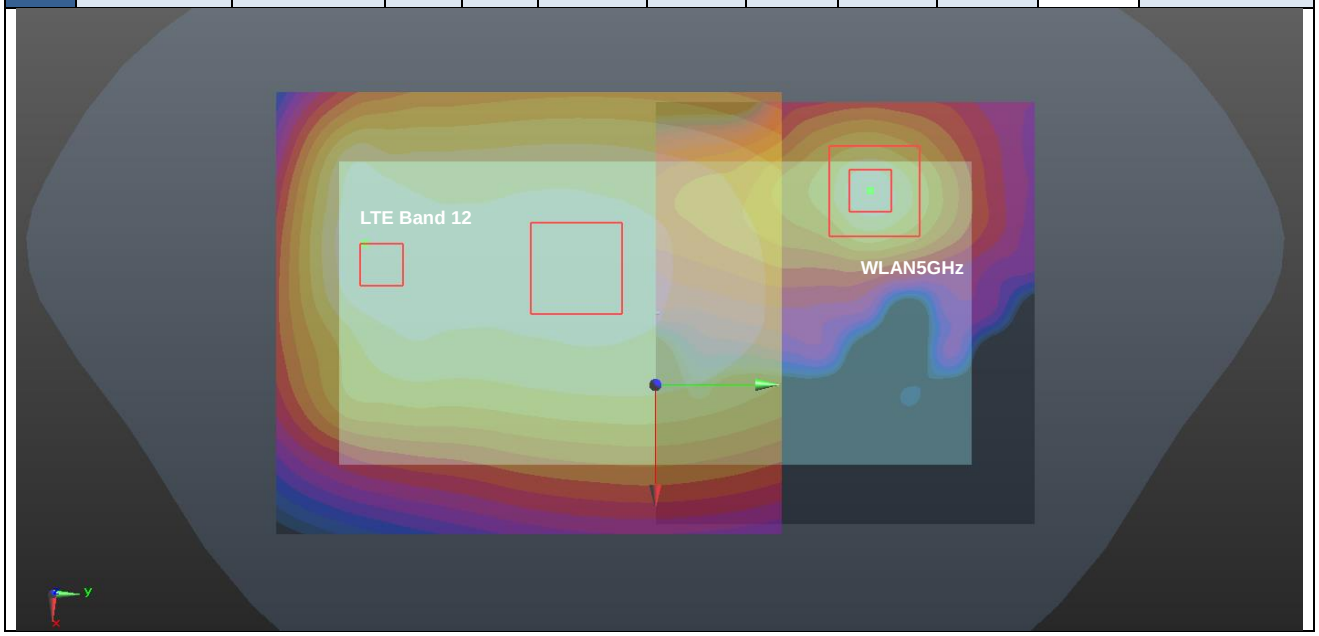
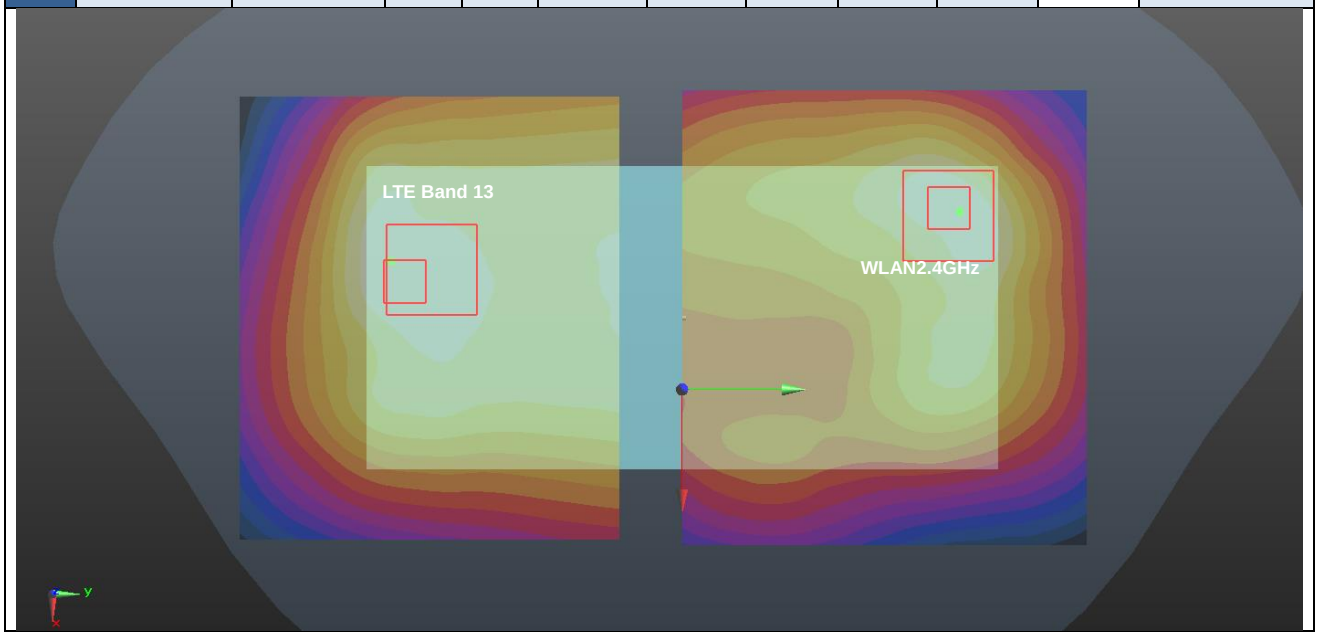
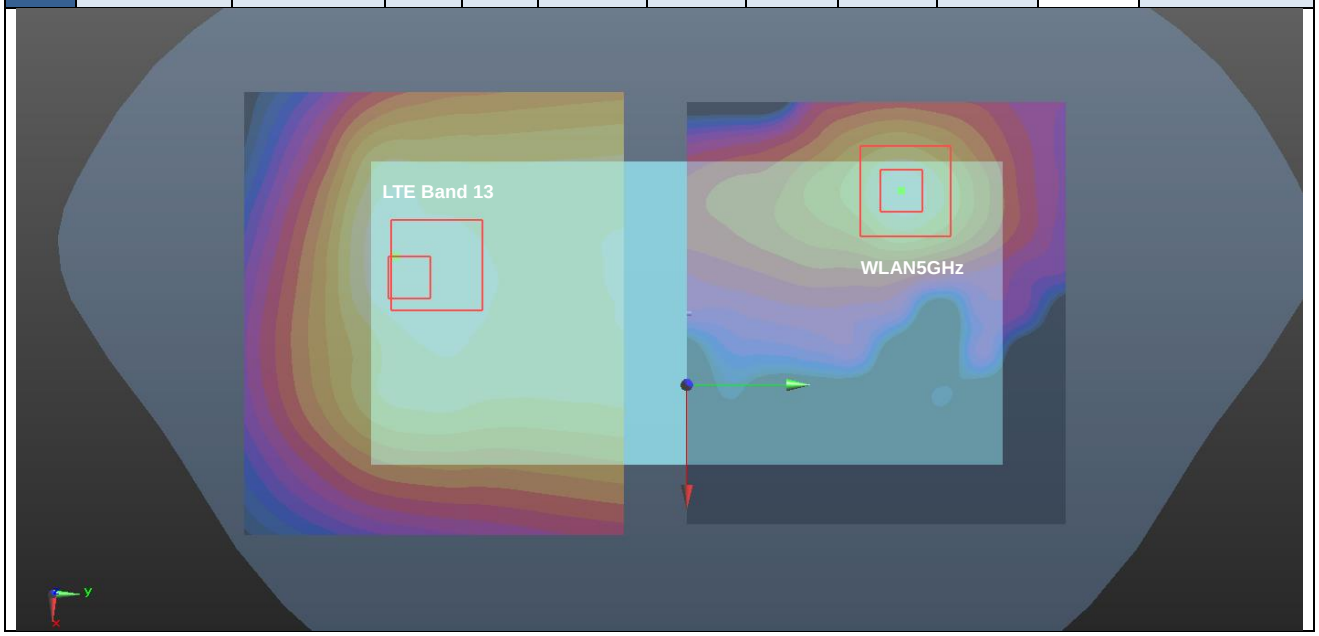
Case #36	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 12	Back	0.967	5	-8.5	-67.4	-0.96	120.0	2.16	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



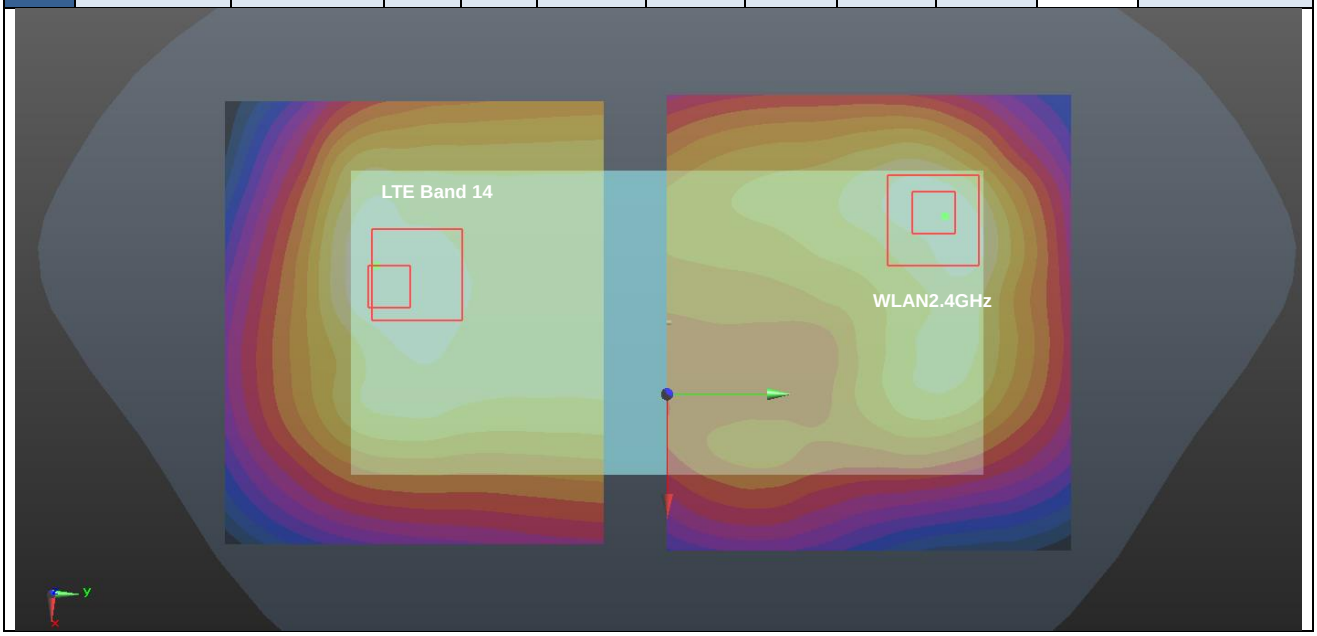
Case #37	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Back	1.08	5	-5.5	-67.4	-1.1	132.0	2.28	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



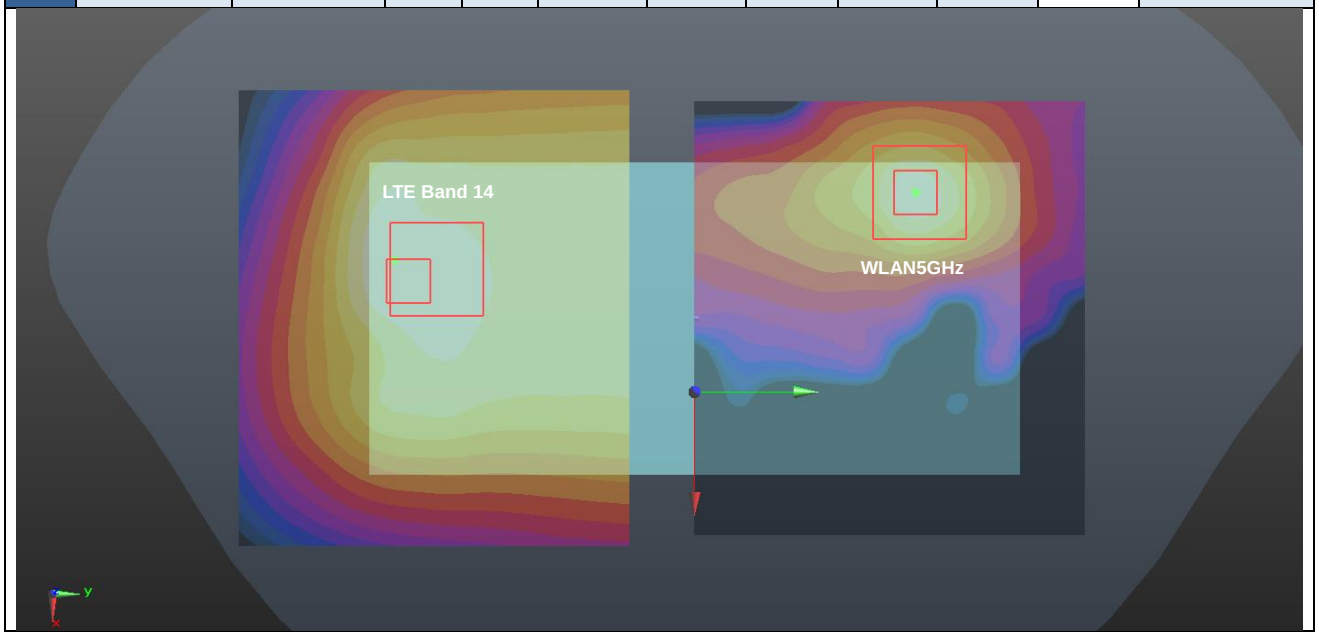
Case #38	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Back	1.08	5	-5.5	-67.4	-1.1	120.6	2.28	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



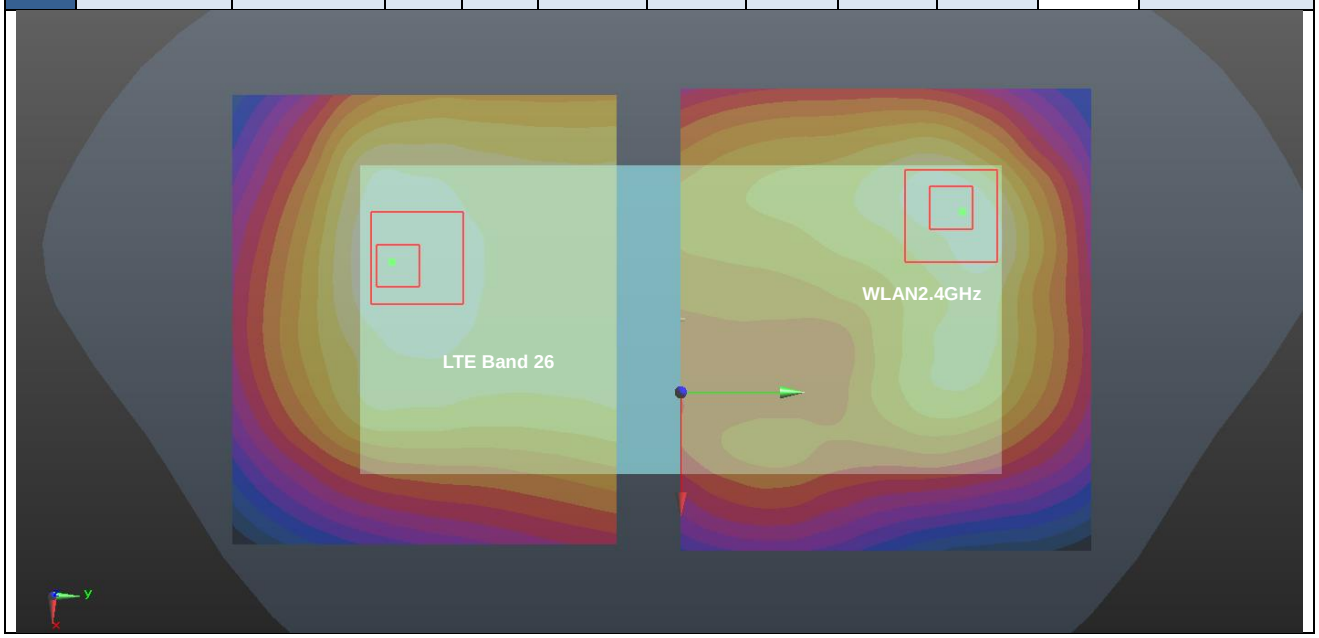
Case #39	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 14	Back	0.942	5	-5.5	-67.4	-1.07	132.0	2.14	0.02	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



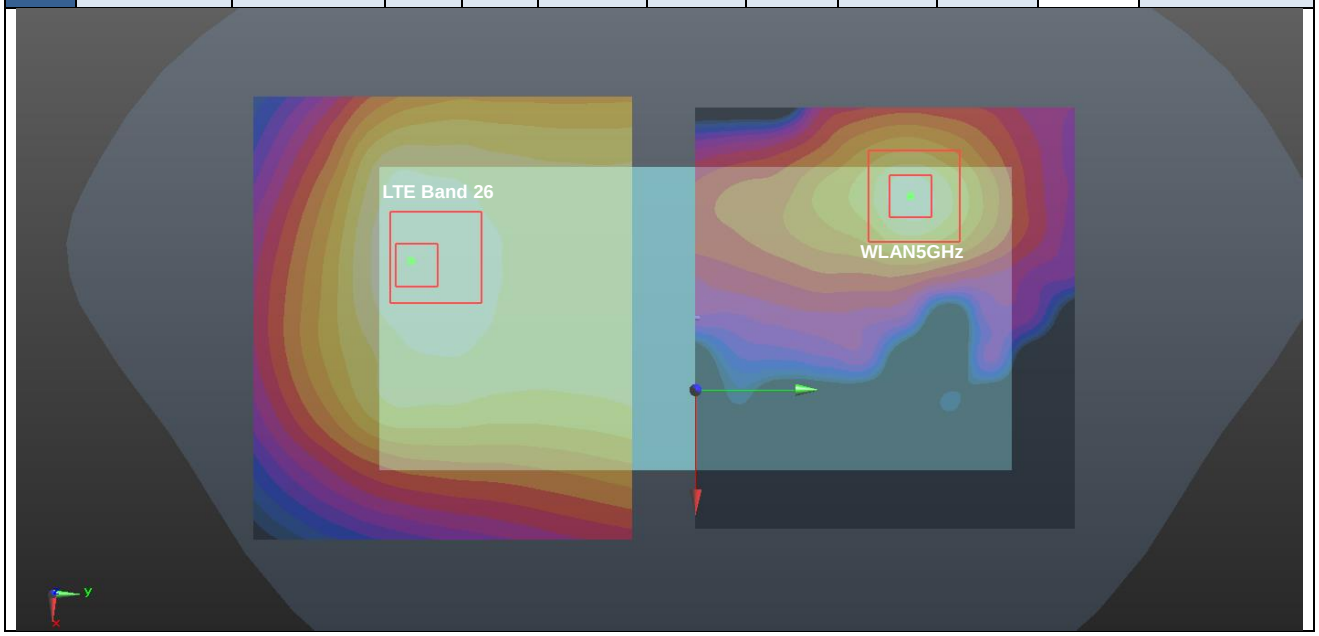
Case #40	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 14	Back	0.942	5	-5.5	-67.4	-1.07	120.6	2.14	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



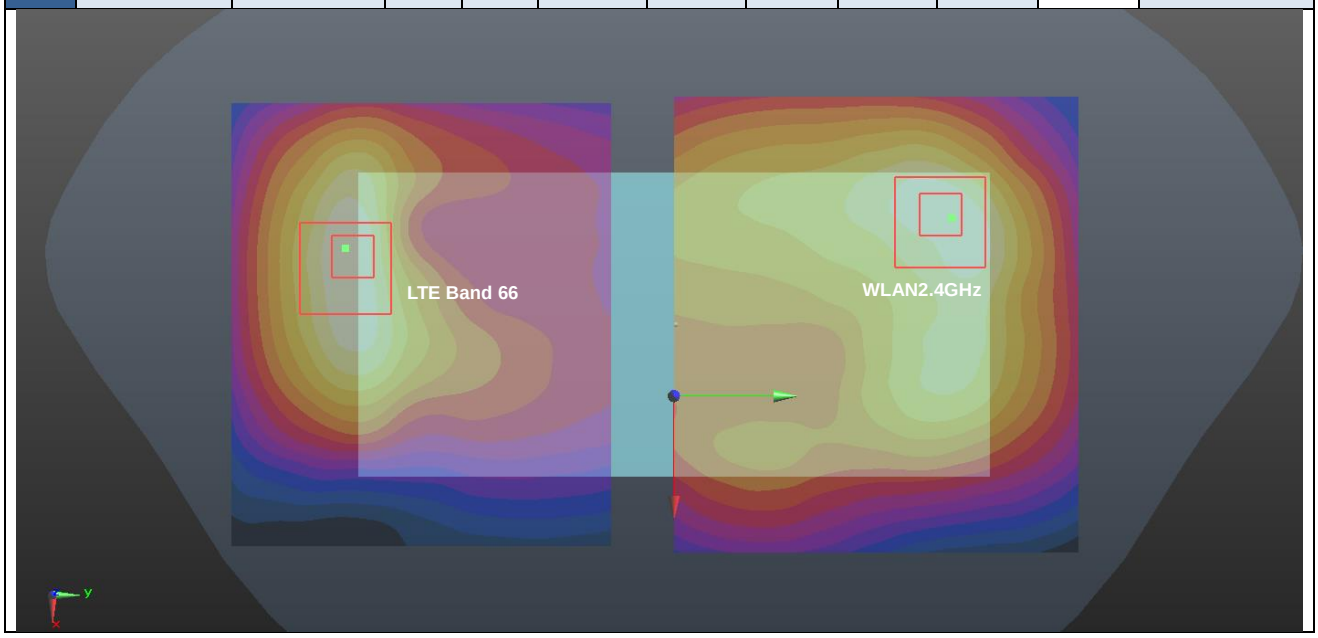
Case #41	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Back	1.107	5	-8.7	-67.5	-1.09	131.7	2.30	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



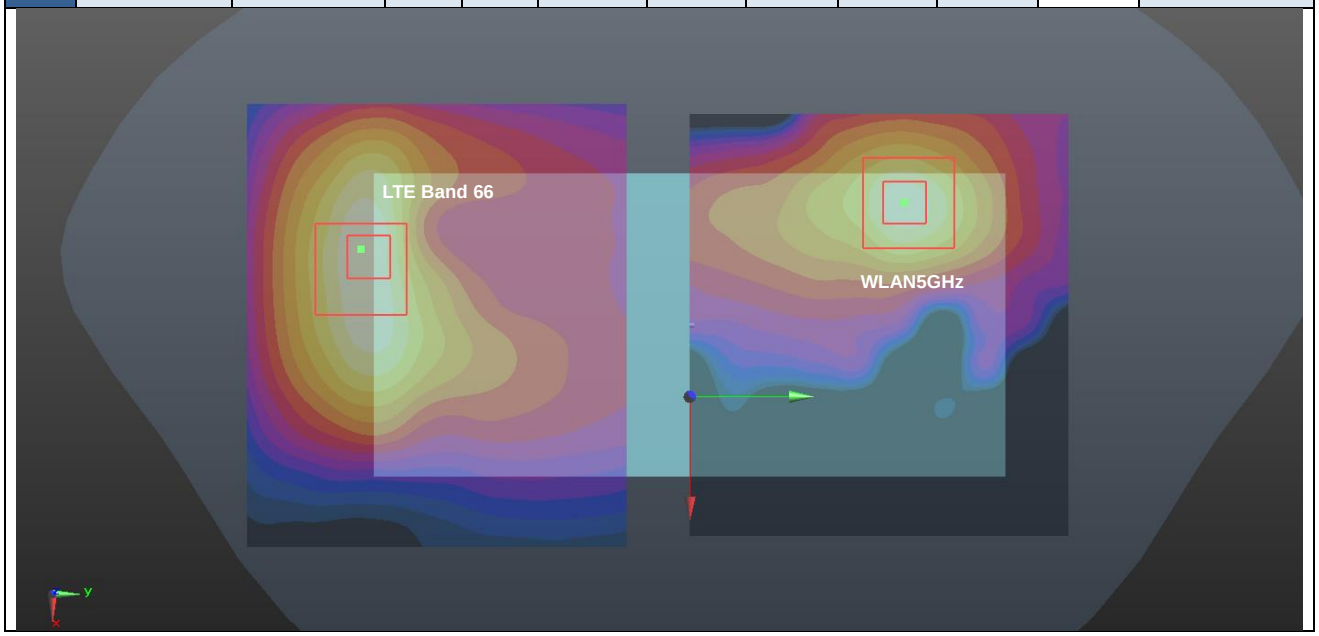
Case #42	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Back	1.107	5	-8.7	-67.5	-1.09	120.1	2.30	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



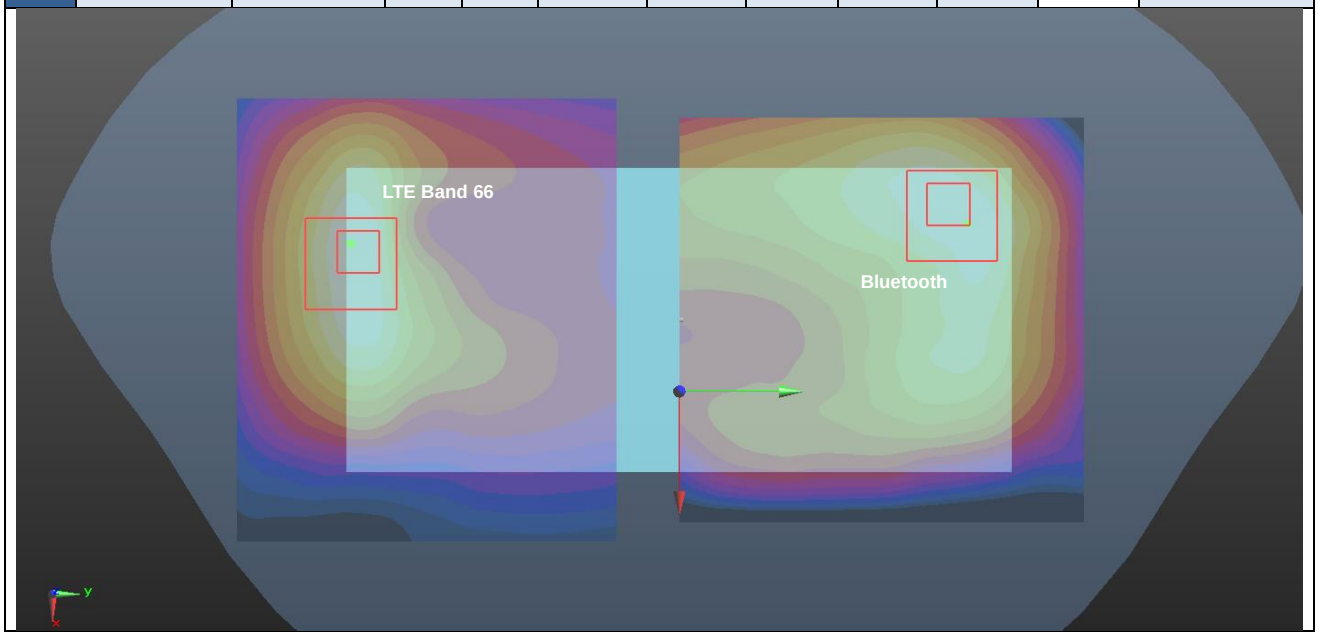
Case #43	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Back	1.423	5	-18	-74.8	-0.93	138.0	2.62	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



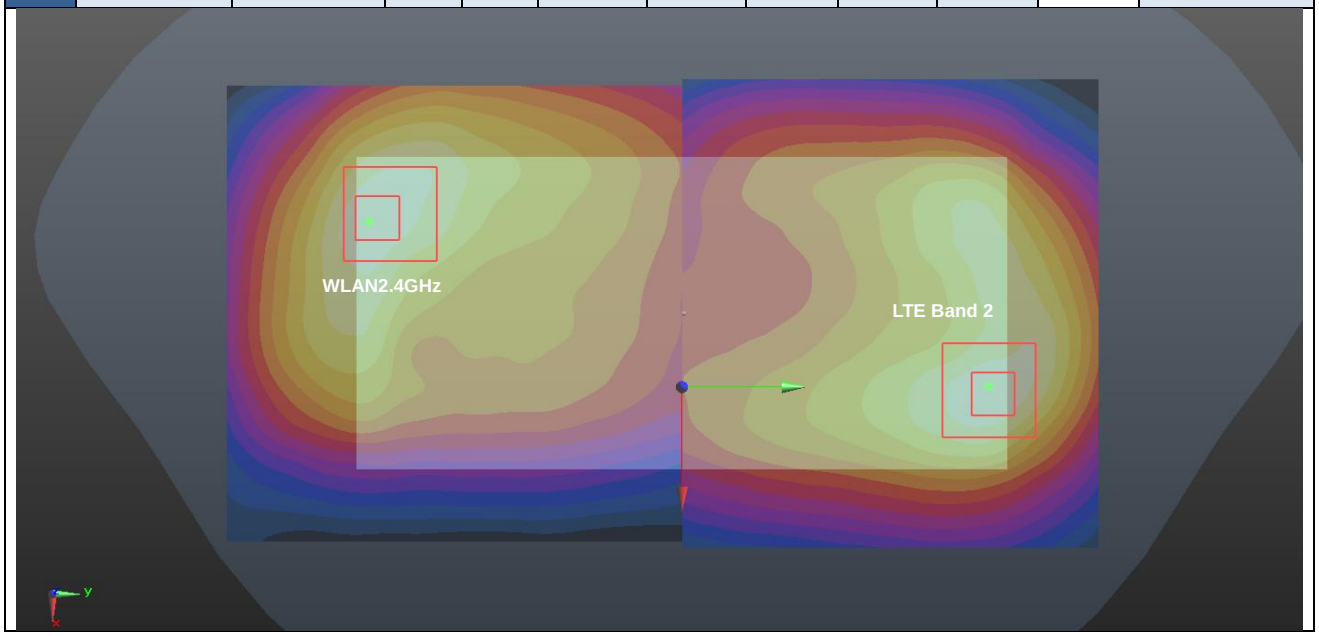
Case #44	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Back	1.423	5	-18	-74.8	-0.93	126.2	2.62	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



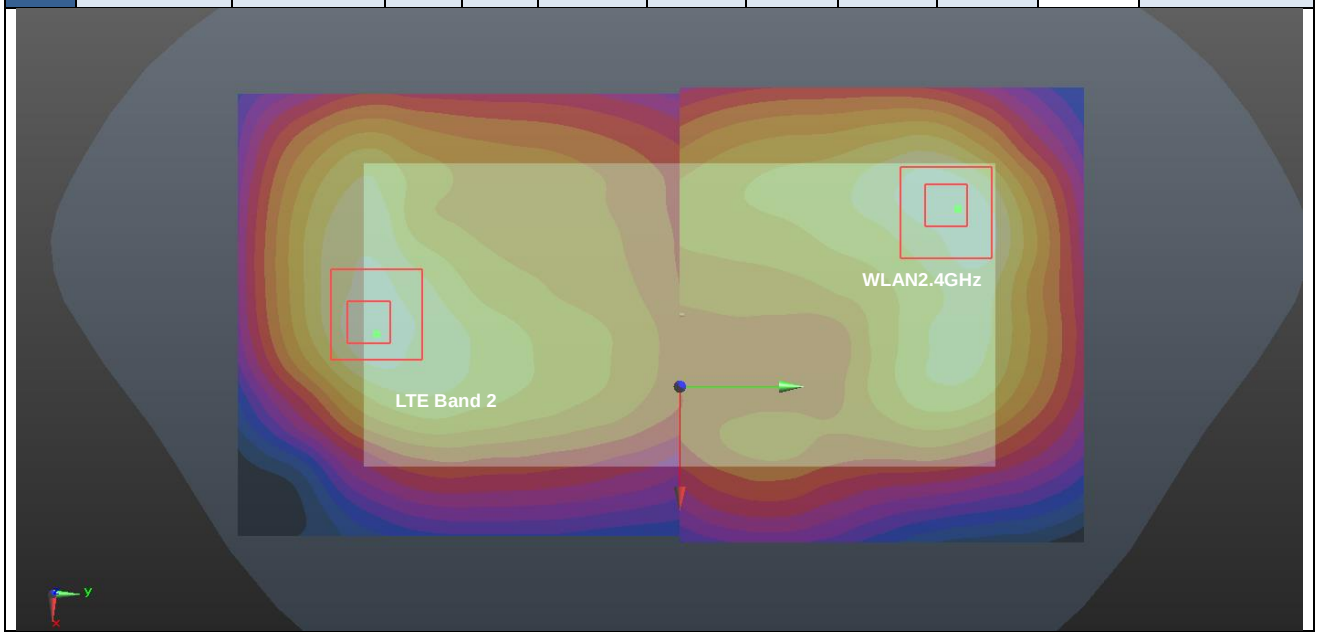
Case #45	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Back	1.423	5	-18	-74.8	-0.93	139.5	1.66	0.02	Not required
	Bluetooth		0.237	5	-27.8	64.4	-2.14				



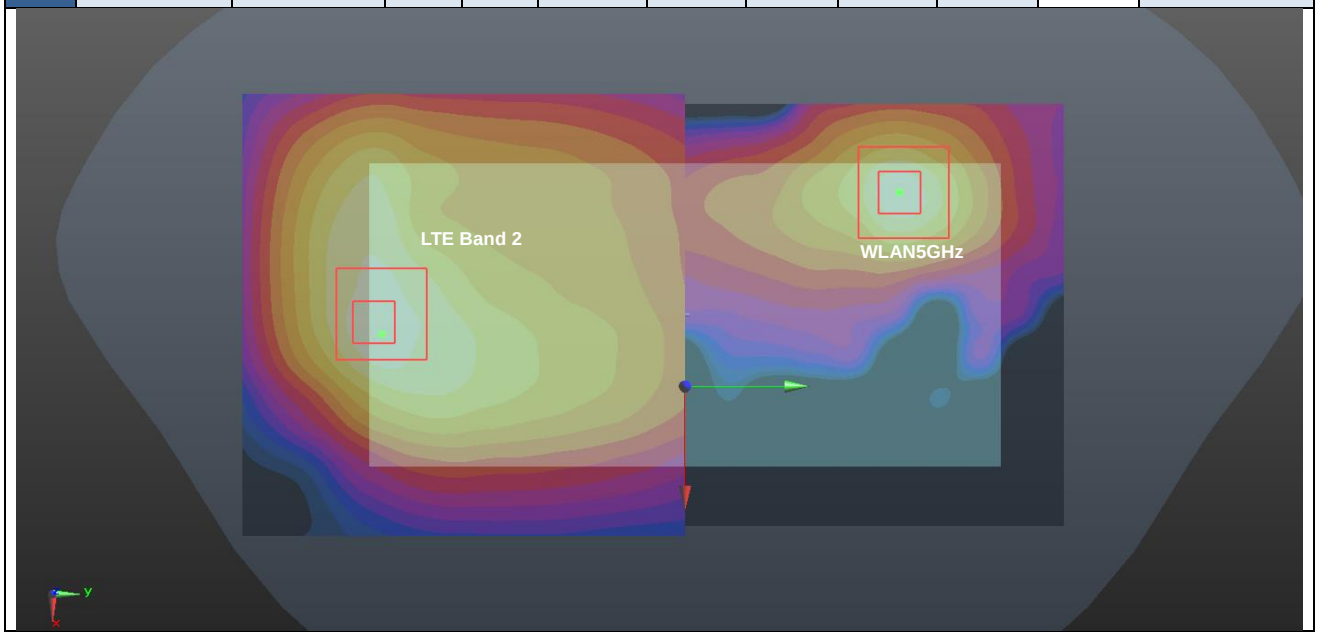
Case #46	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 2	Front	1.127	5	-21	-72	-0.74	150.6	1.86	0.02	Not required
	WLAN2.4GHz		0.734	5	16.8	73.8	-1.9				



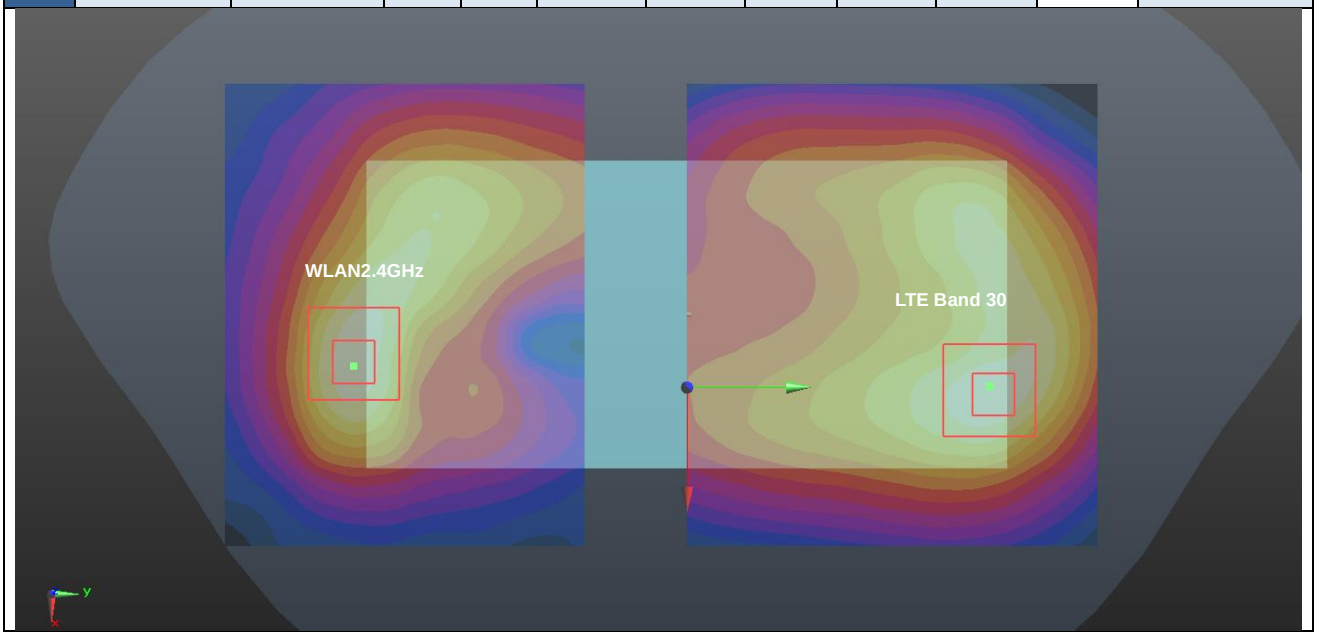
Case #47	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 2	Back	1.314	5	2.9	-73.6	-0.62	139.7	2.51	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



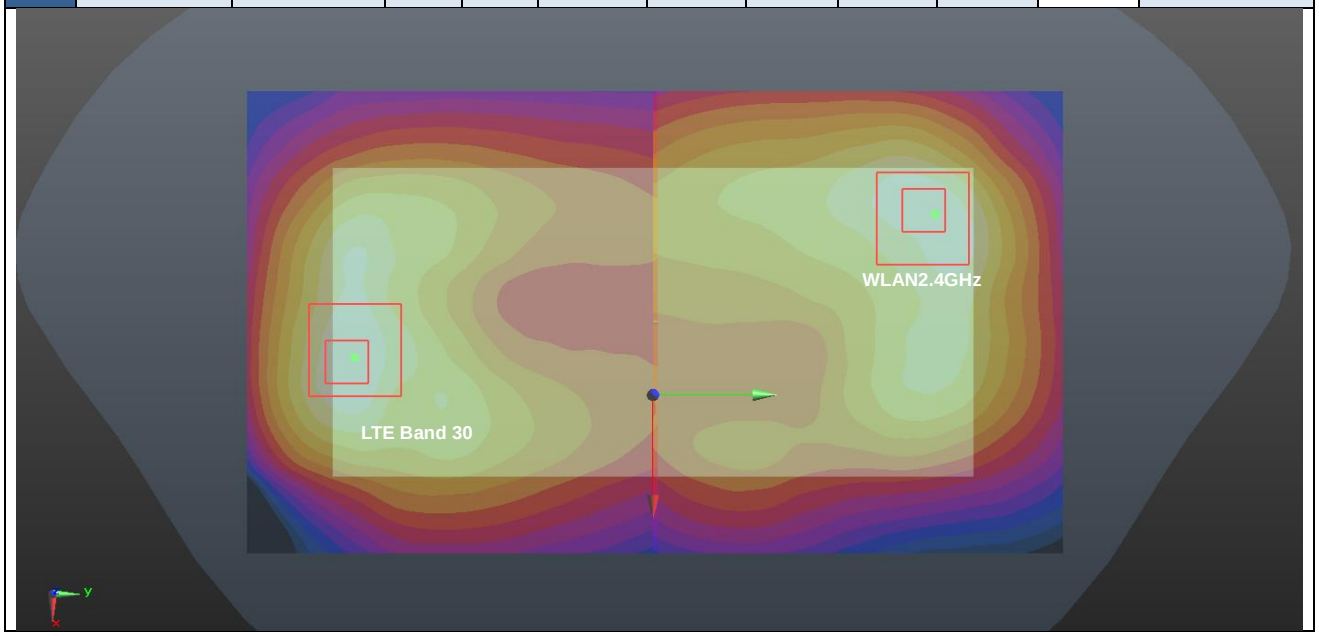
Case #48	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 2	Back	1.314	5	2.9	-73.6	-0.62	128.4	2.51	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



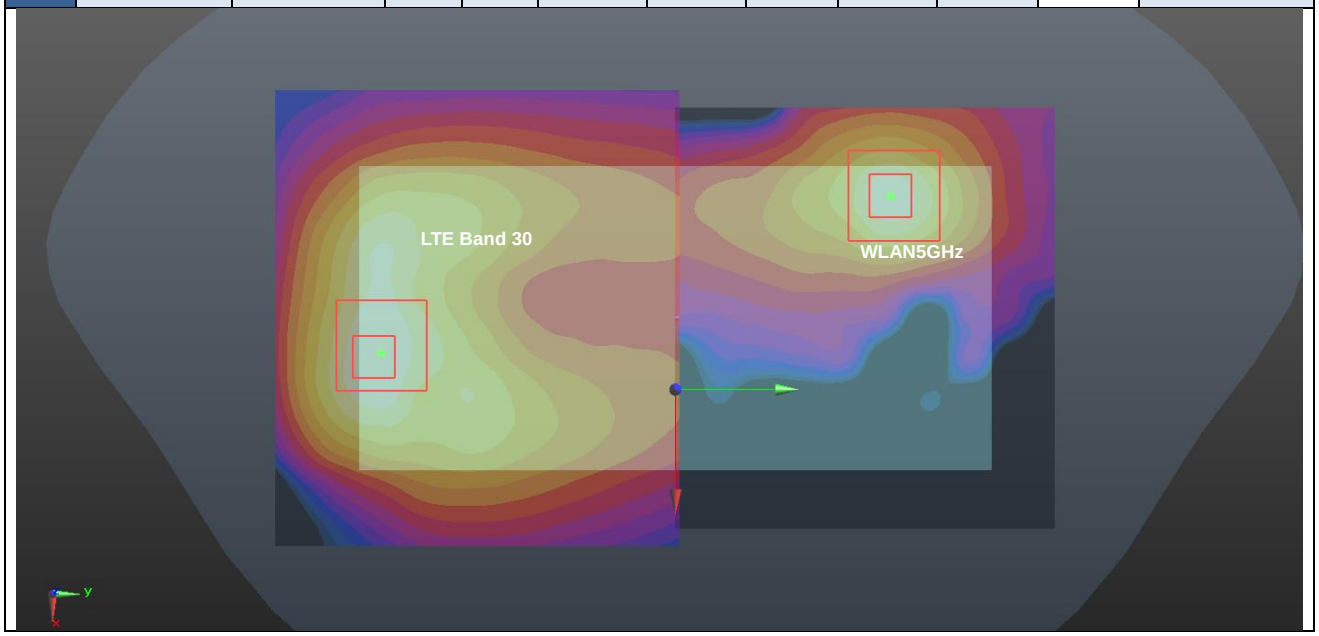
Case #49	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 30	Front	0.886	5	11	-76	-2.12	149.9	1.62	0.01	Not required
	WLAN2.4GHz		0.734	5	16.8	73.8	-1.9				



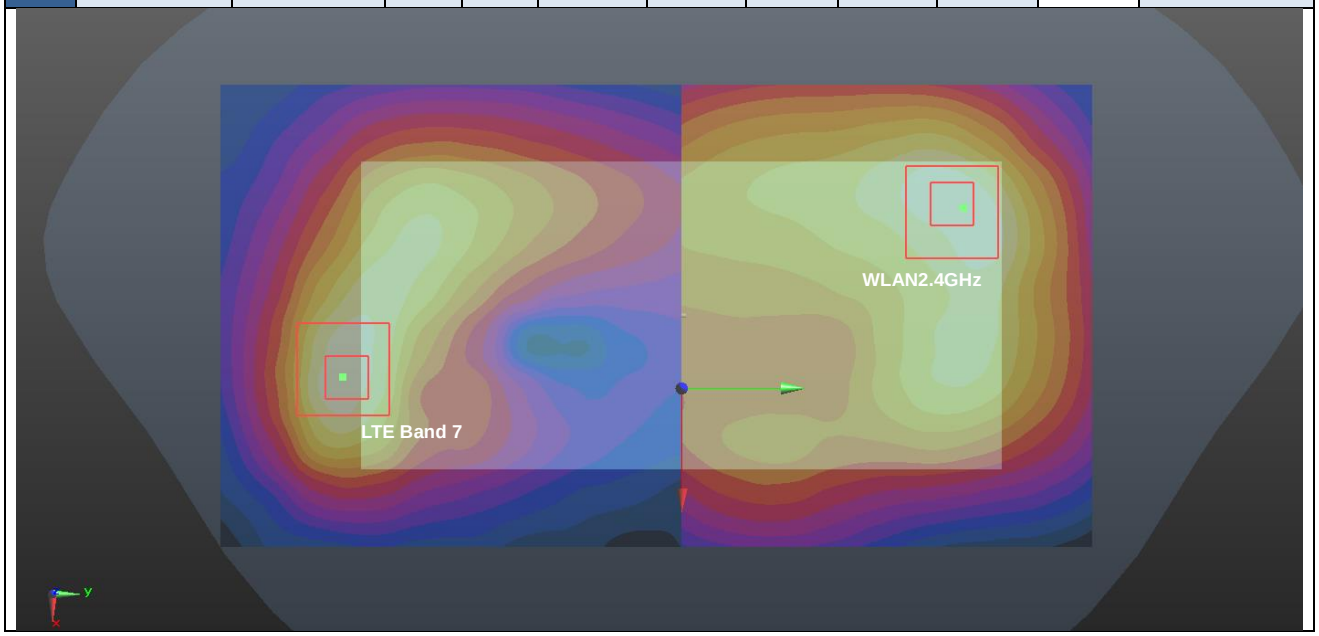
Case #50	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30	Back	1.243	5	12.4	-71.8	-2.09	140.2	2.44	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



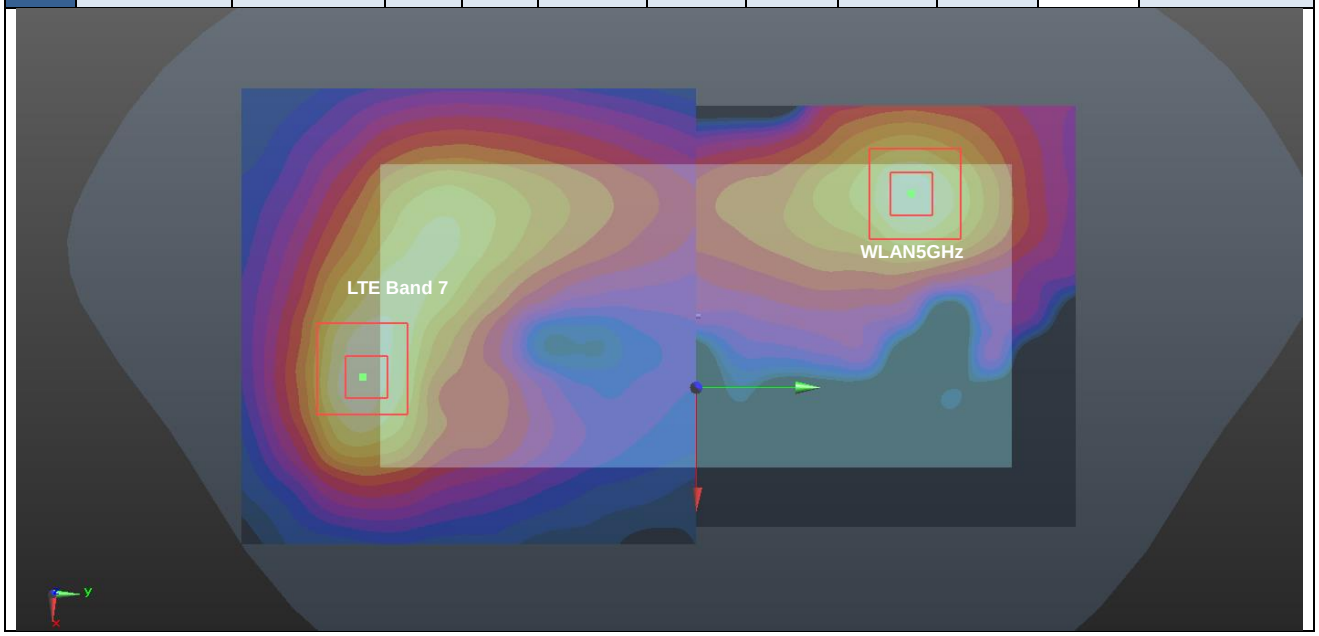
Case #51	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30	Back	1.243	5	12.4	-71.8	-2.09	129.3	2.44	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



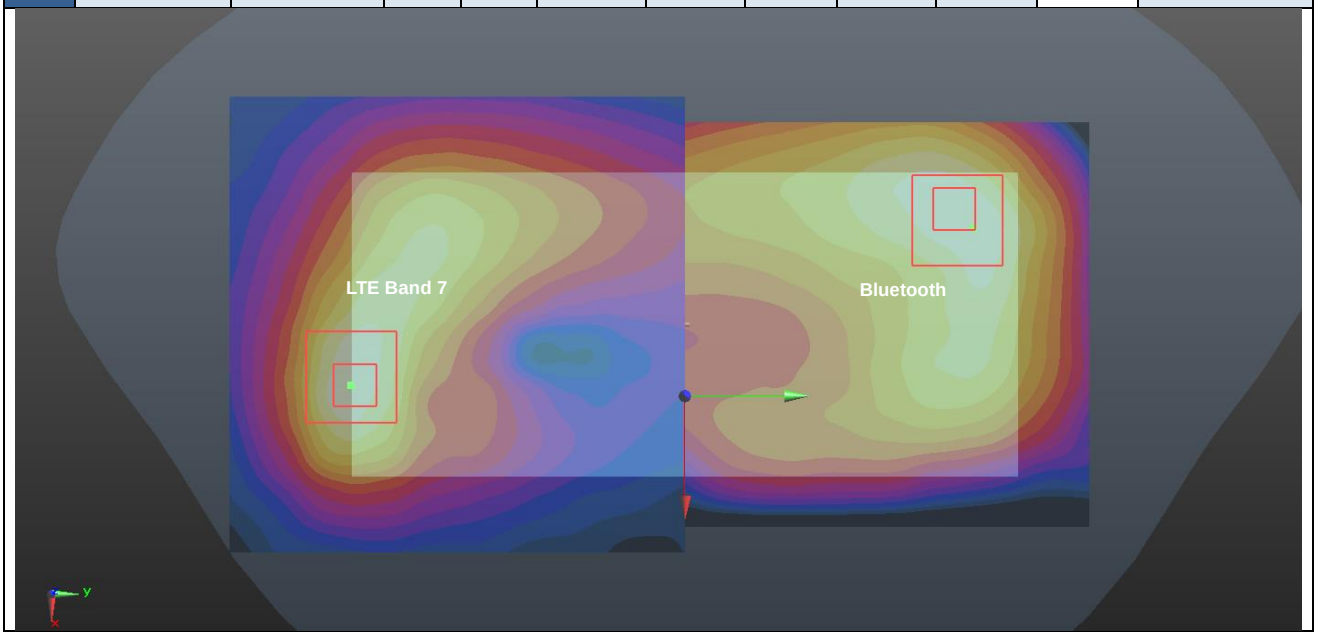
Case #52	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Back	1.383	5	14.4	-77.2	-2.17	146.0	2.58	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



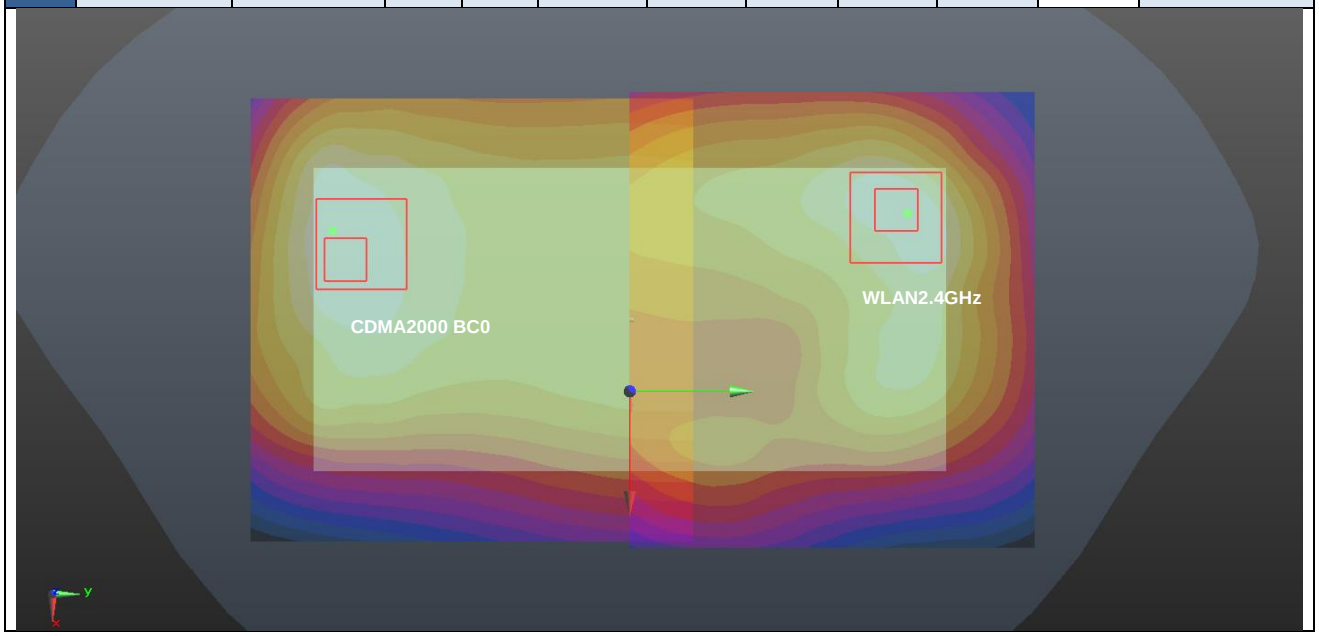
Case #53	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Back	1.383	5	14.4	-77.2	-2.17	135.1	2.58	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



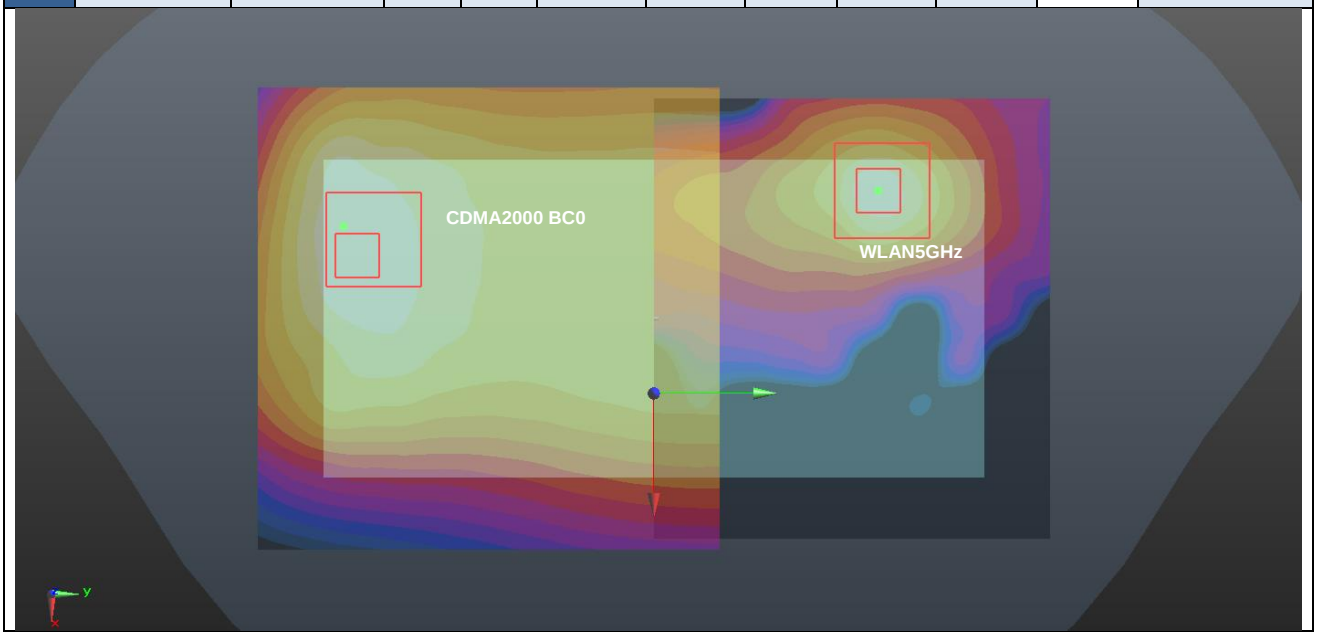
Case #54	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 7	Back	1.383	5	14.4	-77.2	-2.17	147.8	1.62	0.01	Not required
	Bluetooth		0.237	5	-27.8	64.4	-2.14				



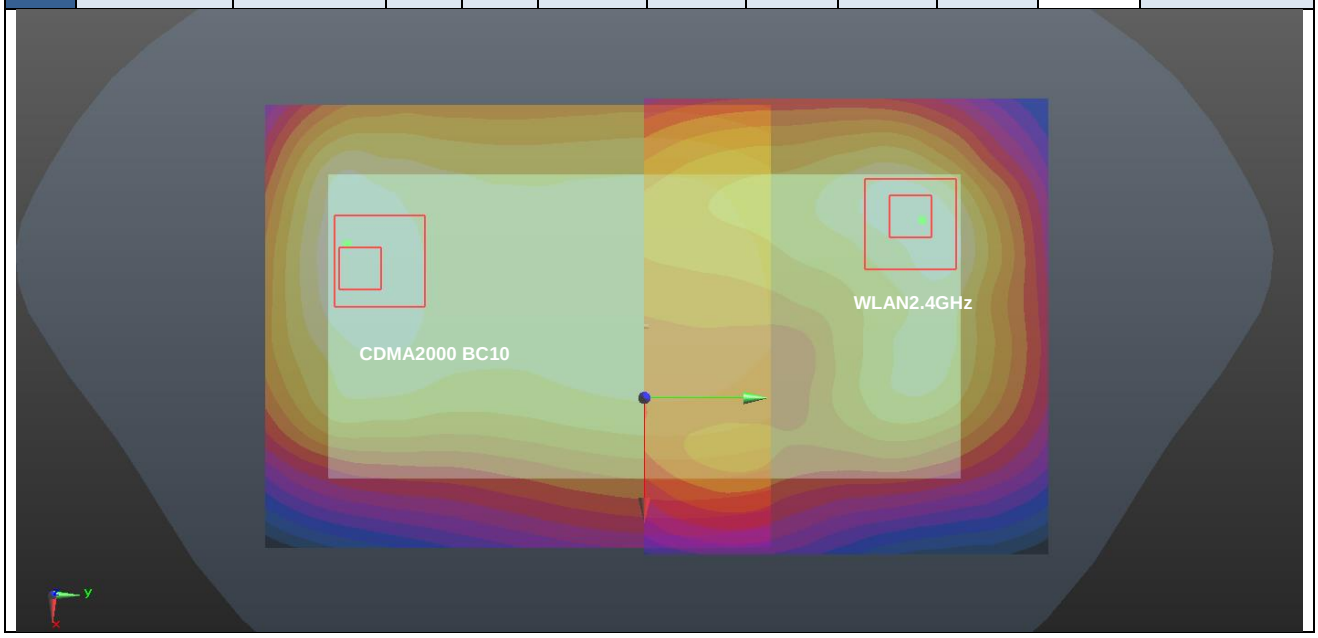
Case #55	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Back	1.193	5	-11.4	-68.9	-1.03	132.7	2.39	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



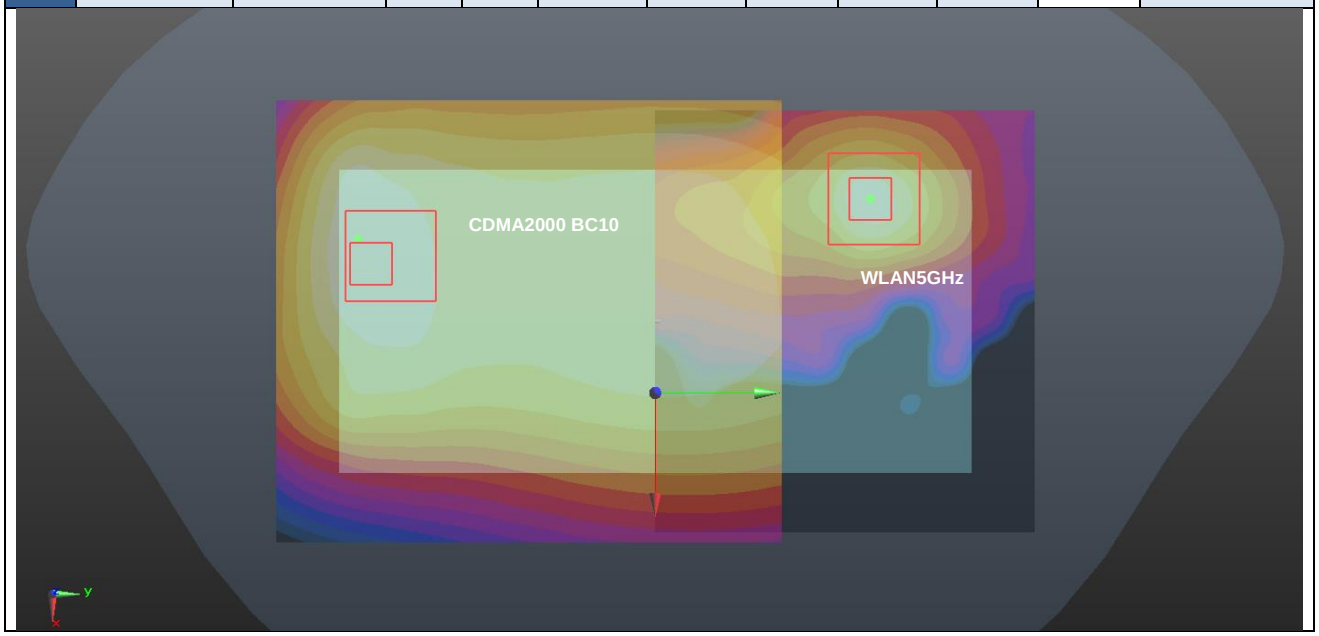
Case #56	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Back	1.193	5	-11.4	-68.9	-1.03	121.1	2.39	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



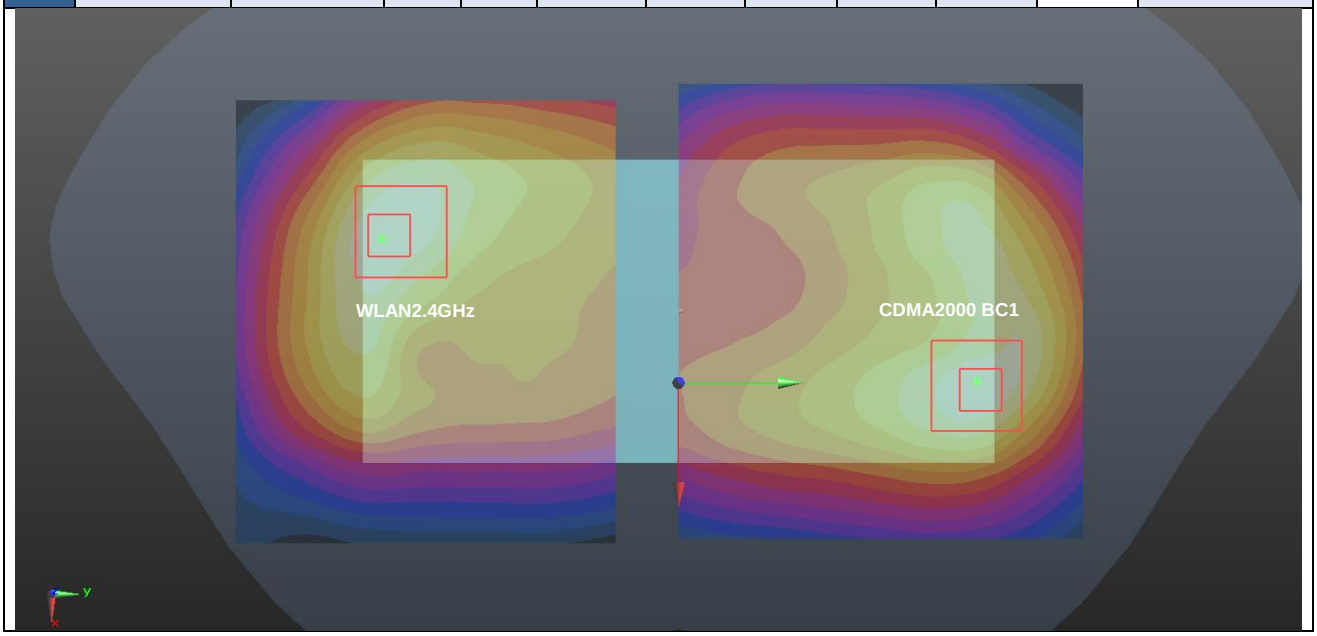
Case #57	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.2	5	-9.9	-68.9	-0.99	132.9	2.40	0.03	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



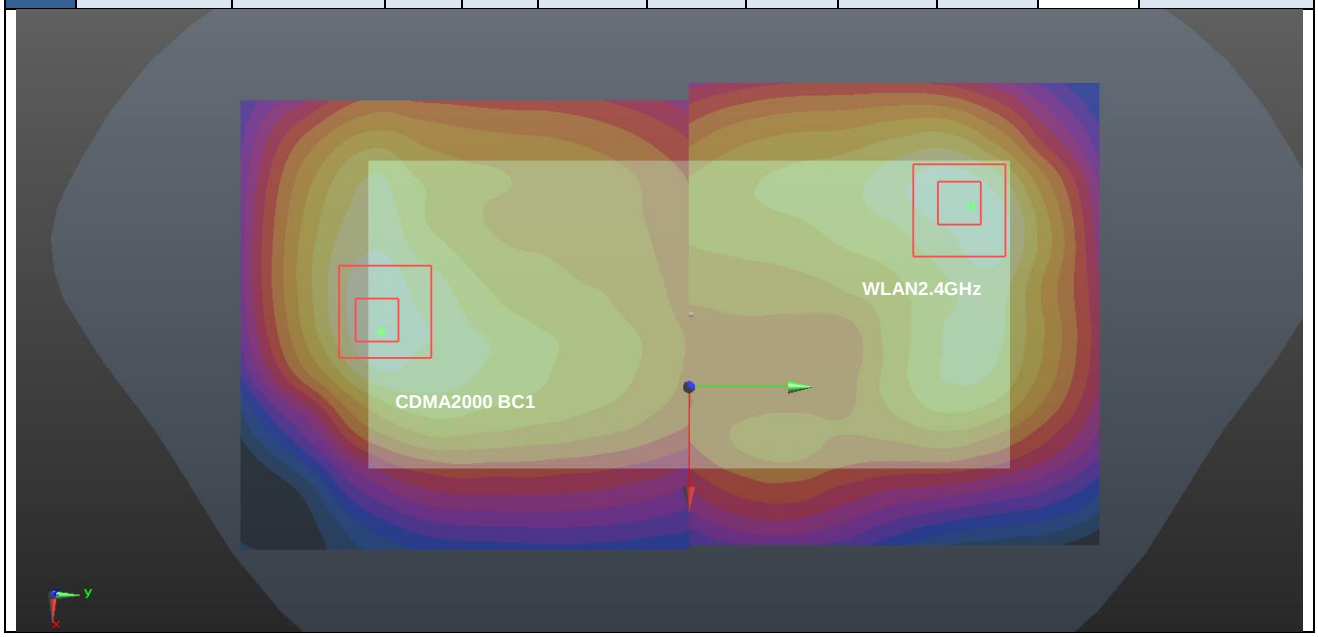
Case #58	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.2	5	-9.9	-68.9	-0.99	121.3	2.40	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



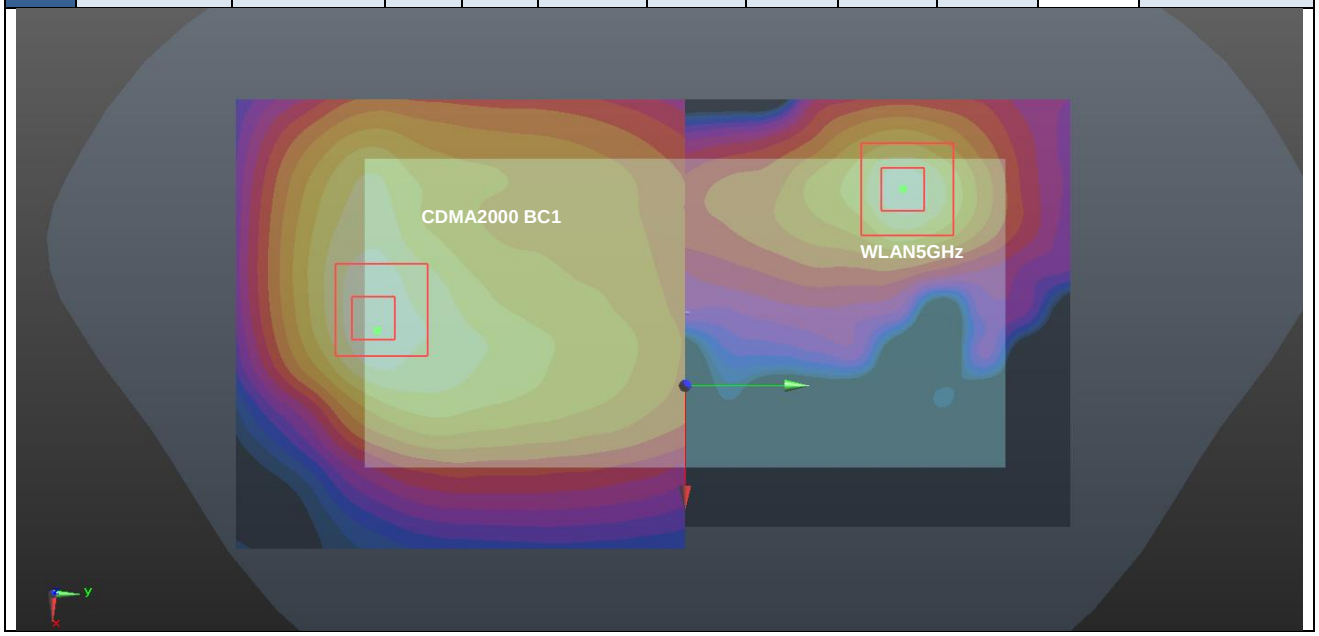
Case #59	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Front	0.93	5	-17	-70.5	-0.74	148.2	1.66	0.01	Not required
	WLAN2.4GHz		0.734	5	16.8	73.8	-1.9				



Case #60	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC1	Back	1.012	5	2.4	-73.6	-0.61	139.6	2.21	0.02	Not required
	WLAN2.4GHz		1.196	5	-26.2	63	-2.21				



Case #61	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Back	1.012	5	2.4	-73.6	-0.61	128.3	2.21	0.03	Not required
	WLAN5GHz		1.195	5	-28.2	51	-2.19				



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 and the measured 10-g SAR within a frequency band is < 3.75 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 and highest measured 10-g SAR is less 3.75W/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 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

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

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

[13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", 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: 2019.4.19

System Check_Head_750MHz

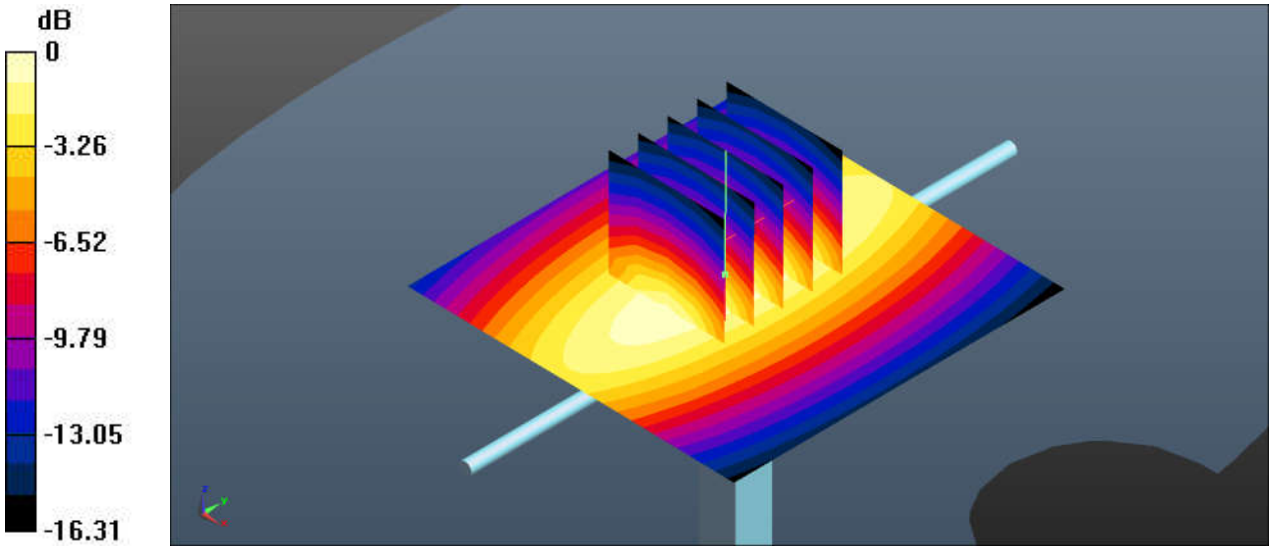
DUT: D750V3 - SN:1087

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 750 MHz; σ = 0.906 S/m; ε_r = 42.216; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- 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) = 2.50 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 43.65 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.96 W/kg
SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.33 W/kg
Maximum value of SAR (measured) = 2.53 W/kg



0 dB = 2.50 W/kg = 3.98 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

System Check_Head_835MHz

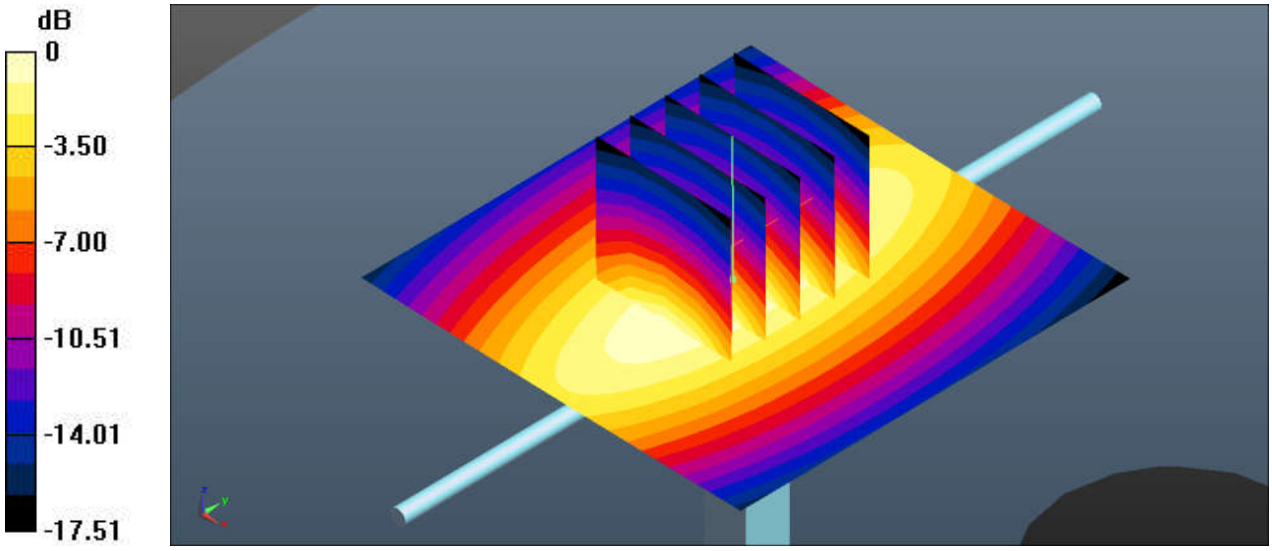
DUT: D835V3 - SN:4d151

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：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- 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) = 2.10 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.50 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.69 W/kg
SAR(1 g) = 2.41 W/kg; SAR(10 g) = 1.53W/kg
Maximum value of SAR (measured) = 2.12 W/kg



0 dB = 2.10 W/kg = 3.22 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

System Check_Head_1750MHz

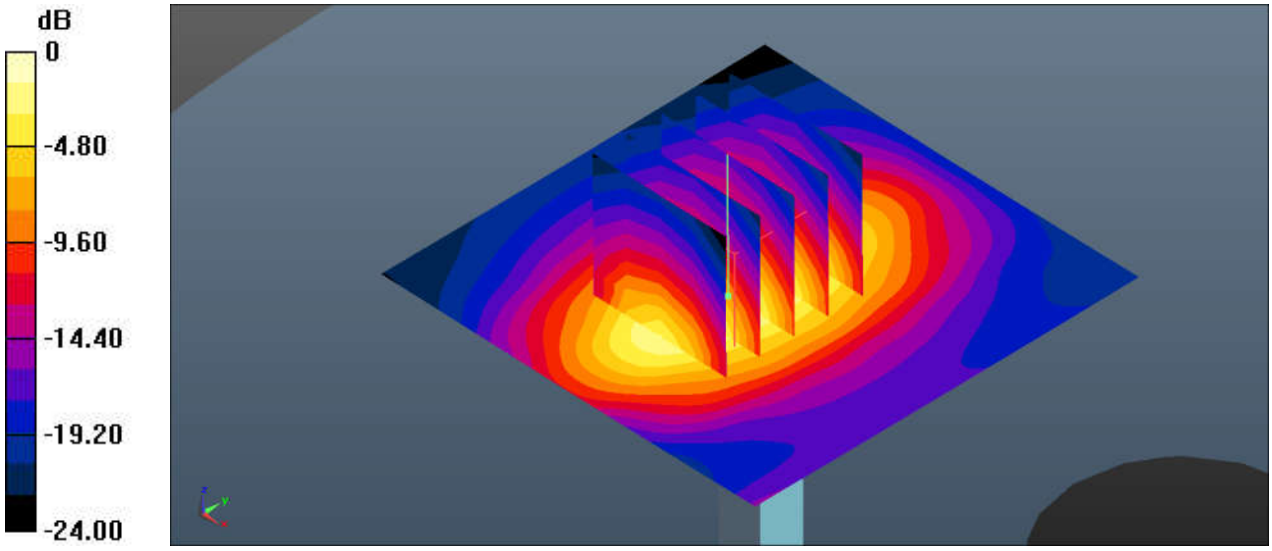
DUT: D1750V2 - SN:1090

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1750 MHz; σ = 1.383 S/m; ε_r = 41.078; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.59, 5.59, 5.59); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- 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) = 14.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 86.10 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 9.25 W/kg; SAR(10 g) = 5.01 W/kg
Maximum value of SAR (measured) = 5.89 W/kg



0 dB = 6.41 W/kg = 8.07 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

System Check_Head_1900MHz

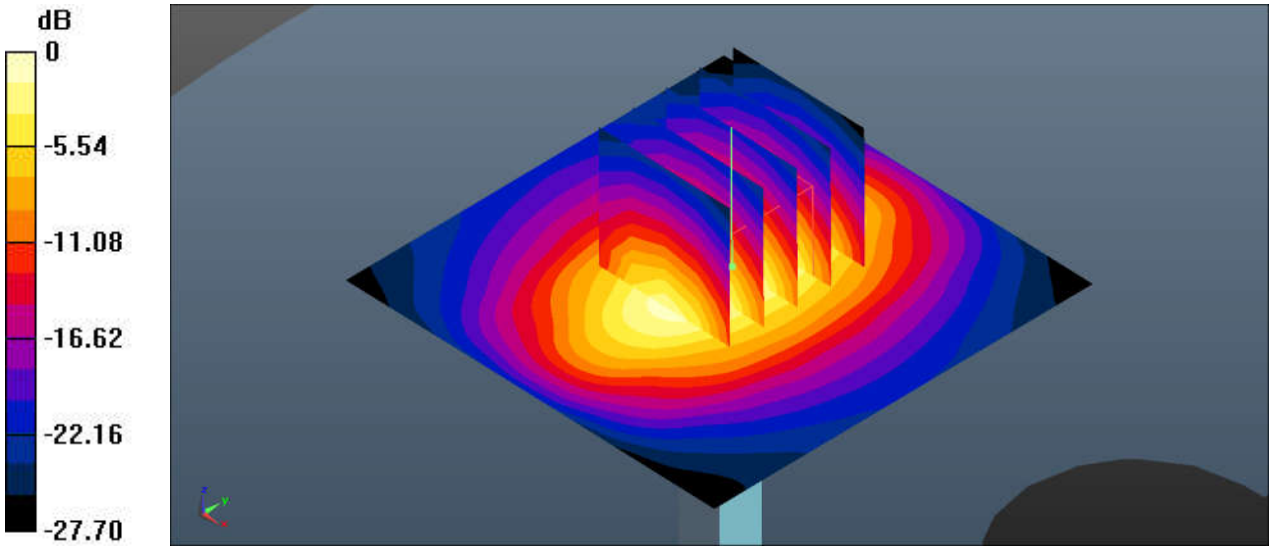
DUT: D1900V2 - SN:5d170

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- 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) = 14.2 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 85.73 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 9.96 W/kg; SAR(10 g) = 5.19 W/kg
Maximum value of SAR (measured) = 14.2 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.1

System Check_Head_2300MHz

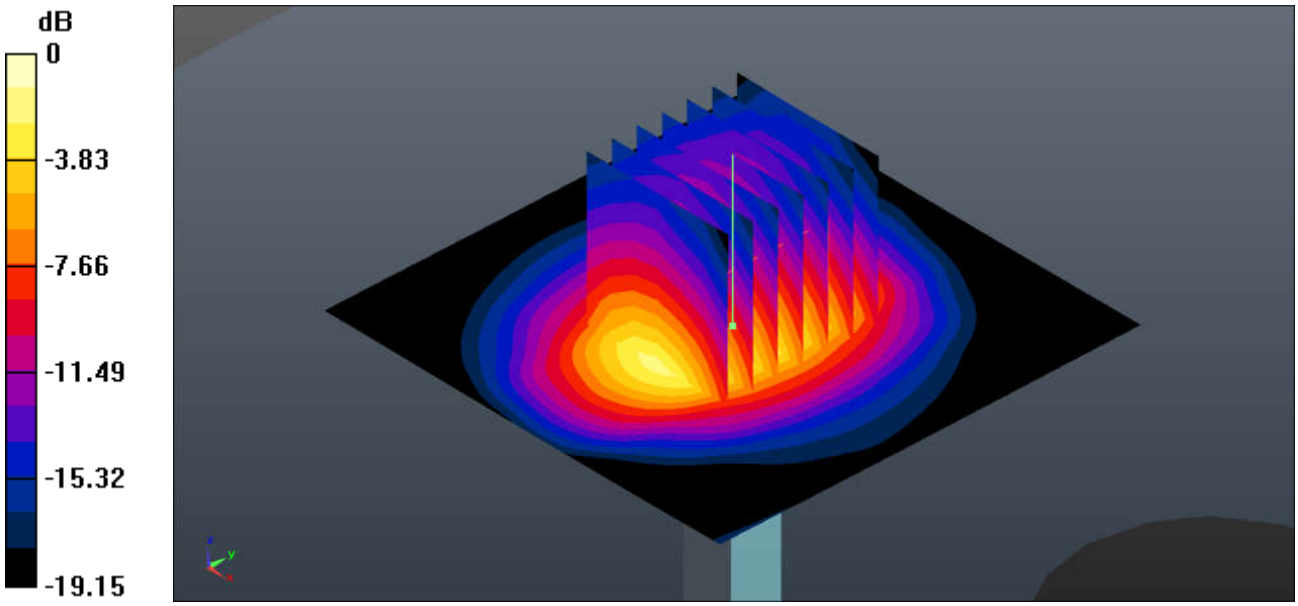
DUT: D2300V2 - SN:1055

Communication System: UID 0, CW (0); Frequency: 2300 MHz;Duty Cycle: 1:1
Medium: HSL_2300 Medium parameters used: f = 2300 MHz; σ = 1.674 S/m; ε_r = 38.829; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.87, 7.87, 7.87); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 17.5 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.43 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 22.0 W/kg
SAR(1 g) = 11.7 W/kg; SAR(10 g) = 5.75 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: 2019.4.26

System Check_Head_2450MHz

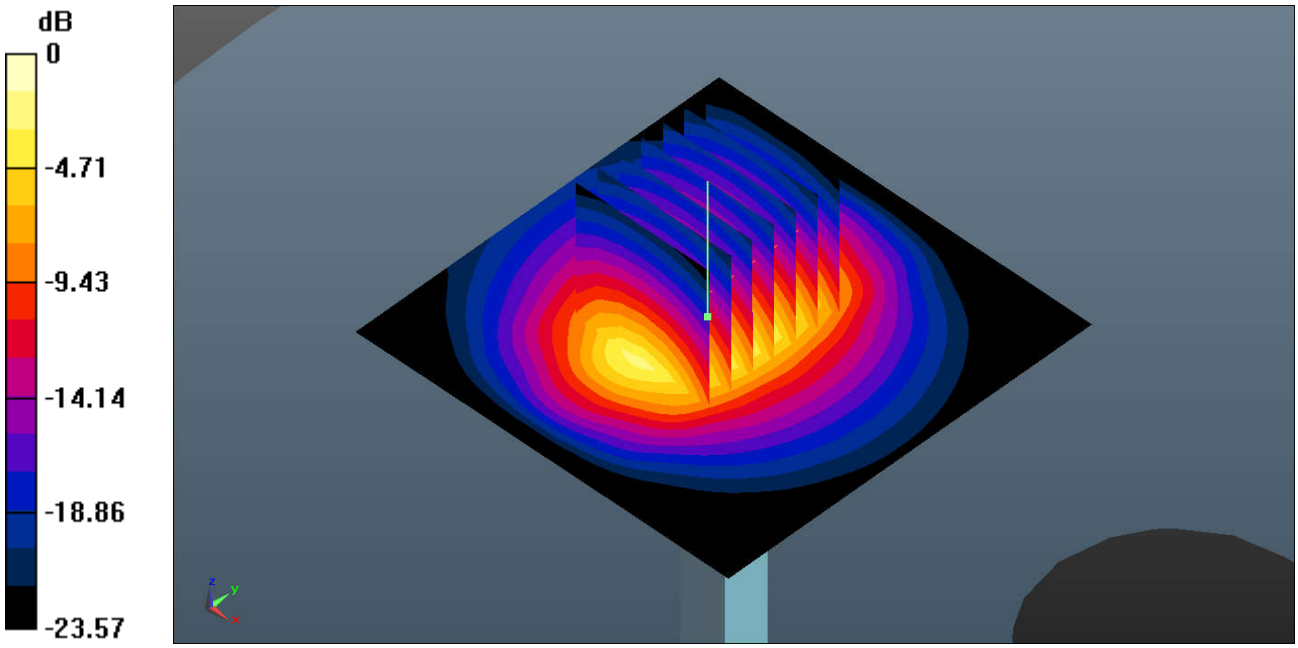
DUT: D2450V2 - SN:908

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2450 MHz; σ = 1.806 S/m; ε_r = 38.913; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

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 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- 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) = 21.0 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.46 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 28.4 W/kg
SAR(1 g) = 13.1 W/kg; SAR(10 g) = 5.91 W/kg
Maximum value of SAR (measured) = 20.5 W/kg



0 dB = 20.5 W/kg = 13.12 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.21

System Check_Head_2600MHz

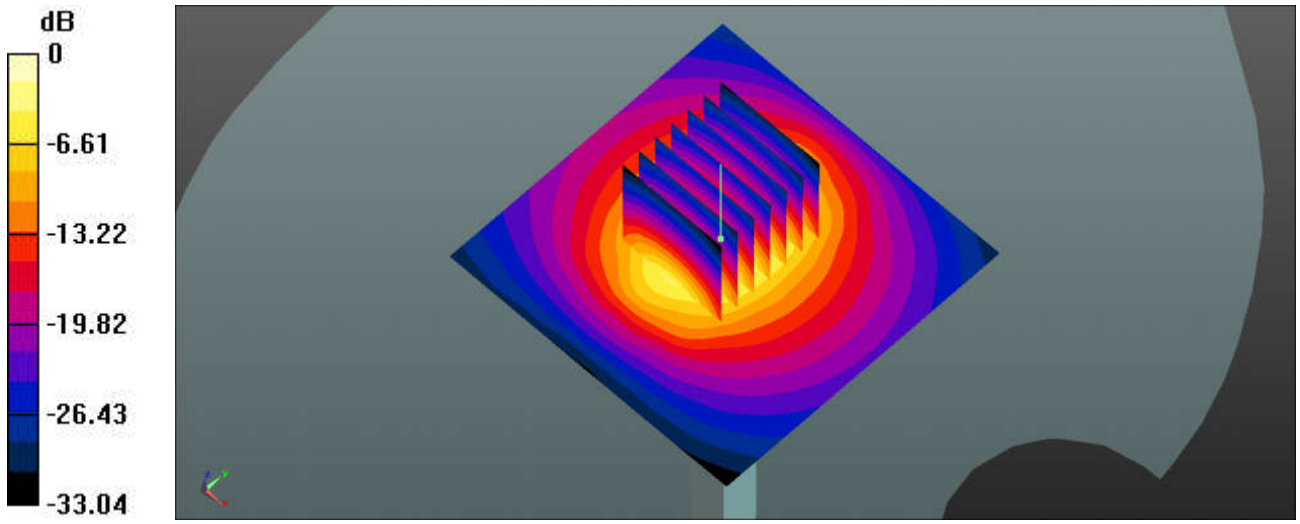
DUT: D2600V2 - SN:1061

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2600 MHz; σ = 2.040 S/m; ε_r = 37.884; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(4.58, 4.58, 4.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- 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) = 23. W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,dy=5mm, dz=5mm
Reference Value = 92 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 31.8 W/kg
SAR(1 g) = 14.1 W/kg; SAR(10 g) = 6.21 W/kg
Maximum value of SAR (measured) = 24.2 W/kg



0 dB = 23.7 W/kg = 13.75 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

System Check_Head_5250MHz

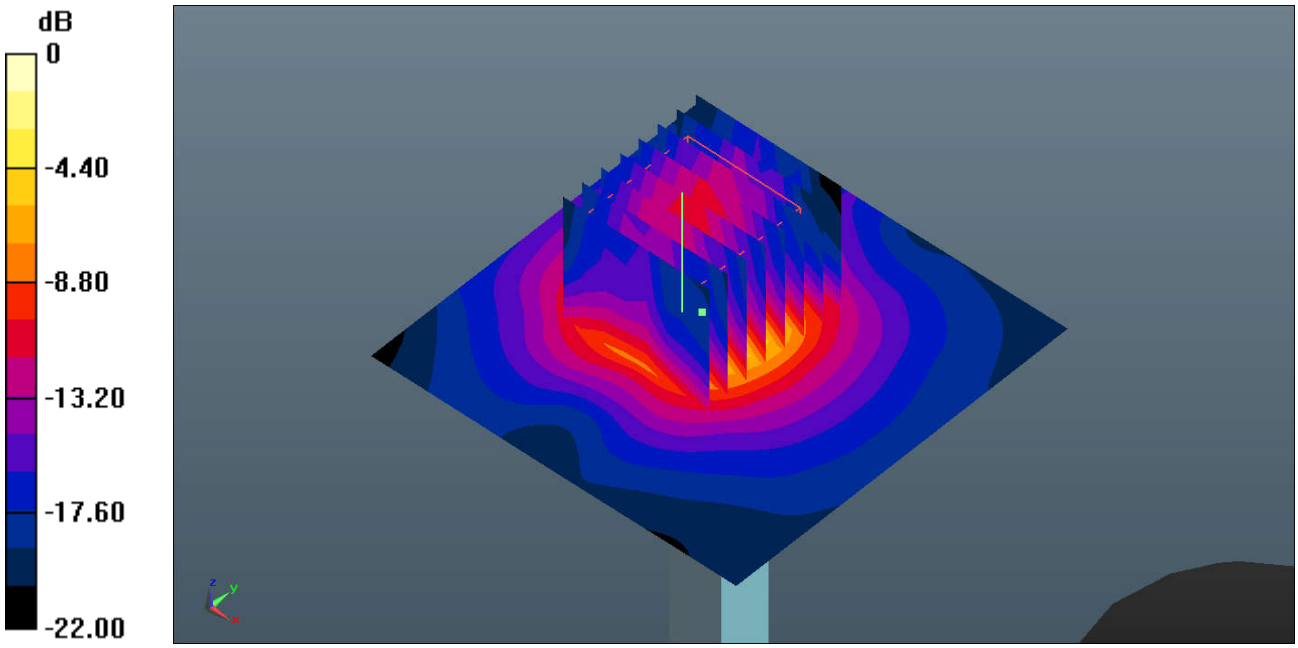
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5250 MHz; σ = 4.788 S/m; ε_r = 35.795; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- 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) = 15.2 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mmReference Value = 30.77 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 21.0 W/kg
SAR(1 g) = 7.51 W/kg; SAR(10 g) = 2.17 W/kg
Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.7 W/kg = 11.67 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

System Check_Head_5600MHz

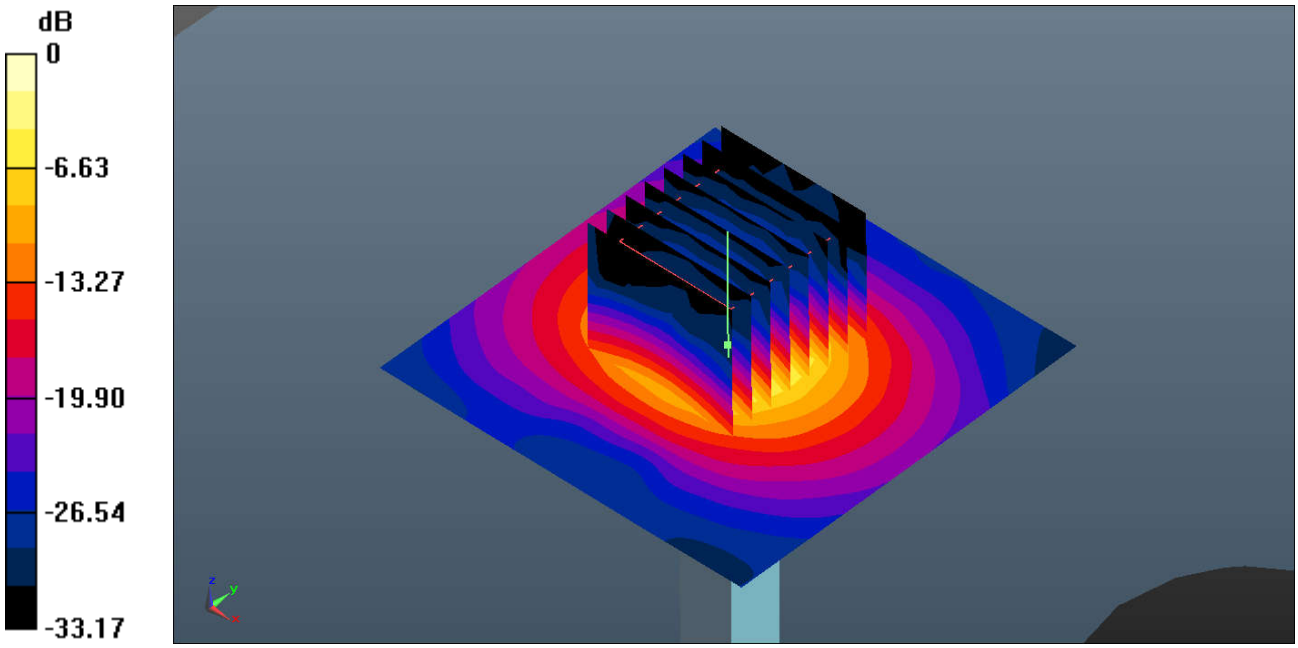
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5600 MHz; σ = 5.142 S/m; ε_r = 35.264; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.94, 4.94, 4.94); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- 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) = 18.9 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 39.08 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 33.4 W/kg
SAR(1 g) = 7.71 W/kg; SAR(10 g) = 2.31 W/kg
Maximum value of SAR (measured) = 18.1 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

System Check_Head_5750MHz

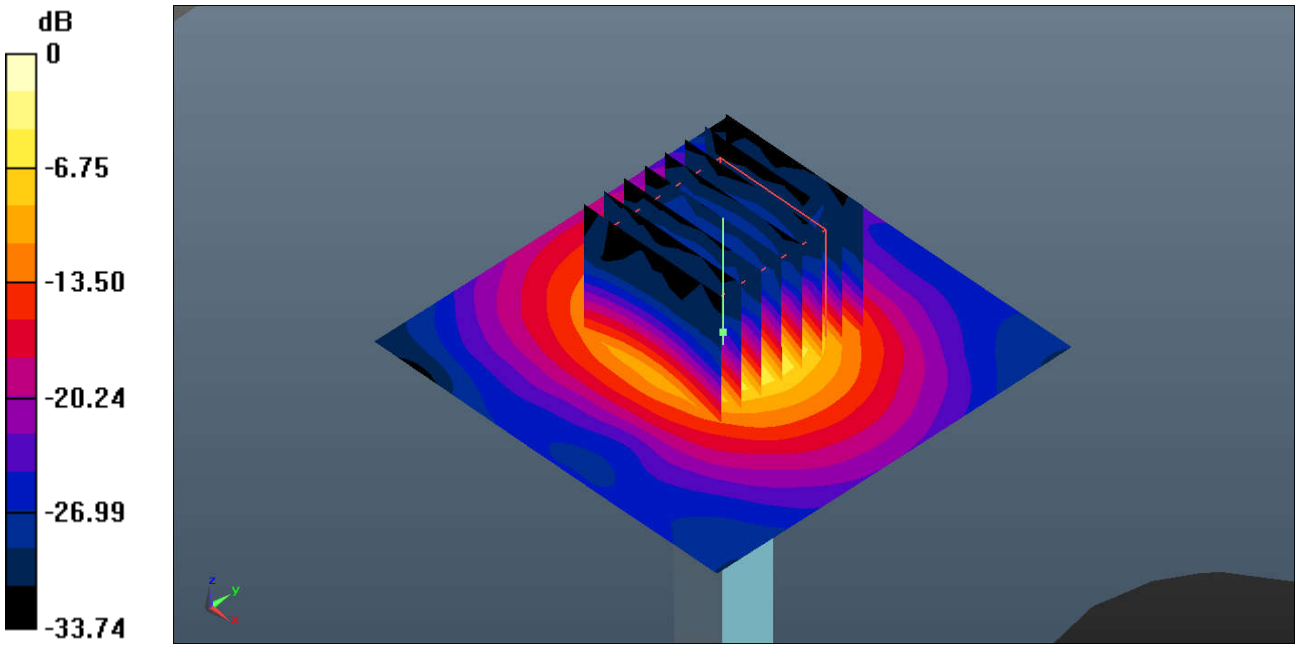
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5750 MHz; σ = 5.302 S/m; ε_r = 35.036; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- 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) = 17.1 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 37.16 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 32.8 W/kg
SAR(1 g) = 7.85 W/kg; SAR(10 g) = 2.23 W/kg
Maximum value of SAR (measured) = 17.3 W/kg



0 dB = 17.3 W/kg = 12.38 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: 2019.4.18

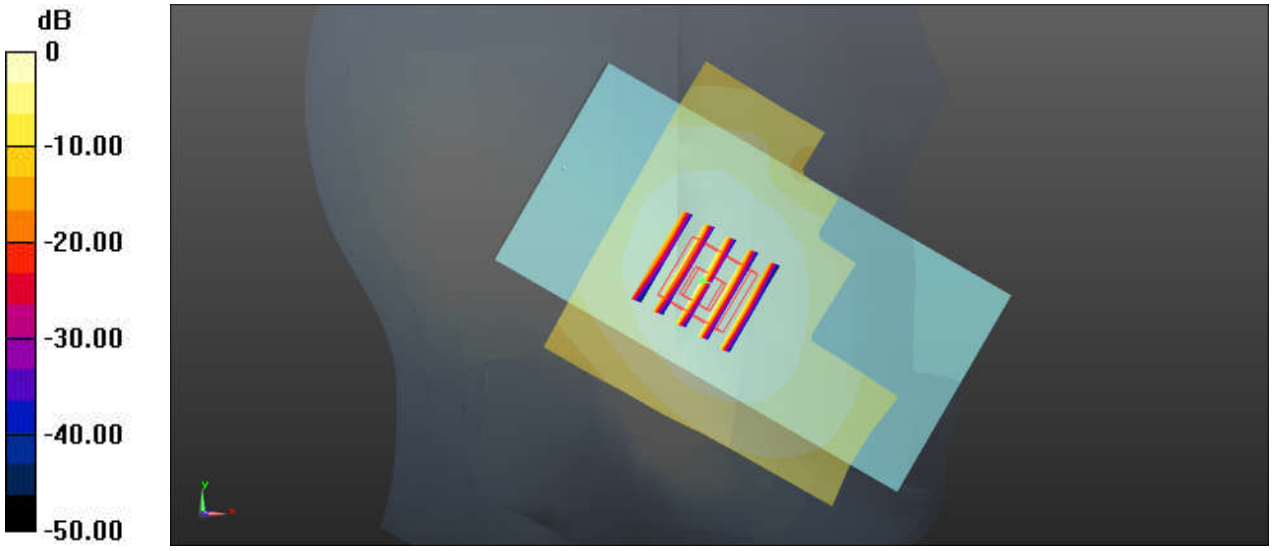
01_GSM 850_GPRS(4Tx slot)_Left Cheek_0mm_OFF_Ch251

Communication System: UID 0, GSM850 (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium: HSL_850 Medium parameters used: f = 848.8 MHz; σ = 0.928 S/m; ε_r = 41.086; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch251/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.493 W/kg

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.715 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.591 W/kg
SAR(1 g) = 0.458 W/kg; SAR(10 g) = 0.340 W/kg
Maximum value of SAR (measured) = 0.513 W/kg



0 dB = 0.493 W/kg = -3.07 dBW/kg

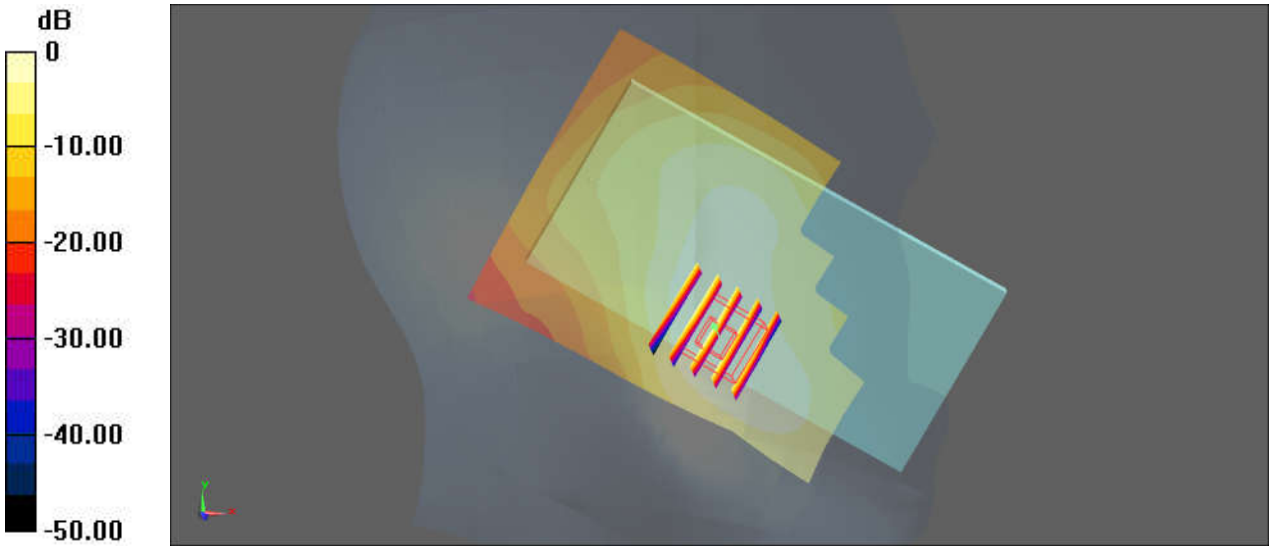
02_GSM 1900_GPRS(4Tx slot)_Left Cheek_0mm_OFF_Ch810

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 = 1.444 S/m; ε_r = 40.011; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch810/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.430 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.711 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.576 W/kg
SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.238 W/kg
Maximum value of SAR (measured) = 0.436 W/kg



0 dB = 0.430 W/kg = -3.67 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

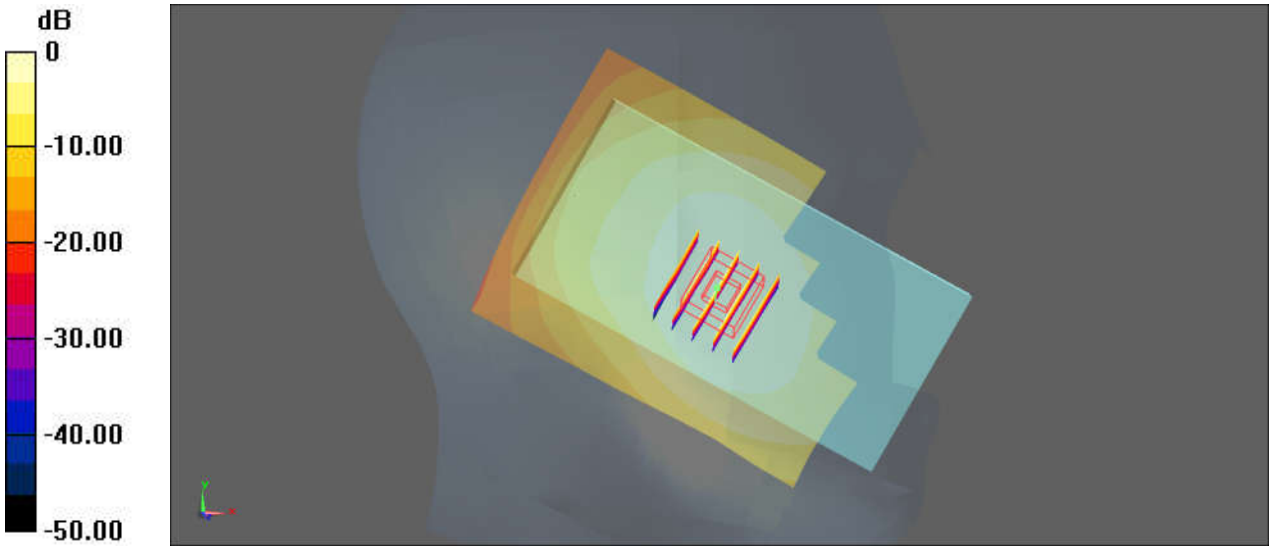
03_WCDMA V_RMC12.2Kbps_Left Cheek_0mm_OFF_Ch4233

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：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4233/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.655 W/kg

Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.39 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.731 W/kg
SAR(1 g) = 0.580 W/kg; SAR(10 g) = 0.433 W/kg
Maximum value of SAR (measured) = 0.642 W/kg



0 dB = 0.655 W/kg = -1.84 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

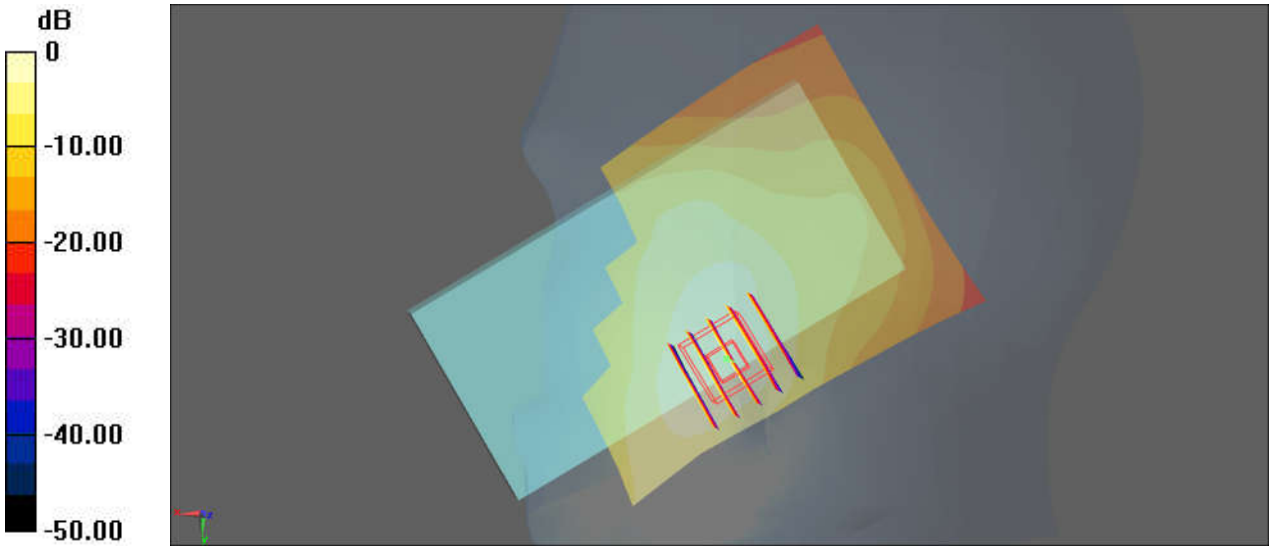
04_WCDMA IV_RMC12.2Kbps_Right Cheek_0mm_OFF_Ch1413

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 = 1.363 S/m; ε_r = 41.153; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.59, 5.59, 5.59); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1413/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.462 W/kg

Ch1413/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.821 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.654 W/kg
SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.267 W/kg
Maximum value of SAR (measured) = 0.493 W/kg



0 dB = 0.462 W/kg = -3.35 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

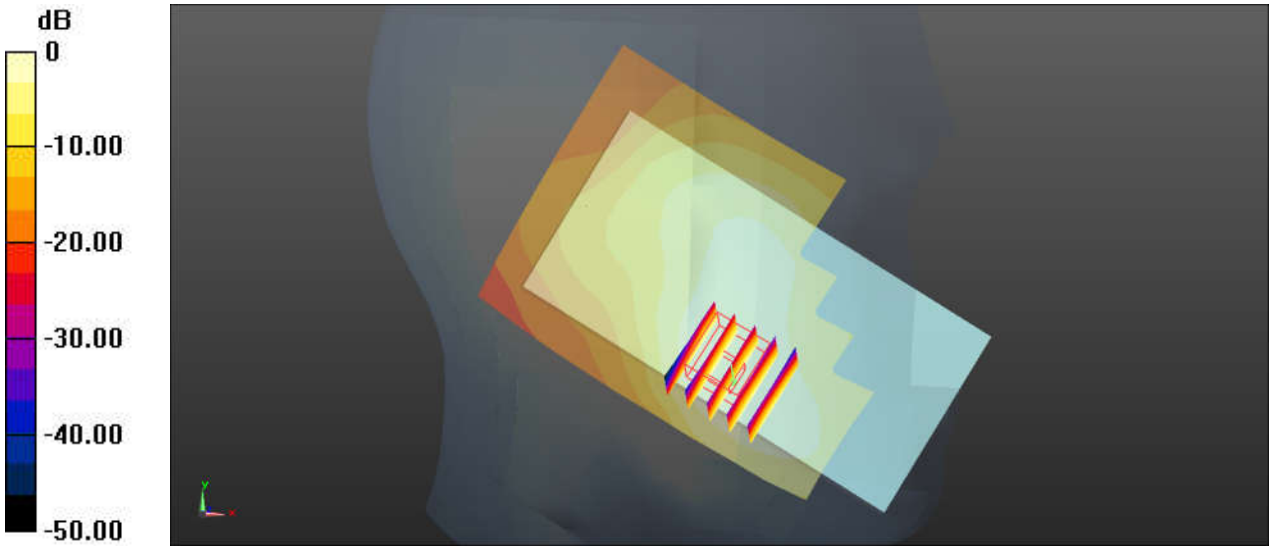
05_WCDMA II_RMC12.2Kbps_Left Cheek_0mm_OFF_Ch9538

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 = 1.442 S/m; ε_r = 40.019; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9538/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.872 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.921 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.795 W/kg; SAR(10 g) = 0.508 W/kg
Maximum value of SAR (measured) = 0.916 W/kg



0 dB = 0.872 W/kg = -0.59 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

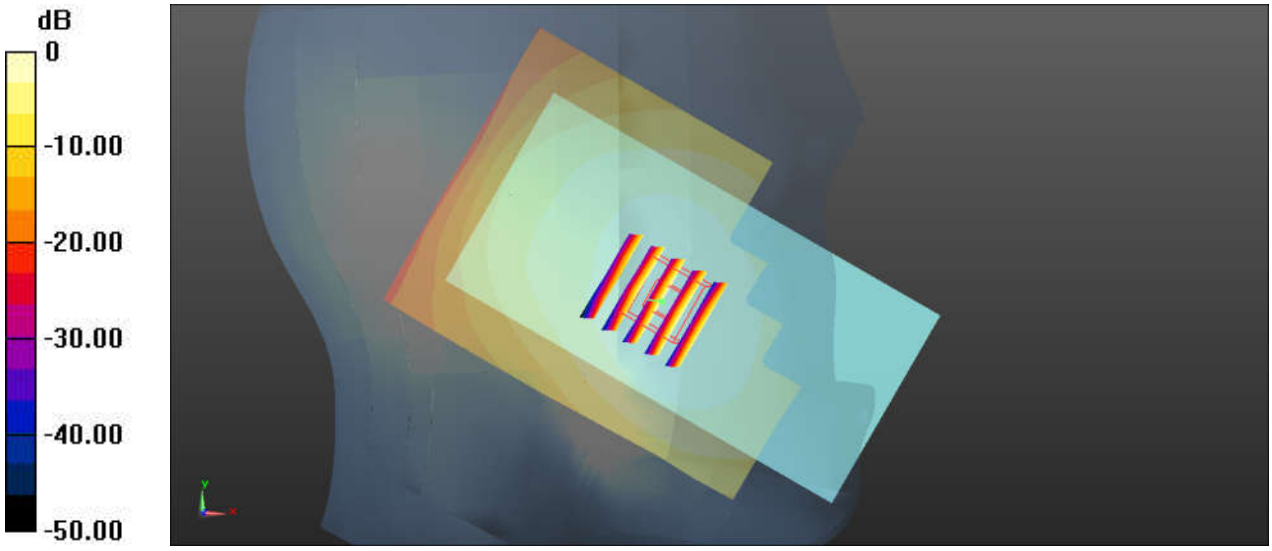
06_CDMA BC0_RC3 SO55_Left Cheek_0mm_OFF_Ch384

Communication System: UID 0, CDMA (0); Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 836.52 MHz; σ = 0.917 S/m; ε_r = 41.243; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch384/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.653 W/kg

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.42 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.746 W/kg
SAR(1 g) = 0.585 W/kg; SAR(10 g) = 0.435 W/kg
Maximum value of SAR (measured) = 0.649 W/kg



0 dB = 0.653 W/kg = -1.85 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

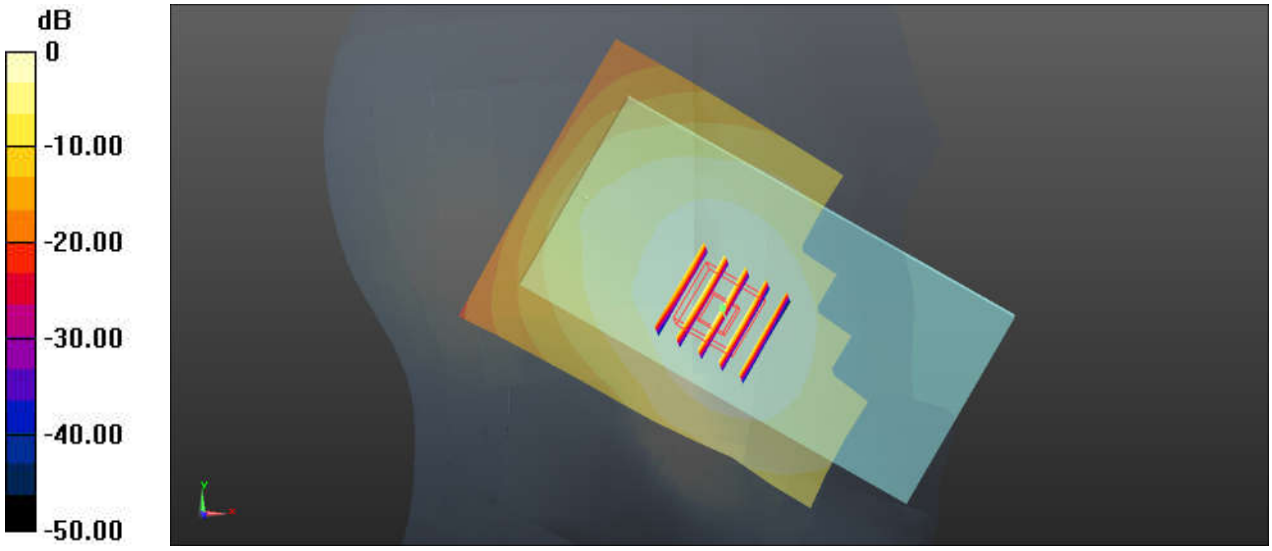
07_CDMA BC10_RC3 SO55_Left Cheek_0mm_OFF_Ch684

Communication System: UID 0, CDMA (0); Frequency: 823.1 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 823.1 MHz; σ = 0.904 S/m; ε_r = 41.431; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch684/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.683 W/kg

Ch684/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.48 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.778 W/kg
SAR(1 g) = 0.611 W/kg; SAR(10 g) = 0.457 W/kg
Maximum value of SAR (measured) = 0.684 W/kg



0 dB = 0.683 W/kg = -1.66 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

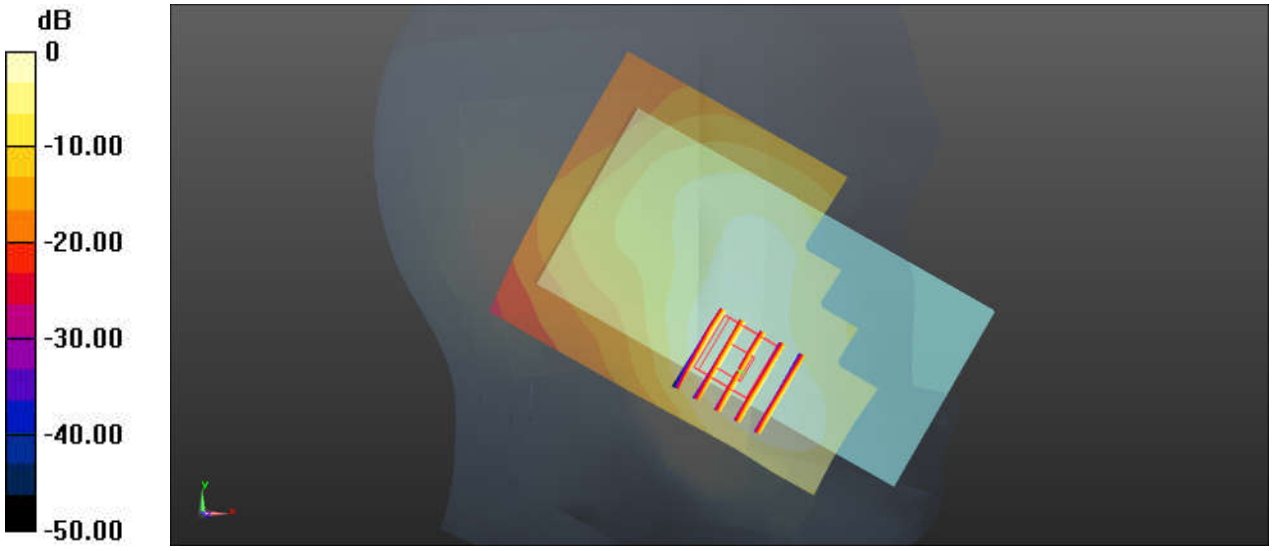
08_CDMA BC1_RC3 SO55_Left Cheek_0mm_OFF_Ch1175

Communication System: UID 0, CDMA (0); Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1908.75 MHz; σ = 1.443 S/m; ε_r = 40.014; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1175/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.05 W/kg

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.405 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.910 W/kg; SAR(10 g) = 0.579 W/kg
Maximum value of SAR (measured) = 1.05 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

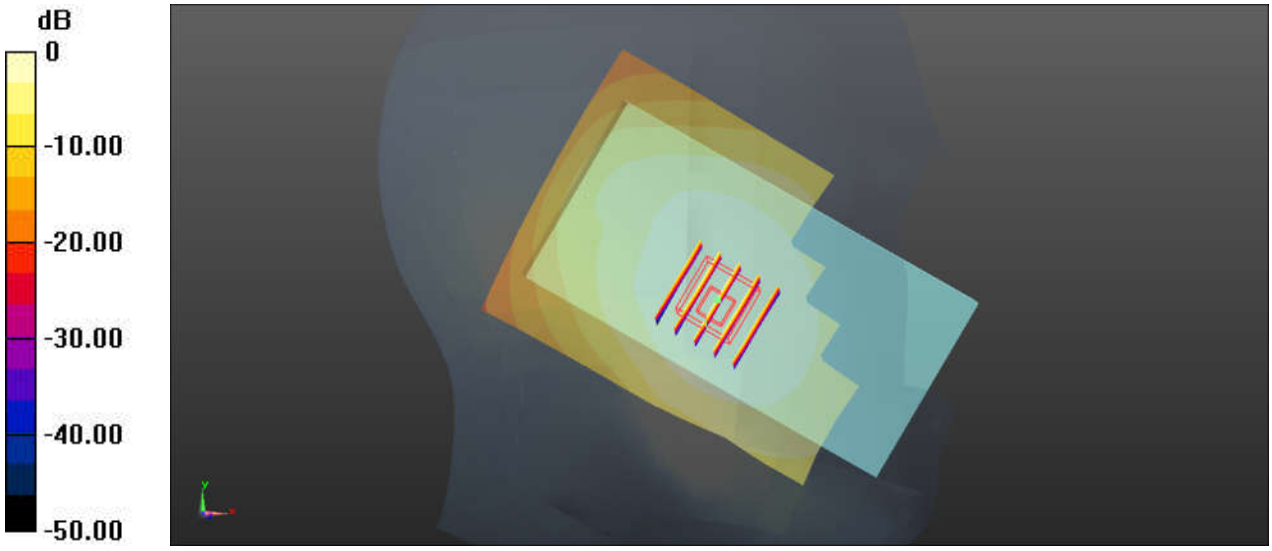
09_LTE B12_10M_QPSK_1RB_0offset_Left Cheek_0mm_OFF_Ch23095

Communication System: UID 0, LTE-FDD (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 707.5 MHz; σ = 0.865 S/m; ε_r = 42.817; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23095/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.514 W/kg

Ch23095/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.51 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.568 W/kg
SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (measured) = 0.494 W/kg



0 dB = 0.514 W/kg = -2.89 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

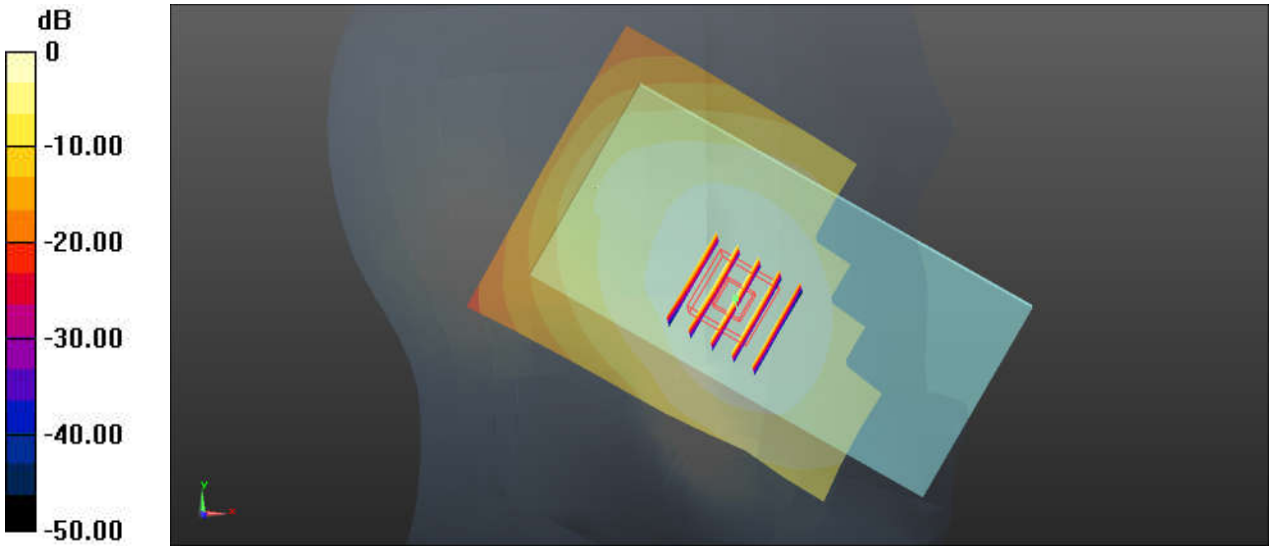
10_LTE B13_10M_QPSK_1RB_0offset_Left Cheek_0mm_OFF_Ch23230

Communication System: UID 0, LTE-FDD (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 782 MHz; σ = 0.929 S/m; ε_r = 41.81; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23230/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.717 W/kg

Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.36 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.640 W/kg; SAR(10 g) = 0.487 W/kg
Maximum value of SAR (measured) = 0.717 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

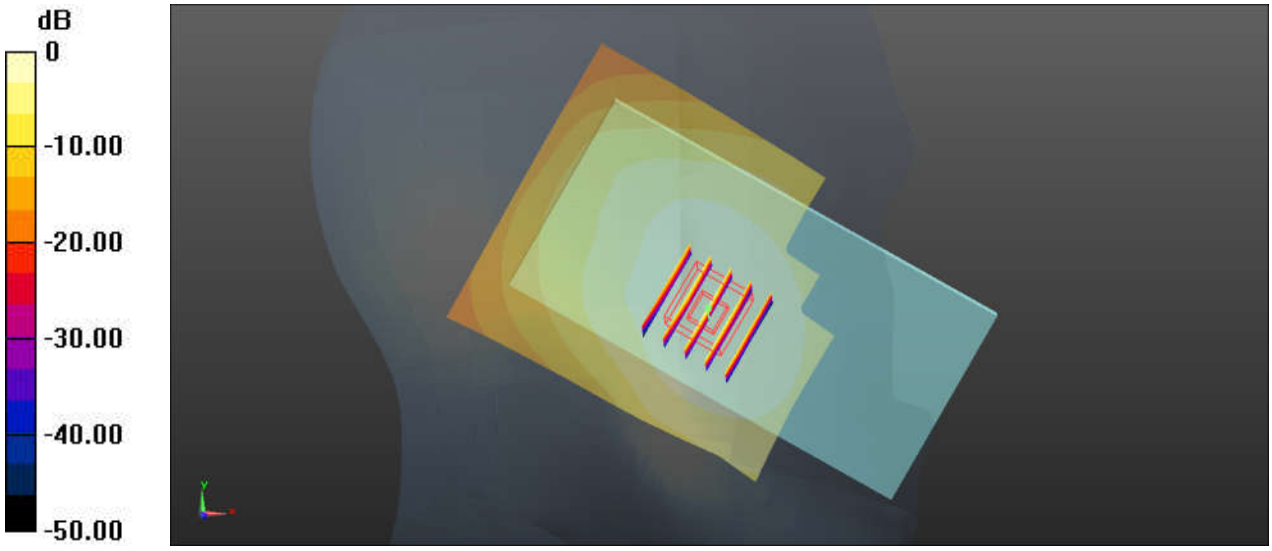
11_LTE B14_10M_QPSK_1RB_0offset_Left Cheek_0mm_OFF_Ch23330

Communication System: UID 0, LTE-FDD (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 793 MHz; σ = 0.939 S/m; ε_r = 41.673; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23330/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.560 W/kg

Ch23330/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.472 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.632 W/kg
SAR(1 g) = 0.498 W/kg; SAR(10 g) = 0.377 W/kg
Maximum value of SAR (measured) = 0.559 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

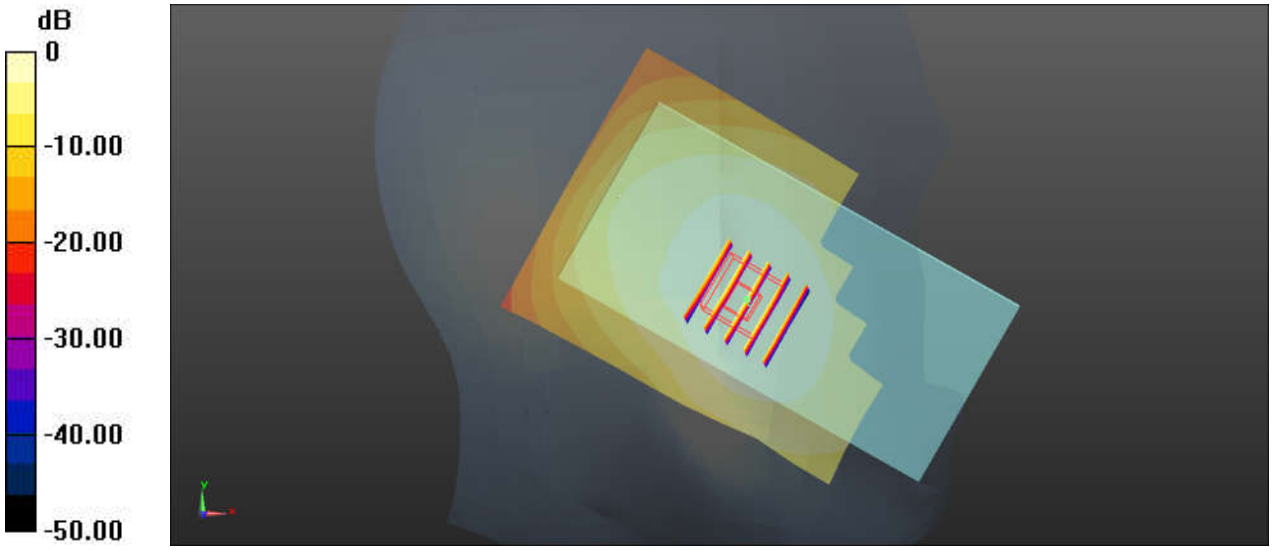
12_LTE B26_15M_QPSK_1RB_0offset_Left Cheek_0mm_OFF_Ch26865

Communication System: UID 0, LTE-FDD (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 831.5 MHz; σ = 0.912 S/m; ε_r = 41.318; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch26865/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.624 W/kg

Ch26865/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.18 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.704 W/kg
SAR(1 g) = 0.555 W/kg; SAR(10 g) = 0.416 W/kg
Maximum value of SAR (measured) = 0.618 W/kg



0 dB = 0.624 W/kg = -2.05 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

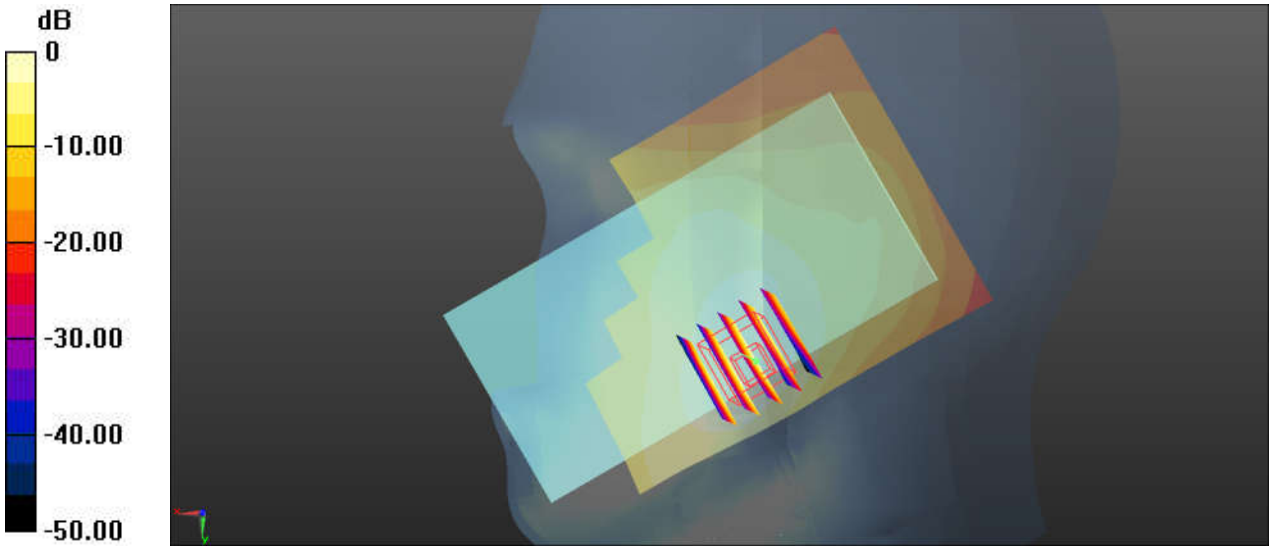
13_LTE B66_20M_QPSK_1RB_49offset_Right Cheek_0mm_OFF_Ch132322

Communication System: UID 0, LTE-FDD (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1745 MHz; σ = 1.377 S/m; ε_r = 41.097; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.59, 5.59, 5.59); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch132322/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.342 W/kg

Ch132322/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.654 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.428 W/kg
SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.186 W/kg
Maximum value of SAR (measured) = 0.330 W/kg



0 dB = 0.342 W/kg = -4.66 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

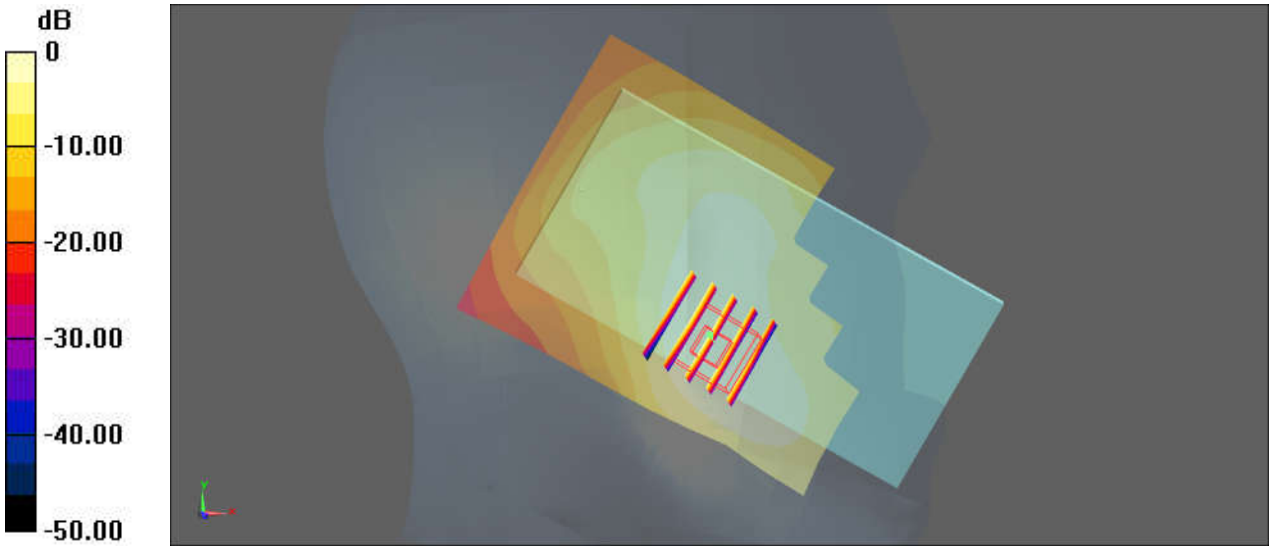
14_LTE B2_20M_QPSK_1RB_0offset_Left Cheek_0mm_OFF_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch19100/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.981 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.898 W/kg; SAR(10 g) = 0.568 W/kg
Maximum value of SAR (measured) = 1.04 W/kg



0 dB = 1.03 W/kg = 0.13 dBW/kg

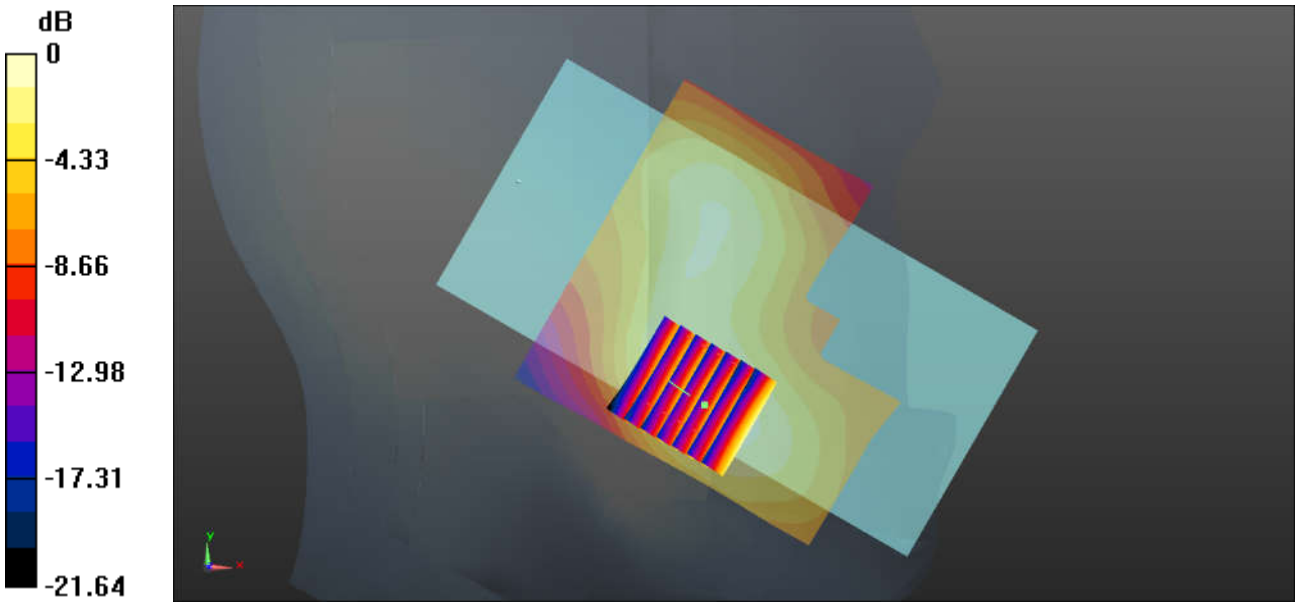
15_LTE Band 30_10M_QPSK_1RB_0Offset_Left Cheek_0mm_Ch27710

Communication System: UID 0, FDD_LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1
Medium: HSL_2300 Medium parameters used: f = 2310 MHz; σ = 1.684 S/m; ε_r = 38.799; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(7.87, 7.87, 7.87); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch27710/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.683 W/kg

Ch27710/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.671 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.296 W/kg
Maximum value of SAR (measured) = 0.698 W/kg



0 dB = 0.698 W/kg = -1.56 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.21

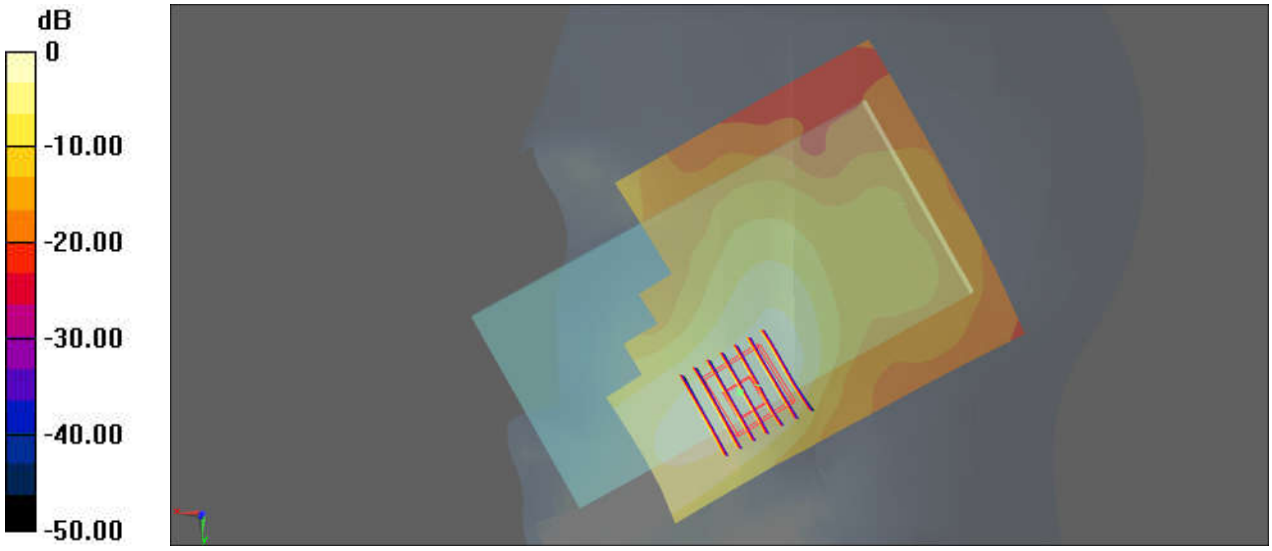
16_LTE B7_20M_QPSK_1RB_49offset_Right Cheek_0mm_OFF_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2510 MHz; σ = 1.933 S/m; ε_r = 38.24; ρ = 1000 kg/m^3
Ambient Temperature：23.4 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(4.58, 4.58, 4.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20850/Area Scan (91x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.451 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.389 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.688 W/kg
SAR(1 g) = 0.350 W/kg; SAR(10 g) = 0.180 W/kg
Maximum value of SAR (measured) = 0.439 W/kg



0 dB = 0.451 W/kg = -3.46 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.26

17_WLAN2.4GHz_802.11b 1Mbps_Left Cheek_5mm_Ch11

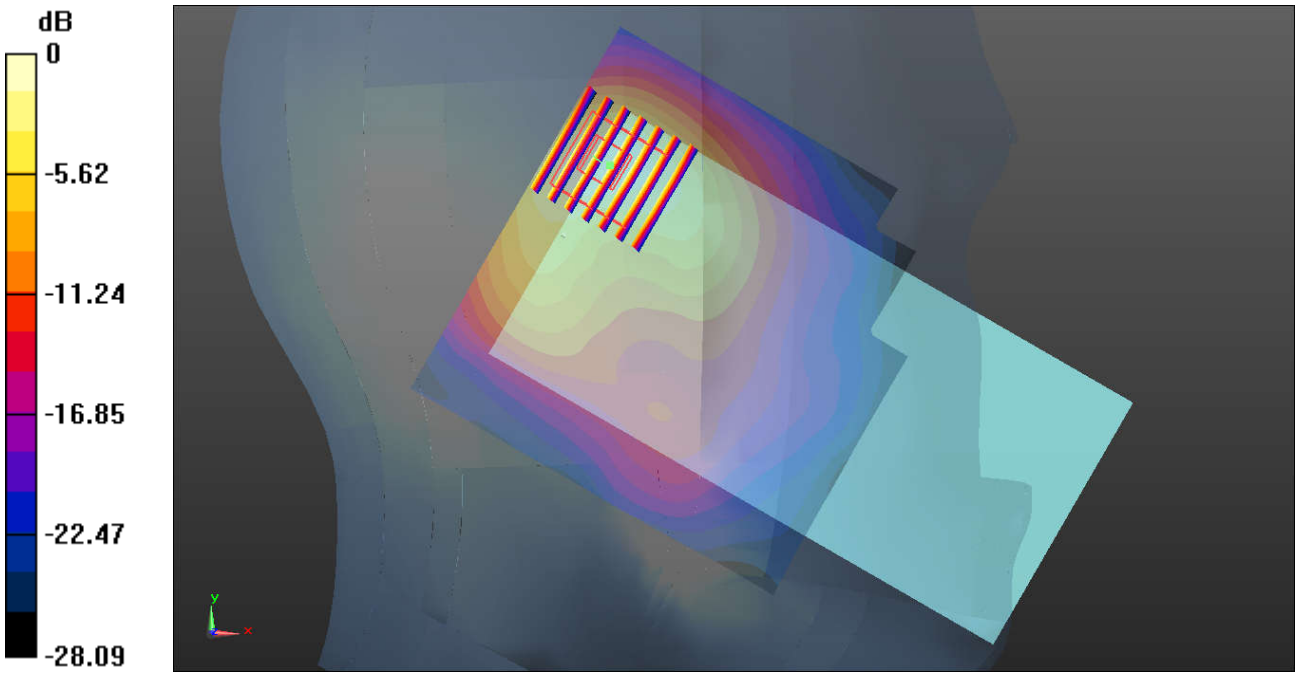
Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1.025
Medium: HSL_2450 Medium parameters used: f = 2462 MHz; σ = 1.819 S/m; ε_r = 38.876; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.7 ℃

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 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch11/Area Scan (91x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.77 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.69 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.438 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

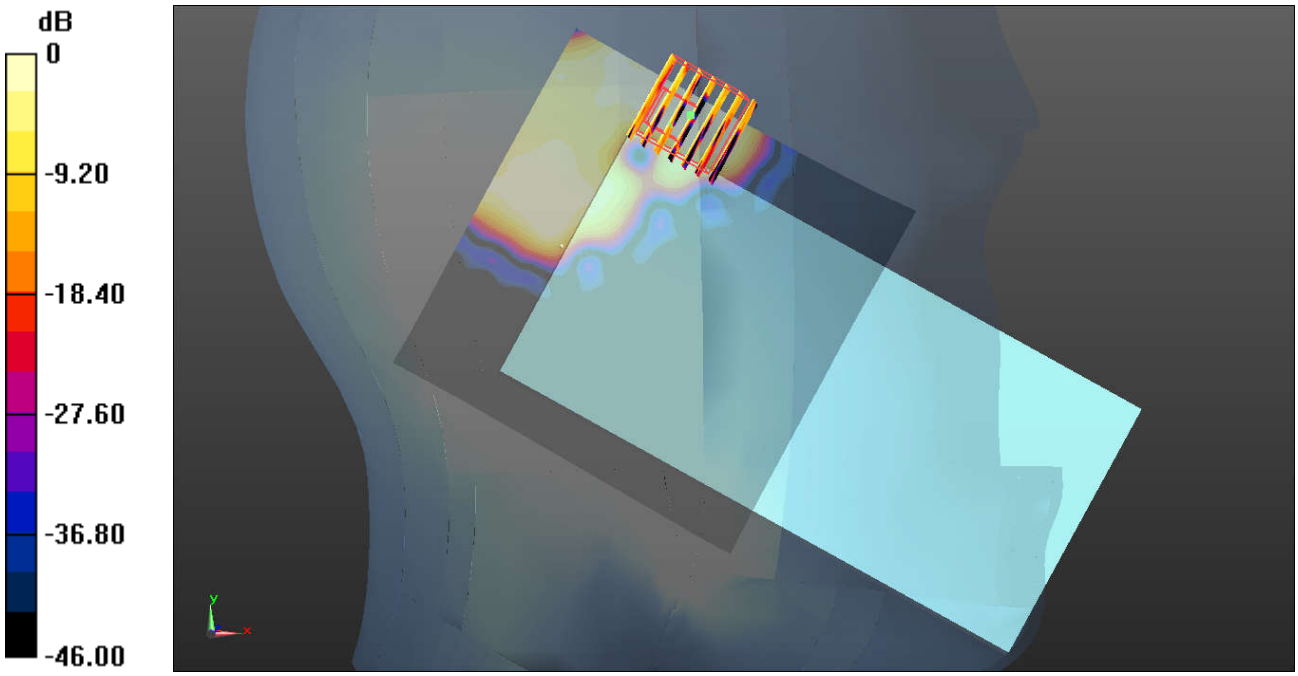
18_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch64

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz;Duty Cycle: 1:1.147
Medium: HSL_5000 Medium parameters used: f = 5320 MHz; σ = 4.856 S/m; ε_r = 36.685; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch64/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.269 W/kg

Ch64/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 2.851 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.336 W/kg
SAR(1 g) = 0.066 W/kg; SAR(10 g) = 0.022 W/kg
Maximum value of SAR (measured) = 0.167 W/kg



0 dB = 0.167 W/kg = -7.77 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

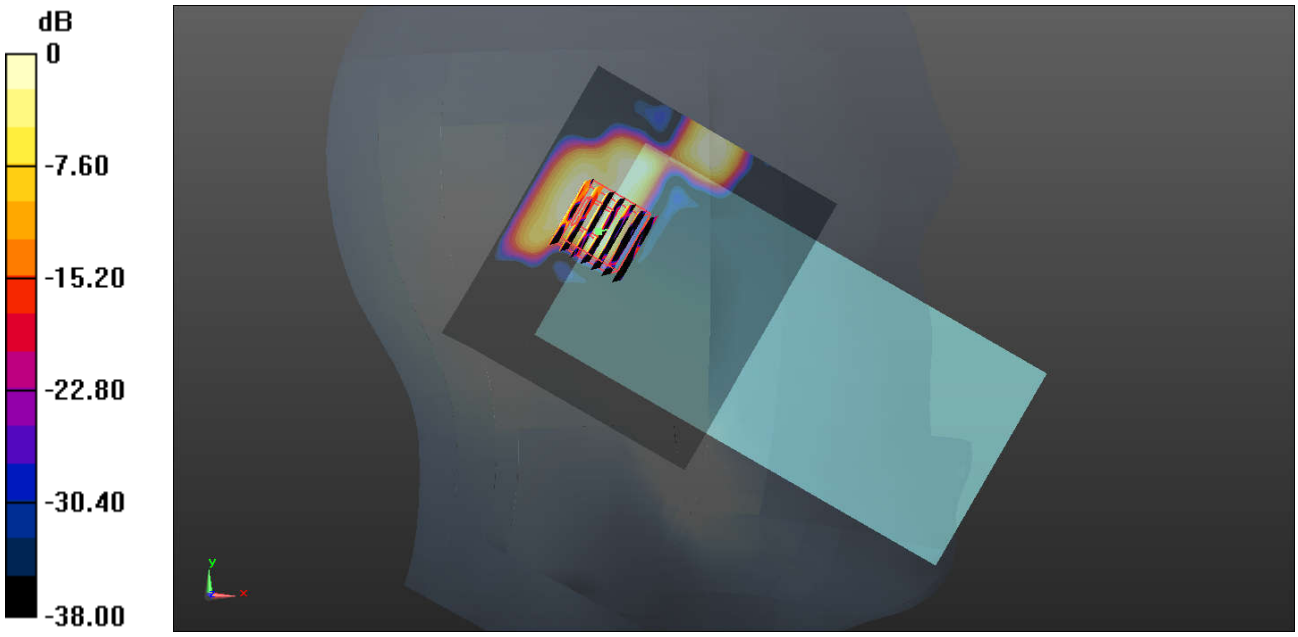
19_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch100

Communication System: UID 0, WIFI (0); Frequency: 5500 MHz;Duty Cycle: 1:1.147
Medium: HSL_5000 Medium parameters used: f = 5500 MHz; σ = 5.036 S/m; ε_r = 35.417; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.94, 4.94, 4.94); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch100/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.294 W/kg

Ch100/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 4.228 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.015 W/kg
Maximum value of SAR (measured) = 0.175 W/kg



0 dB = 0.175 W/kg = -7.57 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.27

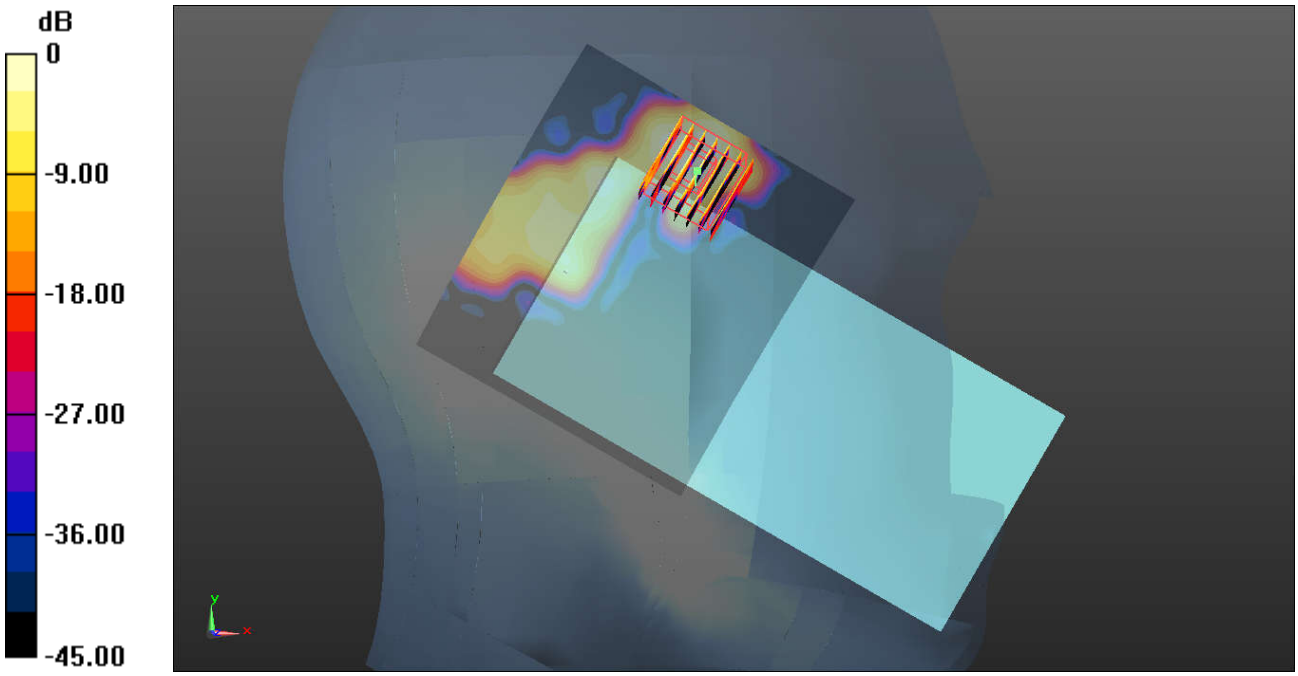
20_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch157

Communication System: UID 0, WIFI (0); Frequency: 5785 MHz;Duty Cycle: 1:1.147
Medium: HSL_5000 Medium parameters used: f = 5785 MHz; σ = 5.337 S/m; ε_r = 34.99; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch157/Area Scan (101x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.611 W/kg

Ch157/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.634 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.707 W/kg
SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.042 W/kg
Maximum value of SAR (measured) = 0.449 W/kg



0 dB = 0.449 W/kg = -3.48 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.26

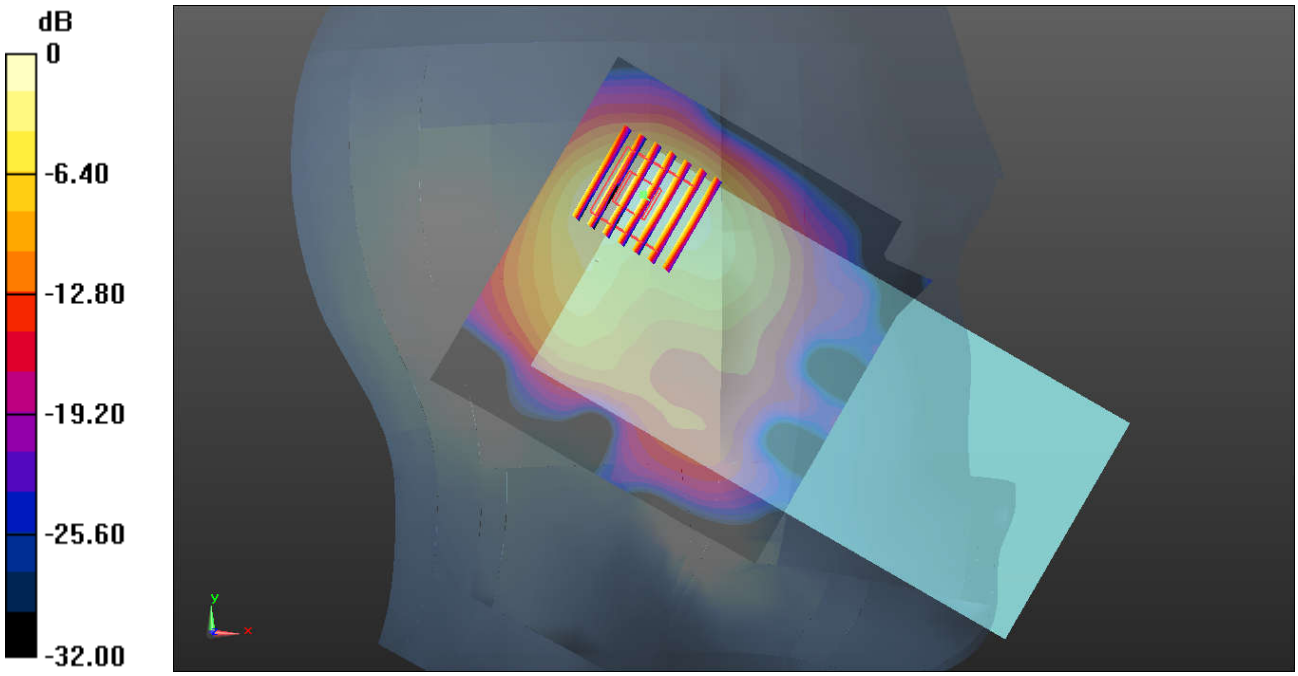
21_Bluetooth_1Mbps_Left Cheek_0mm_Ant1_Ch78

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz;Duty Cycle: 1:1.303
Medium: HSL_2450 Medium parameters used: f = 2480 MHz; σ = 1.879 S/m; ε_r = 38.087; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.7 ℃

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 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch78/Area Scan (91x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.287 W/kg

Ch78/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.818 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.543 W/kg
SAR(1 g) = 0.215 W/kg; SAR(10 g) = 0.091 W/kg
Maximum value of SAR (measured) = 0.285 W/kg



0 dB = 0.285 W/kg = -5.45 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

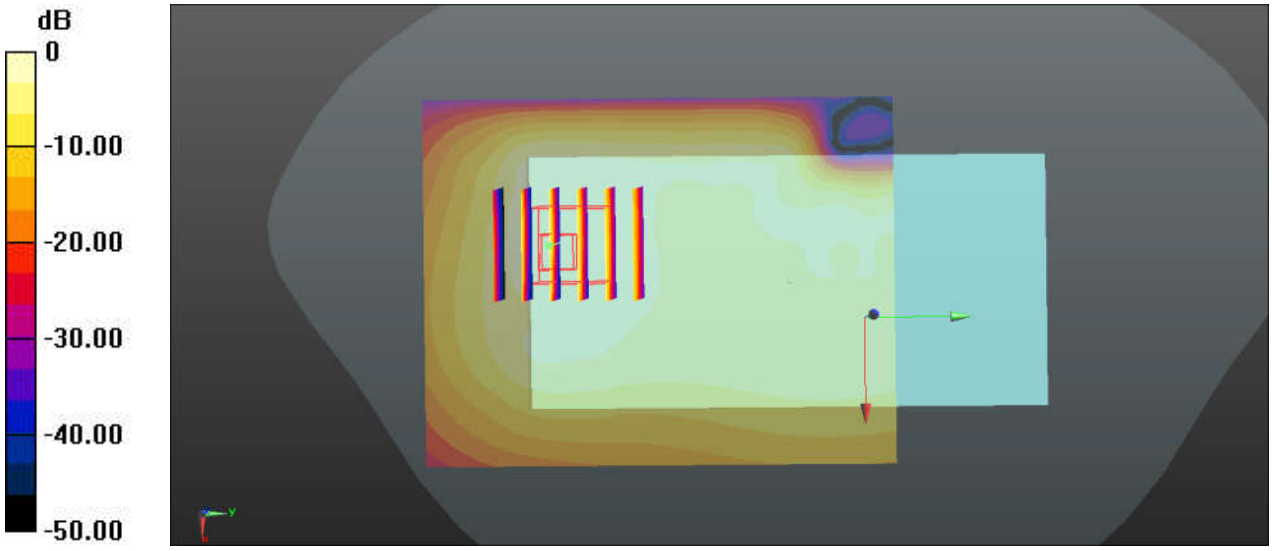
22_GSM850_GPRS (4 Tx slot)_Back_5mm_OFF_Ch251

Communication System: UID 0, GSM850 (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium: HSL_850 Medium parameters used: f = 848.8 MHz; σ = 0.928 S/m; ε_r = 41.086; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch251/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.05 W/kg

Ch251/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.70 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 0.891 W/kg; SAR(10 g) = 0.534 W/kg
Maximum value of SAR (measured) = 1.06 W/kg



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

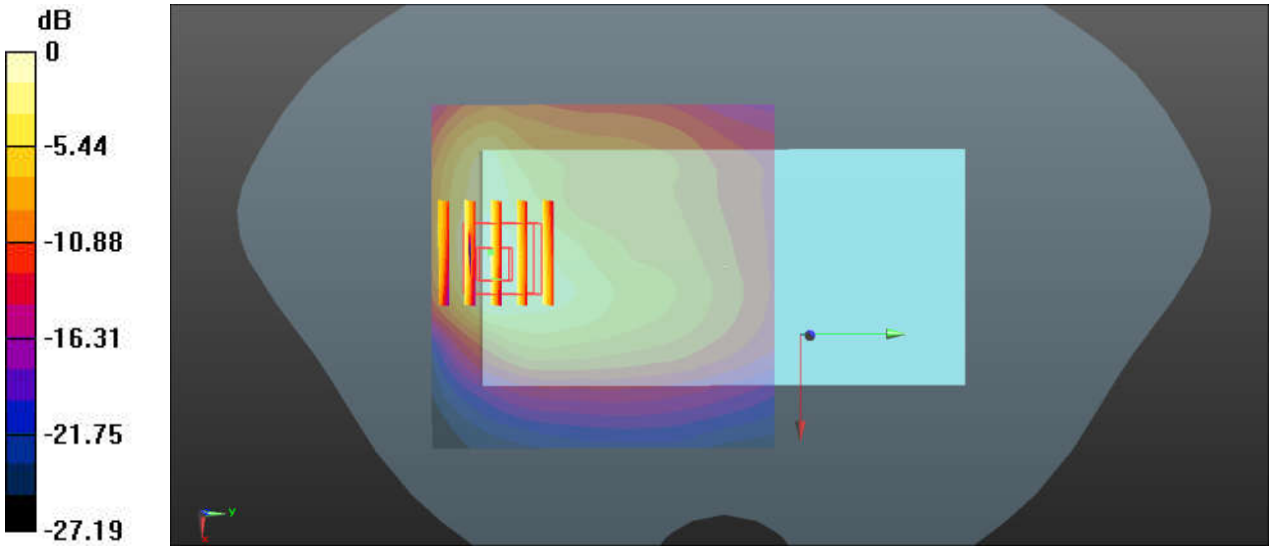
23_GSM1900_GPRS (4 Tx slot)_Back_5mm_Sensor On_Ch810

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 = 1.444 S/m; ε_r = 40.011; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 1.33 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.882 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 2.23 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.490 W/kg
Maximum value of SAR (measured) = 1.30 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

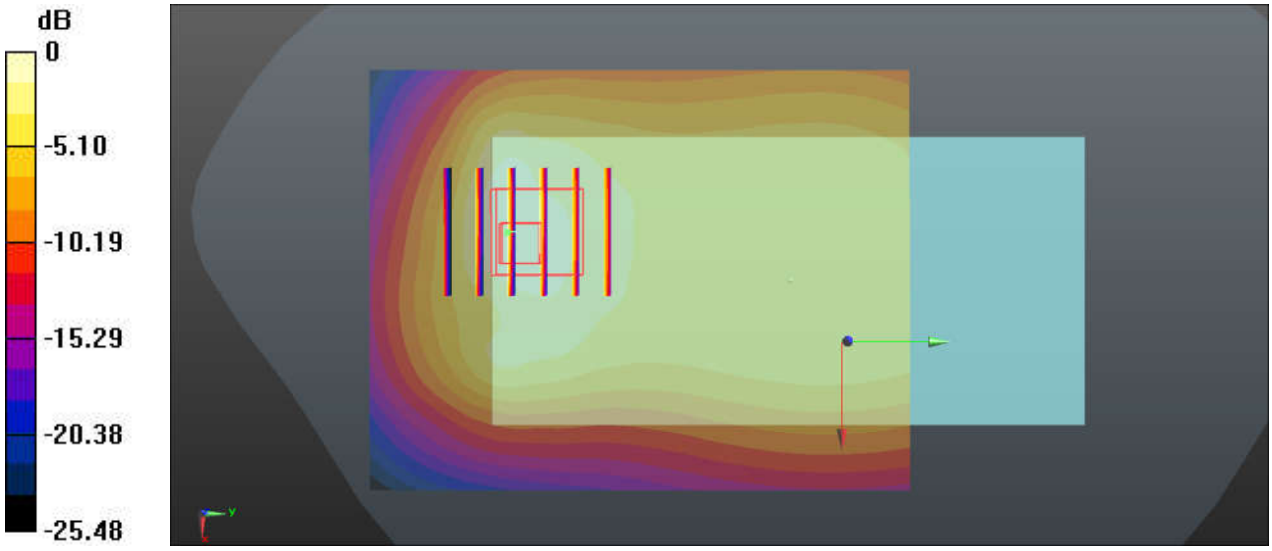
24_WCDMA V_RMC 12.2Kbps_Back_5mm_OFF_Ch4233

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：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4233/Area Scan (71x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.20 W/kg

Ch4233/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.82 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.579 W/kg
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

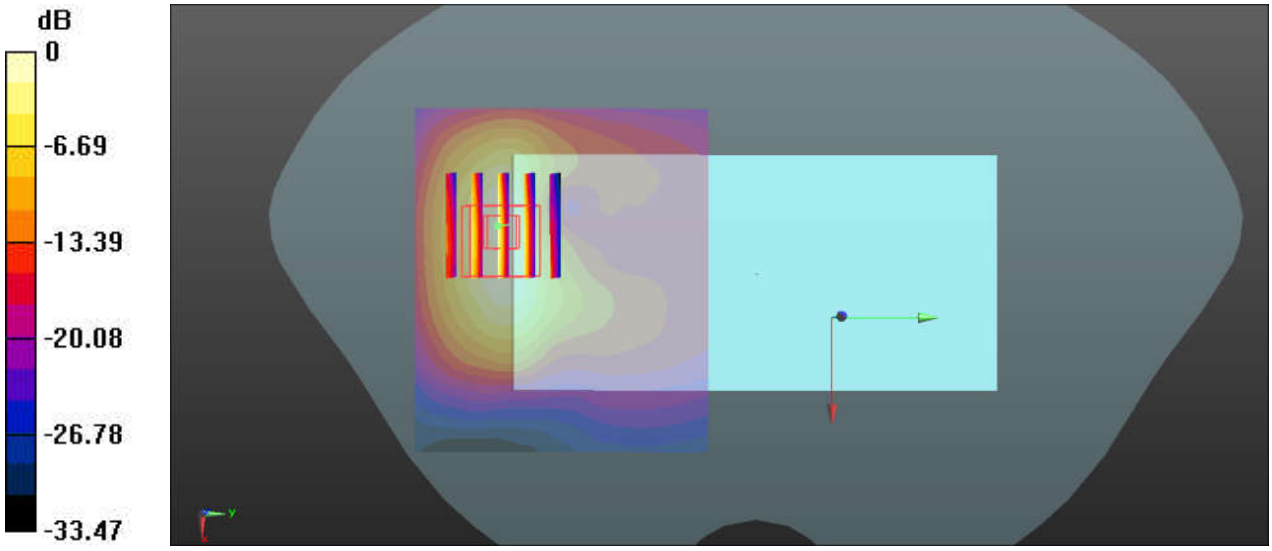
25_WCDMA IV_RMC12.2Kbps_Back_5mm_Sensor On_Ch1312

Communication System: UID 0, WCDMA (0); Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1712.4 MHz; σ = 1.339 S/m; ε_r = 41.28; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.59, 5.59, 5.59); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch1312/Area Scan (71x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.538 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 2.08 W/kg
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.590 W/kg
Maximum value of SAR (measured) = 1.44 W/kg



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

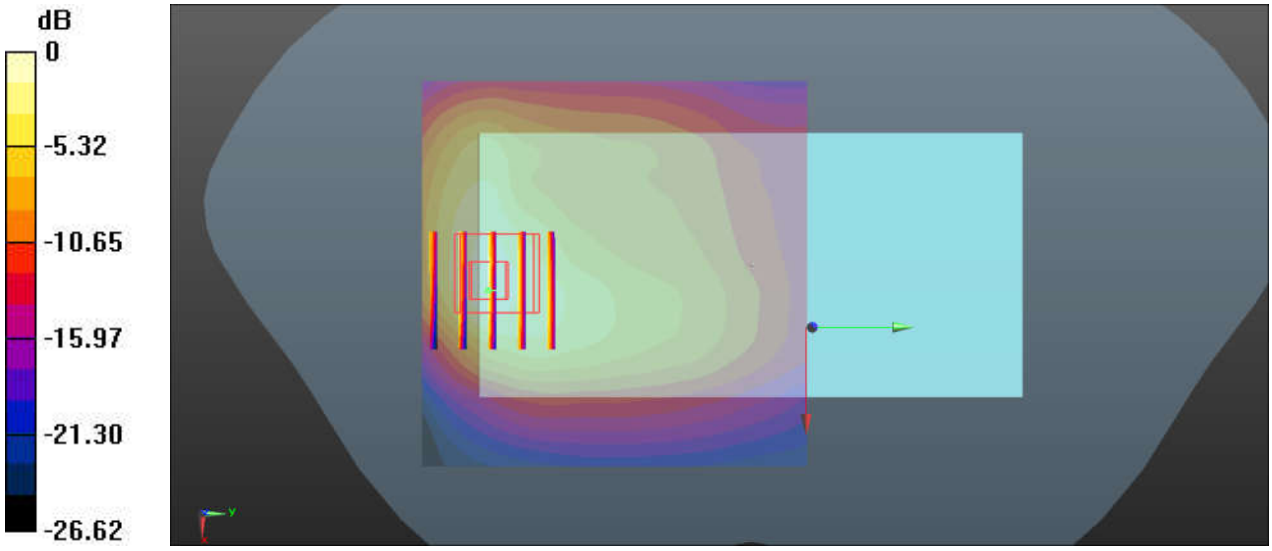
26_WCDMA II_RMC12.2Kbps_Back_5mm_Sensor On_Ch9538

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 = 1.442 S/m; ε_r = 40.019; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 1.35 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.028 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.00 W/kg
SAR(1 g) = 0.928 W/kg; SAR(10 g) = 0.454 W/kg
Maximum value of SAR (measured) = 1.24 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

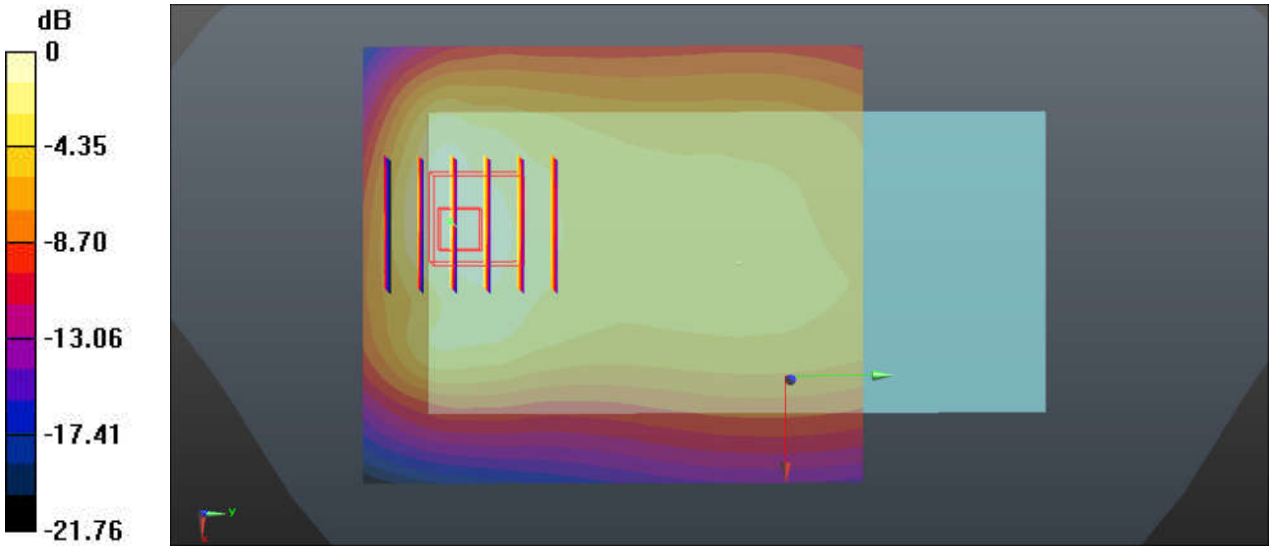
27_CDMA2000 BC0_RTAP 153.6Kbps_Back_5mm_OFF_Ch777

Communication System: UID 0, CDMA (0); Frequency: 848.31 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 848.31 MHz; σ = 0.927 S/m; ε_r = 41.094; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch777/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Ch777/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.11 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 0.985 W/kg; SAR(10 g) = 0.583 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



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

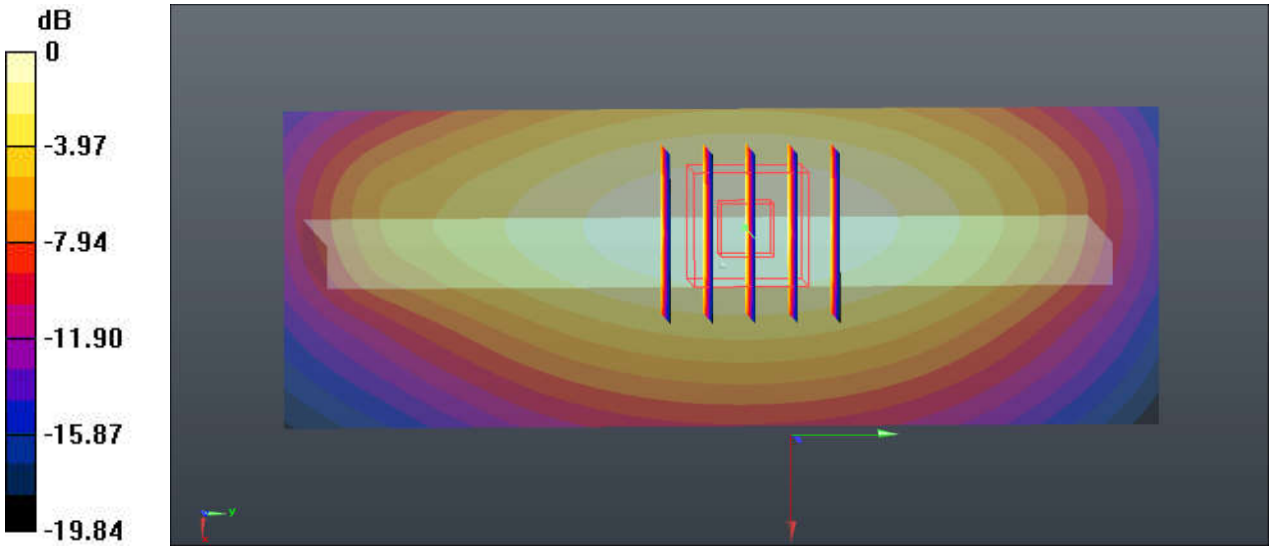
28_CDMA2000 BC10_RTAP 153.6Kbps_Left Side_5mm_OFF_Ch476

Communication System: UID 0, CDMA (0); Frequency: 817.9 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 817.9 MHz; σ = 0.899 S/m; ε_r = 41.499; ρ = 1000kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch476/Area Scan (41x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.01 W/kg

Ch476/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.11 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.33 W/kg
SAR(1 g) = 0.884 W/kg; SAR(10 g) = 0.583 W/kg
Maximum value of SAR (measured) = 1.04 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

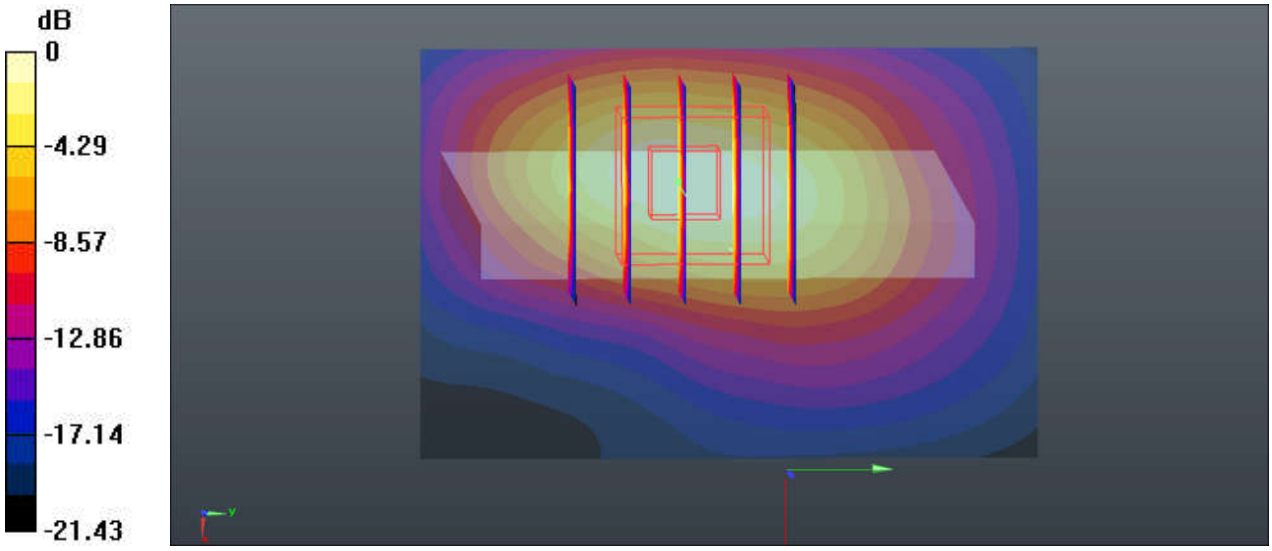
29_CDMA2000 BC1_RTAP 153.6Kbps_Bottom Side_5mm_Hotspot On_Ch25

Communication System: UID 0, CDMA (0); Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1851.25 MHz; σ = 1.386 S/m; ε_r = 40.258; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch25/Area Scan (41x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.44 W/kg

Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.12 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.526 W/kg
Maximum value of SAR (measured) = 1.34 W/kg



0 dB = 1.44 W/kg = 1.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

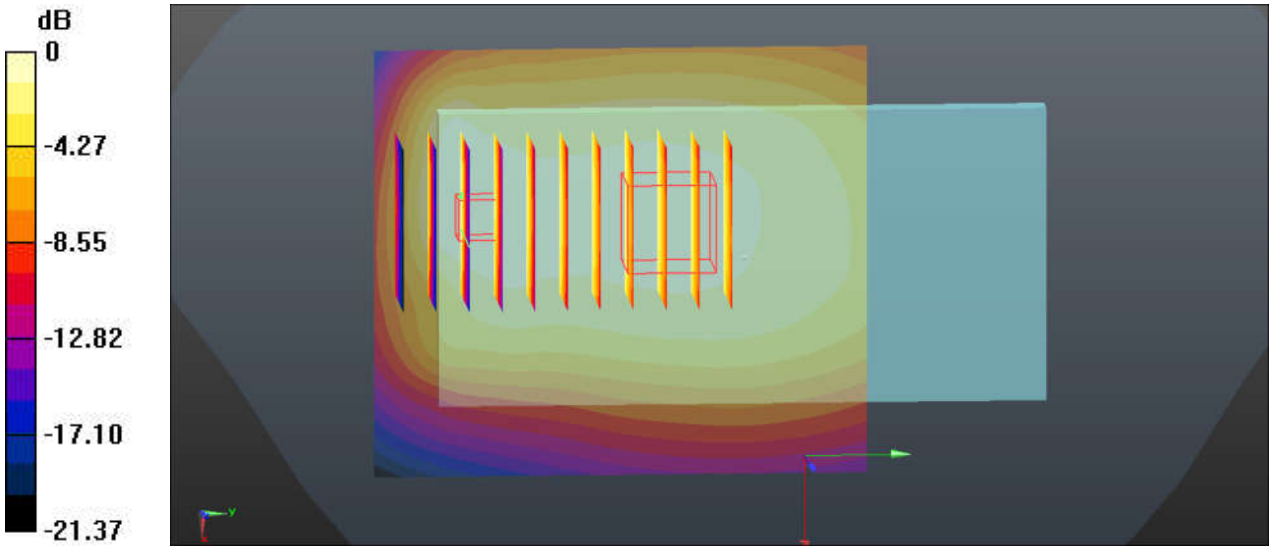
30_LTE B12_10M_QPSK_1RB_0offset_Back_5mm_OFF_Ch23095

Communication System: UID 0, LTE-FDD (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 707.5 MHz; σ = 0.865 S/m; ε_r = 42.817; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23095/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.975 W/kg

Ch23095/Zoom Scan (6x11x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.96 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 0.831 W/kg; SAR(10 g) = 0.573 W/kg
Maximum value of SAR (measured) = 0.997 W/kg



0 dB = 0.975 W/kg = -0.11 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

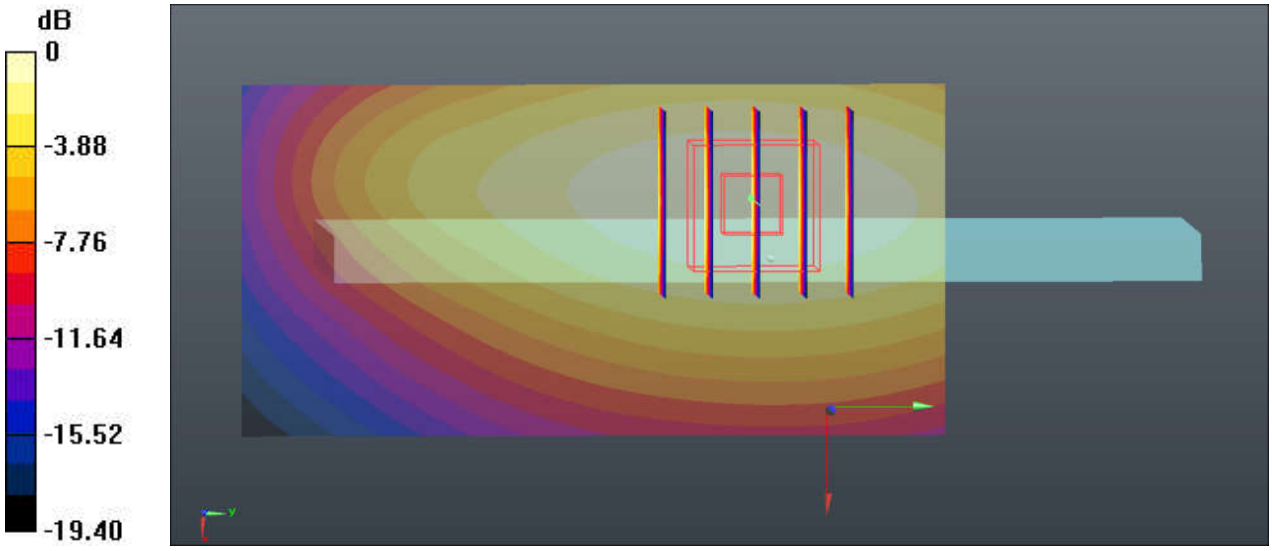
31_LTE B13_10M_QPSK_1RB_0offset_Left Side_5mm_OFF_Ch23230

Communication System: UID 0, LTE-FDD (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 782 MHz; σ = 0.939 S/m; ε_r = 41.81; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23230/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.29 W/kg

Ch23230/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.27 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.751 W/kg
Maximum value of SAR (measured) = 1.31 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.19

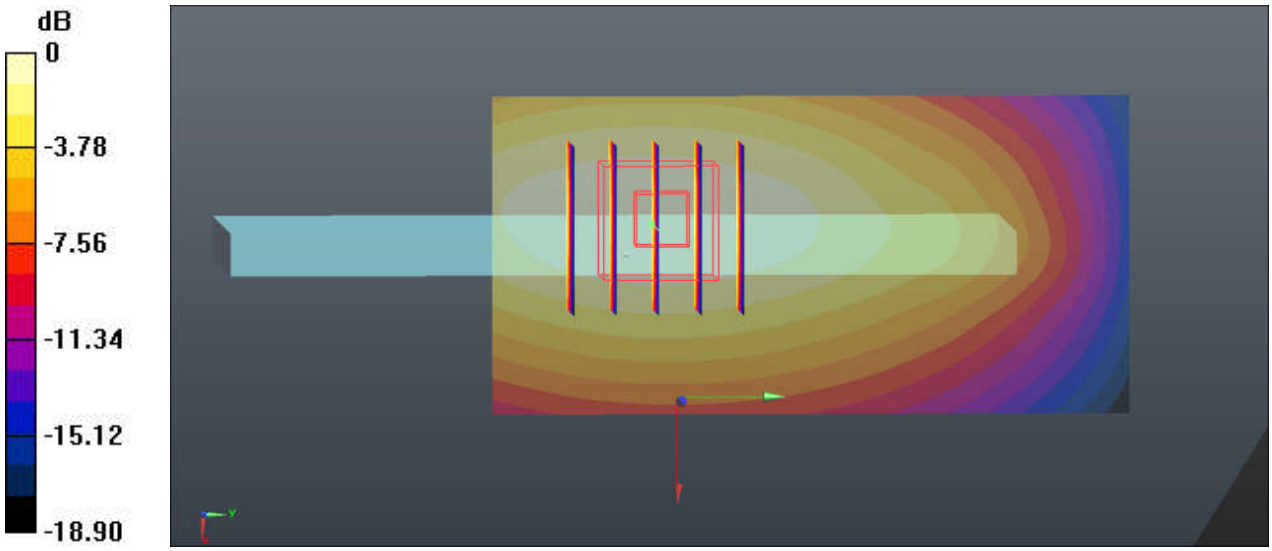
32_LTE B14_10M_QPSK_1RB_0offset_Right Side_5mm_OFF_Ch23330

Communication System: UID 0, LTE-FDD (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 793 MHz; σ = 0.949 S/m; ε_r = 41.673; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.58, 6.58, 6.58); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch23330/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.874 W/kg

Ch23330/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.91 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.778 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 0.908 W/kg



0 dB = 0.874 W/kg = -0.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.18

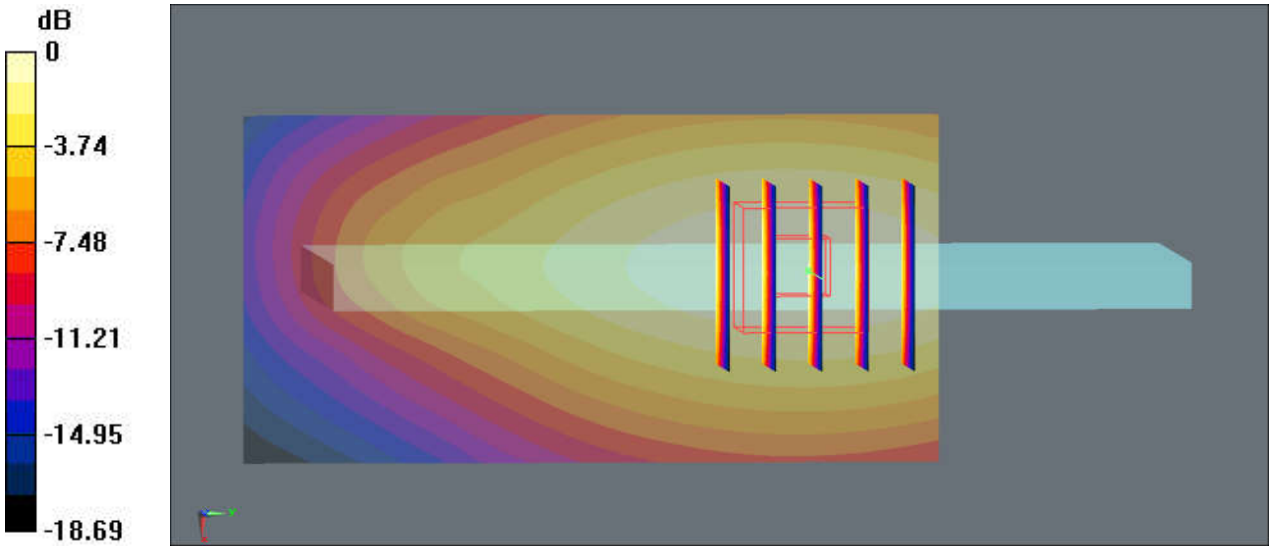
33_LTE B26_15M_QPSK_1RB_0offset_Left Side_5mm_OFF_Ch26965

Communication System: UID 0, LTE-FDD (0); Frequency: 841.5 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 841.5 MHz; σ = 0.921 S/m; ε_r = 41.184; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(6.38, 6.38, 6.38); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM1; Type: SAM; Serial: TP-1842
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch26965/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.06 W/kg

Ch26965/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.28 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.909 W/kg; SAR(10 g) = 0.602 W/kg
Maximum value of SAR (measured) = 1.06 W/kg



0 dB = 1.06 W/kg = 0.25 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

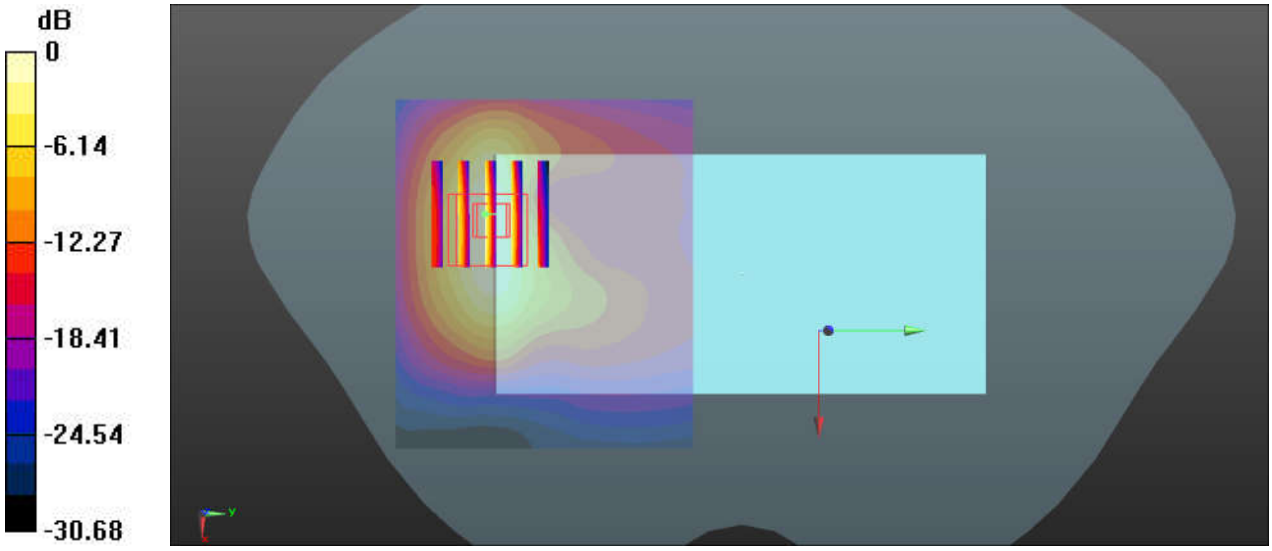
34_LTE Band 66_20M_QPSK_50RB_24offset_Back_5mm_Sensor On_Ch132072

Communication System: UID 0, LTE-FDD (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: f = 1720 MHz; σ = 1.347 S/m; ε_r = 41.231; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃； Liquid Temperature：22.9 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.59, 5.59, 5.59); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch132072/Area Scan (71x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.54 W/kg

Ch132072/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.271 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.10 W/kg
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.575 W/kg
Maximum value of SAR (measured) = 1.40 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.4.20

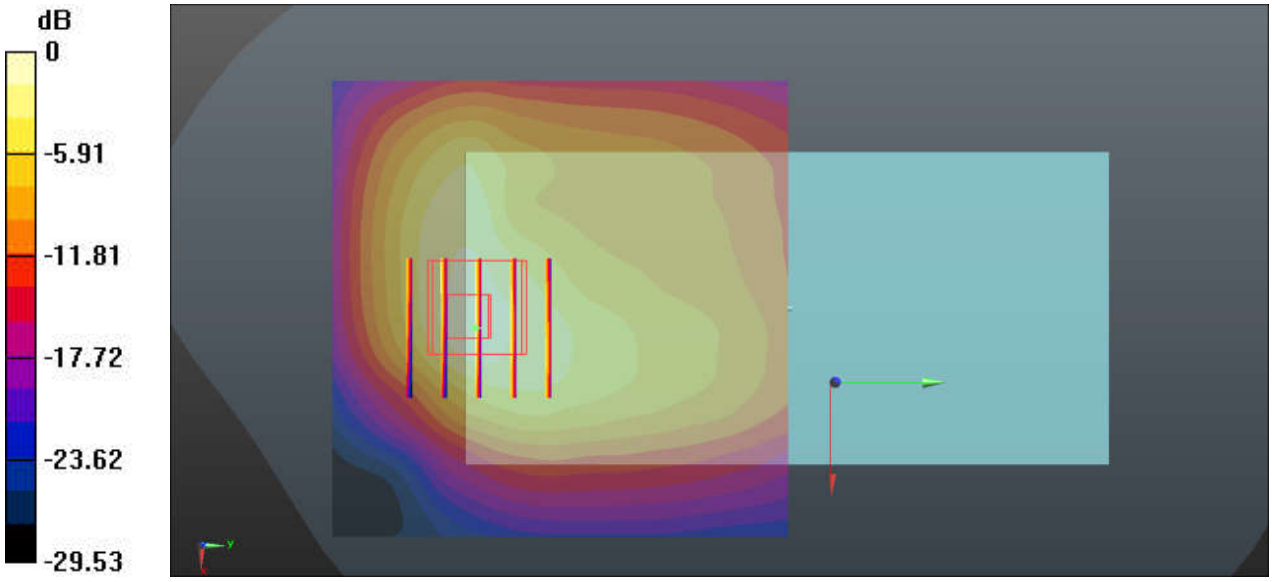
35_LTE B2_20M_QPSK_50RB_0offset_Back_5mm_Sensor On_Ch19100

Communication System: UID 0, LTE-FDD (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3279; ConvF(5.35, 5.35, 5.35); Calibrated: 2019.3.4
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.10.22
- Phantom: SAM2; Type: SAM; Serial: TP-1542
- 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) = 1.62 W/kg

Ch19100/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.535 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 2.45 W/kg
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.566 W/kg
Maximum value of SAR (measured) = 1.50 W/kg



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