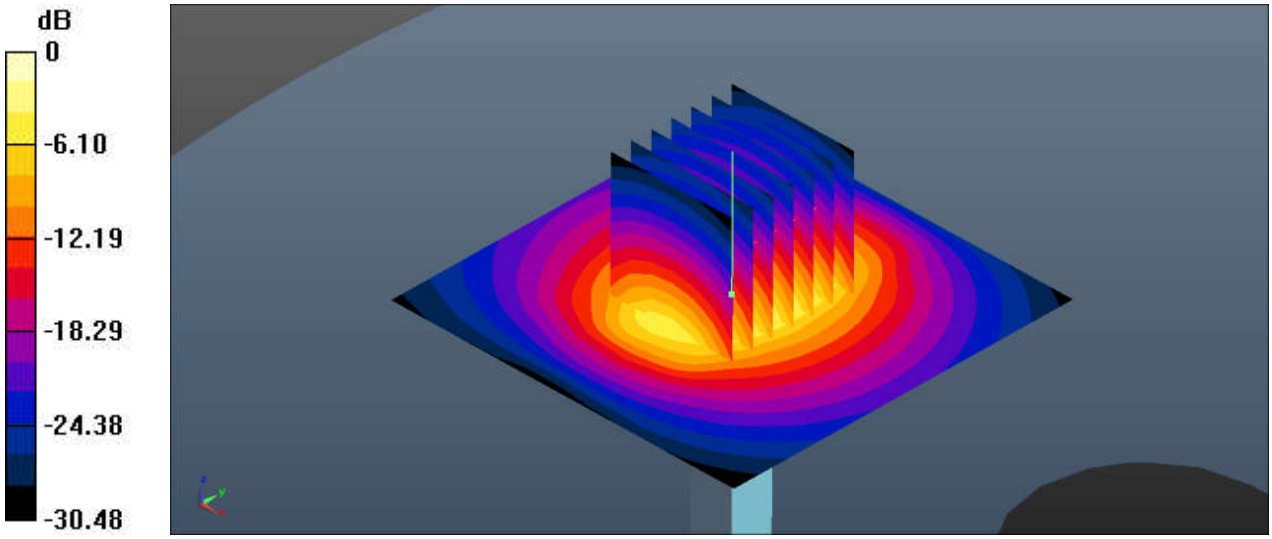
DUT: D2600V2 - SN:1061

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2600 MHz; σ = 2.012 S/m; ε_r = 37.658; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 19.9 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.78 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 32.5 W/kg
SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.2 W/kg
Maximum value of SAR (measured) = 19.3 W/kg



0 dB = 19.9 W/kg = 12.99 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Head_5250MHz

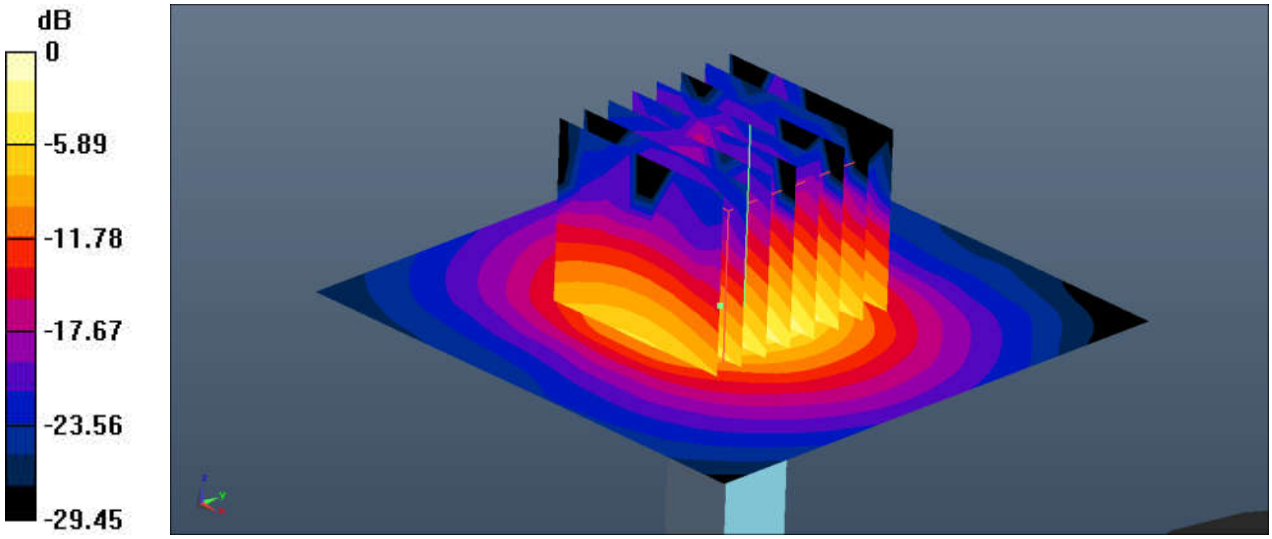
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5250 MHz; σ = 4.53 S/m; ε_r = 36.367; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.2 W/kg

Pin=100/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 42.97 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 7.51 W/kg; SAR(10 g) = 2.41 W/kg
Maximum value of SAR (measured) = 17.2 W/kg



0 dB = 17.2 W/kg = 12.36 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Head_5600MHz

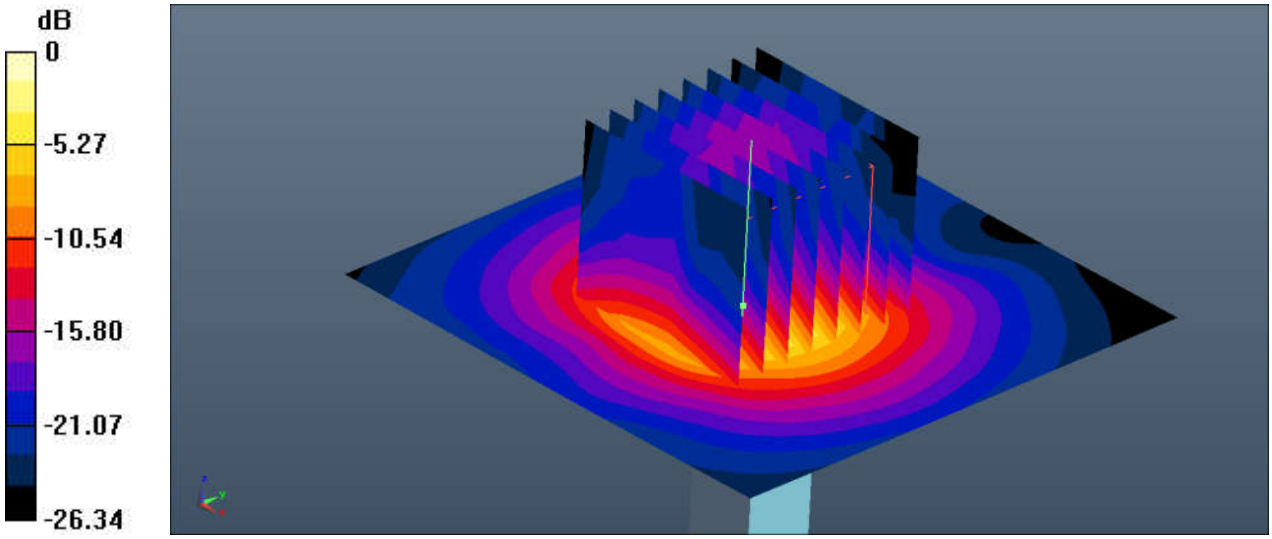
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5600 MHz; σ = 4.861 S/m; ε_r = 35.896; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10(1); SEMCAD X Version 14.6.10 (7372)

Pin=100/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.3 W/kg

Pin=100/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 39.39 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 27.4 W/kg
SAR(1 g) = 7.67 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 17.0 W/kg



0 dB = 17.3 W/kg = 12.38 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Head_5750MHz

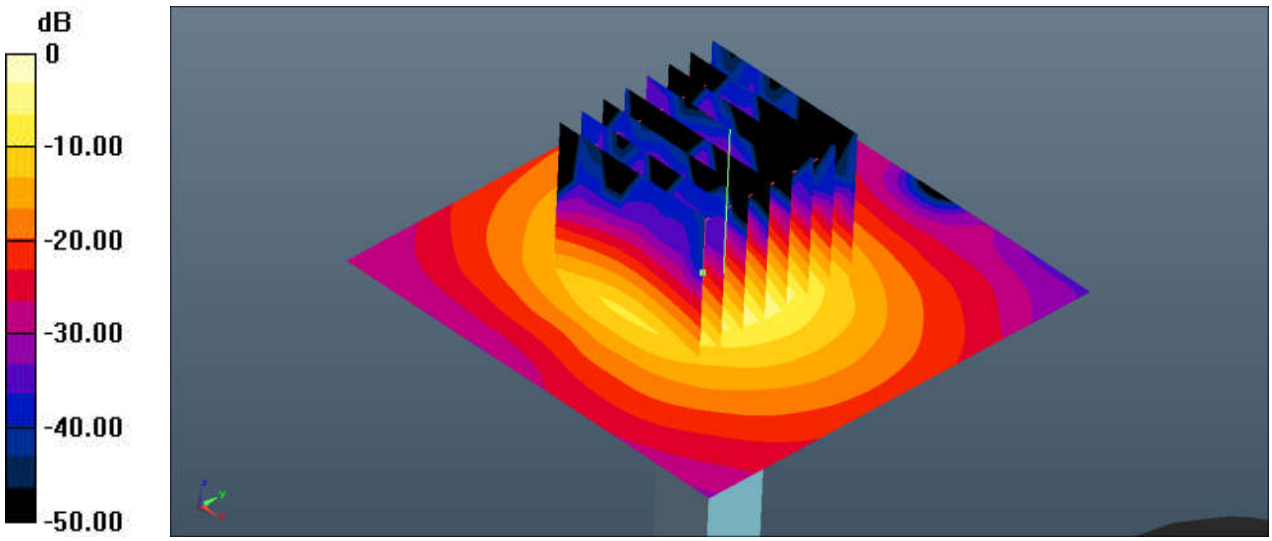
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5750 MHz; σ = 5.007 S/m; ε_r = 35.703; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.4 W/kg

Pin=100/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 37.72 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 30.5 W/kg
SAR(1 g) = 7.65 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 16.3 W/kg



0 dB = 16.4 W/kg = 12.15 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.19

System Check_Body_835MHz

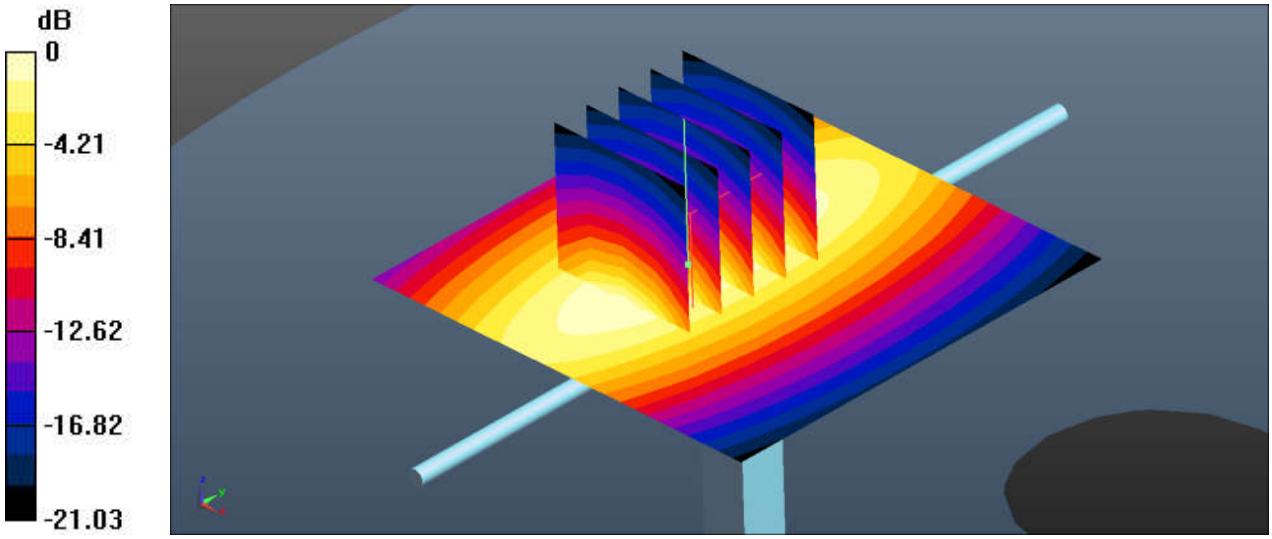
DUT: D835V2 - SN:4d151

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 835 MHz; σ = 0.987 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.24, 6.24, 6.24); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.30 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.20 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 4.02 W/kg
SAR(1 g) = 2.56 W/kg; SAR(10 g) = 1.67 W/kg
Maximum value of SAR (measured) = 3.29 W/kg



0 dB = 3.30 W/kg = 5.19 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.20

System Check_Body_1750MHz

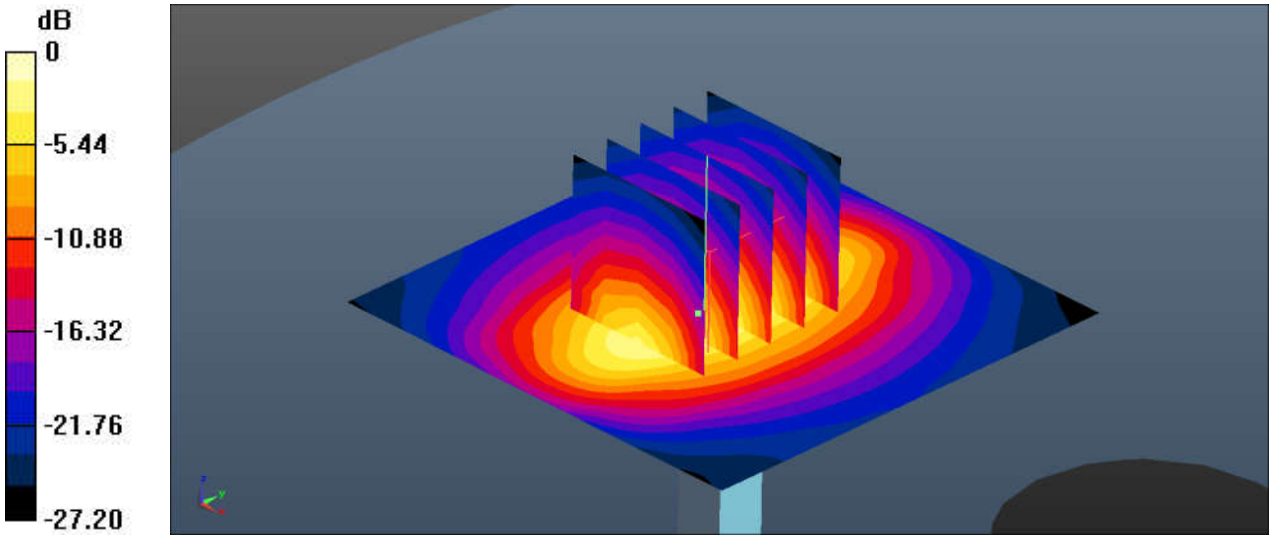
DUT: D1750V2 - SN:1090

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1750 MHz; σ = 1.521 S/m; ε_r = 54.081; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.01, 5.01, 5.01); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 11.6 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 81.95 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 13.0 W/kg
SAR(1 g) = 8.66 W/kg; SAR(10 g) = 4.73 W/kg
Maximum value of SAR (measured) = 11.6 W/kg



0 dB = 11.6 W/kg = 10.64 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.20

System Check_Body_1900MHz

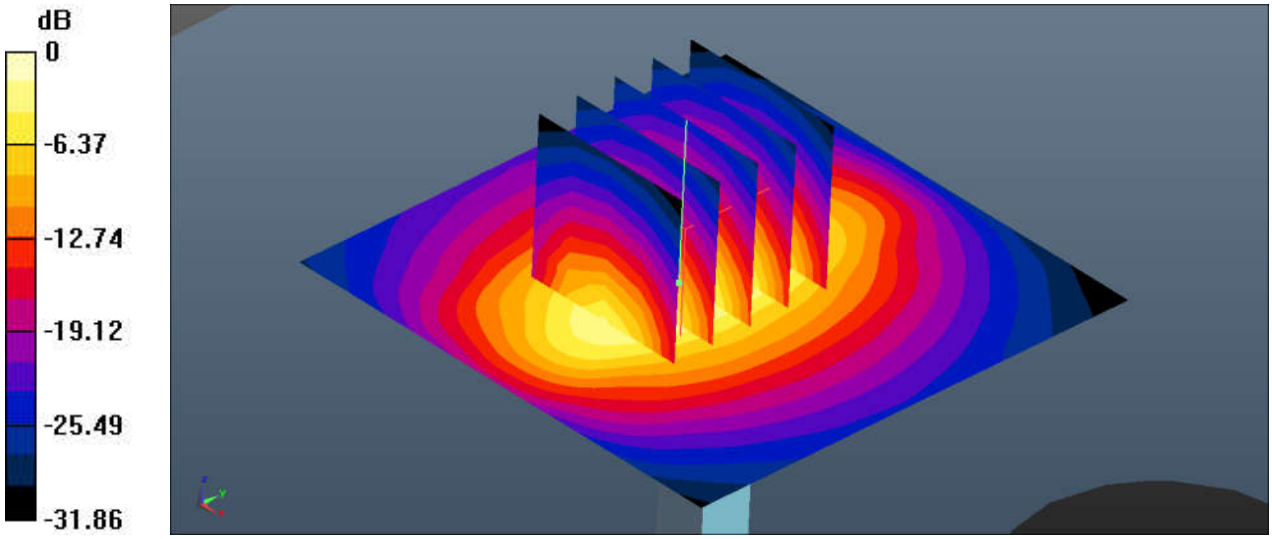
DUT: D1900V2 - SN:5d170

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.534 S/m; ε_r = 53.035; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.74, 4.74, 4.74); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 10.6 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 75.90 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 12.0 W/kg
SAR(1 g) = 9.51 W/kg; SAR(10 g) = 5.12 W/kg
Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

System Check_Body_2450MHz

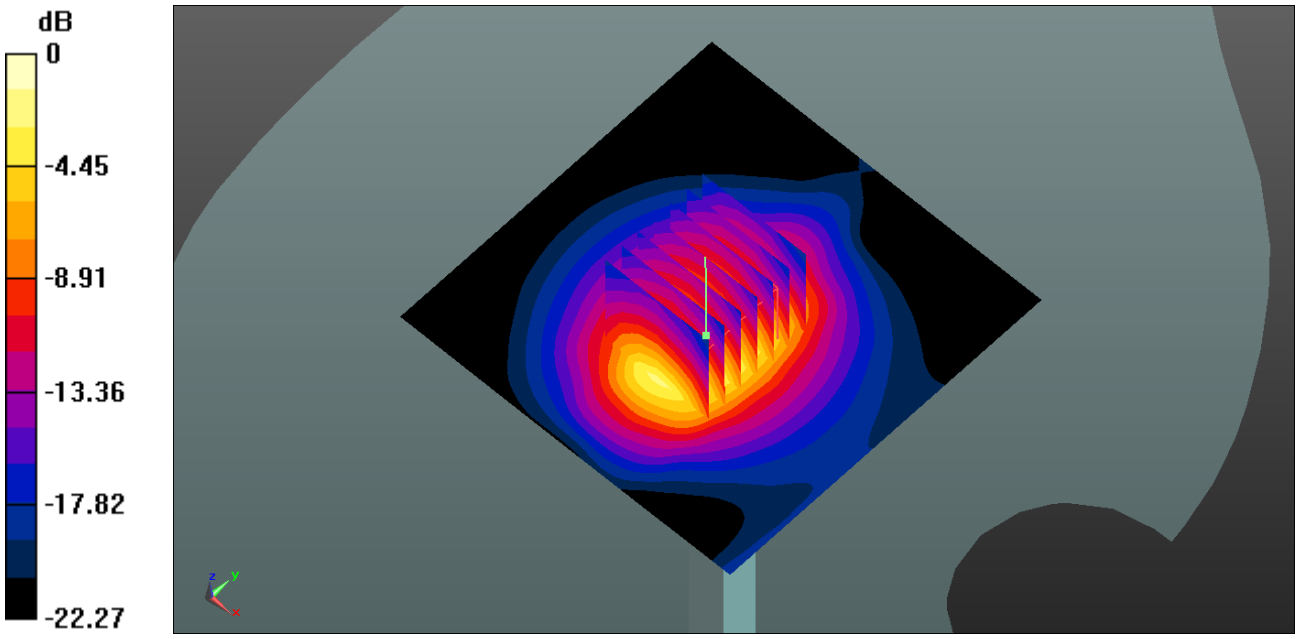
DUT: D2450V2 - SN:908

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: MSL_2450 Medium parameters used: f = 2450 MHz; σ = 2.027 S/m; ε_r = 53.032; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

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: 2018.04.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 18.7 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 81.15 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 23.8 W/kg
SAR(1 g) = 12.4 W/kg; SAR(10 g) = 6.02 W/kg
Maximum value of SAR (measured) = 18.4 W/kg



0 dB = 18.4 W/kg = 12.65 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.19

System Check_Body_2600MHz

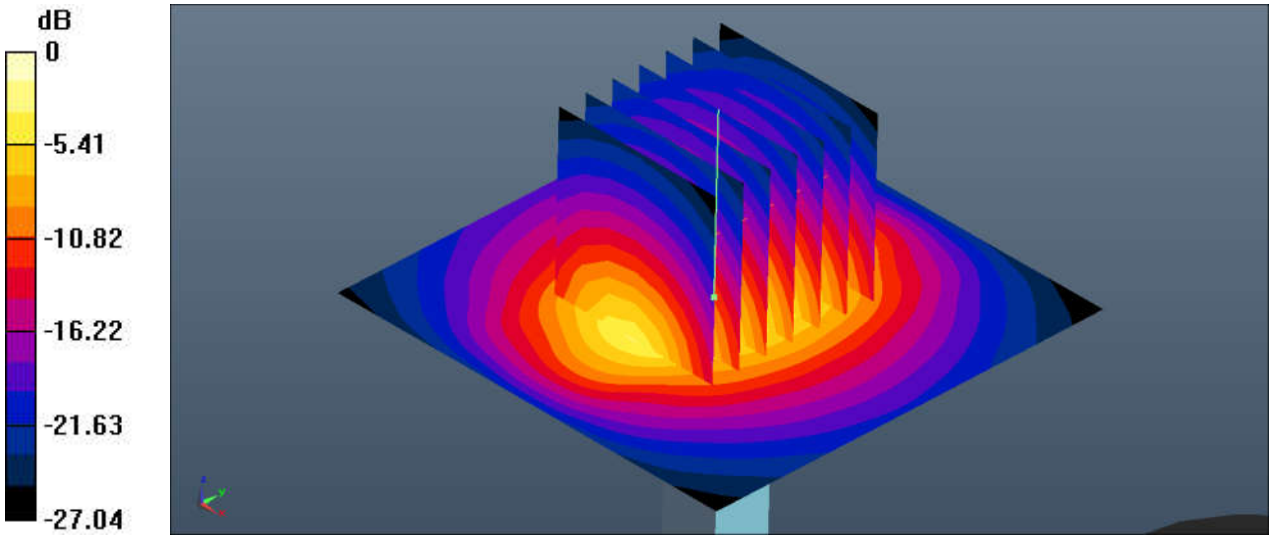
DUT: D2600V2 - SN:1061

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: MSL_2600 Medium parameters used: f = 2600 MHz; σ = 2.217 S/m; ε_r = 52.913; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.28, 4.28, 4.28); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 21.0 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.31 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 23.0 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.11 W/kg
Maximum value of SAR (measured) = 20.8 W/kg



0 dB = 21.0 W/kg = 13.22 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Body_5250MHz

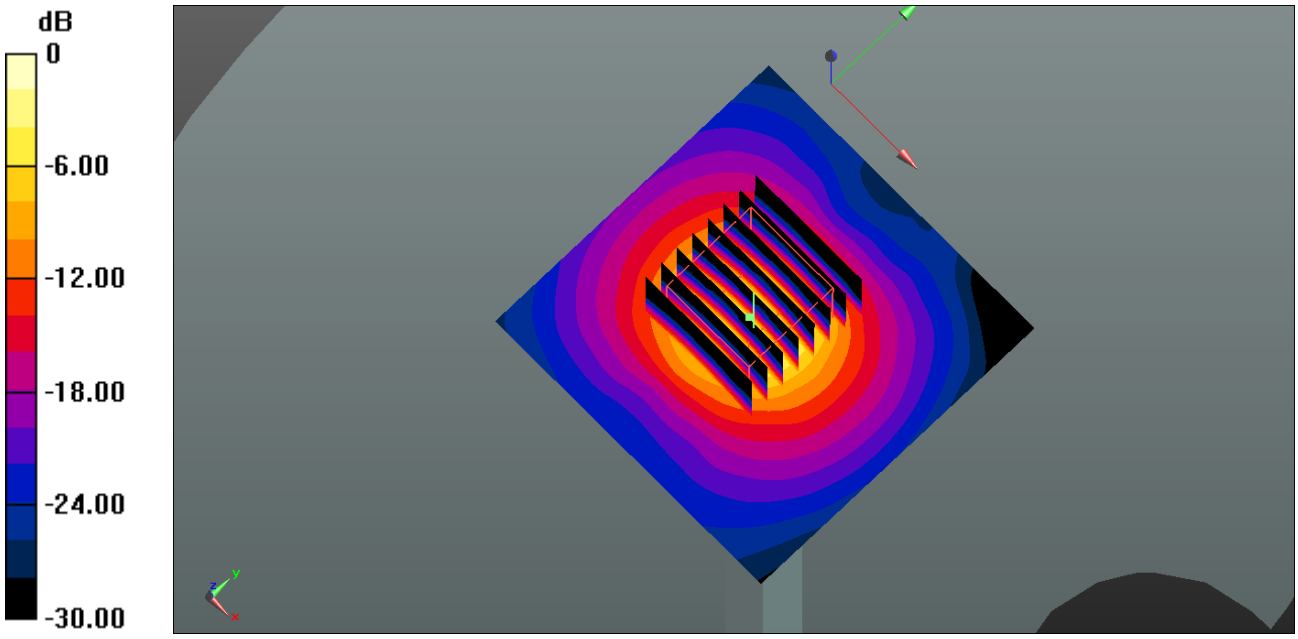
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: MSL_5000 Medium parameters used: f = 5250 MHz; σ = 5.505 S/m; ε_r = 49.515; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

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: 2018.04.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.3 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 38.01 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 29.1 W/kg
SAR(1 g) = 7.23 W/kg; SAR(10 g) = 2.02 W/kg
Maximum value of SAR (measured) = 16.7 W/kg



0 dB = 17.3 W/kg = 12.38 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Body_5600MHz

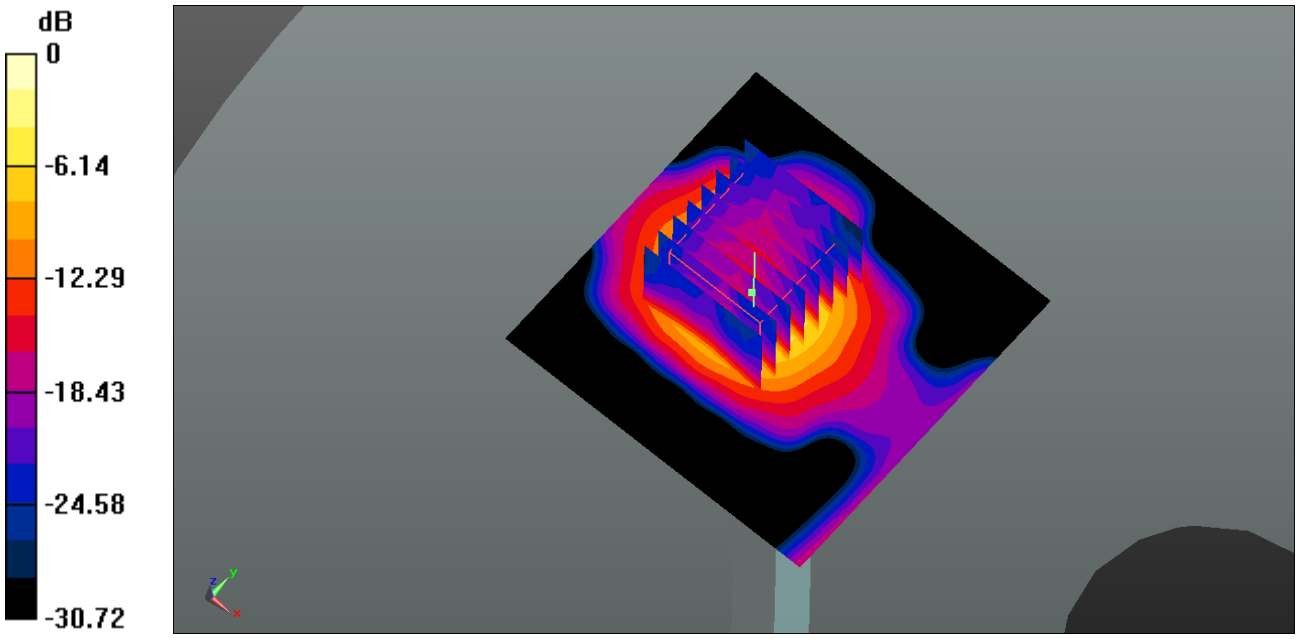
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: MSL_5000 Medium parameters used: f = 5600 MHz; σ = 5.974 S/m; ε_r = 48.957; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； 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 Sn1358; Calibrated: 2018.04.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

CW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 18.0 W/kg

CW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 27.71 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 34.1 W/kg
SAR(1 g) = 7.4 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 17.4 W/kg



0 dB = 17.4 W/kg = 12.41 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.2.7

System Check_Body_5750MHz

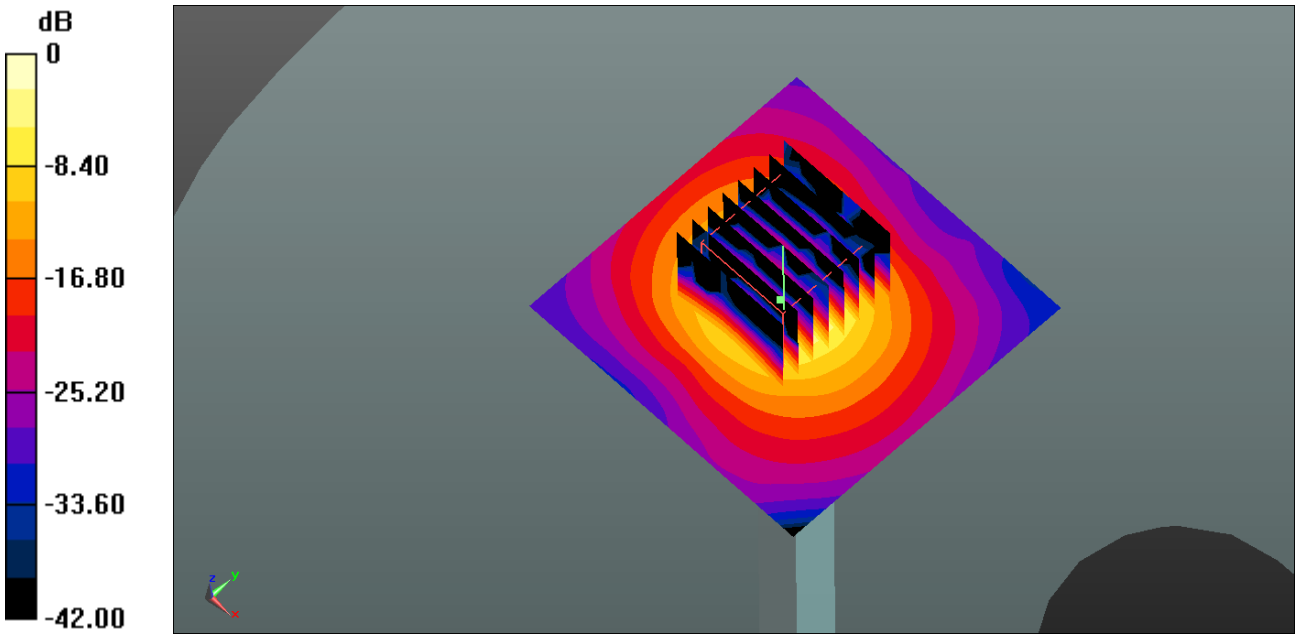
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: MSL_5000 Medium parameters used: f = 5750 MHz; σ = 6.189 S/m; ε_r = 48.732; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

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: 2018.04.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.2 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 34.71 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.11 W/kg
Maximum value of SAR (measured) = 17.1 W/kg



0 dB = 17.2 W/kg = 12.36 dBW/kg

Appendix B. Plots of High SAR Measurement

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.17

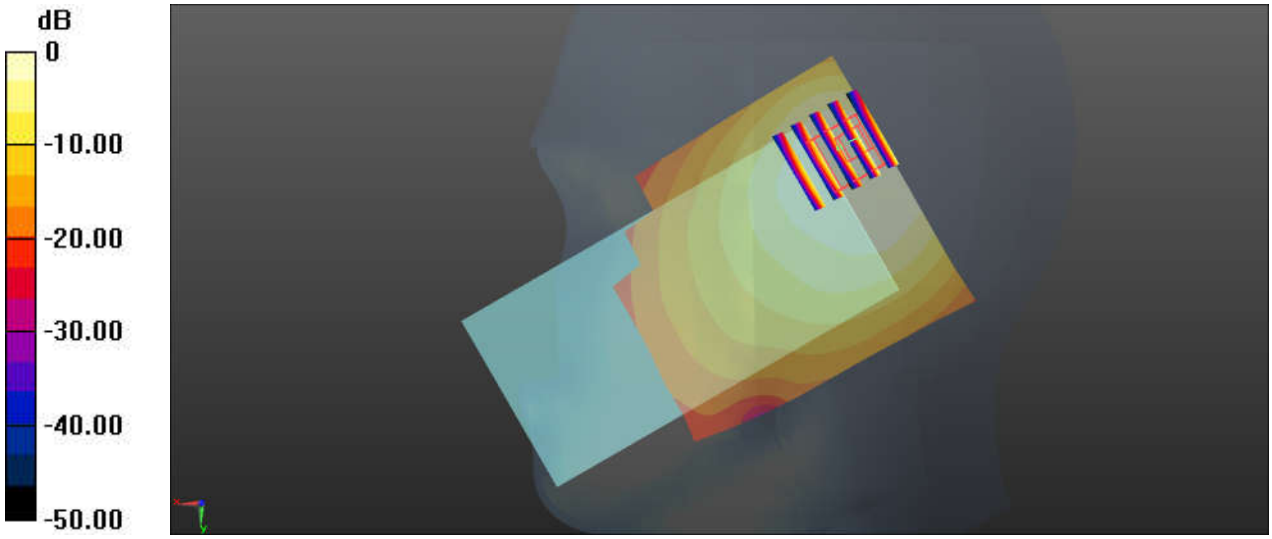
01_GSM850 _GPRS 4 Tx slots_Right Cheek_0mm_Ch189_UAT

Communication System: UID 0, GSM850 (0); Frequency: 836.4 MHz;Duty Cycle: 1:2.08
Medium: HSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.916 S/m; ε_r = 41.25; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.47, 6.47, 6.47); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch189/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.603 W/kg

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.48 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.512 W/kg; SAR(10 g) = 0.284 W/kg
Maximum value of SAR (measured) = 0.639 W/kg



0 dB = 0.603 W/kg = -2.20 dBW/kg

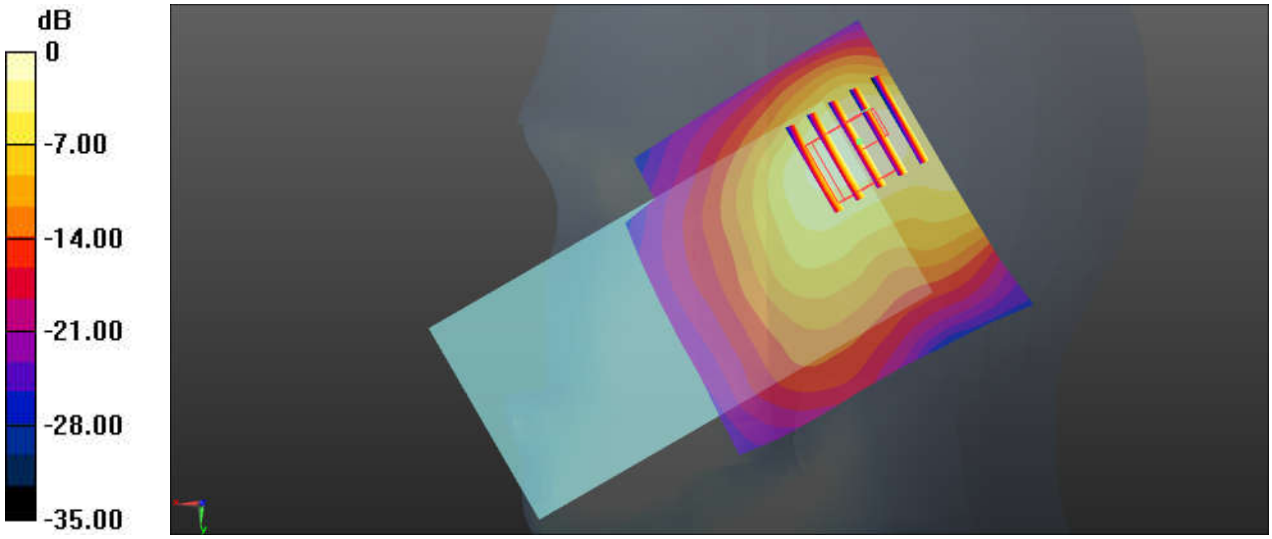
02_GSM1900_GPRS 4 Tx slots_Right Cheek_0mm_UAT_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.08
Medium: HSL_1900 Medium parameters used: f = 1909.8 MHz; σ = 1.439 S/m; ε_r = 41.053; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.19, 5.19, 5.19); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- 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) = 1.51 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.97 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 0.848 W/kg; SAR(10 g) = 0.513 W/kg
Maximum value of SAR (measured) = 1.32 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.17

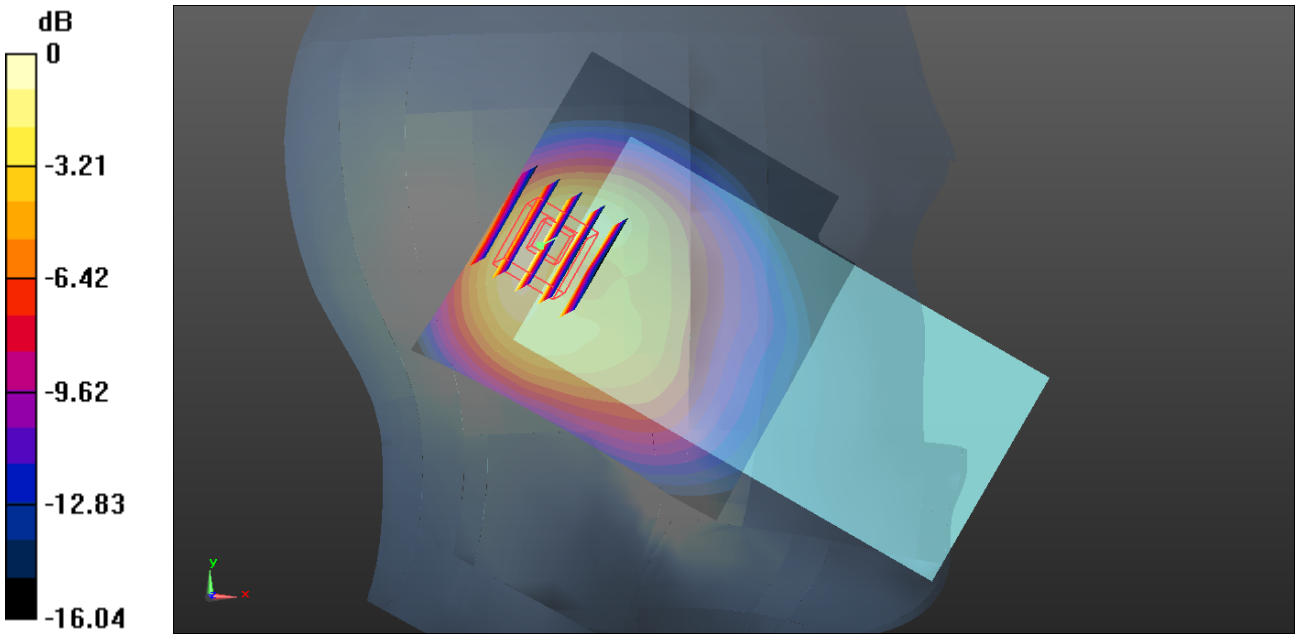
03_WCDMA V_RMC 12.2Kbps_Left Cheek_0mm_UAT_Ch4233

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 846.6 MHz; σ = 0.926 S/m; ε_r = 41.111; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.47, 6.47, 6.47); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- 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) = 0.699 W/kg

Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.13 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.556 W/kg; SAR(10 g) = 0.291 W/kg
Maximum value of SAR (measured) = 0.717 W/kg



0 dB = 0.717 W/kg = -1.44 dBW/kg

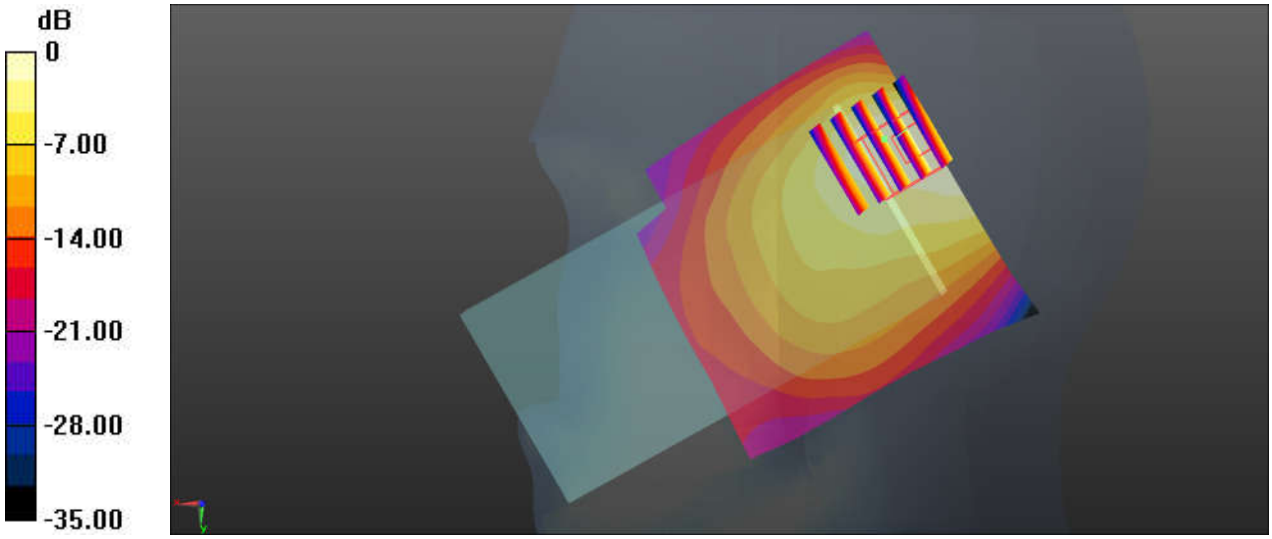
04_WCDMA IV_RMC 12.2Kbps_Right Tilted_0mm_UAT_Ch1413

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1732.6 MHz; σ = 1.331 S/m; ε_r = 40.296; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.4, 5.4, 5.4); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1413/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.998 W/kg

Ch1413/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.00 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.13 W/kg
SAR(1 g) = 0.802 W/kg; SAR(10 g) = 0.405 W/kg
Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 0.998 W/kg = -0.01 dBW/kg

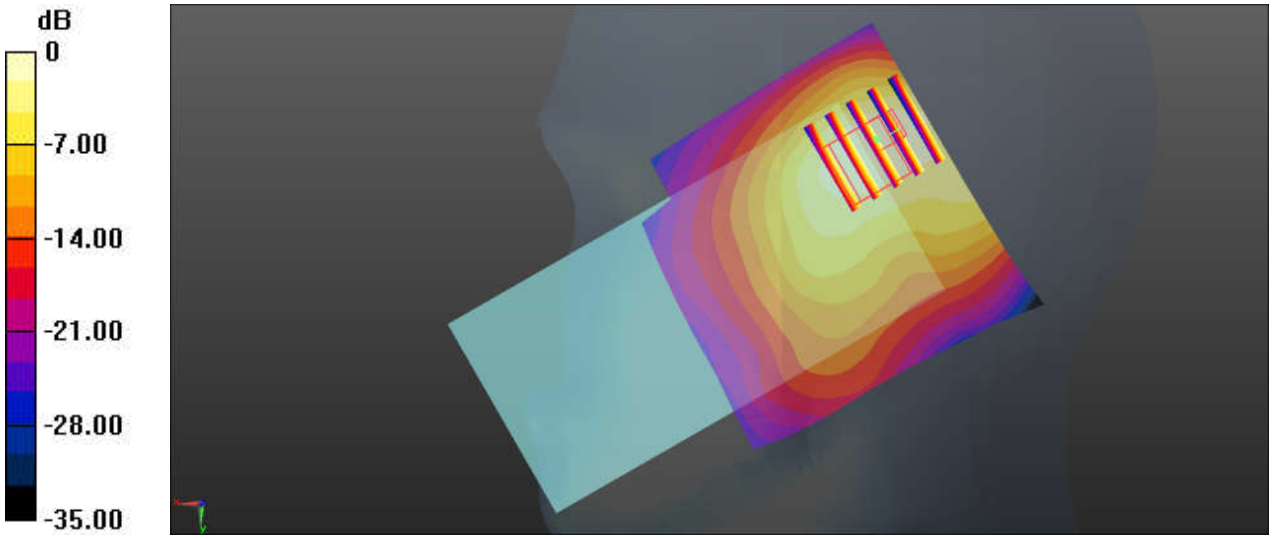
05_WCDMA II_RMC 12.2Kbps_Right Cheek_0mm_UAT_Ch9400

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.407 S/m; ε_r = 41.21; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.19, 5.19, 5.19); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9400/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.62 W/kg

Ch9400/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.55 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 0.939 W/kg; SAR(10 g) = 0.576 W/kg
Maximum value of SAR (measured) = 1.44 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.17

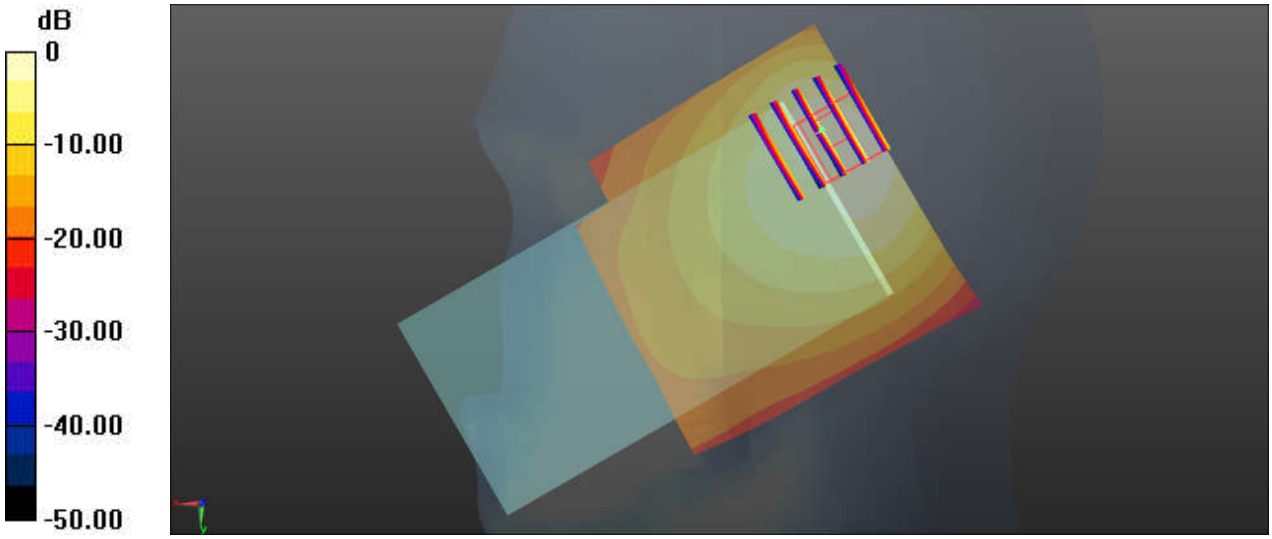
06_LTE Band 5_10M _QPSK_25RB_0offset_Right Tilted_0mm_UAT_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 836.5 MHz; σ = 0.916 S/m; ε_r = 41.249; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.47, 6.47, 6.47); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20525/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.05 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.502 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.06 W/kg
SAR(1 g) = 0.775 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

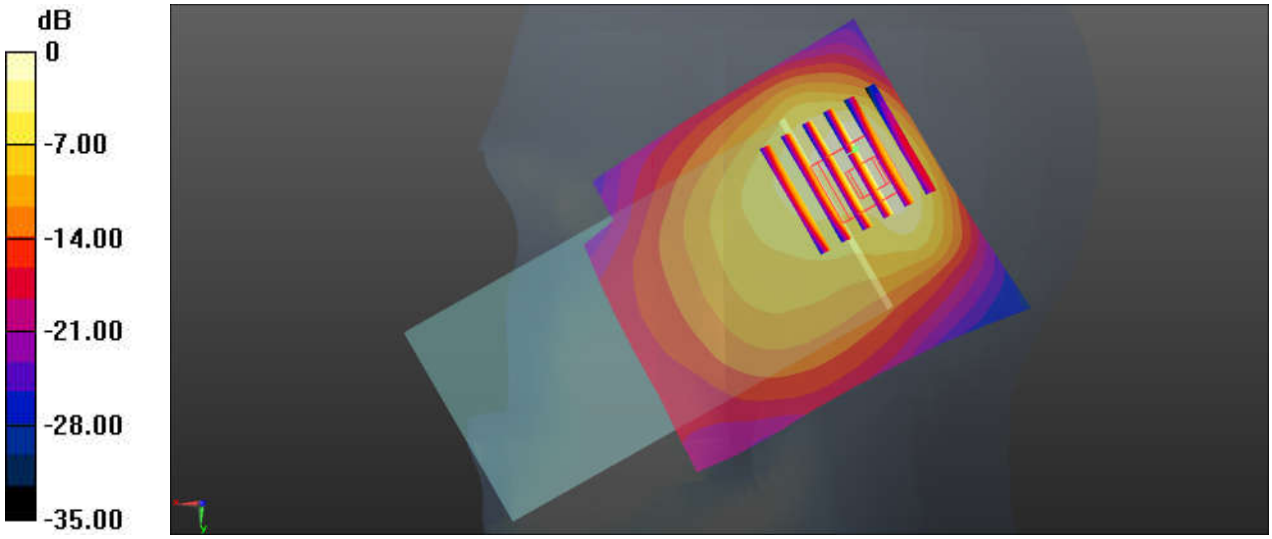
07_LTE Band 4_20M_QPSK_100RB_0Offset_Right Tilted_0mm_UAT_Ch20175

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 = 1.331 S/m; ε_r = 40.296; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.4, 5.4, 5.4); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20175/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Ch20175/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.42 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.23 W/kg
SAR(1 g) = 0.911 W/kg; SAR(10 g) = 0.469 W/kg
Maximum value of SAR (measured) = 1.70 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

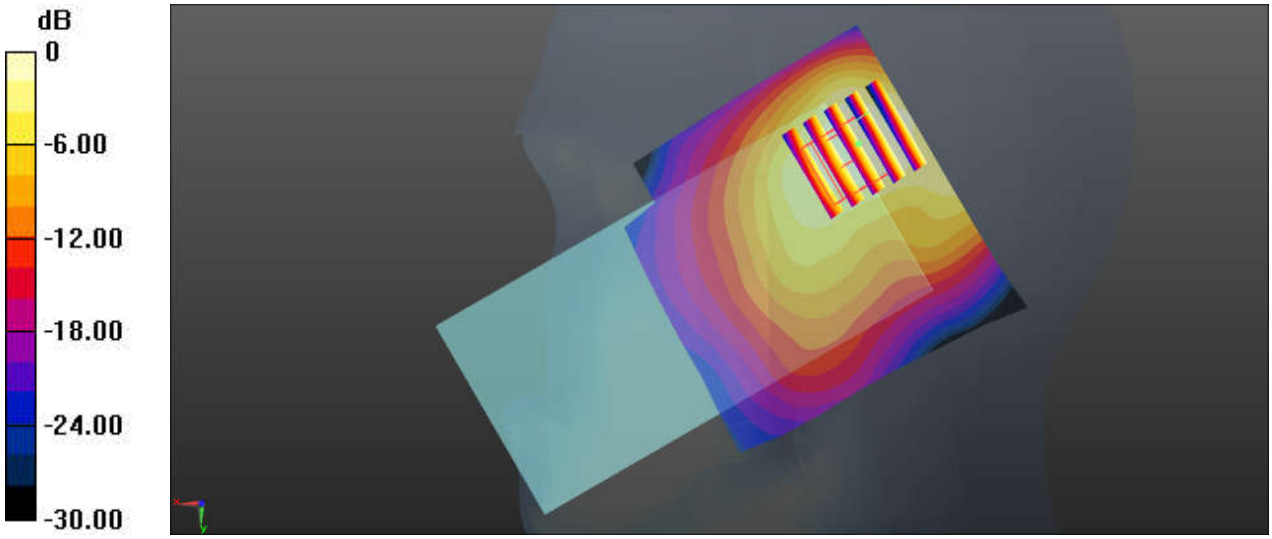
08_LTE Band 2_20M_QPSK_50RB_0Offset_Right Cheek_0mm_UAT_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.428 S/m; ε_r = 41.104; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.19, 5.19, 5.19); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- 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) = 1.34 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.433 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.515 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.34 W/kg = 1.27 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

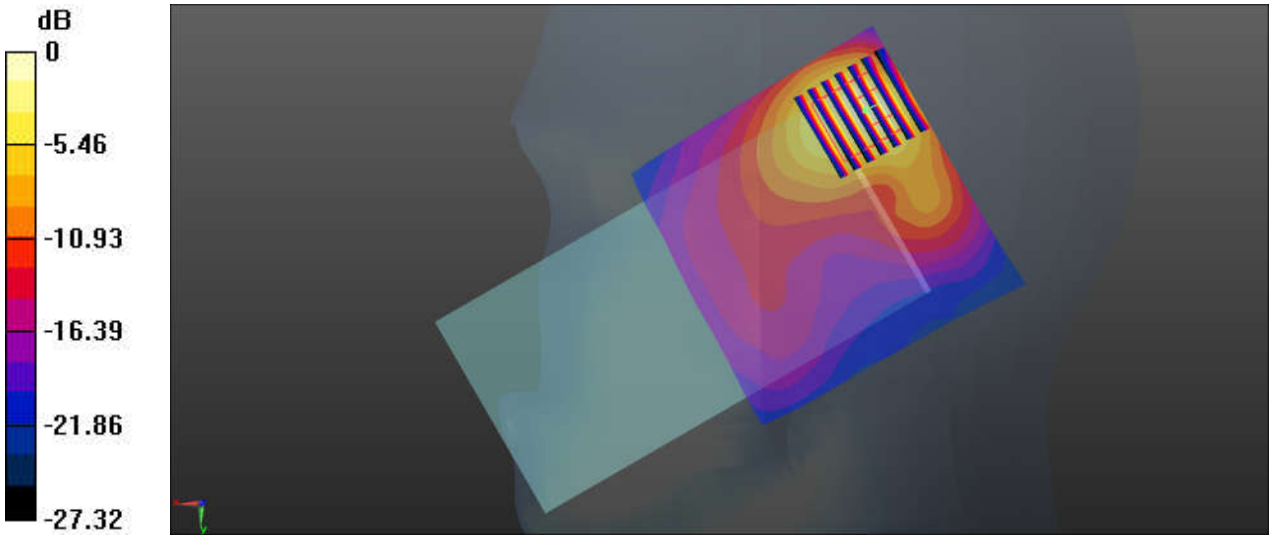
09_LTE Band 7_20M_QPSK_50RB_0Offset_Right Tilted_0mm_UAT_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2510 MHz; σ = 1.907 S/m; ε_r = 38.012; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20850/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.33 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.722 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 2.27 W/kg
SAR(1 g) = 0.803 W/kg; SAR(10 g) = 0.346 W/kg
Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.33 W/kg = 1.24 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.18

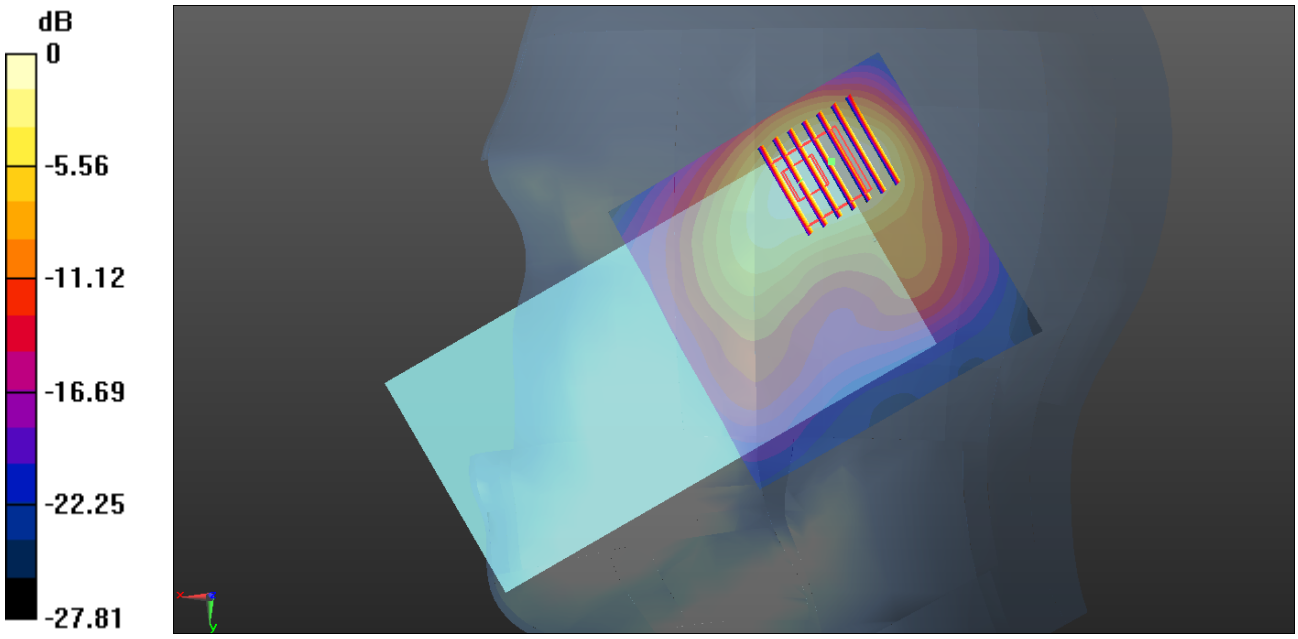
10_LTE Band 38_20M_QPSK_100RB_0Offset_Right Cheek_0mm_UAT_Ch38000

Communication System: UID 0, LTE-TDD (0); Frequency: 2595 MHz;Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: f = 2595 MHz; σ = 2.006 S/m; ε_r = 37.677; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch38000/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Ch38000/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.438 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 0.748 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (measured) = 0.979 W/kg



0 dB = 0.979 W/kg = -0.09 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.27

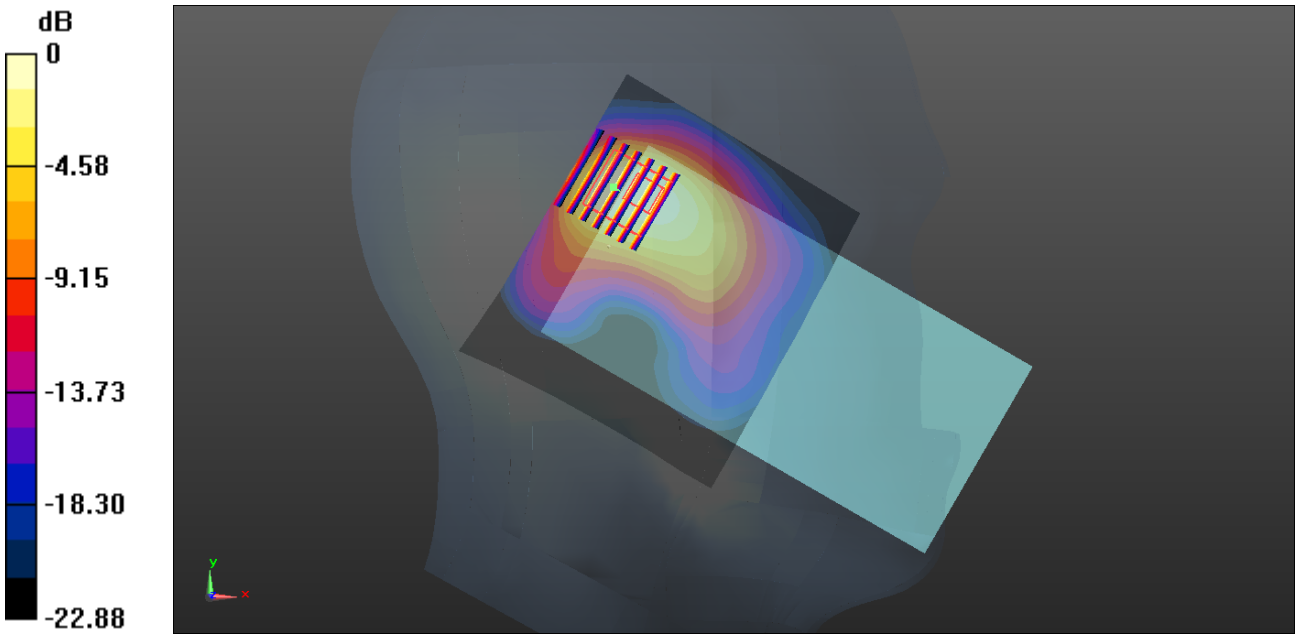
11_WLAN2.4GHz_802.11b 1Mbps_Left Cheek_0mm_Ch1

Communication System: UID 0, WIFI (0); Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2412 MHz; σ = 1.785 S/m; ε_r = 38.274; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.56, 7.56, 7.56); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.10 (7372)

Ch1/Area Scan (91x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 2.09 W/kg

Ch1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.30 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.29 W/kg
SAR(1 g) = 0.930 W/kg; SAR(10 g) = 0.443 W/kg
Maximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg

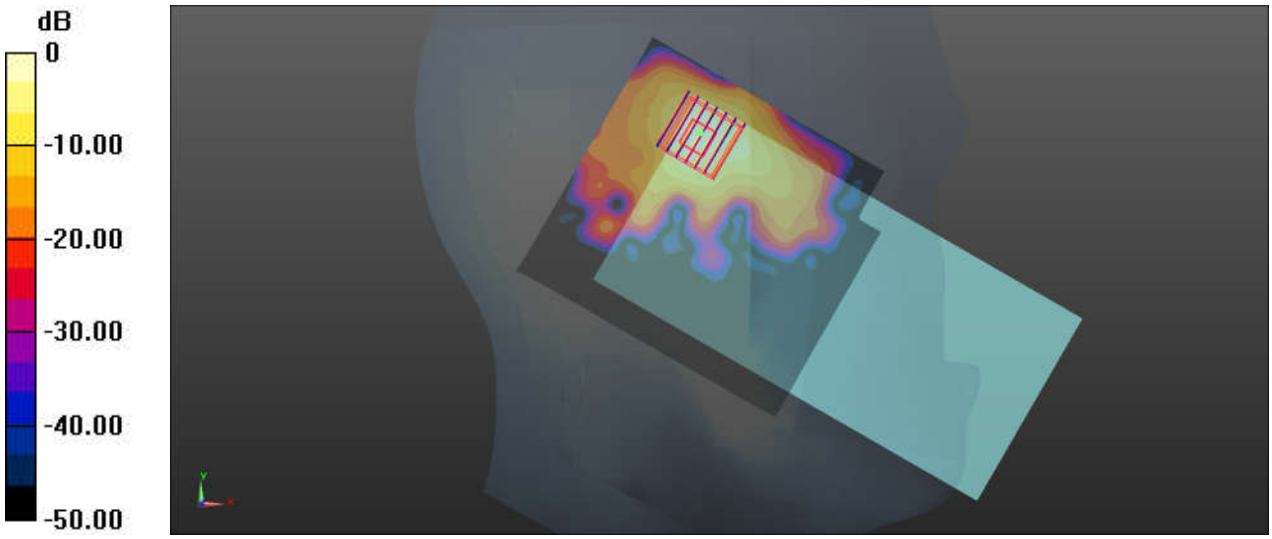
12_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch64

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz;Duty Cycle: 1:1.018
Medium: HSL_5000 Medium parameters used: f = 5320 MHz; σ = 4.725 S/m; ε_r = 36.232; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch64/Area Scan (101x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.75 W/kg

Ch64/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0.2320 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 5.30 W/kg
SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.307 W/kg
Maximum value of SAR (measured) = 2.91 W/kg



0 dB = 2.75 W/kg = 4.39 dBW/kg

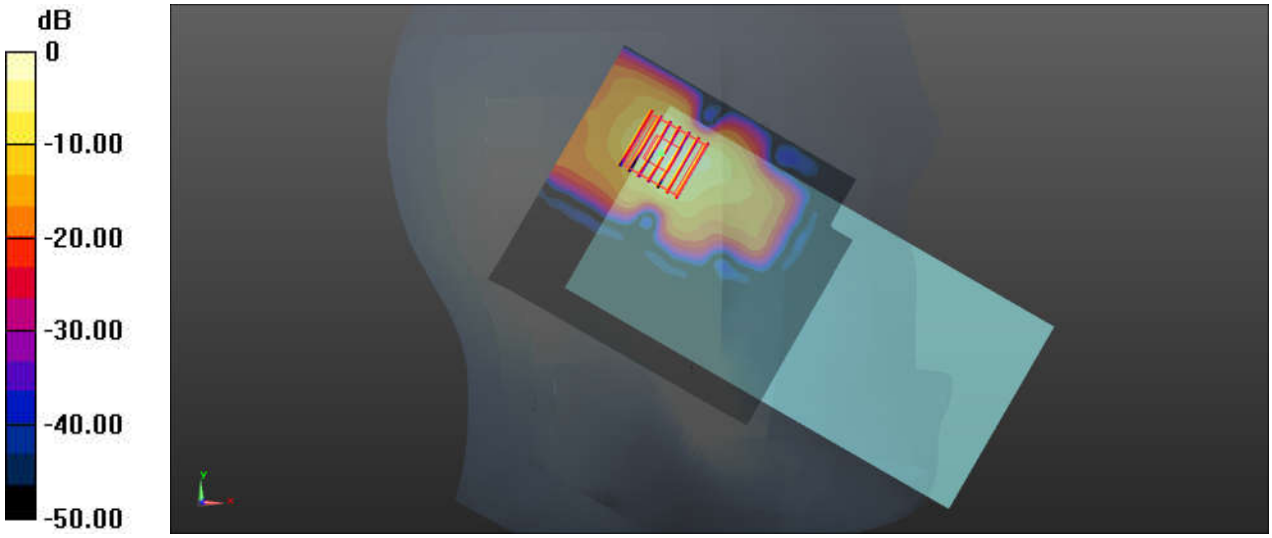
13_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch100

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz;Duty Cycle: 1:1.018
Medium: HSL_5000 Medium parameters used: f = 5500 MHz; σ = 4.905 S/m; ε_r = 35.99; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch100/Area Scan (101x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.51 W/kg

Ch100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.20 W/kg
SAR(1 g) = 0.871 W/kg; SAR(10 g) = 0.229 W/kg
Maximum value of SAR (measured) = 2.39 W/kg



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

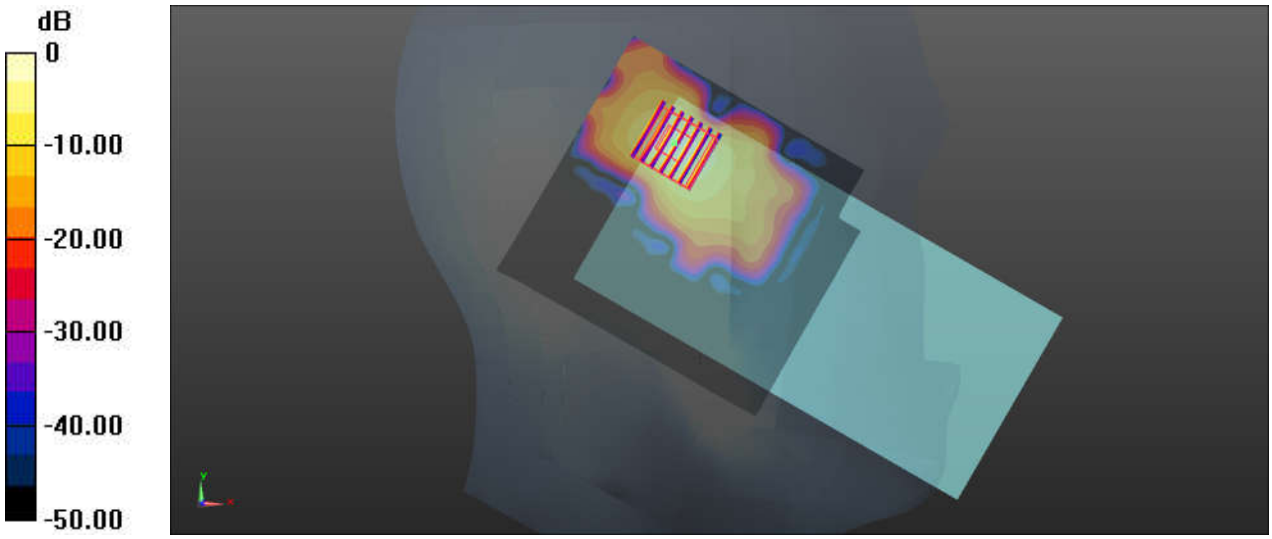
14_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch161

Communication System: UID 0, 802.11a (0); Frequency: 5805 MHz;Duty Cycle: 1:1.018
Medium: HSL_5000 Medium parameters used: f = 5805 MHz; σ = 5.228 S/m; ε_r = 35.566; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； 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: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch161/Area Scan (101x111x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.56 W/kg

Ch161/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.143 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 4.25 W/kg
SAR(1 g) = 0.874 W/kg; SAR(10 g) = 0.234 W/kg
Maximum value of SAR (measured) = 2.35 W/kg



0 dB = 2.56 W/kg = 4.08 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.27

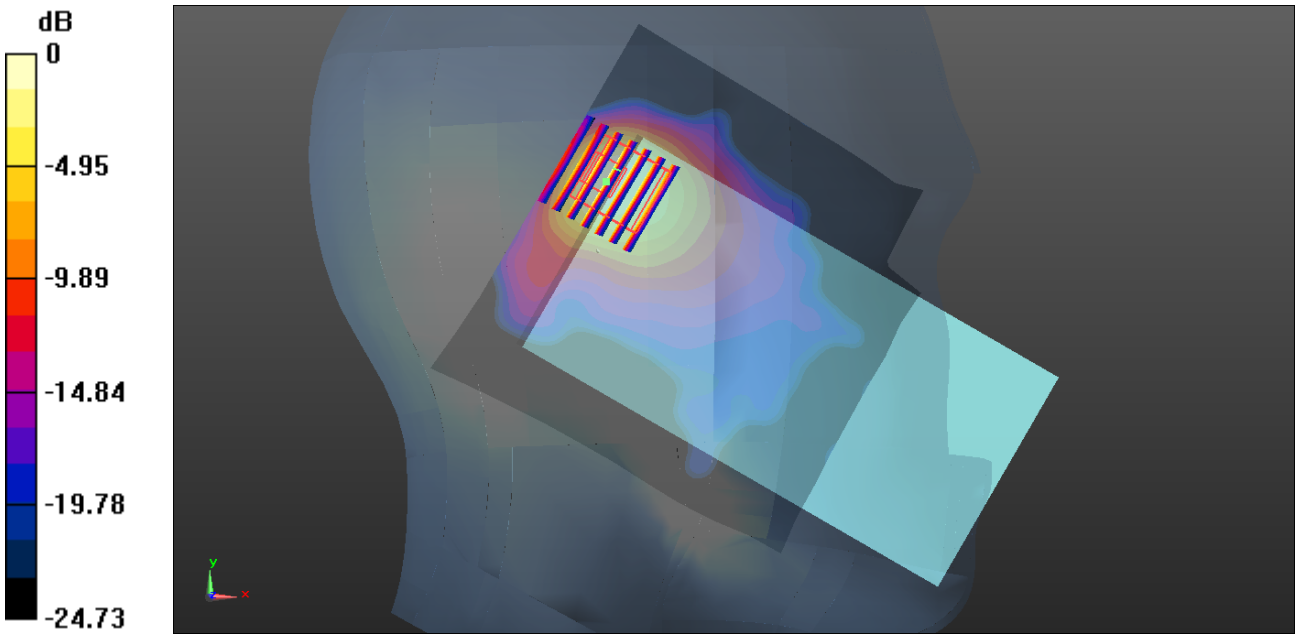
15_Bluetooth_1Mbps_Left Tilted_0mm_Ch0

Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz;Duty Cycle: 1:1.302
Medium: HSL_2450 Medium parameters used: f = 2402 MHz; σ = 1.774 S/m; ε_r = 38.314; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.56, 7.56, 7.56); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2018.4.19
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.10 (7372)

Ch0/Area Scan (101x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.556 W/kg

Ch0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.90 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.653 W/kg
SAR(1 g) = 0.218 W/kg; SAR(10 g) = 0.090 W/kg
Maximum value of SAR (measured) = 0.454 W/kg



0 dB = 0.454 W/kg = -3.43 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.19

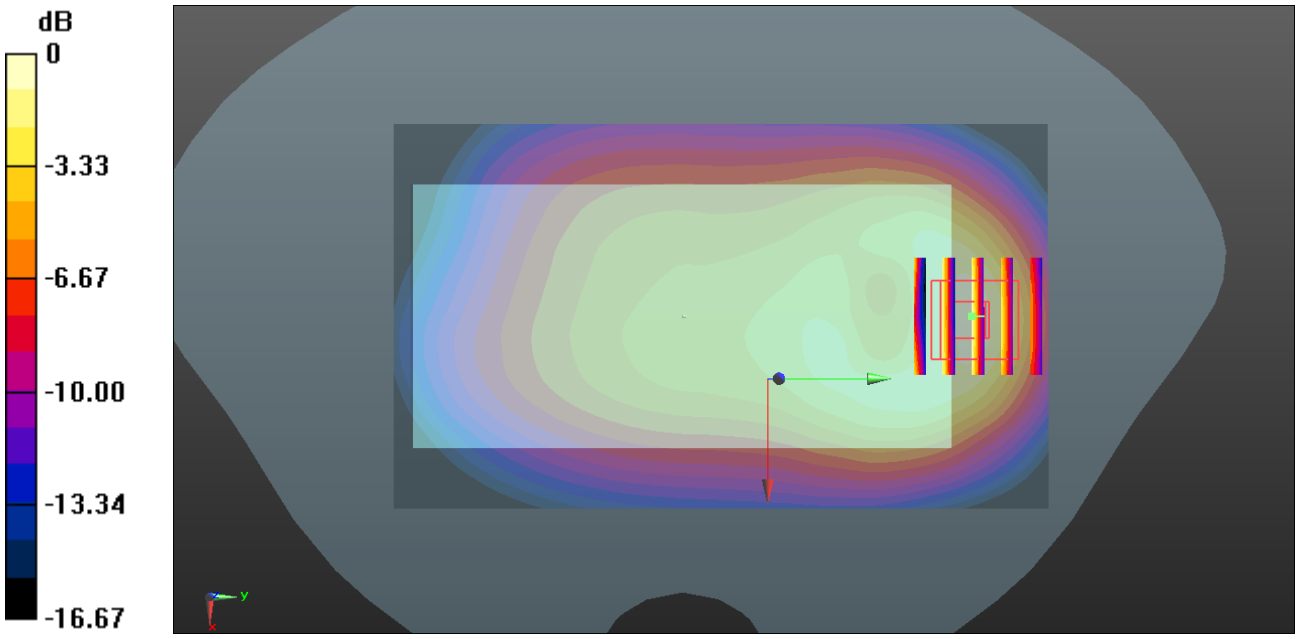
16_GSM850 _GPRS 4 Tx slots_Back_10mm_UAT_Ch189

Communication System: UID 0, GSM850 (0); Frequency: 836.4 MHz;Duty Cycle: 1:2.08
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.989 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.24, 6.24, 6.24); Calibrated: 2018.10.25;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.10 (7372)

Ch189/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.507 W/kg

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.72 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.812 W/kg
SAR(1 g) = 0.461 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.560 W/kg



0 dB = 0.560 W/kg = -2.52 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.20

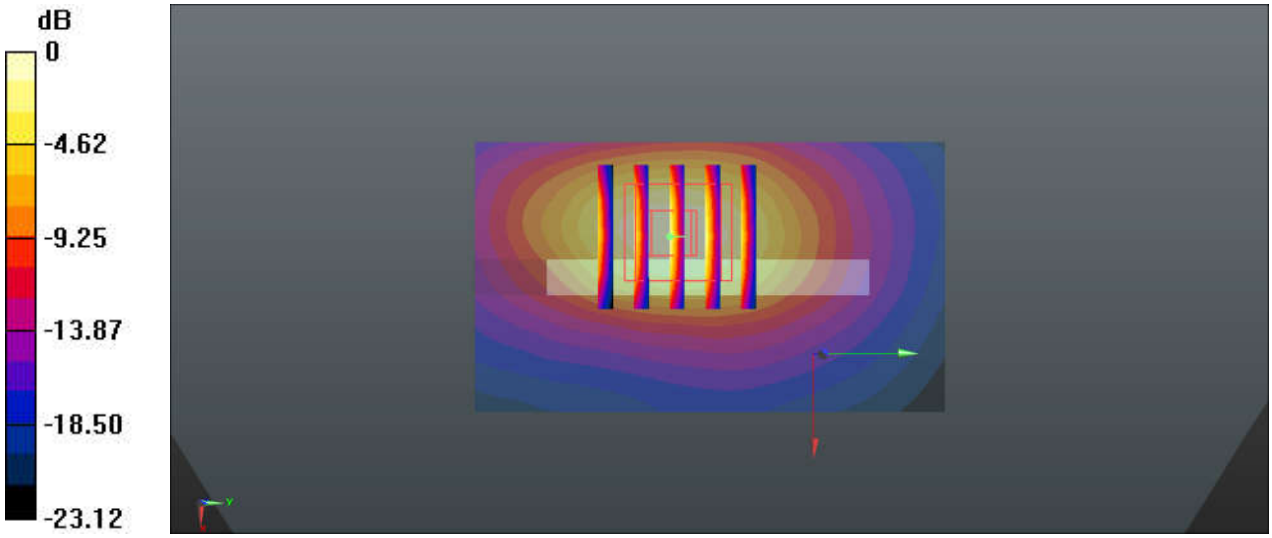
17_GSM1900_GPRS 4 Tx slots_Bottom Side_10mm_LAT_Hotspot on_Ch512

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 = 1.478 S/m; ε_r = 53.189; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.74, 4.74, 4.74); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch512/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.38 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.517 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.938 W/kg; SAR(10 g) = 0.485 W/kg
Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.38 W/kg = 1.40 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.27

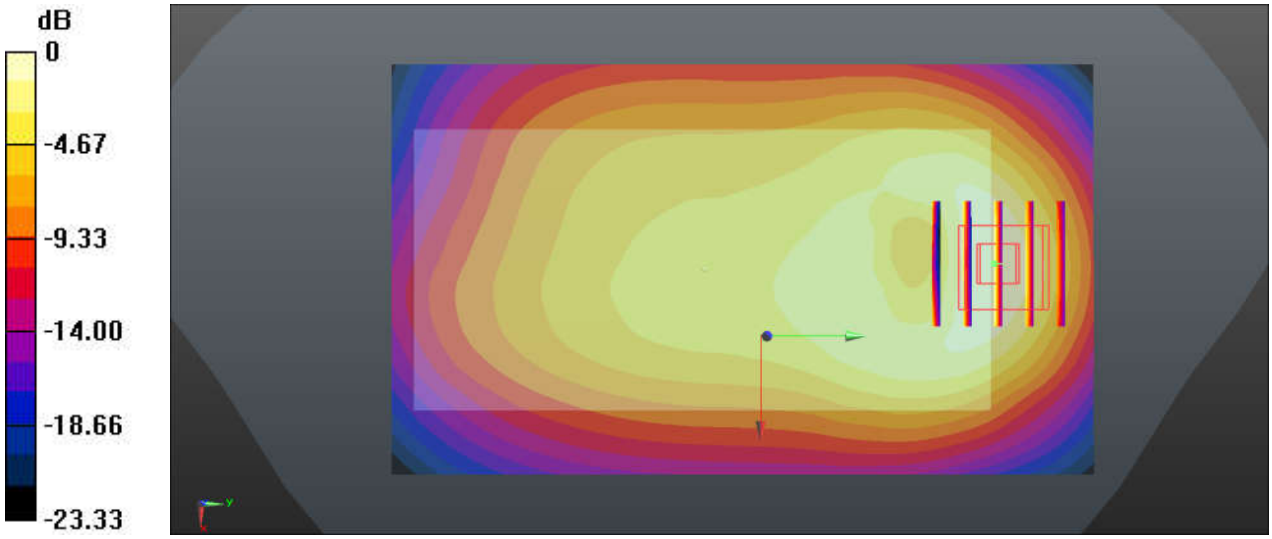
18_WCDMA V_RMC 12.2Kbps_Back_10mm_UAT_Ch4182

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 836.4 MHz; σ = 0.989 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.24, 6.24, 6.24); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4182/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.706 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.26 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.607 W/kg; SAR(10 g) = 0.334 W/kg
Maximum value of SAR (measured) = 0.747 W/kg



0 dB = 0.706 W/kg = -1.51 dBW/kg

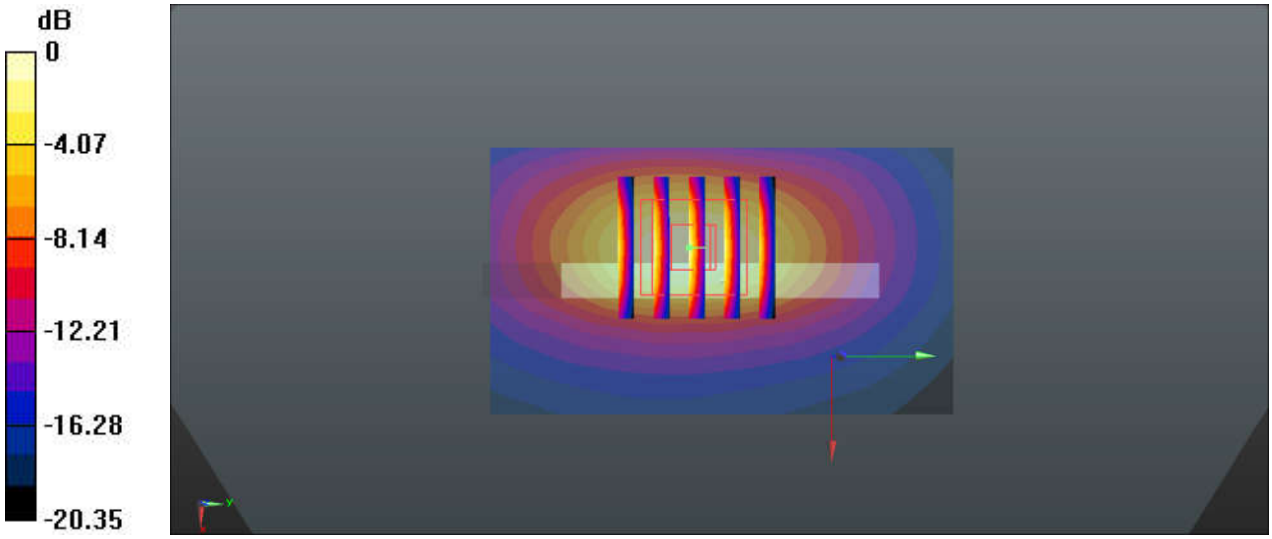
19_WCDMA IV_RMC 12.2Kbps_Bottom Side_10mm_LAT_Hotspot on_Ch1312

Communication System: UID 0, WCDMA (0); Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium: MSL_1750 Medium parameters used: f = 1712.4 MHz; σ = 1.482 S/m; ε_r = 54.208; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.01, 5.01, 5.01); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1312/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.58 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.809 W/kg; SAR(10 g) = 0.432 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



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

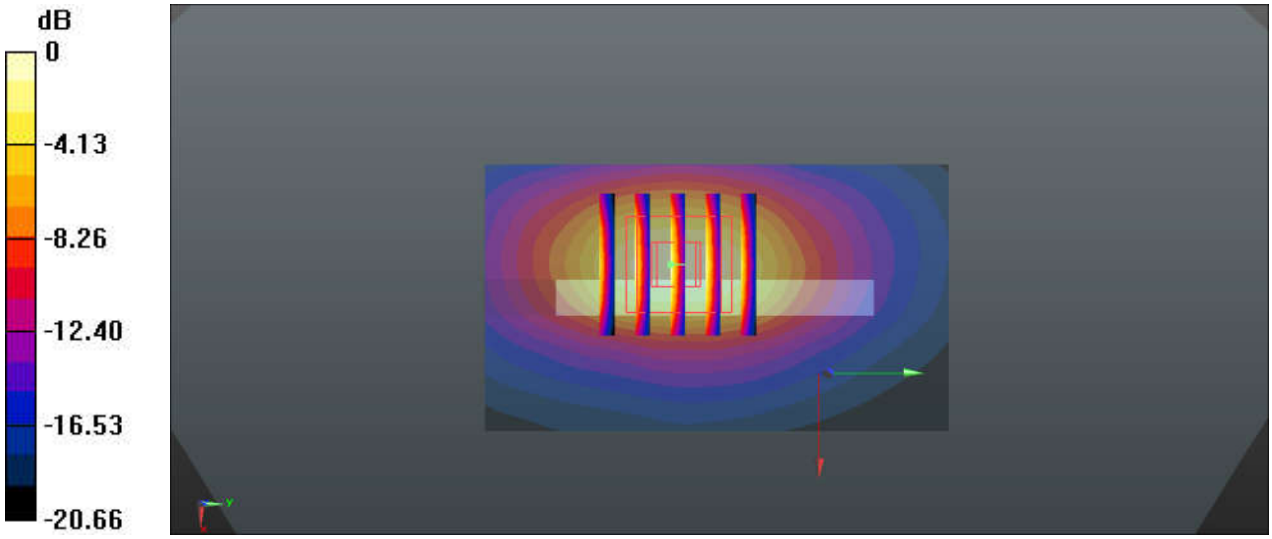
20_WCDMA II_RMC 12.2Kbps_Bottom Side_10mm_LAT_Hotspot on_Ch9538

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 = 1.543 S/m; ε_r = 53.011; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.74, 4.74, 4.74); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9538/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.34 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 0.849 W/kg; SAR(10 g) = 0.433 W/kg
Maximum value of SAR (measured) = 1.31 W/kg



0 dB = 1.36 W/kg = 1.34 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.1.19

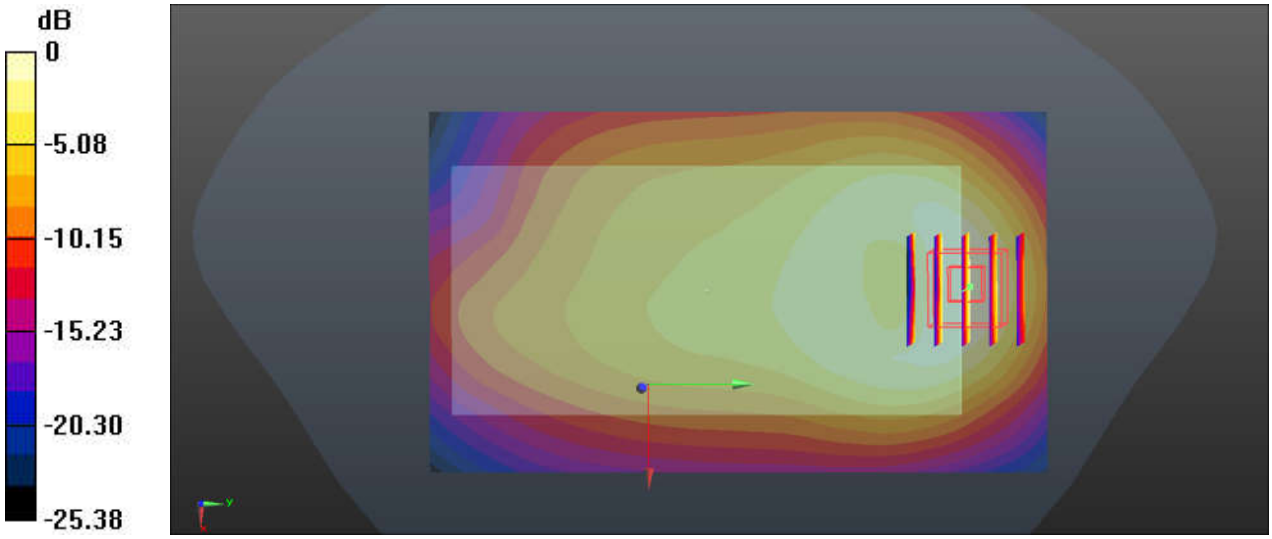
21_LTE Band 5_10M _QPSK_1RB_0offset_Back_10mm_UAT_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL_850 Medium parameters used: f = 836.5 MHz; σ = 0.989 S/m; ε_r = 54.827; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(6.24, 6.24, 6.24); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20525/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.531 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.57 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.826 W/kg
SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.265 W/kg
Maximum value of SAR (measured) = 0.575 W/kg



0 dB = 0.531 W/kg = -2.75 dBW/kg

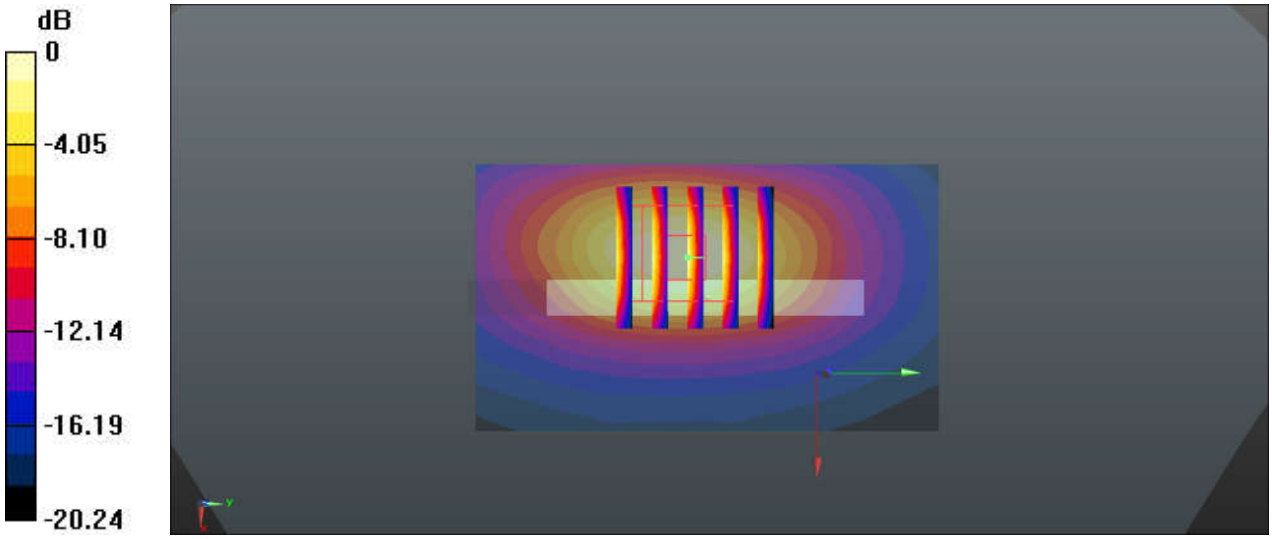
22_LTE Band 4_20M_QPSK_50RB_0Offset_Bottom Side_10mm_LAT_Hotspot on_Ch20175

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 = 1.504 S/m; ε_r = 54.131; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(5.01, 5.01, 5.01); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 1.17 W/kg

Ch20175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.604 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.784 W/kg; SAR(10 g) = 0.420 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.17 W/kg = 0.68 dBW/kg

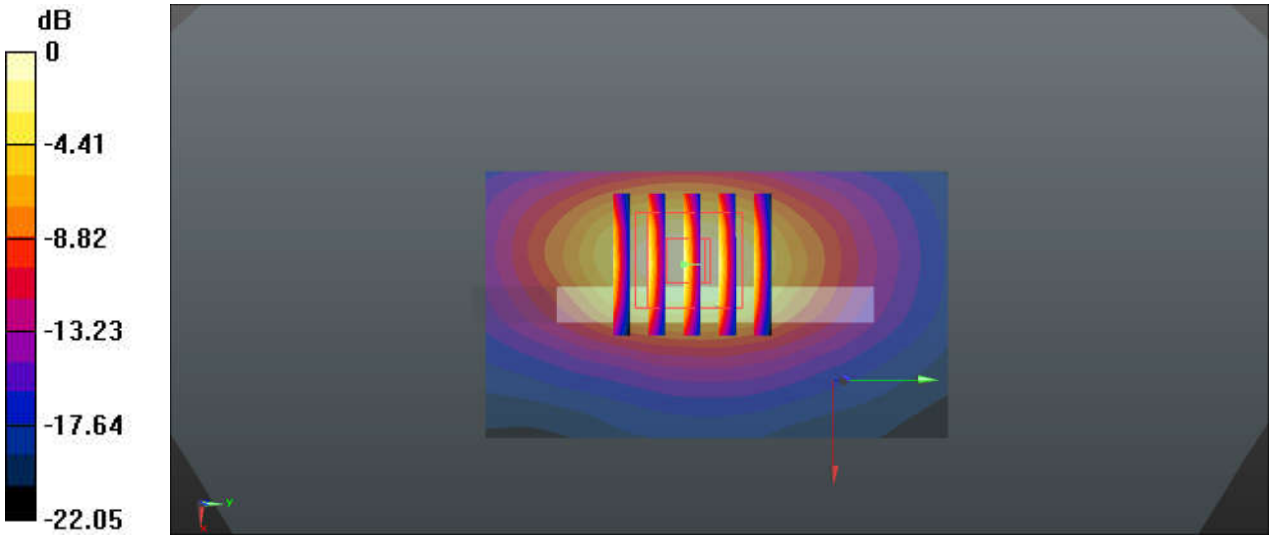
23_LTE Band 2_20M_QPSK_50RB_0Offset_Bottom Side_10mm_LAT_Hotspot on_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.534 S/m; ε_r = 53.035; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.74, 4.74, 4.74); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 2018.6.20
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 1.22 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.092 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.813 W/kg; SAR(10 g) = 0.420 W/kg
Maximum value of SAR (measured) = 1.24 W/kg



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